Integrated Bio-Behavioral Survey (IBBS) Among Male Injecting Drug Users (IDUs) In Pokhara

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Family Health International

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INTEGRATED BIO-BEHAVIORAL SURVEY (IBBS) AMONG MALE INJECTING DRUG USERS (IDUs) IN POKHARA

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ABBREVIATIONS

AIDS	-	Acquired Immuno-Deficiency Syndrome
FHI	-	Family Health International
FSWs	-	Female Sex Workers
HIV	-	Human Immuno-Deficiency Virus
IBBS	-	Integrated Bio-Behavioral Survey
ID	-	Identification Number
IDUs	-	Injecting Drug Users
IEC	-	Information, Education and Communication
LALS	-	Life Giving and Life Saving Society
NCASC	-	National Center for AIDS and STD Control
NGO	-	Non-Governmental Organization
NHRC	-	Nepal Health Research Council
PHSC	-	Protection of Human Subjects Committee
PLWHA	-	People Living with HIV/AIDS
RDS	-	Respondent Driven Sampling
SACTS	-	STD/AIDS Counseling and Training Services
SLC	-	School Leaving Certificate
SPSS	-	Statistical Package for the Social Sciences
STD	-	Sexually Transmitted Disease
STI	-	Sexually Transmitted Infection
SW	-	Sex Worker
USA	-	United States of America
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization

EXECUTIVE SUMMARY

HIV transmission among drug users is associated with injecting drug use that involves the sharing of needles or syringes. Risky sexual behavior associated with drug use also contributes to the spread of HIV. Injecting drug users function as a "bridging population" for HIV transmission between a core HIV risk group, other high-risk groups and the general population. The main objective of this study was "to estimate the prevalence rate of HIV among injecting drug users (IDUs) and assess their risky behavior". The study was conducted in the Pokhara Valley. Three hundred male IDUs were sampled using the respondent driven sampling (RDS) methodology. While structured questionnaires were used to collect behavioral data, clinical blood tests were used to determine the rate of HIV infection. The clinical test procedure used involved collecting blood from a subject's pricked finger and then storing it in 2-4 capillary tubes until tests could be performed. In order to determine a participant's infection status, a rapid test kit algorithm was used in which two rapid tests (Capillus and Determine) were initially conducted with Uni-Gold reserved as a tie-breaker.
In terms of socio-demographic characteristics, the study found that the median age of the IDUs was 23 years. This is almost similar to the findings of the first round of the survey. A majority of the IDUs had never been married. For the 34% of the IDUs who were ever married, the median age at marriage was 20 years. A majority of the IDUs had formal schooling. IDUs from different ethnic backgrounds participated in the study.

The study reveals a trend similar to the one found during the first round of the survey. The IDUs had been injecting drugs for 4.8 years on average. It was found that more than two-thirds of the study participants started using injecting drugs when they were 20 years old or earlier. A majority of the IDUs (28.7%) were found to be injecting drugs two-three times a day. Tidigesic was the most popular drug among the IDUs participating in the first round of the survey but combination of drugs was popular in 2005. Around 61% of the IDUs reported that they had not shared needles/syringes during the past week. However, about one-fifth of the IDUs said they shared needles/syringes usually among two or more friends. Nearly 52% of the IDUs reported having injected drugs elsewhere in Nepal or in another country.

Furthermore, we found patterns of behavior among the IDU community that put them at greater risk of being infected with HIV/AIDS. Improper cleaning of shared and reused needles/syringes presents a higher risk of HIV infection to the IDUs. The study revealed that the IDUs (a little more than one-fourth of them) were engaging in unhealthy practices like cleaning their needles or syringes with plain water and saliva when almost all of them could obtain a new syringe from a drug store.

The IDUs were also found to be sexually active. Almost 96% of them had engaged in sex. The median age of the IDUs at the time of their first sexual encounter was 17 years. The majority of respondents reported that they had sexual intercourse in the last 12 months (75%) and, of this group, 63.9% reported having two or more partners. Consistent use of condoms with regular partners is low (12.4%), but high (49.6%) with sex workers.

The study participants were aware of HIV/AIDS. However, this general awareness does not seem to have motivated a significant change in their behavior. All the participants knew about HIV/AIDS and 97.3% reported having heard about STD. About 97% of the IDUs were aware that one could protect oneself from HIV/AIDS by always wearing a condom during sex. Similarly, almost all the IDUs (98%) knew that a person could contract HIV by injecting

drugs with somebody else's previously used needle. Radio and television/NGO workers were the first and second most common sources of information about HIV/AIDS for the IDUs. HIV infection was found to be higher (21.7%) among the IDUs.

Some changes have been observed in the behavior of the IDUs from the first round of the study, especially in their habit of sharing syringes. But the findings are still not satisfactory.

Based on the findings some recommendations are made. HIV awareness programs should be taken to larger group of IDUs sub-population especially to those who have been living without a sex partner or alone as they consisted 71% of the sampled IDUs. However, HIV programs should focus on married IDUs in two aspects: safe injecting among the injecting friends as well as safe sex behavior with their married partners. Other recommendations include the need to continue disseminating HIV related information through radio, television and other IEC materials like posters, pamphlets, brochures and, hoarding boards targeted to IDUs as well as family members of IDUs. It has also been recommended that client friendly VCT and STI treatment and HIV test facilities should be made available to the target population to encourage more IDUs to voluntarily come forward for such services. Further, the study has recommended the need to monitor and evaluate the HIV prevalence and risk behaviors of IDUs at regular time intervals.

CHAPTER – 1

INTRODUCTION

1.1 Background

The National Center for AIDS and STD Control (NCASC) has been compiling and publishing cumulative number of HIV cases conformed by laboratory tests in different population subgroups, such as sex workers, clients of sex workers, housewives, persons getting blood transfusion and injecting drug users and of perinatal transmission since 1991.

As of August 2005, a cumulative total of 5,338 cases of HIV infection, including 907 cases of AIDS and 262 deaths from AIDS, have been reported in Nepal (NCASC, 2005). Since the data of the National Center for AIDS and STD Control (NCASC) reflects only the reported cases, and, therefore, does not show the complete picture, it is estimated that one-third of all HIV infections are among IDUs. Sharing and reusing needles left by others in public places has been a critical factor in the spread of HIV in several developing countries. In response to the growing HIV epidemics, many governments, including Nepal, have begun to develop intervention policies and programs targeting injecting drug users. A major difficulty in developing strategies for HIV prevention is a lack of general knowledge among planners about factors influencing drug use and the spread of HIV (Richman, 1996).

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). Drug users function as a core HIV risk group in Nepal and they could transmit infection to the general population. In most areas where HIV is prevalent among injecting drug users, they were found to serve as the primary source for HIV transmission in the heterosexual population and in prenatal transmission as well (Jarlais, 1992).

The first cycle of the Integrated Bio-Behavioral Survey (IBBS) conducted in 2003 showed about 22% HIV prevalence among the male IDUs in the Pokhara Valley. Likewise, 21% of the sampled IDUs reported that they had used needles/syringes that had been used by fellow IDUs and 20.3% had used needles/syringes kept in public places by themselves or by other IDUs in the week preceding the interview. Likewise, the study revealed that about 80% of the IDUs had not used a condom during their last sexual encounter with a sex worker, and that a high percentage (37.1%) had not used a condom during the last time they had sex with a regular sex partner. The high prevalence of HIV among the IDUs and their low use of a condom may increase the risk of HIV transmission to their sexual partners.

The NCASC, with technical and financial support from FHI, has begun to develop intervention policies and implement programs targeted at injecting drug users. Thus, the second cycle of the IBBS was done to find out any changes in their behavior and HIV prevalence; as such information was needed for the development of proper HIV prevention and care programs for this group. The IBBS studies were also needed to analyze time trend in HIV prevalence among the target group over time.

1.2 Objectives of the Study

The objective of this second round of the IBBS was to compare and analyze trends against the data from the first round. The second round of IBBS would also provide data that could be used to measure the impact of intervention programs among the target risk group, IDUs in the Pokhara Valley, and assess their "at risk" behavior. The main objectives of the second cycle of the IBBS were:

- To determine the prevalence of HIV among IDU sub-populations in the Pokhara Valley.

- To describe injecting and sexual behaviors among IDU sub-populations in the Pokhara Valley.

- To measure the frequency of, and the association between, risk behavior and HIV infection status among IDU sub-populations.

