Integrated Bio-behavioral Survey (IBBS) among Injecting Drug Users in Pokhara Valley - 2007





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ABBREVIATIONS

AIDS - Acquired Immuno-Deficiency Syndrome

ASHA - Advancing Surveillance, Policies, Prevention, Care & Support to Fight

HIV/AIDS

CI - Confidence Interval DIC - Drop-in-Centre

ELISA - Enzyme Linked Immuno Assays FHI - Family Health International

FSW - Female Sex Worker

HIV - Human Immuno-Deficiency VirusIBBS - Integrated Bio-Behavioral Survey

ID - Identification NumberIDU - Injecting Drug User

IEC - Information, Education and Communication

LALS - Life Giving and Life Saving Society

MARPs - Most At Risk Populations MSM - Men who have Sex with Men

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

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 the 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 the current 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 Pokhara 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 group 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.

Interviews were followed by a clinical examination conducted by a Health Assistant and the collection of blood samples for biological testing of HIV and syphilis. Study centers with laboratories/clinics were set up at Prithvi Chowk in Pokhara. 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 Naulo Ghumti where experienced counselors provided post test counseling.

Below are the Key Findings:

Socio-Demographic Characteristics

The IDUs were mostly below the age of 30 years (87.3%); some were below 19 years of age (15.6%).

Many IDUs (65.5%) were unmarried. Around seven in ten IDUs (71%) were living without a sexual partner.

The IDUs in Pokhara Valley represented diverse caste/ethnic groups such as Gurung/Rai (34.3%), Chettri/Thakuri (19.1%) and Tamang/Lama/Magar (17.1%).

HIV/STI Prevalence

The clinical test results indicated that out of 300 IDUs participating in the study, 6.8 percent were HIV-positive. Syphilis history was found among 0.3 percent of IDUs while 1.3 percent were found to be currently infected with syphilis.

HIV prevalence differed significantly according to marital status. Prevalence was higher among IDUs who were currently, or had previously been, married (13.2%) than among those who had never been married before (3.8%).

A statistically significant relation was noted between literacy status and HIV infection. Literate IDUs had a 5.6 percent HIV prevalence compared to a 29.5 percent prevalence rate among illiterate participants.

Moreover, IDUs who were older than 20 were more likely to be HIV-positive (7.7%) than IDUs aged 20 or younger (1.1%). This may be explained by the relation between HIV prevalence and the duration of time which participants have been injecting drugs; a significant relation was observed between these two variables. HIV prevalence was 16.9 percent among those IDUs who had been injecting for more than five years compared with 1.4 percent among those who had been injecting for less than two years.

Markedly, HIV prevalence was significantly higher among those IDUs who had ever injected with a previously used syringe in the past week (25.6%) than those who had never injected with such a needle/syringe (5.5%).

Injecting Behavior

Thirty eight percent of IDUs had been injecting drugs for the past two to five years while 32.9 percent had been injecting for less than two years.

The majority of respondents were 20 years of age or younger (60.8%) when they injected for the first time. Around ninety two percent of IDUs injected a combination of different drugs.

The majority of respondents (93.2%) had injected drugs the week before the survey. Their injecting practices during that week revealed that 7.6 percent of respondents had injected with a needle syringe used by someone else at least once, 3.4 percent had used a needle/syringe which had been kept in a public place and five percent had passed their used needle/syringe on to other people.

Nearly all respondents (98.9%) knew about sources for new syringes. Ninety nine percent of IDUs mentioned that they could have a new syringe whenever necessary from a drugstore. Similarly, a large proportion of IDUs (96.6%) said that the needle exchange program conducted by Naulo Ghumti made new syringes available whenever they needed one.

Among those IDUs who had been mobile in the past year, 3.4 percent had injected with a preused needle/syringe and 4.5 percent had given a needle/syringe to someone else after their use while at the place/s of their visit.

Sexual Behavior

Overall, 96.1 percent of IDUs had experienced sexual contact before. Among them, 83.2 percent had been sexually active in the past year.

The sex partners of IDUs in Pokhara included regular female partners, non-regular female partners and female sex workers.

Thirty percent of sexually active IDUs had sex with a regular partner in the past year; most of these (87.9%) had sexual contact with their regular partner during the month preceding the survey.

Fifty one percent of IDUs who had ever had sex, had non-regular female sex partners in the past year. Thirty eight percent of them had sex with their non-regular partners in the previous month.

A total of 49.1 percent of sexually active IDUs had sexual contact with a female sex worker in the past 12 months; among them, 41.8 percent had sex with a FSW in the last month.

Condom use during the last sex act with a female sex worker was reported by 83.9 percent of IDUs. The proportions of those who used condoms during their last sex act with a regular partner (32.7%) and with a non-regular partner (60.5%) were comparatively less; a similar pattern was observed in their last year's sexual contacts.

STI and HIV/AIDS Awareness

Overall, 9.7 percent of IDUs had not heard about STIs.

Five in one hundred IDUs (5.4%) had experienced genital discharge and 9.1 percent had genital ulcer/sores in the past year. Among them, 17.4 percent were experiencing genital discharges and 41.7 percent reported having a genital ulcer/sore at the time of this survey.

Over two fifths (44.4%) of those IDUs who had experienced at least one STI symptom in the past year had not sought any treatment.

All of the respondents had heard of HIV/AIDS and 75.3 percent knew someone who had been living with HIV/AIDS or had died because of it.

While 86.9 percent of IDUs knew about all three major indicators, abstinence from sexual contact (A), being faithful to one partner (B) and condom use during each sexual contact (C), 73.4 percent of IDUs were aware of all major indicators BCDEF. These indicators include being faithful, consistent condom use, understanding that a healthy looking person can be infected with HIV, knowing that a person cannot get the HIV virus from a mosquito bite and agreeing that sharing meal with an HIV infected person cannot transmit the HIV virus.

HIV Test

The majority of respondents (93.9%) knew that a confidential HIV testing facility was available in their communities.

A total of 57.4 percent had ever tested themselves for HIV; most of these IDUs (87.8%) had received their test results.

Exposure to HIV/AIDS Related Programs

Around 67 percent of IDUs had met peer/outreach educators at least once before; 86.6 percent of them had visited a DIC and 37.1 percent had paid a visit to a VCT Center in the past year. Very few IDUs (5.7%) had visited an STI clinic.

Around 25 percent of IDUs had ever participated in an HIV/AIDS awareness program.

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 Pokhara 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 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 Pokhara.

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 and to assess HIV/STI related risk behavior among IDUs in the Pokhara 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 Pokhara Valley. Additionally, in this round of IBBS,, IDUs were tested for syphilis infection for the first time.

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 sizes; 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 many 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 nine 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 the duration of time for which they had been injecting drugs).

The first wave of participants recruited for the study was brought in by seeds. Thereafter, each person recruited for and enrolled in the study received three recruitment coupons 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 nine "seeds". Each "seed' was given three coupons to pass on to three peers they recruited for the study. Those 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 some "seeds" and "recruiters" generated up to 14 waves. Of the total nine "seeds," one seed completed 14 waves, one seed generated six waves, another seed completed five, and one seed recruited three waves; five others completed two 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 in the study. In total, there were 51 refusals. Forty-four did not meet the study criteria, four were afraid of drawing blood for the test and three said that they were too busy to be interviewed.

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 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 added to the questionnaire this year to derive information on issues like exposure of IDUs 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 pretested before finalizing the questionnaire (Annex 1).

Before initiating the actual interview, all those coming with the referral cards were asked some screening 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 that 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 11 August, 2007.

2.3.1 Ethical Review

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 from all the participants in the presence of a witness prior to the interview and the 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 symptom 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 the 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 (NCASC, 2004).

2.4 Study Management

The study was conducted by a team comprised of one study director, one research coordinator, one research officer, two research assistants and one 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.

A centrally located study center was established at Prithvi Chowk in Pokhara for the purpose of the study (Annex 6). Individual interviews, clinical examinations and the blood collection process were all 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 of 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 Naulo Ghumti 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 were completed between the 6th of July and the 22nd of August, 2007 at the Naulo Ghumti VCT Center. Out of the 300 IDUs tested for HIV, only 11.3 percent turned up for their test results (Annex 7). This low turnover could be attributed to the lack of provisions 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 the dissemination of test results might have also diminished their concern. Those who turned up and produced their ID cards were provided their test results in a private setting by trained counselors from the VCT Center of Naulo Ghumti. The counseling session was focused on high-risk behavior and other aspects of HIV and STI.

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 outlier 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 the entire 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 describes the socio-demographic characteristics of IDUs in Pokhara valley.

3.1 Demographic Characteristics

The IDUs who took part in this survey were young; 87.3 percent were below the age of 30 and 58.6 percent were younger than 25.

The majority of IDUs (65.5%) were single. Around one third (29.9%) were married and a small proportion was divorced/widowed/separated. Nine in ten IDUs who had ever married (90%) had done so before they turned 25. Nearly all married IDUs lived with their spouses whereas the rest lived alone.

Table 3.1: Demographic Characteristics of IDUs

Demographic Characteristics	Estimated Population Proportions (%)	95% CI
Age (N=300)		
<=19 Yrs	15.6	10.5 - 21.6
20-24	43.0	36.7 – 49.5
25-29	28.7	22.9 – 34.8
30-34	7.5	4.3 – 11.3
35-42	5.3	2.1 – 8.1
Marital status (N=300)		
Married	29.9	23.8 – 35.9
Divorced/Separated/ Widower	4.6	1.8 – 7.7
Never married	65.5	59.6 – 71.9
Age at first marriage (n=116)		
<=19	34.1	17.7 – 52.0
20-24	55.9	38.8 – 71.8
25 and above	10.1	3.0 – 19.6
Currently living with (N=300)		
Spouse	29.0	23.1 – 35.0
Living with female sexual partner	0.3	0.2 - 0.8
Living without sexual partner/alone	70.7	64.6 – 76.5

3.2 Social Characteristics

One in four IDUs (25.5%) had little to no education having attended only up to primary school if any school at all. Nearly half (48.3%) had completed their secondary level and one quarter (25.7%) had passed SLC or attended a higher level of education.

IDUs from all major caste/ethnic groups in Pokhara were represented in this study. Gurung/Rai made up the largest portion of respondents with 34.3 percent, followed by Chhetri/Thakuri caste (19.1%), Tamang/Lama/Magar ethnic groups (17.1%) and other castes (13.9%)

Table 3.2: Social Characteristics of IDUs

Social Characteristics	Estimated Population Proportions (%) (N=300)	95% CI
Education		
Illiterate	5.1	2.6 - 8.5
Literate only	0.5	0.4 - 1.5
Primary	20.4	15.3 – 25.9
Secondary	48.3	41.2 – 54.3
SLC and above	25.7	19.5 – 32.6
Ethnicity		
Brahmin	5.3	2.7 – 8.2
Chhetri/Thakuri	19.1	14.1 – 24.3
Newar	8.5	4.9 - 12.3
Tamang/Lama/Magar	17.1	13.3 – 21.4
Gurung/Rai	34.3	27.1 – 40.5
Occupational caste	13.9	9.9 – 19.3
Others (Musalman, Terai caste)	1.9	0.8 - 3.3
Duration of stay in Pokhara Valley		
Since birth	70.6	64.8 – 76.1
<=5 yrs.	6.7	4.2 – 9.3
More than 5 years	22.6	17.6 – 28.2

Seven in ten (70.6%) IDUs were born in Pokhara, and while 22.6 percent had been living in the region for more than five years, 6.7 percent had moved to the valley less than five years ago.

4. PREVALENCE OF HIV AND STI

Enzyme Linked Immuno Sorbent Assay (ELISAs) 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 ≤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

4.1 HIV/STI Prevalence

In Pokhara about 6.8 percent of IDUs are estimated to be HIV-positive. Out of 300 IDUs participating in the study, only one IDU (0.3%) had a history of syphilis, while four (1.3%) had active syphilis. Because of the small number of cases RDSAT could not estimate the syphilis prevalence rate for IDUs in Pokhara. This indicates that sexually transmitted infection is a relatively minor problem among IDUs in the Valley.

Table 4.1: HIV and STI Prevalence among IDUs

HIV and STI Prevalence	Estimated Population Proportions (%) (n=300)	95% CI
HIV and STI Prevalence		
HIV	6.8	4.0 –10.2
Active Syphilis	1.3 *	NC
Syphilis History	0.3 *	NC

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

4.2 Relation between Socio-Demographic Characteristics and HIV Infection

HIV prevalence was significantly higher among respondents aged 20 years and above compared to younger IDUs. The infection rate was 7.7 percent among IDUs aged 20 or more years and 1.1 percent among those IDUs aged 20 or less. This difference is statistically significant.

HIV prevalence differed significantly according to marital status as well. Prevalence rate was higher among ever-married respondents (13.2%) than among those IDUs who had never been married before (3.8%). A statistically significant relation was noted between literacy and HIV infection; illiterate IDUs (29.5%) were five times more likely to be HIV positive than literate IDUs (5.6%).

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

Socio-demographic characteristics	Estimated HIV Prevalence (%) (N=300)	95% CI
Age		
Below 20 years	1.1	0.8 - 3.8
20 years and above	7.7	4.6 - 11.4
Marital status		
Ever married	13.2	6.6 - 20.3
Never married	3.8	1.7 - 6.4
Literacy		
Illiterate	29.5	8.9 - 64.3
Literate/formal schooling	5.6	3.1 - 8.4
Total	6.8	4.0 –10.2

4.3 Relation between Drug Injection Behavior and HIV

Unsafe injecting practices put IDUs at a greater risk of HIV infection. This section examines the relationship between HIV prevalence and drug injecting practices.

As table 4.3 indicates, participants who have been injecting drugs for a longer period of time were at a significantly greater risk of contracting HIV. HIV prevalence was more than three times higher among those who had been injecting drugs for more than five years (16.9%) than among those who had been injecting drugs for less than five years (5.4%). This difference is statistically significant.

Similarly, the rate of HIV infection was significantly higher among IDUs who had been injecting drugs two or more times a day (18.5%) than those who inject six or less times in a week (2.1%).

Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

Drug injecting behavior	Estimated HIV Prevalence (%) (n=300)	95% CI
Injecting drugs since		
Less than 2 years	1.4	0.4 - 3.5
2-5 years	4.0	1.3 - 8.0
More than 5 years	16.9	9.0 - 26.0
Frequency of drug injection in the past week		
Up to 6 times a week	2.1	0.7 - 3.7
Everyday	4.8	1.5 - 8.6
2 or more times a day	18.5	8.2 - 26.8
Used another's previously used needle/syringe during the past week		
Not injected/Never Used	5.5	3.1 – 8.6
Used	25.6	5.4 - 49.1
Used a needle/syringe kept in a public place during the past week		
Not injected/Never Used	6.1	3.6 – 9.0
Used	26.8	7.0 – 56.9
Total	6.8	4.0 –10.2

Furthermore, findings from this round of survey indicate that sharing syringes puts IDUs at a higher risk of HIV. The HIV infection rate was 25.6 percent among those IDUs who had used someone else's syringe in the past week compared with 5.5 percent among those who had either not injected or never injected with a used needle/syringe during the same period of time. In the same way, those respondents who had injected with a needle/syringe left in a public place had a higher HIV prevalence rate (26.8%) than IDUs who had not used needle/syringe kept in a public place (6.1%) in the past week.

4.4 Relation between Sexual Behavior and HIV

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

All the IDUs interviewed for this survey had entered into a sexual relationship before. The data indicates that those who had sex in the last 12 months, either with a regular partner (8.1%), a non-regular partner (6.7%) or with a sex worker (8.6%) were *less* likely to be HIV-positive than those who did not have sex with any of these types of partners (9.5%, 11% and 9.3% respectively). Since HIV is a sexually transmitted disease, this finding comes across as counterintuitive and hence requires careful interpretation. One of the possible explanations as to why not having sex is associated with higher HIV prevalence, is that IDUs who are

diagnosed with HIV may be more likely to refrain from engaging in sexual intercourse than those who are HIV negative or don't know their status.

