Integrated Bio-behavioral Survey (IBBS)

among Injecting Drug Users

in the Kathmandu Valley – 2007

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ASHA
Advancing Surveillance, Policies, Prevention, Care and Support to Fight HIV/AIDS

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ABBREVIATIONS

AIDS	-	Acquired Immuno-Deficiency Syndrome
DIC	-	Drop-in-Centre
ELISA	-	Enzyme Linked Immuno Assays
FHI	-	Family Health International
FSW	-	Female Sex Worker
HIV	-	Human Immuno-Deficiency Virus
IBBS	-	Integrated Bio-Behavioral Survey
ID	-	Identification Number
IDU	-	Injecting Drug User
IEC	-	Information, Education and Communication
LALS	-	Life Giving and Life Saving Society
MSM	-	Male who have Sex with Male
NCASC	-	National Centre for AIDS and STD Control
NGO	-	Non-Governmental Organization
NHRC	-	Nepal Health Research Council
OE	-	Outreach Educator
PE	-	Peer Educator
PHSC	-	Protection of Human Subjects Committee
RDS	-	Respondent Driven Sampling
RDSAT	-	Respondent Driven Sampling Analysis Tools
RPR	-	Rapid Plasma Reagin
SACTS	-	STD/AIDS Counseling and Training Services
SLC	-	School Leaving Certificate
SMF	-	Siddhi Memorial Foundation
SPSS	-	Statistical Package for the Social Sciences
STI	-	Sexually Transmitted Infection
TPHA	-	Treponema Pallidum Hemagglutination Assay
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization
MARPs	-	Most At Risk Populations

EXECUTIVE SUMMARY

The National Center for AIDS and STD Control (NCASC), Nepal has developed a comprehensive National Surveillance Plan for HIV and AIDS that includes Integrated Biological and Behavioral Surveys (IBBS) which are conducted at regular intervals among most at risk populations (MARPs). These surveillance studies are aimed at assessing health risk behaviors and measuring the prevalence of HIV and Sexually Transmitted Infections (STIs) among MARPs, as well as monitoring trends in the epidemic to inform the HIV response in Nepal.

The IBBS is conducted by NCASC with technical and financial support from Family Health International/Nepal (FHI) and the United States Agency for International Development (USAID). The MARPs which are currently the focal points of IBBS are injecting drug users (IDUs), female sex workers (FSWs) and men who have sex with men (MSM).

This report details the findings of the third round of IBBS conducted among 300 male IDUs in the Kathmandu Valley. The primary objective of this study was to collect strategic information to analyze trends in risk behavior and HIV and STIs among IDUs.

It is a challenging task to collect information from high-risk population groups such as IDUs, FSWs and MSM. These groups are highly stigmatized and potential respondents may be reluctant to come forward to participate in research studies. Innovative sampling methods are needed in order to reach these individuals. The most effective method developed to date is Respondent Driven Sampling (RDS). RDS methodology is a relatively new adaptation of chain referral sampling where subsequent respondents are recruited by previous respondents through their network of acquaintances.

RDS methodology was used in this study to recruit 300 male IDUs. In the first stage of RDS a list of locations where the IDUs inject drugs and gather frequently was prepared for the sampling design. In the second stage, a structured questionnaire was administered to the respondents at centrally located study clinics. The questionnaire collected information on sexual behavior and HIV/AIDS awareness as well as socio-demographics.

This was followed by a clinical examination conducted by a Health Assistant and collection of blood samples for biological testing of HIV and Syphilis. Study centers with laboratories/clinics were set up at Koteshwor and Sundhara in the Kathmandu Valley. Samples were collected only after pre-test counseling sessions were held. The participants were also provided syndromic treatment for STI symptoms if warranted. HIV and syphilis test results were provided later at Youth Vision VCT center where experienced counselors provided post test counseling.

Below are the Key Findings:

Socio Demographic Characteristics

IDUs were mostly young. Eight in ten (76.7%) were below the age of 30 years. Few IDUs were younger than 19 (8.4%).

Over two thirds of IDUs (67.3%) were single and 76.7 percent lived alone or without a co-habiting sex partner.

Three percent of IDUs were illiterate while, 42.3 percent had completed secondary education.

The IDUs represented diverse caste/ethnic groups residing in the valley. Nearly half (44.9%) belonged to Newar community.

The socio-demographic characteristics of IDUs in Kathmandu presented a similar pattern in all three rounds. This is, to a certain extent, a consequence of adopting the same sampling methodology for all three rounds. Notably there has been a significant decrease in the proportion of IDUs belonging to Chhetri/Thakuri caste (28.7% in 2002, 24% in 2005 and 16.2% in 2007) while the proportion of IDUs belonging to Gurung/Rai origin significantly increased since the first round in 2002 (5.9% in 2002, 8.3% in 2005 and 16.1% in 2007)

STI/HIV/AIDS Prevalence

HIV prevalence among IDUs in the Kathmandu Valley is estimated to be 34.8 percent. Although this is a significant improvement from 2002 (68%) and 2005 (51.4%), the prevalence of HIV remains high among the IDUs in the Kathmandu Valley.

STIs, on the other hand, present only a minor problem for this group; syphilis history was detected among 1.7 percent of IDUs while only one of the 300 study participants (0.3%) was currently infected with syphilis

The prevalence rate of HIV significantly differed according to marital status. Married or divorced IDUs had a prevalence rate of 54.7 percent compared to 26 percent among those who had never been married.

A significant relation was also noted between HIV prevalence and the duration of time respondents had been injecting drugs. HIV prevalence was found among 52.8 percent of those IDUs who had been injecting drugs for more than five years, 18.6 percent among those who had been doing so in the last two to five years and 2.6 percent among those who had injected for less than two years.

The level of education is another important variable for HIV prevalence. Illiterate IDUs (62.5%) were two times as likely to be HIV-positive than the rest of the respondents taking part in this survey (32.2%).

Alcohol Intake, Oral Drugs Use and Drug Injecting Practice

Alcohol consumption was common among IDUs in the Kathmandu Valley. Around two thirds of IDUs (66.8%) had consumed alcohol at least once in the past month.

Notably, oral drug use was more common than alcohol intake among IDUs in the Kathmandu Valley. All respondents reported using oral drugs. The majority of IDUs had been using oral drugs more than two years (99%); around 77 percent had been taking oral drugs for five years or more, while a very small proportion (1%) had started using oral drugs less than two years ago.

Four in ten respondents (39.9%) had been injecting drugs for more than five years, while a similar proportion (42.2%) reported injecting drugs for the past two to five years. A relatively lower proportion of IDUs (17.8%) had started injecting less than two years ago. It is important to note that respondents had been using oral drugs longer than they had been injecting. This finding is compatible with the general belief that "light" inhaling drugs lead to "hard" drugs after a certain period of time.

Only a handful of respondents (2.4%) had not injected during the week preceding the survey. Thirteen percent had injected two to three times in the last week while 15 percent had injected four to six times during the same period of time. Overall, seven in ten (69.5%) had injected everyday of the week or more often. A large proportion of IDUs (76.5%) injected a combination of different drugs.

The average number of years respondents have been injecting drugs has increased from five in 2002 to six in 2005 and to 6.2 in 2007; at the same time the median age of respondents at their first injection has come down from 21 in 2002 to 20 in both 2005 and 2007. Notably, in 2007, a statistically higher proportion of IDUs had injected for the first time before turning 20 than had in 2002 (45.5% in 2002, 53% in 2005 and 56.2% in 2007).

Needle/Syringe Using Practice

There have been significant improvements in needle/syringe using practices since 2002. Data points to an increased level of awareness about risky needle/syringe using practices. The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has increased significantly since the first round. High risk behavior like injecting with a previously used needle/syringe went down from 45.5 percent in 2002 to 20.3 percent in 2005 and finally to 11.9 percent in 2007 ($P<0.01$).

In the same way, 31.7 percent of IDUs had injected with syringes that had been left in a public place in the week preceding the 2002 survey, this figure went down to 19.3 percent in the second round and further decreased to 6.7 percent in the third round (6.7%); a is statistically significant difference ($P<0.01$).

Moreover, the proportion of IDUs reporting not sharing their needle/syringe with anyone in the past week has increased from 41.3 percent in the first round to 73 percent in the second, and, finally, to 85.4 percent in the third round ($P<0.01$).

Nevertheless, a relatively high proportion of IDUs (39.5%) reported sharing injection tools and 57.4 percent had drawn drug solution from a common container used by others in the week preceding the survey.

Sexual Behavior

Among the respondents, 88.8 percent of IDUs had engaged in sexual intercourse. Among them, 58.4 percent had been sexually active in the past year. Although 47.8 percent of them had one sex partner, others had two or more.

In the past one year, 23.1 percent of IDUs had sexual contact with their regular partners. Around 90 percent of them had sexual contact with their regular partners in the month preceding the survey.

Around 27 percent of IDUs had sex with non-regular female sex partners in the past year and 53.6 percent of them had sexual contact with non-regular partners in the month preceding the survey.

Over one fourth of IDUs in Kathmandu (27.3%) have had sexual contact with a sex worker in the past one year and 42.8 percent had engaged in sexual contact with them during the past month.

Condom use during the last sex act with a sex worker was reported by 60.7 percent of IDUs. The figure was comparatively lower with regular partners (53.3%) and non-regular partners (41.3%) during the last sexual contact.

In the past year, 67.8 percent of IDUs had used condoms consistently with female sex workers as compared to 43.1 percent with regular female sex partners and 33.5 with non-regular female sex partners.

A good proportion of the respondents were aware of messages like *Jhilke dai chha chhaina condom (91%), Condom kinna ma bhaya hunna ra (87.8%), HIV/AIDS bare aajai dekhi kura garau (85.6%), Ramro sanga prayog gare jokhim huna dinna (85.2%),Youn rog ra AIDS bata bhachnalai (84.1%), and Condom bata surakchhya youn swastha ko rakchhya (79.2%).* Around 59 percent of respondents had also heard the message that says *Maya garaun sadbhav badaun*.

Nevertheless, only partial improvement was observed in consistent condom use. The proportion of IDUs reporting consistent condom use with their regular sex partners has increased since the first round of the survey in 2002, while the proportion of respondents using condoms consistently with their non-regular partners has been declining since 2002. Meanwhile, a significantly higher number of IDUs had used condoms consistently with female sex workers in 2007 than in 2002 and 2005.

STI and HIV/AIDS Awareness and Treatment Practices

Among the respondents, 8.6 percent of IDUs had not heard about STIs before. Those who had heard about STIs most commonly cited genital ulcer/sore/blisters (59.5% in females and 74.5% in males) and genital discharge (40% in females and 56.7% in males) as symptoms.

Around 14 percent of IDUs in Kathmandu have had genital discharge and 9.4 percent have had genital ulcer/sores in the past year. Sixty percent of them reported experiencing genital discharges and 33.3 percent reporting having genital ulcer/sores at the time of this survey.

Sixty four percent of those IDUs who had ever experienced any STI symptom had never sought any treatment. Of those who did seek treatment, 22 percent had been to a private doctor, while 10 percent had been to a hospital/health post.

While 61.7 percent of IDUs knew about all three major prevention measures, A- abstinence from sexual contact. B- being faithful to one partner and C- condom use during each sexual contact, 66.2 percent IDUs were aware of all other indicators including B, C, D-a healthy looking person can be infected with HIV, E-a person can not get the HIV virus from a mosquito bite and F- sharing meal with an HIV infected person cannot transmit the HIV virus.

The majority of IDUs in the Kathmandu Valley (91.3%) knew that a confidential HIV testing facility was available in their community.

Fifty three percent of those IDUs who had knowledge about existing HIV testing facilities,had ever tested themselves for HIV. Around 94 percent of them had received their test result.

Exposure to HIV/AIDS Related Programs

Among the respondents, 79.9 percent of IDUs had met with a peer/outreach educator at least once during the past year. Around 73 percent had visited a DIC and 14.9 percent had visited a VCT center in the last 12 months. Only 0.7 percent had visited an STI clinic.

This survey revealed that just over a quarter (26.1%) of IDUs in the Kathmandu Valley had ever participated in an HIV/AIDS awareness raising program or similar community event. Among them, 53.7 percent had taken part in a condom day celebration, 48.9 percent in different group discussions, 39.5 percent in an AIDS day celebration, and 28.3 percent in HIV/AIDS related trainings.

The activities the respondents participated in were conducted by LALS (39.8%), SMF (26.2%), Youth Vision (18.7%) and other organizations (Table 8.5). Nearly half (45.5%) had participated in one program only, one third (33.3%) had taken part in two or three programs and one in five (21.2%) had participated in HIV/AIDS awareness programs more than three times.

1. INTRODUCTION

1.1 Background

The National Center for AIDS and STD Control (NCASC) has been compiling and publishing data on reported HIV cases in different population subgroups since 1991. As of December 2007 a cumulative total of 10,546 HIV infections, including 1,610 cases of AIDS, have been reported in Nepal (NCASC, December 2007). In 2007, the NCASC has estimated about 70,000 people (including children and adults above the age of 49 years) to be infected with HIV in Nepal. These numbers indicate a big gap between the estimated number of HIV infections and the number of people who have been tested and know their status.

The IBBS is conducted at regular intervals in Nepal. This is the third round of the study conducted among IDUs in the Kathmandu Valley. IDUs function as a core HIV risk group because of their high risk behavior of sharing needles/syringes between different injecting partners and also re-using needles kept in public places. Moreover, high-risk sexual behavior associated with drug use has also been found to be a major contributing factor in the spread of HIV among the non-injecting population (AIDS in Asia, MAP Report, 2004).

HIV prevalence among IDUs varies by location in Nepal. The first round of IBBS conducted in 2002 indicated quite a high prevalence of HIV (68%) among IDUs in the Kathmandu Valley (New ERA/SACTS/FHI 2002). The second round of IBBS conducted in 2005, indicated a 52 percent HIV prevalence rate among IDUs in Kathmandu; IDUs who lived in the Kathmandu Valley were found to have a higher HIV prevalence compared to IDUs from other places. In Pokhara, about 22 percent of IDUs were found to be HIV positive in both the 2003 and 2005 rounds of IBBS. Similarly, in three districts (Morang, Sunsari, and Jhapa) of the Eastern Terai HIV among IDUs was 35 and 32 percent in 2003 and 2005 respectively (IBBS, New ERA/SACTS/FHI 2005). Although HIV prevalence among IDUs in Kathmandu had dropped in 2005 from 2003 it was still alarmingly high.

This third round of IBBS was conducted in the Kathmandu Valley, Pokhara, Eastern Terai and West to Far West Terai. This report deals with the findings in the Kathmandu Valley.

2. DESIGN AND METHODOLOGY

2.1 Objectives of the Study

In line with the objectives of the previous rounds of IBBS, this third round of the study was undertaken primarily to determine the prevalence of HIV/STI and to assess HIV/STI related risk behavior among IDUs in the Kathmandu Valley.

This study also collected specific information on IDUs; their socio-demographic characteristics, level of awareness about HIV/STI and exposure to intervention programs in the three districts of Kathmandu, Lalitpur and Bhaktapur of the Kathmandu Valley.

2.2 Study Population

The cross-sectional study was conducted among IDUs who are considered as one of the *'core groups'* for transmission of HIV/STI. For the purposes of this study the inclusion definition for IDUs was "*those current injectors aged 16 years or above who had been injecting drugs for at least three months prior to the date of survey.*"

2.2.1 Sample Size and Sampling Design

The sample size was calculated to detect 15 percent differences in key indicators, such as needle/syringe sharing and consistent condom use in two successive IBBS among IDUs. The sample size was determined by using a basic statistical formula (Annex 2); based on the formula a total of 300 IDUs were included for this study.

The respondent-driven sampling (RDS), a form of chain-referral, was used to recruit participants. The RDS, unlike the "snowball" method, attempts to overcome the biases such as masking, volunteerism and over sampling of groups with large networks and thus gives unbiased estimates of population parameters (Heckathorn, 1997); hence providing more representative samples.

Since it relies on social networks, RDS has the potential to reach individuals who are not easily accessible such as MSM, IDUs, MSWs and FSWs. In RDS, the sampling frame is created based on information collected from the participants during the sampling process itself. This information includes (1) who recruited whom, (2) the relationship of the participant to the recruiter, RDS population estimates are based on an assumption that the recruiter and the participant know each other, and (3) the participants' personal network size; network size is used to estimate the average network size by different sample characteristics such as gender, race/ethnicity and age.

Since RDS population estimates are based on the recruiter and recruit knowing one another, RDS design includes means for encouraging participants to recruit those they already know. This involves offering rewards for recruiters and making recruitment rights scarce through quotas so that recruitment is not wasted on strangers (Ramirez-Valles et. al., 2005.)

With the help of some local NGO partners, a preliminary mapping exercise which served to acquaint the study team with several IDUs, their gathering locations and their networks was carried out before the commencement of the actual field study.

This information helped the study team recruit a total of eight known IDUs as "seeds" who met study eligibility criteria from different sites and different injecting groups. In some cases the local key informants helped in the seed recruitment process.

Seeds were informed of the study protocol and procedures, and were encouraged to recruit other eligible individuals from their social networks to participate in the study. The participants recruited by the seeds were then asked to recruit the next wave of participants, with the process continuing until the target sample size was achieved. Each participant who agreed to become a study recruiter was given three referral coupons to distribute to others. The referral coupon had a unique serial number that was used to link the recruiter to his recruit.

2.2.2 Seeds and Recruitment

Following RDS theory, research staff recruited the seeds (e.g., initial participants), who then began the chain referral by recruiting their peers into the study. It was decided that "seeds" selected to initiate the recruitment process needed to be as diverse as possible (heterogeneous in age, gender, ethnicity and in their duration of drug injection).

The first wave of participants recruited for the study was brought in by seeds. Thereafter, each person who was recruited and enrolled in the study received three recruitment coupons with which to recruit their peers into the study. Each coupon was uniquely coded in order to link recruiters with recruits. The coupon ID numbers were carefully recorded in each questionnaire.

The recruitment process in this study started with eight "seeds". Each "seed' was given three coupons to pass on three peers they recruited for the study. These peers who successfully participated in the study were given another three coupons. In this way the recruitment process continued until 300 IDUs were recruited. At the end, "seed" and "recruiter" generated up to 13 waves. Of the total eight "seeds", one seed completed 13 waves, one seed generated 11 waves, and another seed completed seven; two others completed six waves each (Annex 3). By RDS theory, if at least six waves of recruitment can be generated there will be equilibrium, which means that the recruited IDUs will sufficiently represent the population being sampled.

Since RDS is a dual incentive system to induce recruitment, each participant received Rs. 100 (equivalent to $ 1.6) for their participation in the study and another Rs. 50 (equivalent to $ 0.8) for each individual they recruited to the study. A participant could have received up to Rs. 250 for successfully participating and recruiting three peers in the study.

Those who did not meet the study criteria and those who were not willing to participate in the study because of personal reasons were not recruited for the study. In total there were 26 refusals; nineteen did not meet the study criteria, three said that they were too busy to be interviewed, two were afraid of drawing blood for the test and a further two were not interested in taking part in the survey.

2.3 Study Process

A quantitative research approach was adopted for this study. Structured questionnaires were used to collect behavioral data relating to drug injection, syringe/needle sharing and sexual behavior among the IDUs; additionally, some demographic and social characteristics were collected. In order to draw up a comparative analysis of the behavioral trends over the years, questions asked during the first and the second round were repeated. A new section was also added to the questionnaire this year to derive information on issues such as IDU's exposure to ongoing HIV/AIDS awareness programs and their participation in such activities. The questionnaires were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000). The new section on program exposure was pre-tested before finalizing the questionnaire (Annex 1).

Before initiating the actual interview, all those coming with the referral cards were informally asked certain questions in order to ensure that they met the inclusive criterion set for the study. Injection marks were also observed for confirmation of their injecting behavior.

Strict confidentiality was maintained throughout the study process. The names of the study participants or their full addresses were not recorded anywhere. Instead, they were provided a unique ID number written on a plastic-coated card. The same number was marked on the questionnaire, medical records, and blood specimen of the particular respondent. This card was also used for the distribution of the test results. Only those participants who produced their ID card were provided the HIV and Syphilis test results verbally with pre and post-test counseling.

