

**Integrated Biological and Behavioral Surveillance
Survey among Female Sex Workers in the 22
Highway Districts of Nepal**

Round VI



**Ministry of Health
National Centre for AIDS and STD Control
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Field Work Conducted by:

**Intrepid Nepal
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The IBBS Surveys are part of the National HIV Surveillance Plan led by NCASC. The field work of the survey was carried out by Intrepid Nepal with quality assurance from National Public Health Laboratory and with technical and financial assistance from the Global Fund with Save the Children International.

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We are confident that the findings of this survey will provide crucial evidence regarding the ground realities of HIV/AIDS and STIs in Nepal. Furthermore, we believe that the results will aid in framing policies for reducing prevalence of HIV/AIDS and improving HIV/AIDS related prevention stratagem.

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ABBREVIATIONS

ABC Abstinence, Being Faithful, Condom Use
AIDS Acquired ImmunoDeficiency Syndrome
ART AntiRetroviral Therapy
BSS – Behavioral Surveillance Survey
CC Community Centers
CHBC Community and HomeBased Care
CI – Confidence Interval
CMs Community Motivators/Mobilisers
DIC DropinCentre
EQA – External Quality Assessment
EQAS – External Quality Assurance Scheme
FSW Female Sex Worker
GOs Governmental Organizations
HTC HIV Testing and Counseling
HIV Human ImmunoDeficiency Virus
IBBS Integrated Biological and Behavioral Surveillance
IC – Information Center
ID Identifier
KAP Key Affected Population
LSD Lysergic acid diethylamide
NCASC National Center for AIDS and STD Control
NGO NonGovernmental Organization
NHRC Nepal Health Research Council
NPHL National Public Health Laboratory
OE Outreach Educator
PE Peer Educator
PHCC – Primary Health Care Center
PLHIV People Living with HIV
PMTCT Prevention of Mother to Child Transmission of HIV
PPS Probability Proportional to Size
PWID – People Who Inject Drugs
RDT – Rapid Diagnostic Test
RPR Rapid Plasma Regain
SGS Second Generation Surveillance
SITWG Strategic Information Technical Working Group
SPSS Statistical Package for the Social Sciences
STI Sexually Transmitted Infection
TPHA Treponema Pallidum Hemagglutination Assay
TPPA Treponema Pallidum Particle Agglutination

UNAIDS – Joint United Nations Programme on HIV/AIDS
UNGASS United Nations General Assembly Special Session
USAID United States Agency for International Development
WHO World Health Organization

EXECUTIVE SUMMARY

Introduction

This Integrated Biological and Behavioral Surveillance (IBBS) survey was carried out by Intrepid Nepal (INPL) under the leadership of the National Center for AIDS and STD Control (NCASC) and in partnership with Save the Children Nepal. The existing National HIV and AIDS Strategy (2011-2016) identifies Female Sex Workers (FSWs) as one of the key affected populations (KAPs) at a higher risk of spreading the HIV epidemic.

This is the sixth round of the IBBS study conducted among FSWs in 22 highway districts of Nepal. This survey is a part of the National HIV Surveillance Plan (2012) and National HIV and AIDS Strategy (2011-2016). In line with the objectives of the previous rounds of IBBS surveys, the sixth round of survey was undertaken to determine the prevalence of HIV and STIs, assess HIV and STI related risk behaviours, explore the level of awareness and understanding of HIV/STIs, record STI symptoms, account incidence of violence, as well as assess exposure to HIV intervention programs and services among FSWs in 22 highway districts of Nepal.

Methodology

This descriptive serial cross-sectional study was conducted among FSWs from 22 Highway Districts namely Jhapa, Morang, Sunsari, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi, Dhading, Makwanpur, Rautahat, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardiya, Kailali and Kanchanpur. For the purpose of this survey, the definition of a FSW was *“A woman aged 16 years or above reporting to have been paid in cash or kind for sex with a male within the last 6 months”*.

A two-stage cluster sampling was used to recruit 610 FSWs from 22 study districts. A site or hotspot with at least 30 FSWs was defined as a cluster. To make sure proper representation of the survey population, out of 127 clusters, 70 clusters were selected from 22 highway districts, 30 clusters from the “6-district domain” and 40 clusters from the “16-district domain”. In the second stage, 7 FSWs were selected from the “6-district domain” and 10 FSWs from the “16-district domain” using systematic random sampling method.

The research was conducted in compliance with both ethical and human rights standards. Ethical approval for this survey was permitted by Nepal Health Research Council. Informed consent was obtained from the FSWs in presence of a witness who signed on their behalf prior to the interview and collection of blood samples. Survey centers with laboratories/clinics were set up at easily accessible locations in each study district. Individual interviews, clinical examinations, and blood collection were carried out in separate rooms at each of the study centers.

Laboratory Methods

HIV testing was done using Determine HIV 1/2 as the primary method for detecting antibodies against HIV. If the first test presented a negative result, no further tests were conducted. But, if the first test was positive, a second test was performed using UniGold. In case of a tie between the first two tests, a third test was performed using Stat Pak HIV 1/2 as a tiebreaker test. Syphilis was tested using the Rapid Plasma Reagin (RPR) test card and confirmed by means of the Serodia Treponema Pallidum Particle Agglutination (TPPA) test. Serum samples that tested RPR positive with titer value above or equal to 1:8 were reported as active syphilis; titration less than 1:8 were reported as a case with history of syphilis. The presence of Gonorrhoea and Chlamydia pathogens (*N. gonorrhoea* and *C. trachomatis*) was determined by multiplex PCR based pathogen detection assay (Seegene, Korea) on syndromatic cases confirmed under clinical observations.

Key Findings

Prevalence of HIV and Syphilis

HIV prevalence among FSW was 0.8 percent (0.3% to 2.0% at 95% CI). These results suggest trends in HIV prevalence have decreased from 2.3 percent in 2009 to 0.8 percent in 2016. Syphilis history was detected among three FSWs (0.5%). The history of syphilis among FSWs has significantly decreased from 2003 to 2016 (pvalue <0.05). In contrast, the trend of active syphilis increased significantly from 0.3 percent in 2012 to 10.3 percent in 2016, as 10.3 percent (95% CI, 8.1% to 13.1%) of FSWs tested positive for active Syphilis.

Background Characteristics

Majority of the FSWs (66%) were below 34 years and literate (67%). The representation of both disadvantaged janajati ethnic groups and upper caste groups was high (60%). Majority of FSWs (74%) were married. Among the married FSWs, 89 percent had got married before the age of 19. Most FSWs (73%) were living with their husbands and children.

Child birth, miscarriage and abortion among FSWs

Among the FSWs who reported ever having been married, most (92%) had also given birth. Nearly one fourth of FSWs (24%) had experienced a miscarriage and 23 percent of them had terminated/aborted a pregnancy or pregnancies. Most of the FSWs (82%) had no desire for children in the future. About four percent of FSWs had become pregnant in the last 12 months with 75 percent experiencing a spontaneous abortion.

Knowledge and Use of Family Planning (FP) Methods

Condoms were the best known of the FP methods (100%) among the FSWs followed by injectables (99%) and pills (97%). Most of the FSWs (85%) were currently using a FP method. Condoms were also the most commonly used FP method (70%) followed by

female sterilization (24%). As for traditional FP methods, the withdrawal method was found to be more common (35%) than the rhythm or calendar method (11%).

Sexual Behaviors of FSWs

Most of the FSWs (79%) operated from a hotel or lodge followed by a housebased establishment (54%). Most of them had their first sexual intercourse before age 20 (91%). Most FSWs (82%) were found to be working in the industry for more than one year. More than half of the FSW's clients (52%) were businessmen followed by bus, truck or tanker workers (43%). Less than half of the FSWs (43%) held other jobs in addition to sex work. The most common secondary jobs among FSWs were daily wages (34%) and business owners (19%).

Consistent Condom Use with Different Partners

30 percent of the FSWs reported the consistent use of condoms with clients in the past year. One in ten FSWs reported to have never used condoms with clients in the past year. Most of the FSWs (74%) stated that the major reasons for not using condoms in the last year was objection from their partners followed by the offer for more money by the client (26%). About 28 percent of the FSWs had consistently used condoms with regular clients in the past year and about nine percent of them never used condoms with regular clients during the same time. The major reasons for not using condom was objection from the clients (73%) and/or offer for more money (30%). Although more than one third of the FSWs (36%) had consistently used condoms during sexual intercourse with other clients in the past year, three percent never used condoms with other clients. The analysis of trend on use of condom with different partners revealed that consistent use of condoms with clients, regular clients and other partners decreased from 59 percent, 55.4 percent and 65.8 percent in 2012 to 30.3 percent, 28.2 percent and 35.9 percent in 2016 respectively,. Although, consistent condom use with nonpaying partners increased from 5.8 percent in 2003 to 11.5 percent in 2016, it was still low (11%). Moreover, more than onethird FSWs (37%) never used condoms with nonpaying partners.

Comprehensive knowledge on HIV

More than half of the FSWs (55%) correctly identified all three ABCs (A. Abstaining from sex; B. Being faithful to one partner/avoiding multiple sex partners; C. Consistent condom use or use of condom during every sex act) as HIVpreventive measures. However, comprehensive knowledge and misconceptions related to HIV were comparatively lower among FSWs as only 30 percent correctly identified all five 'BCDEF' (D. a healthylooking person can be infected with HIV; E. HIV cannot be transmitted through a mosquito bite; F. HIV cannot be transmitted while sharing a meal with a HIVpositive person). Overall, the trend analysis revealed that comprehensive knowledge on HIV has increased from previous rounds of IBBS surveys. The percent of FSWs who were aware of all three ABCs increased from 37.6 percent in 2012 to 54.6 percent in 2016 and

comprehensive knowledge about HIV and AIDS (BCDEF) also increased from 20 percent in 2012 to 30.2 percent in 2016. However, no significant association was observed in trend of comprehensive knowledge on HIV.

Knowledge on HIV testing centers and undergone HIV testing

Majority of the FSWs (71%) knew about a confidential HIV testing facility in their community, while 78 percent of them knew the location of a confidential HIV testing center. Among FSWs who ever knew HIV test, 88 percent had HIV test. FSWs who had HIV test, 87 percent had been tested within past months, and the majority of HIV tests taken were voluntarily (74%). About two FSWs were found to be HIV positive, after taking a HIV test.

Violence against FSWs

More than one-fourth (26%) of the FSWs reported being insulted, disrespected, or made to feel bad about themselves by regular clients, whereas 17 percent FSWs reported to have experienced such behavior by the nonpaying partners. About 18 percent of FSWs had been humiliated by clients, and 12 percent of them had been humiliated by nonpaying partners. Physical violence was more likely to be inflicted by nonpaying partners whereas sexual violence was more likely to occur during interactions with clients. FSWs were least likely to experience violence with other partners comprising of partners other than husband, boyfriends and male friends.

Exposure to ongoing HIV Awareness Programs

About 73 percent of the FSWs had met a Peer Educator/Outreach Educators (PE/OE) in the last 12 months. In addition, majority of the FSWs (71%) had visited a Dropin Clinic (DIC) in the past year. Among those who had visited a DIC, majority (92%) had visited more than once. About 37 percent of FSWs had visited a STI clinic and over half of them (51%) had visited a HTC center within the last year. The percentage of FSWs who interacted with an outreach educator (OE) or peer educator (PE) or community motivators (CM) increased from 47% in 2012 to 73.4% in 2016. FSW visiting dropincenters (DICs) has significantly increased from 44.8% in 2012 to 71.1% in 2016 (pvalue <0.05). Moreover, PWID visiting HTC centers increased from 45.9% in 2012 to 50.6% in 2016. FSWs visiting STI clinics were considerably low in all rounds of IBBS surveys (31.1% in 2006, 45.3% in 2009, 44.9% in 2012 and 37.3% in 2016).

Knowledge on PMTCT, ART, Viral Load and CHBC Services

About 59 percent of FSWs reported to have heard about prevention of mother to child transmission (PMTCT) services and of those, majority (90%) knew where to access PMTCT services. Majority (61%) of the FSWs had heard about antiretroviral therapy (ART) services for PLHIV. Among them, 88 percent knew where to obtain ART services. More than half of the FSWs (53%) had knowledge of viral load testing services for PLHIV and among them 85 percent knew where to access these services. When asked if they had

heard about CHBC services, more than one-fourth of the FSWs (28%) responded that they were aware of CHBC services provided for PLHIV.

Stigma and Discrimination

The findings revealed that most of the FSWs were willing to take care of an HIV positive relative who was a male relative (90%) or a female relative (93%) at their home if necessary. More than half of the FSWs (56%) said that if a family member had HIV they would talk about it rather than keeping it a secret. Most of the FSWs (90%) would buy food from a HIV positive shopkeeper. Similarly, 40 percent of the FSWs said that PLHIV need the same care as those living with any other chronic disease, whereas more than half of the FSWs (55%) said that PLHIV need more care than those living with any other chronic disease. Majority of the FSWs (67%) agreed that PLHIV should continue to participate in societal duties if he/she is not very sick.

Program Implications and Recommendations

Based on the findings from this study, the following program implications and recommendation are discussed.

- Although the prevalence of HIV has been decreasing in recent rounds of IBBS surveys, there are still some FSWs suffering from HIV infection. *Targeted outreach programs are needed to reach FSWs and bring them for treatment to prevent HIV transmission.*
- According to the data, prevalence of syphilis has increased significantly from 0.3 percent in 2012 to 10.3 percent in 2016 suggesting an emerging public health concern. *Intensified and focused programs on STI awareness which incorporates GOs and INGOs is needed to reduce prevalence of syphilis in the study districts. There is a need for further research to explore the factors for the sudden rise in prevalence of syphilis.*
- Consistent use of condom with different partners was found to be considerably low. Consistent use of condoms with clients, regular clients, and others partners has declined as compared to the previous rounds of IBBS surveys. Although consistent use of condom with nonpaying partners has increased, use of condom with nonpaying partners remains relatively low. *The low incidence of use of condom among FSWs and different partners may increase vulnerability for HIV and STI transmission. Therefore, programs should focus on promotion of consistent use of condom with all types of partners.*
- The FSWs reported that the major reasons for not using condoms were objection of the partner and/or offer for more money. *It was found that clients paid more money to persuade the FSWs to let them have sex without using condom. Moreover, FSWs still lack skills to negotiate with the clients to use condom. Programs should focus*

on capacity building and self-efficacy among FSWs for development of skills to negotiate the use of condom.

- Exposure to ongoing HIV programs and services (peer education, DICs, HTC clinics etc.) were found to be decreasing as compared to previous rounds of IBBS surveys. *Targeted interventions among FSWs with the provisions of peer and outreach education, partnerships with HTC/STI clinics, and inclusion of care and support are necessary for increasing exposure of the FSWs to the programs and services related to HIV and AIDS.*
- NGO/health workers, health post, and other public health service centres were frequently reported as the most convenient places/person(s) for obtaining free condoms. *Free condom distribution through these sites should be continued and promoted.*
- Behaviours seeking health services such as STI treatment among FSWs were not found to be common. *Behaviors seeking treatment should be promoted among those FSWs who are engaged in risky sexual behaviors. Similarly, STI treatment and HIV testing and counselling should be encouraged through interpersonal, intrapersonal, and mass communicational mediums. Further information on the available government and NGO health facilities those who are providing STI treatment services should increase their public visibility.*
- The comprehensive knowledge (ABC), and comprehensive knowledge and misconceptions (BCDEF) of the FSWs has increased in 2016 as compared to the data from 2012. *Therefore, comprehensive knowledge, education, and awareness regarding HIV/ should be promoted through multiple channels.*
- Knowledge regarding ART services, PMTCT services, and CHBC services were considerably low among the FSWs. *Scaling up HIV and AIDS education and awareness programs, which incorporate material on these services, is essential for increasing comprehensive knowledge of HIV/AIDs among FSWs.*

CHAPTER I: Introduction

1.1 Introduction

In Nepal, the spread of Human Immunodeficiency Virus (HIV) is concentrated among Key Affected Populations (KAPs) comprising of people who inject drugs (PWIDs), men who have sex with men (MSM), labor migrants, spouses, and Female Sex Workers (FSWs). The transmission of HIV is largely driven by KAPs and consequential healthrisk behaviors. The Integrated Biological and Behavioral Surveillance (IBBS) survey is a descriptive serial crosssectional survey conducted to monitor trends in HIV and STI prevalence and to explore behavioral information from highrisk groups. Behavioral surveillance is a systematic and ongoing collection of data about riskbehaviors related to disease and health conditions, with the purpose of correlating trends in behavior with changes in disease over time. In biological surveillance, biological samples are collected and tested for HIV and other related illnesses. In Nepal, the National Center for AIDS and STD Control (NCASC) aims to track patterns of HIV incidence and prevalence, STIrelated awareness, and risk behaviors among highrisk populations. A standardized format of the questionnaire is used for each group, which is repeated with relevant modification in the following rounds of the survey to explore behavioral changes over time (NCASC, 2016).

Female sex workers (FSWs) are among the most vulnerable groups for contracting and/or transmitting HIV. In Nepal, varying circumstances influence how likely FSWs are to become carriers of HIV infection including geographical epidemic typology, structure of sex work, and overlapping nature of HIVrisk behaviors such as injection of drug. The number of FSWs in Nepal varies with different geographical settings and is more concentrated in urban areas such as Kathmandu, Pokhara, and highway boarder areas (NCASC, 2011). However, the heightened risk for HIV acquisition and transmission among sex workers operates through a similar variety of biological, behavioral, and structural risk factors. Biological risk factors involve high prevalence of bacterial sexually transmitted infections (STIs) in FSWs and the synergistic relation between HIV and STIs (Baral et al., 2012). Behavioral risk factors act at the level of the individual as sex workers experience frequent sexual risk of exposure through multiple sexual partners and high concurrency of these partners. HIV transmission among sex workers is also exacerbated by the intersection of injection of drug, probability of sex with more HIV positive partners, low and inconsistent use of condom, and increased risk of other STIs such as syphilis and Hepatitis C (Baral et al., *ibid*). Structural risk factors indirectly heighten risk for HIV infection among sex workers by restricting access to preventive health as well as HIV and STI services/treatment. Structural factors also include limiting influences of poverty, discrimination, and gender inequality as well as the damaging effects of physical and sexual violence, stigma, and social exclusion. Finally, structural factors such as the organizational and power dynamics of sex work and legal and regulatory policies regarding sex work also contribute to the vulnerability of FSWs contracting and/or transmitting HIV and STIs.

Over the course of 10 years, Nepal has had a great experience of conducting IBBS surveys successfully among KAPs. IBBS surveys are conducted regularly among FSWs. This is the sixth round of the IBBS survey conducted among FSWs in 22 highway districts of Nepal. The table below summarizes the previous IBBS surveys among FSWs in Nepal.

Table 1: IBBS Surveys among FSW in Nepal

Study Sites	Rounds	Study Years
Kathmandu Valley	5	2004, 2006, 2008, 2011, 2015
Pokhara Valley	4	2004, 2006, 2008, 2011
22 Highways Districts	6	1999, 2003, 2006, 2009, 2012

Table 1 shows that IBBS surveys are carried out in limited geographical areas of the country. Prior to the IBBS surveys, several rounds of Behavioral Surveillance Surveys (BSS) were conducted among FSWs during 1999-2002 (FHI 360 and NHRC, 2014). Most recent IBBS surveys conducted in Nepal have shown that the number of FSWs is increasing (NCASC, 2015a; NCASC, 2015b, NCASC, 2013). Although studies have also documented that the prevalence of HIV among Nepali FSWs is trending downward (2004-2015), these studies report that unsafe sex practices between FSWs and different categories of male partners are not uncommon. The most recent IBBS survey among FSWs in Kathmandu, Pokhara, and highway districts in Nepal revealed that consistent use of condom with clients over the past 12 months was not satisfactory and the consistent condom use with nonpaying partners in Kathmandu and Pokhara was even lower (NCASC, 2015a; NCASC, 2015b, NCASC, 2013). FSWs described high number of sexual encounters every day with different categories of male partners (i.e. regular clients, nonpaying, other clients). The situation may become more complex in case of the FSWs using drug and sharing needle who are at a higher risk of HIV and STIs other than nonusers.

1.2 Objectives of the Study

In line with the objectives of the previous rounds of IBBS, this sixth round of the survey was also undertaken primarily to determine trend of prevalence of HIV and STI and to assess HIV and STI-related risk behaviors among FSWs in the 22 Highway Districts (Jhapa, Morang, Sunsari, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi, Dhading, Makwanpur, Rautahat, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardiya, Kailali and Kanchanpur).

The objectives of the study were:

- To assess the sexual behaviors and other related factors of HIV among FSWs in the 22 Highway Districts.
- To estimate the knowledge of HIV/STIs, access to prevention programs, and to assess the risk behaviors among FSWs in the 22 Highway Districts.