- To measure the proportion of IDU sub-populations that could transmit HIV infection because of their practice of high risk injecting behavior and having sexual links with regular and non-regular partners.

CHAPTER – 2

METHODOLOGY

2.1 Study Design

The study was done among IDUs in Pokhara Sub-Metropolitan City. A cross-sectional study was designed to collect both behavioral and clinical data related to HIV. In this study, IDUs are defined as those who have injected drugs during the last three months prior to the date of the interview.

Structured questionnaires were used to collect behavioral data relating to drug injection and syringe/needle sharing and sexual behavior among the IDUs. Additionally, some demographic and social characteristics were collected. The questionnaires were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000) and were finalized after pre-testing (Annex 1).

For the purposes of this study the inclusion definition for IDUs was " those current injectors who had been injecting drugs for at least three months prior to the date of survey".

2.1.1 Sample Size and Sampling Design

A sample size of 300 male IDUs was estimated to measure about 15% increase in HIV among IDUs from the prevalence rate of 22% measured in 2003 in the Pokhara Valley based on α=0.05 and statistical power (1-β) =0.80 (Annex 2).

Traditional probability sampling methods, such as simple random, cluster and stratified sampling used in household surveys, are unsuitable for reaching IDUs and such other hidden populations, as a sampling frame is not available and response rates are usually low and lacking in candor (Spreen and Zwaagstra, 1994). Similarly, street-based location sampling methods that have dominated much risk-reduction research (Semaan et al., 1998) such as targeted sampling (Watters and Biernacki, 1989) exclusively tend to recruit IDUs who spend considerable time on the street, especially older male IDUs. In order to overcome many of the problems generally attributed to chain referral sampling, a form of chain referral *network* sampling, known as respondent driven sampling (RDS), was used. RDS is a recent enhancement of chain-referral sampling designed to overcome the limitations of other forms of chain-referral-sampling, while at the same time maintaining the advantages of broad coverage and easy implementation in the field. RDS is a member of a new class of sampling methods, termed "linked-tracing/adoptive sampling designs" that are designed to operate in settings where traditional probability sampling methods are infeasible (Heckathron 2003).

Theoretically, RDS can also be applied safely in situations where little information on the population size by sites/locations is available by selecting suitable seeds and recruiting the respondents in a sufficient number of waves. In Pokhara, however, a mapping exercise was done before the survey. Using the information obtained from the mapping exercise, the following sampling strategy was designed.

A research team, with the help of local NGO partners, recruited 12 known IDUs from different sites as "seeds". These "seeds" were recruited from different injecting groups to

make a more random sample. These seeds were interviewed and then given three referral cards each to bring three other fellow IDUs for the same interview that they had just completed. Each card had a unique identification number. Only those respondents who came with a referral card were recruited and provided three referral cards to enroll three more IDUs. The researchers chose the seeds in a way that would tap into networks of both long-term and short-term users. Similarly, attempts were made to choose both old and young injectors as seeds.

Of the 12 seeds recruited, four completed one wave, three completed two waves and five completed three or more waves. The recruitment process was completed when the targeted sample size of 300 IDUs was achieved (Annex 3).

Each respondent was provided Rs. 100 (equivalent to $ 1.40) to cover local transportation costs to the interview site. He was paid only after he had completed the interview and given blood for an HIV test. Each IDU was also provided an incentive of Rs. 50 (equivalent to $ 0.70) to recruit up to three other IDUs.

Before interviewing the study participants, the researcher conducted a verification process to make sure that only genuine IDUs were recruited for the study. The verification process included an informal discussion regarding the names of drugs, price of the drugs, gathering place, drug preparation process, names of NGOs working for IDUs and injection techniques. He also made an observation of the part of the body where injections were done including recent injection marks.

In order to maintain the confidentiality of the study participants, their names and full addresses were not recorded. Instead, they were provided a unique ID number written on a plastic-coated card. This card was also used for the distribution of the test results. Only those participants who produced the card were provided the HIV test results verbally.

The fieldwork started on February 17, 2005 and was completed on April 9, 2005.

2.1.2 Informed Consent

The research was conducted in compliance with both ethical and human rights standards. These standards included participant anonymity as well as pre- and post-test counseling. As this study was done with human subjects who are highly stigmatized and injecting drugs is illegal in the country, "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 initiation of the study fieldwork. Prior to the interview and collection of a blood sample, witnessed verbal informed consent was obtained from all the participants. The verbal consent form used in the study is given in Annex 4. All possible precautions were taken in order to maintain participant anonymity (no personal identifiers were collected).

2.1.3 Blood Sample Collection and HIV Testing

Blood samples for the HIV test were obtained by minimally invasive finger-prick technique and collected in capillary tubes. Two rapid tests, namely, "Capillus" and "Determine", were conducted to determine HIV infection. In case of a tie in the first two tests, a third test "Uni-Gold TM" was performed. Qualified laboratory technicians from the STD/AIDS Counseling

and Training Service (SACTS) conducted the tests in a laboratory at the study site in Pokhara. The blood samples collected were kept in a cold chain within one hour of collection and the tests were performed on the same day.

The Abbott Determine HIV-1/2 is a, visually read qualitative immunoassay for the detection of HIV-1 and HIV-2 antibodies in human serum, plasma or whole blood. The test is intended to aid in the detection of antibodies to HIV-1/HIV-2 in infected individuals.

The Trinity Biotech Capillus HIV-1/HIV-2 is also a visually read rapid qualitative assay for the detection of human immuno-deficiency virus type 1 (HIV-1) and/or human immuno-deficiency virus type 2 (HIV-2) antibodies in human whole blood, serum or plasma. This test is primarily used for initial screening at low-volume testing facilities, during emergency situations or in areas where sophisticated equipment is not available.

Trinity Biotech Uni-Gold, used as a tie-breaker in the parallel testing algorithm is a visually read recombinant proteins representing the immuno-dominant regions of the envelope proteins of HIV-1 and HIV-2 glycoprotein gp41, gp120 (HIV-1) and glycoprotein gp36 (HIV-2) respectively are immobilized at the test region of the nitrocellulose strip. These proteins are also linked to colloidal gold and impregnated below the test region of the device. A narrow band of the nitrocellulose membrane is also sensitized as a control region.

The quality of information provided by the study participants and the collection of clinical specimens was monitored through a log form developed for monitoring the study.

2.2 Study Management

The study team was comprised of a project director, project coordinator, senior research officer (doctor), lab supervisor, research assistant, field supervisors, interviewers, motivators and lab technicians.

Before data collection was initiated nine-day training was provided to all the study team members. This training allowed the field teams to become familiar with the research instruments, study methodology and information collection techniques. A two-day theory and practical training on pre-test counseling was also provided. The team members practiced administering the questionnaires using both classroom-based role-play exercises and field practices. The field researchers were divided into two teams. These teams each consisted of one research assistant, four researchers and one lab technician.

Two centers were established near the selected sites to interview the participants and collect blood samples (Annex 5). Individual interviews and blood collection activities were carried out in separate rooms after obtaining the participant's informed oral consent. Pre-test counseling was provided to all the study participants before their blood samples were collected, which was done by pricking the finger. The blood was then stored in three-four capillary tubes until tests were performed in the laboratory by the field lab technician from SACTS. Independent tests were done on 10% of the blood samples to confirm the quality of the test.

In order to ensure the quality of data collection, New ERA and FHI officials supervised the fieldwork regularly. Field supervisors reviewed all the completed questionnaires on the day

the data was collected. Any inconsistencies in the responses were cleared up through discussions with the concerned interviewer later that day.

In order to avoid duplication/repetition when recruiting the study participants, a researcher was exchanged between the two centers after study activities had been completed at one site. Moreover, some basic cross-checking questions were also put to the participants before the interview to make sure that they had not been interviewed previously.

2.3 Post-Test Counseling and Test Result Distribution

After the blood samples were collected, all the study participants were informed about the location and operating hours of the VCT site where they should go to obtain their test results and requirement that they must bring the ID card issued to them at the time of the interview They were also pre-informed that the test results would be provided to them with post-test counseling by a trained counselor.

Post-test counseling and individual report dissemination was completed between March 6 and April 19, 2005. Out of the 300 IDUs tested for HIV, only 34 turned up to get their test results (Annex 6). Trained counselor gave the test results to the participants in a private setting only after they had produced their ID cards. They were advised about various aspects of STI and HIV and the measures to be taken depending on whether they had HIV+ or HIV- results. The participants were also referred to INF Hospital, Naulo Ghumti VCT Center and PALUWA for further services.