The fieldwork started on 13 June and was completed on 20 July 2007.

2.3.1 Ethical Review

The research was conducted in compliance with both ethical and human rights standards. These standards included participants' anonymity as well as pre- and post-test counseling. As this study focused on individuals who are highly stigmatized, and as injecting drugs is illegal in Nepal, "ethical" as well as "technical" approvals were obtained from Family Health International's ethical review body, Protection of Human Subject Committee (PHSC), and the Nepal Health Research Council (NHRC) prior to the commencement of the fieldwork. The study protocols were carefully reviewed and approved by these organizations. Moreover, verbal informed consent was obtained in the presence of a witness from all the participants prior to the interview and collection of a blood sample. The consent form was administered in a private setting. The verbal consent form used in the study is included in Annex 4. No personal identifiers were collected and the samples were labeled only with the ID number provided to the study participant.

2.3.2 Clinical and Laboratory Procedure

The study participants were clinically checked for any symptoms of STIs by a health assistant who also filled in a checklist with information provided by the respondents (Annex 5). They provided syndromic treatment to the respondents with STI symptoms in accordance with the "National STI Case Management Guidelines". Other over-the-counter medicines such as paracetamol, alkalysing agents and vitamins were given as necessary.

A 5 ml blood sample was collected from each study participant using a disposable syringe. The blood sample was placed in a centrifuge to separate the blood cells from the serum. Serum samples were stored in a refrigerator at the study site. Each sample was labeled with the ID number of the study participant. The specimens were transported by SACTS in Kathmandu in a cold box once in every 10 days. The serum samples were stored at a temperature of -12 to -20°C at SACTS laboratory.

Syphilis was tested using the *Rapid Plasma Reagin* (RPR) test card manufactured by Omega Diagnostics Ltd UK and confirmed by means of *the Serodia Treponema Pallidum Hem Agglutination test* (TPHA; Omega Diagnostics Ltd. UK). TPHA positive samples and all samples with positive RPR were further tested for the titre up to 64 times dilution. On the basis of titre of RPR, all the specimens with RPR/TPHA positive results were divided into two categories.

- TPHA positive with RPR-negative or RPR -positive with titre < 1:8 were classified as history of syphilis
- TPHA positive with RPR titre 1:8 or greater were classified as current syphilis requiring immediate treatment

For detection of HIV antibody *Enzyme Linked Immuno Sorbent Assay* (ELISAs) was used. If the ELISA test showed negative result then no further test was conducted and the test result was reported as non-reactive. But if the first test showed a positive result then a second ELISA test was performed. If the second result too confirmed the first result, then the test result was reported as reactive. But if the second result contradicted with the first then a third test was done. The final test results thus were declared positive if the test results showed "negative, negative, positive" and negative if it gave out "positive, negative, negative". The proposed testing protocol is based on World Health Organization (WHO) guidelines (strategy 3) and the National VCT Guidelines of Nepal developed by the NCASC, 2004.

2.4 Study Management

The study was conducted by a team which was comprised of one study director, one research coordinator, one research officer, two research assistants and two field teams. The field teams formed for the survey included one research assistant, five supervisors/interviewers, one health assistant, one lab technician, one runner and local motivator/s (as per need).

Before data collection started, a one-week intensive training was organized for the study team. The training session familiarized the team with the study objectives, characteristics of the target groups, rapport-building techniques, contents of the questionnaire and the study process. The training session also included theory and practical classes on pre-test counseling and questionnaire administration. Experienced counselors from SACTS conducted a separate session on STI and HIV/AIDS and pre-test counseling. The study team was also made familiar with the general behavior of IDUs and skills required to deal with them by personnel from Recovering Nepal, an organization that works with IDUs. In addition, the training focused on providing a clear concept of informed consent to the research team.

Two centrally located study centers were established at Koteshwor and Sundhara for the study purpose (Annex 6). Individual interviews, clinical examinations and the blood collection process were carried out in separate rooms.

To ensure the quality of data, New ERA and FHI officials supervised the fieldwork regularly. Field supervisors reviewed all the completed questionnaires and any inconsistencies in the responses were clarified through discussions with the concerned interviewer later that day. Cross-checking questions were also asked to the study participants to avoid duplication.

2.5 Post-Test Counseling and Test Result Distribution

All the study participants who went to receive their test results with their ID cards were provided HIV and Syphilis test results with post-test counseling by a trained counselor at Youth Vision VCT center. The study participants were informed about the location and operating hours of the VCT site right after the collection of their blood sample for the test.

Post-test counseling and individual report dissemination was completed between the 29th of June and the 15th of August, 2007 at the Youth Vision VCT Center. Out of the 300 IDUs tested for HIV, only 20 (6.7%) turned up for the test results (Annex 7). This might be because there was no provision for reimbursement of transportation costs which may have otherwise prompted the IDUs to visit the VCT center and collect their report. Secondly, the time gap between the actual interview and test result dissemination might also have diminished their concern for the test result. Trained counselors from the VCT of Youth Vision gave the test results to the participants in a private setting only after they had produced their ID cards. The counseling session was focused on high-risk behavior and other aspects of STI and HIV. Some participants were also referred to Teku Hospital for further services.

2.6 Data Management and Analysis

Data were entered using FoxPro Software. Double entry procedure was performed. Respondent-Driven Sampling Analysis Tool (RDSAT) software (RDSAT 5.6, Cornell University, 2005) was used for analysis of the sample. This software is designed to control three types of potential biases in chain-referral sampling namely (1) affiliation bias, (2) homophily and (3) network size bias (Heckathorn 1998).

Raw data was first prepared using SPSSWIN Version 11. This included generating new variables and re-coding missing values. Datasets were then converted to Microsoft Excel files and then to RDS files (Tab Delimitated Text). Frequency, cross-tabulation, and prevalence estimates of key-indicators were performed in RDSAT.

The pull-in outliers option was used in RDSAT to eliminate extremely small and large outliers in network sizes. When the program encounters an individual whose network size is outside of the specified bounds, their network size is set to the value of the nearest lower or upper bound (percentage) with the help of pull-in outliers option. The RDSAT analysis for this study used 5 percent pull-in outliers of network size.

There were certain limitations in using RDSAT for all of the data in the report. Some data obtained from the study did not meet the required numerator to be calculated with RDSAT. Such data have been calculated using SPSS and have been marked with an asterisk in the tables in this report; they represent unadjusted proportions.

3. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

This chapter examines the socio-demographic characteristics of IDUs in the Kathmandu Valley.

3.1 Demographic Characteristics

The demographic characteristics of IDUs are presented in Table 3.1. Age specific characteristics point out that a relatively high proportion of IDUs participating in this survey were quite young. Seventy seven percent (76.7%) of respondents were in their teens or twenties while 22.6 percent were aged between 30 and 45. Only very few were aged older than 45 (0.7%).

Table 3.1: Demographic Characteristics of IDUs

Demographic characteristics	Estimated Population Proportions (%)	95% CI
Age (N=300)		
< =19 Yrs	8.4	4.7 – 11.6
20-24	41.2	33.6 – 48.6
25-29	27.1	22.0 – 33.9
30-34	13.4	9.4 – 17.8
35-45	9.2	5.8 – 12.4
45+	0.7	0.2 – 1.7
Marital status (N=300)		
Married	23.5	19.1 – 28.0
Divorced/Separated/Widower	9.2	5.5 – 13.3
Never married	67.3	60.8 – 73.1
Age at first marriage (n=109)		
< =19	29.9	15.5 – 48.7
20-24	46.1	22.6 – 60.7
= >25	24.0	11.9 – 45.3
Currently living with (N=300)		
Spouse	23.3	18.6 – 27.5
Alone/without a sexual partner	76.7	72.5 – 81.4

A little over two thirds of IDUs (67.3%) were unmarried, 9.2 percent were either divorced/separated from their wives or widowers. Nearly all of those who were married reported living with their spouses (23.3%); the rest (76.7%) were living without a sexual partner. The majority of those who had ever married (76%) had done so before they were 25.

3.2 Social Characteristics

IDUs in the Kathmandu Valley were fairly well educated with 74 percent of them having attended secondary school or higher education. One in five (18%) had attended primary school, 5.1 percent were literate but had no formal education and three percent of IDUs were illiterate.

Nearly half of the IDUs (45%) belonged to Newar community followed by 16.2 percent Chhetri/Thakuri, 16.1 percent Gurung/Rai and 14.4 percent belonging to Tamag/Lama/Magar ethnic groups. A small proportion (5%) was Brahmin.

Table 3.2: Social Characteristics of IDUs

Social characteristics	Estimated Population Proportions (%) (N=300)	95% CI
Education		
Illiterate	3.0	1.2 – 5.1
Literate only	5.1	2.7 – 8.5
Primary	18.0	12.6 – 23.6
Secondary	42.3	35.3 – 48.9
SLC and above	31.7	24.6 – 39.2
Ethnicity		
Brahmin	5.0	2.6 – 7.2
Chhetri/Thakuri	16.2	11.9 – 20.2
Newar	44.9	38.6 – 54.2
Tamang/Lama/Magar	14.4	10.0 – 18.9
Gurung/Rai	16.1	9.1 – 22.2
Others	3.4	1.8- 5.5
Duration of stay in Kathmandu Valley		
Since birth	77.9	72.1 – 83.3
<=5 years	4.8	1.6 – 7.3
More than 5 years	17.3	12.8 – 23.5

The majority of IDUs (77.9%) had been living in the Valley since their birth; 17.3 percent had spent five or more years in the Valley while the rest had lived in the Kathmadu Valley for less than five years (Table 3.2).

4. PREVALENCE OF HIV AND STI

4.1 HIV/STI Prevalence

Enzyme Linked Immuno Sorbent Assay (ELISA) was used to detect HIV antibody. Syphilis was tested using Rapid Plasma Reagin (RPR). All the specimens with RPR/TPHA positive results were divided into two categories on the basis of titre of RPR:

- TPHA positive with RPR-negative or RPR-positive with titre $\leq$ 1:8 were classified as history of syphilis
- TPHA positive with RPR titre 1:8 or greater were classified as current syphilis requiring immediate treatment

In the Kathmandu Valley approximately 34.8 percent of IDUs are estimated to be HIV positive. Out of 300 IDUs in the sample, only one respondent had current syphilis and five respondents had a history of syphilis. Because of the small number of cases, RDSAT could not estimate the syphilis prevalence applicable to IDUs in the Kathmandu Valley indicating that sexually transmitted infection is a relatively minor problem among IDUs there.

Table 4.1: HIV and STI Prevalence among IDUs

HIV and STI Prevalence	Estimated population Proportion (%) (N=300)	95% CI
HIV	34.8	27.7-42.1
Active Syphilis	0.3*	NC
Syphilis History	1.7*	NC

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

4.2 Relation between Socio-Demographic Characteristics and HIV Infection

Table 4.2 shows the relation of HIV infection and selected socio-demographic characteristics. HIV prevalence is higher among IDUs aged above 20 years (35.3%) than their younger counterparts (22.5%). However, this difference is not statistically significant.

The prevalence of HIV, on the other hand, differs significantly according to marital status. Prevalence is two times higher among IDUs who had ever married before (54.7%) than among those IDUs who hadn't (26%).

Level of education is another important variable for HIV prevalence. Illiterate IDUs were two times more likely to be HIV-positive (62.5%) than those who were literate or had received some formal education (32.2%). However, RDSAT could not calculate a statistically significant relation due to the low number of cases.

Table 4.2: Relation between Socio-Demographic Characteristics and HIV Infection

Socio-demographic characteristics	Estimated Population Proportion (%) (N=300)	95 % CI
Age		
Below 20 years	22.5	4.3 – 44.9
20 years and above	35.3	27.8 – 42.5
Marital Status		
Ever married	54.7	43.9 – 65.3
Never married	26.0	18.7 – 34.0
Literacy		
Illiterate	62.5 *	NC
Literate/formal School	32.2 *	NC
Total	34.8	27.7 – 42.1

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

4.3 Relation between Drug Injection Behavior and HIV

The relationship between HIV prevalence and drug injection behaviors, such as how long respondents have been injecting, frequency of injections during the past week, and type of syringes used, have been reviewed in this section.

By and large injecting drugs and certain behaviors practiced by respondents put them at the risk of HIV infection. A statistically significant relation was observed between how long respondents had been injecting drugs and HIV prevalence. In this survey, more than half of the participants (52.8%) who had been injecting drugs for five years or more were HIV-positive .Comparatively lower proportions of respondents carried HIV among those who have been injecting for less than five years (21.2%). Notably, the prevalence level was as low as 2.6 percent among those who had been injecting for less than two years (Table 4.3).

Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

Drug injecting behavior	Estimated Population Proportion (%) (N=300)	95 % CI
Injecting Drugs Since	**%**	
Less than 2 years	2.6 *	NC
2-5 years	18.6 *	NC
More than 5 years	52.8*	NC
Frequency of Injecting Drugs in the Past Week		
Up to 6 times a week	28.9	16.1 – 39.7
Everyday	36.8	25.0 – 46.3
2 or more times a day	39.4	28.4 – 51.2
Used a previously-used needle/syringe during the past week		
Not injected/Never Used	33.1	25.7 – 40.8
Used	47.9	28.5 – 65.3
Used a needle/syringe kept in a public place during the past week		
Not injected/Never Used	34.4	27.1 – 41.4
Used	39.0	17.1 – 67.8
Total	34.8	27.7 – 42.1

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

There is a linear correlation, though not statistically significant, between the number of times respondents injected in the past week and HIV prevalence; those who injected more than twice a day (39.4%) were more likely to be HIV-positive than those who injected everyday (36.8%) or those who injected less often (28.9%).

HIV prevalence was higher among those who had injected with a previously used syringe at least once in the past week (47.9%) than among those IDUs who hadn't (33.1%). Similarly,

IDUs who had used a syringe that was kept in a public place during the past week (39%) were found to be at a greater risk of contracting HIV than those who avoided this practice (34.4%) (Table 4.3). These differences are not statistically significant but reflect a trend observed in other IBBSs.

4.4 Relation between Sexual Behavior and HIV

This section examines sexual behavior and its relation to HIV among IDUs in the Kathmandu Valley. It is important to interpret the findings with caution in this section as some IDUs may have changed their past sexual behavior since being diagnosed with HIV.

The data indicates that respondents who had sex with their regular partners in the last 12 months (43.3%) were more likely to be HIV-positive than those who had sex with a non-regular partner (23.3%) or a FSW (32.6%). Similarly, IDUs who had only one regular partner (43.5%) were more likely to carry HIV than those who had sex with two or more non-regular partners (32%) or FSWs (34.3%). Since HIV is a sexually transmitted disease, and the more partners one has the more exposed one becomes to HIV, this finding comes across as counterintuitive and hence requires careful interpretation. One of the possible explanations as to why having sex with one regular partner is associated with higher HIV prevalence is that IDUs who are diagnosed with HIV may be more likely to refrain from having casual sex with non-regular partners or FSWs.

Table 4.4: Relation between Sexual Behavior and HIV

Sex with different partners in the past 12 months	Estimated Population Proportion (%) (N=300)	95 % CI
With regular partner		
Yes	43.3	30.8 – 55.6
No	34.4	26.9 – 43.0
Never had sexual experience	15.3	2.0 – 34.3
With non-regular partner		
Yes	23.3	13.8 – 35.2
No	42.2	33.3 – 51.2
Ever had sexual experience with sex worker	15.7	2.1 – 33.0
Yes	32.6	21.1 – 46.1
No	37.1	28.9 – 44.9
Never had sexual experience	15.0	2.4 – 33.0
Number of regular partners in the past 12 months		
0 Partner	32.2	24.6 – 40.1
One Partner	43.5	31.1 – 55.8
Number of non - regular partners in the past 12 months		
0 Partner	39.0	30.3 – 46.9
One Partner	18.6	9.2 – 30.6
Two or more partners	32.0	11.6 – 51.4
Number of sex workers in the past 12 months		
0 Partner	34.2	26.6 – 41.5
One Partner	32.4	11.4 – 56.9
Two or more sex workers	34.3	20.1 – 50.0
Total	**34.8**	**27.7 – 42.1**

Notably, those who had never had sex before were also at great risk of HIV transmission with around 15 percent carrying HIV.

5. DRUG USE, NEEDLE SHARING AND TREATMENT

IDUs are considered to be one of the core groups of HIV transmission primarily because of their unsafe drug using and needle sharing habits. An understanding of current practices among IDUs helps to design effective intervention strategies. This chapter deals with alcohol intake, drug use and needle sharing habits, as well as addiction treatment among IDUs in the Kathmandu Valley.

5.1 Alcohol Consumption and Oral Drug Use among IDUs

Alcohol consumption was common among the IDUs in the Kathmandu Valley. Around two thirds of IDUs (66.8%) had consumed alcohol at least once in the past month. About 22 percent consumed alcohol everyday in the past month, while a little over a fourth (25.8%) had an alcoholic drink more than once a week during the same period of time.

Notably, oral drug use was more common than alcohol intake among IDUs in the Kathmandu Valley. All respondents reported using oral drugs. The majority of IDUs had been using oral drugs for more than two years (99%); around 77 percent had been taking oral drugs for five years or more, while a very small proportion (1%) had started using oral drugs less than two years ago.

Table 5.1: Alcohol Intake and Oral Drug Use among IDUs

Alcohol and oral drug use	Estimated Population Proportions (%) (N=300)	95% CI
Alcohol intake during the past month		
Everyday	22.1	16.8 – 27.2
More than once a week	25.8	20.8 – 31.4
Once or less than once a week	18.9	13.0 – 25.3
Never	33.1	27.5 – 39.9
Duration of drug use		
Up to 23 months	1.0 *	NC
24 – 60 months	22.3 *	NC
More than 60 months	76.7 *	NC

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

IDUs preferred inhaling drugs, such as marijuana, locally known as *Ganja*, with 78.3 percent having used it in the week preceding the survey. Other common drugs were Charas (50.4%) followed by Nitrovate (26.3%) and brown sugar (22.1%) (Table 5.2).

Table 5.2: Types of Drugs Used Orally by IDUs in the Past Week

Types of drugs used orally	Estimated Population Proportions (%) (N=300)	95% CI
Ganja	78.3	72.9 – 83.7
Chares	50.4	44.6 – 58.0
Nitrovate	26.3	21.0 – 32.4
Brown sugar	22.1	16.0 – 29.2
Nitrosun	9.7	6.6 – 13.3
Proxygin	7.7	4.7 – 10.9
Codeine	2.2	1.1 – 3.5
Combination	1.5	0.7 – 2.4
Others	10.9	7.1 – 14.7

Note: Because of multiple answers, percentages add up to more than 100.

5.2 Drug Injecting Practices of IDUs

Four in ten respondents (39.9%) had been injecting drugs for more than five years while a similar proportion (42.2%) reported injecting drugs for the past two to five years. A relatively lower proportion of IDUs (17.8%) had started injecting less than two years ago. It is important to note that respondents had been using oral drugs longer than they had been injecting. This finding is compatible with the general belief that "light" inhaling drugs leads to "hard" drugs after a certain period of time.

IDUs in the Kathmandu Valley had mostly started injecting drugs at a quite young age; more than half (56.2%) had their first injection when they were 21 or younger.

Table 5.3: Drug Injecting Practices of IDUs

Drug Injecting Practices	Estimated Population Proportions (%) (N=300)	95% CI
Duration of drug injecting habit		
Up to 23 months	17.8	11.3 – 23.9
24 – 60 months	42.2	35.1 – 48.9
More than 60 months	39.9	33.8 – 47.8
Age at first drug injection		
Up to 20 years	56.2	49.2 – 63.8
21 + years	43.8	36.2 – 50.8
Frequency of drug injections within the past week		
Not injected	2.4	0.6 – 4.2
2-3 times a week	13.0	9.2 – 18.2
4-6 times a week	15.0	10.3 – 19.1
Once a day	35.4	28.4 – 41.2
2-3 times a day	32.3	26.0 – 41.3
4 or more times a day	1.8	0.6 – 3.0
Frequency of drug injection on the last day		
1 time	60.0	53.5 – 66.4
2 times	30.2	24.3 – 36.1
3 or more times	9.7	6.7 – 13.8

Only a handful of respondents (2.4%) had not injected during the week preceding the survey. Thirteen percent had injected two to three times in the last week, while 15 percent had injected four to six times during the same period of time. Overall, seven in ten (69.5%) had injected everyday of the week or more often. Around one third had one shot a day (35.4%), 32.3 percent had injected drugs two to three times a day and 1.8 percent had done so four or more times a day during the week before the survey. .