There is, however, a more straightforward relation between types of partners and HIV prevalence. The data indicates that IDUs who had sex with sex workers in the last 12 months (8.6%) were more likely to be HIV-positive than those who had regular partners (8.1%) or non-regular partners (6.7%).

Table 4.4: Relation between Sexual Behavior and HIV Infection

Sex with different partners in the past 12 months	Estimated HIV Prevalence (%) (n=300)	95% CI
With a regular partner		
Yes	8.1*	NC
No	9.5*	NC
Never had sexual experience	0.0*	NC
With a non-regular partners		
Yes	6.7*	NC
No	11.0*	NC
Never had sexual experience	0.0*	NC
With a sex worker		
Yes	8.6*	NC
No	9.3*	NC
Never had sexual experience	0.0*	NC
Number of regular partners in the past 12 months		
0 partner	9.0*	NC
1 partner	8.4*	NC
2 partners	0.0*	NC
Number of non-regular partners in the past 12 months		
0 partner	7.9	3.7 – 13.1
1 partner	5.3	1.4 – 9.8
2 or more partners	6.5	1.5 – 11.8
Number of sex workers in the past 12 months		
0 sex worker	8.7*	NC
1 sex worker	0.0*	NC
2 or more sex workers	11.1*	NC
Tot		4.0 –10.2

Note:

Estimated population Proportion (%) of the variables with asterisk (*) was calculated with SPSS as they 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 calculate as RDSAT conditions were not met.

It is interesting to note here that IDUs who had sex with regular partners in the last year were more likely to have HIV than those who had sex with non-regular partners. This finding may be partly explained by a change in sexual behavior; HIV-positive IDUs may have stopped having non-regular partners after being diagnosed or may have adopted the practice of consistently using condoms with non-regular partners; more information regarding this topic will be covered later in this report.

5. DRUG USE, NEEDLE SHARING AND TREATMENT

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

5.1 Alcohol Consumption and Oral Drug Use among IDUs

Overall, 82.2 percent of respondents had consumed alcohol at least once in the month preceding the survey. Over one-third (34.5%) had consumed alcohol everyday in the past month while around 28 percent had alcohol less than once a week.

The majority of IDUs had been using drugs for more than two years (93.5%) and a small proportion for less than two years (6.5%).

Table 5.1: Alcohol Intake and Oral Drug Use among IDUs

Alcohol consumption and oral drug use	Estimated Population Proportions (%) (n=300)	95% CI
Alcohol used during the past month		
Everyday	34.5	29.1 – 41.1
More than once a week	27.8	22.4 – 33.1
Once/Less than once a week	19.9	14.7 – 24.7
Never	17.8	12.5 - 23.2
Duration of drug use		
Less than 2 years	6.5	3.6 – 9.8
2 – 5 years	37.9	31.7 – 44.4
More than 5 years	55.5	48.9 – 61.9

Use of oral/inhaling drugs was a common practice among the IDUs in Pokhara. They had used a variety of oral/inhaling drugs in the week preceding the survey. Marijuana, locally known as Ganja, was the most popular drug and had been taken by 67.7 percent of IDUs in the past week. This was followed by Nitrovate (34.1%) Charas (26.3%), Proxygin (21.1 %), brown sugar (20.8%) and Nitrosun (20.2%) (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	67.7	61.2 – 73.5
Nitrovate	34.1	27.0 – 39.7
Chares	26.3	20.7 – 31.9
Brown sugar	20.8	16.1 – 25.7
Proxygin	21.1	16.7 – 26.9
Nitrosun	20.2	15.1 – 25.1
Codeine	7.5	4.7 – 10.7
Combination	0.9	0.3 – 1.9
Others	11.1	7.5 – 15.5

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

5.2 Drug Injecting Practices of IDUs

One third of respondents (32.9%) had started injecting drugs less than two years ago. Around one in four (37.9%) had been injecting drugs for the past 2 to 5 years and 29 percent for more than five years.

The majority of respondents had started injecting drugs when they were relatively young. While 60.8 percent of them were less than 21 when they had their first drug injection, 39.2 percent were 21 or over.

As for the frequency of injection in the past week, only a small minority (6.8%) had not injected in the week preceding this survey. Twenty eight percent of respondents had injected once a day and 23 percent had injected 2 to 3 times a day in the past week. A small fraction of respondents (1.1%) had injected drugs more than four times a day in the past week.

IDUs were also asked about the number of shots on the last day they had injected drugs. Sixty six percent had injected only once, while 23.7 percent had injected twice; around 10 percent had more than three shots the last time they injected drugs.

Table 5.3: Drug Injecting Practices of IDUs

Drug Injecting Practices	Estimated Population Proportions (%) (n=300)	95% CI
Duration of drug injection habit		
Less than 2 years	32.9	27.0 – 39.1
2 – 5 years	37.9	32.3 – 43.7
More than 5 years	29.2	23.2 – 35.3
Age at first drug injection		
Up to 20 years	60.8	54.4 – 67.4
21 + years	39.2	32.6 – 45.6
Frequency of drug injections within the past week		
Not injected	6.8	2.8 – 11.0
Once a week	5.6	2.1 - 8.1
2-3 times a week	18.1	13.2 – 25.1
4-6 times a week	17.7	12.9 – 22.2
Once a day	28.0	22.4 - 34.6
2-3 times a day	22.7	17.7 – 28.2
4 or more times a day	1.1	0.3 - 2.1
Frequency of drug injection on the last day		
1 time	66.0	60.3 – 72.2
2 times	23.7	18.1 – 28.9
3 or more times	10.3	7.1 - 14.1

Overall, one in five IDUs (21.3%) reported not having injected drugs on the day before the interview (not shown in the Table). The main reason for not injecting was being short of money (43.8%), trying to quit the habit slowly (37.5%), taking other medicines (6.3%) and an unavailability of drugs in the market (4.7%) (Annex 8).

IDUs injected in different parts of their body according to the ease in locating their veins; 39.3 percent injected in their wrists, 18.7 percent in their elbows and 13 percent said that they injected in their arms (Annex 9).

Over half of the respondents (58.7%) reported gathering to inject drugs near a forest/bush or some woodland. Some met in their own room or that of a friend (17.7%) and some at a riverbank/slum area (12.7%) to inject drugs (Annex 10).

The IDUs in Pokhara predominantly injected a combination of different drugs (92%). The types of drugs which they inject are listed in the following table (for types of combinations see Annex 11).

Table 5.4: Types of Drugs Injected by IDUs

Types of drugs injected	Estimated Population Proportions (%) (n=300)	95% CI
Combination	91.9	88.1 – 95.8
Diazepam	5.5	3.1 – 9.9
Tidigesic	5.0	2.4 - 8.9
Phenergan	5.0	2.4 - 8.7
Brown sugar	3.3	1.3 - 5.8
Calmpose	3.2	1.3 - 5.2
Others	11.8	8.1 - 15.8

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

In the past month five IDUs (1.7%) had switched from one drug to another; three IDUs had done so because they had been having problems locating their veins (Annex 12).

5.3 Syringe Use and Needle Sharing Habits

Syringe use and needle sharing habits of IDUs 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/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 or 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 Needle Sharing Habits among IDUs during the Last Three Injections

	Drug Injecting Acts					
	Most 1	Most Recent Second Most Recent		Third Most Recent		
Needle/syringe use during recent drug injections	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	99.0	98.1 – 99.7	97.4	95.7 – 98.9	98.1	96.6 – 99.3
High risk behavior	1.0	0.3 - 1.9	2.6	1.1 – 4.3	1.9	0.7 -3.4
No. of persons in the group using the same needle/syringe						
2 person	0.3 *	NC	0.7 *	NC	1.0 *	NC
3 or more persons	0.0 *	NC	0.7 *	NC	0.3 *	NC
None/Alone	99.7 *	NC	98.7 *	NC	98.7 *	NC

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

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 nine in every ten respondents had used a new needle which was either self-purchased or given to them by a friend or NGO.

Overall, one percent of respondents in the most recent, 2.6 percent in the second most recent and 1.9 percent in the third most recent injection had reported high-risk behavior. They had mostly injected with an old needle/syringe which they had used before; a small percentage of respondents had shared the same needle/syringe with two (1%) or three (0.3%) others.

Data on needle/syringe using behavior in the week preceding the survey points towards an increasing consciousness among current IDUs regarding the risks associated with sharing a needle/syringe. A significant proportion of IDUs (92.4%) had never used a needle/syringe

that had been used by others, while 95 percent had never given any needle/syringe to anyone else after their use. The majority of respondents also avoided needles/syringes which had been kept in a public place (96.6%) and never shared syringes (92.7%)

Only a small proportion of respondents had ever injected with a needle/syringe used by someone else (7.6%), used a needle/syringe kept in a public place (3.4%), or had given their used needle/syringe to another person (5%). Some IDUs reported having had shared needle/syringes with two partners during the week preceding the survey (8.5%), the majority of whom shared with friends (5.6%).

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 another		
Never used	92.4	88.9 – 95.6
Used	7.6	4.4 - 11.1
Used a needle/syringe that had been kept in a public place		
Never used	96.6	94.5 – 98.3
Used	3.4	1.7 – 5.5
Gave a needle/syringe to someone after using it		
Yes	5.0	2.9 – 7.4
No	95.0	92.6 – 97.1
Number of needle/syringe sharing partners		
None	91.5	88.2 – 95.0
Two partners	8.5	5.0 – 11.8
Shared needle/syringe with		
Friend	5.6	3.2 - 8.7
Not shared	92.7	89.0 – 95.6
Others	1.7	0.5 - 3.3

5.4 Drug-Sharing Behavior

Table 5.7 reflects that, although the majority of respondents had refrained from unsafe drug sharing practices, some had put themselves at risk by using a pre-filled syringe (4.7%) or a syringe that was filled by another syringe (4.4%). Moreover, eight percent (7.6%) had drawn drugs from a common container and six percent (5.5%) had shared injecting equipment, such as bottles, spoons, cookers, vial/containers, cotton/filters, or water, with others at least once in the week preceding the survey (Table 5.7).

Table 5.7: Past Week's Drug-Sharing Behavior

Drug Sharing Practices during Past Week	Estimated Population Proportions (%) (N=300)	95% CI
Injected with a pre-filled syringe		
Yes	4.7	2.7 – 6.9
No	95.3	93.1 – 97.3
Injected with a syringe after drugs were transferred into it from another's syringe		
Injected with such syringe	4.4	2.4 – 6.6
Never injected with such syringe	95.6	93.4 – 97.6
Shared a bottle, spoon, cooker, vial/container, cotton/filter or rinse water		
Shared	5.5	2.8 - 8.8
Never shared	94.5	91.2 - 97.2
Drew drug solution from a common container used by others		
Drew at least once	7.6	4.7 – 10.9
Never	92.4	89.1 – 95.3

Information on the movement of the IDUs both within and outside the country and their injecting practices in the place/s they visited was also collected during this survey. Of the total 300 IDUs in Pokhara, 43 percent had injected drugs while in places they had visited during the past year.

The majority of respondents who had injected drugs at the place/s of their visit had neither used others' needle/syringes (99%) nor had given their used needle/syringe to anyone else (95.5%), whereas a small number of IDUs reported injecting with somebody else's previously used syringe (1%) or giving their used needle/syringe to others (4.5%).

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

Injecting practices in other parts of the country and out of the country	Estimated Population Proportions (%)	95% CI
Injected in other parts of the country as well as out the of country (n=300)		
Yes	43.0	36.4 – 49.6
No	57.0	50.4 - 63.6
Used a needle/syringe that had been used by another person (n=146)		
Yes	3.4*	NC
No	96.6*	NC
Gave a needle/syringe to someone after use (n=146)		
Sometimes – always	4.5	0.5 – 14.6
Never	95.5	85.5 – 99.5

Note:

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

5.5 Needle/Syringe Cleaning Practices

Previous studies have shown that IDUs follow different practices of cleaning a used needle/syringe before using them again. Improper methods of cleaning not only reflect a lack of awareness but also put IDUs at a greater risk of HIV transmission. In Pokhara, about 15 percent of IDUs had cleaned a pre-used needle/syringe in the past week. Among them, only 4.2 percent had cleaned it with bleach before re-using it; others had used saliva, water, distilled water or paper/cotton to clean their needle/syringe.

Table 5.9: Needle/Syringe Cleaning Practice of IDUs

Needle/Syringe Cleaning Behavior	Estimated Population Proportions (%)	95% CI
Cleaned a previously used needle/syringe in the past week (n=300)		
Yes	14.6	10.3 – 19.1
No	85.4	80.9 – 89.7
Ways of cleaning needle/syringe (n=48)		
Bleach	4.2 *	NC
Without bleach	95.8 *	NC

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

5.6 Accessibility to New Syringes

The majority of respondents (98.9%) knew about sources for new syringes. Ninety nine percent of IDUs mentioned that they could have a new syringe whenever necessary from a drugstore. Similarly, a large proportion of IDUs (96.6%) said that the needle exchange program conducted by Naulo Ghumti made new syringes available whenever they needed one. Additionally, 21.8 percent of IDUs said that they could get a new syringe from hospitals.

Table 5.10: Knowledge of Sources of New Syringes among IDUs

Descriptions	Estimated Population Proportions (%)	95% CI
Could obtain a new syringe (n=300)		
Yes	98.9	97.9 – 99.7
No	1.1	0.3 - 2.1
Could obtain syringe from # (n=295)		
Drugstore	99.0 *	NC
Needle exchange program (Naulo Ghumti)	96.6	93.6 – 98.9
Friends	5.0	2.8 - 7.8
Hospital	21.8	16.6 – 27.4
Health worker	0.7 *	NC
Drug seller	0.3 *	NC
Others	2.5	0.6 - 5.0

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

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

5.7 Treatment Status

Table 5.11 shows the status of treatment received by the IDUs in Pokhara. Sixty seven percent had not received any kind of treatment so far. Out of those who had ever been treated, 32.2 percent had been treated less than six months before the survey and 24.3 percent had received treatment 6-11 months prior to the survey; others had been treated more than a year ago. Types of treatment received by IDUs mostly included detoxification treatment with the help of other drugs (23.5%) or residential rehabilitation (21%) (See Annex 13 for NGO list and treatment provided).

Table 5.11: Treatment Received by IDUs

Treatment for de-addiction	Estimated Population Proportions (%)	95% CI
Treatment status (n=300)		
Ever treated	33.0	27.4 – 38.9
Never treated	67.0	61.2 – 72.6
When treatment was received (n=115)		
Less than 6 months	32.2 *	NC
6-11 months before	24.3 *	NC
12-23 months before	25.2 *	NC
24-35 months before	8.7 *	NC
36-47 months before	6.1 *	NC
48 or more months before	2.6 *	NC
Types of treatment received # (n=115)		
Detoxification w/other drugs	23.5	18.2 – 28.9
Residential rehabilitation	21.0	16.1 – 26.4
Out patient counseling	8.6	5.0 – 12.5
Detoxification w/no drugs	2.7	0.5 - 5.6
Other treatment	5.2	3.0 - 7.9

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

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

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 the IDUs.

6.1 Sexual Behavior of IDUs

The majority of IDUs in Pokhara were sexually active; 96.1 had experienced sexual intercourse before and 83.2% had sex within the past 12 months. Among those who had ever had sex before, a high proportion (92.8%) were aged less than 20 at the time of their first sexual encounter. The majority (83.3%) of those who had sex in the last 12 months had more than one partner; around 11 percent of respondents had seven or more sex partners in the past year.