2.4 Data Cleaning and Analysis

All the questionnaires were collected and transported to the New ERA Kathmandu office after the fieldwork was completed. The questionnaires were thoroughly checked for any inconsistencies before the data was entered into a computer using FoxPro software. . Double entry approach was used to minimize errors during the data entry. Later, the data file was transferred to SPSS files for further analysis.

The analyses presented in this report are preliminary and are not yet adjusted for the RDS methodology. Simple statistical tools, such as frequency distribution, percentages, range, proportion, mean and median, were used to analyze the results of the survey. Chi-square test values were also calculated for the cross tables to measure the statistical significance of the relationship between cross tabulated categorical variables. Odds ratios were calculated to measure the relative risk of HIV infection between the categories of the selected explanatory variables. Clinical and behavioral data were merged in order to examine the relationship between a participant's HIV status and his background characteristics and injecting and sexual behaviors.

CHAPTER – 3

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

This chapter discusses the demographic and social characteristics of the 300 male IDUs recruited for the sample in the first and second rounds of the study in the Pokhara Valley.

3.1 Demographic Characteristics

The median age of the IDUs was 23 years, a year more than in the first round survey. Use of injecting drugs is common among the younger generation also. About 17% of the IDUs were below the age of 20 years. About two-thirds (62.4%) were adolescents and youths (below the age of 25 years).

Not much difference was noticed in the marital status of the respondents in the Pokhara valley in the first and second round of surveys. About Two-thirds (66%) of the respondents reportedly had never been married. Of the 34% of the IDUs who had been either currently or previously married, 5% were divorced/separated Regarding the age at marriage, the proportion of respondents reporting to have got married at the age of 20-24 years had gone up from 51% in 2003 to 56% in 2005. The median age at marriage was 20 years, a year less than in the first round of survey and a majority of the respondents (85.3%) were married between the ages of 15 to 24.

Table 3.1: Demographic Characteristics of the Sample Population

Demographic characteristics	First round (2003)		Second round (2005)	
	N	%	N	%
Age				
14-19	69	23.0	50	16.7
20-24	137	45.7	137	45.7
25-29	47	15.7	66	22.0
30-34	31	10.3	32	10.7
35-42	16	5.3	15	5.0
Median age	**22**	-	**23**	-
Marital status				
Married	82	27.3	87	29.0
Divorced/Separated	18	6.0	15	5.0
Never married	200	66.7	198	66.0
Total	**300**	**100.0**	**300**	**100.0**
Age at first marriage				
10-14	1	1.0	2	2.0
15-19	29	29.0	30	29.4
20-24	51	51.0	57	55.9
25-29	16	16.0	11	10.8
30-34	3	3.0	2	2.0
Median age	**21**	-	**20**	-
Total	**100**	**100.0**	**102**	**100.0**
Currently living with				
Spouse	79	26.4	85	28.3
Female sexual partner	1	0.3	0	0
Living without sexual partner/alone	220	73.3	215	71.7
Total	**300**	**100.0**	**300**	**100.0**
Other sexual partner of IDUs' spouse				
Yes	0	0.0	0	0.0
No	78	97.5	81	95.3
Don't know	2	2.5	4	4.7
Total	**80**	**100.0**	**85**	**100.0**

Almost three-quarters (71.7%) of the IDUs were not living with a sexual partner or were living alone. Among the 87 currently married IDUs, 85 (97.7%) were living with their spouse. None of the currently married IDUs reported their spouse as having another sexual partner (Table 3.1).

3.2 Social Characteristics

Almost 56% of the IDUs had completed secondary level of schooling, and only 5.3% were illiterate. In 2003 sample 75.7% of the respondent had primary plus education while in 2005 the figure was 72% education.

Ethnic composition in 2003 and 2005 samples does not have big difference as IDUs from various ethnic groups participated in the study. About 30% of them were Gurung/Rai, followed by Chhetri (20%), occupational caste (16.3%), Tamang/Lama/Magar (15%) and Newar (9.7%).

A large majority (69.3%) of the participants were born in the Pokhara Valley. Among the migrant IDUs (IDUs whose birthplace was not in the Pokhara Valley), a majority (69 out of 92) had been living in the valley for more than five years (Table 3.2).

Table 3.2: Social Characteristics of the Sample Population

Social characteristics	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Education				
Illiterate	19	6.3	16	5.3
Literate only	3	1.0	5	1.7
Primary	51	17.0	63	21.0
Secondary	189	63.0	168	56.0
SLC & above	38	12.7	48	16.0
Ethnicity				
Brahmin	14	4.7	10	3.3
Chhetri/Thakuri	50	16.7	60	20.0
Newar	21	7.0	29	9.7
Tamang/Lama/Magar	65	21.7	45	15.0
Gurung/Rai	101	33.7	90	30.0
Occupational caste	34	11.3	49	16.3
Terai caste	5	1.7	2	0.7
Others	10	3.3	15	5.0
Duration of stay in Pokhara Valley				
Since birth	187	62.3	208	69.3
Since 5 years	16	5.3	23	7.7
More than 5 years	97	32.3	69	23.0

CHAPTER – 4

DRUG USE, NEEDLE SHARING AND TREATMENT

The major reason behind the transmission of HIV among drug users is usually associated with their needle/syringe-sharing behavior. Therefore, it is important that the behavior of the IDUs be explored in order to design future programs and intervention strategies. Behavioral information on the IDUs related to alcohol use, drug use, needle sharing and treatment against the drug habit are presented in this chapter.

4.1 Alcohol Consumption and Oral Drug Use among IDUs

The use of alcohol is common among the IDUs in the Pokhara Valley. The percentage of IDUs reporting never drinking alcohol is only about 11%. In the sample of 300 IDUs, about 57% reported daily consumption of alcohol, and about 23% said they drank more than once a week during the past month. Similarly, about 9% of IDUs reported that they consumed alcohol less than once a week during the past month. Percentage of IDUs reporting of daily alcohol consumption has increased to about 57% in 2005 from about 42% in 2003.

Like in the first round of the study, a high percentage of the IDUs had been using oral drugs for quite a long time. The median number of years of the duration of oral drug use was seven years. A majority of the IDUs (63.7%) had been using drugs orally for over 60 months, and 33.7% had been doing so from the last 13-60 months (Table 4.1).

Table 4.1: Consumption of Alcohol and Oral Drug Use among IDUs

Alcohol and oral drug use acts	First round (2003)		Second round	
	2003		2005	
	N=300	%	N=300	%
Alcohol used during the past month				
Every day	127	42.3	170	56.7
More than once a week	82	27.3	68	22.7
Less than once a week	44	14.7	28	9.3
Never	47	15.7	34	11.3
Duration of oral drug use				
Up to 12 months	5	1.7	8	2.7
13 – 60 months	129	43.0	101	33.7
More than 60 months	166	55.3	191	63.7
Median duration in years	**6**		**7**	
Average duration in years	**6.9**		**7.5**	

All the IDUs in the sample were asked about the types of drugs used orally or inhaled. Around 78% of them reported smoking "ganja" during the past week. Other drugs taken orally or inhaled by sizeable proportions of the IDUs were brown sugar, Velium 10, nitrovate, charas, Nitrosun and proxygin (Table 4.2).

Table 4.2: Types of Drugs Used Orally in the Last Week by Respondents

Types of drugs used orally	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Ganja	235	78.3	233	77.7
Nitrosun	107	35.7	62	20.7
Chares	103	34.3	64	21.3
Brown Sugar	93	31.0	117	39.0
Nitrovate	74	24.7	93	31.0
Diazepam	29	9.7	23	7.7
Codeine	28	9.3	22	7.3
Proxygin	27	9.0	43	14.3
Effidin	19	6.3	15	5.0
Phenergan	16	5.3	5	1.7
Phensydyl	12	4.0	2	0.7
Velium 10	10	3.3	10	33.3
Calmpose	7	2.3	6	2.0
Lysergic Acid Dithylamidel (LSD)	4	1.3	1	0.3
White Sugar	4	1.3	1	0.3
Combination	2	0.7	9	3.0
Cocaine	2	0.7	2	0.7
Others	21	7.0	8	2.7

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

4.2 Drug Injecting Practice of IDUs

The average duration of injecting drugs among the IDUs was 4.8 years in 2005 which is about a year more compared to the average duration reported in 2003. Almost 33% of them had been injecting drugs for more than 60 months. The data indicates that 54.7% of the IDUs had been using injecting drugs for a period ranging from 13 to 60 months. The percentage of those who have injected drugs during the last 12 months has decreased. The figure during this round of the survey was 12.3% compared to 18.7% during the first round. More than two-thirds (68.3%) of the IDUs in the sample had got into the habit of injecting drugs before or when they were 20 years old. The median age of the IDUs at the time they started doing drugs was 18 years.