Respondents were also asked about the frequency of shots on the last day they injected drugs. Sixty percent of respondents had injected once, while 30.2 percent had injected twice and 9.7 percent had done so three or more times on the day they last injected drugs.

Overall, 15 percent of respondents reportedly had not injected drugs on the day before the interview. The main reason was being short of money (57.8%), followed by trying to quit the habit slowly (11.1%), an unavailability of drugs in the market (11.1%) or not having enough time (11.1%) (Annex 8).

The respondents injected in different parts of their body according to the ease in locating veins. Forty two percent of them injected in their arm, 16 percent in the joints between their legs and hip and 14.7 percent in their wrists (Annex 9).

Around two in five respondents (42.3%) injected drugs either in their own room or in that of a friend. Other places where they gathered to inject drugs included forest/bush and riverbank/slum area (Annex 10).

As seen in Table 5.4, IDUs in the Kathmandu Valley use mostly a combination of drugs (76.5%) (for types of combinations see Annex 11) while some (14.6%) use brown sugar.

Table 5.4: Types of Drugs Injected by IDUs

Types of Drugs	Estimated Population Proportions (%) (N=300)	95% CI
Brown sugar	14.6	9.9 – 19.8
Combination	76.5	72.7 – 90.7
Others	6.3	3.6 – 10.5

Note: Because of multiple answers percentages may add up to more than 100.

In the past month only two IDUs (0.7%) had switched from one drug to another; both of them had switched from their previous practice of injecting a combination of Norphin, Diazepam and brown sugar. While one IDU could not find the combination of drugs in the market, the other IDU had to switch to inhaling drugs due to problems he had in locating his veins (Annex 12).

5.3 Syringe Use and Sharing Habits

Syringe use and needle sharing habits were assessed in terms of their last three injections. Respondents were specifically asked about the sources of needle/syringes used during their last three injections. Answers provided by the IDUs have been categorized as low risk (Low risk: Use of new needles and syringes obtained from different places) or high risk (High Risk: Use of own previously used syringe, use of needles and syringes given by friends or relatives, Use of needles and syringes kept in public places by himself or others) injecting behavior in the following table (Table 5.5).

Table 5.5: Syringe Use and Sharing Behavior among IDUs during the Last Three Injections

Needle/syringe use during recent drug injections	Drug injecting acts					
	Most Recent		Second most recent		Third most recent	
	Estimated Population Proportions (%) (N=300)	95% CI	Estimated Population Proportions (%) (N=300)	95% CI	Estimated Population Proportions (%) (N=300)	95% CI
Needle/syringe used						
Low risk behavior	96.9	94.7 – 98.9	93.4	90.3 – 96.1	94.1	90.5 – 96.9
High risk behavior	3.1	1.1 – 5.3	6.6	3.9 – 9.7	5.9	3.1 – 9.5
Persons in the group using the same needle/syringe						
2 – 3 persons	0.9	0.2 – 1.9	5.3	2.7 – 8.3	3.2	1.6 – 5.0
Injecting alone	99.1	98.1 – 99.8	94.7	91.7 – 97.3	96.8	95.1 – 98.4

As reflected in the above table, most of the IDUs had consciously avoided high-risk behaviors, such as the use of pre-used needles and syringes, in their last three injections. More than 90 percent of them had used a new needle, either self-purchased or given by an NGO staff or friends, for each of their last three injections.

Three percent of IDUs practiced high risk injecting behavior in their most recent injections; 6.6 percent had done so during their second most recent shots and 5.9 percent had taken high risks in their third most recent injections. Most of these IDUs had re-used needle/syringes that were used previously either by themselves or their friends/relatives.

The majority of IDUs had injected alone during their last three injections. One in one hundred had shared a needle/syringe during the most recent injection, 5.3 percent and 3.2 percent had done so in the second most recent and third most recent injections respectively (Table 5.5).

Data on needle/syringe using behavior in the last week, as well as in the last three most recent injections, points towards an increased consciousness among current IDUs regarding the risks associated with needle/syringe sharing. More than eight in ten IDUs had never injected with a used needle/syringe (88.1%) or with a needle/syringe left in a public place (93.3%) in the week preceding the survey.

Table 5.6: Past Week's Syringe Use and Sharing Behavior among IDUs

Needle/syringe use throughout the past week	Estimated Population Proportions (%) (N=300)	95% CI
Used a needle/syringe that had been used by others		
Not used	**88.1**	84.2 - 92.4
Used	**11.9**	7.6 - 15.8
Used a needle/syringe that had been kept in a public place		
Not used	**93.3**	89.6 -.96.1
Used	**6.7**	3.9 – 10.4
Gave a needle/syringe to some one else		
Yes	10.0	6.5 – 13.9
No	90.0	86.1 – 93.5
Number of needle/syringe sharing partners		
None	85.4	80.8 – 89.6
Two partners	12.2	8.3 – 16.7
Three or more partners	2.4	1.1 – 3.8
Shared needle/syringe with #		
Friend	8.8	5.4 – 12.1
Not shared	87.4	83.6 – 19.5
Others	3.8	1.2 – 6.8

Note: # Because of multiple answers, percentages add up to more than 100.

However, there is still room for improvement as one in ten IDUs reported passing their used needle/syringe to others, 11.9 percent had used somebody else's syringe and 6.7 percent had used a syringe kept in a public place during the past week. The IDUs who shared their needle/syringe in the past week shared them mostly with their friends (8.8%) (Table 5.6).

5.4 Drug-Sharing Behavior

Some IDUs had engaged in some risky drug sharing practices during the past week; 8.2 percent had injected with a pre-filled syringe and12.3 percent had injected with a syringe that was filled in with another syringe. Moreover, 39.5 percent of IDUs had shared one or more pieces of injecting equipment such as a bottle, spoon, cooker, vial/container, cotton/filter or water, with others at least once in the last week. In the same way, the practice of sharing containers for drawing solution was common among IDUs with as many as 57.4 percent having done so at least once in the previous week.

Table 5.7: Past Week's Drugs Sharing Behavior among IDUs

Drug sharing practices during past week	Estimated Population Proportions (%) (n=300)	95% CI
Injected with a pre-filled syringe		
Yes	8.2	5.3 – 11.5
No	91.8	88.5 – 94.7
Injected with a syringe after drugs were transferred into it from another's syringe		
Never injected	87.7	83.7 – 92.0
Injected	12.3	8.0 – 16.3
Shared a bottle, spoon, cooker, vial/container, cotton/filter or rinsing water		
Never shared	60.5	54.3 – 66.5
Shared	39.5	33.5 – 45.8
Drew drug solution from a common container used by others		
Never	42.6	36.3 – 50.2
Drew at least once	57.4	49.8 – 63.7

Information on the movement of IDUs both within and outside the country, as well as their injecting practices in the place/s they visited was collected during this survey. About 18.8 percent had injected drugs in places (within or outside of the country) that they had visited in the past year. Among those IDUs in the sample who had injected drugs outside the Kathmandu Valley, 8.5 percent had injected with somebody else's previously used syringe and four percent had passed their used needle/syringe to others.

Table 5.8: Injecting Behavior of IDUs in Other Parts of the Country and Out of the Country

Injecting practice in other parts of the country and out of the country	Estimated Population Proportions (%)	95% CI
Injected in other parts of the country / out of the country (N=300)		
Yes	18.8	14.2 – 24.1
No	81.2	75.9 – 85.8
Used a needle/syringe that had been used by others (n=71)		
Yes	8.5 *	NC
No	91.5 *	NC
Gave a needle/syringe to someone else after use (n=71)		
Sometimes – Always	4.0	No Bound
Never	96.0	No Bound

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI. No Bound: RDSAT could not calculate

5.5 Needle/Syringe Cleaning Practice

Improper methods of cleaning not only reflect a lack of awareness, but also put IDUs at higher risk of HIV transmission. In the Kathmandu Valley about a quarter (26.3%) of IDUs had re-used needle/syringes in the past week. Among them, only 24.2 percent had cleaned the needle/syringe with bleach; others (75.8%) had cleaned with substances like saliva, water, distilled water, paper or urine (Table 5.9).

Table 5.9: Needle/Syringe Cleaning Practice of IDUs

Needle/syringe cleaning behavior	Estimated Population Proportions (%)	95% CI
Re-used needle/syringe in the past week (N=300)		
Yes	26.3	20.5 – 31.9
No	73.7	68.1 – 79.5
Ways of cleaning needle/syringe (n=83)		
Bleach	24.2	21.7 – 62.5
Without Bleach	75.8	37.5 – 78.4

5.6 Availability of New Syringes

A total of 95.4 percent of IDUs knew that they could obtain new needle/syringes from various sources. Among them, nearly all stated they could get a new needle/syringe from a drugstore (99.1%). A good proportion of IDUs knew they could obtain new syringes from a needle exchange program being run by LALS (79.8%), while three in ten (28.6%) mentioned hospitals, which was followed by friends (13.8%) and drug sellers (10.8%) as sources of new needle/syringe.(Table 5.10).

Table 5.10: Knowledge of Sources of New Syringes among IDUs

Descriptions	Estimated Population Proportions (%)	95% CI
Can obtain new syringe (N=300)		
Yes	95.4	92.0 – 98.2
No	4.6	1.8 – 8.0
Can obtain syringe from# (n=293)		
Drugstore	99.1	97.6 -.99.9
Friends	13.8	7.6 – 32.4
Hospital	28.6	21.8 – 35.6
Drug seller	10.8	7.2 – 18.1
LALS	79.8	72.6 – 86.8
SMF	4.6	0.8 – 7.8
Health worker	8.4	5.5 – 11.5
Drug whole seller/drug agency	3.6	1.3 – 6.6
Other shop	0.6	0.1 – 1.4
Others	2.9	1.1 – 5.2

Note: #Because of multiple answers, percentages add up to more than 100.

5.7 Treatment Status

Table 5.11 shows the status of treatment received by IDUs in the Kathmandu Valley. The majority of IDUs (63.9%) had not received any kind of treatment so far. Among those who had received some treatment, nearly one third (31.6%) had done so less than a year ago whereas the rest had been treated more than a year ago. Around four-fifths (81.7%) of IDUs had been treated under residential rehabilitation programs run by different NGOs (See Annex 13 for NGOs list and treatment provided).

Table 5.11: Treatment Received by IDUs

Treatment practice	Estimated Population Proportions (%)	95% CI
Treatment status (N=300)		
Ever treated	36.1	2.9 – 42.8
Never treated	63.9	57.2 – 71.0
Last treatment received: (n=117)		
Less than 6 months before	5.2	1.2 – 12.6
6-11 months before	26.4	8.7 – 55.8
12-23 months before	24.2	8.6 – 34.2
24-35 months before	23.2	11.3 – 39.0
36-47 months before	11.0	0.8 – 19.2
48 or more months before	10.0	2.7 – 21.0
Types of treatment received # (n=117)		
Residential rehabilitation	81.7	69.0 – 93.2
Detoxification w/other drugs	14.7	4.6 – 28.3
Detoxification w/no drugs	9.0	2.7 – 18.6
Out patient counseling	3.3	1.7 – 15.7
Other treatment	8.1	1.9 – 24.8

Note: #Because of multiple answers, percentages add up to more than 100.

6. SEXUAL BEHAVIOR AND CONDOM USE

HIV transmission among drug users is most often correlated with their needle/syringe sharing behavior. This, combined with the risky sexual behavior of the study population, often associated with drug use, contributes greatly towards making IDUs more vulnerable to HIV transmission. HIV infected IDUs further transmit the virus to their spouses or sex partners through unsafe sexual contact. In this chapter the sexual behavior of the respondents and their types of sex partners have been reviewed. This chapter also deals with sexual history and condom use among IDUs.

6.1 Sexual Behavior of IDUs

The majority of IDUs in Kathmandu were sexually active; 88.8 percent had experienced sexual intercourse before and 58.4 percent had sex in the past 12 months. Among those who had ever had sex before, a high proportion (76.8%) was aged less than 20 at the time of their first sexual contact.

Table 6.1: Sexual History of IDUs

Sexual behavior	Estimated Population Proportions (%)	95% CI
Sexual Intercourse (N=300)		
Had sexual intercourse	88.8	8.5 – 93.1
Never had sexual intercourse	11.2	6.9 – 15.0
Age at first sexual intercourse (N=300)		
Below 20 years	76.8	69.6 – 82.9
20 years of age and above	23.2	17.1 – 30.4
Sexual intercourse in the past 12 months (n=274)		
Yes	58.4	52.5 – 67.4
No	41.6	32.6 – 47.5
Numbers of different sexual partners in the past 12 months (n=179)		
1 partner	47.8	37.7 – 55.4
2 – 3 partners	30.4	18.9 – 41.0
4 – 6 partners	12.3	6.6 – 19.2
7 or more partners	9.5	4.2 – 20.0

Among those respondents who had sex in the past 12 months, 47.8 percent had sex with one partner. One in ten (9.5%) reported having as many as seven or more partners in the course of the year preceding the survey.

Respondents were asked about the types of sexual partners they had in the last year. The table below summarizes the data on regular female sex partners.

Table 6.2: Sexual Intercourse of IDUs with Regular Female Sex Partners

Sexual practice	Estimated Population Proportions (%)	95% CI
Sex with a regular partner during the past 12 months (n =274)		
Yes	23.1	18.2 – 29.0
No	76.9	71.0 – 81.8
Sex with regular partner during the last month (n=70)		
Yes	90.1	75.9 – 98.2
No	9.9	1.8 – 24.1
Frequency of sex during the last month with last regular partner (n=64)		
1- 4	40.8	12.4 – 60.3
5+	59.2	40.0 – 87.6

One in five IDUs (23.1%) reported having sex with a regular partner in the last 12 months. Among them, 90.1 percent had sex with their regular partner in the last month. Six in ten (59.2%) of those who had sex with their regular partner in the last month had sex more than once a week.

A different pattern emerged when respondents were asked about their sexual encounters with their non-regular female sex partners. The "non-regular partner" definition includes those sex partners who are neither respondent's spouses nor their live-in partners, and who did not exchange money or drugs for sex.

Table 6.3: Sexual Intercourse of IDUs with Non-Regular Female Sex Partner

Sexual practice	Estimated Population Proportions (%)	95% CI
Sex with non-regular female sex partner in the past 12 months (n=274)		
Yes	26.5	22.3 – 34.1
No	73.5	65.9 – 77.7
No. of non-regular female sex partners in the past 12 months (n=83)		
1 partner	69.4	43.5 – 88.7
2 or more partners	30.6	11.3 – 56.6
Sex with non-regular female sex partner during the last one month (n=83)		
Yes	53.6	35.8 – 69.4
No	46.4	30.6 – 64.2
Frequency of sex with non-regular female sex partners (n=48) s in the past month?		
1- 4	55.9	47.1 – 87.4
5+	44.1	12.6 – 52.9

More than a quarter of IDUs (26.5%) reported having non-regular female partners in the last year. Among them, seven in ten had one partner while three in ten had two or more partners. Just over half (53.6%) had sexual encounters with non-regular partners in the month preceding the survey.

In order to further examine the sexual behavior of IDUs, respondents were asked if they had ever maintained sexual relations with sex workers. In this context, "sex workers" were defined as those who bought or sold sex in exchange for money or drugs.

Table 6.4: Sexual Intercourse of IDUs with Female Sex Workers

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with a female sex worker in the past 12 months (n=274)		
Yes	27.3	21.3 – 34.0
No	72.7	66.0 – 78.7
Number of female sex workers in the past 12 months (n=77)		
1 partner	37.0	10.7 – 66.2
2 or more partners	63.0	33.9 – 89.5
Sex with a female sex worker during last one month (n=77)		
Yes	42.8	19.7 – 69.6
No	57.2	30.5 – 80.3
Frequency of sex with female sex worker in past month (n=36)		
1- 4	88.9 *	NC
5+	11.1 *	NC

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

Overall, 27.3 percent of respondents had sex with a FSW during the past 12 months. Among them, 63 percent had sex with two or more paid partners in the last year and four in ten (42.8%) had done so during the course of the month preceding the survey. The majority of

IDUs who had sex with a FSW in the last month had fewer than four encounters (88.9%) (Table 6.4).

6.2 Knowledge About and Use of Condoms

Condom promotion has been one of the most important components of HIV/AIDS awareness campaigns. Although all of the IDUs had heard of condoms before, consistent condom use was not common among the study participants. The rates of consistent condom use were 53.3 percent with regular partners, 41.3 percent with non-regular partners and 60.7 percent with paid sex workers.

Table 6.5: Knowledge About and Use of Condoms among IDUs

Use of condom during the last sex act	Estimated Population Proportions (%)	95% CI
Condom use with regular partner during last sexual intercourse (n=70)		
Yes	53.3	20.4 – 75.7
No	46.7	24.3 – 79.6
Condom use with non-regular partner during last sexual intercourse (n=83)		
Yes	41.3	27.6 – 71.9
No	58.7	28.2 – 72.4
Condom use with sex worker during last sexual intercourse (n=77)		
Yes	60.7	20.5 – Nan
No	39.3	7.2 - Nan

Respondents who reported not using a condom during their last sexual contact with different partners were asked their reasons for choosing not to use one. Data obtained from the study participants, as shown in Annex 14, indicates that IDUs did not consider it necessary to use a condom with their regular partners (48.9%) or saw it only as a contraceptive method (48.9%); some (28.9%) simply did not like to use condoms with their regular partners.

One third of participants (30.6%) who had not used condoms during their last sexual intercourse with a non-regular partner, said that condoms were not available at that time; the same proportion reported they did not consider it necessary to use condoms. Approximately 22 percent (22.2 %) simply did not like using condoms with their non-regular partners.

Reasons cited by IDUs for not using a condom during their last sexual contact with a female sex worker were that they did not have condoms with them at that moment (57.1%), they didn't like using them (28.6%) and that they did not think of using a condom at the time of the sexual encounter (21.4%) (Annex 14). In this group of respondents, only a small proportion (7.1%) said that they did not think it was necessary indicating that respondents were aware about the risk of HIV and other sexually transmitted diseases associated with FSWs.

HIV/AIDS prevention campaigns focus on educating their target groups on using condoms in every sexual act to avoid HIV transmission. In this regard, IDUs were also asked about consistent use of condoms with their sex partners in the past one year. Comparing their responses for three categories of partners, regular, non-regular and sex workers, it was noted that respondents had used condoms more consistently with female sex workers than with regular and non-regular partners.

In the past year, 67.8 percent of IDUs had used condoms consistently with female sex workers as compared to 43.1 percent with regular female sex partners and 33.5 with non-regular female sex partners.

Table 6.6: Consistent Use of Condoms by IDUs with Different Female Sex Partners in the Past Year

Consistent use of condom	Estimated Population Proportions (%)	95% CI
Use of condom with regular female sex partners during past 12 months (n=70)		
Every time	43.1	7.6 – 72.4
Sometimes or Never	56.9	29.6 – 93.3
Use of condom with non-regular female sex partners during past 12 months (n=83)		
Every time	33.5	16.6 – 56.0
Sometimes or Never	66.5	44.2 – 83.4
Use of condom with female sex workers during past 12 months (n=77)		
Every time	67.8	26.6 – 94.4
Sometimes or Never	32.2	7.6 – 86.9

6.3 Sources of Condoms

IDUs were asked if they knew about places where they could obtain condoms; all IDUs cited at least one source. Among them, 97.9 percent said that they can obtain condoms from a pharmacy. Other common sources of condoms were LALS (61.4%), shop (54.9%), hospital (41.8%), pan shop (40.2%) and peer/outreach educators (38.5%). Most IDUs said that they could get a condom if necessary in less than 30 minutes (99%) indicating condoms are readily available at these sources (Table 6.7).