Table 6.1: Sexual History of IDUs

Sexual Behavior	Estimated Population Proportions (%)	95% CI
Had sexual intercourse (n=300)	96.1	93.6 – 98.5
Never had sexual intercourse	3.9	1.5 - 6.4
Age at first sexual intercourse (n=289)		
Below 20 years	92.8	89.4 – 96.0
20 years of age and above	7.2	4.0 - 10.6
Sexual intercourse in the past 12 months (n=289)		
Yes	83.2	78.0 – 87.9
No	16.8	12.1 - 22.0
Numbers of different sexual partners in the past 12 months (n=242)		
1 partner	26.7	20.0 - 37.0
2 –3 partners	34.2	24.4 - 40.1
4 – 6 partners	28.2	20.7 - 36.7
7 or more partners	10.9	6.8 – 15.9

Among those respondents who had at least one sexual contact in the past 12 months, 30 percent had sex with a regular female partner. Although the majority of them (96%) had just one regular female sex partner, four percent reported having two regular partners. Nine in ten (87.9%) IDUs with regular partners mentioned that they had sexual contact with their regular partners in the month preceding the survey; of those, 78 percent had more than five sexual encounters with their regular partners during that period of time.

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

Sexual Practices	Estimated Population Proportions (%)	95% CI
Sex with a regular female sex partner during the past 12 months (n=289)		
Yes	30.0	23.6 - 36.0
No	70.0	64.0 – 76.5
Number of regular partners (n=99)		
1 partner	96.0*	NC
2 partners	4.0*	NC
Sex with a regular female sex partner during the last month (n=99)		
Yes	87.9*	NC
No	12.1*	NC
Frequency of sex with last regular female sex partner during the last month (n=87)		
1-4	22.0	4.2 – 34.8
5+	78.0	65.5 – 95.9

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

The respondents were also asked whether they had ever had sex with non-regular female partners in the past year. A "non-regular partner" is defined as those sex partners who are neither respondents' spouses, nor their live-in partners, and who did not exchange money or drugs for sex.

Table 6.3 shows that 51 percent of IDUs had sex with non-regular female partners in the past year. Of them, a little over a half (53.1%) had two or more non-regular partners. Thirty eight percent of IDUs with non-regular female partners had sexual contact with them in the last one-month, and among them, 20.7 percent had five or more sexual contacts in the month before the survey.

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

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with a non-regular female sex partner in the past 12 months (n=289)		
Yes	51.0	45.5 – 57.9
No	49.0	42.1 – 54.5
No. of non-regular female sex partners in the past 12 months (n=135)		
1 partner	46.9	27.1 – 59.4
2 or more partners	53.1	40.6 - 72.9
Sex with a non-regular female sex partner during the last one month (n=135)		
Yes	38.0	25.2 - 50.4
No	62.0	49.6 – 74.9
Frequency of sex during the last one month with last non-regular female sex partner (n=58)		
1-4	79.3 *	NC
5+	20.7 *	NC

Note: Estimated population Proportion (%) of the variables with asterisk (*) was calculated with SPSS as they 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 examine the sexual behavior of IDUs, they were also asked if they had ever engaged in sexual relations with female sex workers. In this context, "sex workers" are defined as those who bought or sold sex in exchange for money or drugs.

Nearly half of sexually active IDUs (49.1%) had sex with a female sex worker during the past 12 months; 41.8 percent had done so in the month preceding the survey.

The majority of those who had sex with a FSW in the last year (80.1%) had done so with more than two partners. A considerable proportion of those who had sex with FSWs in the month preceding the survey had less than five sexual contacts (83.6%).

Table 6.4: Sexual Intercourse of IDUs with Female Sex Worker

Sexual practice	Estimated Population Proportions (%)	95% CI
Sex with a female sex worker in the past 12 months (n=289)		
Yes	49.1	41.9 – 56.4
No	50.9	43.6 - 58.1
Number of female sex workers in the past 12 months (n=139)		
1 partner	19.9	11.3 – 37.2
2 or more partners	80.1	62.9 - 88.7
Sex with a female sex worker during last one month (n=139)		
Yes	41.8	29.9 - 54.4
No	58	45.6 – 70.1
Frequency of sex with last female sex worker during the last month (n=59)		
1-4	83.6*	NC
5+	16.4*	NC

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

As the findings indicate, IDUs with regular female partners were more likely to have had sex with their regular female partners than IDUs with non-regular female partners, or IDUs who had sex with FSWs, in the month preceding the interview.

6.2 Knowledge and Use of Condom

Condom promotion has been one of the most important components of HIV/AIDS awareness campaigns. All IDUs had heard of condoms before; however, the high level of awareness was not reflected in their condom using habits.

Respondents were asked about condom use during their last sexual contact with their regular and non-regular partners, as well as with FSWs. Overall, 67.3 percent of IDUs had not used a condom in their last sexual contact with their regular partner, 39.5 percent had not done so with their non-regular partner and 16.1 percent had not used a condom during their last sex act with a female sex worker. Condom use during last sexual encounter was highest with female sex workers and lowest with regular partners.

Table 6.5: Knowledge and Use of Condoms among IDUs

Knowledge and Use of Condom during the Last Sex Act	Estimated Population Proportions (%)	95% CI
Condom use with regular partner during last sexual intercourse (n=99)		
Yes	32.7	20.9 - 54.7
No	67.3	45.3 – 79.2
Condom use with non-regular partner during last sexual intercourse (n=135)		
Yes	60.5	45.0 – 76.4
No	39.5	23.7 – 55.1
Condom use with sex worker during last sexual intercourse (n=139)		
Yes	83.9	76.2 – 92.7
No	16.1	7.3 - 23.8

Those IDUs who did not use a condom in their last sexual contact with different partners were asked about the reasons for choosing not to use one. Data obtained from IDUs in Pokhara shows that around two thirds of respondents said that they did not consider using a condom necessary with their regular or non-regular female partners. Some IDUs perceived condoms merely as a contraceptive measure and 26 percent responded that since they had been using other contraceptive methods there was no need to use a condom; 14.5 percent simply did not like to use condoms with their regular partners.

As for other reasons provided by the IDUs for not using condoms with non-regular partners, 25.4 percent said that condoms were not available at the time and 21.8 percent did not like to use them. In contrast, IDUs were more conscious that they had to use condoms with female sex workers, and only a small proportion of IDUs said that they did not consider it necessary to use condom during their last sexual encounter with a female sex worker (7.4%). Top reasons for not using a condom during the last sex act with a female sex worker were that condoms were not available (55.5%), they did not like using them (37%) or they did not think of using them at that time (11.1%) (Annex 14).

HIV/AIDS prevention campaigns focus on educating their target groups about the need to use condoms in every sexual act to avoid HIV/STI transmission. The IDUs were also asked about their record of consistent condom use with their sex partners during the last year. Similar to the data collected for condom use during the last sex act, the data indicates that IDUs used condoms more consistently with female sex workers than with their regular and non-regular sex partners during the course of the last year.

Overall, 80.5 percent of the IDUs had used condoms during every sexual contact with a female sex worker in the past 12 months and 52.9 percent had used condoms consistently with their non-regular female sex partners during that same period of time. On the contrary, only 21.7 percent of IDUs had been consistent in using condoms with their regular female sex partners during the past year (Table 6.6).

Table 6.6: Consistent Use of Condoms with Different Female Sex Partners during the Past Year

Consistent Use of Condoms	Estimated Population Proportions (%)	95% CI
Use of condoms with regular female sex partners during the past 12 months (n=99)		
Every time	21.7	4.0 - 25.5
Sometimes – Never	78.3	74.696.1
Use of condoms with non-regular female sex partners during the past 12 months (n=135)		
Every time	52.9	42.8 – 73.6
Sometimes or Never	47.1	26.4 - 57.3
Use of condoms with female sex workers during the past 12 months (n=139)		
Every time	80.5	75.1 – 91.6
Sometimes or Never	19.5	8.3 - 24.7

The findings indicate that the regular female partners of IDUs are at a higher risk of contracting HIV than non-regular or paid partners; this is because regular female partners are more likely to have sex and to have sex more often with their IDU partners who neglect to use condoms consistently with them.

6.3 Sources of Condoms

The IDUs were also asked if they knew about the places from where they could obtain condoms. The pharmacy was cited as the most common place for obtaining condoms by a majority of 96.9 percent of IDUs. NGOs like Naulo Ghumti were also mentioned as a source of condoms by 56.4 percent of respondents. Other major sources of condoms were shops (52.7%), peer/outreach educators (35.2%) and hospitals (32.3%).

The majority of IDUs (99.3%) said that when necessary they could get condoms in less than 30 minutes (Table 6.7).

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

Sources of Condom and Time to Obtain it	Estimated Population Proportions (%) (n=300)	95% CI	
Place/person from where condom can be obtained#			
Pharmacy	96.9	94.6 – 98.7	
Naulo Ghumti	56.4	49.8 - 63.3	
Shop	52.7	46.5 – 59.1	
Peer educator/outreach worker	35.2	29.0 - 41.8	
Hospital	32.3	26.2 - 38.6	
Clinic	21.4	16.5 - 26.6	
Pan shop	14.0	9.6 – 18.3	
Bar/Guest house/hotel	10.0	6.0 – 13.7	
Health worker/health post	9.0	5.1 – 13.1	
Family planning center	6.6	3.3 – 10.5	
Friends	4.0	2.4 - 5.8	
Others	2.8	1.4 - 4.5	
Time taken to obtain condom			
Less than 30 minutes	99.3 *	NC	
More than 30 minutes	0.0 *	NC	
No response	0.7 *	NC	

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

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

6.4 Sources of Information about Condoms

The IDUs had heard about condoms from various sources. The most common sources of information as cited by more than nine in ten were pharmacies, television, radio, billboards/signboards, friends/neighbors, and newspapers/posters. A good proportion of them had also heard about condoms from NGO workers (84.6%) or hospitals (63%); other sources of information about condoms as mentioned by the respondents are listed 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
Pharmacy	98.7 *	
Television	95.8	93.1 – 98.1
Radio	94.0	90.2 – 97.5
Bill board/sign board	93.2	89.2 – 97.4
Friends/neighbors	92.8	89.1 – 96.0
Newspapers/posters	91.6	87.9 – 95.1
NGO workers	84.6	80.2 – 89.9
Hospital	63.0	57.3 – 68.6
Health workers/volunteers	59.4	52.8 – 65.6
Street drama	50.3	42.7 – 56.5
Cinema hall	45.4	38.4 – 51.8
Comic books	44.1	38.7 – 50.9
Health Post	34.9	29.1 - 42.0
Community worker	31.7	25.7 – 37.4
Community event/training	28.8	22.9 – 34.6
Video van	20.4	16.1 – 26.0
Health Center	20.3	15.8 – 25.6
Others	1.3 *	NC

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

Estimated population Proportion (%) of the variables with asterisk (*) was calculated with SPSS as they 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 analyze the exposure of IDUs to ongoing initiatives to educate the target groups about condoms and HIV/AIDS prevention in Pokhara Valley, respondents were also asked if they were aware of any of the messages being publicized with the help of IEC materials such as posters, pamphlets, billboards, or those being aired on the radio/television. The survey focused on certain specific messages about condoms and HIV/STI prevention. A good proportion of respondents were aware of messages like *Condom bata surakchhya youn*

swastha ko rakchhya (89.5%), HIV/AIDS bare aajai dekhi kura garau (87.8%), Ramro sanga prayog gare jokhim huna dinna (85.8%), Yaun rog ra AIDS bata bachnalai rakhnu parchha sarbatra paine condom lai (85.7%), Jhilke dai chha chhaina condom (85.4%), and Condom kinna ma bhaya hunna ra, (84.5%). A considerable proportion of respondents (53.8%) had also heard the message Maya garaun sadbhay badaun.

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

Heard/seen/read the following messages/characters in past one year	Estimated Population Proportions (%) (n=300)	95% CI
Condom Bata Surakchhya Youn Swastha ko Rakchhya	89.5	85.4 - 93.3
HIV/AIDS Bare Aaji Dekhi Kura Garaun	87.8	83.4 – 91.6
Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	85.8	80.6 – 90.7
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	85.7	80.8 - 90.1
Jhilke Dai Chha Chhaina Condom	85.4	80.7 - 90.0
Condom Kina Ma Bhaya Hunna Ra	84.5	79.8 - 88.9
Maya Garaun Sadbhav Badaun	53.8	48.0 - 59.4
Manis Sanga Manis Mile Hara Jeeta Kasko Hunchha	32.5	27.3 – 37.9
Ek Apas ka kura	27.0	21.1 - 32.9
Des Pardes	19.7	14.9 - 24.8

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

7. KNOWLEDGE OF STIS AND HIV/AIDS

This chapter deals with the level of knowledge about STIs and HIV/AIDS among IDUs in the Pokhara 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 of STIs

Around nine in ten IDUs in Pokhara (90.3%) had heard of STIs. There were, however, some IDUs (9.7%) who had never heard about STIs before.

Table 7.1: STI Awareness among IDUs

Heard of STIs	Estimated Population Proportions (%) (n=300)	95% CI
Yes	90.3	86.0 – 94.2
No	9.7	5.8 - 14.0

Those who had heard of STIs had a general understanding of male and female symptoms. They mentioned genital ulcer/sore/blister (57.4% in females and 68.6% in males) and genital discharge (42.8% in females and 55.3% in males) as important STI symptoms. Symptoms like foul smelling discharges (27%) and abdominal pain (3.4%) were specifically mentioned as female STI symptoms by the respondents; other symptoms as mentioned by the respondents are shown in the following Table 7.2.

Table 7.2: Knowledge of STI Symptoms among IDUs

	Female STI Symptoms		Male STI Symptoms	
Knowledge of Symptoms of STIs	Estimated Population Proportions (%) (n=276)	95% CI	Estimated Population Proportions (%) (n=276)	95% CI
Genital ulcer/sore blisters	57.4	50.1 - 63.8	68.6	61.6 – 74.7
Genital discharge	42.8	36.6 – 50.0	55.3	48.9 – 61.9
Foul-smelling discharge	27.0	22.2 - 34.1		
Itching	25.6	20.0 - 31.3	22.8	18.0 - 28.8
Burning/pain during urination	14.0	8.9 – 18.1	23.4	17.4 - 28.5
Abdominal pain	3.4	1.7 - 6.1		
Swelling in groin area	18.6	12.6 - 24.0	23.3	17.1 - 29.4
Others	5.3	3.2 - 8.3	9.2	5.2 - 12.8

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

IDUs in Pokhara were asked if they ever had experienced symptoms such as genital discharge or genital ulcer/sores during the past year, or during the time of the survey. In response, 5.4 percent reported having genital discharge and 9.1 percent said that they had genital ulcer/sore/blister in the past year (Table 7.3).

Table 7.3: STI Symptoms Experienced by IDUs

Experience of STI Symptoms	Estimated Population Proportions (%) (n=300)	95% CI
Had genital discharge in the past year		
Yes	5.4	3.2 - 8.1
No	94.6	91.9 – 96.8
Had genital ulcer/sore blister in the past year		
Yes	9.1	5.7 – 12.9
No	90.9	87.1 – 94.3

Among those IDUs who ever had experienced at least one STI symptom in the past year, 17.4 percent had genital discharge while 41.7 percent had a genital ulcer/sore/ blister.

Overall, 12.5 percent of IDUs had experienced at least one STI symptom at some point. When asked what they had done for treatment, 44.4 percent of those with STI symptoms mentioned that they had not sought any treatment yet, 20.4 percent had been to a private doctor and 11.1 percent had been treated at a hospital/health post (Table7.4).