1.3 Rationale of the Study

IBBS surveys are a strong component of HIV surveillance and the survey data is widely used for designing HIV response, monitoring HIV prevention, developing patient care and treatment programs, and for estimation and projection of HIV infections in many countries, including Nepal. IBBS survey results have been utilized by donors, policymakers, program designers, evaluators, intervention implementers, academicians, and civil society organizations to track the level of HIV epidemic and related risk behaviors in Nepal. IBBS are a major source of information for understanding the HIV dynamics including behavior as well as prevalence of HIV and STI among KAPs. Data on key national HIV indicators are based on IBBS surveys. The IBBS survey is a key component of the national HIV surveillance plan of Nepal and is collected in regular intervals. Estimation and projection of HIV infections in the country are heavily based on IBBS survey data. Data on key

National HIV Indicators (outcome and impact) are calculated from IBBS survey findings. Similarly key UNGASS indicators were also calculated and reported using the IBBS survey data. Likewise, National estimation and projections of HIV infections in the country are also heavily based on data from IBBS surveys. The IBBS survey has established its reputation of quality and is the major set of surveillance data in Nepal. With this evidence of importance, NCASC and Save the Children, through the support of Global Fund for AIDS, Tuberculosis, and Malaria (GFATM), conducted the sixth round of IBBS Surveys among FSWs in 22 Highway Districts in 2015. It is anticipated that this survey will be utilized by policy makers, program planners, and implementers to mobilize the national HIV response toward addressing the current epidemic in Nepal. Similarly, it is expected that data from this study will help guide policy makers and program managers in identifying useful points and areas to target and focus intervention strategies aimed at different subgroups of FSWs, their partners, and clients. The findings of this study will be shared with major (e.g. SRH, HIV prevention) stakeholders in Nepal. The study participants/representatives will also be invited to participate in the dissemination meeting. In addition, factsheets and reports will be prepared based on the findings of this study.

CHAPTER II: Methodology

2.1 Survey design

The survey was descriptive serial crosssectional in design.

2.2 Survey Population

The study population of the survey was “women aged 16 years and above reporting to have been paid in cash or kind for sex with a male within the last 6 months.”

2.3 Survey Site

This survey was conducted in 22 Highway Districts namely Jhapa, Morang, Sunsari, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi, Dhading, Makwanpur, Rautahat, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardiya, Kailali and Kanchanpur.

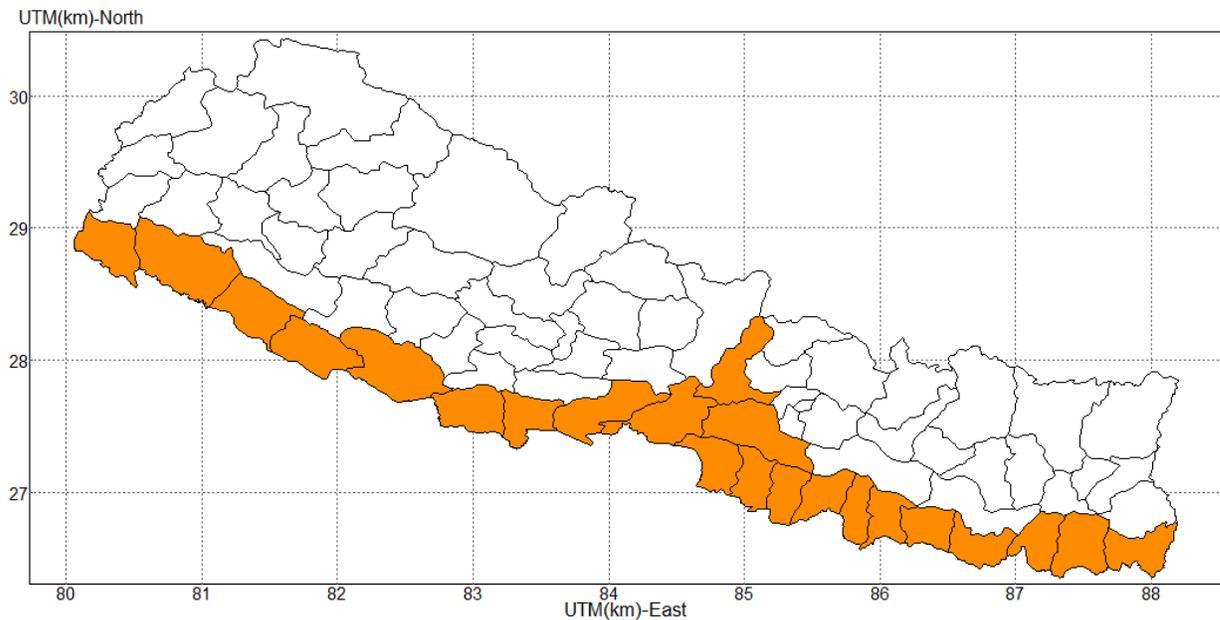


Figure 1: Map of Nepal showing survey districts

2.4 Survey Period

The fieldwork for the survey started on 14th February 2016 and was completed on 11th March 2016.

2.5 Sample Design

Two stage cluster sampling method was used to select the FSWs. All together 70 clusters were selected from 22 highway districts, 30 clusters were selected from the “6district domain” and 40 clusters from the “16district domain” to ensure proper representation of the survey population.

First Stage: Selection of Clusters

The information on the estimated size of the FSWs within each district was based on the operational mapping exercise that served as the sampling frame for cluster selection. Data

for the mapping and size estimation exercise was done by collected information from government organizations (GO) and Nongovernment Organizations (NGOs) working with FSWs. The team collected information on number of FSWs and possible clusters in consultation with local NGOs and finalized the number of FSWs in each clusters using the tools and consultations with NGO representatives.

A site or hotspot with at least 30 FSWs was defined as a cluster. in the cluster Based on the preliminary information collected during the mapping exercise, a list of locations and an estimated number of FSWs for each location was prepared. The sites with less than 30 estimated FSWs were combined with a neighboring site to form a full cluster, with a minimum number of a cluster not exceeding 30 FSWs. The clusters were arranged in serpentine order based on location starting from Jhapa and ending in Kailali. All together 127 clusters were identified from this region. Among them, 30 clusters were selected from the “6district domain” and 40 clusters from the “16district domain” using systematic random sampling method with the probability proportional to size (PPS) method. The selected clusters along with map are presented in the annexure.

Second Stage: Selection of Respondents

The field teams visited each of the selected clusters to prepare a list of FSWs who met the eligibility criteria for the study. Only those FSWs who were available in the clusters of the study districts were included in the list. 7 FSWs were selected from the “6district domain” and 10 FSWs from the “16district domain” by systematic random sampling method from each of the respective clusters. This resulted in the selection of a total of 610 FSWs all together.

Table 2: An Overview of Number of Clusters Selected in Study Districts

Districts	Total no. of clusters	No. of clusters selected
16 Domain		
Jhapa	7	3
Morang	7	4
Sunsari	5	2
Saptari	3	1
Siraha	3	1
Dhanusha	5	2
Mahottari	4	2
Sarlahi	5	2
Dhading	4	2
Makwanpur	8	2
Rautahat	4	2
Bara	5	4
Parsa	5	4
Chitwan	9	2
Nawalparasi	7	4
Rupandehi	5	3
6 domain		
Kapilvastu.	5	3
Dang	6	5
Banke	9	6

Districts	Total no. of clusters	No. of clusters selected
Bardiya	6	4
Kailali	11	10
Kanchanpur	4	2

2.6 Sample Size

The same size of sample used for previous rounds of IBBS surveys was also used in this round as well. Initially, the sample size was determined by using a basic statistical formula that estimated a sample size of 610 FSWs (Annex 2). An equal number (i.e. 7 from 6 district domain and 10 from 16 district domain) of FSWs from each selected first stage cluster of both 16 district domain and 6 district domain were interviewed for the strategy of self-weighted design.

2.7 Recruitment

Using the mapping information on locations and the estimated number of FSWs in those locations, first-stage clusters were defined and 70 such clusters were selected using PPS method. Then from each of the first-stage clusters selected, 7 and 10 FSWs were systematically selected at random from the sample. The field teams, along with community motivators, visited selected clusters to prepare a list of FSWs who met the criteria of the study. From the list created separately, 7 and 10 FSWs were selected by systematic random sampling method from each selected cluster. Then the selected FSWs forming each cluster were invited to participate in the study. In such situations, community mobilizers and peer educators of ongoing HIV/AIDS programs, exFSWs, and social workers approached the selected FSWs and invited them to participate in the study. At least three attempts were made to contact and include the potential participants. If this was not successful within three attempts, the person was replaced by another FSW selected randomly from the same cluster.

2.8 Data collection tools and techniques

Both biological and behavioral data was collected, including handling of biological data for external quality assurance. The survey used a structured questionnaire to assess background characteristics, sexual risk behaviors, use of condoms, knowledge and awareness of HIV/AIDS and STIs, violence, exposure to HIV/AIDS programs, drug injecting behaviors, stigma, and discrimination. The questionnaire was developed with reference to the existing questionnaire used in the previous round (V) of IBBS survey among FSWs in the same districts. Modifications were made to the questionnaire based on pretest and in consultation with Strategic Working Technical Working Group (SITWG) members. All data collection tools were developed in Nepali and the interviews were conducted in Nepali language by female researchers.

2.9 Study Personnel

The study team comprised of a team leader, a research officer, a database developer, data entry personnel, a statistician, field researchers, lab technicians, health assistants, counselors, community motivators, and support staff. The field team included a research officer, field researchers, lab personal, a health assistant, counselors, and support staff, whereas the study team included a database developer, data entry personnel, and a statistician.

2.10 Training of Field Team and Pretesting

The field team was provided with 7 days of training by Intrepid Nepal. The training was facilitated by the relevant experts from NCASC, Save the Children, FHI 360, and Joint United Nations Programme on HIV/AIDS (UNAIDS). The training covered an overview of IBBS, HIV Epidemic and Surveillance System in Nepal, survey design and approaches, sampling approaches, behavioral interviews, interview process, administering informed consent/assent, data collection tools, and role(s) and responsibilities of the team members. The training was followed by mock interview exercises in pairs and large group reflection that involved a discussion of mock exercises. Additionally, experts from FSW networks and organizations also shared their experiences on working with FSWs.

With the help of Jagariti Mahila Maha Shang (JMMS), implementing agencies (through their peer educators/outreach educators), contacted FSWs and invited them for the pretest with the inclusion of the study tools. The pretest was carried out in a confidential space on the office agreed upon by the FSWs and consent was taken from all the study participants. A total of 5 FSWs were interviewed during the pretesting. The tools were revised based on the pretest. Information collected during the pretest was not included in the main analysis.

2.11 Fieldwork

The actual fieldwork of the study started on 14th February, 2016. Before the fieldwork, a stakeholder meeting was conducted among representatives from government organizations (GOs) and I/NGOs working with FSWs. During the meeting, participants shared their experiences and knowledge about different types of FSWs, and provided further support to the study. After the consultation meeting, the study team contacted the potential CMs and prepared them with required information regarding the target population for the study. The study team, with the help of CMs, listed the required number of FSWs in the selected clusters. Twentytwo survey sites were selected for inclusion in the study: Jhapa, Morang, Sunsari, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi, Dhading, Makwanpur, Rautahat, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardiya, Kailali, Kanchanpur. The base clinic site was centrally located specifically for the convenience of meeting and bringing the FSWs to the individual study sites. The field office had separate rooms for each activity such as welcome and registration, interviews, general physical and STI examinations, drawing blood and laboratory testing of blood, and pretest and posttest counseling. Before the interview, FSWs were informally asked a few questions in order to ensure that they met the eligibility criteria set for the study. Injecting marks were also observed in order to screen for injecting behavior (i.e. skin lesions, abscesses, or puncture wounds).

Strict confidentiality was maintained throughout the study. All interviews were conducted by female researchers in a private room. No names were mentioned in the tools or notes. Instead, participants were provided a unique ID number written on a plasticcoated card. The same number was marked on the questionnaire, on the medical record, and blood specimen of each respondent. This card was also used for the distribution of the test results. Only those participants who showed their ID card were provided the HIV and syphilis test results verbally along with posttest counseling. The entire work of fieldwork was completed on 12th March, 2016.

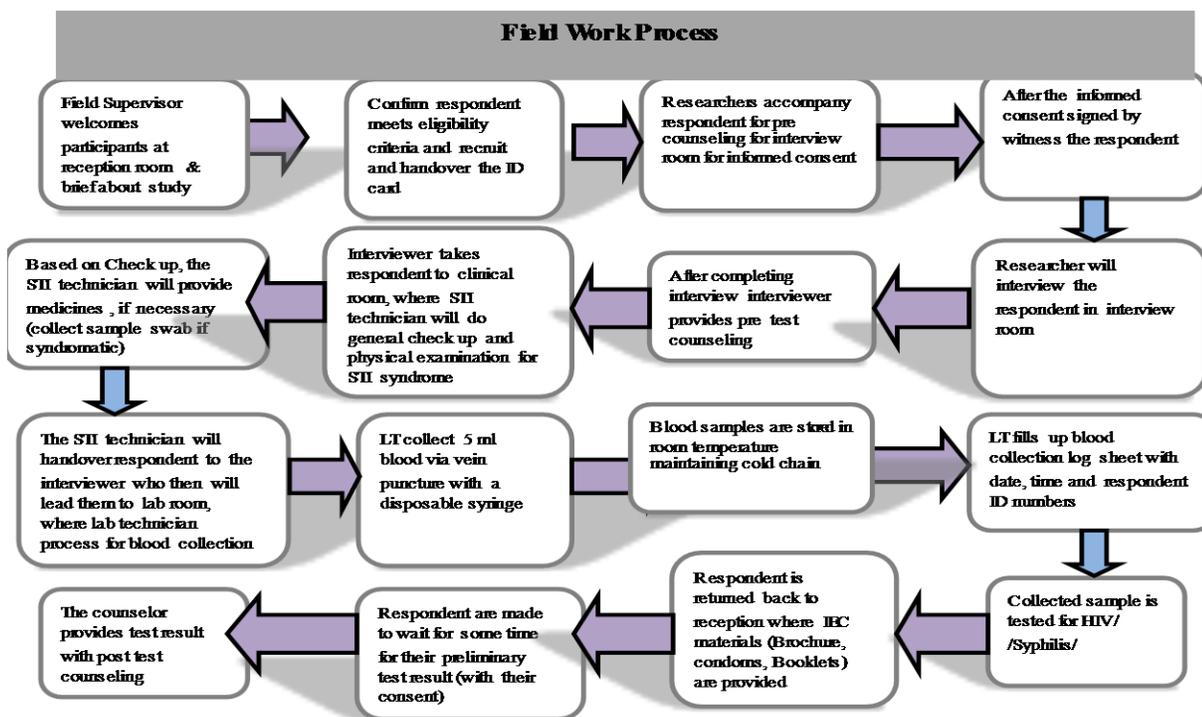


Figure 2: Fieldwork Process for IBBS Surveys

2.12 Refusal

All FSWs participated voluntarily in the survey and none of the FSWs approached by the survey team refused to participate in the survey.

2.13 Clinical and Laboratory Procedure

FSWs were checked for any clinical symptoms of STIs by a certified health assistant who also filled out a checklist of health information provided by each participant. The clinical examination included a simple health checkup (measuring blood pressure, body temperature, weight, and pulse) and a symptomatic examination for the presence of any STIs followed by any necessary syndromic treatment (NCASC, National guidelines on Case Management of sexually transmitted infections, 2014). Laboratory service entailed onsite rapid screening of HIV 1/2 and syphilis followed by a confirmation test.

Approximately 5 ml of whole blood was drawn from each of the FSWs using a disposable syringe. The blood sample was centrifuged to separate the blood cells from the serum. Each sample was labeled with the unique ID number correlating to an individual FSW. Following collection, a lab technician used the serum to perform a rapid HIV test and RPR test. Universal precautions and safe waste management practices were followed properly. For external quality assurance of tests, all positive and 10 percent of negative samples were sent to the National Public Health Laboratory (NPHL) in Kathmandu for HIV and Syphilis.

HIV 1/2

The HIV screenings of serum samples were performed using rapid test kits following the national HIV testing algorithm. Determine HIV 1/2 (Abbot, Japan), UniGold HIV 1/2 (Trinity Biotech, Ireland), and Stat Pak HIV 1/2 (ChemBio diagnostics), as per the national Voluntary Counseling Testing (VCT) guidelines developed by NCASC in 2007, were followed. All the kits were based on the immune chromatography principle for detecting antibodies against HIV in serum or blood. Serum that tested reactive with the initial kit was then confirmed with the second kit. Samples that were found reactive on both tests were considered HIV positive. Samples that were nonreactive on the first test were considered HIV negative. Any sample that was reactive on the first test but nonreactive on the second was tested with a third “tie breaker” kit. Based on the result of the third kit, HIV status was determined; if third test gave a reactive result, the sample was considered HIV positive. If the result was nonreactive, the sample was considered as negative. The internal quality of the assay was assured by the inbuilt control of each kit and external quality was assured by sending all positive cases and 10% of negative cases to reference lab (NPHL).

Reference Note	
A1 (First test):	→ Determine HIV ½
A2 (Second test):	→ UniGold HIV
A3(Third test):	→ Stat Pak
"+"	→ Reactive
""	→ Nonreactive

Figure 3: HIV Testing Algorithm

Sensitivity and Specificity of HIV1/2Kits

Test Kits	Company	Init	Confirm	Tiebreak	Antigen Type	Spec.	Sens.
Determine	Allere	X			RecomHIV1 and HIV2	99.4%	100.0%
UniGold	Trinity Biotech		X		HIV1andHIV2	100.0%	100.0%
Statpak	CHEM BIO			X	HIV1(gp41;p24)2 (gp36)	99.3%	100.0%

Syphilis

A syphilis diagnosis was conducted following the National Guideline on Case Management of Sexually Transmitted Disease (NCASC, 2009). The serum was tested for nonspecific and specific treponemal agents. A nontreponemal test, Rapid Plasma Reagin (RPR) [WAMPOLE Impact RPR card test, Alere], was used for both qualitative screening and semiquantitative titration. All RPR reactive serum was confirmed using the specific Treponema Pallidum Particle Agglutination (TPPA) test (Fujirebio Inc.). Serum samples that tested RPR positive with titer value above or equal to 1:8 were reported as active

syphilis; titration less than 1:8 were reported as cases with history of syphilis. The quality of reagents and test cards of the RPR test kits were assessed on the site daily using a set of strong and moderate positive and negative controls. As part of external quality assurance, internal controls (positive and negative) were used to ensure the kits were working accurately and that all reactive/positive samples and 10% of nonreactive/negative samples were sent to NPHL for retesting.

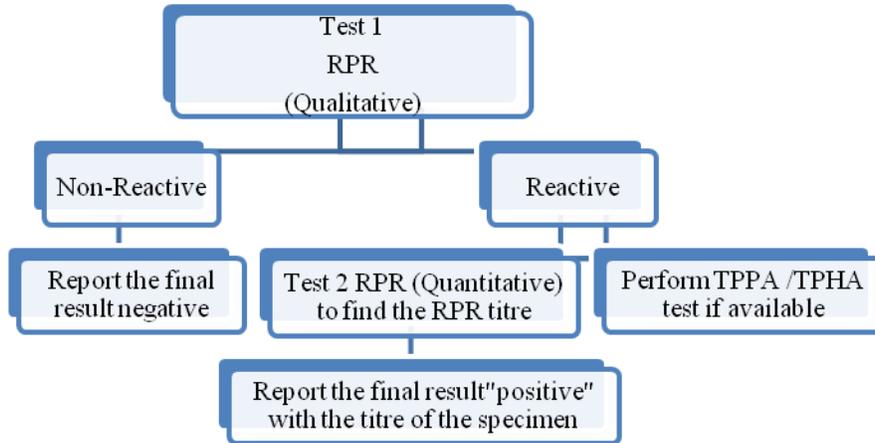


Figure 4: Syphilis Testing Algorithm

Syphilis RPR and TPPA test:

The combination of RPR Qualitative, RPR titre and TPPA test results will be used for interpretation of the status of syphilis in the clients as follows:

- RPR positive with more than or equal to 1:8 titre value and positive TPPA test confirms active Syphilis cases.
- RPR positive with less than 1:8 titre values with positive TPPA test confirms the history Syphilis cases.
- RPR positive with greater than, or lower than, or equal to 1:8 titre with negative TPPA test is considered syphilis negative cases. (This may be due to unspecific syphilis RPR positive scenarios.)

Gonorrhoea and Chlamydia diagnosis

The presence of Gonorrhoea and Chlamydia pathogens (*N. gonorrhoea* and *C. trachomatis*) was determined by multiplex PCR based pathogen detection assay (Seegene, Korea) on syndromic cases confirmed under clinical observation. DNA extraction followed by PCR test was carried out at NPHL.

Swab Collections

For detection of Gonorrhoea and Chlamydia pathogens, vaginal swabs were collected from the cases found to be symptomatic for STIs during the clinical observation. Collected swab

samples were preserved in vials containing a sterile transport medium; and maintained in cold chain for transport to Intrepid Nepal Pvt Ltd laboratory. Tests were performed in the NPHL Lab.