Table 4.3 shows that 31% of the respondents were injecting drugs at least once a week, and that 48.7% were doing it at least once a day. A large percentage of the respondents (28.7%) reported that they injected drugs two-three times daily. Similarly, about 19% did it once a day and about 5.7% did it once a week. However, a larger percentage (20.3%), compared to the 2.7% during the first round of the survey, reported not injecting drugs during the past week. The main reason for the change was the declaration of emergency in the country, which created a shortage of drugs and consequent rise in prices.

The IDUs were also asked about the frequency of drug use on the day preceding the interview and/or the last day. About 3.3% of them had done it three or more times on the previous day and/or the last day, while 71% had done it only once. The mean number of times the IDUs did drugs on the previous day or the last day was 1.3 (Table 4.3). This is almost half of the reported frequency in 2003. Alternatively, 155 respondents (51.7%) had not injected drugs on the day preceding the interview. For about 39% of the respondents, the main reason for this was a desire to slowly quit the habit. Other reasons cited were no money and no drugs (Annex 7).

The part of the body most commonly used for injecting drugs was the wrist as reported by 43.3% of the IDUs. However, around one-fourth of the respondents (23.3%) were shooting in their upper arm also. Similarly, almost 16% said they were doing it in the forearm, and about 7% said thigh (Annex 8).

Table 4.3: Drug Injecting Practice of Respondents

Drug injecting practice	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Duration of drug injection habit				
Up to 12 months	56	18.7	37	12.3
13 – 60 months	199	59.7	164	54.7
More than 60 months	65	21.7	99	33.0
Average duration years	**3.7**	-	**4.8**	-
Age at first drug injection				
Up to 20 years	192	64.0	205	68.3
21+ years	108	36.0	95	31.7
Median age	**19**	-	**18**	-
Frequency of drug injections within the past week				
Not injected	8	2.7	61	20.3
Once a week	16	5.3	17	5.7
2-3 times a week	43	14.3	28	9.3
4-6 times a week	42	14.0	48	16.0
Once a day	59	19.7	58	19.3
2-3 times a day	118	39.3	86	28.7
4 or more times a day	14	4.7	2	0.7
Frequency of drug injection on the last day				
1 time	170	56.7	213	71.0
2 times	81	27.0	77	25.7
3 or more times	49	16.3	10	3.3
Mean	**2**	-	**1.3**	-

For the respondents, the most common place for injecting drugs was forest/bushes or their own room/friend's room. Other popular places included riverbank/slum area/pond, bus park, pool house/swimming pool, hotel/lodge/restaurant and around schools/campuses/stadium (Annex 9).

Table 4.4 shows that a majority (58%) of the IDUs were injecting a combination of different drugs during the past week. Other drugs were, in descending order of preference, norphin, tidigesic, brown sugar and diazepam. The most common drugs used in the combination were norphin or tidigesic with Phenarmine, Phenargan, Algic, Diazepham and so forth (for types of combinations, see Annex 10). Tidigesic was the most widely used drug (reported by 87.3% of the respondents) during the first round of the survey.

Table 4.4: Types of Drugs Injected by Respondents in the Last Week

Types of drugs injected	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Tidigesic	262	87.3	49	16.3
Phenergan	21	7.0	8	2.7
Brown Sugar	15	5.0	47	15.7
Diazepam	12	4.0	16	5.3
Nitrosun	3	1.0	7	2.3
Calmpose	2	0.7	2	0.7
Proxygin	1	0.3	2	0.7
Codeine	1	0.3	1	0.3
Valium 10	1	0.3	0	0.0
Combination	206	68.7	174	58.0
Norphin	0	0.0	51	17.0
Nitrovate	0	0.0	3	1.0
Effidin	0	0.0	2	0.7
LSD	0	0.0	2	0.7
Others	2	0.7	2	0.7

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

Information was also collected on the drug-switching behavior of the IDUs. The data shows that only five respondents had changed over from one drug to another. Lack of money and scarcity of drugs were the reasons mentioned for switching drugs (Annex 11).

4.3 Syringe Use and Sharing Behavior

The respondents were asked several questions about their use of needles/syringes and sharing behavior during the last three injection acts. Around 8-9% of the IDUs were seen to be engaging in high-risk behavior when injecting drugs. In the first round of the survey, such behavior was about 13-15%. The change is an improvement showing a decrease in high-risk behavior.

In response to the question how they got the syringes/needles the last time they injected drugs, almost 59% said they used a purchased new syringe, and around 31% reported that they used a new syringe provided by NGO staff/volunteers. The responses for each of the last three drug injecting acts were similar. Similarly, 3-4% of the IDUs said they used their own previously used syringe, and 4-6% said they got it from friends/relatives after they had used it (Table 4.5).

Table 4.5: Behavior of Respondents Regarding Syringe Use and Sharing during the Last Three Injections

Needle/syringe use during recent drug injections	Drug injecting acts N=300					
	Most Recent		Second Most Recent		Third Most Recent	
	First round	Second round	First round	Second round	First round	Second round
	2003	2005	2003	2005	2003	2005
	%	%	%	%	%	%
Low-Risk behavior						
Used a purchased new needle/syringe	53.7	59.3	53.3	59.3	54.3	59.0
Used new needle/syringe given by NGO staff/volunteers	31.7	31.0	30.7	32.7	31.3	30.7
Used new needle/syringe given by friend	2.0	1.7	0.7	0.0	0.7	1.3
Low-Risk Behavior Total	**87.4**	**92.0**	**84.7**	**92.0**	**86.3**	**91.0**
High-Risk Behavior						
Used own previously used needle/syringe	9.3	3.3	12.0	3.7	9.3	3.0
Friends/relatives gave one after their use	3.0	4.3	3.0	4.3	3.0	6.0
Used needle/syringe kept in public place by himself	0.3	0.0	0.3	0.0	0.7	0.0
Used needle/syringe kept in public place by others	0.0	0.0	0.0	0.0	0.3	0.0
Don't know	0.0	0.0	0.0	0.0	0.3	0.0
Others	0.0	0.3	0.0	0.0	0.0	0.0
High-Risk Behavior Total	**12.6**	**7.9**	**15.3**	**8.0**	**13.6**	**9.0**
Persons in the group using the same needle/syringe						
2 persons	11.0	7.0	8.3	5.3	8.0	7.3
3 or more persons	0.7	4.3	2.0	4.7	2.0	3.7
None/alone	88.3	88.7	89.7	90.0	90.0	89.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

In response to another question how many different people they thought used the same needle if they were in a group the last time they injected drugs, about nine out of 10 reported that they did not share syringes/needles or that they were alone when they did it. One out of 10 said they shared the same syringe with two or more people during the last three times they injected drugs (Table 4.5).

Information on the needle/syringe-sharing behavior of the respondents during the past week was also collected. Around 65% of the IDUs reported that they never used somebody else's previously used needle/syringe. About 15% said they had sometimes shared syringes during the past week. Similarly, about 7% of the participants said they used syringes kept in a public place during the past week.

During the study conducted in 2003, the percentage of respondents who said they sometimes shared syringes during the past week was 21%. Similarly, about 20% of the respondents had used syringes kept in a public place (Table 4.6).

About 13% of the IDUs had given their syringes to someone after they had used them, while two-thirds (67%) had "never" given away their old syringes. Among the total IDU population surveyed, about six out of 10 (60.7%) reported not sharing syringes with anyone during the past week. Among those who shared syringes, 19% said it was mostly among friends. Additionally, most of the IDUs who shared syringes did so among two or more partners. Overall, the findings related to syringe use and sharing behavior during the past week indicate a positive change among the respondents (Table 4.6).