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=23)		
Yes	17.4 *	NC
No	82.6 *	NC
Currently has genital ulcer/sore blister (n=24)		
Yes	41.7 *	NC
No	58.3 *	NC
STI experience (n=300)		
Never STI	87.5	83.1 – 91.6
Ever STI	12.5	8.4 – 17.0
Source of treatment (n=54)		
Private Doctor	20.4 *	NC
Hospital/Health Post	11.1 *	NC
Did not seek treatment	44.4 *	NC
Others	24.1 *	NC

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

7.2 Knowledge of HIV/AIDS

All of the IDUs had heard about HIV/AIDS. A majority of them (75.3%) knew of people who had HIV/AIDS or had died due to the disease. When asked about the kind of relation that the respondents shared with these people, 24.2 percent said that they were close friends and 12.5 percent reported that they were their relatives; the rest of the IDUs (63.3%) did not have any formal relationship with the people they knew who had HIV/AIDS or had died of AIDS.

Table 7.5: Awareness of HIV/AIDS among IDUs

Knowledge about HIV/AIDS	Estimated Population Proportions (%)	95% CI
Know anyone who has HIV/AIDS/died due to AIDS (n=300)		
Yes	75.3	69.6 – 80.8
No	24.7	19.2 – 30.4
Nature of relationship with the person living with HIV/AIDS /died due to AIDS (n=233)		
Close friend	24.2	15.2 - 28.9
No relation	63.3	55.8 – 73.0
Close relative	12.5	8.5 - 19.0

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 and (C) regular condom use was assessed. The majority of respondents were aware that (A) abstinence from sexual contact (91.1%), (B) having only one sexual partner (95.3%) and (C) using condoms every time during sex (99%), prevented them from contracting HIV. In total, 86.9 percent of IDUs were aware of all three.

Additionally, 98.4 percent were aware that a healthy looking person can be infected with HIV (D) and a similar proportion (98.3%) also knew that sharing meal with an HIV infected person does not put them at risk of HIV (F). However, a relatively low proportion of IDUs (77.6%) agreed that a person cannot get the HIV virus from a mosquito bite (E). In total, 73.4

percent of IDUs were aware of all the five major indicators (BCDEF) which helped to assess the level of awareness regarding HIV preventive measures (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	91.1	86.8 – 94.3
B Being faithful to one partner	95.3	92.4 – 97.8
C Condom use during each sexual contact	99.0 *	NC
Perception on HIV/AIDS transmission		
D A healthy-looking person can be infected with HIV	98.4	96.3 – 99.2
E A person can not get the HIV virus from a mosquito bite	77.6	72.1 – 82.7
F Sharing a meal with an HIV infected person does not transmit HIV	98.3	96.8 – 99.4
Knowledge of all the three (ABC)	86.9	82.3 – 91.0
Knowledge of all five major indicators – BCDEF of HIV/AIDS	73.4	67.9 – 79.0

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

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

The IDUs' understanding of HIV/AIDS and its different modes of transmission were further tested with the help of certain probing questions. Nearly all respondents said that a person can not get HIV by holding an HIV infected person's hand (99.3%), a person can get HIV by using a previously used needle/syringe (99%), that HIV can be transmitted through the transfusion of blood from an infected person to another (98.6%), a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child (91.2%) and that a person can protect himself from HIV by switching to non-injecting drugs (93%). A relatively lower percentage of respondents (52.7%) knew that women with HIV could transmit the virus to their 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 around eight percent of respondents suggested the expecting mother should take medicine or antiretroviral treatment; others suggested measures such as consulting with the doctor or performing a cesarean delivery.

Table 7.7: IDUs' Knowledge about HIV/AIDS Transmission

Statements Related to HIV/AIDS	Estimated Population Proportions (%) (n=300)	95% CI
A person can get HIV by using a needle previously used by others	99.0	97.9 – 99.8
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	93.0	89.2 – 95.6
A woman with HIV/AIDS can transmit the virus to her new-born child through breast feeding	52.7	46.6 – 59.4
Blood transfusion from an infected person to the another can transmit HIV	98.6	96.8 – 99.8
A person can not get HIV by holding an HIV infected person's hand	99.3	98.5 – 99.8
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	91.2	87.4 – 94.7
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child (n=274)		
Take medicine (Anti retro viral)	7.9	4.9 - 10.4
Others	92.1	89.6 – 95.1

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

7.3 Knowledge about HIV Testing Facilities

Availability of a confidential HIV testing facility and awareness of such provisions allows people to take an HIV test promptly and without the fear of being exposed. Although 93.9 percent of IDUs were aware of the existence of HIV testing facilities, only a little over half (57.4%) had been tested for HIV.

Among the 57.4 percent of respondents who had taken an HIV test, 80 percent had done so voluntarily; the remaining 20 percent had been required to be tested for HIV. Nine in ten IDUs who had the taken the test (87.8%) had received their test results.

Over one third (37.1%) of those IDUs who had had been tested for HIV did so more than a year before the survey, while 62.9 percent had been tested within the last twelve months.

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

Table 7:0: Knowledge about 111 v Testing Facilities and Histor	of the results among the s	
Description of HIV testing	Estimated Population Proportions (%)	95% CI
A confidential HIV testing facility is available in the community (n=300)		
Yes	93.9	90.9 – 96.7
No	6.1	3.3 – 9.1
Ever had an HIV test (n=300)		
Yes	57.4	50.2 - 64.6
No	42.6	35.4 – 49.8
Type of test taken (n=193)		
Required HIV test	20.0	11.9 – 27.4
Voluntary HIV test	80.0	72.6 – 88.1
Test result received (n=193)		
Yes	87.8	82.3 – 94.2
No	12.2	5.8 – 17.7
Timing of last HIV test (n=193)		
Within the past 12 months	62.9	50.4 - 69.9
Between 13-24 months	23.0	16.7 – 34.2
Between 25-48 months	6.3	2.8 – 13.1
49 or more than 49 months ago	7.8	2.2 – 13.1

7.4 Source of Knowledge about HIV/AIDS

Television, billboard/signboards and friends/relatives were the most commonly cited sources of information on HIV/AIDS among the IDUs and were mentioned by more than 95 percent of respondents. A considerably high proportion of respondents had also become aware of HIV/AIDS through radio (92.8%), pamphlets/posters (91.9%), NGO workers (90.1%) and newspaper/magazines (84.4%). Other sources of information mentioned by IDUs have been listed in the table below (Table 7.9).

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

Sources of Knowledge of HIV/AIDS	Estimated Population Proportions (%) (n=300)	95% CI
Friends/Relatives	97.9	96.5 – 99.1
Television	96.0	93.4 – 98.3
Billboard/signboard	95.3	92.3 – 98.0
Radio	92.8	88.1 – 97.4
Pamphlets/Posters	91.9	88.5 – 95.2
NGO workers	90.1	86.4 – 94.5
Newspapers/Magazines	84.4	79.9 – 89.0
Health workers/Volunteers	70.5	64.4 – 75.9
School/Teachers	59.9	53.3 – 66.2
Street drama	52.7	43.4 – 57.9
Cinema halls	52.3	45.9 – 58.9
Comic books	45.4	39.7 – 52.2
Community workers	34.1	28.8 – 40.5
Workplace	32.2	26.3 – 37.9
Community events or training	31.0	25.1 – 36.6
Video van	21.0	16.9 – 26.4
Others	0.5	0.1 – 1.2

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

In the past year 67.6 percent of IDUs in the Valley had received HIV/AIDS related IEC materials from different sources. When asked about the kind of information or material received, 75 percent said that they received information relating to HIV/AIDS and 67.6

percent had received condoms/information on condoms; 62.4 percent had received printed materials like brochures/booklets/pamphlets (Table 7.10).

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

Informative Materials Received	Estimated Population Proportions (%) (n=300)	95% CI
Received condom/ information on condom		
Yes	67.6	60.9 - 73.8
No	32.4	26.2 - 39.1
Received brochures/booklets/pamphlets on HIV/AIDS		
Yes	62.4	55.6 – 69.0
No	37.6	31.0 - 44.4
Received information on HIV/AIDS		
Yes	75.0	69.6 – 80.8
No	25.0	19.2 - 30.4
Received other IEC materials		
Yes	2.4	0.2 - 5.1
No	97.6	95.0 – 99.8

7.5 Perception on HIV/AIDS

The stigma associated with HIV/AIDS increases the impact of HIV on the patient as well as on the most at risk populations. IDUs perception of HIV positive persons and stigma associated with the disease was examined in this survey. The majority of respondents said that they would willingly take care of an HIV positive male relative (96.1%) or an HIV-positive female relative (94.3%) at their homes if such a need arose. However, more than one half of the sample population (58.2%) said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

The majority of respondents (98.9%) said that they would readily buy food from an HIV infected vendor. A significant proportion (97.9%) agreed, that unless very sick, people with HIV/AIDS should be allowed to continue their job. When asked about the health care needs of HIV infected persons, 76.2 percent of IDUs maintained that they should be provided the same care and treatment as necessary for chronic disease patients, while 22 percent believed that the health care needs of an HIV infected person were more involved than those of people suffering from chronic diseases.

Table 7.11: Attitude of IDUs towards HIV/AIDS

Stigma and Discrimination	Estimated Population Proportions (%) (n=300)	95% CI
Willing to take care of an HIV positive male relative in the household		
Yes	96.1	93.1 – 98.7
No	3.9	1.3 - 6.9
Willing to take care of an HIV positive female relative in the household		
Yes	94.3	91.1 – 97.1
No	5.7	2.9 - 8.9
Willing to maintain confidentiality of an HIV positive family member		
Yes	58.2	51.8 - 64.5
No	41.8	35.5 – 48.2
Willing to buy food from an HIV infected shopkeeper		
Yes	98.9	97.9 – 99.7
No	1.1	0.3 - 2.1
Don't know		
HIV infected person should get the same, more or less health care than someone with any other chronic disease		
Same	76.2	70.6 - 80.8
More	22.0	17.6 - 27.5
Less	1.8	0.6 - 3.2
HIV infected person should be allowed to continue working		<u>-</u>
Yes	97.9	95.8 – 99.5

No 2.1 0.5 – 4.2

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 these activities has been examined in this round of survey. To this end, respondents were asked several questions relating to some of the most important components of current HIV/AIDS related programs which are being 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 organizing awareness raising activities in community sites. They meet the target groups and hold discussions with them regarding HIV/AIDS, safe injecting practices, safe sex and other related topics. They distribute IEC materials and 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.

Around 67 percent of IDUs in Pokhara had ever met or interacted with PE/OEs representing various organizations. The majority (80.4%) had discussed safe injecting behavior with them and over half (56%) had also been told about how HIV is transmitted from one person to another. Additionally, around one-fourth of respondents had discussed STI (24.9%) and condom use (24.4%) and some IDUs (17.4%) were given new syringes by PE/OEs.

The majority of IDUs who had met with PEs/OEs had done so with Naulo Ghumti workers (98.3%). It is evident from the Table that four in ten (41.1%) IDUs met with PE/OEs more than once a month, only a few (4%) had met with them just once (Table 8.1).

Table 8.1: Meetings with Peer Educators/Outreach Educators in the Last 12 months

Meetings with Peer Educators (PE) or Outreach Educators (OE) in the Last 12 Months	Estimated Population Proportions (%)	95% CI
Met, Discussed or Interacted with PE or OE in the Last 12 months (n=300)		
Yes	66.7	60.6 – 72.8
No	33.3	27.2 – 39.4
Activities Carried out with OE/PE# (n=202)		
Discussion on safe injecting behavior	80.4	72.9 - 87.4
Discussion on how HIV/AIDS is/isn't transmitted	55.9	46.2 - 61.0
Discussion on how STI is/isn't transmitted	24.9	18.5 – 33.9
Discussion on regular/non-regular use of condoms	24.4	15.8 – 32.2
Given syringe	17.4	14.1 – 26.5
Demonstration on using condom correctly	15.3	9.7 – 21.4
Discussion of giving up drugs	9.8	4.9 – 16.8
Others	12.2	6.9 - 17.5
Organizations Represented by OE/PE# (n=202)		
Naulo Ghumti	98.3	97.5 – 99.8
RICHMOND	4.8	1.6 - 7.5
CSG	3.7	0.9 - 8.2
Others (Youth Vision, Magic Circle, Serene Foundation, etc)	4.7	2.1 - 7.0
Number of Meetings with PE or OE (n=202)		
Once	4.0	0.8 - 5.8
2-3 times	17.6	11.6 - 24.2
4-6 times	20.7	12.8 - 28.5
7-12 times	16.5	9.2 - 23.4
More than 12 times	41.1	34.7 – 51.7

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

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 target communities to socialize, but are also the site for educational and counseling activities. The DICs offer a number of services to the target group, including counseling, group classes and discussions, individual counseling, and video shows on STI/HIV/AIDS. Certain NGOs also run needle exchange programs through their DICs. Additionally, IDUs are also provided with IEC materials and condoms at DICs.

A large proportion (86.6%) of IDUs in Pokhara had visited a DIC in the last year. Most of these (99.1%) had been to a DIC to receive a new syringe. Some had also visited them to learn about safe injecting practices (24.4%) and to collect condoms (20.2%). DICs run by Naulo Ghumti were the most popular ones and had been visited by a high proportion of IDUs who had been to a DIC before (97.2%). There were 1.7 percent of IDUs who had been to a DIC just once, others had visited these centers quite frequently; among them 77.6 percent had visited a DIC more than 12 times in the past 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	86.6	83.8 – 92.8
No	13.4	7.2 - 16.2
Activities Participated in at DIC # (n=277		
Got new syringe	99.1	98.3 – 99.7
Learnt about safe injecting behavior	24.4	19.4 – 30.5
Collected condoms	20.2	15.0 – 26.6
Participated in discussion on HIV transmission	12.1	8.1 - 17.6
Learnt the correct way of using condom	10.4	6.5 - 14.8
Had wound dressing	5.7	3.2 - 8.3
Returned old syringe	4.9	2.6 - 8.1
Others (Watch film on HIV/AIDS, To have medicine, etc)	15.9	11.3 - 20.3
Name of Organizations that Run DIC Visited # (n=277)		
Naulo Ghumti	97.2	94.3 – 99.1
Youth Vision	0.4 *	NC
RICHMOND	0.4 *	NC
Others	1.5	0.5 - 3.0
Don't Know	2.2 *	
Number of Visits to the DIC (n=277)		
Once	1.7	0.6 - 3.2
2-3 times	4.9	2.2 - 8.2
4-6 times	8.7	4.6 – 12.7
7-12 times	7.1	4.4 – 9.5
More than 12 times	77.6	72.4 – 83.5

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

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

8.3 STI Clinic

IDUs who engage in unsafe sexual encounters are at the risk of contracting certain STIs. Timely detection of STIs may prevent them from developing serious health problems. There are several clinics being run by governmental, as well as non-governmental organizations, for providing STI testing and treatment facilities.

Despite the availability of testing and treatment facilities, the majority of IDUs (94.3%) had not visited an STI clinic in the last year. Among those who had been to a clinic in the past year (5.7%), most had given a blood sample (82.4%) and received a physical examination (52.9%) for STI identification. Additionally, IDUs had participated in discussions on the use

of condoms (41.2%), been told about how STIs are transmitted (35.3%) and about safe injecting practices (35.3%) during their visits to STI clinics. Around 59 percent had visited STI clinics just once, while others had been there multiple times. The STI clinics run by Naulo Ghumti were the most popular among the respondents (76.5%) (Table 8.3).