Table 6.7: Sources of Condoms among IDUs and Time Needed to Obtain It

Sources of condoms and time to obtain it	Estimated Population Proportions (%) (N=300)	95% CI
Place/person from where condom can be obtained#		
Pharmacy	97.9	96.2 – 99.2
Health worker/health post	5.4	2.9 – 8.4
Hospital	41.8	35.3 – 48.5
Shop	54.9	48.9 – 60.9
Clinic	17.4	13.2 – 22.2
Friends	5.5	3.0 – 8.6
Family planning center	6.3	3.0 – 10.1
Bar/Guest house/hotel	5.7	3.2 – 8.7
Pan shop	40.2	33.4 – 46.8
Peer educator/outreach worker	38.5	31.6 – 45.6
LALS	61.4	52.4 – 70.0
Naulo Ghumti	0.5	0.1 – 1.1
SMF	10.5	5.2 –16.7
Others	5.4	2.8 – 8.4
Time taken to obtain condom		
Less than 30 minutes	99.0 *	NC
No response	1.0 *	NC

Note: #Because of multiple answers, percentages add up to more than 100.
Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

6.4 Sources of Information about Condoms

IDUs had heard about condoms from different sources. The most common sources of information, cited by more than nine in ten respondents, were television (98.3%), radio (97.4%), billboards/signboards (94.8%), pharmacies (94.1%), friends/neighbors (92.6%), and newspapers/posters (91.1%). The list of other sources of information as mentioned by respondents is shown in Table 6.8 below.

Table 6.8: Sources of Information about Condoms among IDUs

Sources of knowledge of condoms	Estimated Population Proportions (%) (N=300)	95% CI
Radio	97.4	94.8 - 99.6
Television	98.3 *	NC
Friends/neighbors	92.6	88.8 – 95.9
Newspapers/posters	91.1	86.6 – 94.8
Bill board/sign board	94.8	91.6 – 97.8
Pharmacy	94.1	87.8 – 98.8
Hospital	81.2	74.4 – 87.8
NGO's peoples	88.8	82.1 – 94.5
Cinema hall	62.5	56.2 – 68.5
Health Post	68.5	61.3 – 75.1
Health Center	63.9	57.1 – 70.5
Health workers/volunteers	65.2	57.5 – 71.8
Community worker	32.3	26.5 – 38.5
Comic books	46.6	40.7 – 53.6
Street drama	43.9	37.9 -.50.8
Community event/training	36.9	30.7 – 43.7
Video van	22.6	17.7 – 28.4

Note: Because of multiple answers, percentages add up to more than 100.
Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

In order to further analyze the exposure of IDUs to ongoing initiatives aimed at educating target groups about condoms, the IDUs were asked if they were aware of any of the messages being publicized with the help of IEC materials such as posters, pamphlets, or billboards, or which have been aired on the radio or television. The survey asked the respondents about certain specific messages about condoms and HIV/STI prevention. A good proportion of the respondents were aware of messages like *Jhilke dai chha chhaina condom (91%), Condom kinna ma bhaya hunna ra (87.8%), HIV/AIDS bare aajai dekhi kura garau (85.6%), Ramro sanga prayog gare jokhim huna dinna (85.2%),Youn rog ra AIDS bata bhachnalai (84.1%), and Condom bata surakchhya youn swastha ko rakchhya (79.2%).* Around 59 percent of respondents had also heard the message that says *Maya garaun sadbhav badaun.*

Table 6.9: Exposure of IDUs to Specific Messages in the Past Year

Heard/seen/read messages/characters in past one year	Estimated Population Proportions (%) (N=300)	95% CI
Condom Bata Surakchhya Youn Swastha ko Rakchhya	79.2	72.4 – 85.5
HIV/AIDS Bare Aaji Dekhi Kura Garaun	85.6	81.1 – 89.8
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	84.1	77.6 – 90.3
Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	85.2	78.6 – 91.7
Condom Kina Ma Bhaya Hunna Ra	87.8	84.0 – 91.8
Jhilke Dai Chha Chhaina Condom	91.0	87.3 – 94.4
Ek Apas ka kura	37.9	31.6 – 44.5
Maya Garaun Sadbhav Badaun	59.1	52.8 – 65.4
Des Pardes	18.8	14.3 – 24.0
Manis Sanga Manis Mile Hara Jeeta Kasko Hunchha	12.2	8.9 – 16.3
Others	3.8	1.7 – 6.3

Note: Because of multiple answers, percentages add up to more than 100.

7. KNOWLEDGE ABOUT STIs AND HIV/AIDS

This chapter deals with the level of knowledge about STIs and HIV/AIDS among IDUs in the Kathmandu Valley as well as respondents' awareness levels regarding the ways in which HIV is transmitted. Their knowledge about the availability of HIV testing facilities and perceptions of HIV testing are also covered in this chapter.

7.1 Knowledge about STIs

A relatively high proportion of IDUs (91.4%) in the Kathmandu Valley had heard of STIs, however, 8.6 percent had never heard of STIs before.

Table 7.1: STI Awareness among IDUs

Heard of STIs	Estimated Population Proportions (%) (N=300)	95% CI
Yes	91.4	88.1 – 99.4
No	8.6	5.6 – 11.9

IDUs who had heard about STIs had a general understanding of male and female STI symptoms. The most commonly cited symptoms were genital ulcer/sore/blisters (59.5% in females and 74.5% in males) and genital discharge (40% in females and 56.7% in males). Symptoms such as foul smelling discharges (41.7%) and abdominal pain (17.2%) were specifically mentioned as female STI symptoms by some IDUs. In the same way, a burning sensation while urinating was mentioned as a male STI symptom by 50.6 percent of respondents.

Table 7.2: Knowledge about STI Symptoms among IDUs

Knowledge of STI symptoms	STI symptoms as mentioned by respondents			
	Female STI symptoms		Male STI symptoms	
	Estimated Population Proportions (%) (n=278)	95% CI	Estimated Population Proportions (%) (n=278)	95% CI
Genital ulcer/sore blisters	59.5	53.4 – 70.3	74.5	67.1 – 82.3
Foul-smelling discharge	41.7	35.9 – 49.7		
Itching	23.9	19.7 – 32.6	18.8	14.6 – 26.1
Genital discharge	40.0	34.9 – 48.4	56.7	50.2 – 65.6
Burning/pain during urination	21.6	16.4 – 28.2	50.6	44.3 – 58.8
Abdominal pain	17.2	12.9 – 23.0		
Swelling in groin area	10.6	6.2 – 15.6	17.2	12.2 – 23.1
Others	9.7	5.9 – 14.0	10.5	6.6 – 15.2

Note: Because of multiple answers, percentages add up to more than 100.

After assessing their awareness regarding STI symptoms, the respondents were asked if they ever had experienced symptoms like genital discharge or genital ulcer/sores in the past year. Overall, 81.4 percent had never experienced any STI symptom, however, 13.8 percent of IDUs said that they have had genital discharges while 9.4 percent of them mentioned that they had genital ulcer/sore in the past year (Table 7.3).

Table 7.3: STI Symptom/s Experienced by IDUs

Experience of STI Symptoms	Estimated Population Proportions (%) (N=300)	95% CI
Had genital discharge in the past year		
Yes	13.8	9.0 – 19.9
No	86.2	80.1 – 91.0
Had genital ulcer/sore blister in the past year		
Yes	9.4	5.5 – 13.6
No	90.6	86.4 – 94.5

Among those IDUs who had reported having had genital discharge in the past year, 60 percent said that they were experiencing genital discharge at the time of the study. Similarly, among those IDUs who have had genital ulcer/sores in the past year, 33.3 percent reportedly had the symptom at the time of this survey.

Table 7.4: STI Symptoms Experienced and Treatment Sought by IDUs

STI Symptoms and Treatment	Estimated Population Proportions (%)	95% CI
Currently has genital discharge (n=30)		
Yes	60.0 *	NC
No	40.0 *	NC
Currently has genital ulcer/sore blister (n=18)		
Yes	33.3 *	NC
No	66.7 *	NC
STI Experience (N=300)		
Never had STI symptoms	81.4	75.4-86.6
Ever had some symptoms	16.7	13.5-24.6
Source of treatment (n=50)		
Private Doctor	22.0 *	NC
Hospital/Health Post	10.0 *	NC
Others	4.0 *	NC
Did not seek treatment	64.0 *	NC

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

Sixty four percent of those IDUs who had ever experienced an STI symptom had never sought any treatment. Of those who did seek treatment, twenty two percent had been to a private doctor, while 10 percent had been to a hospital/health post.

7.2 Knowledge about HIV/AIDS

All respondents had heard about HIV/AIDS before. A good proportion of them (84.8%) knew people who were currently living with HIV/AIDS or had died due to AIDS. When asked about their relations to those who had HIV/AIDS or lost their lives to AIDS, 46.7 percent said that they were their close friends and 4.8 percent said that they were their relatives.

Table 7.5: Awareness about HIV/AIDS among IDUs

Knowledge of HIV/AIDS	Estimated Population Proportions (%)	95% CI
Know anyone who has HIV/AIDS/died due to AIDS (N=300)		
Yes	84.8	79.5 – 88.8
No	15.2	11.2 – 20.5
Nature of relationship with person living with HIV/AIDS/died due to AIDS (n=260)		
Close friend	46.7	41.0 – 55.6
No relation	48.5	39.0 – 54.0
Close relative	4.8	2.9 – 8.3

IDUs' knowledge about ways in which HIV is transmitted was further analyzed with the help of some questions on HIV/AIDS prevention. In this regard their understanding of three major HIV/AIDS prevention measures including (A) abstinence from sex (B) being faithful to one sex partner (C) and regular condom use was assessed. In total 61.7 percent of IDUs were aware of all three. Fewer respondents were aware that abstinence from sex (67.2%) would prevent HIV than of being faithful (91.4%) and using condoms regularly (93.6%)

Additionally, 96.6 percent were aware that a healthy looking person can be infected with HIV (D) and a similar proportion (92.9%) knew that sharing meal with an HIV infected person did

not put them at risk of HIV (F). However, a relatively lower proportion of IDUs (75%) agreed that a person cannot get HIV virus from a mosquito bite (E). In total, 66.2 percent of IDUs were aware of all the five major indicators (BCDEF) - excluding abstinence (Table 7.6).

Table 7.6: Knowledge of Major Ways of Avoiding HIV/AIDS among IDUs

Knowledge of Six Major Indicators on HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
HIV transmission can be avoided through:		
A Abstinence from sexual contact	67.2	59.9 – 71.9
B Being faithful to one partner	91.4	87.3 – 95.3
C Condom use during each sexual contact	93.6	87.9 – 96.6
Perception on HIV/AIDS transmission:		
D A healthy-looking person can be infected with HIV	96.6	93.5 – 99.1
E A person can not get the HIV virus from a mosquito bite	75.0	69.3 – 80.6
F Sharing a meal with an HIV infected person does not transmit the HIV virus	92.9	87.7 – 96.3
Knowledge of all **ABC**	61.7	54.8 – 67.0
Knowledge of all five major indicators – **BCDEF** of HIV/AIDS	66.2	60.0 – 71.9

Note: Because of multiple answers, percentages add up to more than 100.

IDUs' understanding of HIV/AIDS and its different modes of transmission were further assessed with the help of probing questions. More than nine in ten said that HIV can be transmitted through a blood from an infected person (99.7%), that a person can get HIV by using a previously used needle/syringe (99.1%), a person cannot get HIV by holding an HIV infected person's hand (97.6%), and that a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child (90.8%). A considerable proportion of respondents also said that a drug user can protect himself from HIV by switching to non-injecting drugs (89.8%). A relatively lower percentage of respondents (46.9%) knew that a woman with HIV could transmit the virus to her newborn child through breast-feeding.

Those IDUs who said that that an HIV infected pregnant woman can transmit the virus to her unborn child were asked if they were aware of any measures that could reduce such risk of HIV transmission. Among them, only 7.2 percent of respondents suggested that the expecting mother could take medicine or antiretroviral treatment; others suggested different measures like consulting with the doctor or performing a cesarean delivery.

Table 7.7: IDUs' Knowledge about Ways of HIV/AIDS Transmission

Statements Related to HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Statements Related to HIV/AIDS		
A person can get HIV by using a needle previously used by others	99.1	98.3 – 99.8
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	89.8	86.1 – 93.6
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	46.9	40.9 – 54.9
A person can not get HIV by holding an HIV infected person's hand	97.6	96.2 – 98.8
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	90.8	87.1 – 94.3
Blood transfusion from an infected person to the other transmit HIV	99.7 *	NC
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child (n=272)		
Take medicine (Antiretroviral)	7.2	4.2 – 10.3
Others	83.7	79.1 – 88.5

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

7.3 Knowledge about HIV Testing Facilities

Availability of a confidential HIV testing facility and awareness of such provisions allows people to take up an HIV test promptly and without the fear of being exposed. Although a good proportion of IDUs (91.3%) were aware of the existence of such a facility in their communities, forty seven percent of respondents had never tested themselves for HIV; the rest (53%) had been tested for HIV before. Among them, 72.7 percent had taken the test voluntarily and the majority (93.8%) had received the test result. However, only 35.5 percent of IDUs had been tested in the last year; the rest of the IDUs had gotten themselves tested more than a year ago.

Table 7.8: Knowledge about HIV Testing Facilities and History of HIV Testing among IDUs

Description of HIV Testing	Estimated Population Proportions (%)	95% CI
A confidential HIV testing facility is available in the community (N=300)		
Yes	91.3	87.0 – 94.7
No	8.7	5.3 – 13.1
Ever had HIV test (N=300)		
Yes	53.0	45.8 – 60.2
No	47.0	39.8 – 54.2
Type of test taken (n=177)		
Required HIV test	27.3	21.1 – 41.5
Voluntary HIV test	72.7	58.6 – 78.9
Test result received (n=177)		
Yes	93.8	90.0 – 98.4
No	6.2	1.6 – 10.0
Timing of last HIV test (n=177)		
Within the past year 12 months	35.5	24.3 – 44.2
1-2 years ago (Between 13-24 months)	29.8	21.4 – 37.8
2-4 years ago (Between 25-48 months)	24.3	15.9 – 35.1
More than 4 years ago (49 or more than 49 months)	10.4	4.4 – 19.2

7.4 Sources of Knowledge about HIV/AIDS

Radio and television were the two most cited sources of information regarding HIV/AIDS among IDUs. These sources of information were mentioned by around 98 percent of the study population. A similar proportion of the respondents had been made aware of HIV/AIDS through friends/relatives (95.9%), pamphlets/posters (94.6%), billboard/signboard (93%), NGO workers (89.2%) and newspaper/magazines (83.2%). Other sources of information as mentioned by the IDUs are listed in the table below (Table 7.9).

Table 7.9: Sources of Knowledge Regarding HIV/AIDS among IDUs

Sources of Knowledge about HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Radio	98.1	96.2 – 99.5
Television	98.7 *	NC
Friends/Relatives	95.9	93.6 – 98.0
Newspapers/Magazines	83.2	76.1- 88.1
Billboard/signboard	93.0	86.8 – 97.8
Pamphlets/Posters	94.6	92.0 – 97.5
NGO workers	89.2	82.1 – 94.5
Cinema halls	69.2	63.8 – 74.7
Health workers/Volunteers	69.9	62.1 – 76.1
Workplace	54.1	47.0 – 61.0
School/Teachers	56.8	49.4 – 64.1
Community workers	34.7	28.6 – 41.1
Comic books	54.1	47.6 – 60.9
Street drama	48.8	42.4 – 56.2
Community events or training	40.0	34.0 – 46.6
Video van	23.1	18.6 – 29.7

Note: Because of multiple answers, percentages add up to more than 100.
Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

In the past year a fairly large proportion (88.7%) of IDUs had received HIV/AIDS related IEC materials from different sources. IEC materials like brochures/booklets/pamphlets on HIV/AIDS had reached 81.8 percent of IDUs, while 71.6 percent had received condoms/ information relating to condoms (Table 7.10).

Table 7.10: Information/Materials Received by IDUs during the Past Year

Informative materials received	Estimated Population Proportions (%) (N=300)	95% CI
Condom/information on condom		
Yes	71.6	66.1 – 77.2
No	28.4	22.8 – 33.9
Brochures/booklets/pamphlets on HIV/AIDS		
Yes	81.8	76.1 – 87.2
No	18.2	28.0 – 23.9
Received information on HIV/AIDS		
Yes	88.7	83.1 – 93.4
No	11.3	6.6 – 17.0
Other information		
Yes	30.9	24.7 – 39.5
No	69.1	60.5 – 75.3

7.5 Perception on HIV/AIDS

The stigma associated with HIV/AIDS increases the impact of HIV on the patients as well as on MARPs. The perception of the IDUs regarding HIV infected persons and stigma associated with the disease was examined with the help of a series of questions.

The majority of respondents were prepared to take care of an HIV-positive male relative (96.7%) or an HIV-positive female relative (96%) at their homes if such a need arose. More than half of the sample population (53.6%) however, said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

The majority of participants (98.1%) said that they would readily buy food from an HIV - positive vendor. Ninety four percent agreed, that unless very sick, people with HIV/AIDS should be allowed to continue their jobs.

When asked about the health care needs of HIV infected persons, 57 percent of IDUs maintained that they should be provided with the same care and treatment as is necessary for patients with a chronic disease, while 34.6 percent believed that the health care needs of an HIV infected person are more involved than those of people suffering from chronic diseases.

Table 7.11: Attitude of IDUs towards HIV/AIDS

Individual Perception	Estimated Population Proportions (%) (N=300)	95% CI
Would readily take care of an HIV positive male relative in the household		
Yes	96.7 *	NC
No	3.0 *	NC
Don't know	0.3 *	NC
Would readily take care of an HIV positive female relative in the household		
Yes	96.0 *	NC
No	3.7 *	NC
Don't know	0.3 *	NC
Would prefer not to talk about a family member being HIV positive		
Yes	53.6	48.1–60.5
No	43.7	37.2–49.4
Don't know	2.7	0.6–4.9
Would readily buy food from an HIV infected shopkeeper		
Yes	98.1	95.5–98.5
No	0.6	0.3–1.5
Don't know	1.2	1.1–3.7
Believe that the health care needs of an HIV infected person is same, more or less than those required by someone with other chronic disease		
Same	57.0	50.1–63.9
More	34.6	28.1–41.0
Less	5.3	2.5–8.7
Don't know	3.1	0.8–6.5
Believe that an HIV infected person should be allowed to continue working unless very sick		
Yes	94.0	90.6–97.0
No	6.0	3.0–9.4

Note: Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

NC- Not calculated (RDSAT conditions were not met)

8. EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

This is a new section added to the survey in 2007. The exposure of IDUs to ongoing HIV/AIDS awareness programs and their participation in such activities has been examined in this round of survey. To this end, respondents were asked several questions relating to different components of current HIV/AIDS related programs run by various organizations.

8.1 Peer/Outreach Education

The peer/outreach education component consists of activities that involve the mobilization of peer educators (PEs) and outreach educators (OEs) for conducting awareness raising activities in community sites. They meet the target groups and hold discussions with them regarding HIV/AIDS and safe injecting practices, safe sex and other related topics. They also distribute IEC materials, condoms, and refer the target group to drop-in centers and STI treatment services. Some also carry new needle/syringes for distribution among the IDUs.

The majority of participants (79.9%) had met with at least one PE/OE before. During their meetings, 96 percent had discussed safe injecting behavior, while 75.9 percent had been told how HIV is transmitted. IDUs had also been informed about STIs and how to avoid them (33.5%) as well as about condom use (22.1%). Some IDUs also said that a PE/OE had suggested they go and stay at a rehabilitation center.

The majority of meetings were held by LALS (79.7%), followed by Youth Vision (14.9%) and Richmond Fellowship (13.8%). It is evident from Table 8.1 that IDUs meet PE/OEs quite often as only one percent of IDUs had met PE/OEs just once, others had met them quite frequently in the past one year (Table 8.1).