2.14 Precautions, Disposal Mechanism and Post Exposure Management

Universal precautions and post exposure management were followed as per the recommendations of the Center for Disease Control (CDC, USA) and Nepal's national guidelines. In order to minimize the possible spread of infection to clinical personnel and to the local community, a strict disposal procedure was implemented. Colorcoded disposable plastic bags were inserted in a thick leakproof container with a tight seal. All materials were decontaminated by disinfecting or incinerating before disposal. Contaminated materials including specimens of bodily fluids, cotton gauze, broken glassware, and used needles were decontaminated in 0.5% Sodium Hypochlorite on a daily basis. The plastic material, papers and cotton were incinerated. The used Sodium Hypochlorite was poured down the drain or in a flush toilet.

2.15 Quality Control of Laboratory Tests and External Quality Assurance Scheme

Quality control was strictly maintained throughout the process of specimen collection, as well as during the handling and testing stages. All the tests were performed using internal controls. Builtin controls for the Rapid Diagnostic Test (RDT) and known external controls (positive and negative) for RPR and TPPA were used to ensure the validity of the tests. These controls were recorded with all of the laboratory data. For external quality control assurance, all positive, and a 10 percent sample of the negative serum collected were submitted to the NPHL to test for HIV, Syphilis, Gonorrhoea and Chlamydia. Aliquots of selected serum specimens were prepared in the field and sent to NPHL within a week maintaining cold chain system.

2.16 Fieldwork Supervision and Monitoring

The progress of the fieldwork was closely monitored throughout the survey period. The study team visited survey sites on an ongoing basis to monitor, supervise, and assist the field staff. A tracking sheet was developed to document the number of interviews conducted per day at each site.

Similarly, quality of the collected data was maintained throughout the study period. The team leader and research officer were both involved in monitoring controlling quality from the initial stage of the fieldwork. They reviewed forms to ensure that: 1) the correct clusters had been surveyed; 2) the correct number of FSWs had been interviewed; and 3) the correct administration of the questionnaires and recording had been carried out. They also checked the completed forms randomly, provided feedback, and made random revisits to ensure data quality. External monitors from NCASC, Save the Children, and IBBS consultants also monitored the fieldwork.

2.17 Data management

Estimation of the size of the study population and their distribution in the study areas was collected. Lists and maps were generated from the operational mapping exercise. The completed questionnaires were rechecked regularly by a field researcher and field supervisor to ensure that the questionnaires were filled out properly.

Tablet based data collection was done in this round of survey. Furthermore, the electronic data was extracted into MS Excel for verification and transferred into Statistical Package for the Social Sciences (SPSS). A number of quality check mechanisms including range checks, logical checks, and skip instructions were developed to detect the errors during the data entry stage.

To ensure confidentiality, each FSW was given a unique identity number. The numbers were coded in each questionnaire. The numbers, however, did not correspond to the names, contact numbers or addresses of the participants of the study. The trained staff of Intrepid Nepal performed data entry and coding. All entered data was kept secure in encrypted, password protected computers at the research organization to ensure anonymity of the participants.

2.18 Data analysis

Data was analyzed using descriptive statistics and bivariate analysis. Data was analyzed using SPSS and R program for statistical analysis. Descriptive analysis of background characteristics, sexual behavior and sexual intercourse history, HIV risk related behaviors and knowledge of HIV/STIs, use and availability of condoms, knowledge of HIV and AIDS awareness programs, and drug injecting behaviors were explored. Bivariate analysis of the key indicators of HIV related risk behaviors were performed. Chi-square test values were also calculated to measure the statistical association between cross-tabulated categorical variables. Trend analysis of key indicators such as HIV prevalence, sexual behavior, use of condom, and comprehensive knowledge of HIV and AIDS were also performed using Chi-square test for trends. A p-value of less than 0.05 was considered as statistically significant. R program was used to create graphs.

2.19 Ethical Considerations

Nepal Health Research Council (NHRC) approved the protocol of the study. The study was conducted in compliance with all human rights and ethical standards required by health researchers conducting studies in human subjects on sensitive issues, such as HIV and AIDS.

Informed consent was obtained from FSWs prior to the interview. There may be a risk of identifying the FSWs through their signatures if written consent was used. The informed consent was taken in the presence of a witness (community motivators or another member of the study team) who then signed the consent form. The procedure of the study was designed to protect privacy of the participants' allowing for anonymous and voluntary participation. Names and personal identifiers were not used during the collection of the required data prior to the interview, the purpose and benefit of the study was explained to each participant. They were provided with information about the risks, confidentiality, and compensation. The participants were given the opportunity to ask questions about the study and to decide whether they would like to participate in the study. During the consent process, the participants were told that they were free to refuse or decline to participate at any stage during the study. Although the risk of participating in this study was minimal, there were some questions that could make the study subjects uncomfortable. They were clearly informed that in such a situation they were free to decline answering such questions and could also withdraw from the study at any time. Best efforts (confidential, free to withdraw from study any time) were made to minimize risks associated to study

participants. During the analysis and presentation of the study findings, the names or addresses of the FSWs were not mentioned.

2.20 PostTest Counseling and Distribution of Test Result

All FSWs (100%) who were tested obtained their individual test results. All of the, who wanted their test results and showed their ID card, were given access to their individual HIV and syphilis test results along with free posttest counseling. Posttest counseling and individual report dissemination program was conducted for the FSWs on the same day of the interview. The counseling session was provided by trained counselors and focused on highrisk behaviors and other aspects related to STIs and HIV. Some participants were also referred to other health facilities for further services.

2.21 Limitations of the survey

- This survey was conducted in 22 highway districts in Nepal. The analysis and results presented in this report are, therefore, confined to these districts, and may not be generalized to other districts or any other parts of the country.
- So far IBBS has adopted descriptive serial crosssectional sampling designs, which means it gives a snap shot scenario of the study population. Thus, the findings provide evidence of statistical association between those items and the risk behavior; it cannot show a causeeffect relationship.
- There may be a possibility of biased response. Study participants are expected to provide honest responses to the survey questions asked; however, in some circumstances this assumption may be breached due to factors such as social desirability or recall bias.
- This study could only recruit a percentage of FSWs based on the hard to reach or underground characteristic of the study population, most of the FSWs listed in the sampling frame with the help of community motivators.

CHAPTER III: Findings

3. Results

The results are comprised of biological and behavioral components. The biological components include prevalence of HIV, Syphilis, Gonorrhea, and Chlamydia. The behavioral component consists of background characteristics, sexual behaviors, use of condom with different partners, experience of violence, knowledge of HIV, and exposure to HIV programs, drug injecting behaviors, stigma, and discrimination among FSWs.

3.1 Prevalence of HIV and Syphilis

About 0.8 percent of FSWs were diagnosed tested HIV positive (95% CI, 0.3% to 2.0%). Syphilis history was found among three FSWs. However, 10.3 percent (95% CI, 8.1% to 13.1%) of FSWs were diagnosed positive for active Syphilis.

Table 3: HIV and Syphilis Prevalence among FSWs

Prevalence	6 Districts (n=210)			16 Districts (n=400)			Total (22 Districts) (N=610)		
	n	%	95% CI	n	%	95% CI	N	%	95% CI
HIV	3	1.4	0.034.4	2	0.5	0.081.9	5	0.8	0.32.0
Syphilis History				3	0.8	0.012.3	3	0.5	0.011.5
Active Syphilis	12	5.7	3.110.1	51	12.8	9.716.5	63	10.3	8.113.1

3.2 Geographical Characteristics

The study explored the geographical characteristics of FSWs in the survey districts. While identifying the distribution of FSWs by developmental region, distribution was found to be the highest in the Central Region (35.6%) followed by Eastern Region (18%). MidWestern Region had 17.2% and Western Region had 15.4% FSWs. Farwest had the lowest percent (13.8%) of FSWs residing in those areas as illustrated in Table 4 below.

Table 4: Distribution of FSWs by Development Region

Current Places of Residence of FSW	Number (N=610)	Percent
Eastern	110	18
Central	217	35.6
Western	94	15.4
Midwestern	105	17.2
Farwestern	84	13.8

3.3 SocioDemographic Characteristics

The study explored the sociodemographic characteristics of FSWs in the study districts. Nearly onefourth of FSWs (23%) were 2529 years. Onethird of FSWs (33%) were illiterate and 23 percent of FSWs had obtained secondary level education. About 32 percent of FSWs were disadvantaged *Janajatis* and 28 percent of them were upper caste groups. Majority of FSWs (74%) were married and among them 89 percent had married below the age of 19 years. Similarly 40 percent of FSWs were living with their husband and onethird (33%) were living with children.

Table 5: SocioDemographic Characteristics of FSWs

SocioDemographic Characteristics	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Age						
1519 yrs	25	11.9	21	5.3	46	7.5
2024 yrs	35	16.7	73	18.3	108	17.7
2529 yrs	58	27.6	82	20.5	140	23.0
3034 yrs	40	19.0	68	17.0	108	17.7
3539 yrs	32	15.2	75	18.8	107	17.5
40 yrs and above	20	9.5	81	20.3	101	16.6
Mean	29.07		31.75		30.83	
Median	28		31		30	
Education						
Illiterate	46	21.9	154	38.5	200	32.8
Literate, no schooling	49	23.3	48	12.0	97	15.9
Primary	36	17.1	84	20.0	120	19.7
Secondary	62	29.5	80	8.5	142	23.3
SLC and Above	17	8.1	34	38.5	51	8.4
Ethnicity						
Dalits	32	15.2	71	17.8	103	16.9
Disadvantage Janajatis	71	33.8	123	30.8	194	31.8
Disadvantage nonDalits Caste Groups	27	12.9	68	17.0	95	15.6
Religious Minorities	14	6.7	14	3.5	28	4.6
Relatively Advantage Janajatis	3	1.4	13	3.3	16	2.6
Upper Caste groups	63	30.0	111	27.8	174	28.5
Marital Status						
Married	148	70.5	305	76.3	453	74.3
Divorced/Separated	22	10.5	46	11.5	68	11.1
Widowed	12	5.7	24	6.0	36	5.9
Never Married	28	13.3	25	6.3	53	8.7
Age at First Marriage						
6 14 yrs	58	31.9	84	22.5	142	25.5
15 – 19 yrs	106	58.2	247	66.0	353	63.5
20 – 24 yrs	18	9.9	35	9.4	53	9.5
Above 25 years			8	2.1	8	1.4
Mean	16.28		15.91		16.6	
Median	16		16		16	
Living Status of FSW						
Husband	79	37.6	165	41.3	244	40.0
Male friend	1	0.5	1	0.3	2	0.3
Relatives	35	16.7	52	13.0	87	14.3
Other female	9	4.3	9	2.3	18	3.0
Children	65	31.0	135	33.8	200	32.8
Alone	21	10.0	38	9.5	59	9.7

3.4 Child Birth, Abortion, Pregnancy and Use of Family Planning

Among the evermarried FSWs (n=557), most of them (92%) had given birth to child before and among them, 44 percent had more than two children. Similarly, nearly onefourth of FSWs (24%) had a previous miscarriage with more than onefourth (26%) having a

miscarriage more than once. About 23 percent of FSWs had ever terminated/aborted any pregnancies with 77 percent of those with a previous abortion having terminated/aborted more than once. Most of the abortions were assisted by a doctor (61%), followed by other methods (21%). Most of the FSWs (82%) had no desire for children in the future. About four percent of FSWs were pregnant in the last 12 months and among them 75 percent had a spontaneous abortion.

Table 6: Child birth, Abortion and Pregnancy History of ever Married FSWs

Characteristics	6 Districts (n=182)		16 Districts (n=375)		Total (22 Districts) (N=557)	
	n	%	n	%	N	%
Ever given birth						
Yes	167	91.8	347	92.5	514	92.3
No	15	8.2	28	7.5	43	7.7
Number of live births (n=514)						
One	34	20.4	84	24.2	118	23.0
Two	67	40.1	100	28.8	167	32.5
Three	43	25.7	100	28.8	143	27.8
Four	13	7.8	42	12.1	55	10.7
Five and More	10	6.0	20	5.8	30	5.8
Ever had miscarriage						
Yes	45	24.7	87	23.2	132	23.7
No	137	75.3	288	76.8	425	76.3
Number of miscarriage (n=132)						
One	35	77.8	63	72.4	98	74.2
Two	5	11.1	21	24.1	26	19.7
Three and more	5	11.1	3	3.4	8	6.1
Ever terminated/aborted any pregnancies						
Yes	50	27.5	80	21.3	130	23.3
No	132	72.5	295	78.7	427	76.7
Number pregnancies terminated/aborted (n=130)						
One	30	60.0	52	65	82	63.1
Two	13	26.0	17	21.25	30	23.1
Three	4	8.0	6	7.5	10	7.7
Four and more	3	6.0	5	6.25	8	6.2
Person who assisted the last abortion (n=130)						
Doctor	22	44.0	58	72.5	80	61.5
Nurse	7	14.0	12	15.0	19	14.6
Midwife			1	1.3	1	.8
Others	20	40.0	9	11.4	28	21.3
Don't know	1	2.0	0	0.0	1	.8
Desire for child in the future						
Within 6 months	3	1.6	3	.8	6	1.1
Within 2 years	11	6.0	20	5.3	31	5.6
After 2 years	25	13.7	40	10.7	65	11.7
No	143	78.6	312	83.2	455	81.7
Was pregnant in the last 12 months						
Yes	5	.9	15	2.7	20	3.6
No	177	31.8	360	64.6	537	96.4
Outcome of last pregnancy (n=20)						

Characteristics	6 Districts (n=182)		16 Districts (n=375)		Total (22 Districts) (N=557)	
	n	%	n	%	N	%
Live Birth			5	33.3	5	25.0
Spontaneous abortion	5	100	10	66.7	15	75.0

The degree of awareness and use of FP methods among the FSWs are discussed in Table 7. Knowledge of FP methods was assessed among all the FSWs surveyed in the study. The assessment included awareness of modern FP methods and some traditional methods. The methodspecific assessment showed that condoms were the best known method (100%), followed by Injectable (99%) and Pills (97%). Most of the FSWs (85%) were currently using FP methods. Among different FP methods, condoms were the most commonly used (70%) followed by female sterilization (24%). As for the traditional methods, withdrawal method was found to be more popular (35%) than the rhythm or calendar method (11%).

Table 7: Knowledge and Use of Family Planning (FP) Methods

Characteristics	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Knowledge on FP methods*						
Female sterilization	196	93.3	392	98.0	588	96.4
Male sterilization	192	91.4	381	95.3	573	93.9
Pill	200	95.2	392	98.0	592	97.0
IDU	197	93.8	366	91.5	563	92.3
Injectables	209	99.5	397	99.3	606	99.3
Implants	201	95.7	389	97.3	590	96.7
Condom	210	100.0	399	99.8	609	99.8
Rhythm method	60	28.6	281	70.3	341	55.9
Withdrawal	180	85.7	378	94.5	558	91.5
Others	3	1.4	4	1.0	7	1.1
Currently using any method to delay or avoid pregnancy						
Yes	188	89.5	332	83.0	520	85.2
No	22	10.5	68	17.0	90	14.8
Currently used FP method (n=520)						
Female sterilization	49	26.1	75	22.6	124	23.8
Male sterilization			6	1.8	6	1.2
Pill	23	12.2	41	12.3	64	12.3
IDU	6	3.2	9	2.7	15	2.9
Injectable	27	14.4	52	15.7	79	15.2
Implants	13	6.9	18	5.4	31	6.0
Condom	156	83.0	209	63.0	365	70.2
Rhythm method	1	0.5	56	16.9	57	11.0
Withdrawal	54	28.7	128	38.6	182	35.0

*The percentages add up to more than 100 because of multiple responses

3.5 Sexual behaviors of FSWs

These findings describe sexual behavior of the FSWs, including their place of work, age at first sexual intercourse, and duration of involvement in sex work. The study showed that most of the FSWs (79%) worked in the hotel or lodge, followed by house or settlement (54%). About 91 percent of FSWs had first sexual intercourse before they reached 20

years. Most of FSWs (82%) were working as sex worker for more than a year. About 42 percent of them had other jobs besides sex work and among them more than onethird (35%) worked as a waged laborer followed by owner of some kind of business (19%).

Table 8: Sexual Behavior of FSWs

Characteristics	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Place of sex work*						
Disco	3	1.4	3	0.8	6	1.0
Dance Restaurant	6	2.9	2	0.5	8	1.3
Cabin Restaurant	2	1.0	8	2.0	10	1.6
Call girl	11	5.2	90	22.5	101	16.6
House settlement	130	61.9	199	49.8	329	53.9
<i>Bhatti Pasal</i>	2	1.0	22	5.5	24	3.9
Street	9	4.3	19	4.8	28	4.6
Squatter/Refugee			4	1.0	4	0.7
Restaurant/Tea shop	1	0.5	20	5.0	21	3.4
Hotel/lodge	152	72.4	332	83.0	484	79.3
Jungle/ Park	41	19.5	48	12.0	89	14.6
Others (Massage Parlor, Garment factory <i>Dohori</i>)			13	3.4	13	2.2
Age at first sexual intercourse						
6-14 yrs	58	28.4	96	24.0	154	25.5
15-19 yrs	126	61.8	271	67.8	397	65.7
20-24 yrs	16	7.8	29	7.2	45	7.5
Above 24 yrs	4	2.0	4	1.0	8	1.3
Duration of sexual exchange for money						
6-12 months	50	23.8	62	15.5	112	18.4
13-24 months	64	30.5	90	22.5	154	25.2
25-36 months	43	20.5	60	15.0	103	16.9
37-48 months	17	8.1	31	7.8	48	7.9
49-60 months	13	6.2	66	16.5	79	13.0
60 months	23	13	91	22.8	114	18.7
Working as a sex worker from this location						
Up to 6 months	2	1.3	8	3.0	10	2.4
7-12 months	9	5.8	10	3.8	19	4.5
13-24 months	7	4.5	18	6.8	25	6.0
25-36 months	11	7.1	21	8.0	32	7.7
37-48 months	8	5.2	16	6.1	24	5.7
More than 48 months	117	76.0	191	72.3	308	73.7
Ever worked as a sex worker in other location						
Yes	31	14.8	102	25.5	133	21.8
No	179	85.2	298	74.5	476	78.2
Income from Last Sex with Client						
Up to Rs. 100	2	1.0	2	0.5	4	0.7
Rs. 101- Rs. 500	80	38.1	199	49.75	279	45.7
Rs. 501- Rs. 1,000	77	36.7	132	33	209	34.3
Rs. 1001- Rs. 1,500	23	11.0	39	9.75	62	10.2
Rs. 1501- Rs. 2,000	14	6.7	17	4.25	31	5.1
Rs. 2000 and above	14	6.7	11	2.75	25	4.1
Have Other Jobs besides Sex Work						

Characteristics	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Yes	101	48.1	160	40	261	42.9
No	109	51.9	240	60	348	57.1
Type of work (n=261)						
Waiters	1	1.1		0	1	0.4
Housemaid/restaurant employee	12	12.9	24	15.7	36	14.6
Wage laborer	23	24.7	62	40.5	85	34.6
Own restaurant	9	9.7	8	5.2	17	6.9
Business (retail store, fruit shop etc.)	24	25.8	24	15.7	48	19.5
Knitting/tailoring	9	9.7	10	6.5	19	7.7
Peer educator		0.0	6	3.9	6	2.4
Job(teacher, peon etc)	1	1.1	12	7.8	13	5.3
Others	14	15.1	7	4.6	21	8.5
Average Weekly Income from Other Sources Besides Sex Work (n=261)						
0 (No Other Source)	1	.4	6	2.3	7	2.7
Up to Rs. 500	9	3.4	20	7.7	29	11.1
Rs. 501 Rs. 1,000	17	6.5	31	11.9	48	18.4
Rs. 1001 Rs. 1,500	19	7.3	28	10.7	47	18.0
Rs. 1501 Rs. 2,000	15	5.7	27	10.3	42	16.1
Mean weekly income Rs.	2829		2030		2395	

**The percentages add up to more than 100 because of multiple responses*

3.6 Sex Workers and Their Clients

These findings show the sexual work of FSWs with their clients and the sexual practices with different sexual partners. The sex partners of the FSW were categorized as clients, regular clients, nonpaying partners, and other partners. Nonpaying partners included boyfriends, husbands, or those who did not pay for sexual services; while clients and regular partners included those partners who paid for sexual contact. Partners other than clients, husbands, and male friend(s) were categorized as other partners. The study showed that most of the FSWs (87%) had one to two clients per day. Less than half of the FSWs (43%) had more than one client the day before they were interviewed. One-fourth FSWs (25%) had 510 sex partners in the last week and about 41 percent of them worked more than 4 days per week on average. More than half of the clients (52%) were businessmen followed by bus, truck or tanker workers (43%). The largest number of clients that the FSWs last had was of businessmen (19.1%) followed by bus, truck or tanker worker (18%).