Table 8.3: STI Clinic Visiting Practices of IDUs

STI Clinic Visiting Practices	°/0 *
Visited any STI Clinic in the Last 12 Months (n=300)	
Yes	5.7 *
No	94.3 *
Activities Participated in at STI Clinic # (n=17)	
Blood tested for STI detection	82.4 *
Underwent physical examination for STI identification	52.9 *
Participated in discussion on regular/non-regular use of condom	41.2 *
Participated in discussion on modes of STI transmission	35.3 *
Participated in discussion on safe injecting behaviors	35.3 *
Name of Organizations that Run STI Clinics Visited # n=17)	
Naulo Ghumti	76.5 *
FPAN	5.9 *
Others	29.4 *
Number of Visits to STI Clinics (n=17)	
Once	58.8 *
2-3 times	23.5 *
4-6 times	5.9 *
7-12 times	5.9 *

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

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

8.4 VCT Centers

VCT centers not only provide HIV/AIDS/STI testing facilities, but also offer pre- and post test counseling services. Besides information related to safe injecting practices and HIV/AIDS/STI transmission, treatment facilities are also provided at these centers. VCT centers form an integral part of the HIV/AIDS prevention program.

Around 63 percent of IDUs in Pokhara had not visited any VCT center in the last year. Of those who had visited a VCT center, 95 percent had given their blood for HIV testing. Three quarters had received pre- HIV test counseling (74.9%), whilst fewer underwent post HIV test counseling (46.2%) and received information on safe injecting behaviors (43.7%) at these centers. A little over half (52.2%) had received their HIV test result at a VCT center in the past year. Among those IDUs who had visited a VCT center, 48.2 percent had gone just once while the rest had been there more than 2 times. The VCT center run by Naulo Ghumti was the most popular among the IDUs who participated in this survey (94.6%).

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	37.1	30.5 – 42.5
No	62.9	57.5 – 69.5
Activities Participated in at the VCT center # (n=134)		
Gave blood sample for HIV test	95.0	91.1 – 98.6
Received pre-HIV test counseling	74.9	59.4 – 85.0
Received HIV test result	52.2	41.5 - 66.2
Received post HIV test counseling	46.2	36.2 - 61.1
Received information on safe injecting behavior	43.7	31.0 - 54.8
Received counseling on using condom correctly in each sexual intercourse	24.2	14.2 - 31.8
Got information on HIV/AIDS window period	8.5	3.6 - 17.8
Others (Took a friend with me, STI test. etc)	4.2	1.0 - 17.2
Name of the Organization that Run the VCT centers Visited # (n=134)		
Naulo Ghumti	94.6	92.4 – 99.6
FPAN	1.5 *	NC
NRCS	0.7 *	NC
Others	3.7 *	NC
Don't know	1.5 *	NC
Number of Visits to VCT centers (n=134)		
Once	48.2	32.7 – 54.2
2-3 times	39.8	32.5 - 52.8
4-6 times	9.7	1.1 - 21.8
7-12 times	1.2	0.3 - 2.8
More than 12 times	1.2	0.2 - 5.0

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

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

8.5 Participation in HIV/AIDS Awareness Program

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 as well.

Around 75 percent of respondents had never participated in any HIV/AIDS awareness programs or community events, while one quarter (24.9%) had participated in at least one of these kinds of activities. The events they had participated in were AIDS day celebration (49.2%), condom day celebration (40.8%), group discussions (26.9%) and street dramas (14.6%); few had also participated in HIV/AIDS related training programs (8.1%). As for the frequency of participation in awareness raising activities in the past year, 31.9 percent had participated once. The IDUs had participated mostly in programs conducted by Naulo Ghumti (48.3%).

Table 8.5: Participation in HIV/AIDS Awareness Programs by IDUs

Participation in HIV/AIDS Awareness Programs	Estimated Population Proportions (%)	95% CI
Ever Participated in HIV/AIDS Awareness Raising Program or Community Event (n=300)		
Yes	24.9	19.3 – 30.6
No	75.1	69.4 - 80.7
Activities Participated in # (n=72)		
AIDS Day celebration	49.2	34.0 – 86.5
Condom Day celebration	40.8	13.5 – 73.7
Group discussions	26.9	15.8 – 71.1
Street drama	14.6	3.1 – 10.0
HIV/AIDS related training	11.1*	NC
Condom use demonstrations	6.9*	NC
Video Shows	6.9 *	NC
HIV/AIDS related Workshops	5.6 *	NC
Others	29.2*	NC
Name of the Organizations that Conducted Such Activities # (n=72)		
Naulo Ghumti	48.3	28.0 - 85.2
CSG	11.2	0.9 - 22.3
Recovery Nepal	4.2 *	NC
NRCS	1.4 *	NC
RICHMOND	2.8 *	NC
Others	30.6 *	NC
Don't Know	2.8 *	NC
Frequency of Such Participation in past 12 months (n=72)		
Once	31.9 *	NC
2-3 times	43.1 *	NC
4-6 times	13.9 *	NC
7-12 times	2.8 *	NC
More than 12 times	2.8 *	NC
Not Participated During the Past Year	5.6 *	NC

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

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

9. COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter seeks to analyze the trends by comparing the data obtained during the first, second and third round 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 of the survey.

9.1 Socio-Demographic Characteristic

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

The majority of respondents in the three surveys were young, with over half of them aged 25 or less (68.7% in 2003, 62.3% in 2005 and 58.2% in 2007); a relatively low proportion of IDUs were above 25 years of age (31.3% in 2003, 37.7% in 2005 and 41.8% in 2007). The median age of respondents gradually increased by one year in each of the three rounds, with a median age of 22 in 2003, 23 in 2005 and 24 years old in 2007.

A small minority of respondents were illiterate in all rounds (6.3% in 2003, 5.3% in 2005 and 5.1% in 2007) whereas the majority of respondents in all three rounds had completed secondary level of education (63% in 2003, 56% in 2005 and 48.3% in 2007).

Table 9.1: Socio-Demographic Characteristics of IDUs

	First Rou	ınd (2003)	Second Ro	und (2005)	Third Round (2007)	
Socio-Demographic Characteristics	N=300	%	N=300	%	RDS EPP (%) N=300	
Age						
< 25 Years	206	68.7	187	62.3	58.2	
<=25 Years	94	31.3	113	37.7	41.8	
<=19 Years	69	23.0	50	16.7	15.6	
20-24	137	45.7	137	45.7	43.0	
25-29	47	15.7	66	22.0	28.7	
30-34	31	10.3	32	10.7	7.5	
35-42	16	5.3	15	5.0	5.3	
Median age	22	-	23	-	24	
Education						
Illiterate	19	6.3	16	5.3	5.1	
Literate only	3	1.0	5	1.7	0.5	
Primary	51	17.0	63	21.0	20.4	
Secondary	189	63.0	168	56.0	48.3	
SLC & above	38	12.7	48	16.0	25.7	
Ethnicity						
Brahmin	14	4.7	10	3.3	5.3	
Chhetri/Thakuri	50	16.7	60	20.0	19.1	
Newar	21	7.0	29	9.7	8.5	
Tamang/Lama/Magar	65	21.7	45	15.0	17.1	
Gurung/Rai/Thakali/Sherpa	101	33.7	90	30.0	34.3	
Occupational caste	34	11.3	49	16.3	13.9	
Others (Musalman, Terai caste)	15	5.0	17	5.7	1.9	

Ethnic/caste composition of the IDUs remained unchanged since the first round in 2003. Around one-third of IDUs in the first and third round (33.7% and 34.3% respectively) were from Gurung/Rai/Thakali/Sherpa ethnic groups; similarly 30 percent of IDUs represented this group in the second round. The proportion of IDUs belonging to Brahmin cast in the third

round was 19.1 percent, 16.7 percent in the first and 20 percent in the second round; the difference between these rounds is not statistically significant. Other caste/ethnic group representation was similar in all three waves of the survey.

9.2 Drug Injecting Practices

Most of the IDUs had been injecting drugs for more than a year. The average duration of injecting drugs was 3.7 years in 2003, 4.8 years in 2005 and 4.7 years in 2007. Over two-fifths of IDUs had been injecting drugs for more than two years but less than five years, in the first and second round (43.3% and 41%); in the third round the percentage went down to 32.2 percent which represents a statistically significant difference. On the other hand, the proportion of IDUs who had been injecting for 5 years or more has significantly increased since 2003 (30.7% in 2003, 41.3% in 2005 and 35.6% in 2007).

The median age of respondents when they had injected drugs for the first time was 19 years in 2003 and 2007 while it was 18 years in 2005; the difference however is not significant. A large proportion of respondents had started injecting drugs at an early age with more than 60 percent having had their first injection by the time they were 20 years old in all three rounds (64% in 2003, 68.3% in 2005 and 60.8% in 2007).

Table 9.2: Drug Injecting Practices of IDUs

	First Rou	ınd (2003)	Second Ro	ound (2005)	Third Round (2007)	
Drug Injecting Practices	N=300	%	N=300	%	RDS EPP (%) N=300	
Duration of drug injecting habit						
Up to 11 months	36	12.0	25	8.3	14.8	
12 – 23 months	42	14.0	28	9.3	17.5	
24 – 59 months	130	43.3	123	41.0	32.2	
60 and above months	92	30.7	124	41.3	35.6	
Average duration of years	3.7	-	4.8	-	4.7	
Age at first drug injection						
Up to 20 years	192	64.0	205	68.3	60.8	
21+ years	108	36.0	95	31.7	39.2	
Median age	19	-	18	-	19	

9.3 Needle/Syringe Using Practice in the Past Week

Data from 2007 showed that a considerable proportion of IDUs had avoided unsafe injecting behavior in the week preceding the survey; this trend has been steadily on the rise since the first round in 2003. High-risk behavior, like injecting with a previously used needle/syringe, has significantly decreased from 21 percent in 2003 to 14.7 percent in 2005, and finally to 7.6 percent in 2007. A similar improvement has been observed in regards to the use of syringes which have been left in a public place; 20.3 percent of IDUs had injected with syringes left in a public place in the week preceding the survey in 2003, this figure went down to 6.7 percent in 2005 and further decreased to only 3.4 percent in 2007. This steady decline in the proportions of IDUs using syringes which have been left in a public place is statistically significant.

Additionally, since the first round of the survey, a significantly higher proportion of IDUs in Pokhara have been injecting alone. The proportion of IDUs who had not shared their needle/syringe with anyone in the past week increased from 68 percent in the first round to 81 percent in the second, and finally to 91.5 percent in the third round.

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

	First Rou	nd (2003)	Second Ro	und (2005)	Third Round (2007)	
Needle/Syringe use throughout the Past Week	N=300	%	N=300	%	RDS EPP (%) N=300	
Used a needle/syringe that had been used by another						
Never Used	237	79.0	256	85.3	92.4	
Ever Used	63	21.0	44	14.7	7.6	
Used a needle/syringe kept in a public place						
Never Used	239	79.7	280	93.3	96.6	
Ever Used	61	20.3	20	6.7	3.4	
Number of partners sharing needle/syringe						
None	204	68.0	243	81.0	91.5	
Two or more partners	96	32.0	57	19.0	8.5	

9.4 Consistent Use of Condoms with Different Partners

Responses regarding condom use with different partners indicate that since the first round of survey, a larger proportion of IDUs have been using condoms consistently with their sex partners either regular, non-regular or female sex workers

Consistent use of condoms with regular partners was higher in third round (21.7%) than in the second (12.4%) and first rounds (9.3%); however, this increase is not statistically significant. As for their sexual contacts with non-regular partners in the year preceding the survey, a significantly higher proportion of IDUs in the third round than in the first and second rounds had reported using condoms consistently with them (29.9% in 2003, 39.6% in 2005 and 52.9% in 2007).

Likewise, while in the first round 59.6 percent IDUs had used a condom every time they had sex with a female sex worker during the past year, a relatively lower proportion of them (49.6%) reported doing so in the second round. In the third round the proportion of IDUs reporting consistent condom use with a paid sex partner in the past year increased to 80.5 percent; a statistically significant increase from 49.6 percent.

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

Consistent Use of Condoms	First Rour	First Round (2003)		ound (2005)	Third Round (2007) RDS EPP (%)
Use of condom with regular female sex partners during the past 12 months	N=86	%	N=89	%	N=99
Every time	8	9.3	11	12.4	21.7
Sometimes or Never	78	90.7	78	87.6	78.3
Use of condom with non-regular female sex partners during the past 12 months	N=77	%	N=96	%	N=135
Every time	23	29.9	38	39.6	52.9
Sometimes or Never	54	70.1	58	60.4	47.1
Use of condom with female sex workers during the past 12 months	N=89	%	N=121	%	N=139
Every time	53	59.6	60	49.6	80.5
Sometimes or Never	36	40.4	61	50.4	19.5

9.5 HIV Prevalence

HIV prevalence among the IDUs has gradually decreased since the first round. As seen in Table 9.5, the first and second round of IBBS showed almost the same HIV prevalence rate among IDUs in Pokhara (22% in 2003 and 21.7% in 2005). The prevalence rate however decreased to 6.8 percent in 2007; this is a significant change since the first round.

From the other findings of the study, it is evident that the IDUs in Pokhara have been increasingly becoming conscious of HIV/AIDS risk factors. Their behavioral trends point towards a considerable improvement with regards to injecting habits and sexual behavior. Seventy nine percent of IDUs had avoided injecting with a previously used needle in the first round and by 2007 this figure had increased to 92.4 percent. Likewise, practices like injecting with a syringe that had been kept in a public place decreased from 20.3 percent in 2003 to 3.4 percent in 2007. At the same time, a considerable proportion of IDUs have been practicing safe sex with their sex partners such as female sex workers. While in 2003, 59.6 percent had used condoms consistently in sexual relations with female sex workers in the year preceding the survey, 80.5 percent reported doing so in 2007. Furthermore, it has become evident from this study that IDUs in Pokhara do not commonly share their needle/syringe with others, as around 99 percent of IDUs had their last three injections alone.

Table 9.5: HIV Prevalence among IDUs

	First Round (2003)		Second Ro	und (2005)	Third Round (2007)		
HIV Prevalence	N=300	%	N=300	%	Estimated population Proportion (%) (n=300)	95% CI	
HIV	66	22	65	21.7	6.8	4.2 – 9.8	

10. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

10.1 Summary of Major Findings

- Overall, 6.8 percent of respondents tested HIV positive. Syphilis history was found among 0.3 percent of IDUs while 1.3 percent currently had high titre syphilis.
- The prevalence of HIV significantly differed with marital status, literacy status and the duration of the drug injecting habit of the respondent. The rate of infection was significantly higher among those IDUs who had injected with a previously used needle/syringe in the past week than those who hadn't injected with a previously used needle. HIV prevalence, however, had no significant relation with the types of sexual partners that the respondents had engaged in sexual contact with.
- The IDUs consisted predominantly of young individuals with 87.3 percent below the age of 30 years.
- Thirty eight percent of IDUs had been injecting drugs for two to five years while 32.9 percent had been injecting for less than two years.
- Respondents indicated that 7.6 percent of them had used a needle/syringe which had been previously used by someone else and 3.4 percent had used a needle/syringe kept in a public place during the week preceding the survey.
- Among those IDUs who had been mobile in the past year, 3.4 percent had injected with a previously used needle/syringe and 4.5 percent had given a needle/syringe to someone else after using it while at the place/s they visited.
- Around 96 percent of IDUs have had sex before; among them 83.2 percent had been sexually active in the past year.
- The sexual partners of the respondents included regular female and non-regular female partners, as well as female sex workers.
- Consistent condom use was reported to be highest with female sex workers (80.5%), followed by with non-regular sex partners (52.9%) and with regular female sex partners (21.7%) during the past year.
- One in ten IDUs had not heard about STIs before.
- The majority of IDUs (87.5%) had reportedly never experienced any STI symptoms before. Of those who had experienced symptoms 5.4 percent had genital discharge and 9.1 had genital ulcer/sores in the past year. Among them, 17.4 percent were experiencing genital discharge and 41.7 percent had a genital ulcer/sore at the time of this survey.
- Over two fifths (44.4%) of those IDUs who had ever experienced one or more STI symptoms had never sought any treatment.