Table 8.1: Meeting with Peer Educators and Outreach Educators in the Last 12 Months

Meeting with Peer Educators (PE) or Outreach Educators (OE)	Estimated Population Proportions (%)	95%CI
Met or discussed or interacted with PE or OE in the last 12 months (N=300)		
Yes	79.9	72.2 – 85.9
No	20.1	14.1 – 27.8
Activities carried out with /by PE /OEs # (n=258)		
Discussion on how HIV/AIDS is/isn't transmitted	75.9	71.5 – 83.0
Demonstration on using condom correctly	18.3	11.4 – 22.4
Discussion on how STI is/isn't transmitted	33.5	26.3 – 40.3
Discussion on safe injecting behavior	96.0	92.9 – 98.5
Discussion on regular/non-regular use of condom	22.1	16.7 – 27.6
Others	9.2	5.7 – 13.8
Organizations Represented by OE/PE* (n=258)		
LALS	79.7	69.5 – 89.0
Youth Vision	14.9	11.3 – 22.4
SMF	8.2	1.5 –15.5
RICHMOND	13.8	7.5 – 22.5
Nava Kiran	1.9	0.4 – 4.1
Others	6.4	3.3 – 10.7
Number of Meetings with PE or OE (n=258) in the last 12 months		
Once	1.0	0.2 – 2.1
2-3 times	17.3	12.2 – 22.8
4-6 times	22.5	15.1 – 30.5
7-12 times	16.5	11.1 – 22.2
More than 12 times	42.7	35.4 –50.9

8.2 Drop-in-Center

Drop-in-centers (DICs) are another important component of HIV prevention programs. The DICs not only provide a safe space for the target communities to socialize but are also the site for educational and counseling activities. DICs offer a number of services to the target groups, including counseling, group classes, group discussions, individual counseling, and video shows on HIV/AIDS and STIs. Certain NGOs also run needle exchange programs through their DICs. The IDUs are also provided with IEC materials and condoms at DICs.

A total of 72.4 percent had visited a DIC in the past year. Among them, the majority (92.9%) had been to a DIC to get a new syringe. A good proportion of them (67.3%) had been informed about safe injecting behavior at the DIC. Moreover, IDUs had collected condoms from DICs (31.1%) participated in discussions on HIV transmission (20.7%), learnt how to use condoms correctly (15.6%) and watched a film on HIV/AIDS (11%) (Table 8.2).

DICs run by LALS (83.3%) were the most frequented centers, followed by those run by Siddhi Memorial Foundation (SMF) (11.3%) and Richmond (8.7%). The majority of IDUs (94.2%) had visited DICs more than once during the year.

Table 8.2: DIC Visiting Practices of IDUs

DIC Visiting Practices	Estimated Population Proportions (%)	95%CI
Visited a DIC in the Last 12 months (N=300)		
Yes	72.4	66.6 - 79.5
No	27.6	20.5 – 33.4
Activities Participated in at DIC # (n=228)		
Collected condoms	31.1	23.2 – 38.0
Learnt correct ways of using condom	15.6	11.4 – 22.3
Learnt about safe injecting behavior	67.3	58.5 – 72.0
Watched film on HIV/AIDS	11.0	7.3 – 19.6
Participated in discussion on HIV transmission	20.7	14.3 – 29.6
Got new syringe	92.9	86.7 – 96.0
Others	14.0	8.4 – 19.0
Name of Organizations that Run the Visited DIC # (n=228)		
LALS	83.3	72.5 – 94.4
Youth Vision	3.3	0.8 – 7.9
SMF	11.3	2.2 – 19.3
RICHMOND	8.7	4.1 – 14.3
Others	1.0	0.4 – 2.9
Number of Visits to the DIC (n=228)		
Once	5.8	1.4 – 8.2
2-3 times	9.2	5.4 – 13.3
4-6 times	13.2	8.3 – 18.8
7-12 times	10.8	5.6 – 12.8
More than 12 times	61.0	56.9 – 71.3

Note: # Because of multiple answers, percentages add up to more than 100.

8.3 STI Clinic

Timely detection of STIs may prevent serious health hazards. In Nepal, there are several clinics being run by different government, as well as non-government organizations, for providing STI testing and treatment facilities. In this survey, only two IDUs (0.7%) had visited a STI clinic in the past year. Both of them had participated in a discussion on the ways in which STIs are transmitted, while only one had given a blood sample and had a physical examination. One had visited an STI clinic run by LALS and the other had gone to a Richmond Fellowship DIC. One paid just one visit while the other had gone two or three times in the past year.

Table 8.3: STI Clinic Visiting Practices of IDUs

STI Clinic Visiting Practices	% *
Visited any STI Clinic in the Last 12 Months (N=300)	
Yes	0.7
No	99.3
Activities Participated in at the STI Clinic # (n=2)	
Blood tested for STI detection	50.0
Underwent physical examination for STI identification	50.0
Participated in discussion on STI transmission modes	100.0
Participated in discussion on safe injecting behavior	50.0
Participated in discussion on regular/non-regular use of condom	50.0
Name of the Organization that Runs the STI clinic # (n=2)	
LALS	50.0
RICHMOND	50.0
Number of Visits to STI Clinics (n=2)	
Once	50.0
2-3 times	50.0

Note: # Because of multiple answers, percentages add up to more than 100.
* Estimated population Proportion was calculated with SPSS as the variables did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted.

8.4 VCT Centers

VCT centers form an integral part of the HIV/AIDS prevention programs. They provide HIV/AIDS/STI testing facilities and offer pre and post test counseling. Moreover, information related to safe injecting practices, HIV/AIDS and STI transmission, and treatment facilities are also provided at these centers.

In this survey, 15 percent of respondents had been to a VCT center in the past year. The majority of them visited the center to give their blood sample for HIV testing (82.1%) while only two thirds (65.5%) had received the results. Some respondents had received pre- HIV test counseling (75.1%), information on safe injecting behavior (48.6%) or post HIV test counseling (47.1%) at these centers.

Table 8.4: VCT Center Visiting Practices of IDUs

VCT Center Visiting Practices	Estimated Population Proportions (%)	95%CI
Visited a VCT center in the last 12 months (N=300)		
Yes	14.9	10.8 – 19.4
No	85.1	80.6 – 89.3
Activities Participated in at VCT center # (n=55)		
Received pre-HIV test counseling	75.1	59.9 – 96.1
Gave blood sample HIV test	82.1	56.3 – 91.4
Received post HIV test counseling	47.1	29.8 – 81.5
Received information on safe injecting behavior	48.6	21.9 – 77.9
Received counseling on consistent and correct use of condoms	10.6	6.6 – 32.0
Got information on HIV/AIDS window period	26.9	8.0 – 41.2
Received HIV test result	65.5 *	NC
Went with a friend	5.5 *	NC
Others	1.8 *	NC
Name of the Organization that Runs the visited VCT Centers # (n=55)		
Youth Vision	78.2 *	NC
SACTS	3.6 *	NC
CAC	3.6 *	NC
FPAN	1.8 *	NC
Others	16.4 *	NC
Number of Visits to VCT centers (n=55)		
Once	60.0 *	NC
2-3 times	29.1 *	NC
4-6 times	9.1 *	NC
7-12 times	1.8 *	NC

Note: #Because of multiple answers, percentages add up to more than 100.
Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

8.5 Participation in HIV/AIDS Awareness Programs

Various government, as well as non-government, organizations have been involved in implementing HIV/AIDS awareness activities. Their programs include workshops, group discussions, talk programs, training sessions, radio programs, condom day/AIDS day celebrations and street dramas. Some of these programs specifically target the most at risk populations while some include the general population.

This survey revealed that just over a quarter (26.1%) of IDUs in the Kathmandu Valley had had ever participated in an HIV/AIDS awareness raising program or similar community event before. Among them, 53.7 percent had taken part in a condom day celebration, 48.9 percent in different group discussions, 39.5 percent in an AIDS day celebration, and 28.3 percent in HIV/AIDS related trainings.

The activities the respondents participated in were conducted by LALS (39.8%), SMF (26.2%), Youth Vision (18.7%) and other organizations (Table 8.5). Nearly half (45.5%) had participated in one program only, one third (33.3%) had taken part in two or three programs while one in five (21.2%) had participated in HIV/AIDS awareness programs more than three times.

Table 8.5: Participation in HIV/AIDS Awareness Programs

Participation in HIV/AIDS Awareness Programs	Estimated Population Proportions (%)	95% CI
Ever Participated in an HIV/AIDS Awareness Raising Program or Community Event (N=300)		
Yes	26.1	20.5 – 31.7
No	73.9	68.3 - 79.5
Activities Participated in # (n=99)		
Street drama	16.4	4.1 – 29.0
AIDS Day celebration	39.5	23.6 – 53.9
Condom Day celebration	53.7	33.8 – 63.6
Group discussions	48.9	31.3 – 66.9
HIV/AIDS related training	28.3	14.9 – 50.5
HIV/AIDS related workshops	18.6	6.3 – 39.2
Condom use demonstrations	25.2	10.4 – 35.9
Video Shows	1.0 *	NC
Talk programs	1.0 *	NC
Name of the Organizations that Conducted Such Activities # (n=99)		
Youth Vision	18.7	9.0 – 24.7
LALS	39.8	24.9 – 52.6
SMF	26.2	4.6 – 43.0
NRCS	3.0 *	NC
Recovery Nepal	2.0 *	NC
Nav Kiran Plus	4.0 *	NC
Richmond	5.1 *	NC
Others	30.6	18.0 – 47.9
Don't Know	2.0 *	NC
Frequency of Such Participation in the past 12 months (n=99)		
Once	45.5 *	NC
2-3 times	33.3 *	NC
4-6 times	11.1 *	NC
7-12 times	1.0 *	NC
More than 12 times	4.0 *	NC
No participation in the past year	5.1 *	NC

Note: #Because of multiple answers, percentages add up to more than 100.
Estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.
NC- Not calculated (RDSAT conditions were not met)

9. COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter seeks to analyze the trends by comparing the data obtained from the first, second and third rounds of studies. It specifically tackles socio-demographic characteristics, drug injecting habits, needle/syringe using practices, and condom use among IDUs. It should be noted here that these comparisons are only possible because the same sampling design and procedures were used in all three rounds.

9.1 Socio-Demographic Characteristic

The socio-demographic characteristics of IDUs in Kathmandu presented a similar pattern in all three rounds. This is, to a certain extent, a consequence of adopting the same sampling methodology for all three rounds.

The median age of IDUs was 25 years in the first and third rounds, and 26 in the second round. In all three rounds, similar proportions of respondents were aged 25 or less (43.9% in 2002, 42.3% in 2005 and 49.8% in 2007).

Literacy status of the respondents was also similar throughout all three rounds with the majority of IDUs being educated at the secondary school level or above (79.5% in 2002, 74.6% in 2005 and 74% in 2007).

IDUs in all three rounds represented the major caste/ethnic groups residing in the Valley. Around two fifths of respondents belonged to Newar community (43.6%, 40% and 44.9%) in all three surveys. On the other hand, there has been a significant decrease in the proportion of IDUs belonging to Chhetri/Thakuri caste (28.7% in 2002, 24% in 2005 and 16.2% in 2007) while the proportion of IDUs belonging to Gurung/Rai origin has significantly increased since the first round in 2002 (5.9% in 2002, 8.3% in 2005 and 16.1% in 2007)

Table 9.1: Socio-Demographic Characteristics of IDUs

Socio-Demographic Characteristics	First round (2002) (%) N=303*	Second round (2005) (%) N=300*	Third Round (2007) EPP (%) N=300
Age			
< 25 Yrs	43.9	42.3	49.8
> =25 Yrs	56.1	57.7	50.2
Median age	**25**	**26**	**25**
Education			
Illiterate	3.0	8.0	3.0
Literate only	1.7	2.3	5.1
Primary	15.8	24.0	18.0
Secondary	47.2	36.3	42.3
SLC and above	32.3	29.3	31.7
Ethnicity			
Brahmin	6.6	5.3	5.0
Chhetri/Thakuri	28.7	24.0	16.2
Newar	43.6	40.0	44.9
Tamang/Lama/Magar	11.2	16.3	14.4
Gurung/Rai	5.9	8.3	16.1
Others	4.0	7.0	3.4

*Unadjusted

9.2 Drug Injecting Practices

The average number of years respondents have been injecting drugs has steadily increased from five in 2002 to six in 2005 and to 6.2 in 2007. In all three rounds, a large majority of

respondents reported injecting drugs for more than two years (82.2% in 2002, 86.3% in 2005 and 82.1% in 2007).

The median age of the respondents at their first injection has come down from 21 in 2002 to 20 in both 2005 and 2007. In 2007, a statistically higher proportion of IDUs than in 2002 had injected for the first time before turning 20 (45.5 percent in 2002, 53 percent in 2005 and 56.2 percent in 2007).

Table 9.2: Drug Injecting Practices of IDUs

Drug Injecting Practices	First round (2002) (%) N=303*	Second round (2005) (%) N=300*	Third round (2007) EPP (%) N=300
Duration of drug injection habit			
Up to 11 months	7.3	5.3	4.7
12-23 months	10.6	8.3	13.1
24-59 months	33.7	32.0	36.3
60 and above	48.5	54.3	45.8
Average duration years	**5**	**6**	**6.2**
Age at first drug injection			
Up to 20 years	45.5	53.0	56.2
21 + years	54.5	47.0	43.8
Median age	**21**	**20**	**20**

*Unadjusted

9.3 Needle/Syringe Using Practices in the Past Week

Data points to an increased level of awareness about risky needle/syringe using practices. The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has increased significantly since the first round. High risk behavior such as injecting with a previously used needle/syringe went down from 45.5 percent in 2002 to 20.3 percent in 2005 and finally to 11.9 percent in 2007 ($P<0.01$).

In the same way, 31.7 percent of IDUs had injected with syringes left in a public place in the week preceding the 2002 survey; this figure has steadily decreased, going down to 19.3 percent in the second round and down again to 6.7 percent in the third round (6.7%) which is a statistically significant difference ($P<0.01$).

Moreover, the proportion of IDUs reporting not sharing their needle/syringes with anyone in the past week increased from 41.3 percent in the first round to 73 percent in the second and finally, to 85.4 percent in the third round ($P<0.01$).

Table 9.3: Past Week's Syringe Use and Sharing Behavior

Needle/syringe use throughout the past week	First round (2002) (%) N=303*	Second round (2005) (%) N=300*	Third round (2007) EPP (%) N=300
Used a needle/syringe that had been used by another			
Never Used	54.5	79.7	88.1
Ever Used	45.5	20.3	11.9
Used a needle/syringe that had been kept in a public place			
Never Used	68.3	80.7	93.3
Ever Used	31.7	19.3	6.7
Number of needle/syringe sharing partners			
None	41.3	73.0	85.4
Two partners	20.5	17.3	12.2
Three or more partners	38.3	9.7	2.4

*** Unadjusted**

9.4 Condom Use with Different Partners

A larger proportion of IDUs reported using condoms consistently with their regular sex partners since the first round of the survey in 2002, but the proportion of respondents using condoms consistently with their non-regular partners has been going down over the same period of time. Meanwhile, a significantly higher number of IDUs had used condoms consistently with female sex workers in 2007 than in 2002 and 2005.

Table 9.4: Consistent Use of Condoms with Different Sex Partners in the Past Year

Consistent use of condoms	First round (2002)	Second round (2005)	Third round (2007)
	*	*	RDS EPP (%)
Use of condom with regular female sex partners during the past 12 months	**N=97**	**N=77**	**N=70**
Every time	18.5	13.0	43.1
Sometime – Never	81.0	87.0	56.9
Use of condom with non-regular female sex partners during the past 12 months	**N=50**	**N=51**	**N=83**
Every time	48.0	35.3	33.5
Sometime – Never	52.0	64.7	66.5
Use of condom with female sex workers during the past 12 months	**N=35**	**N=56**	**N=77**
Every time	54.3	33.9	67.8
Sometime – Never	45.7	66.1	32.2

*Unadjusted

9.5 HIV Prevalence

HIV prevalence among IDUs has been gradually decreasing since the first round in 2002. As seen in Table 9.5, the first round of IBBS found an alarming rate of 68 percent HIV prevalence among IDUs in the Kathmandu Valley.

Table 9.5: HIV Prevalence among IDUs

HIV Prevalence	First round (2002)		Second round (2005)		Third round (2007)	
	N=303	%	N=300	%	Estimated population Proportion (%) (n=300)	95% CI
HIV	206	68.0	155	51.7	34.8	27.7-42.1

From other findings in this study, it is evident that IDUs in the Valley are becoming increasingly conscious of HIV/AIDS risk factors with regards to injecting and sexual behavior. Around 55 percent of IDUs had avoided injecting with a previously used needle in the first round, this figure reached 88.1 percent in 2007. Likewise, practices like injecting with a syringe that had been kept in a public place decreased from 32 percent in 2002 to seven percent in 2007.

10. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

10.1 Summary of Major Findings

- The prevalence rate of HIV among IDUs in the Kathmandu Valley remains high with 34.8 percent which ranges between 27.7-42.1 percent at a 95 percent confidence interval. Although still high, this represents a significant reduction from the 68 percent prevalence rate found in 2002 and the 51.7 percent prevalence rate found in the 2005 survey.

- Compared with HIV, STIs are a relatively minor problem among IDUs; syphilis history was detected among 1.7 percent of IDUs while only one respondent (0.3%) was found to have active syphilis (TPHA positive and RPR Positive in 1:8 titre) at the time of this survey.

- The prevalence of HIV significantly differed according to marital status, education level and the duration of the respondent's injective drug use. Married IDUs, illiterate respondents and those who had been injecting for more than five years were significantly more likely to be HIV-positive than others.

- The IDUs consisted predominantly of young people; 76.7 percent were below the age of 30 years.

- Alcohol and oral drugs were common among IDUs; all of the respondents had inhaled oral drugs while nearly seven in ten had alcoholic drinks in the week preceding the survey. The majority of the sample had been using oral drugs for more than five years.

- About 18 percent of IDUs had started injecting drugs in the last two years while the majority had been injecting for more than two years. .

- Past week injecting practices of respondents indicated that 11.9 percent had injected with a syringe used by others and 6.7 percent had used a syringe left in a public place.

- Among those IDUs who had gone out of the Kathmandu Valley, 8.5 percent had injected with a previously used needle/syringe and four percent had given a needle/syringe to someone else after their use at the place/s visited by them.

- Around 89 percent of IDUs reported having experienced sexual intercourse before. Among them 58.4 percent reported being sexually active during the past year. Similar proportions had sex with regular female partners (21.3%), non-regular female partners (26.5%) and FSWs (27.3%).

- Consistent condom use was reported highest with sex workers (67.8%) followed by regular sex partners (43.1%) and non-regular female sex partners (33.5%) over the past year.

- There were 8.6 percent of IDUs who had not heard about STIs before.

- Overall, 13.8 percent complained about symptoms of genital discharge and 9.4 have had a genital ulcer/sore in the past year. Among them, sixty percent were experiencing genital discharge and 33.3 percent had a genital ulcer/sore at the time of the survey.

- In total, 61.7 percent of IDUs were aware of all three main prevention measures namely (A) abstinence from sex (B) being faithful to one sex partner (C) and regular condom use.

- Fifty three percent of IDUs had ever tested themselves for HIV. Most of them (93.8%) had received their test result.

- Overall, 79.9 percent of IDUs had met with PE/OEs before, 72.4 percent had visited a DIC and 14.9 percent had visited a VCT center in the past year. However, very few IDUs (0.7%) had visited an STI clinic.

- Only 26.1 percent of respondents had ever participated in an HIV/AIDS awareness program/activity before.

10.2 Recommendations

Based on the findings of this study, a few specific recommendations have been made. They are as follows:

- Data from all three rounds of studies indicate that youth and adolescents are the most susceptible to falling into an injecting habit (49.6% respondents were younger than 25 years while 56.2% had their first injection before turning 21). Specific program activities that target school children, college students, youth, and adolescents should be designed to impart information on the dangers of drug use, HIV/AIDS awareness and sex education.