Table 9: Sex Workers and Their Clients

Sex Workers and Their Clients	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Average number of clients per day						
1 – 2	192	91.4	338	84.5	530	86.9
3 – 4	16	7.6	53	13.3	69	11.3
More than 4	2	1.0	9	2.3	11	1.8
Number of clients on the previous day						
None	124	59.0	201	50.3	325	53.3
1 – 2	80	38.1	183	45.8	263	43.1

Sex Workers and Their Clients	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
3 – 4	5	2.4	12	3.0	17	2.8
More than 4	1	.5	4	1.0	5	.8
Number of clients in the past week						
None	26	12.6	42	10.5	68	11.2
1 – 2	80	38.8	123	30.8	203	33.5
3 – 4	54	26.2	113	28.3	167	27.6
5 – 10	40	19.4	113	28.3	153	25.2
More than 10	6	2.9	9	2.3	15	2.5
Average number of days worked in a week						
1	24	6.0	29	13.8	53	8.7
2	97	24.3	44	21.0	141	23.1
3	112	28.0	56	26.7	168	27.5
4 and more	167	41.8	81	38.6	248	40.7
Occupation of clients*						
Bus, truck or tanker worker	76	36.4	184	46.0	260	42.7
Taxi, Jeep, microbus or minibus worker	7	3.3	98	24.5	105	17.2
Industrial/wage worker	34	16.3	198	49.5	232	38.1
Police	56	26.8	101	25.3	157	25.8
Soldier/Army	41	19.6	88	22.0	129	21.2
Student	22	10.5	40	10.0	62	10.2
<i>Rickshawala</i>	7	3.3	50	12.5	57	9.4
Service holder	76	36.4	155	38.8	231	37.9
Businessman	106	50.7	211	52.8	317	52.1
Mobile businessman	28	13.4	59	14.8	87	14.3
Migrant worker/lahure	11	5.3	49	12.3	60	9.9
Contractor	64	30.6	161	40.3	225	36.9
Foreigner(Indian and other nationals)	5	2.4	26	6.5	31	5.1
Farmer	30	14.4	40	10.0	70	11.5
Other	5	2.4	5	1.3	10	1.6
Don't know	12	5.7	2	.5	14	2.3
Occupation of last client						
Bus, truck or tanker worker	28	13.4	84	21.1	112	18.4
Taxi, Jeep, microbus or minibus worker	3	1.4	15	3.8	18	3.0
Industrial/wage worker	12	5.7	54	13.5	66	10.9
Police	20	9.6	13	3.3	33	5.4
Soldier/Army	10	4.8	16	4.0	26	4.3
Student	5	2.4	5	1.3	10	1.6
Service holder	26	12.4	51	12.8	77	12.7
Businessman	45	21.5	71	17.8	116	19.1
Mobile businessman	8	3.8	4	1.0	12	2.0
Contractor	17	8.1	42	10.5	59	9.7
Farmer	11	5.3	19	4.8	30	4.9
Others (<i>Rickshawala</i> /lahure/ Indian nationals)	3	1.4	20	5.1	25	4.1
Don't know	19	9.1	5	1.3	24	3.9

*The percentages add up to more than 100 because of multiple responses

3.7 Use of Condom with Different Partners

3.7.1 Use of Condom with Clients

Most FSWs (73%) used a condom with clients in their last sexual encounter, and among them, most (76%) had suggested using condom during the sexual encounter with the clients. The reasons reported for inconsistent or infrequent use of condom were objection of the partner (42%) followed by use of another contraceptive (28%). Thirty percentage FSWs used condoms with the clients in the past year consistently..but one tenth FSWs never used condoms with clients in the past year. Regarding the reasons for not using condoms in the last year, most FSWs (74%) stated objection of their partner followed by the offer of the clients to pay (26%).

Table 10: Condom use with clients

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Use of condom with client in the last Sex						
Yes	145	69.0	299	74.8	444	72.8
No	65	31.0	101	25.3	166	27.2
Condom use suggested in the last sex (n=444)						
Myself	94	64.8	245	81.9	339	76.4
My partner	51	35.2	54	18.1	105	23.6
Reasons for not using condom (n=166)						
Not available	6	3.6	15	9.0	21	12.7
Partner objected	29	17.5	41	24.7	70	42.2
I didn't like to use if	4	2.4	5	3.0	9	5.4
Used other contraceptive	8	4.8	38	22.9	46	27.7
Didn't think it was necessary	14	8.4	24	14.5	38	22.9
Didn't think of it	2	1.2	3	1.8	5	3.0
Client offered more money	1	.6	4	2.4	5	3.0
Didn't know/not aware about condom	4	2.4	10	6.0	14	8.4
Others	2	1.2	1	.6	3	1.8
Don't know	6	3.6	1	.6	7	4.2
Consistent use of condom with the client in the past year (n=444)						
All of the time	90	42.9	95	23.8	185	30.3
Most of the time	64	30.5	131	32.8	195	32.0
Sometimes	18	8.6	115	28.8	133	21.8
Rarely	17	8.1	19	4.8	36	5.9
Never	21	10.0	40	10.0	61	10.0
Reasons for not using condom in the past year						
Not available	20	4.7	79	18.6	99	23.3
Partner objected	79	18.6	234	55.2	313	73.8
I didn't like to use if	8	1.9	16	3.8	24	5.7
Used other contraceptive	18	4.2	65	15.3	83	19.6
Didn't think it was necessary	26	6.1	68	16.0	94	22.2
Didn't think of it	17	4.0	62	14.6	79	18.6
Client offered more money	9	2.1	102	24.1	111	26.2
Didn't know/not aware about condom	10	2.4	18	4.2	28	6.6
Don't know	6	1.4	2	.5	8	1.9

3.7.2 Condom use with regular clients

Most of FSWs (76%) had regular clients in the past year and among them 73 percent used condoms with the regular clients in the past year. The FSWs who did not use a condom during their last sexual transaction reported the objection of their partner (37%) as the main reason followed by use of another contraceptive (22%). About 28 percent FSWs used condoms consistently with regular clients in the past year. About nine percent FSWs never used condoms with regular clients in the past year and the major reasons were objection of the partner (73%) and/or offer for more money (30%). Regarding the action taken by FSWs if clients rejected to use a condom, nearly half of FSWs (47%) still had sex with the clients. However, more than one-fourth of them (26%) refused to have sex with the clients. More than half of FSWs (56%) never had sex work without the use of a condom even when they were offered higher amount in the last six months, whereas 37 percent of the FSWs had sexual work when offered higher amount in the last six months.

Table 11: Condom use with regular partners

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Have regular client in the past year						
Yes	135	64.3	329	82.3	464	76.1
No	75	35.7	71	17.8	146	23.9
Use of condom with regular client in the last sex (n=464)						
Yes	103	76.3	238	72.3	341	73.5
No	32	23.7	91	27.7	123	26.5
Reasons for not using condom with regular client in last sex (n=123)						
Not available	4	3.3	9	7.3	13	10.6
Partner objected	13	10.6	32	26.0	45	36.6
I didn't like to use if	1	0.8	3	2.4	4	3.3
Used other contraceptive	4	3.3	23	18.7	27	22.0
Didn't think it was necessary	6	4.9	9	7.3	15	12.2
Didn't think of it	1	0.8			1	0.8
Client offered more money			6	4.9	6	4.9
Didn't know/not aware about condom	1	.8	8	6.5	9	7.3
Don't know	2	1.6	1	.8	3	2.4
Consistent use of condom with regular clients in the past Year (n=464)						
All of the time	60	44.4	71	21.6	131	28.2
Most of the time	45	33.3	89	27.1	134	28.9
Sometimes	11	8.1	113	34.3	124	26.7
Rarely	11	8.1	21	6.4	32	6.9
Never	8	5.9	35	10.6	43	9.3
Reasons for not using condom with regular client in past year						
Not available	10	3.0	74	22.3	84	25.3
Partner objected	40	12.0	203	61.1	243	73.2
I didn't like to use if	6	1.8	14	4.2	20	6.0
Used other contraceptive	9	2.7	59	17.8	68	20.5
Didn't think it was necessary	19	5.7	57	17.2	76	22.9

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Didn't think of it	12	3.6	41	12.3	53	16.0
Client offered more money	6	1.8	93	28.0	99	29.8
Others	1	0.3	3	.9	4	1.2
Don't know	3	0.9			3	0.9
Action taken by FSWs if clients reject to use condom						
Refuses to have sex with the client	93	15.3	93	15.3	158	25.9
Forces the client to use a condom	88	14.4	88	14.4	101	16.6
Explains the advantages of condoms	18	3.0	18	3.0	57	9.4
Still has sex with the client	192	31.5	192	31.5	278	45.6
Only takes medicine/treatment after sex	6	1.0	6	1.0	10	1.6
Others	2	0.3	2	0.3	2	0.3
Don't know	1	0.2	1	0.2	3	0.5
Occurred within 30 days						
Yes	94	44.8	247	61.8	341	56.0
No	116	55.2	153	38.3	268	44.0
Sex work without condom for high earning in last six months						
Always	2	1.0	3	0.8	5	0.8
Most of the time	12	5.7	18	4.5	30	4.9
Sometimes	63	30.0	154	38.5	217	35.6
Never	120	57.1	218	54.5	338	55.5
Don't know	4	1.9	5	1.3	9	1.5
No response	9	4.3	2	0.5	10	1.6

3.7.3 Use of condom with Nonpaying Partners

Most of the FSWs (76%) had sexual intercourse with nonpaying partners in the last six months. Among them, 43 percent used condoms with nonpaying partner(s) during their last sexual activity. The consistent use of condoms with nonpaying partners was low (11%), whereas more than onethird of the FSWs (37%) never used condoms with nonpaying partners. The major reasons for not using a condom in the past year were trust of the FSWs in their partners (50%) and objection of the partners to the use of condoms(37%).

Table 12: Condom use with nonpaying partners

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Sexual intercourse with nonpaying partners in last six months						
Yes	138	65.7	324	81.0	462	75.7
No	72	34.3	76	19.0	148	24.3
Use of condom with nonpaying partner in the last sex (n=462)						
Yes	42	30.4	157	48.5	199	43.1
No	96	69.6	167	51.5	263	56.9

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Consistent use of condom with nonpaying partner in the past year (n=462)						
All of the time	33	15.7	37	9.3	70	11.5
Most of the time	10	4.8	60	15.0	70	11.5
Some of the time	11	5.2	97	24.3	108	17.7
Rarely	24	11.4	66	16.5	90	14.8
Never	99	47.1	119	29.8	218	35.7
Didn't have sexual intercourse in the past year	33	15.7	21	5.3	54	8.9
Reasons for not using condom in the past year						
Not available	4	1.6	49	6.5	53	5.3
Too expensive			1	0.1	1	0.1
Partner objected	43	16.8	159	21.2	202	20.1
I didn't like to use if	16	6.3	34	4.5	50	5.0
Used other contraceptive	38	14.8	98	13.1	136	13.5
Didn't think it was necessary	38	14.8	131	17.5	169	16.8
Didn't think of it	1	0.4	33	4.4	34	3.4
Trust partner	55	21.5	213	28.4	268	26.7
Wish to have child	4	1.6	2	0.3	6	0.6
Others	55	21.5	28	3.7	83	8.3
Don't know	2	0.8	1	0.1	3	0.3

3.7.4 Use of condom with other Partners

Less than half of the FSWs were sexually active with partners other than clients, husbands, or male friends within the past year. Among those who mentioned about having sex with other partners, most (84%) reported using condoms with partners other than clients such as husbands or male friends during last sex. Although more than onethird of the FSWs (36%) had used condoms consistently during sexual intercourse with other clients in the past year, three percent of them had never used a condom. Most FSWs (82%) mentioned the objection of their partner as the main reason for not using condom last year, which was followed by a thought that condom was not necessary (36%).

Table 13: Condom use with other partners

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Had sex with partners other than client, husband, male friend in the past year						
Yes	63	30.0	227	37.3	290	47.5
No	147	70.0	173	28.4	320	52.5
Use of condom with partners other than client, husband, male friend in the last sex (n=290)						
Yes	46	73.0	197	68.2	243	83.8
No	17	27.0	30	10.4	47	16.2
Condom use suggested by (n=243)						
Myself	39	87.4	169	69.8	208	86.0
My partner	7	12.6	28	11.6	35	14.0
Reasons for not using condom (n=47)						
Not available	7	41.2		0	7	14.9

Condom Use	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Partner objected	5	29.4	20	66.7	25	53.2
I didn't like to use if	1	5.9	1	3.3	2	4.3
Used other contraceptive	1	5.9	4	13.3	5	10.6
Didn't think it was necessary		0.0	4	13.3	4	8.5
Don't know	3	17.6	1	3.3	4	8.5
Consistent use of condom with partners other than client, husband, male friend in past year (n=243)						
All of the time	28	44.4	76	26.3	104	35.9
Most of the time	16	25.4	47	16.3	63	21.7
Some of the time	7	11.1	87	30.1	94	32.4
Rarely	9	14.3	11	3.8	20	6.9
Never	3	4.8	6	2.1	9	3.1
Reasons for not using condom in past year						
Not available	11	5.9	67	36.2	78	42.2
Too expensive			1	.5	1	.5
Partner objected	20	10.8	131	70.8	151	81.6
I didn't like to use if	5	2.7	9	4.9	14	7.6
Used other contraceptive	1	.5	23	12.4	24	13.0
Didn't think it was necessary	3	1.6	64	34.6	67	36.2
Didn't think of it	5	2.7	35	18.9	40	21.6
Others	1	.5			1	.5
Don't know	2	1.1	3	1.6	5	2.7

3.8 Availability of Condoms

More than onethird FSWs (37%) usually carried condoms. Among them, most (74%) usually got the condoms without paying any money. Majority of the FSWs reported that they obtained condoms from NGO/Health workers/volunteers (85%) followed by hhealth post/hhealth centre (32%). The most convenient place to get free condoms were NGOs/Health workers (49%) followed by peer/friends (37%).

Table 14: Availability of condoms

Condom Acquisition	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Usually carry condoms						
Yes	41	19.5	183	30.0	224	36.7
No	169	80.5	217	35.6	386	63.3
FSWs usually obtain condoms (n=224)						
Always free of cost	21	51.2	144	64.6	165	73.7
Purchase	2	4.9	9	4.0	11	4.9
Obtain both ways	18	43.9	30	13.5	48	21.4
Place/person from where condoms can be obtained for free (n=224)*						
Health post/Health center	18	29.5	51	16.3	69	18.5
Peer/friends	1	1.6	54	17.3	55	14.7
Community events		0.0	9	2.9	9	2.4
NGO/Health workers/volunteers	28	45.9	153	49.0	181	48.5

Condom Acquisition	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Client/other sex partner	8	13.1	39	12.5	47	12.6
Hotel/lodge/Restaurant		0.0	6	1.9	6	1.6
Other	6	9.8		0.0	6	1.6
Convenient Place to get free condoms						
Health post/Health center	11	23.9	17	6.6	28	9.3
Peer/friends	4	8.7	74	28.9	78	25.8
Community events	1	2.2		0.0	1	0.3
NGO/Health workers/volunteers	24	52.2	79	30.9	103	34.1
Client/other sex partner	1	2.2	67	26.2	68	22.5
Massage parlor		0.0	1	0.4	1	0.3
Hotel/lodge/restaurant		0.0	7	2.7	7	2.3
Other	5	10.9	11	4.3	16	5.3

**The percentages add up to more than 100 because of multiple responses*

3.9 Comprehensive Knowledge of HIV

Table 15 below shows the comprehensive knowledge of HIV among the FSWs. The proportion of PWID reporting to be aware of **A** (abstinence from sex), **B** (monogamy or being faithful to one partner or avoiding multiple sex partners), and **C** (consistent and correct condom use or use of a condom during every sex act) as HIV preventive measures was 67 percent, 78 percent and 83 percent respectively. Additionally, 87 percent FSWs knew that a healthylooking person can be infected with HIV (**D**), 42 percent of them identified that a person cannot get HIV from a mosquito bite (**E**), and 78 percent knew that one cannot get HIV by sharing a meal with an HIVinfected person (**F**). Overall, 55 percent of the FSWs correctly identified all three (**A**, **B**, and **C**) as HIV preventive measures while 30 percent of the FSWs were aware of all five major indicators (**BCDEF**). The comprehensive knowledge on HIV was higher in 16 districts whereas the knowledge that a person cannot get HIV from a mosquito bite was higher in 6 districts.

Table 15: Comprehensive Knowledge of HIV

Knowledge of Six Major Indicators on HIV/AIDS	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
A. Can protect themselves through abstinence from sexual contact	124	59.3	282	70.5	406	66.7
B. Can protect themselves through monogamous sexual contact	138	66.0	336	84.0	474	77.8
C. Can protect themselves through condom use every time during sex	155	74.2	352	88.0	507	83.3
D. A healthylooking person can be infected with HIV	174	83.3	354	88.5	528	86.7
E. A person cannot get the HIV virus from mosquito bite	111	53.1	147	36.8	258	42.4
F. Cannot get HIV by sharing a meal with an HIV infected person	154	73.7	323	80.8	477	78.3
Knowledge of all the three indicators: ABC	88	41.9	245	61.3	333	54.6

Knowledge of Six Major Indicators on HIV/AIDS	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Knowledge of all five indicators: BCDEF	39	18.6	145	36.3	184	30.2

3.10 Awareness about Modes of HIV Transmission

The understanding of FSWs about HIV and different modes of transmission were further tested with the help of different questions. Nearly all (98%) FSWs perceived that HIV could be transmitted through the transfusion of blood from an infected person to another; and through the use of preused needles/syringes (95%). Majority of them (89%) mentioned that holding the hand of an HIV infected person does not pose a risk of HIV transmission. Similarly, 62 percent of them mentioned that an HIV infected mother could transmit the virus to her child during breastfeeding; while 87 percent said that an infected pregnant woman could transmit the virus to her unborn child. Furthermore, among those FSWs who mentioned that an infected mother could transmit the virus to her unborn child, more than half (55%) mentioned taking antiretroviral drugs while 34 percent were unaware of any such measures that could minimize the risk of transmission of virus from infected mother to her unborn child. The knowledge of FSWs on modes of HIV transmission was higher in 16 districts as compared to 6 districts.

Table 16: Awareness of Modes of HIV Transmission

Awareness of Modes of HIV Transmission	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
A person cannot get HIV by shaking hands with an HIV infected person's hand	182	87.1	361	90.3	543	89.2
A person can get HIV, by using previously used needle/syringe	197	94.3	380	95.0	577	94.7
Blood transfusion from an infected person to transmit HIV	207	99.0	393	98.3	600	98.5
A woman with HIV can transmit the virus to her new born child through breastfeeding	124	59.3	253	63.3	377	61.9
A pregnant woman infected with HIV can transmit the virus to her unborn child	178	85.2	353	88.3	531	87.2
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child (n=531)						
Take medication (Antiretroviral)	86	43.9	227	61.7	313	55.5
Abortion	6	3.1	29	7.9	35	6.2
Do nothing	6	3.1	2	.5	8	1.4
Others	11	5.6	3	.8	14	2.5
Don't know	87	44.4	107	29.1	194	34.4

3.11 Awareness and Availability of HIV Testing Facility and HIV Testing

After assessing the level of knowledge the FSWs about HIV and its modes of transmission, they were asked if they knew about any HIV testing facilities and whether or not they had taken such tests. Majority of FSWs (71%) reported that they knew about confidential HIV testing in their community. About 78 percent FSWs knew about a HIV testing facility and

among them, 88 percent had taken an HIV test. Among the FSWs who ever had an HIV test, 87 percent had taken a test during the 12 months preceding the survey and 74 percent had taken the test voluntarily. Two FSWs were found to be positive from prior test results.

Table 20: Awareness and Availability of HIV Testing Facility and HIV Testing

Awareness and Availability of HIV Testing Facility and HIV Testing Status	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Confidential HIV test facility available in the community						
Yes	307	76.8	127	60.3	434	71.1
No	70	17.4	50	23.9	120	19.7
Don't know	23	5.8	33	15.8	56	9.2
Knowledge of HIV testing						
Yes	331	82.8	145	69.4	476	78.2
No	69	17.3	64	30.6	133	21.8
Ever had an HIV test (n=476)						
Yes	296	89.4	121	83.4	417	87.6
No	35	10.6	24	16.6	59	12.4
Most recent HIV test (n=417)						
Within the past 12 months	272	91.9	92	76.0	364	87.3
Between 1324 months	15	5.1	25	20.7	40	9.6
Between 2548 months	7	2.4	0	.0	7	1.7
More than 48 months	2	.7	4	3.3	6	1.4
Voluntarily underwent the test or because it was required (n=417)						
Voluntarily	232	78.4	76	62.8	308	73.9
Required	64	21.6	45	37.2	109	26.1
Result of HIV test						
Positive	1	.3	1	.8	2	.5
Negative	292	98.6	113	93.4	405	97.1
Didn't received results	3	1.0	4	3.3	7	1.7

3.12 Knowledge of STIs, Experienced Symptoms, and Treatment in the Past Year

FSWs are at high risk of STI due to the nature of their work. To explore the knowledge of STIs, experience of symptoms, and treatment sought in the past year, the FSWs were interviewed about their understanding of STIs and whether they had experienced STI symptoms during the past year. Majority of the FSWs knew about symptoms of STI such as white genital discharge (89.3%), vaginal itching (74%), and lower abdominal pain (53.0%). When the FSWs were asked about the symptoms of STI they had experienced in the past year, 4 percent reported having experienced at least one symptom mentioned in Table 17. They reported to have vaginal discharge (42.4%), lower abdominal pain (29 %) and vaginal itching (25.9 %). Sixtyfour percent of the FSWs had experienced vaginal discharge and (44%) reported to have lower abdomen pain within the last year. Almost all participants who experienced these symptoms (99%) received a prescription for the appropriate medicinal treatment. In addition to their experiences in the last 12 months, the

FSWs were also asked whether they were currently experiencing any STI symptoms. About three fourth (72%) of them had experienced vaginal bleeding and lower abdominal pain. Among having STI symptoms, 86% knew the location to receive the appropriate treatment. Among them, 86 percent had been recommended for further medical precaution such as, abstaining from sex during treatment (46.1%), coming for regular checkups (57.5%), or taking medicine regularly (93.8%) (Table 17).