Table 4.6: Past Week's Syringe Use and Sharing Behavior

Needle/syringe use throughout the past week	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Used a needle/syringe that had been used by another				
Every time	4	1.3	1	0.3
Almost every time	11	3.7	9	3.0
Sometimes	48	16.0	34	11.3
Never	229	76.3	195	65.0
Not injected last week	8	2.7	61	20.3
Used a needle/syringe kept in public place				
Every time	7	2.3	0	0.0
Almost every time	24	8.0	1	0.3
Sometimes	30	10.0	19	6.3
Never	231	77.0	219	73.0
Not injected last week	8	2.7	61	20.3
Gave a needle/syringe to someone				
Every time	3	1.0	2	0.7
Almost every time	10	3.3	13	4.3
Sometimes	53	17.7	23	7.7
Never	226	75.3	201	67.0
No injection last week	8	2.7	61	20.3
Number of partners sharing needle/syringe				
None	196	65.3	182	60.7
Two partners	70	23.3	38	12.7
Three or more partners	26	8.7	19	6.3
No injection last week	8	2.7	61	20.3
Shared needle/syringe with*				
Unknown sexual partner	1	0.3	0	0.0
Friend	94	31.3	57	19.0
Drug seller	4	1.3	1	0.3
Unknown person	1	0.3	2	0.7
Not shared	196	65.3	182	60.7
No injection last week	8	2.7	61	20.3
Regular sexual partner	0	0.0	2	0.7
Others	1	0.3	0	0.0

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

4.4 Drug-Sharing Behavior

This section describes the drug-sharing behavior of the respondents. Nearly 80% had used injecting drugs during the week preceding the survey. Of the total respondents, 8.3% had injected drugs with pre-filled syringes. Similarly, about 8% of the IDUs had injected drugs with a syringe filled by someone from his own previously used syringe. Materials such as bottles, spoons, cotton, etc. were shared by 15% of the respondents. Almost two-fifths (43.7%) had drawn drug solutions from a common container used by others during the same period (Table 4.7).

Information on the internal and external mobility and injecting practices of the respondents was also collected during this survey. Of the total 300 respondents, 52% were mobile and had injected drugs elsewhere in Nepal or in other countries. Among these 156 mobile IDUs, 15 had injected drugs in India and one had done it in Malaysia (Annex 12). The mobility of the IDUs has increased from the first round of the study (52% in 2005 vs. 43.3% in 2003).

Table 4.7: Past Week's Drug-Sharing Behavior

Drug sharing practice during past week	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Injected with a pre-filled syringe				
Yes	23	7.7	25	8.3
No	269	89.7	214	71.3
No injection	8	2.7	61	20.3
Injected with a syringe after drugs were transferred into it from another's syringe				
Every time	1	0.3	0	0.0
Almost every time	2	0.7	4	1.3
Sometimes	35	11.7	19	6.3
Never	254	84.7	216	72.0
No injection	8	2.7	61	20.3
Shared a bottle, spoon, cooker, vial/ container, cotton/filter and rinse water				
Every time	1	0.3	4	1.3
Almost every time	0	0.0	13	4.3
Sometimes	15	5.0	28	9.3
Never	276	92.0	194	64.6
No injection	8	2.7	61	20.3
Drawn drug solution from a common container used by others				
Every time	55	18.3	23	7.7
Almost every time	89	29.7	46	15.3
Sometimes	71	23.7	62	20.7
Never	77	25.7	108	36.0
No injection	8	2.7	61	20.3

Of the 156 IDUs who had injected drugs in other parts of the country or outside, 15.4% said that they had used a previously-used syringe. About 13% had given their used syringe to other people (Table 4.8).

Table 4.8: Injecting Behavior of IDUs in Other Parts of the Country and Out of the Country

Injecting practice in other parts of the country and out of the country	First round (2003)		Second round (2005)	
	N=130	%	N=156	%
Used a needle/syringe that had been used by another				
Every time	2	1.5	1	0.6
Almost every time	2	1.5	4	2.6
Sometimes	4	3.1	19	12.2
Never	122	93.8	132	84.6
Gave a needle/syringe to someone after use				
Every time	2	1.5	2	1.3
Almost every time	2	1.5	6	3.8
Sometimes	10	7.7	12	7.7
Never	116	89.2	136	87.2

4.5 Needle/Syringe Cleaning Practice

Improper cleaning of shared and reused needles/syringes increases the risk of being infected with HIV for the IDUs. The prescribed method of cleaning a used needle/syringe is to first wash it five times with clean water, then wash it again five times with bleach, and finally wash it five more times with clean water. The percentage of respondents reusing needles/syringes has decreased compared to the first round of the survey (28% in 2005 vs. 52% in 2003). The IDUs in Pokhara who reused syringes did not clean them as prescribed. Most of the IDUs said they cleaned used needles/syringes with plain water (28.6%) and saliva (26.2%). Similarly, about 13% of the IDUs used bleach and 11% boiled the needles in water (Table 4.9). However, 11.9% of the IDUs who used old needles/syringes didn't bother to clean them at all.

Table 4.9: Needle/Syringe Cleaning Practice of Respondents

Needle/syringe cleaning behavior	First round (2003)		Second round (2005)	
	N	%	N	%
Reused needle/syringe in the past week				
Yes	156	52.0	84	28.0
No	144	48.0	216	72.0
Total	**300**	**100.0**	**300**	**100.0**
Ways of cleaning needle/syringe*				
Saliva	48	30.8	22	26.2
Distilled water	42	26.9	2	2.4
Plain water	22	14.1	24	28.6
Bleach	16	10.3	11	13.1
Paper	13	8.3	7	8.3
Medicine (Tidigesic, Phenarmine, Algic, Phenargan)	12	7.7	0	0.0
Boiling in water	6	3.8	9	10.7
Urine	1	0.6	0	0.0
Never cleaned	2	1.3	10	11.9
Total	**156**	*	**84**	*

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

4.6 Knowledge of Access to New Needle/Syringe

All the respondents said that they could obtain a new syringe when they needed it. And almost all the respondents knew where to get one. About 97% cited drugstores as a place where they could get new syringes. Nine out of 10 (90%) knew about needle exchange programs (like the one run by Naulo Ghumti) which is a positive indicator During the first round of the survey, the percentage of IDUs who said they knew about needle exchange programs was 81%. Other sources of new syringes mentioned by the IDUs were friends (19.3%), hospitals (6.3%), drug sellers (3.3%) and veterinary medical shops (2.3%) (Table 4.10).

Table 4.10: Knowledge of Sources of New Syringe

Descriptions	First round (2003)		Second round (2005)	
	N	%	N	%
Could obtain new syringe				
Yes	300	100.0	300	100.0
No	0	0.0	0	0.0
Total	**300**	**100.0**	**300**	**100.0**
Could obtain new syringe from *				
Drugstore	290	96.7	292	97.3
Needle exchange program (Naulo Ghumti)	243	81.0	270	90.0
Friends	27	9.0	58	19.3
Hospital	18	6.0	19	6.3
Drug seller	6	2.0	10	3.3
Other shop	6	2.0	4	1.3
Health worker	2	0.7	5	1.7
Drug users	1	0.3	5	1.7
Veterinary medical shop	0	0.0	7	2.3
Others	2	0.7	2	0.7
Total	**300**	*	**300**	*

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

4.7 Treatment Practice

Table 4.11 shows the types and characteristics of IDU-related treatment received by the sampled IDUs. A majority of them (56%) had not received any treatment. During the time of the survey, 17 respondents were undergoing therapy. About 38% had been treated in the past. Out of the 132 IDUs who had received treatment, 64.4% had received it during the last 12 months. The number of IDUs receiving treatment has increased slightly from the first round of the survey.

Table 4.11: Treatment Received by Respondents

Treatment practice	First round (2003)		Second round (2005)	
	N	%	N	%
Treatment status				
Currently receiving treatment	1	0.3	17	5.7
Was in treatment but not now	90	30.0	115	38.3
Have not received treatment	209	69.7	168	56.0
Total	**300**	**100.0**	**300**	**100.0**
When treatment was received				
Less than 6 months ago	22	24.2	54	40.9
6-11 months ago	20	22.0	31	23.5
12-23 months ago	22	24.2	32	24.2
24-35 months ago	13	14.3	11	8.3
36-47 months ago	8	8.8	4	3.0
48 or more months ago	6	6.6	0	0.0
Total	**91**	**100.0**	**132**	**100.0**

About 73% of the IDUs who had received treatment were treated at residential rehabilitation centers like Naulo Ghumti, Seren Foundation, Asara, Youth Vision, Navajeeban Kendra, Nawa Kiran, Richmond Center and Freedom Center. Around 8% of the IDUs said that they had tried to quit the habit on their own. Only a few respondents mentioned that they had received treatment at hospitals in Nepal and India (Annex 13).