- A significant relationship was noticed between HIV prevalence and the duration of drug injection habit. HIV prevalence was significantly higher among IDUs who injected frequently. Ongoing HIV/AIDS awareness activities should continue and be expanded geographically to cover more populations of IDUs. Advocacy, behavioral change activities, and health promotion interventions should be further scaled up.

- Around 52 percent of IDUs had maintained sexual contact with more than two partners in the past year. While 23.1 percent had sex with regular sex partners, 26.5 percent and 27.3 percent had sexual contact with non-regular partners and female sex workers respectively. Among them, 56.9 percent of IDUs had not used condoms consistently with their regular female sex partners, 66.5 percent had not with their non-regular female sex partners and 32.2 percent had not used condoms consistently with female sex workers during the past year. Barriers to inconsistent condom use should be explored and intervention targeting not just IDUs but also female sex workers and the general population should be stressed.

- Injecting practices during the week preceding the survey revealed that 11.9 percent of respondents had injected with a previously used syringe and 6.7 percent had used a syringe that had been left in a public place. Harm reduction initiatives such as wider

dissemination of information on safe injecting behavior and needle exchange programs should be continued and expanded further.

- Over one-third of IDUs (36.1%) had received de-addiction treatment at least once, while 63.9 percent had never received any such treatment. Rehabilitation and detoxification centers should be supported for providing necessary services to IDUs especially to those belonging to economically deprived families. Rehabilitation programs should also incorporate family counseling services.

- Sixty four percent of those IDUs who had ever experienced an STI symptom had never sought any treatment. HIV/AIDS awareness campaigns should also focus on STI education. Client friendly STI testing and treatment facilities and VCT centers should be made available to encourage more IDUs to voluntarily come forward for such services.

- PE/OEs are good contact points to disseminate necessary information and IEC materials to the target populations, around 80 percent of respondents had met with them at least once in the past year. One to one education for behavioral change and safe injecting and sexual practices through wider mobilization of PE/OEs could yield positive results.

- A good number of IDUs visit DICs with 72.4 percent respondents having visited a DIC in the past year. More DICs with expanded activities at central locations could cover more of the target groups.

- Around 74 percent of respondents had never participated in any HIV/AIDS related program. Ongoing programs should be expanded geographically and capacity building of local NGOs should be focused on to increase access to more of the target population.

- Monitoring and evaluation of HIV prevalence and risk behaviors of IDUs to design and implement timely intervention strategies are needed at regular time intervals.

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ANNEXES

ANNEX – 1 Questionnaire

Confidential

Integrated Bio-Behavioral Survey (IBBS) among Injecting Drug Users (IDUs) in Selected Sites of Nepal FHI/New ERA/SACTS – 2007

Namaste! My name is……. I am here from New ERA to collect data for a research. During this data collection, I will ask you some personal questions that will be about drugs, use of needle/syringe when injecting drugs, sexual behavior, use of condoms and knowledge about STI/HIV/AIDS. You may feel uneasy responding to some personal questions. But it is important that you answer truthfully. We will also take your blood sample for laboratory testing for syphilis and HIV. If it is determined that you have any STI symptoms, we will provide treatment free of charge. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk about because your name will not be mentioned on this form and collected samples. All the mentioned information will be used only for the research purpose. This survey will take about 40 to 60 minutes.

It depends on your wish to participate in this survey or not. You do not have to answer those questions that you do not want to answer, and you may end this interview at any time you want to. But I hope you will participate in this survey and make it a success by providing correct answers to all the questions.

Would you be willing to participate?

1. Yes 2. No

Signature of the interviewer: _____ Date:_____/_____/2064

Operational definition of respondent:

Male Injecting Drug User (IDU): Person who injects various drugs in muscles or in veins for intoxication purposes. Please note that people who inject drugs as part of medical treatment are not included in IDUs. The respondent must be a current injecting drug user who has started injecting at least ***three months before the interview date***. Those who have started injection within last three months are not eligible for interview.

Male IDUs under the age of 16 will be excluded.

Code Respondents:

Seed: 1. Yes 2. No

IDENTIFICATION NUMBER (Coupon Number): _____ ***(Write '0' for seed)***

Coupon number given: 1) _____ 2) _____

3) _____

Did the interviewee abandon the interview?

1. Yes (Precise the number of the last question completed: Q ____)
2. No

Interviewer Name: _____ Code Interviewer: _____

Date Interview: _____ / _____ / 2064
Checked by the supervisor: Signature: _____ Date: ____/ ____ / 2064

Data Entry # 1: Clerk's name: _____ Date _____/_____/2064
Data Entry # 2: Clerk's name: _____ Date _____/_____/2064

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

1. Yes ↓ 2. No **(continue interview**)

When?
_____Days ago **(make sure that it was interviewed by New ERA and close the interview)**

002. Respondent's ID #: | | | | | | |

002.1 Respondent referred by coupon no. _____

002.2 In which part of the body respondent usually inject? **(Conform by observation)**
_____

002.3 Did you share needle/syringe with the friend who brought you here? (Don't ask with seed)

1. Yes 2. No

002.4 How long you have been injecting drugs?

Years | | Months | |

(NOTE: THIS IS A SCREENING QUESTION. IF THE RESPONSE IS LESS THAN THREE MONTHS STOP INTERVIEW BECAUSE THIS PERSON IS NOT ELIGIBLE FOR INCLUSION IN THE SAMPLE)

003. Interview Location
(to be filled by interviewer)

003.1 Name of location _____

003.2 Ward No. ☐☐

003.3 VDC/Municipality: _____

003.4 District: _____

1.0 BACKGROUND OF RESPONDENT

Q. N.	Questions	Coding Categories	Skip to Q.N.
101	Where are you living now? **(Write current place of residence: Ward No. Tole, Lane etc.)**	Ward..... ☐☐ VDC/Municipality_____ District_____	
101.1	How long have you been living continuously at this location?	Month..... ☐☐☐ Always (since birth).....0 Others (Specify)_____.96	
102	In the last 12 months have you been away from your home for more than one-month altogether? **(Left home, village/district)**	Yes .....1 No.....2 Don't know.....98 No response 99	
103	How old are you?	Age ..... ☐☐ **(write the completed years)**	
104	What is your educational status?	Illiterate .....0 Literate .....19 Grade..... ☐☐ **(write the completed grade)**	
105	What is your caste? **(Specify Ethnic Group/Caste)**	Ethnicity/Caste _____	
106	What is your current marital status?	Never married .....1 Married.....2 Divorced/Permanently separated .....3 Widow.....4 Other (Specify)_____.....96	108
107	How old were you when you first married?	Age ..... ☐☐ **(write the completed years)**	
108	With whom you are living now?	Living with wife.....1 Living with female sexual partner .....2 Living without sexual partner .....3 Others (Specify)_____ .....96 No response 99	 110 110 110
109	Do you think your wife/female sexual partner has any other sexual partners?	Yes .....1 No.....2 Don't know.....98 No response 99	 110 110 110

Q. N.	Questions	Coding Categories	Skip to Q.N.
109.1	If yes, what is the sex of the partner?	Male ..... 1 Female..... 2	
110	During the past one-month how often have you had drinks containing alcohol? **(Such as beer, local beer etc.)**	Every day ..... 1 More than once a week ..... 2 Less than once a week..... 3 Never drink ..... 4 Others (Specify)_____ ..... 96 No response..... 99	

2.0 DRUG USE

Q. N.	Questions	Coding Categories	Skip to Q.N.
201.	How long have you been using drugs? **(Drug means medicine not used for treatment purpose rather used for Intoxication**)	Years ..... ☐☐ Months ..... ☐☐ No response 99	
202.	How old were you when you first injected drugs? **(Include self-injection or injection by another)**	Years ..... ☐☐ *(write the completed years)*	
203	How long have you been injecting drugs? **(Include self-injection or injection by another**)	Years ..... ☐☐ Months ..... ☐☐ No response 99	
203.1	Have you injected drugs in the last month?	Yes ..... 1 No..... 2	204
203.2	If Yes, have you used non-sterile injecting equipment at any time in the last month?	Yes ..... 1 No..... 2	

204. Which of the following types of drugs have you used and/or injected in the past one-week? ***(Read the list, multiple answer possible)***

Description	Used in Last-Week				Injected in Last-Week			
	YES	NO	DK	NR	YES	NO	DK	NR
1. Tidigesic	1	2	98	99	1	2	98	99
2. Brown Sugar	1	2	98	99	1	2	98	99
3. Nitrosun	1	2	98	99	1	2	98	99
4. Ganja	1	2	98	99	1	2	98	99
5. Chares	1	2	98	99	1	2	98	99
6. White Sugar	1	2	98	99	1	2	98	99
7. Phensydyl	1	2	98	99	1	2	98	99
8. Calmpose	1	2	98	99	1	2	98	99
9. Diazepam	1	2	98	99	1	2	98	99
10. Codeine	1	2	98	99	1	2	98	99
11. Phenergan	1	2	98	99	1	2	98	99
12. Cocaine	1	2	98	99	1	2	98	99
13. Proxygin	1	2	98	99	1	2	98	99
14. Effidin	1	2	98	99	1	2	98	99
15. Velium 10	1	2	98	99	1	2	98	99
16. Lysergic Acid Dithylamide(LSD)	1	2	98	99	1	2	98	99
17. Nitrovate	1	2	98	99	1	2	98	99
18. Combination (Specify) ___	1	2	98	99	1	2	98	99
96. Others (Specify)_____	1	2	98	99	1	2	98	99

Q. N.	Questions	Coding Categories	Skip to Q.N.
204.1	Did you switch in the last month from one drug to another?	Yes ..... 1 No..... 2	 205
204.1.1	If yes	From _____drug To _____drug	
204.1.2	What is the reason for switching?	_____ _____	
205.	How many times would you say you injected drugs yesterday?	Times ..... ☐☐ Not injected..... 0	209
206.	Would you like to tell me why you did not injected yesterday?	_____ _____	
207.	How many days ago did you get injected?	Days ago ..... ☐☐	
208.	How many times would you say you injected drugs on the last day?	Times ..... ☐☐	
209.	During the past one-week how often would you say you injected drugs?	Once a week ..... 1 2-3 times a week ..... 2 4-6 times a week ..... 3 Once a day ..... 4 2-3 times a day..... 5 4 or more times a day..... 6 Not injected in the last week..... 7 Don't know ..... 98 No response..... 99	

3.0 NEEDLE SHARING BEHAVIORS

Q. N.	Questions	Coding Categories	Skip to Q.N.
301.	Think about the times, you have injected drugs yesterday/last day. How many times did you inject drugs that day? **(Fill the number from answer to Q. 205 or 208 and verify by asking the respondent)**	Times ..... ☐☐	
302.	The last time you injected, how did you get that syringe/needle? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me..... 2 I picked it up from a public place which was left there by others+ .. 3 I picked it up from a public place which was left there by myself+ .... 4 I used a new needle/syringe given by NGO staff/volunteer..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe..... 7 Others (Specify) _____ ..... 96 Don't know ..... 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
302.1	If you were in a group the last time that you injected, how many different people in the group do you think used the same needle?	Nos. ..... ☐☐ Injected alone 96	
303.	Think about the time before the last time you injected, how did you get that syringe/needle? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me . 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself ..... 4 I used a new needle/syringe given by NGO staff/ volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe 7 Others (Specify) _____ ..... 96 Don't know ..... 98 No response..... 99	
303.1	That time, If you were in a group, how many different people in the group do you think used the same needle?	Nos..... ☐☐ Injected alone 96	
304.	Now think about the time before **(before Q. 303)**, how did you get that syringe/needle? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me ..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ ..... 4 I used a new needle/syringe given by NGO staff/ volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/sy..... 7 Others (Specify) _____ ..... 96 Don't know ..... 98 No response..... 99	
304.1	That time If you were in a group, how many different people in the group do you think used the same needle?	Nos..... ☐☐ Injected alone 96	
305.	Think about the times, you have injected drugs during the past one-week. How often was it with a needle or syringe that had previously been used by someone else?	Every times ..... 1 Almost every-times ..... 2 Sometimes..... 3 Never used ..... 4 Not injected in the last week .... 5 Don't know..... 98 No response..... 99	314

Q. N.	Questions	Coding Categories				Skip to Q.N.
305.1	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
306.	In the past one-week, did you ever share needles and syringes with any of the following?					
	Read out list. Multiple answers possible	**Yes**	**No**	**DK**	**NR**	
	1. Your usual sexual partner	1	2	98	99	
	2. A sexual partner who you did not know	1	2	98	99	
	3. A friend	1	2	98	99	
	4. A drugs seller	1	2	98	99	
	5. Unknown Person	1	2	98	99	
	96. Other (Specify) _____	1	2	98	99	
307.	With how many different injecting partners did you share needles or syringes in the past one-week? **(Count everyone who injected from the same syringe)**	Number of partners ..... ☐☐ Don't know ..... 98 No response 99				
308.	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
309.	In the past-week, did you ever inject with a pre-filled syringe? **(By that I mean a syringe that was filled without you witnessing it)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99				
310.	In the past one-week, how often did you inject drugs using a syringe after someone else had squirted drugs into it from his/her used syringe? **(front-loading/back-loading/ splitting)**	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
311.	In the past one-week, when you injected drugs, how often did you share a cooker/ vial/container, cotton/filter, or rise water?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
312.	In the past one-week, how often you draw up your drug solution from a common container used by others?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				

Q. N.	Questions	Coding Categories	Skip to Q.N.
313.	In the past one-week, when you injected with needles or syringes that had previously been used, how often did you clean them first?	Every time ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Never reused ..... 5 Others (Specify)_____ 96 Don't know ..... 98 No response 99	 314 314 314 314 314
313.1	If cleaned, how did you usually clean them?	With water ..... 1 With urine ..... 2 With saliva ..... 3 Boil the syringe in water ..... 4 With bleach ..... 5 Burning the needle with matchstick ..... 6 Others (Specify)_____ 96 Don't know ..... 98 No response 99	
314.	Can you obtain new, unused needles and syringes when you need them?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 316 316 316
315.	Where can you obtain new unused needles and syringes? **(Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?")**	Drugstore ..... 1 Other shop ..... 2 Health worker ..... 3 Hospital ..... 4 Drug wholesaler/drug agency ..... 5 Family/relatives ..... 6 Sexual partner ..... 7 Friends ..... 8 Other drugs users ..... 9 Drugs seller ..... 10 Needle exchange program of_____ ..... 11 Theft from legitimate source ..... 12 Buy on streets ..... 13 Other (Specify) _____96	
316.	In the past one-year, did you ever inject drug in another city/district?	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response 99	 317 317 317
316.1	If yes, in which other cities/districts did you inject, including cities in other countries?	Cities_____ Districts_____ Country _____	
316.2	Think about the times you injected drugs in another city/district (including abroad) how often was it with a syringe/needle that had previously been used by someone else?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
316.3	When you injected drugs in another city, how often did you gave a syringe/needle to some one else?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
317.	Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?	Currently under treatment ..... 1 Was in treatment but not now…2 Have never received treatment ..... 3 No response 99	 401 401
318.	How many months ago did you last receive treatment or help for your drug use?	Months ..... ☐☐ Don't know ..... 98 No response 99	
319.	What kind of treatment or help have you received? **(Do not read out the responses, probe asking, "Are there any other kinds of treatment that you've received?" Multiple Answers Possible.)**		
	Types of Treatments	**Name of Institutions**	
	1. Outpatient counseling		
	2. Self-help groups		
	3. Detoxification w/methadone		
	4. Maintenance w/methadone		
	5. Detoxification w/other drugs		
	6. Detoxification with no drug		
	7. Residential rehabilitation		
	8. Helped for *cold turkey*		
	9. Forced for *cold turkey*		
	96. Other (Specify) _____		
	99. No response		

4.0 SEXUAL HISTORY

Q. N.	Questions	Coding Categories	Skip to Q.N.
401.	How old were you at your first sexual intercourse?	Years old ..... ☐☐ ***(Write completed years)*** Never had sexual intercourse ..... 2 Don't know ..... 98 No response 99	 601
402.	Have you had sexual intercourse in the last 12 months	Yes ..... 1 No ..... 2 No response 99	 404 404
403.	In total, how many different female sexual partners have you had sex in the last 12 months?	Total Number ..... ☐☐	
403.1	How many were female "regular partners"? ***(*Your wife or live-in sexual partners)**	Number ..... ☐☐ Don't know ..... 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
403.2	How many were female "sex worker"? **(Partners to whom you bought or sold sex in exchange for money or drug)**	Number ..... ☐☐ Don't know ..... 98 No response 99	
403.3	How many were female "non-regular partners"? **(Sexual partners, you are not married to and have never lived with and did not have sex in exchange for money)**	Number ..... ☐☐ Don't know ..... 98 No response 99	
404.	We have just talked about your female sexual partners? Have you ever had any male sexual partners also?	Yes ..... 1 No ..... 2 No response 99	 501 501
404.1	If yes, have you had anal sex with any of your male partners in the last 12 months?	Yes ..... 1 No ..... 2 No response 99	 501 501
404.2	With how many different male partners have you had anal sex in the last 12 months?	Number ..... ☐☐ Don't know ..... 98 No response 99	
404.3	The last time you had anal sex with a male sex partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't Know ..... 98 No response 99	
404.4	How often have you used a condom in an anal sex with male sex partner in the past 12 months	Every Times ..... 1 Almost Every Times ..... 2 Some Times ..... 3 Never Used ..... 4 Don't Know ..... 98 No response 99	

5.0 NUMBERS AND TYPES OF PARTNERS

(Check Q. 403.1 and circle the response of Q.501)

Q. N.	Questions	Coding Categories	Skip to Q.N.
501.	Did you have sex with female regular partner during last 12 months?	Yes ..... 1 No 2	 502
501.1	Think about your most recent female regular sexual partner. How many times did you have sex with her during last one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	
501.2	The last time you had sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	501.4 501.4 501.4
501.3	Why did not you or your partner use a condom that time? **(Do not read the possible answers, multiple answer possible)**	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 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 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
501.4	How often have you used a condom with female regular partners in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
501.5	Did your female regular partner also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.6	Have you had ever-anal sex with your female regular partners?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 502 502 502
501.7	The last time you had anal-sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.8	How often have you used a condom in an anal-sex with female regular partners in the past 12 months?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
502.	Did you have a sexual intercourse with a female sex worker in last 12 months? ***(Check 403.2 and circle the response of Q. 502)***	Yes ..... 1 No 2	 503
502.1	**Think about the female sex workers that you have had sex in the past one-month.** In total how to many female sex workers you sold sex in exchange for money or drugs?	 No ..... ☐☐ Don't know ..... 98 No response 99	
502.1.1	With how many sex workers you had sex in last month by paying them money or drugs?	 No ..... ☐☐ Don't know ..... 98 No response 99	
502.2	Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month?	 Times ..... ☐☐ Don't know ..... 98 No response 99	
502.3	The last time you had sex with a female sex worker did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	502.5 502.5 502.5
502.4	Why did not you and your partner use a condom that time? **(Do not read the possible answers, multiple answer possible)**	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 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 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
502.5	How often have you used a condom with female sex workers in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
502.6	Do you know whether female sex worker with whom you had sex also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
502.7	Have you ever had anal sex with your female sex workers?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 503 503 503
502.8	The last time you had anal-sex with a female sex worker did you use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
502.9	How often have you used a condom in an anal sex with female sex workers in the past 12 months?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
503.	Did you have a sexual intercourse with a female non-regular sex partner during last 12 months? **(Check 403.3 and circle the response of Q. 503)**	Yes ..... 1 No 2	 504
503.1	Think about your most recent female non-regular sexual partner. How many times did you have sexual intercourse with her over the past one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	
503.2	The last time you had a sex with a female non-regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	503.4 503.4 503.4
503.3	Why did not you and your partner use a condom that time? **(Don't read the possible answers, multiple answer possible)**	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 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 No response 99	
503.4	How often have you used a condom with a female non-regular partner in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
503.5	Did you know whether your female non-regular partners also inject drugs?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
503.6	Have you ever had anal sex with your female non-regular partners?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	 504 504 504
503.7	The last time you had an anal sex with a female non-regular partner, did you and your partner use a condom?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
503.8	How often have you used a condom in an anal-sex with female non-regular partners in the past year?	Every times ..... 1 Almost every-times..... 2 Sometimes..... 3 Never used ..... 4 Don't know ..... 98 No response..... 99	
504	Have you had anal sex with a male partner in the past one year? **(See the response in Q. 404.1 and circle Q. 504 response)**	Yes ..... 1 No..... 2	 505
504.1	Think of your last male sex partner with whom you had anal sex: in the last one month, how many times you had anal sex with him?	Times ..... ☐☐ Don't know ..... 98 No response..... 99	
504.2	The last time you had anal sex with him; did you use condom?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	504.4 504.4 504.4
504.3	Why didn't you use condom at that time? **(Don't read possible answer, multiple answer possible)**	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them..... 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 No response..... 99	
504.4	How often have you used a condom is an anal sex with a male partner is the past year?	Every times ..... 1 Almost every-times..... 2 Sometimes..... 3 Never used ..... 4 Don't know ..... 98 No response..... 99	
504.5	Do you know if your male partner with whom you had anal sex also injects drugs?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
505.	Have you had sexual intercourse in the last month?	Yes ..... 1 No..... 2	 507