Table 17: Knowledge of STIs, Experienced Symptoms, and Treatment in Past Year

Perception of STI, Reported STI Symptoms and Treatment among FSWs	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
FSWs' Understanding of STI *						
White discharge/discharge of Pus/dhatu flow	178	85.2	366	91.5	544	89.3
Itching around vagina	130	62.2	321	80.3	451	74.1
Lower abdominal pain	117	56.0	205	51.3	322	52.9
Syphilis(<i>Bhiringi</i>)/gonorrhoea	39	18.7	72	18.0	111	18.2
HIV/AIDS	71	34.0	72	18.0	143	23.5
Painful urination	30	14.4	106	26.5	136	22.3
Swelling of vagina	31	14.8	64	16.0	95	15.6
Pain in vagina	35	16.7	79	19.8	114	18.7
Un usual bleeding from vagina	12	5.7	137	34.3	149	24.5
Ulcer or sore around vagina	123	58.9	287	71.8	410	67.3
Fever	27	12.9	15	3.8	42	6.9
Burning during urination	25	12.0	34	8.5	59	9.7
Weight loss/ get thinner	16	7.7	10	2.5	26	4.3
Other	2	1.0	1	.3	3	.5
Don't Know	22	10.5	12	3.0	34	5.6
STI Symptoms Experienced in Past Year*						
Pain in the lower abdomen	49	23.4	132	33.0	181	29.7
Pain during urination	36	17.2	64	16.0	100	16.4
Frequent urination	25	12.0	40	10.0	65	10.7
Pain during sex	31	14.8	77	19.3	108	17.7
Ulcer sore in the genital area	8	3.8	40	10.0	48	7.9
Itching in or around the vagina	123	30.8	35	16.7	158	25.9
Vaginal odor or smell	27	12.9	70	17.5	97	15.9
Vaginal bleeding(unusual)	5	2.4	10	2.5	15	2.5
Unusual heavy, foul smelling vaginal discharge	82	39.2	176	44.0	258	42.4
Genital Warts	11	5.3	13	3.3	24	3.9
Treatment for STI symptoms						
Pain in the lower abdomen	10	33.3	49	47.6	59	44.4
Pain during urination	6	20.0	16	15.5	22	16.5
Frequent urination	2	6.7	7	6.8	9	6.8
Pain during sex	3	10.0	16	15.5	19	14.3
Ulcer sore in the genital area	2	6.7	16	15.5	18	13.5
Itching in or around the vagina	8	26.7	48	46.6	56	42.1
Vaginal odor or smell	4	13.3	16	15.5	20	15.0
Unusual heavy, foul smelling vaginal discharge	21	70.0	65	63.1	86	64.7
Others (Genital Warts, Vaginal bleeding unusual)	1	3.3	4	3.9	5	3.8
Received a prescription for medicine						

Perception of STI, Reported STI Symptoms and Treatment among FSWs	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Yes I obtained all of it	18	94.7	91	98.9	109	98.2
I obtained some but not all	1	5.3	1	1.1	2	1.8
STI Symptom on last 12 months						
Pain in the lower abdomen	10	33.3	60	58.3	70	52.6
Pain during urination	9	30.0	27	26.2	36	27.1
Frequent urination	3	10.0	11	10.7	14	10.5
Pain during sex	4	13.3	23	22.3	27	20.3
Ulcer or sore in the genital area	4	13.3	26	25.2	30	22.6
Itching in or around the vagina	10	33.3	58	56.3	68	51.1
Vaginal odor or smell	4	13.3	18	17.5	22	16.5
Vaginal bleeding (unusual)	23	76.7	73	70.9	96	72.2
Unusual heavy, foul smelling Vaginal discharge	23	76.7	73	70.9	96	72.2
Genital Warts	3	10.0	3	2.9	6	4.5
Treatment received on STI symptoms						
Pain in the lower abdomen	22	31.0	78	49.7	100	43.9
Pain during urination	12	16.9	27	17.2	39	17.1
Frequent urination	6	8.5	9	5.7	15	6.6
Pain during sex	8	11.3	24	15.3	32	14.0
Ulcer or sore in the genital area	4	5.6	33	21.0	37	16.2
Itching in or around the vagina	14	19.7	76	48.4	90	39.5
Vaginal odor or smell	5	7.0	15	9.6	20	8.8
Vaginal bleeding (unusual)			9	5.7	9	3.9
Unusual heavy, foul smelling Vaginal discharge	49	69.0	113	72.0	162	71.1
Genital Warts	2	2.8	2	1.3	4	1.8
Others			1	.6	1	.4
Know the place for treatment						
Yes	49	69.0	144	94.7	193	86.5
No	22	31.0	8	5.3	30	13.5
Suggestion in the treatment place						
Told me to use condom	21	42.9	111	77.1	132	68.4
Told me to reduce number of sexual partners	5	10.2	88	61.1	93	48.2
Told me to take medicine regularly	47	95.9	134	93.1	181	93.8
Told me not to have sexual contact during medicine	1	2.0	88	61.1	89	46.1
Advised me to come for regular checkup	26	53.1	85	59.0	111	57.5
Others	2	4.1	3	2.1	5	2.6

**The percentages add up to more than 100 because of multiple responses*

3.13 Violence

These results explore the different type of violence experienced by FSWs. The violence faced by FSWs was categorized as emotional, physical and sexual violence. Moreover, FSWs face violence with different type of partners such as clients/regular clients, nonpaying partners and other clients.

3.13.1 Violence by Clients/Regular Clients

More than one fourth of FSWs (26%) had suffered emotional violence or felt bad for the behavior of by a client or regular client. About 18 percent of FSWs were humiliated in front of other people. Similarly, 14 percent of FSWs were scared or intimidated on purpose

(e.g. the client looked at her in a weird way, or yelled and smashed things). Four percent of FSWs were threatened with physical harm or with physical harm against someone they care about. About seven percent of FSWs were slapped or had something thrown at them that could cause bodily harm. About six percent of FSWs were pushed, shoved, or had their hair pulled by clients. Similarly, five percent were hit with a fist or with something else that injured them, including being kicked, dragged, or beaten up. Three percent of FSWs were choked or burnt. One percent of the clients had used a gun, knife, or other weapon against FSWs. More than one-fourth of FSWs (28%) were physically forced to have sexual intercourse, while 23 percent of FSWs had sexual intercourse that they did not want to but were afraid of what the client might do. In regards to sexual violence, 15 percent of FSWs had been forced to do something sexual that they found degrading or humiliating.

Table 18: Violence by clients/regular clients

Violence	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	N	%	n	%	N	%
Emotional Violence						
Insulted you or made you feel bad about yourself	67	31.9	95	23.8	162	26.6
Humiliated you in front of other people	29	13.8	81	20.3	110	18.0
Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)	16	7.6	69	17.3	85	13.9
Threatened to hurt you or someone you care about	7	3.3	16	4.0	23	3.8
Physical Violence						
Slapped you or thrown something at you that could hurt you	19	9.1	26	6.5	45	7.4
Pushed you or shoved you or pulled your hair	16	7.7	22	5.5	38	6.2
Hit you with his fist or with something else that could hurt you	13	6.2	21	5.3	34	5.6
Kicked you, dragged you or beat you up	13	6.2	19	4.8	32	5.3
Choked or burnt you on purpose	6	2.9	17	4.3	23	3.8
Use or actually used a gun, knife or other weapon against you	2	1.0	6	1.5	8	1.3
Sexual Violence						
Physically force you to have sexual intercourse when you did not want to	76	36.4	94	23.5	170	27.9
Have sexual intercourse you did not want to because you were afraid of what your partner or any other partner or client might do	58	27.6	81	20.3	139	22.8
Force you to do something sexual that you found degrading or humiliating	25	11.9	67	16.8	92	15.1

3.13.2 Violence by Nonpaying Partners

About 17 percent of FSWs were insulted or felt bad about about themselves because for the behavior of a nonpaying partner. About 12 percent of FSWs had been humiliated in front of other people by a nonpaying partner. Similarly eight percent of FSWs were scared or intimidated by the aggressive behavior of a nonpaying (i.e. by the way her partner looked at her, or by the way he yelled and smashed things). Four percent of FSWs were threatened with physical harm or with physical harm against someone they cared about. About 12 percent of FSWs had been slapped before or had had objects thrown at them to cause doing

bodily harm. About 11 percent of FSWs had been pushed, shoved, or had their hair pulled (this also included being hit with his fist, being kicked, dragged, or beaten). Four percent of FSWs were choked or burnt by nonpaying partners. Nearly three percent of the nonpaying partners had used a gun, knife, or other weapon against FSWs. About 15 percent of FSWs were physically forced to have sexual intercourse. In addition, 13 percent of FSWs had sexual intercourse they did not want but were afraid of what the partner might do, or were forced to do something sexual that they found degrading or humiliating.

Table 19: Violence by nonpaying partners

Violence	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Emotional Violence						
Insulted you or made you feel bad about yourself	52	24.8	55	13.8	107	17.5
Humiliated you in front of other people	34	16.2	39	9.8	73	12.0
Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)	16	7.6	35	8.8	51	8.4
Threatened to hurt you or someone you care about	10	4.8	23	5.8	33	5.4
Physical Violence						
Slapped you or thrown something at you that could hurt you	34	16.2	41	10.3	75	12.3
Pushed you or shoved you or pulled your hair	27	12.9	40	10.0	67	11.0
Hit you with his fist or with something else that could hurt you	28	13.3	37	9.3	65	10.7
Kicked you, dragged you or beat you up	26	12.4	40	10.0	66	10.8
Choked or burnt you on purpose	6	2.9	18	4.5	24	3.9
Use or actually used a gun, knife or other weapon against you	5	2.4	15	3.8	20	3.3
Sexual Violence						
Physically force you to have sexual intercourse when you did not want to	47	22.4	45	11.3	92	15.1
Have sexual intercourse you did not want to because you were afraid of what your partner or any other partner or client might do	37	17.6	45	11.3	82	13.4
Force you to do something sexual that you found degrading or humiliating	18	8.6	61	15.3	79	13.0

3.12.2 Violence by other Partners

Partners other than clients, husbands, and male friend(s) were categorized as other partners in this study. About nine percent FSWs were insulted or had to feel bad about themselves because of the other partners. About seven percent of FSWs were humiliated in front of other people. Similarly six percent of FSWs were scared or intimidated on purpose (e.g. by the way the other partner looked at them, by the other partner yelling and smashing things). Moreover, one percent of FSWs were threatened with physical harm or with physical harm against someone they cared about. Overall, the physical violence committed by other partners against FSWs was low compared to the one by regular and nonpaying partners. About six percent FSWs were forced physically to have sexual intercourse and had sexual intercourse they did not want but were afraid of what their partner, another partner, or

client might do. Four percent of the FSWs were forced to do a sexual activity that they found degrading or humiliating.

Table 20: Violence by other partners

Violence	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Emotional Violence						
Insulted you or made you feel bad about yourself	16	7.6	38	9.5	54	8.9
Humiliated you in front of other people	6	2.9	34	8.5	40	6.6
Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)	2	1.0	32	8.0	34	5.6
Threatened to hurt you or someone you care about	2	1.0	7	1.8	9	1.5
Physical Violence						
Slapped you or thrown something at you that could hurt you	5	2.4	7	1.8	12	2.0
Pushed you or shoved you or pulled your hair	4	1.9	4	1.0	8	1.3
Hit you with his fist or with something else that could hurt you	2	1.0	3	.8	5	0.8
Kicked you, dragged you or beat you up	2	1.0	1	.3	3	0.5
Choked or burnt you on purpose	2	1.0	1	.3	3	0.5
Use or actually used a gun, knife or other weapon against you	1	.5	1	.3	2	0.3
Sexual Violence						
Physically force you to have sexual intercourse when you did not want to	15	7.1	19	4.8	34	5.6
Have sexual intercourse you did not want to because you were afraid of what your partner or any other partner or client might do	13	6.2	25	6.3	38	6.2
Force you to do something sexual that you found degrading or humiliating	5	2.4	22	5.5	27	4.4

3.14 Exposure to Ongoing HIV Awareness Program

The findings explore the exposure of FSWs to ongoing HIV awareness programs and their participation in these programs. During the survey, the FSWs were asked a series of questions regarding components of current programs related to HIV and AIDS. The information provided by the FSWs has been analyzed in the following sections.

3.14.1 Exposure to Peer/Outreach Educator/Community Mobilizer

One of the major components of the ongoing STI and HIV/AIDS intervention strategies is the mobilization of outreach and peer educators (OEs and PEs) to inform the target population about preventative measures for STI and HIV/AIDS. About 73 percent FSWs reported to have met PE/OE in the last 12 months. During their interaction, 82 percent FSWs had discussed transmission of HIV while 79 percent of them discussed the regular/nonregular use of condoms. Similarly, about 93 percent of FSWs had met with an OE/PE/CM more than once.

Table 21: Meeting/Interaction of FSWs with Peer Educator/Outreach Educator

Exposure to PE/OE/CM	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Met or Discussed or Interacted with PEs or OEs in the last 12 months						
Yes	122	58.1	326	81.5	448	73.4
No	88	41.9	74	18.5	162	26.6
Activities involved with PEs or OEs (n=448) *						
Discussion on how HIV/AIDS is/isn't transmitted	99	81.1	267	81.9	366	81.7
Discussion on how STI is/isn't transmitted	96	78.7	235	72.1	331	73.9
Regular/non regular use of condom	94	77.0	262	80.4	356	79.5
Demonstration on using condom correctly	28	23.0	215	66.0	243	54.2
STI treatment/cure after treatment	33	27.0	81	24.8	114	25.4
Counseling on reducing number of sex partner	12	9.8	24	7.4	36	8.0
Training on HIV and STI, condom day, AIDS day participation discussion and interaction	9	7.4	91	27.9	100	22.3
Others	2	1.6	1	.3	3	.7
Number of Visits in the last 12 months						
Once	6	4.9	24	7.4	30	6.7
23 times	43	35.2	93	28.5	136	30.4
46 times	30	24.6	55	16.9	85	19.0
712 times	21	17.2	122	37.4	143	31.9
More than 12 times	22	18.0	32	9.8	54	12.1

**The percentages add up to more than 100 because of multiple responses*

3.14.2 DropIn Center (DIC)

Majority of the FSWs (71%) had visited a DIC in the past year and among them 92% had visited these places more than once. In addition, a majority of the FSWs (76%) had been to a DIC to participate in discussions on STI transmission followed by discussions on HIV transmission (74%) and were given instructions about correct use of condom (71%).

Table 22: DIC Visiting Practices of FSWs

DIC	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
DIC Visit in the last 12 months						
Yes	125	59.8	308	77.0	433	71.1
No	85	40.2	92	23.0	176	28.9
Activities involved at DIC (n=433)*						
Went to collect condoms	76	60.8	162	52.6	238	55.0
Went to learn the correct way of using condom	83	66.4	224	72.7	307	70.9
Went to watch film on HIV/AIDS	22	17.6	116	37.7	138	31.9
Participated in discussion on HIV transmission	85	68.0	236	76.6	321	74.1
Participated on discussion on STI transmission	103	82.4	226	73.4	329	76.0
Participated in training, interactions and discussion programs on HIV/AIDS and STI	43	34.4	164	53.2	207	47.8
Went for STI treatment	31	24.8	39	12.7	70	16.2
Took friend with me	22	17.6	27	8.8	49	11.3

DIC	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Others(collect IEC materials)	3	2.4	8	2.5	11	2.6
Number of Visits to a DIC in the last 12 months						
Once	10	8.0	19	6.2	10	8.0
23 times	45	36.0	88	28.6	45	36.0
46 times	30	24.0	53	17.2	30	24.0
712 times	22	17.6	123	39.9	22	17.6
More than 12 times	18	14.4	25	8.1	18	14.4

**The percentages add up to more than 100 because of multiple responses*

3.14.3 STI Clinic

The study showed that about 37 percent of FSWs had visited a STI clinic in the past year. Among them, 88 percent had had a blood test for STIs and 68 percent underwent a physical examination for identification of STI. About 88 percent of the FSWs reported to have visited a STI Clinic more than once.

Table 23: STI Clinic Visiting Practices of FSWs

STI Clinic Visiting Practices	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	n	%	n	%	N	%
Visited any STI Clinic in the last 12 months						
Yes	30	14.4	197	49.3	227	37.3
No	180	85.6	203	50.8	382	62.7
Activities Involved in STI Clinic (n=227)*						
Blood tested for STI	12	40.0	169	85.8	181	79.7
Physical examination conduct for STI identification	15	50.0	140	71.1	155	68.3
Advised to used condom in each sexual intercourse	16	53.3	153	77.7	169	74.4
Advised to take complete ad regular medicine	18	60.0	86	43.7	104	45.8
Suggested to reduce number of sexual partners	1	3.3	8	4.1	9	4.0
Others			6	3.0	6	2.8
Number of visits to STI Clinic in last 12 months						
Once	12	40.0	169	85.8	181	79.7
23 times	10	33.3	17	8.6	27	11.9
46 times	12	40.0	82	41.6	94	41.4
712 times	6	20.0	27	13.7	33	14.5
More than 12 times	1	3.3	63	32.0	64	28.2

**The percentages add up to more than 100 because of multiple responses*

3.14.4 HIV Testing and Counseling and (HTC) Centers

The study showed that more than half of the FSWs (51%) had visited HTC centers in the last year. Among them, 93 percent had visited the center to give a blood sample for HIV test. About 56 percent had received the HIV test results and among them, 73 percent also received postHIV test counseling or preHIV test counseling (70%). Among the FSWs who had visited HTC centers, 91 percent had visited it more than once.

Table 24: HTC Visiting Practices of FSWs

HTC Visiting Practices of FSWs	6 Districts (n=210)	16 Districts (n=400)	Total (22 Districts) (N=610)
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	n	%	n	%	N	%
Visited HTC Center in the Last 12 months						
Yes	86	41.1	222	55.5	308	50.6
No	124	58.9	178	44.5	301	49.4
Activities Involved in STI Clinic (n=308)*						
Received preHIV/AIDS test counseling	49	57.0	168	75.7	217	70.5
Blood sample taken for HIV/AIDS test	79	91.9	208	93.7	287	93.2
Received post HIV/AIDS test counseling	52	60.5	173	77.9	225	73.1
Got information on HIV/AIDS window period	2	2.3	17	7.7	19	6.2
Received HIV/AIDS test result	68	79.1	105	47.3	173	56.2
Received counseling on using condom correctly in each sexual intercourse	36	41.9	57	25.7	93	30.2
Number of visits to HTC in the last 12 months						
Once	8	9.3	26	11.7	8	9.3
23 times	43	50.0	84	37.8	43	50.0
46 times	16	18.6	27	12.2	16	18.6
712 times	11	12.8	75	33.8	11	12.8
More than 12 times	8	9.3	10	4.5	8	9.3

*The percentages add up to more than 100 because of multiple responses

3.15 Knowledge of PMTCT, ART, Viral Load and CHBC services

About 59 percent FSWs reported having heard about prevention of mother to child transmission (PMTCT) services and among them majority (90%) knew the place to access PMTCT services. Majority of the FSWs had also heard about antiretroviral therapy (ART) services for PLHIV. Among them, most (88%) knew about the place to obtain ART services. More than half of the FSWs (53%) had heard of viral load testing services for PLHIV and among them 85 percent knew the place to access viral load testing services. When asked they had heard of CHBC services, more than onefourth of the FSWs (28%) mentioned that they had heard about CHBC services provided for PLHIV.