CHAPTER – 5

SEXUAL BEHAVIOR AND CONDOM USE

HIV transmission among injecting drug users is usually correlated with their needle/syringe-sharing behavior. However, their unsafe sexual behavior may also contribute to spreading HIV among the non-injecting population like their spouses, girlfriends and other sex partners. In order to understand the sexual behavior of the IDUs, the respondents were asked a number of questions related to their sexual history, number and type of sexual partners and knowledge and use of condoms.

5.1 Sexual Behavior of IDUs

Table 5.1 shows that 96% of the respondents have had sex. Among this group, 90.6% gained their first sexual experience when in their teens. The median age of the respondents at their first sexual encounter was 17 years, which is the same as in the first round of the survey. The median age at first sexual experience is lower than the median age at which they started injecting drugs (see Table 4.2). Among the 288 respondents who reported having had sex, three-quarters (75%) had engaged in sex during the past 12 months also. In 2003 almost one half of the respondents (49.8%) had reported to have had two or more sex partners in one month preceding the survey while in 2005 almost two third of them (63.9%) reported so. (Table 5.1).

Table 5.1: Sexual History

Sexual behavior	First round (2003)		Second round (2005)	
	N	%	N	%
Had sexual intercourse	270	90.0	288	96.0
Never had sexual intercourse	30	10.0	12	4.0
Total	**300**	**100.0**	**300**	**100.0**
Age at first sexual intercourse				
Below 20 years	220	81.5	261	90.6
20 years of age and above	50	18.5	27	9.4
Median Age	**17**	-	**17**	-
Sexual intercourse in the past 12 months				
Yes	197	73.0	216	75.0
No	73	27.0	72	25.0
Total	**270**	**100.0**	**288**	**100.0**
Numbers of different female sexual partners in the past 12 months				
1 partner	99	50.2	78	36.1
2 or more partners	98	49.8	138	63.9
Total	**197**	**100.0**	**216**	**100.0**

Of the total 288 respondents who have had sexual experience, 30.9% had sex with a regular female sex partner during the past 12 months. Regular female sex partner is defined as spouse or any sexual partner living together with the respondent. Out of the 89 IDUs who had sex with regular female sex partners during the past 12 months, 11 (12.4%) had not had sex with them during the last month. Of the 78 IDUs who had sex during the last month with a regular female sex partner, about two-thirds reported at least five encounters during that period (Table 5.2). Of the total 89 IDUs who had sex with regular female sex partners during the past 12 months, only five (5.6%) reported having anal sex with them.

Table 5.2: Sexual Intercourse with Regular Female Sex Partners

Sexual practice	First round (2003)		Second round (2005)	
	N	%	N	%
Sex with a regular female sex partner during the past 12 months				
Yes	86	31.9	89	30.9
No	184	68.1	199	69.1
Total	**270**	**100.0**	**288**	**100.0**
Regular female sex partner				
1 partner	85	98.8	89	100.0
2 partners	1	1.2	0	0.0
Sex with a regular female sex partner during the last month				
Yes	70	81.4	78	87.6
No	16	18.6	11	12.4
Total	**86**	**100.0**	**89**	**100.0**
Frequency of sex with a regular female sex partner during the last month				
1-4	24	34.3	26	33.3
5+	46	65.7	52	66.7
Total	**70**	**100.0**	**78**	**100.0**

The IDUs who had sexual experience were asked whether they ever had sex with non-regular female sex partners during the past year. Non-regular female sex partners are defined as those with whom the participants were not married or living. However, non-regular female sex partners were also defined as being distinct and separate from female sex workers. The data shows that one-third (33.3%) of the IDUs had sex with non-regular female sex partners. Of them, about 47% reported having two or more non-regular female sex partners. Similarly, out of the 96 respondents who reported having sex during the past 12 months, 52.1% had sex with non-regular female sex partners during that time. Of those who had sex with non-regular female sex partners during the past month, 70% reported having sex one-four times (Table 5.3).

Table 5.3: Sexual Intercourse with Non-Regular Female Sex Partner

Sexual practice	First round (2003)		Second round (2005)	
	N	%	N	%
Sex with non-regular female sex partner in the past 12 months				
Yes	77	28.5	96	33.3
No	193	71.5	192	66.7
Total	**270**	**100.0**	**288**	**100.0**
Non-regular female sex partner				
1 partner	36	46.8	51	53.1
2 or more partners	41	53.2	45	46.9
Sex with non-regular female sex partner during last one month				
Yes	36	46.8	50	52.1
No	41	53.2	46	47.9
Total	**77**	**100.0**	**96**	**100.0**
Frequency of sex with non-regular female sex partners during last one month				
1-4	28	77.8	35	70.0
5+	8	22.2	15	30.0
Total	**36**	**100.0**	**50**	**100.0**

Among the 96 respondents having sex with non-regular female sex partners, only 5.2% reported having anal sex with them.

The IDUs were also asked about their sexual relationship with female sex workers during the past year. Female sex workers are defined as those who sell sex in exchange for cash, kind or drugs. Two-fifths (42%) of the IDUs reported having sex with female sex workers during the past 12 months. Of these 121 respondents who had sex with female sex workers during the past year, 52.1% reported having such encounters during the last month also. And among these 63 respondents who had sex during the past month, about 92.1% reported having sex one-four times (Table 5.4). Of the 121 respondents who had sex with female sex workers during the past year, 12 (9.9%) had engaged in anal sex with them. Moreover, of the total 300

respondents, only six (2.1%) reported having male sex partners, but only one had engaged in anal sex during the past 12 months.

Table 5.4: Sexual Intercourse with Female Sex Worker

Sexual practice	First round (2003)		Second round (2005)	
	N	%	N	%
Sex with female sex worker in the past 12 months				
Yes	89	33.0	121	42.0
No	181	67.0	167	58.0
Total	**270**	**100.0**	**288**	**100.0**
Number of female sex workers in the past 12 months				
1 partner	28	31.5	22	18.2
2 or more partners	61	68.5	99	81.8
Sex with female sex worker during last one month				
Yes	40	44.9	63	52.1
No	49	55.1	58	47.9
Total	**89**	**100.0**	**121**	**100.0**
Frequency of sex with a female sex worker during the last month				
1- 4	31	77.5	58	92.1
5+	9	22.5	5	7.9
Total	**40**	**100.0**	**63**	**100.0**

5.2 Knowledge and Use of Condom

All the respondents were asked whether they were aware of condoms, and whether they had used one during the last sex act. All the IDUs had heard of condoms. The use of a condom with regular female sex partners was found to be low when compared to condom use with female sex workers and non-regular female sex partners. More than a quarter (37.1%) of the respondents had used a condom with their regular female sex partner during the last time they had sex. The use of a condom with non-regular female sex partners was 55.2%. However, the use of a condom with female sex workers was about three quarters (74.4%) during the last sexual encounter. Condom use during the last sex act with regular and non-regular sexual partners has increased compared to the first round of the survey. However, condom use during the last sex act with a sex worker has gone down by almost five percent from the first round of the survey (Table 5.5).

Table 5.5: Knowledge and Use of Condoms among IDUs

Knowledge and use of condom in the last sex	First round (2003)		Second round (2005)	
	N	%	N	%
Ever heard of a condom				
Yes	300	100.0	300	100.0
No	0	0.0	0	0.0
Total	**300**	**100.0**	**300**	**100.0**
Condom use with regular female sex partner during last sexual intercourse				
Yes	24	27.9	33	37.1
No	62	72.1	56	62.9
Total	**86**	**100.0**	**89**	**100.0**
Condom use with non-regular female sex partner during last sexual intercourse				
Yes	36	46.8	53	55.2
No	41	53.2	43	44.8
Total	**77**	**100.0**	**96**	**100.0**
Condom use with female sex worker during last sexual intercourse				
Yes	71	79.8	90	74.4
No	18	20.2	31	25.6
Total	**89**	**100.0**	**121**	**100.0**

The respondents who had sex with different female partners but had not reported of consistent condom use were asked why they had not done so. A majority (44.2%) of the respondents who had sex with regular and non-regular female sex partners said that they did not feel it was necessary. About 30% of the respondents having sex with a regular female sex

partner reported they were using other means of contraception as the reason for not using a condom. A majority (48.4%) of the respondents who did not use a condom with female sex workers said that a condom was not available at the time, and about 35% said they didn't like using one. The reasons cited by the respondents were almost the same as the responses received during the first round of the survey (Annex 15).