Q. N.	Questions	Coding Categories	Skip to Q.N.
506.	If yes, did you or your partner use a condom when you had sex last month?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
507.	With whom did you have the last sexual intercourse?	FSW ..... 1 Regular partner ..... 2 **(Wife or live in sexual partner)** Other female friend ..... 4 Male friend ..... 5 Don't Know ..... 98 No response 99	
508.	Did you use condom in the last sexual intercourse	Yes ..... 1 No 2	

6.0 USE AND AVAILABILITY OF CONDOM

(Check responses in Q.N. 404.3, 404.4, 501.2, 501.4, 502.3, 501.7, 501.8, 502.5, 502.8, 502.9, 503.2, 503.4, 503.7, 503.8, 504.4, 506, 508 and circle responses Q. 601 & 602)

Q. N.	Questions	Coding Categories	Skip to Q.N.
601.	Have you ever heard of a male condom? **(Show picture or sample of condom)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 701 701 701
602.	Have you ever used a condom?	Yes ..... 1 No 2	
603.	Do you know of any place or person from which you can obtain condom?	Yes ..... 1 Don't know ..... 98 No response 99	 701 701
604.	From which place or people, you can obtain condoms? (Multiple answer possible. Don't read the list but should probe)	Shop ..... 1 Pharmacy ..... 2 Clinic ..... 3 Hospital ..... 4 Family planning center ..... 5 Bar/Guest house/Hotel ..... 6 Health worker ..... 7 Peer Educator/outreach educator ..... 8 Friend ..... 9 *Pan Pasal* ..... 10 Others (Specify) _____ 96 No response 99	
605.	How long would it take ***(from your house or the place where you work)*** to obtain a condom?	Less than 30 minutes ..... 1 More than 30 minutes ..... 2 Don't know ..... 98 No response 99	

7.0 KNOWLEDGE AND TREATMENT OF STIs

Q. N.	Questions	Coding Categories	Skip to Q.N.
701.	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes ..... 1 No ..... 2 No response 99	 704 704
702.	Can you describe any symptoms of STIs in women? **(Do not read possible answers, multiple answers possible.)**	Abdominal pain ..... 1 Genital discharge ..... 2 Foul smelling ..... 3 Burning pain on urination ..... 4 Genital ulcers/sore ..... 5 Swelling in groin area ..... 6 Itching ..... 7 Other (Specify) _____ 96 Don't know ..... 98 No response 99	
703.	Can you describe any symptoms of STIs in men? **(Do not read possible answers, multiple answer possible)**	Genital discharge ..... 1 Burning pain on urination ..... 2 Genital ulcers/sore blister ..... 3 Swellings in groin area ..... 4 Others (Specify) _____ 96 Don't know ..... 98 No response 99	
704.	Have you had a genital discharge/burning urination during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 705 705 705
704.1	Currently, do you have a genital discharge/burning urination problem?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
705	Have you had a genital ulcer/sore blister during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 706 706 706
705.1	Currently, do you have a genital ulcer/sore blister problem?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
706.	Last time you had a genital discharge/ burning urination or a genital ulcer/sore blister, where did you go for treatment?	Did not seek treatment ..... 1 With private doctor ..... 2 In hospital ..... 3 No Symptoms ..... 4 Others (Specify) _____ 96	

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

Q. N.	Questions	Coding Categories	Skip to Q.N.
801.	Have you ever heard of HIV or the disease called AIDS?	Yes ..... 1 No ..... 2 No response 99	 804 804
802.	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes ..... 1 No ..... 2 No response 99	 804
803.	Do you have close relative or close fried who is infected with HIV or has died of AIDS?	Yes, a close relative ..... 1 Yes, a close friend ..... 2 No ..... 3 No response 99	
804.	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly every time they have sex?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
805.	Can a person get HIV, from mosquito bites?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
806.	Can a person protect himself/herself from HIV, by having one uninfected faithful sex partner?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
807.	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
808.	Can a person get HIV, by sharing a meal with someone who is infected?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
809.	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
810.	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? **(Oral or inhaling drugs)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
811.	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 813 813 813
812.	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? **(Do not read the possible answers, multiple answer possible)**	Take medication (Antiretrovirals) ..... 1 Others (Specify) _____ . 96 Don't know ..... 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
813.	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
813.1	Do you think a healthy-looking person can be infected with HIV?	Yes ..... 1 No..... 2 Don't know 98	
813.2	Can a person get HIV by shaking hand?	Yes ..... 1 No..... 2 Don't know 98	
813.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes ..... 1 No..... 2 Don't know 98	
814.	Is it possible in your community for someone to get a confidential test to find out if they are infected with HIV? **(By confidential, I mean that no one will know the result if you don't want him or her to know it.)**	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
815	I don't want to know the result, but have you ever had an HIV test?	Yes ..... 1 No..... 2 No response..... 99	 901 901
816.	Did you voluntarily undergo the HIV test, or were you required to have the test?	Voluntary ..... 1 Required..... 2 No response..... 99	
817.	Please do not tell me the result, but did you find out the result of your HIV test?	Yes ..... 1 No..... 2 No response..... 9	818 818
817.1	Why did you not receive the test result?	Sure of not being infected ..... 1 Afraid of result..... 2 Felt unnecessary..... 3 Forgot it ..... 4 Others (Specify) _____96	
818.	When did you have your most recent HIV test?	Within the past 12 months ..... 1 Between 13-24 months ..... 2 Between 25-48 months ..... 3 More than 49 months ..... 4 Don't know ..... 98 No response..... 99	

9.0 AWARENESS OF HIV/AIDS

(If answer to Q. 801 "No", Go to Q. 902)

Q. N.	Questions	Coding Categories		Skip to Q.N.
901.	Of the following sources of information, from which sources have you learned about HIV/AIDS? ***(Read the following list, multiple answers possible)***			
	Source of Information	**Yes**	**No**	
	1. Radio	1	2	
	2. Television	1	2	
	3. Newspapers/Magazines	1	2	
	4. Pamphlets/Posters	1	2	
	5. School/Teachers	1	2	
	6. Health Worker/Volunteer	1	2	
	7. Friends/Relatives	1	2	
	8. Work Place	1	2	
	9. People from NGO	1	2	
	10. Video Van	1	2	
	11. Street Drama	1	2	
	12. Cinema Hall	1	2	
	13. Community Event/Training	1	2	
	14. Bill Board/Sign Board	1	2	
	15. Comic Book	1	2	
	16. Community Workers	1	2	
	96. Others (Specify) _____	1	2	
902.	Has anyone give you following information or items in the past year? ***(Multiple answer possible, read the list)***			
	Items	**Yes**	**No**	
	1. Condom	**1**	**2**	
	2. Brochure/Booklets/Pamphlets about HIV/AIDS	1	2	
	3. Information about HIV/AIDS	1	2	
	96. Others (Specify) _____	1	2	

10.0 PROMOTION OF CONDOM

(If answer to Q. 601 "No" Go to Q. 1004)

Q. N.	Questions	Coding Categories		Skip to Q.N.
1001.	In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? ***(Read the following list, multiple answer possible)***			
	Sources	**Yes**	**No**	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	
	8. Friends/Neighbors	1	2	
	9. NGOs	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
	17. Community Workers	1	2	
	96. Others (Specify) _____	1	2	
1002.	Have you ever seen, heard or read following messages/characters during past one year? ***(Multiple answer possible)***			
	Message/characters	**Yes**	**No**	
	1. Jhilke Dai Chha Chhaina Condom	1	2	
	2. Condom Kina Ma Bhaya Hunna Ra	1	2	
	3. Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	1	2	
	4 Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	1	2	
	5. Condom Bata Surakchhya, Youn Swasthya Ko Rakchhya AIDS Ra Younrog Bata Bachna Sadhai Condom Ko Prayog Garau	1	2	
	6. HIV/AIDS Bare Aajai Dekhee Kura Garau	1	2	
	7. Ek Apas Ka Kura	1	2	
	8. Maya Garaun Sadbhav Badaun	1	2	
	9. Des Pardes	1	2	
	10. Manis Sanga Manis Mile hara Jeeta Kasko Hunchha	1	2	
	96. Others (Specify)_____	1	2	
1003.	Have you ever heard/seen or read messages or materials other than mentioned above?	Yes ..... 1 No..... 2		1004

Q. N.	Questions	Coding Categories	Skip to Q.N.
1003.1	What? Have you seen, read or heard of ?	_____ _____	
1004.	Generally, where do you gather to inject drug?	_____ _____	
1005	How many IDUs do you know who also know you? **Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months – knowing each other**	Total _____ Don't know ..... 98 No response 99	 1008 1008
1005.1	Among them persons how many are male and female?	Male _____ Female _____ Don't know ..... 98 No response 99	
1006	Among those persons, please try to estimate the number of people by range of age:	Less than 15 years old [_____] 15-19 years old [_____] 20-24 years old [_____] 25-29 years old [_____] 30-40 years old [_____] > 40 years old [_____] Don't know ..... 98 No response ..... 99 Not applicable 97	
1007	Again, among those guys, please try to estimate the number of people by religion:	Hindu [_____] Buddhist [_____] Muslim [_____] Christian [_____] Others (Specify) _____ [_____] Don't know ..... 98 No response ..... 99 Not applicable 97	
1008	How is the person who gave you the coupon related to you ?	A close friend ..... 1 A friend ..... 2 Your sexual partner ..... 3 A relative ..... 4 A stranger ..... 5 Others (Specify)_____ .... 6 Don't know ..... 98 No response 99	

11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

Q. N.	Questions	Coding Categories	Skip to Q.N.
1101	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizes (CM) or Community Educators (CE) in the last 12 months?	Yes ..... 1 No..... 2 No response..... 99	1105
1102	When you met/discussed/interacted with PE or OE in what kind of activities were you involved? **(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 Discussion on safe injecting behavior ..... 3 Regular/non-regular use of condom…… 4 Demonstration on using condom correctly……... 5 Others (Specify)_____ 96	
1103	Do you know from which organization were they? **(Multiple answers. DO NOT READ the possible answers)**	KCC. ..... 1 HELP. ..... 2 KYC. ..... 3 PSK ..... 4 LALS. ..... 5 Youth Vision..... 6 Naulo Ghumti ..... 7 CSG ..... 8 INF (Nepalgunj)..... 9 SMF ..... 10 AHH ..... 11 RICHMOND..... 12 Nav Kiran..... 13 Jhapa Plus ..... 14 Namuna..... 15 Others (Specify) _____. 96 Don't know..... 98	
1104	How many times have you been visited by PE, OE, CM and/or CE in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	
1105	Have you visited or been to any out reach center (DIC,IC or CC) in the last 12 months? **Drop-In Center (DIC), Information Center (IC), Counseling Center (CC)**	Yes ..... 1 No..... 2	1109

Q. N.	Questions	Coding Categories	Skip to Q.N.
1106	When you went to the out reach center (DIC, IC or CC), in which activities did you take part? **(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 learn about the safe injecting behavior..... 3 Went to watch film on HIV/AIDS..... 4 Participated in discussion on HIV transmission..... 5 Went to have new syringe..... 6 Other (Specify)_____ 96	
1107	Do you know which organizations run those out reach center (DIC, IC or CC)? **(Multiple answers. DO NOT READ the possible answers)**	KCC. ..... 1 HELP. ..... 2 KYC. ..... 3 PSK ..... 4 LALS. ..... 5 Youth Vision..... 6 Naulo Ghumti ..... 7 CSG ..... 8 INF (Nepalgunj)..... 9 SMF ..... 10 AHH ..... 11 RICHMOND..... 12 Nav Kiran..... 13 Jhapa Plus ..... 14 Namuna..... 15 Others (Specify) _____. 96 Don't know..... 98	
1108	How many times have you visited out reach centers (DIC, IC or CC) in the last 12 months?	Once..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	
1109	Have you visited any STI clinic in the last 12 months?	Yes ..... 1 No..... 2	 1113
1110	When you visited such STI clinic in what activities were you involved? **(Multiple answers. DO NOT READ the possible answers given below)**	Blood tested for STI..... 1 Physical examination conducted for STI identification..... 2 Discussion on how STI is/isn't transmitted. ..... 3 Discussion on safe injecting behavior ..... 4 Regular/non-regular use of Condom..... 5 Took a friend with me..... 6 Other (Specify)_____96	

Q. N.	Questions	Coding Categories	Skip to Q.N.
1111	Do you know which organizations run those STI clinics? **(Multiple answers. DO NOT READ the possible answers)**	AMDA ..... 1 SACTS ..... 2 NFCC ..... 3 CAC ..... 4 Paluwa ..... 5 Siddhartha Club ..... 6 NRCS ..... 7 NSARC ..... 8 FPAN ..... 9 Others (Specify)_____ 96 Don't know 98	
1112	How many times have you visited STI clinic in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	
1113	Have you visited any Voluntary Counseling and Testing (VCT) centers in the last 12 months?	Yes ..... 1 No 2	1117
1114	When you visited such VCT center in what activities were you involved? **(Multiple answers. DO NOT READ the possible answers)**	Received pre-HIV/AIDS test counseling ..... 1 Blood sample taken for HIV/AIDS test ..... 2 Received post HIV/AIDS test counseling ..... 3 Received information on safe injecting behavior ..... 4 Received HIV/AIDS test result ..... 5 Received counseling on using condom correctly in each sexual intercourse ..... 6 Received information on HIV/AIDS window period ..... 7 Took a friend with me ..... 8 Other (Specify)_____96	
1115	Do you know which organizations run those VCT centers? **(Multiple answers. DO NOT READ the possible answers)**	AMDA ..... 1 Youth Vision ..... 2 SACTS ..... 3 NFCC ..... 4 CAC ..... 5 Naulo Ghumti ..... 6 NSARC ..... 7 NRCS ..... 8 FPAN ..... 9 WATCH ..... 10 Namuna ..... 11 Others (Specify) _____ .96 Don't know 98	
1116	For how many times have you visited VCT center in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	

Q. N.	Questions	Coding Categories	Skip to Q.N.
1117	Have you ever participated in HIV/AIDS awareness raising program or community events in the last 12 months?	Yes ..... 1 No..... 2	 1121
1118	When you participated in such events in what activities were you involved? **(Multiple answers. DO NOT READ the possible answers)**	Street drama ..... 1 AIDS Day ..... 2 Condom Day ..... 3 Video Shows ..... 4 Group discussions ..... 5 Talk programs ..... 6 HIV/AIDS related training ..... 7 HIV/AIDS related Workshops .. 8 Condom use demonstrations ..... 9 Others (Specify) _____ 96	
1119	Do you know which organizations organized those activities? **(Multiple answers. DO NOT READ the possible answers given below)**	AMDA ..... 1 HELP ..... 2 KYC ..... 3 Youth Vision ……..4 NFCC ..... 5 LALS ..... 6 Naulo Ghumti ..... 7 WATCH ..... 8 GWP..... 9 NRCS ..... 10 NSARC ..... 11 AHH ..... 12 Recovery Nepal..... 13 SAHARA ..... 14 CSG ..... 15 Others (Specify) _____ .96 Don't know 98	
1120	How many times have you participated in such activities in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	
1121	Have you heard of any Community Home Based Care (CHBC) services that are provided for HIV positive people?	Yes ..... 1 No..... 2	
1122	Have you heard of care and support program that provide information regarding ART and ART services necessary for HIV infected people?	Yes ..... 1 No..... 2	

12.0 STIGMA AND DISCRIMINATION

Q. N.	Questions	Coding Categories	Skip to Q.N.
1201	If a male relative of yours gets HIV, would you be willing to take care of him in your household?	Yes ..... 1 No..... 2 Don't know..... 98	
1202	If a female relative of yours gets HIV, would you be willing to take care of her in your household?	Yes ..... 1 No..... 2 Don't know..... 98	
1203	If a member of your family gets HIV, would you want it to remain a secret?	Yes ..... 1 No..... 2 Don't know..... 98	
1204	If you knew a shopkeeper or food seller had HIV, would you buy food from them?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
1205	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't know ..... 98 No response..... 99	
1206	If a colleague who is working with you has HIV but he is not sick, should he be allowed to continue working?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	

Thank You.