Table 25: Knowledge on PMTCT, ART, Viral Load Services and CHBC services

Knowledge on HIV services	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	N	%	n	%	N	%
Heard about PMTCT for pregnant women						
Yes	9	15.8	146	71.6	155	59.4
No	48	84.2	58	28.4	106	40.6
Know the place where pregnant women can get PMTCT services						
Yes	5	55.6	135	92.5	140	90.3
No	4	44.4	11	7.5	15	9.7
Ever heard about ART for PLHIV						
Yes	139	68.1	21	36.8	160	61.3
No	65	31.9	36	63.2	101	38.7
Know the place where PLHIV can get ART services (n=181)						
Yes	10	47.6	132	95.0	142	88.8
No	11	52.4	7	5.0	18	11.3
Heard about viral load testing services for						

PLHIV						
Yes	11	19.3	127	62.3	138	52.9
No	46	80.7	77	37.7	123	47.1
Know the place where PLHIV get viral load testing services (n=65)						
Yes	4	36.4	113	89.0	117	84.8
No	7	63.6	14	11.0	21	15.2
Heard of CHBC services for PLHIV						
Yes	38	18.2	131	32.8	169	27.8
No	171	81.8	269	67.3	440	72.2

3.16 Alcohol and Drug Use

About 41 percent FSWs had never consumed alcohol during the past month and about six percent of FSWs had consumed alcohol daily. Among those FSWs who consumed alcohol, about six percent always got drunk whereas 44 percent consumed alcohol sometimes. Moreover, about two percent FSWs used drugs. Similarly 0.5 percent had an experience of injecting drugs and all of them were injecting drugs during the survey period. About 15 percent FSWs mentioned that their sex partners also injected drugs or had injected it earlier.

Table 26: Use of alcohol and drugs

Consumption of Alcohol and Drugs	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	N	%	n	%	N	%
Consumption of alcohol during past one month						
Everyday	10	4.8	24	6.0	34	5.6
23 times a week	17	8.1	92	23.0	109	17.9
At least once a week	29	13.9	96	24.0	125	20.5
Less than once in a week	49	23.4	41	10.3	90	14.8
Never	102	48.8	147	36.8	249	40.9
Don't know	2	1.0			2	.3
Frequency of drunk when sex in last 6 months						
Always	29	7.3	9	4.3	38	6.2
Most of the time	156	39.0	37	17.7	193	31.7
Sometimes	167	41.8	101	48.3	268	44.0
Never	40	10.0	57	27.3	97	15.9
Don't know	8	2.0	5	2.4	13	2.1
Have you ever used drugs						
Yes	5	2.4	10	2.5	15	2.5
No	205	97.6	390	97.5	595	97.5
Have you ever injected drugs						
Yes			3	0.8	3	0.5
No	210	100.0	397	99.2	607	99.5
Currently injecting drugs (n=3)						
Yes			3	100.0	3	100.0
Ever exchanged sex for drugs (n=3)						
Yes			3	100.0	3	100.0
Ever exchanged sex for money to buy drug (n=3)						

No			3	100.0	3	100.0
Have your sex partner took injecting drugs						
Yes	8	3.8	84	21.0	92	15.1
No	202	96.2	316	79.0	518	84.9

3.17 Stigma and Discrimination

Perceptions of FSWs about PLHIV and the stigma associated with them were examined through a series of questions. Table 27 below mainly presents findings related to stigma and discrimination. It was noted that most of the FSWs were willing to take care of an HIV positive relative, a male relative (90%) or a female relative (93) at their home, if necessary. More than half of the FSWs (56%) said that if a family member had HIV, they would talk about it rather than keeping it a secret. Most of the FSWs (90%) would buy food from shopkeeper who was HIV positive. Similarly, 40 percent of them said that PLHIV need equal care as other people living with chronic diseases whereas more than half of the FSWs (55) said that PLHIV need more care than people living with other chronic disease. Two third of the FSWs (67) agreed that PLHIV should continue to participate in societal duties unless he/she is too sick to do so.

Table 27: Attitude of FSWs towards PLHIV

Stigma and Discrimination	6 Districts (n=210)		16 Districts (n=400)		Total (22 Districts) (N=610)	
	N	%	n	%	N	%
Willing to Take Care of HIV Positive Male Relative in the Household						
Yes	179	85.6	368	92.0	547	89.8
No	25	12.0	30	7.5	55	9.0
Don't know	6	2.4	2	.5	7	1.1
Willing to take care of HIV Positive Female Relative in the Household						
Yes	182	87.1	383	95.8	565	92.8
No	22	10.5	15	3.8	37	6.1
Don't know	6	2.4	2	.5	7	1.1
Willing to Maintain Confidentiality of a HIV Positive Family Member						
Yes	137	65.6	202	50.5	339	55.7
No	70	33.5	197	49.3	267	43.8
Don't know	3	1.0	1	.3	3	.5
Buying food from shopkeeper with HIV						
Yes	373	93.3	176	84.2	549	90.1
No	25	6.3	28	13.4	53	8.7
Don't know	2	.5	6	2.4	8	1.2
HIV should take same care as other chronic disease						
Same	166	41.5	80	38.3	246	40.4
More	228	57.0	110	52.6	338	55.5
Less	6	1.5	8	3.8	14	2.3
Don't Know			12	5.3	12	1.8
Continuation of work if PLHIV is not sick						
Yes	262	65.5	148	70.8	410	67.3
No	133	33.3	54	25.8	187	30.7

Don't know	5	1.2	8	3.3	13	2
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3.18 Association between Key Risk Indicators and HIV

Among the participants, only five FSWs were tested positive for HIV. Because of low number of HIV positive cases, this survey could not measure the associations between Key Risk Indicators and HIV among FSWs. Furthermore, the HIV positive sample was too small to perform a reliable bivariate analysis.

CHAPTER VI: Comparison of selected Behavioral of HIV and STI indicators with the 2003 to 2012

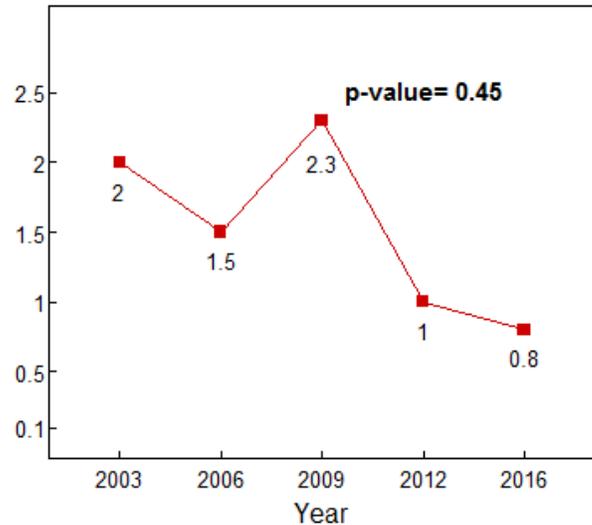
4: Comparative analysis of key indicators

This chapter analyzes the trend in the selected indicators by comparing the data obtained from all five rounds of IBBS surveys conducted in the 22 highway districts. It focuses on prevalence of HIV and Syphilis, comprehensive Knowledge on HIV and AIDs and consistent use of condom among FSWs with different partners.

4.1 Prevalence of HIV

Figure 5 shows trends in prevalence of HIV among FSWs over time. The y axis refers to prevalence of HIV among FSWs. HIV prevalence among FSWs soared from 2 percent in 2003 to 2.3 percent in 2009. However, HIV prevalence since then has shown a decrease, dropping down to 0.8 percent in 2016. There was no significant association in trend of HIV prevalence.

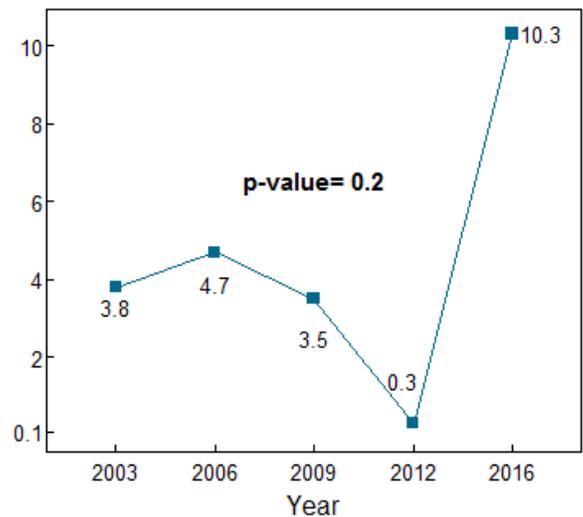
Figure 5: Trends of HIV Prevalence



4.2 Prevalence of Syphilis

Figure 6 shows the trends of active syphilis prevalence among FSWs from 2003 to 2016. The y axis refers to prevalence of HIV among FSWs. Trends in current syphilis among FSWs have shown a sharp increase from 0.3 percent in 2012 to 10.3 percent in 2016. No significant association was observed in trend analysis of active syphilis.

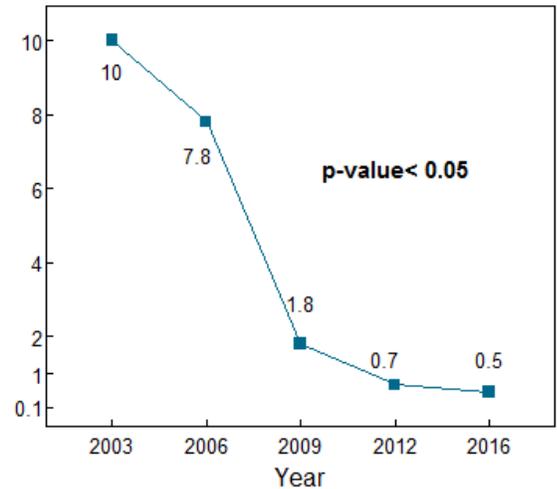
Figure 6: Trends of Current Syphilis



4.3 Prevalence of History of Syphilis

Figure 7: Trends of History of Syphilis

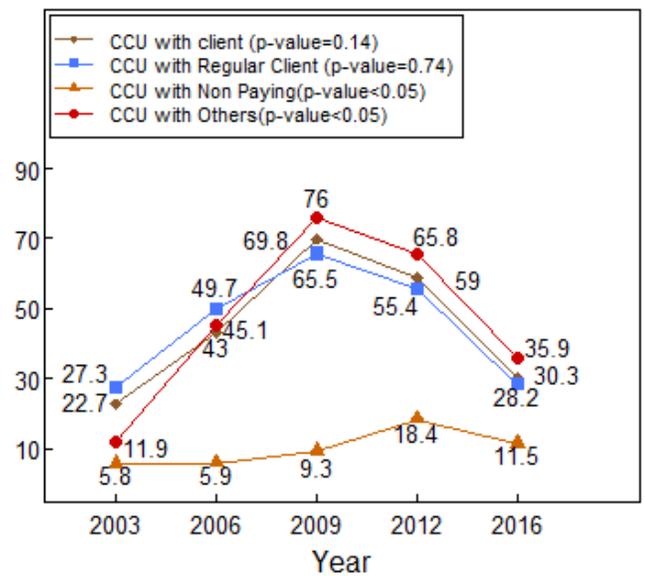
Figure 7 shows the trends of history of syphilis from 2003 to 2016. The history of prevalence of syphilis among FSWs has significantly decreased in 2003 from 10.0 percent to 0.5 percent in 2016 (pvalue <0.05).



4.4 Consistent Condom Use (CCU) with different Partners

Figure 8 shows trends in consistent use of condom with than clients, husbands, and male friend(s) were categorized as other partners. The lowest percent of consistent use of condom was reported to be between FSWs and their nonpaying partners (pvalue <0.05) in all rounds of IBBS surveys. However, consistent use of condom with nonpaying partners increased from 5.8 percent in 2003 to 11.5 percent in 2016. The consistent use of condom with clients, regular clients and others has decreased from 59 percent, 55.4 percent, and 65.8 percent in 2012 to 30.3 percent, 28.2 percent, and 35.9 percent in 2016 respectively.

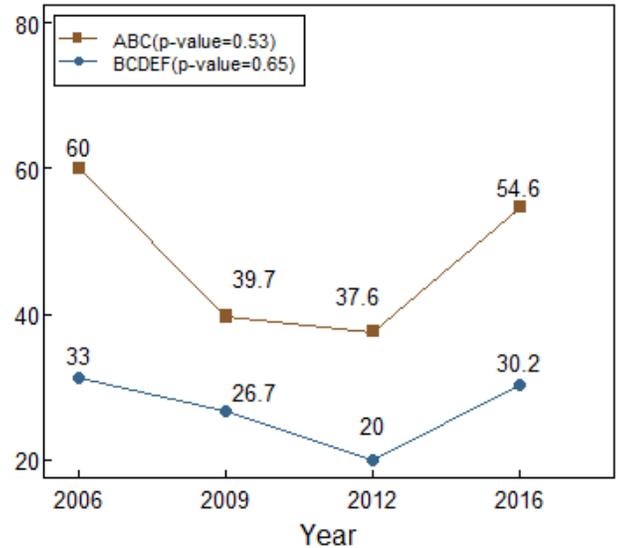
Figure 8: Trends of Consistent Condom



4.5 Comprehensive Knowledge on HIV

Comprehensive knowledge was measured by correct responses to knowledge on abstinence (A), being faithful (B), consistent and correct condom use for infection prevention (C), and on three misconceptions related to food sharing (D), mosquito bite (E), and infection on healthy looking person (F). Figure 9 shows the trend of comprehensive knowledge on HIV and AIDS among FSWs. The percent of FSWs who were aware of all three ABCs slightly decreased from 60 percent in 2012 to 54.6 percent in 2016. Similarly, comprehensive knowledge about HIV and AIDS (BCDEF) also decreased slightly from 33 percent in 2012 to 30.2 percent in 2016. However, no significant association was observed in trend analysis of comprehensive knowledge on HIV.

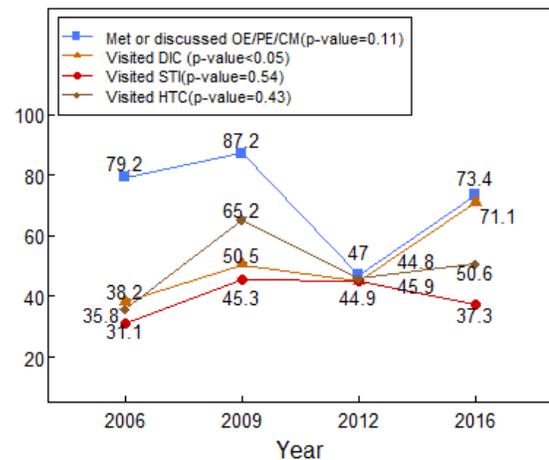
Figure 9: Trends of Comprehensive Knowledge



4.6 Exposure to Programs related to HIV

Figure 10 shows the trend of exposure to programs related to HIV among FSWs between 2006 and 2016. Data shows that FSWs who interacted with an outreach educator (OE) or peer educator (PE) or community motivator (CM) increased from 47% in 2012 to 73.4% in 2016. The ratio of FSWs visiting dropincenters (DICs) has increased significantly from 44.8% in 2012 to 71.1% in 2016 (pvalue <0.05). Moreover, PWIDs visiting HTC centers increased from 45.9% in 2012 to 50.6% in 2016. FSWs visiting STI clinics remained very low in all rounds of IBBS surveys (31.1% in 2006, 45.3% in 2009, 44.9% in 2012 and 37.3% in 2016).

Figure 10: Trends of Exposure to HIV Programs



CHAPTER V: Conclusion and Recommendations

5. Summary of Major Findings and Recommendations

This section presents a brief discussion on major findings of the IBBS survey among FSWs in the study districts. This is the sixth round of the IBBS survey among FSWs along the 22 Highway Districts of Nepal. The objective of the survey is to collect and analyze biological and behavioral trends in data related to HIV and STIs among FSWs. This survey in this round has revealed some gaps in knowledge and a degree of vulnerability among FSWs. This section briefly summarizes the key findings of the biological and behavioral data and other indicators based on the scope of the study.

HIV prevalence decreasing over time, however Syphilis prevalence increased in same period

HIV prevalence among FSWs is 0.8 percent (0.3% to 2.0% at 95% CI) in 2016 which decreased from 2.3 percent in 2009.. Syphilis history was detected in three FSWs. The history of syphilis prevalence among FSWs has significantly decreased from 2003 to 2016 (pvalue <0.05). However, 10.3 percent (95% CI, 8.1% to 13.1%) of FSWs tested positive for active Syphilis. The trends of active syphilis increased significantly from 0.3 percent in 2012 to 10.3 percent in 2016.

FSWs were younger, literate, and married

A majority of the FSWs (66%) were below 34 years old and literate (67%). The representation of economically disadvantaged *janajati* ethnic groups and upper caste groups was high (60%). Majority of the FSWs (74%) were married. Among them 89 percent had got married before they reached 20 years.

Child Birth, miscarriage and abortion were common among FSWs

Among FSWs who had ever married, majority (92%) had given birth to a child. Nearly one-fourth of FSWs (24%) had experienced miscarriage of their child and 23 percent had terminated/aborted a pregnancy or pregnancies deliberately. Most of the FSWs (82%) had no desire for children in the future. About four percent of FSWs had become pregnant in last 12 months and among them, 75 percent had experienced a spontaneous abortion.

Knowledge and Use of Family Planning (FP) Methods

Use of condom was the best known FP method (100%) among the FSWs followed by injectables (99%) and pills (97%). Most of the FSWs (85%) were currently using a FP method. Use of condom was the most common method (70%) followed by female sterilization (24%). As for the traditional methods, the withdrawal method was found to be more common (35%) than the rhythm or calendar method (11%).

Most of the FSWs operated out of establishment based locations, longer duration of time as a sex worker; majority of client's occupations were businessmen

Most of the FSWs (79%) worked in a hotel or lodge followed by a house based establishment (54%). Most FSWs (82%) had been working as a sex worker for more than a year. More than half of the clients (52%) of FSWs were businessmen followed by bus, truck or tanker workers (43%).

Consistent use of condom with different partners was considerably low

The consistent use of condom with clients of FSWs in the past year was 30 percent. One tenth of the FSWs reported having never used condoms with clients in the past year. Regarding the reasons for this, most of the FSWs (74%) stated that their partner objected. This reason was followed by clients offering more money (26%). About 28 percent of FSWs consistently used a condom with regular clients in the past year. About nine percent of FSWs never used condoms with regular clients in the past year and the major reasons were objection of the partner (73%) and/or offer for more money (30%). Although more than onethird of the FSWs (36%) had consistently used a condom during sexual intercourse with other clients in the past year; three percent of them had never used a condom with other clients. The trend analysis revealed that consistent use of condoms with clients, regular clients and others has decreased from 59 percent, 55.4 percent and 65.8 percent to 30.3 percent, 28.2 percent and 35.9 percent from 2012 to 2016, respectively. Consistent use of condom with nonpaying partners was low (11%) as more than onethird of FSWs (37%) never used a condom with nonpaying partners. However, consistent use of condom with nonpaying partners increased from 5.8 percent in 2003 to 11.5 percent in 2016.

Comprehensive knowledge on HIV is considerably moderate; Most of the FSWs are aware of HIV testing centers and have undergone HIV testing:

Overall, 55 percent of the FSWs correctly identified all three of the major knowledge indicators (i.e. ABC) as HIVpreventative measures. In addition, 30 percent of FSWs were aware of all five major indicators (i.e. BCDEF). The trend analysis revealed that comprehensive knowledge (ABC) and Knowledge on HIV and misconceptions (BCDEF) has significantly increased from recent rounds of IBBS surveys. A high proportion of FSWs (71%) have undergone HIV testing and among them, 88 percent had taken a HIV test.

Emotional Violence and Physical violence against FSWs were higher by clients whereas sexual violence against FSWs were higher by nonpaying partners

Emotional violence and sexual violence against FSWs was more likely to be committed by clients than nonpaying partners and other partners. Physical assault or violence against FSWs was more likely to be inflicted by nonpaying partners than clients and other partners. Violence against FSWs by other partners was comparatively lower than clients and nonpaying partners.

Exposure to OE/PE, DIC and HTC were considerably moderate; however exposure to STI clinic were considerably low

About 73 percent of the FSWs had met with a PE/OE in the last 12 months. Similarly, majority of them (71%) had visited a DIC in the past year and among them, most (92%) had visited more than once. About 37 percent of FSWs visited a STI clinic in the past year. More than half of the FSWs (51%) visited HTC centers in the last year.

Knowledge on PMTCT services, ART services, Viral Load Services and CHBC services need to be improved among FSWs

About 59 percent of the FSWs were aware of mother to child transmission (PMTCT) services. Among them, ninety percent knew where PMTCT services were located. Majority of the FSWs had heard about antiretroviral therapy (ART) services for PLHIV. Among them, most (88%) knew where and how to obtain ART services. Similarly, more than half of them (53%) had knowledge of viral load testing services for PLHIV and among them 85 percent knew the location to access viral load testing services. When asked about their knowledge about CHBC services, more than one-fourth FSWs (28%) replied that they had heard about the CHBC services provided for PLHIV.

Stigma among PLHIV is considerably low

The findings revealed that most of FSWs were willing to take care of an HIV positive relative, a male relative (90%) or a female relative (93%) at their home if necessary. More than half of FSWs (56%) said that if a family member had HIV, they would talk about it rather than keeping it a secret. Most of the FSWs (90%) would buy food from a shopkeeper who was HIV positive. Similarly, 40 percent of the FSWs said that PLHIV need the same care as those living with other chronic diseases, whereas more than half of the FSWs (55%) said that PLHIV need more care than those living with other chronic diseases. Majority of the FSWs (67%) agreed that PLHIV should continue to participate in the community if he/she is not too sick to do so.