In order to protect oneself from sexually transmitted diseases, a condom must be worn during every sex act. In this context, all the IDUs were asked about the consistent use of condoms with different female sexual partners during the year preceding the survey. Only 12.4% of the respondents reported consistent condom use when they had sex with regular female sex partners, and about 43% had never used a condom with their regular female sex partners. Similarly, about two-fifths (39.6%) of the respondents also reported that they had been using a condom consistently with non-regular female sex partners. About half (49.6%) of the respondents reported consistent use of condoms with female sex workers during the last 12 months. About 7% of the IDUs never used a condom with sex workers during the last 12 months. Consistent condom use during sex with regular and non-regular partners has increased compared to the survey conducted in 2003, but it has decreased during sex with female sex workers (Table 5.6).

Table 5.6: Consistent Use of Condom with Different Female Sexual Partners during the Past Year

Consistent use of condom	First round (2003)		Second round (2005)	
	N	%	N	%
Use of condom with regular female sex partners during past 12 months				
Every time	8	9.3	11	12.4
Almost every time	8	9.3	15	16.9
Sometimes	24	27.9	25	28.1
Never	46	53.5	38	42.7
Total	**86**	**100.0**	**89**	**100.0**
Use of condom with non-regular female sex partners during past 12 months				
Every time	23	29.9	38	39.6
Almost every time	15	19.5	14	14.6
Sometimes	9	11.7	21	21.9
Never	30	39.0	23	24.0
Total	**77**	**100.0**	**96**	**100.0**
Use of condom with female sex workers during past 12 months				
Every time	53	59.6	60	49.6
Almost every time	22	24.7	28	23.1
Sometimes	6	6.7	24	19.8
Never	8	9.0	9	7.4
Total	**89**	**100.0**	**121**	**100.0**

5.3 Source of Condoms

The respondents who had heard about or used condoms were asked about the places where they could be obtained. A large percentage of the respondents (96.3%) mentioned pharmacies. Shops, followed by Naulo Ghumti, hospitals, peer educators and clinics were the other major sources of condoms cited by the IDUs. Almost all the respondents reported that condoms were available within a 30-minute walking distance.

Table 5.7: Sources of Condom and Time Needed to Obtain It

Sources of condom and time to obtain it	First round (2003)		Second round (2005)	
	N	%	N	%
Place/person from where condom could be obtained*				
Pharmacy	286	95.3	289	96.3
Peer Educator	164	54.7	80	26.7
Shop	97	32.3	183	61.0
Hospital	57	19.0	107	35.7
Clinic	19	6.3	56	18.7
Naulo Ghumti	17	5.7	139	46.3
Health worker/Health Post	14	4.7	17	5.7
Family Planning Center	11	3.7	8	2.7
Friends	10	3.3	15	5.0
Sex worker	6	2.0	5	1.7
Ward Office	5	1.7	0	0.0
Bar/Guest house/hotel	4	1.3	21	7.0
Pan Shop	0	0.0	24	8.0
Others	3	1.0	8	2.7
Don' t know	1	0.3	0	0.0
Total	**300**	*	**300**	*
Time taken to obtain condom				
Less than 30 minutes	294	98.3	297	99.0
More than 30 minutes	5	1.7	2	0.7
No response	0	0.0	1	0.3
Total	**299**	**100.0**	**300**	**100.0**

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

5.4 Sources of Information about Condom

As mentioned above, all the respondents had heard about condoms. They were then asked about their sources of information. The respondents had heard about condoms from a variety of sources. The most common sources of information about condoms were radio, billboards/signboards, NGO people, friends/neighbors, television, pharmacies, newspapers/ posters and hospitals (Table 5.8).

Table 5.8: Sources of Information about Condoms

Sources of knowledge of condom	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Radio	296	98.7	294	98.0
Television	294	98.0	290	96.7
Billboard/signboard	292	97.3	292	97.3
Pharmacy	289	96.3	287	95.7
Newspapers/posters	287	95.7	278	92.7
Hospital	279	93.0	238	79.3
Friends/neighbors	278	92.7	291	97.0
NGO's peoples	262	87.3	292	97.3
Cinema hall	220	73.3	195	65.0
Health Post	205	68.3	176	58.7
Health workers/volunteers	184	61.3	224	74.7
Health Center	163	54.3	131	43.7
Community worker	104	34.7	132	44.0
Comic books	101	33.7	123	41.0
Street drama	85	28.3	170	56.7
Video van	75	25.0	117	39.0
Community event/training	41	13.7	137	45.7
Others	0	0.0	3	1.0

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

As part of a strong effort to inform the target group about condoms, the National Health Education Information and Communication Center (NHEIC) has been running radio and TV programs with technical assistance from various sources. The respondents taking part in the survey were asked whether they had heard specific messages about condoms and HIV/STI broadcast over the radio and TV. More than 90% of the respondents said they had heard programs such as *HIV AIDS bare aajai dekhi kura garaun, Condom Bata Surakchhya Youn*

Swastha ko Rakchhya and *Jhilk Dai Chha Chhaina Condom.* These messages were being broadcast over the radio and TV during both the survey periods. Questions were not asked about the messages publicized during the time of the first round of the study and which had been discontinued during the present study, like *Condom Lagaaun AIDS Bhagaaun, Use condom for the protection from HIV/AIDS, Gurujee Ra Antare* and *Dhale Dai*. More than 80% of the respondents said that they had been exposed to new messages like *Youn rog ra AIDS bata bachnalai rakhnu parchha sarbatra paine condom lai, Ramro sangha prayog gare jokhim huna dinna bharpardo chhu santosh dinchhu jhanjhat manna huna* and *Condom kina ma bhaya hunna ra*. The data shows that these programs have been largely successful in disseminating messages to the target groups about condoms to prevent HIV/STI.

Table 5.9: Exposure to Specific Condom Messages in the Past Year

Heard/seen/read the following messages/characters in past one year	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Condom Lagaaun AIDS Bhagaaun	296	98.7	0	0.0
Jhilke Dai Chha Chhaina Condom	289	96.3	270	90.3
Condom Bata Surakchhya Youn Swastha ko Rakchhya	287	95.7	277	92.3
Use Condom for the Protection from HIV/AIDS	286	95.3	0	0.0
HIV/AIDS Bare Aajai Dekhi Kura Garaun	280	93.3	280	93.3
Gurujee Ra Antare	231	77.0	0	0.0
Dhale Dai	230	76.7	0	0.0
Condom Kina Ma Bhaya Hunna Ra	0	0.0	257	85.7
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	0	0.0	263	87.7
Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	0	0.0	258	86.0
Others	2	0.7	26	8.7

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

CHAPTER – 6

KNOWLEDGE OF STIs AND HIV/AIDS

A series of questions were administered to the respondents to find out their general level of consciousness about STIs and HIV/AIDS, and their specific knowledge about how such diseases were contracted and where testing facilities were available. The results are discussed below.

6.1 Knowledge of STIs

The percentage of respondents who have heard about STIs has increased slightly from the study conducted in 2003. Out of the 300 respondents, 97.3%, up from 94% during the first round of the survey, had heard about STIs.

Table 6.1: IDUs Who Have Heard about STIs

Heard of STIs	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Yes	282	94.0	292	97.3
No	18	6.0	8	2.7

The respondents who expressed a general awareness about STIs were also asked about the symptoms. The most commonly reported STI symptoms seen in females as told by the male IDUs included genital ulcers/sore blisters, genital discharge, foul-smelling discharge, itching around the genital area, burning pain during urination and swelling in the groin area. Similarly, the major symptoms of STIs in males were reported as genital ulcers/sore blisters, genital discharge, burning pain during urination and itching around the genital area. About one-third of the respondents had no idea about the symptoms of STIs (Table 6.2). The findings show that general awareness about STIs among the respondents has increased from the time of the first round of the study.