- All of the respondents had heard about HIV/AIDS. While 86.9 percent of IDUs knew about all three major indicators, abstinence from sexual contact (A), being faithful to one partner (B) and condom use during each sexual contact (C), 73.4 percent of IDUs were aware of all major indicators BCDEF; namely, being faithful, consistent condom use, understanding that a healthy looking person can be infected with HIV, knowing that a person can not get the HIV virus from a mosquito bite and agreeing that sharing a meal with an HIV infected person does not transmit the HIV virus.
- Among those IDUs who were aware of HIV testing facilities, 57.4 percent had ever taken an HIV test; most of them (87.8%) had received their test result.
- Overall, 66.7 percent of IDUs had ever met with PE/OEs, 86.6 percent had visited a DIC at least once and 37.1 percent had visited a VCT center in the past year. However, very few IDUs (5.7%) had visited an STI clinic.
- Around 25 percent of respondents had ever participated in at least one HIV/AIDS awareness program or similar community event.

10.2 Recommendations

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

- Data from the study indicates that youth and adolescents are more susceptible to falling into a drug injecting habit (58.6% respondents were below 25 while 60.8% had their first injection before they were 20). 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.
- HIV prevalence was significantly related to drug injecting behavior. Ongoing HIV/AIDS awareness activities should continue and be expanded geographically to cover more IDUs particularly those who are illiterate. Advocacy, behavioral change activities and health promotion interventions should be further scaled up.
- The injecting practices of the respondents during the week preceding the survey revealed that 7.6 percent of IDUs had injected with a previously used syringe and 3.4 percent had used a syringe which had been left in a public place. Around five percent of IDUs had also practiced risky injecting behaviors such as using a pre-filled syringe, injecting with a syringe after drugs were transferred into it from another syringe and sharing injecting equipment. Similarly, 8.1 percent of IDUs had drawn drugs from a container shared with others in the past week. Comprehensive drug prevention and treatment interventions should be promoted. Harm reduction initiatives like wider dissemination of information on safe injecting behavior and needle exchange programs should be continued and expanded further.
- Over one-third of IDUs (33%) had received de-addiction treatment at least once, while 67 percent had never received any such treatment. Rehabilitation and detoxification centers should be supported for providing necessary services to IDUs,

particularly to those belonging to economically deprived families. Rehabilitation programs should also incorporate family counseling services.

- Around 74 percent of IDUs had maintained sexual contact with more than two partners in the past year. While 30 percent had sex with regular sex partners, 51 percent and 49.1 percent had sexual contact with non-regular partners and female sex workers respectively in the last year. Among them, 78.3 percent of IDUs had not used condoms consistently with their regular female sex partner, 47.1 percent had not with their non-regular female sex partners and 19.5 percent had not consistently used condoms with female sex workers. 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.
- Over two fifths (44.4%) of those IDUs who had ever experienced one or more 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 and around 66.7 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.
- Around 87 percent of respondents had visited a DIC in the past year. More DICs with expanded activities at central locations could cover more of the target groups.
- Around 75 percent of respondents had never participated in any HIV/AIDS related programs. 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 in Selected Sites of Nepal FHI/New ERA/SACTS – 2007

Namaste! My name is
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 <i>three months before the interview date</i> . 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:

IDEN'	TIFICATION NUM	BER (Coupon Nu	mber):	(Write '0' for seed)
Coupo	on number given:	1)	2)	
		3)		
Did th	e interviewee aband	on the interview?		
	1. Yes (Precise the 2. No	number of the las	st question completed	1: Q)
Interv	iewer Name:		Code Interviewe	r:
	nterview:/_ ed by the supervisor		Date	»:/ 2064
			Date/ Date/	
001.	Has someone interveeks?	viewed you from l	New ERA with a que	estionnaire in last few
	1. Yes	2. No (cont	inue interview)	
	• •	e sure that it was view)	s interviewed by Ne	w ERA and close the
002.	Respondent's ID #			
002.1	Respondent referre	d by coupon no.		
002.2	In which part of the	e body respondent	usually inject? (Cor	nform by observation)
002.3	Did you share need seed)	le/syringe with th	e friend who brough	t you here? (Don't ask with
	1. Yes	2. No		
002.4	How long you have	e been injecting dr	rugs?	
(NOT	THREE MONT	EENING QUEST HS STOP INTE		PONSE IS LESS THAN THIS PERSON IS NOT

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	
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	
104	What is your educational status?	Illiterate	
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 3 separated 3 Widow 4 Other (Specify) 96	108
107	How old were you when you first married?	Age	
10 8	With whom you are living now?	Living with wife	110 110 110

Q. N.	Questions	Coding Categories	Skip to Q.N.
10 9	Do you think your wife/female sexual partner	Yes1	
	has any other sexual partners?	No2	110
		Don't' know98	110
		No response99	110
10 9.1	If yes, what is the sex of the partner?	Male1	
		Female2	
110	During the past one-month how often have you	Every day1	
	had drinks containing alcohol?	More than once a week2	
		Less than once a week3	
	(Such as beer, local beer etc.)	Never drink4	
		Others (Specify)96	
		No response99	

2.0 DRUG USE

Q. N.	Questions			Coding Categories					Skip to Q.N.	
201.	How long have you been using dru	ugs?	Y	Years						
	rainer used for infoxication)		Months No respon				9			
202.	How old were you when you first drugs?	injected		ears]		
	(Include self-injection or injection by a	nother)	(1	write the	сотріє	iea yeai	·\$)			
203	How long have you been injecting drugs?							7		
	(Include self-injection or injection by a	nother)		ears			. <u> </u>	$\frac{1}{1}$		
				Months Jo respon]]		
203.1	Have you injected drugs in the last month?			No response 99 Yes 1						
				No2 204						
203.2	If Yes, have you used non-sterile injecting			Yes1						
	equipment at any time in the last r			No2						
204.	Which of the following types of d	_	you use	ed and/or	injected	l in the	past on	e-week	c? (Read	
	the list, multiple answer possible)		1 · T	4 337	,		4 1 .	T 4	XX7 1	
	Dogovintion	YES		ast-Wee DK			ected in	DK		
	Description		NO		NR	YES	NO 2		NR	
	1. Tidigesic	1	2	98	99 99	1	2	98 98	99 99	
	2. Brown Sugar3. Nitrosun	1	2	98	99	1	2	98	99	
	4. Ganja	1	2	98	99	1	2	98	99	
	5. Chares	1	$\frac{2}{2}$	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	

Q. N.	Questions				Codi	ing C	ategori	les		Skip to Q.N.
	14. Effidin	1	2			99	1	2	98	99
	15. Velium 10	1	2			99	1	2	98	99
	16. Lysergic Acid	1	2	98		99	1	2	98	99
	Dithylamide(LSD) 17. Nitrovate	1	2	98		99	1	2	98	99
	18. Combination (Specify)	1	2			99	1	2	98	99
	18. Combination (Specify)	1		90		77	1	2	90	99
	96. Others (Specify)	1	2	98		99	1	2	98	99
204.1	Did you switch in the last month for to another?	rom one o	drug					2		
204.1.1	If yes			From _					203)
204.1.1	ii yes			To				ug ug		
				10				~B		
204.1.2	What is the reason for switching?									
	-									
207									1 200	
205.	How many times would you say yo	ou injecte	ed	Times				L] 209)
	drugs yesterday?			Not inje)	
206.	Would you like to tell me why you	ı did not								
	injected yesterday?									
207.	How many days ago did you get ir	ijected?							1	
				Days ag	go]	
208.	How many times would you say yo	ou injecte	ed	Timas						
	drugs on the last day?			Times	•••••	• • • • • • • • • • • • • • • • • • • •			-	
209.	During the past one-week how ofto	en would		Once a	week			1		
	you say you injected drugs?			2-3 time						
				4-6 tim						
				Once a	-					
				2-3 time		-				
				4 or mo					,	
									7	
				Don't k						
				No resp						
				•						

3.0 <u>NEEDLE SHARING BEHAVIORS</u>

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	
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	
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	
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	

Q. N.	Questions		Coding	Categorio	es	Skip to Q.N.
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				
		I used a which I reused Others (Don't k	I purcha my own (Specify) now		6 7 96 98	
304.1	That time If you were in a group, how many different people in the group do you think used the same needle?	Injected	l 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?	Almost Sometin Never u Not inje Don't ka	every-timessedected in the mow	mes he last we		314
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	No response 99 Every times 1 Almost every-times 2 Sometimes 3 Never 4		1 2 3		
306.	that are used to hide syringe/needle) In the past one-week, did you ever share needles and syringes with any of the following?					
	Dond out list Multinla manner will	1 70-	MI	DV	NID	
	Read out list. Multiple answers possible 1. Your usual sexual partner	Yes 1	No 2	DK 98	NR 99	
	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 oneweek? (Count everyone who injected from the same syringe)	Don't k	now	ners	98	

Q. N.	Questions	Coding Categories	Skip to Q.N.
308.	In the past one-week, how often did you give a	Every times 1	
	needle or syringe to someone else, after you	Almost every-times2	
	had already used it?	Sometimes3	
		Never4	
		Don't know98	
		No response99	
309.	In the past-week, did you ever inject with a	Yes 1	
	pre-filled syringe?	No2	
		Don't' know98	
	(By that I mean a syringe that was filled without you witnessing it)	No response99	
310.	In the past one-week, how often did you inject	Every times 1	
	drugs using a syringe after someone else had	Almost every-times2	
	squirted drugs into it from his/her used	Sometimes3	
	syringe?	Never4	
		Don't know98	
	(Front-loading/back-loading/ splitting)	No response99	
311.	In the past one-week, when you injected drugs,	Every times1	
	how often did you share a cooker/	Almost every-times2	
	vial/container, cotton/filter, or rise water?	Sometimes3	
		Never4	
		Don't know98	
		No response99	
312.	In the past one-week, how often you draw up	Every times 1	
	your drug solution from a common container	Almost every-times2	
	used by others?	Sometimes3	
		Never4	
		Don't know98	
		No response	
313.	In the past one-week, when you injected with	Every time1	
	needles or syringes that had previously been	Almost every-times2	
	used, how often did you clean them first?	Sometimes3	21.4
		Never4	314
		Never reused5	314
		Others (Specify) 96	314
		Don't know98	314
313.1	If cleaned, how did you usually clean them?	No response	314
313.1	in cleaned, now did you usually clean them?	With water	
		With urine 2 With saliva 3	
		Boil the syringe in water4	
		With bleach 5	
		Burning the needle with	
		matchstick6	
		Others (Specify) 96	
		Don't know	
		No response	
		110 10sponse	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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 5 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	
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 now2 Have never received treatment	401 401
318.	How many months ago did you last receive treatment or help for your drug use?	Months 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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	
	Outpatient counseling		
	2. Self-help groups3. Detoxification w/methadone		
	4. Maintenance w/methadone		
	5. Detoxification w/other drugs		
	6. Detoxification with no drug		
	7. Residential rehabilitation		
	8. Helped for <i>cold turkey</i>		
	9. Forced for <i>cold turkey</i> 96. Other (Specify)		
	99. No response		

4.0 SEXUAL HISTORY

7.0	SEACAL HISTORI		
Q. N.	Questions	Coding Categories	Skip to Q.N.
401.	How old were you at your first sexual intercourse?	Years old	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	
403.2	How many were female "sex worker"? (Partners to whom you bought or sold sex in exchange for money or drug)	Number	
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	
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

Q. N.	Questions	Coding Categories	Skip to Q.N.
404.1	If yes, have you had anal sex with any of	Yes 1	
	your male partners in the last 12 months?	No 2	501
		No response99	501
404.2	With how many different male partners	Number	
	have you had anal sex in the last 12	Don't know98	
	months?	No response99	
404.3	The last time you had anal sex with a male	Yes1	
	sex partner did you and your partner use a	No2	
	condom?	Don't Know98	
		No response99	
404.4	How often have you used a condom in an	Every Times1	
	anal sex with male sex partner in the past 12	Almost Every Times2	
	months	Some Times3	
		Never Used4	
		Don't Know98	
		No response99	

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	Yes1	
	partner during last 12 months?	No2	502
501.1	Think about your most recent female		
	regular sexual partner. How many times did	Times	
	you have sex with her during last one-	Don't know98	
	month?	No response99	
501.2	The last time you had sex with a female	Yes 1	501.4
	regular partner did you and your partner use	No2	
	a condom?	Don't know98	501.4
		No response99	501.4
501.3	Why did not you or your partner use a	Not available1	
	condom that time?	Too expensive2	
		Partner objected3	
		Don't like them4	
		Used other contraceptive5	
	(Do not read the possible answers, multiple answer	Didn't think it was necessary6	
	possible)	Didn't think of it7	
		Other (Specify)96	
		Don't know98	
		No response99	
501.4	How often have you used a condom with	Every times 1	
	female regular partners in the past year?	Almost every-times2	
		Sometimes3	
		Never used4	
		Don't know98	
		No response99	
501.5	Did your female regular partner also inject	Yes1	
	drugs?	No2	
		Don't know98	
		No response99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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) Think about the female sex workers that	Yes	503
502.1	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	
502.1.1	With how many sex workers you had sex in last month by paying them money or drugs?	No	
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	
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	
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	

Q. N.	Questions	Coding Categories	Skip to Q.N.
502.7	Have you ever had anal sex with your	Yes1	
	female sex workers?	No2	503
		Don't know98	503
		No response99	503
502.8	The last time you had anal-sex with a	Yes1	
	female sex worker did you use a condom?	No2	
	j	Don't know98	
		No response99	
502.9	How often have you used a condom in an	Every times1	
	anal sex with female sex workers in the	Almost every-times2	
	past 12 months?	Sometimes3	
		Never used4	
		Don't know98	
		No response99	
503.	Did you have a sexual intercourse with a	Yes 1	
	female non-regular sex partner during last	No2	504
	12 months?		
700.1	(Check 403.3 and circle the response of Q. 503)		
503.1	Think about your most recent female non-	Times	
	regular sexual partner. How many times did	Don't know	
	you have sexual intercourse with her over		
502.2	the past one-month?	No response99	502.4
503.2	The last time you had a sex with a female	Yes 1	503.4
	non-regular partner did you and your	No	503.4
	partner use a condom?	No response	503.4
503.3	Why did not you and your partner use a	Not available 1	303.4
303.3	condom that time?	Too expensive	
	Condom that time:	Partner objected3	
		Don't like them4	
		Used other contraceptive5	
	(Don't read the possible answers, multiple answer	Didn't think it was necessary 6	
	possible)	Didn't think of it7	
		Other (Specify)96	
		Don't know98	
		No response99	
503.4	How often have you used a condom with a	Every times1	
	female non-regular partner in the past year?	Almost every-times2	
		Sometimes3	
		Never used4	
		Don't know98	
		No response99	
503.5	Did you know whether your female non-	Yes 1	
	regular partners also inject drugs?	No2	
		Don't know98	
		No response99	
503.6	Have you ever had anal sex with your	Yes 1	
	female non-regular partners?	No2	504
		Don't know98	504
		No response99	504