ANNEX – 2 Formula Used in Sample Design

$n = D [(Z_\alpha + Z_\beta)^2 * (P_1 (1 - P_1) + P_2 (1 - P_2)) / (P_2 - P_1)^2]$

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

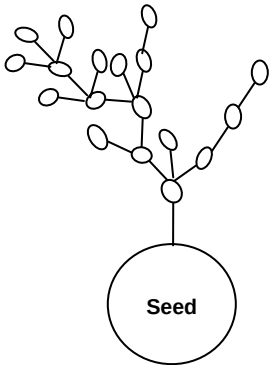
P_1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

P_2 = the expected level of the indicator either at some future date or for the project area such that the quantity (P_2-P_1) is the size of the magnitude of change it is desired to be able to detect

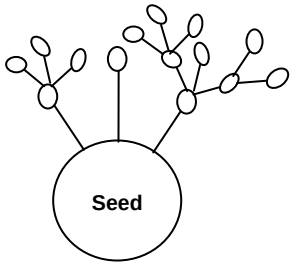
Z_α = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P_2-P_1) would not have occurred by chance (α – the level of statistical significance), and

Z_β = the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P_1-P_2) if one actually occurred (β – statistical power

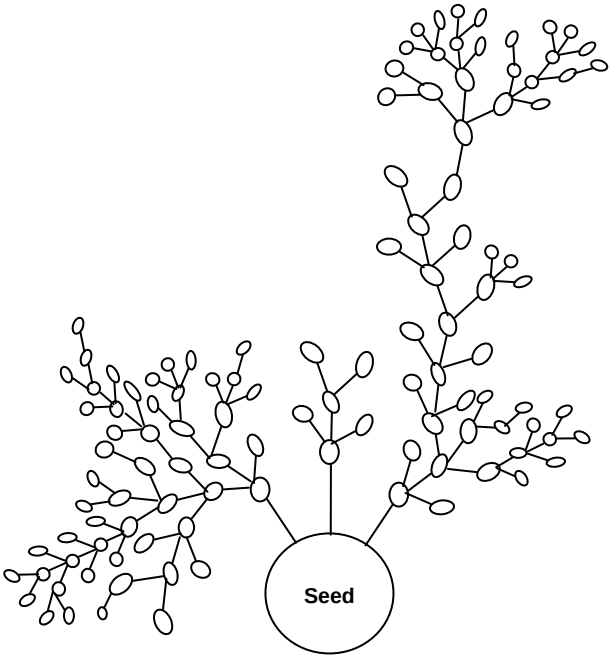
ANNEX – 3 - Respondent Driven Sample of IDUs



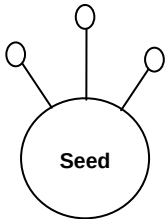
Wave – 6
Total IDUs -19



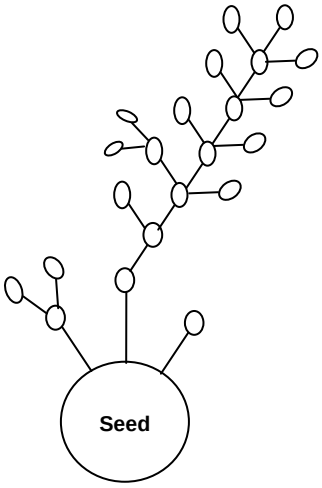
Wave – 3
Total IDUs -15



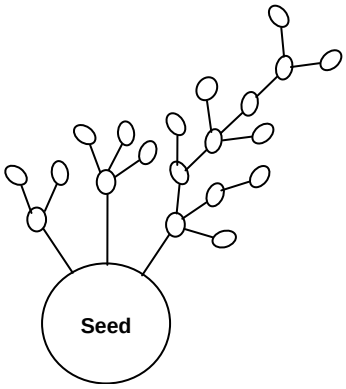
Wave –13
Total IDUs-117



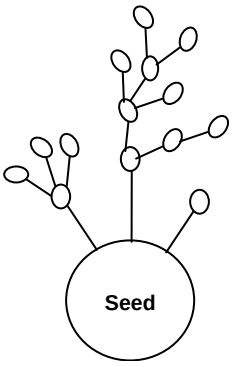
Wave – 1
Total IDUs - 4



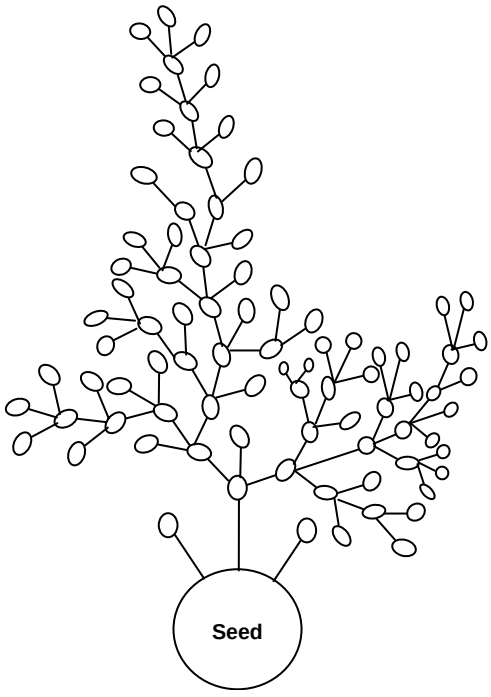
Wave – 7
Total IDUs - 23



Wave – 6
Total IDUs-21



Wave – 4
Total IDUs-15



Wave –11
Total IDUs-86

ANNEX – 4 Oral Informed Consent

Title: Integrated Bio-behavioral Survey among Injecting Drug Users in Kathmandu Valley, Pokhara Valley, Eastern *terai* Highway Districts, and Western to Far Western *terai* Highway Districts.

Sponsor: ASHA Project- FHI/Nepal and USAID/Nepal

Principal Investigator/s: Jacqueline McPherson, FHI/Nepal
Dr. Laxmi Bilas Acharya, FHI/Nepal

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FAX: +977 1 441 7475

Introduction

We are asking you to take part in research study to collect information on knowledge of HIV/STIs, HIV/STI related risk behaviors, STI treatment practices and to measure the prevalence of HIV and STI among the populations like you. We want to be sure you understand the purpose and your responsibilities in the research before you decide if you want to be in it. Please ask us to explain any words or information that you may not understand.

Information about the Research

In total 1245 male injecting drug users (IDUs) will be selected for interview from Kathmandu Valley, Pokhara Valley, Eastern *terai* highway districts and Western to Far Western *terai* highway districts. We will ask you some questions and then ask you to provide blood sample for HIV and syphilis test. We will draw 5-6 ml blood by 10 ml disposable syringe from your vein.

You will have to spend about 45-60 minutes with us if you decide to participate in this research. We would like to inform that this is a research study and not health care provision service.

Possible Risks

The risk of participating in this study is the minor discomfort due to bleeding bruising during blood drawing. Providing blood sample does not put you at any risk. Some of the questions we ask might put you in trouble or make you feel uncomfortable to answer them. You are free not to answer such questions and also to withdraw yourself from participating in the research process at any time you like to do so. You might feel some mental stress after getting your test results. But you will get proper pre and posttest counseling on HIV and STI through a qualified counselor.

There may be some risk that people may see you associated with the study, either now or when you return for your test results.

Possible Benefits

You will be provided with free treatment, if currently you have any STI symptoms. You will be given lab test results and made aware of how STI/HIV is transmitted and how it can be prevented and controlled. If your STI tests are positive for the curable sexual infection such as syphilis and you are not treated for this, you will be offered free treatment. You will also be provided with information on safe sex. The information we obtain from this research will help to plan and formulate strategies to control and prevent further spread of HIV/AIDS and other sexually transmitted diseases.

At the time of sample collection the study team members will give you the detail address of the place and the dates where you can hear your test results of syphilis and HIV. Test result will be given by a qualified counselor with pre and post test counseling. Test results can only be obtained by presenting the study ID card with your code number on it. If you do not have the ID card when you return for the test results we cannot give you the results because we will not be able to recognize you without the study ID card.

If You Decide Not to Be in the Research
You are free to decide whether or not to take part in this research. Your decision will not affect in any way in the health services you are seeking now and you would normally receive.

Confidentiality
We will protect information collected about you and your taking part in this study to the best of our ability. We will not use your name in any reports. Someone from FHI might want to ask you questions about being in the research, but you do not have to answer them. A court of law could order medical records shown to other people, but that is unlikely.

Payment
We will not pay you for your participation but you will be given, condom and reading materials about STI/HIV/AIDS as compensation for your participation in the research. Moreover, we will provide you a fixed amount of Nepalese Rupees (NRs.) 100.00 (approximately, US$1.50) after completing the study requirements to cover the local transportation you may use to come to the study center for interview and for providing biological sample and an additional NRs. 50.0 (US$ 0.70) for each successful referral of peers for the study. You may refer up to three peers or friends.

Leaving the Research
You may leave the research at any time. If you do, it will not change the healthcare you normally receive from the study clinic.

If you have a questions about the study
If you have any questions about the research, call:
Jacqueline McPherson, ASHA project - FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173; **OR**
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Your Rights as a Participant
This research has been reviewed and approved by the Institutional Review Board of Family Health International and Nepal Health Research Council (NHRC). If you have any questions about how you are being treated by the study or your rights as a participant you may contact ***Jacqueline McPherson*****, Family Health International (FHI), Baluwatar, Kathmandu, Phone: 01-4437173 and/or Mr. David Borasky, Protection of Human Subjects Committee, PO Box 13950, Research Triangle Park, NC 27709, USA, phone number: [International Access Code]-1-919-405-1445, e-mail: dborasky@fhi.org.]**

VOLUNTEER AGREEMENT

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____ _____

Signature of Person Who Obtained Consent Date

ANNEX – 5 Clinical Lab Check List

CONFIDENTIAL

INTEGRATED BIO- BEHAVIORAL SURVEY (IBSS) AMONG INJECTING DRUG USERS IN SELECTED SITES OF NEPAL
FHI/NEW ERA/SACTS – 2007

Clinical/Lab Checklist

Respondent | | | | | | | Date: 2064/___/__

Name of Clinician : _____
Name of Lab Technician : _____

(A) Clinical TEST

Weight : _____Kg

B.P. : _____mm of Hg

Pulse : _____

Temperature : _____° F

(B) Specimen collection

	Yes	No
Pre-test counseled	1	2
Blood Collected for HIV & Syphilis	1	2
Date & place for post-test results given	1	2
Condom given	1	2
IEC materials given	1	2

1.0 Syndromic Treatment Information

101. Have you experienced genital discharge/burning urination/swelling and tenderness of testis or epididymis in the past one month?

1. Yes 2. No
[If yes, give urethral discharge/scrotal swelling syndrome treatment]

102. Have you had genital ulcer/sore blister in the past one month?

1. Yes 2. No
[If yes, give genital ulcer syndrome treatment and time for follow-up]

103. Have you had a tender or non-tender/solid or fluctuant swelling in the groin area in the past one month?

1. Yes 2. No
[If yes, give inguinal swelling (bubo) syndrome treatment and time for follow-up]

ANNEX – 6 Study Centers

District	Lab Centers	No. of Centers	Sample Covered	Total
Kathmandu Valley	Koteshwor	2	151	300
	Sundhara		149	

ANNEX – 7 Participation in Post Test Counseling

Date	Counseling Center	Expected Client	Client Counseled		Client with HIV+	Client with HIV-
			N	%		
June 29 – August 15,2007	Youth Vision	300	20	6.7	3	17

ANNEX – 8 Reasons for Not Injected Drugs on the Previous Day

Injecting practice	First round (2002)		Second round (2005)		Third round (2007)	
	N	%	N	%	N	%
Reasons for not injecting yesterday						
To quit slowly	9	36.0	12	29.3	5	11.1
Lack of money	7	28.0	15	36.6	26	57.8
Unavailability/Scarcity of drugs	3	12.0	3	7.3	5	11.1
Busy in house work/lack of time	2	8.0	3	7.3	5	11.1
Taking other medicine	1	4.0	4	9.8	1	2.2
Illness	1	4.0	2	4.9	4	8.9
Attending treatment center	1	4.0	0	0.0	0	0.0
Others	1	4.0	3	7.3	4	8.9
Total	**25**	*	**41**	*	**45**	*

*Note: Because of multiple answers, percentages add up to more than 100.

ANNEX – 9 Part of the Body where IDUs Inject Drugs

Typical injection points	First round (2002)		Second round (2005)		Third round (2007)	
	N=303	%	N=300	%	N=300	%
Arm	215	71.0	52	17.3	126	42.0
Wrist	62	20.5	111	37.0	44	14.7
Forearm	8	2.6	73	24.3	0	0.0
Calf	6	2.0	12	4.0	0	0.0
Thigh	5	1.6	27	9.0	5	1.7
Vein of neck	3	1.0	3	1.0	0	0.0
Back of palm	0	0.0	15	5.0	1	0.3
Arch	0	0.0	3	1.0	0	0.0
Finger	0	0.0	3	1.0	0	0.0
Armpit	0	0.0	1	0.3	22	7.3
Elbow	0	0.0	0	0.0	8	2.7
Joint of leg & hip	0	0.0	0	0.0	48	16.0
Others	4	1.3	0	0.0	46	15.3

ANNEX – 10 Gathering Place of IDUs for Injecting Drugs

S.N.	Gathering places of IDUs	First round (2002)		Second round (2005)		Third round (2007)	
		N	%	N	%	N	%
1.	Own room/friends room	117	38.6	112	37.3	127	42.3
2.	Chowk/tole/galli/road	54	17.8	29	9.7	4	1.3
3.	Open ground/Town planning area	41	13.5	0	0.0	0	0.0
4.	Forest/Bushes	24	7.9	84	28.0	73	24.3
5.	Toilet/Public toilet	16	5.3	7	2.3	20	6.7
6.	Area surrounding Bridges	16	5.3	0	0.0	0	0.0
7.	Temple area	11	3.6	7	2.3	15	5.0
8.	River Bank/Slum area	11	3.6	58	19.3	46	15.3
9.	Around Cinema hall	3	0.9	0	0.0	0	0.0
10.	Hospital area	2	0.7	0	0.0	0	0.0
11.	Vacant house	2	0.7	0	0.0	6	2.0
12.	Campus/School	0	0.0	0	0.0	2	0.7
13.	Hotel/lodge/restaurant	0	0.0	0	0.0	2	0.7
14.	Others	6	2.0	3	1.0	5	1.7
	Total	**303**	**100.0**	**300**	**100.0**	**300**	**100.0**

ANNEX – 11 Combination of Different Drugs Injected by IDUs

S.N.	Drugs combination	Third Round (2007)
		N=276
1	Norphin + Diazepam	117
2	Norphin + Diazepam + Phenargan	39
3	Norphin + Diazepam + Phenargan + Algic	20
4	Norphin +Avil+ Diazepam + Phenargan + Algic	13
5	Norphin + Avil + Diazepam + Phenargan	12
6	Norphin + Calmpose	9
7	Norphin +Avil+ Diazepam + Algic	6
8	Norphin + Phenaromain + Diazepam	5
9	Norphin + Diazepam + Algic	5
10	Norphin + Avil+Algic+ Phenargan	4
11	Norphin + Phenargan	3
12	Norphin + Avil	3
13	Norphin + Algic+ Phenargan	3
14	Norphin + Avil + Diazepam	3
15	Norphin + Diazepam + Phenargan + Calmpose	3
16	Norphin + Diazepam +Algic+Phenargan + Calmpose	3
17	Norphin + Phenaromain +Diazepam +Algic+Phenargan +	3
18	Norphin + Diazepam + Calmpose	2
19	Norphin + Algic+Phenargan + Calmpose	2
20	Norphin +Avil+ Phenaromain + Diazepam	2
21	Norphin + Avil + Diazepam + Phenargan + Calmpose	2
22	Diazepam +Nytrosan	1
23	Diazepam + Phenargan	1
24	Norphin+Phenaromain	1
25	Phenargan + Nitrovate	1
26	Norphin + Diazepam +Brown sugar	1
27	Norphin + Phenargan + Dygine	1
28	Norphin +Algic + Calmpose	1
29	Norphin + Phenargan + Calmpose	1
30	Phenargan + Diazepam + algic	1
31	Avil+Algic+ Phenargan	1
32	Algic+ Phenargan+Buskiman	1
33	Norphin + Diazepam +Phenargan + White sugar	1
34	Norphin + Diazepam + Phenargan + Avilvet	1
35	Norphin + Avil + Phenargan + Calmpose	1
36	Norphin + Avil+Algic+ Saipam+Min	1
37	Norphin + Phenaromain + Diazepam + Phenargan	1
38	Norphin +Avil +Phenaromain +Diazepam +Phenargan	1

Note: Because of multiple answers, numbers may add up to more than 100.

ANNEX – 12 Drug Switching Practice of IDUs and Reasons for it

Drug switching behavior of IDUs	First Round (2002)		Second Round (2005)		Third Round (2007)	
	N	%	N	%	N	%
Switched from one drugs to another drugs in the past month						
Yes	5	1.7	8	2.7	2	0.7
No	298	98.3	292	97.3	298	99.3
Total	**303**	**100.0**	**300**	**100.0**	**300**	**100.0**
Switched from						
Tidigesic to Brown Sugar	2	40.0	2	25.0	0	0.0
Brown Sugar to Tidigesic	2	40.0	0	0.0	0	0.0
Tidigesic to Nitrovate + Nitrosun	1	20.0	0	0.0	0	0.0
Norphin to Talgesic	0	0.0	2	25.0	0	0.0
Tidigesic to Proxyvon	0	0.0	1	12.5	0	0.0
Tidigesic to Tylegenic	0	0.0	1	12.5	0	0.0
Norphin to Brown Sugar	0	0.0	1	12.5	0	0.0
Norphin to Tylegenic	0	0.0	1	12.5	0	0.0
Norphin+ Diazepam to Brown Sugar	0	0.0	0	0.0	2	100.0
Total	**5**	**100.0**	**8**	**100.0**	**2**	**100.0**
Reasons for switching *						
Low Tips in Tidigesic	2	40.0	0	0.0	0	0.0
Unavailability/scarcity of drugs	1	20.0	7	87.5	1	50.0
To reduce Tidigesic	1	20.0	0	0.0	0	0.0
High price of Brown Sugar	1	20.0	0	0.0	0	0.0
Heavy tips in Brown Sugar	1	20.0	0	0.0	0	0.0
Easy to by Brown Sugar	1	20.0	0	0.0	0	0.0
Enough money to buy Brown Sugar	1	20.0	0	0.0	0	0.0
Lack of money	0	0.0	1	12.5	0	0.0
Nerve Problem	0	0.0	0	0.0	1	50.0
Others	0	0.0	1	12.5	0	0.0
Total	**5**	*****	**8**	*****	**2**	*****

*Note: Because of multiple answers percentage may add up to more than 100.

ANNEX – 13 Types of Treatment and Institutions from Where Treatment Received

Types of treatments / Types of institutions	Residential rehabilitation	Helped for cold turkey	Without drug	Maintenance with methadone	With other drug	Detoxification with methadone	Other treatment/ help	Outpatient counseling
n=117	**%**	**%**	**%**		**%**	**%**		**%**
Youth Vision	14.5	-	0.9	-	2.6	0.9	0.9	3.4
Nav Jiwan Punarsthapana Kendra	0.9	-	-	-	-	-		-
Ashara Sudhar Kendra	3.4	-	-	-	-	-		-
Richmond Fellowship Center	6.8	-	-	-	1.7	-		0.9
LALS	3.4	-	-	-	-	-		-
Mukti Kendra	0.9	-	-	-	-	-		-
Sangati	2.6	-	-	-	-	-	0.9	-
Own Home	-	0.9	0.9	-	-	-	-	-
Pratigya drop in center	1.7	-	-	-	0.9	-	0.9	0.9
Freedom Rehabilitation center	0.9	-	-	-	-	-		0.9
Aasha		-	-	-	-	-	0.9	0.9
Nav Kiran Ashram/Rehabilitation center/Nav Kiran Sansthan	13.7	-	-	-	1.7	-		-
The Recovery Group	2.6	-	-	-	-	-		-
Teaching Hospital	-	-	-	-	-	-	0.9	
Others	20.5	2.6	6.0	-	6.0	-	0.9	-
Don't Know	-	-	-	0.9	-	-	-	-
Total	**71.8**	**3.4**	**7.7**	**0.9**	**16.2**	**0.9**	**5.1**	**6.8**

Note: Because of multiple answers percentages may add up to more than 100.

ANNEX – 14 Reasons for not Using Condom in the Last Sex with Different Sex Partners

Reasons for not using condom	First Round (2002)		Second Round (2005)		Third Round (2007)	
	N = 303	%	N = 300	%	N=300	%
Reasons for not using condom with regular partner in the last sexual intercourse						
Not available	2	3.1	0	0.0	1	2.2
Partner objected	4	6.2	3	6.5	1	2.2
Don't like them	16	25.0	8	17.4	13	28.9
Used other contraceptive	21	32.8	15	32.6	22	48.9
Didn't think it was necessary	43	67.2	27	58.7	22	48.9
Didn't think of it	2	3.1	2	4.3	1	2.2
Wish to have child	0	0.0	1	2.2	1	2.2
Trust partner	0	0.0	0	0.0	4	8.9
Wife is pregnant	0	0.0	0	0.0	2	4.4
Others	1	1.6	0	0.0	0	0.0
Total	**64**	*	**46**	*	**45**	*
Reasons for not using condom with sex worker in the last sexual intercourse						
Not available	8	57.1	5	35.7	8	57.1
Partner objected	0	0.0	4	28.6	1	7.1
Don't like them	5	35.7	2	14.3	4	28.6
Didn't think it was necessary	0	0.0	2	14.3	1	7.1
Didn't think of it	2	14.3	1	7.1	3	21.4
Trust partner	0	0.0	0	0.0	1	7.1
Others	2	14.3	0	0.0	1	7.1
Total	**18**	*	**14**	*	**14**	*
Reasons of not using condom with non-regular partner in the last sexual intercourse						
Not available	7	35.0	7	38.9	11	30.6
Partner objected	1	5.0	1	5.6	4	11.1
Don't like them	2	10.0	2	11.1	8	22.2
Used other contraceptive	1	5.0	0	0.0	5	13.9
Didn't think it was necessary	10	50.0	7	38.9	11	30.6
Didn't think of it	4	20.0	4	22.2	5	13.9
Trust partner	0	0.0	0	0.0	5	13.9
Sexual satisfaction	0	0.0	0	0.0	1	2.8
Others	4	20.0	0	0.0	1	2.8
Total	**20**	*	**18**	*	**36**	*

Note: Because of multiple answers percentages may add up to more than 100.

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