Program Implications and Recommendations

Based on the findings from this study, the following implications and recommendations are discussed below.

- Although the prevalence of HIV has been found to be in a decreasing trend in recent rounds of IBBS surveys, there are still a number of FSWs suffering from HIV. *Programs are needed to target FSWs and bring them in for treatment. Moreover, awareness on HIV testing should be improved among FSWs.*
- The incidence of syphilis has increased sharply from 0.3 percent in 2012 to 10.3 percent in 2016 suggesting an emerging public health concern. *Intensified and focused programming on STI awareness, which incorporates GOs and I/NGOs, is needed to reduce the incidence of syphilis in the study districts. Further research is also needed to explore the factors causing increase in syphilis.*
- Use of condom is still relatively low among FSWs and nonpaying partners. Consistent use of condom with nonpaying partners is considerably low. Practice of consistent use of condom by FSWs with clients, regular clients, and others partners decreased from previous rounds of IBBS surveys. *This may increase vulnerability for HIV and STI transmission. Programs should focus on the promotion of consistent use of condom with all types of partners.*
- The survey findings show that the major reason for not using a condom during sexual intercourse was objection of the partner. Among nonpaying partners, the major reason for not using a condom in the past was the trust of the FSWs on their

partner. *Further exploration of knowledge, attitudes, and behaviour of clients', regular clients, nonpaying partners, and other partners is needed to understand possible pathways for expansion of interventions directed towards FSWs. Perceptions of FSWs and nonpaying partners on having multiple partners is an important avenue to address when coupled with inconsistent use of condom and the spread of HIV and /STIs.*

- Among the paying clients, those offering more money constituted the second most popular reason for not using a condom during sexual intercourse. *Empowering FSWs through an increased standard wage could provide leverage for negotiation of condom usage, thus negating the reasons for not using a condom. Economic vulnerability among FSWs was found to be a major reason for not using condom. Moreover, FSWs still lack condom skills to negotiate on the use of condom with their clients. Programs should focus on building capacity and selfefficacy among FSWs for skills to negotiate the use of condom.*
- The study found that there is a decrease in uptake of HIV prevention interventions (PE/OE, DICs, HTC clinics etc.) from previous rounds of IBBS surveys. *Targeted interventions on availability of HIV programs among FSWs with the provision of peer and community outreach education in partnership with HTC/STI clinics is needed for increasing the exposure of FSWs to HIV and AIDs programs.*
- NGO/health workers, health post and other public health service centers were frequently reported as the most convenient places/person(s) for obtaining free condoms and educational materials. *Free condom distribution through these sites should be continued and promoted. Investigation into the effectively and receptivity of mobile HIV and STI screenings at designated hotspot locations should be considered in future research. Mobile HIV and STI screenings afford the opportunity for increased testing convenience, free condom distribution, and comprehensive HIV and STI knowledge among FSWs.*
- The practice of seeking STI treatment among FSWs is not common. Therefore, behaviour to seek treatment should be promoted among those FSWs who are engaged in risky sexual behaviors. *Similarly, STI treatment and HIV testing, healthbehaviors, and educational counselling should be promoted through interpersonal, intrapersonal, and mass communicational networks. Information about health facilities operated by government and NGOs that provide HIV and STI treatment should be promoted.*
- According to the data, comprehensive knowledge and understanding regarding HIV has increased from the year 2012 to 2016. In contrast, knowledge and misconceptions related to HIV (BCDEF) have also increased between these years. *Therefore, comprehensive materials promoting knowledge and understanding of HIV should be communicated and promoted through multiple channels. .*

REFERENCES

- Baral S, Beyrer C, Muessig K, et al., (2012). Burden of HIV among female sex workers in lowincome and middleincome countries: a systematic review and metaanalysis. *The Lancet Infectious Diseases*, 12(7):53849.
- FHI 360 and NHRC. (2013). HIV and AIDS research repository. A catalogue of HIV and AIDS related reports and published research conducted in Nepal (19922013). Kathmandu, Nepal
- NCASC. (2014). National Estimates of HIV Infections in Nepal 2014. Kathmandu, Nepal: National Center for AIDS and STD Control.
- NCASC and ASHA Project (2013). Integrated Biological and Behavioral Surveillance Survey (IBBS) among Female Sex Workers in 22 Highway Districts of Nepal, Nepal, Round IV2009.
- NCASC. (2011). Mapping and Size estimation of most at risk population in Nepal 2011 Vol.3 Female Sex Workers. Kathmandu, Nepal: HIV/AIDS and STI Control Board, Ministry of Health and Population.
- NCASC and ASHA Project. (2015a). Integrated Biological and Behavioral Surveillance (IBBS) Survey among Female Sex Workers in Kathmandu Valley, Nepal, Round V2015.
- NCASC and ASHA Project (2015b). Integrated Biological and Behavioral Surveillance (IBBS) Survey among Female Sex Workers in Pokhara Valley, Nepal, Round V2015.
- NCASC. (2012). National HIV/AIDS Strategies 20112016. Kathmandu: National Centre for AIDS and STD Control.

ANNEXURE

Annex 1 Formula for Sample Size Calculation for the IBBS Surveys

$$n = D \frac{[Z_{1-\alpha} \sqrt{2\bar{p}(1-\bar{p})} + Z_{1-\beta} \sqrt{P_1(1-P_1) + P_2(1-P_2)}]^2}{(P_2 - P_1)^2}$$

n= required minimum sample size per survey round or comparison groups

D = design effect (assumed in the following equations to be the default value of 2)

P1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

P2 = the expected level of the indicator either at some future date or for the project area such that the quantity (P2P1) is the size of the magnitude of change it is desired to be able to detect

Z α = the Zscore corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P2P1) would not have occurred by chance (α – the level of statistical significance), and

Z β = the Zscore corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P1P2) if one actually occurred (β – statistical power).

Annex2Questionnaire

**Integrated Biological and Behavioral Surveillance Survey
Among Female Sex Workers**

CONFIDENTI

Namaste! My name is.....,I am here from to collect data for are search study.

This study is being conducted by for National Centre for AIDS and STD Control (NCASC),Ministry of Health and Population. As explained in the consent taking process during this data collection, I will ask you some questions that will be about sexual behavior, use and promotion of condoms, STI/HIV/AIDS, drugs and migration pattern. I believe that you will provide correct information. We will also draw a few drops of blood for HIV testing. If you have any STI symptoms, we will provide treatment for free of charge. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk because your name will not be mentioned in this form and blood sample. It will take about 60 minutes to complete the interview and blood sample collection.

It depends on your willingness to participate in this survey or not. You are free to quit the survey any time you want to. You do not have to answer questions that you do not want to answer. But I hope, you will participate in this survey and make it success by providing correct answers of all the questions.

Would you be willing to participate?

- 1. Yes 2. No

Signature of Interviewer:.....Date:/_/_____/2072
DD/MM

Establishment based: Street based:

Definition of Respondent

“Women aged 16yearsand above reporting having been paid in cash or kind for sex with a male within the last 6 months.”

Has someone interviewed you from.....with a questionnaire in last few weeks?

- 1.Yes 2.No(Continue Interview)

↓
When?
_____Days ago (**STOPINTERVIEW**)

Name of interviewer:_____ Code No. of Interviewer

1.0 GENERAL INFORMATION

New QN	Questions and Filters	Coding	Skipto
101	Respondent ID No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
101.1	Write down how you contacted the respondent?	Met personally.....1 Through known FSW.....2 Through PE.....3 Through OE/CM.....4 Other(Specify)_____96	
102	Where is the respondent (sex worker) based?	Disco.....1 Dance Restaurant.....2 Cabin Restaurant.....3 Call Girl.....4 Massage Parlor.....5 House Settlement.....6 Bhatti Pasal.....7 Street.....8 Garment/Carpet Factory.....9 Squatter/Refugee.....10 Restaurant/Teashop.....11 Dohori Restaurant.....12 Hotel/Lodge.....13 Other(Specify)_____96	
103	Interview Starting Time (24 hours format) Interview Completion Time(24 hours format) (Fill at the end of interview)	Start time hh: ___ mm: ___ End time hh: ___ mm: ___	
104	Where were you born?	District..... <input type="text"/> <input type="text"/> VDC/Municipality <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
105	Where do you live now? (Name of Current Place of Residence)	District <input type="text"/> <input type="text"/> VDC/Municipality <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
106	How long have you been living continuously at this location?	Months _____ Always (since birth) 0-201 Since less than a month..... 995	
107	Before you moved here, where did you live?	District <input type="text"/> <input type="text"/> VDC/Municipality <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	

2.0 PERSONAL INFORMATION

<i>QN</i>	<i>Questions and Filters</i>	<i>Coding Categories</i>	<i>Skip to</i>
201	How old are you? (If less than 16 years, stop interview)	Age..... <input type="text"/> <input type="text"/> (Write the completed years)	
202	What is your caste? (Specify Ethnic Group/Caste)	Ethnicity/Caste _____ (Specify) Code No..... <input type="text"/> <input type="text"/>	
203	What is your educational status? <i>Code:</i> (Circle '00' if illiterate, '19' for the literate without attending the school, and write exact number of the completed grade)	Illiterate.....00 Literate.....19 Grade..... <input type="text"/> <input type="text"/> (Write the completed grade)	
204	What is your present marital status?	Married.....1 Divorced/Permanently Separated.....2 Widow.....3 Never married.....4	204.2 204.2
204.1	How old were you when you got divorced/separated/widowed?	Age _____ (Write the completed years)	
204.2	Who are you living with now? (Multiple answers. DONOTREAD The possible answers)	Husband.....1 Male friend.....2 Relatives.....3 Other females.....4 Children.....5 Alone.....6 Others (Specify).....96	
[Note: If answer in Q.204 is 'never married' Goto Q205.13]			
205	At what age were you married for the first time?	Age _____ (Write the completed years)	
205.1	Have you ever given birth to children? (Include a live births even those who died after some time, and also still births)	Yes.....1 No2	205.3
205.2	If yes, how many were live births? (Include alive births even those who died after sometime but don't include stillbirths)	SonsDaughters.....	

<i>QN</i>	<i>Questions and Filters</i>	<i>Coding Categories</i>	<i>Skip to</i>
205.3	Have you had miscarriage during your any pregnancies?	Yes.....1 No2	205.5
205.4	If yes, total number of miscarriage	# Terminations.....	
205.5	Have you done termination/abortion of your any pregnancies?	Yes 1 No 2	205.8
205.7	Who assisted you at last abortion	Doctor..... Nurse.....2 Midwife.....3 TBA.....4 Traditional healer.....5 Friend.....6 Nobody.....7 Others (Specify)96 Don't know.....98	
205.8	Do you want to have a child in the future?	Within 6 month..... 1 Within 2 year..... 2 More than 2 year.....3 No.....4	
205.9	Were you pregnant in the last 12 months? (Include currently pregnant women too)	Yes 1 No 2	205.13
205.10	(Don't ask 205.10, 205.11 and 205.12 to those who are currently pregnant and skip to 205.13) If Yes, What was the outcome of the last pregnancy? If the response is 3 or 4 check Q.N.205.6 or 205.7)	Live Birth..... 1 Still Birth 2 Spontaneous abortion..... 3 Forced Abortion 4	205.13 205.13
205.11	Who assisted your last delivery?	Doctor1 Nurse.....2 Midwife3 TBA4 Traditional healer5 Friend.....6 Nobody7 Others (Specify)96 Don't know.....98	
205.12	Where did you deliver your last child?	Home 1 Health Post (HP) 2 Sub Health Post (SHP)..... 3 Primary Health Center (PHC)..... 4 District Hospital..... 5 Other (Specify)_ 96	

<i>Q.N.</i>	<i>Questions and Filters</i>	<i>Coding Categories</i>	<i>Skip to</i>
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205.13	Now I would like to talk about family planning—the various way so methods that a couple an use to delay or avoid pregnancy Which ways or methods have you heard about? <i>(Lead the each Questions ,Multiple answers Possible)</i>		
01	FEMALESTERILIZATION women can have an operation to avoid having any more children	Yes.....1 No2	
02	MALESTERILIZATIONmen can have an operation avoid having any more children	Yes.....1 No2	
03	PILLwomen can take pill every day to avoid becoming pregnant	Yes.....1 No2	
04	IUD–women can area loop or coil place dinsidetem by a doctor or a nurse	Yes.....1 No2	
05	INJECTABLES– women can have an injection by health provider that stops them from becoming pregnant for one or more months	Yes.....1 No2	
06	IMPLANTSwomen can have several small rodsplacedintheirupperarmby a doctor or a nurse which can prevent pregnancy or one or more years Implants:	Yes.....1 No2	
07	CONDOM–men can put rubber sheath on their penis before sexual intercourse	Yes.....1 No2	
08	RHYTHMMETHOD– Every month that a woman is sexually actives he can avoid pregnancy by not having sexual intercourse on the days of the month she is not likely to get pregnant Rhythm Method:	Yes.....1 No2	
09	WITHDRAWAL– Men can be careful and pull out before climax	Yes.....1 No2	
10	Have you heard any other ways or method that women or men can use to avoid pregnancy?	Yes.....1 (Specify) No.....2	
205.14	Are you currently doing something or using any method to delay or avoid getting pregnant?	Yes.....1 No2	206

205.15	If yes, which method are you using currently? (Multiple answer possible, Do NOT READ the Possible answers)		
01	FEMALESTERILIZATION women can have an operation to avoid having any more children	Yes1	
02	MALE STERILIZATION men can have an operation to avoid having any more children	Yes1	
03	PILL women can take a pill every day to avoid becoming pregnant	Yes1	
04	IUD – women can have a loop or coil placed inside tem by a doctor or a nurse	Yes1	
05	INJECTABLES – women can have an injection by a health provider that stops them from becoming pregnant for one or more months	Yes1	
06	IMPLANTS women can have several small rods placed in their upper arm by a doctor or a nurse which can prevent pregnancy for one or more years	Yes1	
07	CONDOM – men can put a rubber sheath on their penis before sexual intercourse	Yes1	
08	RHYTHM METHOD – Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is not likely to get pregnant	Yes1	
09	WITHDRAWAL – Men can be careful and pull out before climax	Yes1	
10	Are you currently using any method that women or men can use to avoid pregnancy?	Yes1	
<i>Check Q.N.204, if it is divorced/permanently/separated(2), widow(3) or never married(4), skip to Q.N.207</i>			
206	Are there people who are dependent on your income?	Yes.....1 No	207
206.1	How many are dependent on your income? (Adults are those who have completed 18 years)	Adults.....Children.....	
207	How long have you been exchanging sexual intercourse for money or other things? (If answer is less than 6 months stop interview)	Months..... Don'tknow.....98	
207.1	Did you have any sexual intercourse during past 12 months?	Yes.....1 No	Stop Interview

208	Have you ever been engaged in this profession in otherlocationstoo?	Yes.....1 No.....2	
208.1	Where did you work? (List all the places mentioned by the respondent) Probe for placed in Nepal as well as outside Nepal including India (Multiple answers possible)	City _____ District _____ Country _____ Not gone to India..... 98	210
209	Have you ever been trafficked (tricked or forced) into a job as an entertainer?	Yes1 No..... 2	
210	What is your average income per sexual transaction?	Cash_____	

Q.N.	Questions and Filters	Coding Categories	Skip to
	[Note: If there is '0'inbothcashand gift equivalent, probe for the reasons]	Gift equivalent to_____Rs. Others(Specify)_____.....96 Total_____Rs.	
211	Do you have any other work besides sex work?	Yes.....1 No2	212
211.1	What do you do?	Waiter.....1 Housemaid/restaurant employee (dishcleaner,cook,washerwoman, etc.).....2 Wage laborer.....3 Own restaurant/bhattipasal.....4 Masseuse.....5 Dancer6 Business (retailstore,fruitshopetc.)..7 Knitting/tailoring8 Peer educator.....9 Job(teacher,peonetc).....10 Others(Specify)_____.....96	
211.2	What is your average weekly income from the abovementioned sources?	_____Rupees	
212	Have you ever encountered any client who refused to give money afterhaving sex?	Yes.....1 No2 Times <input type="text"/> <input type="text"/>	

3.0 INFORMATION ON SEXUAL INTERCOURSE

Q.N.	QuestionsandFilters	CodingCategories	Skipto
301	Usually, how many clients visit you in a day?	Number.....	
302	With how many clients did you have sexual intercourse yesterday?	Number.....	
303	With how many clients did you have sexual intercourse in the past week?	Number.....	
304	In the past month with which profession's client did you mostly have sex? (Encircle three most reported types of client. DO NOT READ the possible answers)	Bus,truckor tanker worker.....1 Taxi,jeep,micro bus or minibus worker.....2 Industrial/wageworker.....3 Police.....4 Soldier/Army.....5 Student.....6 Rickshawala.....7 Service holder.....8 Businessmen.....9 Mobile Businessmen.....10 Migrant worker/lahurey.....11 Contractor.....12 Foreigner(Indian and other Nationals).....14 Farmer.....15 Others (Specify)......96 Don'tknow.....98	
304.1	What was the professional back ground of your as client?	Bus,truckor tankerworker.....1 Taxi,jeep,microbus orminibus worker.....2 Industrial/wageworker.....3 Police.....4 Soldier/Army.....5 Student.....6 Rickshawala.....7 Service holder.....8 Businessmen.....9 Mobile Businessmen.....10 Migrant worker/lahurey.....11 Contractor.....12 Foreigner(Indian and other Nationals.....14 Farmer.....15 Others (Specify)......96 Don't know.....98	

305	How many days in a week(on an average)do you work as a sex worker?	Days.....	
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4.0 USE OF CONDOM AND INFORMATION ON SEX PARTNERS

Condom use with Clients

Q.N.	Questions and Filters	Coding Categories	Skip to
401	The last time you had sex with your client, did he use a condom?	Yes.....1 No2	401.2
401.1	Who suggested condom use at that time?	Myself.....1 My Partner.....2 Don't know.....98	402
401.2	Why didn't your client use a condom at that time? (Multiple answers. DO NOT READ The possible answers)	Not available.....1 Too expensive.....2 Partner objected.....3 I didn't like to use it.....4 Used other contraceptive.....5 Didn't think it was necessary.....6 Didn't think of it.....7 Client offered more money.....8 Didn't know / not aware about condom.....9 Other(Specify).....96 Don'tknow.....98	
402	How often did your clients use condom over the past 12 months?	All of the time.....1 Most of the time.....2 Some of the time.....3 Rarely.....4 Never.....5	403
402.1	Why didn't your client use condom always? (Multiple answers. DO NOT READ The possible answers)	Not available.....1 Too expensive.....2 Partner objected.....3 I didn't like to use it.....4 Used of the contraceptive.....5 Didn't think it was necessary.....6 Didn't think of it.....7 Client offered more money.....8 Didn't know/ not aware about Condom.....9 Other(Specify).....96 Don'tknow.....98	

Condom use with Regular Client

Q.N.	Questions and Filters	Coding Categories	Skip to
403	Do you have any client who visit you on regular basis?	Yes.....1 No2	406
404	Did your regular client use condom in the last sexual contact with you?	Yes.....1 No2	404.2
404.1	Who suggested condom use at that time?	Myself.....1 My partner.....2 Don't know.....98	405
404.2	Why didn't your regular client use a condom at that time?	Not available..... 1 Too expensive..... 2 Partner objected 3 I didn't like to use it..... 4 Used other contraceptive..... 5 Didn't think it was necessary 6 Didn't think of it..... 7 Client offered more money 8 Didn't know / not aware about condom..... 9 Other (Specify) 96 Don't know 98	
405	How often did your regular clients use condom with you over the past 12 months?	All of the time..... 1 Most of the time 2 Some of the time 3 Rarely 4 Never..... 5	405.1.1
405.1	Why didn't they use condom always? (Multiple answers. DO NOT READ the possible answers)	Not available..... 1 Too expensive..... 2 Partner objected 3 I didn't like to use it..... 4 Used other contraceptive..... 5 Didn't think it was necessary 6 Didn't think of it..... 7 Client offered more money 8 Other (Specify) 96 Don't know 98	

405.1.1	If a client (regular or casual) refuses to use a condom, what do you usually do?	Refuses to have sex with the client....1 Forces the client to use a condom.....2 Explains the advantages of condoms..3 Still has sex with the client.....4 Only takes medication/treatment after sex.....5 Other (Specify) 96 Don't know 98	
405.1.2	Whether this happened in the past 30 days?	Yes.....1 No.....2	
405.1.3	How often do you have sex with regular and casual clients without condoms to make more money within 6 months?	Always.....1 Most of the time.....2 Sometimes.....3 Never.....	