Q. N.	Questions	Coding Categories	Skip to Q.N.
503.7	The last time you had an anal sex with a	Yes 1	
	female non-regular partner, did you and	No2	
	your partner use a condom?	Don't know98	
		No response99	
503.8	How often have you used a condom in an	Every times1	
	anal-sex with female non-regular partners in	Almost every-times2	
	the past year?	Sometimes3	
		Never used4	
		Don't know98	
		No response99	
504	Have you had anal sex with a male partner	Yes1	
	in the past one year?	No2	505
	(See the response in Q. 404.1 and circle Q. 504 response)		
504.1	Think of your last male sex partner with		
	whom you had anal sex: in the last one	Times	
	month, how many times you had anal sex	Don't know98	
	with him?	No response99	
504.2	The last time you had anal sex with him; did	Yes 1	504.4
	you use condom?	No2	
		Don't know98	504.4
		No response	504.4
504.3	Why didn't you use condom at that time?	Not available 1	
		Too expensive2	
	(Don't read possible answer, multiple answer possible)	Partner objected	
	Possible	Don't like them4	
		Used other contraceptive5	
		Didn't think it was	
		necessary	
		Other (Specify)96	
		Don't know	
		No response	
504.4	How often have you used a condom is an	Every times	
304.4	anal sex with a male partner is the past	Almost every-times	
	year?	Sometimes	
	year.	Never used4	
		Don't know98	
		No response99	
504.5	Do you know if your male partner with	Yes	
	whom you had anal sex also injects drugs?	No2	
		Don't know98	
		No response99	
505.	Have you had sexual intercourse in the last	Yes 1	
	month?	No2	507
506.	If yes, did you or your partner use a condom	Every times1	
	when you had sex last month?	Almost every-times2	
		Sometimes3	
		Never used4	
		Don't know98	
		No response99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
507.	With whom did you have the last sexual	FSW1	
	intercourse?	Regular partner2	
		(Wife or live in sexual partner)	
		Other female friend4	
		Male friend5	
		Don't Know98	
		No response99	
508.	Did you use condom in the last sexual	Yes 1	
	intercourse	No2	

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?	Yes1	
		No2	701
	(Show picture or sample of condom)	Don't know98	701
		No response99	701
602.	Have you ever used a condom?	Yes 1	
		No2	
603.	Do you know of any place or person from	Yes 1	
	which you can obtain condom?	Don't know98	701
		No response99	701
604.	From which place or people, you can obtain	Shop1	
	condoms?	Pharmacy2	
		Clinic3	
		Hospital4	
	(Multiple answer possible. Don't read the list but should probe)	Family planning center5	
		Bar/Guest house/Hotel6	
		Health worker7	
		Peer Educator/outreach	
		educator8	
		Friend9	
		Pan Pasal10	
		Others (Specify) 96	
		No response99	
605.	How long would it take (from your house	Less than 30 minutes1	
	or the place where you work) to obtain a	More than 30 minutes2	
	condom?	Don't know98	
		No response99	

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	Yes1	
	transmitted through sexual intercourse?	No2	704
	_	No response99	704
702.	Can you describe any symptoms of STIs in	Abdominal pain1	
	women?	Genital discharge2	
	(Do not read possible answers, multiple answers	Foul smelling3	
		Burning pain on urination 4	
		Genital ulcers/sore5	
		Swelling in groin area6	
	possible.)	Itching7	
		Other (Specify)96	
		Don't know98	
		No response99	
703.	Can you describe any symptoms of STIs in	Genital discharge1	
	men?	Burning pain on urination 2	
		Genital ulcers/sore blister 3	
	(Do not read possible answers, multiple answer	Swellings in groin area4	
	possible)	Others (Specify)96	
		Don't know98	
		No response99	
704.	Have you had a genital discharge/burning	Yes1	
	urination during the last 12 months?	No2	705
	-	Don't know98	705
		No response99	705
704.1	Currently, do you have a genital	Yes	
	discharge/burning urination problem?	No2	
		Don't know98	
		No response99	
705	Have you had a genital ulcer/sore blister	Yes	
	during the last 12 months?	No2	706
		Don't know98	706
		No response99	706
705.1	Currently, do you have a genital ulcer/sore	Yes1	
	blister problem?	No2	
		Don't know98	
		No response99	
706.	Last time you had a genital discharge/	Did not seek treatment 1	
	burning urination or a genital ulcer/sore	With private doctor2	
	blister, where did you go for treatment?	In hospital3	
		No Symptoms4	
		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	
		No2	804
		No response99	804
802.	Do you know anyone who is infected with	Yes 1	
	HIV or who has died of AIDS?	No2	
		No response99	804
803.	Do you have close relative or close fried who is infected with HIV or has died of AIDS?	Yes, a close relative1	
		Yes, a close friend2	
		No3	
		No response99	
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	
		No2	
		Don't know98	
		No response99	
805.	Can a person get HIV, from mosquito bites?	Yes1	
		No2	
		Don't know98	
		No response99	
806.	Can a person protect himself/herself from	Yes1	
	HIV, by having one uninfected faithful sex	No2	
	partner?	Don't know98	
	Finance	No response99	
807.	Can a person protect himself/herself from	Yes	
007.	HIV, by abstaining from sexual intercourse?	No	
		Don't know98	
		No response99	
808.	Can a person get HIV, by sharing a meal with someone who is infected?	Yes	
000.		No	
		Don't know98	
		No response	
809.	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes	
007.		No2	
		Don't know	
		No response99	
810.	Can a person who inject drug protect	Yes	
010.	himself/herself from HIV, the virus that	No2	
	causes AIDS, by switching to non-injecting	Don't know	
	drugs?	No response	
	(Oral or inhaling drugs)	140 response	
811.	Can a pregnant woman infected with HIV	Yes 1	
	transmit the virus to her unborn child?	No	813
		Don't know	813
		No response99	813
812.	What can a pregnant woman do to reduce	Take medication	1010
012.	the risk of transmission of HIV to her	(Antiretrovirals)1	
	unborn child?	Others (Specify)96	
	(Do not read the possible answers, multiple answer	Don't know	
	possible)	No response	
	<u> </u>	140 165ponse99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
813.	Can women with HIV transmit the virus to	Yes1	
	her newborn child through breast-feeding?	No2	
		Don't know98	
		No response99	
813.1	Do you think a healthy-looking person can	Yes 1	
	be infected with HIV?	No2	
		Don't know98	
813.2	Can a person get HIV by shaking hand?	Yes 1	
		No2	
		Don't know98	
813.3	Can blood transfusion from an infected	Yes 1	
	person to the other transmit HIV?	No2	
		Don't know98	
814.	Is it possible in your community for	Yes 1	
	someone to get a confidential test to find out	No2	
	if they are infected with HIV?	Don't know98	
	(By confidential, I mean that no one will know the result if you don't want him or her to know it.)	No response99	
815	I don't want to know the result, but have	Yes1	
	you ever had an HIV test?	No2	901
		No response99	901
816.	Did you voluntarily undergo the HIV test,	Voluntary 1	
	or were you required to have the test?	Required2	
		No response99	
817.	Please do not tell me the result, but did you	Yes1	818
	find out the result of your HIV test?	No2	
		No response9	818
817.1	Why did you not receive the test result?	Sure of not being infected 1	
		Afraid of result2	
		Felt unnecessary3	
		Forgot it4	
		Others (Specify)96	
818.	When did you have your most recent HIV	Within the past 12 months 1	
	test?	Between 13-24 months	
		Between 25-48 months	
		More than 49 months4	
		Don't know98	
		No response99	

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 about HIV/AIDS? (Read the following list, multiple answers po		ve you learned	
	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)

	(1) answer to Q. 601 No Go to Q. 1004)		7.4	Skip
Q. N.	Questions	Coding C	Categories	to Q.N.
1001.	In the past one-year have you seen, read or he	ard any advertiser	nents about	
	condoms from the following sources?			
	(Read the following list, multiple answer pos		T	
	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 r	nessages/characte	rs 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	1	2	
	Rakhnu Parchha Sarbatra Paine Condom			
	Lai			
	4 Ramro Sanga Prayog Gare Jokhim Huna	1	2	
	Dinna Bharpardo Chhu Santosh Dinchhu			
	Jhanjhat Manna Hunna		_	
	5. Condom Bata Surakchhya, Youn Swasthya	1	2	
	Ko Rakchhya AIDS Ra Younrog Bata			
	Bachna Sadhai Condom Ko Prayog Garau	1		
	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	1	2	
	Kasko Hunchha	1	2	
1002	96. Others (Specify)	1	2	
1003.	Have you ever heard/seen or read messages		1	1004
	or materials other than mentioned above?	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	Total	
	know you?		
	Knowing someone is defined as being able to	Don't know98	1008
	contact them, and having had contact with them in the past 12 months – knowing each	No response99	1008
	other		
1005.1	Among them persons how many are male	Male	
	and female?	Female	
		Don't know98	
100-		No response	
1006	Among those persons, please try to estimate	Less than 15 years old []	
	the number of people by range of age:	15-19 years old []	
		20-24 years old [] 25-29 years old []	
		30-40 years old []	
		> 40 years old []	
		Don't know98	
		No response99	
		Not applicable97	
1007	Again, among those guys, please try to	Hindu []	
	estimate the number of people by religion:	Buddhist [] Muslim	
		Christian []	
		Others (Specify) []	
		Don't know	
		No response99	
		Not applicable97	
1008	How is the person who gave you the coupon	A close friend1	
	related to you?	A friend2	
		Your sexual partner3	
		A relative	
		A stranger	
		Others (Specify) 6 Don't know	
		No response99	
		110 105poinse	<u> </u>

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	
1103	Do you know from which organization were they? (Multiple answers. DO NOT READ the possible answers)	Others (Specify) 96 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	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?	Went to collect condoms	
	(Multiple answers. DO NOT READ the possible answers)	Went to watch film on HIV/AIDS	
1107	Do you know which organizations run those out reach center (DIC, IC or CC)?	KCC. 1 HELP. 2 KYC. 3 PSK 4	
	(Multiple answers. DO NOT READ the possible answers)	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	1113
1110	When you visited such STI clinic in what activities were you involved?	Blood tested for STI	
	(Multiple answers. DO NOT READ the possible answers given below)	Discussion on how STI is/isn't transmitted	

Q. N.	Questions	Coding Categories	Skip to Q.N.
1111	Do you know which organizations run those STI clinics?	AMDA 1 SACTS 2 NFCC 3 CAC 4	
	(Multiple answers. DO NOT READ the possible answers)	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	1117
1114	When you visited such VCT center in what activities were you involved?	Received pre-HIV/AIDS test counseling	
1115	(Multiple answers. DO NOT READ the possible answers) Do you know which organizations run those	Received post HIV/AIDS test counseling	
1115	VCT centers?	Youth Vision 2 SACTS 3 NFCC 4	
	(Multiple answers. DO NOT READ the possible answers)	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	1121
1118	When you participated in such events in what activities were you involved? (Multiple answers. DO NOT READ the possible answers)	Street drama	
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	
1122	Have you heard of care and support program that provide information regarding ART and ART services necessary for HIV infected people?	Yes	

12.0 Stigma and Discrimination

Q. N.	Questions	Coding Categories	Skip to Q.N.
1201	If a male relative of yours gets HIV, would	Yes1	
	you be willing to take care of him in your	No2	
	household?	Don't know98	
1202	If a female relative of yours gets HIV,	Yes1	
	would you be willing to take care of her in	No2	
	your household?	Don't know98	
1203	If a member of your family gets HIV, would	Yes1	
	you want it to remain a secret?	No2	
		Don't know98	
1204	If you knew a shopkeeper or food seller had	Yes 1	
	HIV, would you buy food from them?	No2	
		Don't know98	
		No response99	
1205	Do you think a person with HIV should get	Same1	
	the same, more or less health care than	More2	
	someone with any other chronic disease?	Less3	
		Don't know98	
		No response99	
1206	If a colleague who is working with you has	Yes 1	
	HIV but he is not sick, should he be allowed	No2	
	to continue working?	Don't know98	
		No response99	

ca Thank You. 🔊

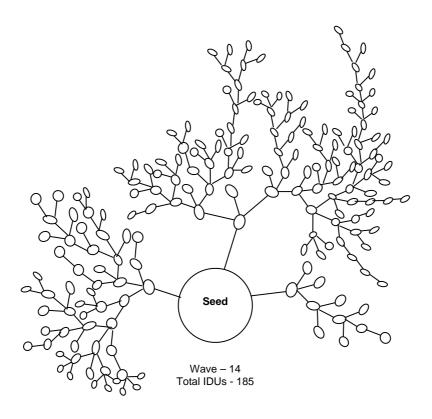
ANNEX - 2: Sample Size Formula

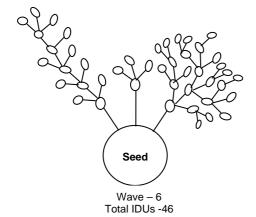
Basic Equation Used in Sample Design

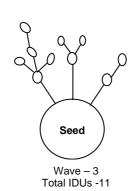
 $n = \quad D \left[\left(Z_{\alpha} + Z_{\beta} \right)^2 * \left(P_1 \left(1 - P_1 \right) + P_2 \left(1 - P_2 \right) \right) / \left(P_2 - P_1 \right)^2 \right]$

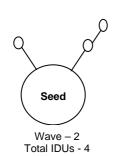
- n= required minimum sample size per survey round or comparison groups
- D = design effect (assumed in the following equations to be the default value of 2
- P_1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area
- P_2 = the expected 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 $(\alpha$ 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 (P₁-P₂) if one actually occurred (β statistical power

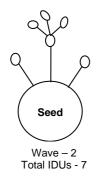
ANNEX – 3: Respondent Driven Sample of IDUs

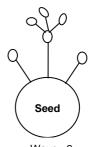




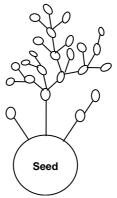




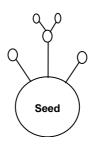




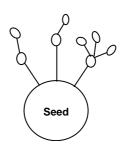
Wave –2 Total IDUs - 7



Wave – 5 Total IDUs -25



Wave – 2 Total IDUs -6



Wave – 2 Total IDUs - 9

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

Address: GPO Box 8803

Gopal Bhawan, Anamika Galli, Ward No4,

Baluwatar, Kathmandu, Nepal Phone: +977 1 443 7173 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

Siddhartha Man Tuladhar, New ERA, Kalopool, Kathmandu, Phone: 01-4413603; **OR** *Laxmi Bilas Acharya*, ASHA project - FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173

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 volunte answered and the volunteer has agreed to take part in the research.	eer. All questions were
Signature of witness	Date
I certify that the nature and purpose, the potential benefits, and possible participating in this research have been explained to the above individual.	risks associated with
Signature of Person Who Obtained Consent	Date

ANNEX - 5: Clinical/Lab Checklist

CONFIDENTIAL

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

Clinical/Lab Checklist

Respon	ndent			Date: 2064/	_/
Name	of Clinician:				
Name o	of Lab Technician:				
(A)	Clinical TEST	(B)	Specimen collec	tion	
				Yes	<u>No</u>
Weight	t :Kg	g Pre-to	est counseled	1	2
B.P.	:mm of	-	d Collected for & Syphilis	1	2
Pulse	:	post-	& place for test results given	1	2
i empe	rature :°		lom given	1	2
		IEC 1	materials given	1	2
1.0	Syndromic Treatmen	t Informatio	<u>n</u>		
101.	Have you experienced testis or epididymis in			ion/swelling and	tenderness of
	 Yes No If yes, give urethral or 	lischarge/sci	otal swelling synd	rome treatmen	t]

- 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
Kaski	Prithivichowk, Pokhara	1	300	300

ANNEX – 7: Participation in Post Test Counseling

Date	Counseling Center	Expected Client	Client Counseled		Client with	Client with
Center		Chent	N	%	HIV+	HIV-
July 6 – August 22, 2007	Naulo Ghumti	300	34	11.3	1	33

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

Injecting practice		Round 003)	Second (20		Third Round (2007)	
	n=57	%	n= 155	%	n=64	%
Reasons for not injecting yesterday						
Lack of money	14	24.6	48	31.0	28	43.8
To quit slowly	12	21.0	60	38.7	24	37.5
Smoked ganja	7	12.3	0	0.0	0	0.0
Due to pulling brown sugar	6	10.5	0	0.0	0	0.0
Injected alternate day	5	8.8	0	0.0	0	0.0
Drank alcohol	5	8.8	0	0.0	0	0.0
Unavailability/Lack of drugs	2	3.5	43	27.7	3	4.7
Was in custody	2	3.5	0	0.0	0	0.0
Used Nitrosun orally	2	3.5	0	0.0	0	0.0
Due to illness	0	0.0	2	1.3	1	1.6
Taking other medicines	0	0.0	2	1.3	4	6.3
Busy in housework/other work	0	0.0	2	1.3	2	3.1
Others	10	17.5	6	3.9	5	7.8