Condom use with Nonpaying regular Cohabiting Partner (Husband or Male Friend)

Q.N.	Questions and Filters	Coding Categories	Skip to
406	Did you have sexual intercourse with your husband or female friend in past six months?	Yes.....1 No2	409
407	Think about your most recent sexual intercourse with your husband or male partner. How many times did you have sexual intercourse with this person over the last 30 days? (Write '00' for none intercourse in past one month)	Number of times..... Don't know.....98	
408	The last time you had sex with your husband or male friends trying to gather, did your sex partner use a condom?	Yes.....1 No2	408.2
408.1	Who suggested condom use that time?	Myself.....1 My Partner.....2 Don't know.....98	409

408.2	Why didn't your partner use a condom the time?	Not available.....1 Too expensive.....2 Partner objected.....3 I didn't like to use it.....4 Used other contraceptive.....5 Didn't think it was necessary.....6 Didn't think of it.....7 Trust partner8 Wish to have child9 Other (Specify)96 Don't know98	
409	How often did all of your nonpaying regular partners use condoms over the last 12 months? arrow	All of the time1 Most of the time2 Some of the time3 Rarely4 Never.....5 Did not have sexual intercourse in the last 12 months6	410 410
409.1	Why didn't they use condom always? (Multiple answers. DO NOT READ the possible answers) arrow	Not available.....1 Too expensive.....2 Partner objected3 I didn't like to use it.....4 Used other contraceptive.....5 Didn't think it was necessary6 Didn't think of it.....7 Trust partner8 Wish to have child9 Other (Specify)96 Don't know98	

Condom use with sex partners other than clients, husbands and male friends living together

Q.N.	Questions and Filters	Coding Categories	Skip to
410	During the past one year, did you have sexual intercourse with a person other than your client, husband/male friend?	Yes.....1 No2	412.2
411	Did he use condom when he had last sexual contact with you?	Yes.....1 No2	411.2
411.1	Who suggested condom use at that time?	Myself.....1 My Partner.....2 Don't know98	412

411.2	Why didn't the use condom at that time?	Not available.....1 Too expensive.....2 Partner objected.....3 I didn't like to use.....4 Used other contraceptive.....5 Didn't think it was necessary.....6 Didn't think of it.....7 Other(Specify).....96 Don't know.....98	
412	How often did your other partners use condom with you over thepast12 months?	All of the time.....1 Most of the time.....2 Some of the time.....3 Rarely.....4 Never.....5	
412.1	Why did your other partners not use condom regularly? (Multiple answers. DO NOT READ The possible answers)	Not available.....1 Too expensive.....2 Partner objected.....3 I didn't like to use.....4 Used other contraceptive.....5 Didn't think it was necessary.....6 Didn't think of it.....7 Other(Specify).....96 Don'tknow.....98	

Condom Accessibility

New ON	Questions and Filters	Coding Categories	Skip to
413	Do you usually carry condoms with you?	Yes.....1 No2	415
413.1	At this moment, how many condoms do you have athand with you? (Observe and write)	Number.....	
414	How do you usually obtain condoms? (Buy, obtain free of cost or both ways)	Always free of cost.....1 Purchase.....2 Obtain both ways.....3 Condom never used.....4	414.3 415

414.1	From where do you often obtain free condoms? (Multiple answers. DONOTREAD The possible answers)	Health Post/Health Center.....1 Hospital..... 2 NGOs clinics.....3 Peers/friends.....4 Community events.....5 NGO/Health Workers/Volunteers....6 Client/other sex partner.....7 Massage parlor.....8 Hotel/lodge/restaurant.....9 Bhattipasal.....10 Others(Specify)_____96	
414.2	Which would be the most convenient place/s for you to obtain free condoms? (Multiple answers. DO NOT READ the possible answers)	Health Post/Health Center 1 Hospital..... 2 NGOs clinics..... 3 Peers/friends.. 4 Community events 5 NGO/Health Workers/Volunteers.... 6 Client/other sex partner 7 Massage parlor..... 8 Hotel/lodge/restaurant..... 9 Bhatti pasal 10 Others (Specify)_ 96	
414.3	In the last 12 months, have you been given condoms by any organizations?	Yes free 1 Yes – on cash 2 No 3	
Note:If response is '1' in Q416 Goto Q418 after 416.3			

Type of Sex Practice

New O.N.	Questions and Filters	Coding Categories	Skip to
415	In the past year, did you have other type of sexual intercourse other than vaginal? (INSTRUCTION TO INTERVIEWER: Explain the other types of sexual intercourse besides vaginal (such as oral, anal)	Yes 1 No 2	416
415.1	If yes, what type of sexual act/s were they? (Multiple answers. DO NOT READ the possible answers)	Oral 1 Anal 2 Masturbation 3 Other (Specify) 96	

415.2	What type of sexual contact did you have with your last client?	Oral 1	
	(Multiple answers. DO NOT READ the possible answers)	Anal 2 Masturbation 3 Vaginal..... 4 Other (Specify) 96	

Violence

Questions	Client		Non paying partner (Husband or boy friends)		Police personnel	
	Past 12 months		Past 12 months		Past 12 months	
Make it consistent with nepali questionnaire						
416 Has your current husband / partner, client or any other partner ever...						
a) Insulted you or made you feel bad about yourself?	1	2		2	1	2
b) Belittled or humiliated you in front of other people?	1	2		2	1	2
c) Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)?	1	2		2	1	2
d) Threatened to hurt you or someone you care about?	1	2		2	1	2
417 Has your current husband / partner, client or any other partner ever....						
a) Slapped you or thrown something at you that could hurt you?	1	2		2	1	2
b) Pushed you or shoved you or pulled your hair?	1	2		2	1	2
c) Hit you with his fist or with something else that could hurt you?	1	2		2	1	2
d) Kicked you, dragged you or beat you up?	1	2		2	1	2
e) Choked or burnt you on purpose?	1	2		2	1	2
f) Use or actually used a gun,	1	2		2	1	2

knife or other weapon against you?						
418 Has your current husband / partner, client or any other partner ever						
a) physically force you to have sexual intercourse when you did not want to?	1	2		2	1	2
b) have sexual intercourse you did not want to because you were afraid of what your partner or any other partner or client might do?	1	2		2	1	2
c) force you to do something sexual that you found degrading or humiliating?	1	2		2	1	2

5.0 AWARENESS OF HIV/AIDS

Knowledge, Opinion and Misconception about HIV/AIDS

New Q.N	QuestionsandFilters	CodingCategories	Skipto
501	Can people protect themselves from HIV by keeping sexual contact with only one uninfected faithful sex partner?	Yes.....1 No2 Don'tknow.....98	
502	Can people protect themselves from HIV, viruscausing AIDS, by using condom correctly in each sexual contact?	Yes.....1 No2 Don'tknow.....98	
503	Do you think a healthylooking person can be infected with HIV?	Yes.....1 No2 Don'tknow.....98	
504	Can a person get the HIV virus from mosquito bite?	Yes.....1 No2 Don'tknow.....98	
505	Can a person get HIV by sharing a meal with an HIV infected person?	Yes.....1 No2 Don'tknow.....98	
506	Can a pregnant woman infected with HIV/AIDS transmit the virus to her unborn child?	Yes.....1 No2 Don'tknow.....98	508
507	What can a pregnant woman do to protect her child from HIV transmission?	Cannot do anything/cannot Protect the child.....0 Take Medication.....1 Abort the child.....2 Other(Specify).....96 Don'tknow.....98	

508	Can a woman with HIV/AIDS transmit the virus to her newborn child through breast feeding?	Yes.....1 No2 Don'tknow.....98	
509	Can people protect themselves from HIV virus by abstaining from sexual intercourse?	Yes.....1 No2 Don'tknow.....98	
510	Can a person get HIV by holding an HIV infected person's hand?	Yes.....1 No2 Don'tknow.....98	
511	Can a person get HIV, by using previously used needle/syringe?	Yes.....1 No2 Don'tknow.....98	
512	Can blood transfusion from an infected person to the other transmit HIV?	Yes.....1 No2 Don'tknow.....98	
513	Is it possible in your community for someone to have a confidential HIV test?	Yes.....1 No2 Don'tknow.....98	
513.1	Do you know where can you go or HIV testing?	Yes.....1 No2	601
514	Have you ever had an HIV test?	Yes.....1 No2	601
514.1	When did you have your most recent HIV test?	Within the past year 1 Between 12 years 2 Between 24 years 3 More than 4 years ago..... 4	
515	Did you voluntarily undergo the HIV test or because it was required?	Voluntarily 1 Required 2 Don't know.....98 No Response.....99	
516	What was the result of your last test?	Positive.....1 Negative.....2 Unclear/neither positive or negative 3 Did not receive result..... 4 Don'tknow.....98 No Response.....99	601 519 601
517	After you tested HIV positive, were you linked with HIV care by HTC service?	yes.....1 no.....2 don't know98 No Response.....99	519

518	What is the main reason you have never enrolled or registered for HIV care or treatment?	feel healthy..... 1 stigma, don't want others to know...2 cost3 poor attitude of health care workers4 waiting time or clinic hours not good5 other.....	} 601
519	Why did you not receive the test result?	Sure of not being infected.....1 Afraid of result.....2 Felt unnecessary.....3 Forgot it4 Other(Specify)_96	

6.0 PROMOTION OF CONDOM

Knowledge of and Participation in STI and HIV/AIDS Programs

New Q.N.	Questions and Filters	Coding Categories	Skip to
601	Have you met or discussed or interacted with peer educators (PE) or outreach educators(OE)in the last12months?	Yes.....1 No2 No response.....99	604
602	When you met/discussed/interacted with PE or OE, what activities did they involve you in? (Multiple answers. DO NOT READ The possible answers)	Discussion on how HIV/AIDS is/isn't transmitted.....1 Discussion on how STI is/isn't transmitted.....2 Regular/nonregularuseofcondom.3 Demonstration on using condom correctly.....4 STI treatment/cure after treatment.....5 Counseling on reducing number of Sex partner.....6 Training on HIV and STI, Condom day, AIDS day, participation in discussions and interaction programs.....7 Others(Specify)_.....96	

603	How many times have you been visited by PE and/or OE in the last 12 months?	Once.....1 23times.....2 46times.....3 712times.....4 Morethan12times.....5	
604	Have you visited any DIC in the last 12 months?	Yes.....1 No.....2	607

New Q.N.	Questions and Filters	Coding Categories	Skip to
605	What did you do at DIC? (Multiple answers. Do not read the possible answers)	Went to collect condoms.....1 Went to learn the correct way Of using condom.....2 Went to watch film on HIV/AIDS....3 Participated in discussion on HIV transmission.....4 Participated in discussion on STI transmission.....5 Participated in training, interaction and discussion programs on HIV/AIDS and STI.....6 Went to collect IEC materials.....7 Went for STI treatment.....8 Took friend with me.....9 Other(Specify)_96	
606	How many times have you visited such DIC in the last12 months?	Once.....1 23times.....2 46times.....3 712times.....4 Morethan12times.....5	
607	Have you visited any STI clinic in the last 12 months?	Yes.....1 No2	610
608	What did you do when you visited such STI clinic? (Multiple answers. Do not read the possible answers given below)	Blood tested for HIV /STI.....1 Physical examination conducted for STI identification.....2 Was advised to use condom in Each sexual intercourse.....3 Was advised to take complete And regular medicine.....4 Was suggested to reduce number Of sexual partners.....5 Took friend with me6 Other(Specify)_96	

609	How many times have you visited such STI center in the last 12 months?	Once.....1 23times.....2 46times.....3 712times.....4 Morethan12times.....5	
610	Have you visited any HTC center in the last 12 months?	Yes.....1 No2	612.1
611	What did you do at such HTC centers? (Multiple answers. DO NOT READ The possible answers)	Received preHIV/AIDS test counseling.....1 Blood sample taken for HIV/AIDS test.....2 Received post HIV/AIDS Test counseling.....3 Got information on HIV/AIDS Window period.....4 Received HIV/AIDS test result.....5 Received counseling on using Condom correctly each Sexual intercourse.....6 Took a friend with me.....7 Other(Specify)_____96	
612	For how many times have you visited HTC center in the last 12 months?	Once.....1 23times.....2 46times.....3 712times.....4 Morethan12times.....5	612.2
612.1	If not visited HTC in the last 12 months, what is the reason for this? (Multiple answers. DO NOT READ The possible answers)	Do not know about HCT center.....1 I do not think I need to be tested.....2 I have no symptoms of HIV3 No HTC nearby.....4 I have already tested and know My status.....5 No money to go to HCT center.....6 Fear that people will seem Visiting HCT7 Fear that family members/friend/ Clients will know it.....8 Others (Specify)_____96	
612.2	Have you ever been approached by HIV/AIDS related health workers/ outreach workers to explain you about the need of HTC?	Yes.....1 No2	613

612.3	If you were approached by health workers/out reach workers, what did they advise you? (Multiple answers. DO NOT READ The possible answers)	Talked about my sex partners.....1 Advised to visit HTC if I have some problems.....2 Advised me to visit HTC once in a month in any case.....3 Did not talk about HIV testing.....4 Others (Specify).....96	
613	Have you ever heard about prevention of mother to child transmission services (PMTCT) for pregnant women? Keep bracket in app. place	Yes.....1 No.....2 No response99	} 614
613.1	Do you know from where pregnant women can get PMTCT services?	Yes.....1 No.....2 No response99	} 614
614	Have you ever heard about antiretroviral therapy (ART) services for HIV positive individuals?	Yes.....1 No.....2 No response99	} 615
614.1	Do you know from where HIV positive individuals can get ART services?	Yes.....1 No.....2 No response99	
615	Have you heard of viral load testing services for HIV positive individuals ?	Yes.....1 No.....2 No response99	} 616
615.1	Do you know from where HIV positive individuals can get viral load testing services?	Yes.....1 No.....2 No response99	} 616
615.2	If Yes, please specify	
616	Have you heard of any Community Home Based Care(CHBC)services that are provided for HIV Positive people?	Yes.....1 No.....2	

7.0 STI(SEXUALLYTRANSMITTEDINFECTION)

new Q.N.	QuestionsandFilters	CodingCategories	Skipto
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701	Which diseases do you understand by STI? (Multiple answers DO NOT READ The possible answers)	White discharge/discharge of Pus/dhatu flow.....1 Itching around vagina.....2 Lower abdominal pain.....3 Syphilis(Bhiringi)/gonorrhoea.....4 HIV/AIDS.....5 Painful urination.....6 Swelling of vagina.....7 Pain in vagina.....8 Unusual bleeding from vagina.....9 Ulcer or sore around vagina.....10 Fever.....11 Burning during urination12 Weight loss/ get thinner.....13 Don't know.....98 Other(Specify)	
702	Do you currently have any of the following symptoms?		
	Symptoms	Yes	No
1	1. Pain in the lower abdomen	1	2
2	2. Pain during urination	1	2
3	3. Frequent urination	1	2
4	4. Pain during sex	1	2
5	5. Ulcer or sore in the genital area	1	2
6	6. Itching in or around the vagina	1	2
7	7. Vaginal odor or smell	1	2
8	8. Vaginal bleeding(unusual)	1	2
9	9. Unusual heavy, foul smelling vagina ldischarge	1	2
10	10. Genital Warts	1	2
96	96.Others(Specify) _____	1	2
	(If answers 'No' to all in the Q.No.702 Goto Q.710)		
703	Have you gone through medical treatment for any of these symptoms?	Yes.....1 No	710
703.1	If yes, for how long did you wait to go for the treatment? (Write '00' if less than a week)	Week.....	

New Q.N.	Questions and Filters	Coding Categories	Skipto
704	For which symptoms did you get treatment? Specify the treatment.		
	Symptoms	Treatment	
	1. Pain in the lower abdomen		
	2. Pain during urination		
	3. Frequent urination		
	4. Pain during sex		
	5. Ulcer or sore in the genital area		
	6. Itching in or around the vagina		
	7. Vaginal odor or smell		
	8. Vaginal bleeding(unusual)		
	9. Unusual heavy, foul smelling Vaginal discharge		
	10. Genital Warts		

	96.Others(Specify)_____		
705	Did you receive a prescription for medicine?	Yes.....1 No.....2	709
706	Did you obtain all the medicine prescribed?	Yes I obtained all of it.....1 I obtained some but not all.....2 I obtained one.....3	709
707	Did you take all of the medicine prescribed?	Yes.....1 No.....2	708
707.1	If not, why did you not take all of the Medicine prescribed?	Forgot to take.....1 Felt cured.....2 Medicine did not help.....3 Others(Specify)_____96	
708	How much did you pay for the medicine That you took? [If not paid mention the reasons]	Rs._____ Reason_____	
709	Did you have any of the following symptoms in the past year?		
	Symptoms	Yes	No
	1. Pain in the lower abdomen	1	2
	2. Pain during urination	1	2
	3. Frequent urination	1	2
	4. Pain during sex	1	2
	5. Ulcer or sore in the genital area	1	2
	6. Itching in or around the vagina	1	2
	7. Vaginal odor or smell	1	2
	8. Vaginal bleeding(unusual)	1	2
	9. Unusual heavy, foul smelling Vaginal discharge	1	2
	10.GenitalWarts	1	2
	96.Others(Specify)	1	2
	(If answeris'No'toallinQ.No.709,GotoQ.No.801)		

New Q.N.	Questions and Filters	Coding Categories		Skipto
710	Have you gone through medical treatment for any of these symptoms in the past year?			
	Symptoms	Yes	No	
	1. Pain in the lower abdomen	1	2	
	2. Pain during urination	1	2	
	3. Frequent urination	1	2	
	4. Pain during sex	1	2	
	5. Ulcer or sore in the genital area	1	2	
	6. Itching in or around the vagina	1	2	
	7. Vaginal odor or smell	1	2	
	8. Vaginal bleeding (unusual)	1	2	

	9. Unusual heavy vaginal discharge and foul vaginal discharge	1	2	
	10. Genital Warts	1	2	
	96. Others (Specify)	1	2	
(If answer is 'No' to all in Q.No.710, Goto Q.No.801)				
711	Did anyone from the place where you went for treatment counsel you about how to avoid the problem?	Yes.....1 No2		801
711.1	What did he/she tell you? (Multiple answers, DO NOT READ The possible answers) Address arrow issue	Told me to use condom.....1 Told me to reduce number of sexual partners.....2 Told me to take medicine regularly } 3 Told me not to have sexual contact during medicine taking period.....4 Advised me to come for regular checkup.....5 Others (Specify) _____ <input type="checkbox"/> <input type="checkbox"/>96		

8.0 Use of alcohol, Illicit Drugs and Injection

Q.N.	Questions and Filters	Coding Categories	Skip to
801	During the last 30 days how often did you have drinks containing alcohol?	Everyday.....1 2-3 times a week.....2 At least once a week.....3 Less than once in a week.....4 Never.....5 Don't know.....98 No response.....99	
801.1	How often are you drunk when you have sex (anal/vaginal) with clients in last 6 months?	Always.....1 → Most of the time.....2 Sometimes.....3 → Never.....4	
801.2	How often are your clients drunk or high on illicit drugs (Ganja, Bhang) when they have sex with you in last 6 months?	Always.....1 → Most of the time.....2 Sometimes.....3 Never.....4 Don't know.....98 No response.....99	
802	Some people take different types of drugs. Have you also tried any of those drugs in the past 30 days? (Ganja, Bhang, Nitroson, Nitrovet E.)	Yes.....1 No2 Don't know.....98	
803	Some people inject drugs using a syringe. Have you ever injected drugs? (Do not count drugs injected for medical purpose or treatment of an illness)	Yes.....1 No2 Don't know.....98	805

803.1	Since when you started injecting drugs?(include self injection and injected by others)	Years..... Months..... No response.....99	
804	Are you currently injecting drugs?	Yes.....1 No2	805
805	Have you ever exchanged sex for drugs? arrow	Yes.....1 No2	
806	Have you ever exchanged sex for money so that you can buy drug?	Yes.....1 No2	
807	To your knowledge, have any of your sex partners injected drugs?	Yes.....1 No2	901
808	Remember the last time you had injected drugs .Have you used other's previously used needle/syringe?	Yes.....1 No.....2 Don't know.....98	
809	How do you usually obtain syringe?	My friend/relative gave me after use..1 Unknown person.....2 Used syring kept in public place by other people.....3 Used syringe kept in public place by myself.....4 New syringe provided by NGOs/OE.....5 Buy new syringe when needed.....6 Others(specify)....96	

9.0 STIGMAANDDISCRIMINATION

New Q.N.	Questions and Filters	Coding Categories	Skip to
901	If a male relative of yours gets HIV, would you be willing to take care of him in your household?	Yes.....1 No2 Don'tknow.....98	
902	If a female relative of yours gets HIV, would you be willing to take care of her in your household?	Yes.....1 No2 Don'tknow.....98	
903	If a member of your family gets HIV, would you want it to remain a secret?	Yes.....1 No2 Don'tknow.....98	
904	If you knew a shop keeper or food seller had HIV, would you buy food from him/her?	Yes.....1 No.....2 Don'tknow.....98 Noreponse.....99	
905	Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?	Same.....1 More.....2 Less.....3 Don'tknow.....98	
906	If one of your colleagues has HIV but he/she is Not very sick, Do you think he/she should be allowed to continue working?	Yes.....1 No.....2 Don'tknow.....98 No response.....99	