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

ANNEX – 9: Part of the Body for Injecting Drugs

Typical injection Points	First Rou	nd (2003)	Second Ro	und (2005)	Third Round (2007)		
Typical injection Foints	N=300	%	N=300	%	N=300	%	
Arm	186	62.0	117	39.0	39	13.0	
Wrist	80	26.7	130	43.3	118	39.3	
Elbow	0	0.0	0	0.0	56	18.7	
Calf	12	4.0	3	1.0	0	0.0	
Thigh	7	2.3	22	7.4	0	0.0	
Palm	7	2.3	12	4.0	16	5.3	
Joint of leg and hip	0	0.0	0	0.0	17	5.7	
Back of the Knee	3	1.0	0	0.0	0	0.0	
Armpit	0	0.0	4	1.3	15	5.0	
Finger	0	0.0	6	2.0	0	0.0	
Others	5	1.7	6	2.0	39	13.0	

ANNEX – 10: Gathering Place of IDUs to Inject Drugs

SN	Gathering places of IDUs to Inject Drugs	First 1 (20	Round 03)		Round 05)		Third Round (2007)	
		N=300	%	N=300	%	N=300	%	
1.	Forest/Bushes/lawn/Farmland	104	34.7	187	62.3	176	58.7	
2.	Open Ground/Town planning area	54	18.0	0	0.0	0	0.0	
3.	River bank/Slum area/Pond	47	15.7	26	8.7	38	12.7	
4.	Own/friends/Drug-user's room/House	43	14.3	45	15.0	53	17.7	
5.	Bus Park	18	6.0	9	3.0	5	1.7	
6.	Around school/Campus/Stadium	6	2.0	7	2.3	0	0.0	
7.	Camp/Company	4	1.3	0	0.0	0	0.0	
8.	Cannel	4	1.3	0	0.0	0	0.0	
9.	Pool House/Swimming pool	3	1.0	8	2.7	0	0.0	
10.	Garage/Junk store	3	1.0	5	1.7	3	1.0	
11.	Toilet/Public toilet	3	1.0	2	0.7	5	1.7	
12.	Hotel/Lodge/Restaurant	2	0.7	8	2.7	3	1.0	
13.	Temple Area	2	0.7	0	0.0	0	0.0	
14.	Vacant house/Newly constructed house	2	0.7	0	0.0	4	1.3	
15.	Shop	2	0.7	0	0.0	0	0.0	
16.	Around airport	1	0.3	0	0.0	0	0.0	
17.	Chowk/Tole/Galli/Road	1	0.3	0	0.0	3	1.0	
18.	Lonely place	1	0.3	0	0.0	0	0.0	
19	Others	0	0.0	3	1.0	10	3.3	

ANNEX – 11: Combination of Different Drugs Injected by IDUs

S.N.	Drugs Combination	Third Round (2007)
1	Norphin + Diazepam + Phenergan	N=282 95
2	Norphin + Diazepam + Thenergan	43
3	Norphin + Diazepani + Phenergan + Algic	29
4	Norphin + Diazepam + Phenergan + Avil	13
5	Norphin + Diazepam + Algic	10
6	Diazepam + Phenergan + Algic	10
7	Norphin + Algic	9
8	Norphin + Phenergan	6
9	Diazepam + Phenergan	6
10	Norphin + Diazepam + Avil	5
11	Tidigesic + Diazepam + Phenergan	5
12	Norphin + Diazepam + Phenergan + Algic + Avil	5
	Norphin + Algic + Avil	
13		3
14	Norphin + Diazepam + Phenergan + Calmpose	
15	Norphin + Diazepam + Phenermine	2
16	Diazepam + Phenermine + Double 'O'	2
17	Norphin + Avil	1
18	Tidigesic + Diazepam	1
19	Diazepam + Algic	1
20	Norphin + Nitrovate	1
21	Diazepam + Saipam	1
22	Norphin + Diazepam + Calmpose	1
23	Norphin + Phenergan + Calmpose	1
24	Norphin + Diazepam + Hydrocole	1
25	Diazepam + Phenergan + Traphex	1
26	Diazepam + Phenergan + Ji gold star	1
27	Diazepam + Ji gold star + Double 'O'	1
28	Norphin + Algic + Phenergan	1
29	Norphin + Diazepam + Stargun	1
30	Norphin + Diazepam + Double 'O'	1
31	Norphin + Phenergan + Double 'O'	1
32	Norphin + Diazepam + Phenergan + Avilvet	1
33	Diazepam + Calmpose +Algic + Avil	1
34	Tidigesic +Diazepam + Phenergan + Avil	1
35	Tidigesic +Diazepam + Phenergan + Algic	1
36	Norphin + Diazepam + Phenergan + Phenermine	1
37	Norphin + Diazepam + Phenergan + Ji gold star	1
38	Norphin + Diazepam + Phenergan + Hydrocole	1
39	Norphin + Diazepam + Algic + Ji gold star	1
40	Norphin + Phenergan + Saipam + Algic	1
41	Norphin + Diazepam + Algic + Codiene	1
42	Norphin + Diazepam + Phenergan + Double 'O'	1
43	Tidigesic + Diazepam + Phenergan + Double 'O'	1
44	Tidigesic + Phenergan + Calmpose + Avil	1
45	Diazepam + Phenergan + Saipam + Algic	1
46	Diazepam + Phenergan + Algic + Double 'O'	1
47	Norphin + Diazepam + Phenergan + Calmpose + Algic	1
48	Norphin + Diazepam + Phenergan + Calmpose + Saipam	1
49	Norphin + Diazepam + Phenergan + Saipam + Avil	1
50	Norphin + Diazepam + Phenergan + Saipam + Phenermine + Double 'O'	1
51	Norphin + Diazepam + Phenergan + Algic + Codiene + Effidin + Proxyvon	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		Round 03)	Second (200			Third Round (2007)	
	N	%	N	%	N	%	
Switched from one drugs to another drugs in past month							
Yes	1	0.3	5	1.7	5	1.7	
No	299	99.7	295	98.3	295	98.3	
Total	300	100.0	300	100.0	300	100.0	
Switched from							
Tidigesic to Nitrosun, Ganga and Charas	1	100.0	0	0.0	0	0.0	
Norphin to Alcohol	0	0.0	1	20.0	0	0.0	
Norphin to Norphin + Nitrovate	0	0.0	1	20.0	0	0.0	
Brown Sugar to Norphin	0	0.0	1	20.0	0	0.0	
Brown Sugar to Tidigesic	0	0.0	1	20.0	0	0.0	
Brown Sugar + Diaqepam to Norphin	0	0.0	1	20.0	0	0.0	
Norphin+Phenargan to Norphin+ Diazepam	0	0.0	0	0.0	2	40.0	
Norphin+Phenargan to Norphin+ Diazepam+Algic	0	0.0	0	0.0	1	20.0	
Norphin+Saipam+Double 'O' to Phenergan+Goldstar	0	0.0	0	0.0	1	20.0	
Norphin+Algic to Norphin+Diazepam+Phenergan	0	0.0	0	0.0	1	20.0	
Total	1	100.0	5	100.0	5	100.0	
Reasons for switching *							
To reduce Tidigesic/Leave slowly	1	100.0	0	0.0	0	0.0	
Due to lack of money/expensive	0	0.0	3	60.0	0	0.0	
Unavailability/scarcity of drugs	0	0.0	2	40.0	1	20.0	
Due to nerve problem	0	0.0	0	0.0	3	60.0	
Others	0	0.0	0	0.0	1	20.0	
Total	1	*	5	*	5	*	

^{*} Note: Because of multiple answers percentages may add up to more than 100.

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

Types of Treatments								
	Residenti al Rehabilit ation	Out patient counseling	Helpe d for Cold turkey	With out drug	With other drug	Detoxification with methadone	Other treatment/ help	Maintenance with methadone
Types of institutions	0.4	0.1	0.4	0.4		0.4		0/
n=115	0/0	%	%	%	%	%		%
Youth vision	-	0.8	-	-	1.7	-	-	0.8
Ashra/Youth Vision/Navajeevan	0.8	-	-	-	-	_	_	-
Naulo Ghumti	21.7	9.5	0.8	0.8	20.0	1.7	1.7	0.8
Aashra sudhar kendra	-	0.8	- 0.8	-	20.0	-	0.8	-
Aasha Aasha	-	0.8	-	-	0.8	-	-	-
Richmond Fellowship	-	0.8	-	-	0.8		-	-
Center	16.5	6.0	0.8	1.7	12.1	1.7	1.7	1.7
Freedom Center	-	_	-	-			_	_
Nawa Kiran	_	_	_	-			_	_
Seren Foundation	8.6	4.3	_	-	13.0	2.6	_	0.8
Lajau Detox Center	-	_	-	-		_	-	-
Jumai in Sikkim	-	_	-	-		_	_	_
Gandaki Hospital	-	_	-	-		_	-	-
Gateway Foundation	4.3	1.7	_	0.8	6.0	_	-	0.8
Support and Care								
Center	0.8	-	-	-		-	-	-
Magic circle	5.2	0.8	-	-	6.9	-	-	0.8
Care foundation	0.8	-	-		0.8	-	-	-
Patan Hospital	-	-	-	-	0.8	-	-	-
Manish care	0.8	-	-	-	0.8	-	-	-
Magic care and care	_	_	_	_		0.8	_	_
foundation	_		_			0.8	_	_
Youth vision and	-	_	_	-	0.8	_	_	_
Manish care								
Naulo ghumti and Richmond Fellowship	-	-	-	-	0.8	-	-	-
Youth vision, Seren								-
foundation, Magic circle	_	_	_	_	0.8	_	_	-
and Care foundation					0.0			-
Richmond fellowship					0.0			_
and care foundation	-	-	-	-	0.8	-	-	-
Naulo Ghumti, Youth								
vision, Manish care and	0.8	-	-	-		-	-	-
Aasha								-
Seren foundation and	0.8	_	-	1		_	_	-
pension camp	0.0							-
Richmond fellowship,	0.0							_
magic circle and care	0.8	-	-	-		-	-	-
foundation	 		0.0	0.0	2.6			
Others	-	- 25.2	0.8	0.8	2.6	-	-	-
Total	62.6	25.2	2.6	4.3	69.6	7.0	4.3	6.1

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 of not using condom	First Rou	nd (2002)	Second Ro	und (2005)	Third Rou	Third Round (2007)	
Reasons of not using condom	N = 300	%	N = 300	%	N = 300	%	
Reasons of not using condom with regular							
partner in the last sexual intercourse							
Partner objected	1	1.6	9	16.1	5	7.2	
Don't like them	12	19.4	11	19.6	10	14.5	
Used other contraceptive	8	12.9	17	30.4	18	26.0	
Didn't think it was necessary	43	69.4	26	46.4	46	66.6	
Didn't think of it	0-	0.0	5	8.9	3	4.3	
Willing to have baby	0	0.0	3	5.4	4	5.8	
Not available	0	0.0	0	0.0	3	4.3	
Others	0	0.0	6	10.7	2	2.9	
Total	62	*	56	*	69	*	
Reasons of not using condom with sex worker in the last sexual intercourse							
Not available	8	44.4	15	48.4	15	55.5	
	0	0.0	2	6.5	0	0.0	
Partner objected Don't like them	4	22.2	11	35.5	10	37.0	
	3	16.7	4	12.9	2	7.4	
Didn't think it was necessary Didn't think of it	2	11.1	9	29.0	3	11.1	
	<u>2</u> 1	5.6	1	3.2	2	7.4	
Others		3.0	-	3.2		/.4 *	
Total	18	*	31	•	27	•	
Reasons of not using condom with non-							
regular partner in the last sexual intercourse Not available	13	31.7	10	23.3	14	25.4	
- 101 01 01 01 01 01		2.4	10	23.3		7.3	
Partner objected Don't like them	6	14.6	12	23.3	12	21.8	
Used other contraceptive	1 15	2.4 36.6	19	2.3 44.2	37	7.3 67.3	
Didn't think it was necessary						0.10	
Didn't think of it	5	12.2	9	20.9	6	10.9	
Trust on partner	0	0.0	3	7.0	1	1.8	
Sexual Un-satisfaction	0	0.0	1	2.3	0	0.0	
Others	1	2.4	0	0.0	3	5.4	
Total	41	*	43	*	55	*	

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

ANNEX – 15: Comparative Analysis

Socio-Demographic Characteristics of the Sample Population

Socio-Demographic characteristics		Round 103)		Round 05)	Third Round (2007)
Boeio Demographie characteristics	N=300	%	N=300	%	RDS EPP (%) N=300
Age					
<=19 Years	69	23.0	50	16.7	15.6
20-24	137	45.7	137	45.7	43.0
25-29	47	15.7	66	22.0	28.7
30-34	31	10.3	32	10.7	7.5
35-42	16	5.3	15	5.0	5.3
Median age	22	-	23	-	24
Education					
Illiterate	19	6.3	16	5.3	5.1
Literate only	3	1.0	5	1.7	0.5
Primary	51	17.0	63	21.0	20.4
Secondary	189	63.0	168	56.0	48.3
SLC & above	38	12.7	48	16.0	25.7

Drug Injecting Practice of Respondents

	First Rou	ind (2003)	Second Ro	und (2005)	Third Round (2007)
Drug injecting practice	N=300	%	N=300	%	RDS EPP (%) N=300
Duration of drug injecting habit					
Up to 12 months	56	18.7	37	12.3	24.6
13 – 60 months	199	59.7	164	54.7	46.0
More than 60 months	65	21.7	99	33.0	29.5
Average duration years	3.7	-	4.8	-	4.7
Age at first drug injection					
Up to 20 years	192	64.0	205	68.3	60.8
21+ years	108	36.0	95	31.7	39.2
Median age	19	-	18	-	19

Past Week's Syringe Use and Sharing Behavior

	First Rou	nd (2003)	Second Ro	und (2005)	Third Round (2007)
Needle/syringe use throughout the past week	N=300	%	N=300	%	RDS EPP (%) N=300
Used a needle/syringe that had been used by another					
Never Used	237	79.0	256	85.3	92.4
Ever Used	63	21.0	44	14.7	7.6
Used a needle/syringe kept in public place					
Never Used	239	79.7	280	93.3	96.6
Ever Used	61	20.3	20	6.7	3.4
Number of partners sharing needle/syringe					
None	204	68.0	243	81.0	91.5
Two or more partners	96	32.0	57	19.0	8.5
Reused needle/syringe in the past week					
Yes	156	52.0	84	28.0	14.6
No	144	48.0	216	72.0	85.4

^{*} Note: Because of multiple answers, the percentages may add up to more than 100.

Consistent Use of Condom with Different Female Sexual Partners in the Past Year

Consistent use of condom	First Roun	nd (2003)	Second Round (2005)		Third Round (2007) RDS EPP (%)
Use of condom with regular female sex partners during past 12 months	n=86	%	n=89	%	n=99
Every time	8	9.3	11	12.4	21.7
Some time or Never	78	90.7	78	87.6	78.3
Use of condom with non-regular female sex partners during past 12 months	n=77	%	n=96	%	n=135
Every time	23	29.9	38	39.6	52.9
Some time or Never	54	70.1	58	60.4	47.1
Use of condom with female sex workers during past 12 months	n=89	%	n=121	%	n=139
Every time	53	59.6	60	49.6	80.5
Some time or Never	36	40.4	61	50.4	19.5

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