Table 6.2: Symptoms of STIs Cited by Respondents Who Have Heard about STIs

Knowledge of symptoms of STIs	Respondents who had heard of STIs							
	First round (2003) n=282				Second round (2005) n=292			
	Among Female	%	Among Male	%	Among Female	%	Among Male	%
Genital ulcer/sore blisters	72	25.5	116	41.1	137	46.9	155	53.1
Genital discharge	52	18.4	93	33.0	100	34.2	128	43.8
Foul-smelling discharge	45	16.0	0	0.0	88	30.1	0	0.0
Itching	19	6.7	21	7.4	72	24.7	47	16.1
Burning/pain during urination	15	5.3	55	19.5	47	16.1	96	32.9
Abdominal pain	10	3.5	0	0.0	26	8.9	0	0.0
Swelling in groin area	7	2.5	10	3.5	41	14.0	53	18.1
Becoming thinner	0	0.0	0	0.0	1	0.3	4	1.7
Bleeding	0	0.0	0	0.0	2	0.7	0	0.0
Ulcer in the Body	0	0.0	0	0.0	0	0.0	1	0.3
Swelling in the private parts	0	0.0	0	0.0	0	0.0	2	0.7
Fever problem	0	0.0	0	0.0	0	0.0	1	0.3
Pain in the testicle	0	0.0	0	0.0	0	0.0	1	0.3
Others	2	0.7	0	0.0	5	1.7	5	1.7
Don't know	186	65.9	138	48.9	110	37.7	101	34.6

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

Only 8% of the respondents reported having genital discharge during the past year, and about 46% among them still had the symptom at the time of the survey. About 6% of the

respondents reported suffering from genital ulcer/sore blister during the past year, and 37% of them had it at the time of the survey. The findings indicate that the problem of STIs among the respondents has grown from the first round of the study (Table 6.3).

Table 6.3: Genital Discharge and Genital Ulcers/Sore Blisters Experienced during the Past Year and Currently

Experienced of STI symptoms	First round (2003)		Second round (2005)	
	N	%	N	%
Had a genital discharge in the past year				
Yes	15	5.0	24	8.0
No	285	95.0	276	92.0
Total	**300**	**100.0**	**300**	**100.0**
Have such genital discharge currently				
Yes	4	26.7	11	45.8
No	11	73.3	13	54.2
Total	**15**	**100.0**	**24**	**100.0**
Had a genital ulcer/sore blister in the past year				
Yes	14	4.7	19	6.3
No	286	95.3	281	93.7
Total	**300**	**100.0**	**300**	**100.0**
Have such genital ulcer/sore blister currently				
Yes	4	28.6	7	36.9
No	10	71.4	12	63.1
Total	**14**	**100.0**	**19**	**100.0**

Out of the 300 respondents, about 89% reported not having any STI symptoms. Among the respondents who had experienced any symptom of STIs, almost 45% did not seek any treatment for their problems, and about 30% saw private doctors. The percentage of respondents seeking treatment at hospitals and health posts was only about 15% (Table 6.4). Treatment seeking from private doctors has increased since 2003 but, about 10 percent more IDUs with STI symptoms reported not seeking any treatment for STI problems in 2005.

Table 6.4: Treatment of STI Symptoms by IDUs

Treatment received	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Never had STI symptoms	261	87.0	267	89.0
Ever had some symptoms	39	13.0	33	11.0
Source of treatment	**n=39**	**%**	**n=33**	**%**
Private Doctor	22	56.4	10	30.3
Hospital/Health Post	3	7.8	5	15.2
Did not seek treatment	14	35.9	15	45.4
Others	0	0.0	3	9.1

6.2 Knowledge of HIV/AIDS

All the respondents in the sample had heard about HIV/AIDS. Eight out of 10 reported knowing someone who had died from HIV/AIDS. While half (50.4%) of the respondents said that the deceased persons they knew were not related to them, about 41% said that they were close friends (Table 6.5). Increase in the percentage of respondents who know any one who died of HIV/AIDS may indicate that deaths from HIV/AIDS have increased in the last two years in Pokhara.

Table 6.5: Awareness of HIV/AIDS among IDUs

Knowledge of HIV/AIDS	First round (2003)		Second round (2005)	
	N	%	N	%
Heard about HIV/AIDS				
Yes	299	99.7	300	100.0
No	1	0.3	0	0.0
Know anyone who died due to AIDS				
Yes	194	64.7	240	80.0
No	97	32.3	49	16.3
Don't know	9	3.0	11	3.7
Total	**300**	**100.0**	**300**	**100.0**
Nature of relationship to the deceased				
Close friend	108	55.7	98	40.8
No relation	72	37.1	121	50.4
Close relative	14	7.2	20	8.3
Don't know	0	0.0	1	0.4
Total	**194**	**100.0**	**240**	**100.0**

The respondents were asked several separate questions to understand their conception about prevention of HIV/AIDS. About 97% opined that a person could avoid HIV/AIDS through consistent use of a condom, and about nine out of 10 cited monogamous sexual relationship as a means of protection. Similarly, 61.7% mentioned abstinence from sex (Table 6.6).

Table 6.6: Knowledge of ABC

Knowledge of ABC for avoiding HIV/AIDS	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
A Can protect themselves through abstinence from sexual contact	209	69.7	185	61.7
B Can protect themselves through monogamous sexual relations	235	78.3	270	90.0
C Can protect themselves through condom use every time during sex	271	90.3	292	97.3

Almost all the respondents, that is, 98% of them, knew that a person could get HIV by using other people's previously used needles. Similarly, almost 92% were aware that one could not get infected by sharing a meal with an HIV-positive person. About 60% opined that switching from injecting to non-injecting drugs could protect them against HIV/AIDS. However, 30% of the respondents believed that HIV/AIDS could be transmitted through mosquito bite (Table 6.7).

Table 6.7: Respondents Knowledge on Ways of HIV/AIDS Transmission

Statements related to HIV/AIDS and pregnant women	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Can get HIV/AIDS by sharing needles	288	96.0	294	98.0
Can not get HIV/AIDS by sharing meal with HIV+ person	257	85.7	277	92.3
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	266	88.7	265	88.3
Can protect themselves from HIV/AIDS by switching to non-injecting drugs	226	75.3	179	59.7
A woman with HIV/AIDS can transmit the virus to her child through breastfeeding	144	48.0	148	49.3
Can get HIV/AIDS from a mosquito bite	130	43.3	90	30.0
A pregnant woman with HIV/AIDS can reduce risk of transmission to her unborn child by:				
Taking medicine	28	9.3	14	4.7
Treatment/consultation with doctor	0	0.0	67	22.3
Others	2	0.7	7	2.3
No response	1	0.3	0	0.0
Don't know	269	89.7	212	70.7

A large majority (88.3%) of the respondents knew that a pregnant woman infected with HIV could transmit the virus to her unborn child. A relatively lower percentage of the respondents, nearly 50%, stated that a woman with HIV could transmit the virus to her newborn child through breastfeeding. However, a majority of the respondents did not know what actions a pregnant woman could take to reduce the risk of transmitting HIV/AIDS to her unborn child

(Table 6.7). However, the level of awareness about HIV transmission has increased among the respondents from the first round of the survey.

6.3 Knowledge about HIV Testing Facilities

All the study participants were asked if they knew whether confidential HIV testing facilities were currently available, and whether they had ever been tested for HIV. The data presented in Table 6.8 indicates that almost all the respondents (97.7%) were aware about confidential HIV testing facilities. This is a huge increase in the knowledge about VCT services available to them in the last two years in Pokhara valley among IDUs. About one-third (32.7%) of the respondents had been tested for HIV as a requirement, about 31% had done it voluntarily and the remaining 35.7% had never been tested. Around 84% of the respondents taking the test had received their results. Among the respondents who took the test, 56% did it during the year preceding the survey. The data shows that the practice of getting tested for HIV has increased from the previous study conducted in 2003.

Table 6.8: Knowledge about HIV Testing Facilities and History of HIV Test

Description on HIV testing	First round (2003)		Second round (2005)	
	N	%	N	%
Is it possible for someone to get a confidential HIV test?				
Yes	171	57.0	293	97.7
No	114	38.0	3	1.0
Don't know	15	5.0	4	1.3
Type of test taken				
Required HIV test	66	22.0	98	32.7
Voluntary HIV test	14	4.7	94	31.3
Not tested	220	73.3	107	35.7
No response	0	0.0	1	0.3
Total	**300**	**100.0**	**300**	**100.0**
Test result received				
Yes	74	92.5	162	83.9
No	6	7.5	31	16.1
Timing of last HIV test				
During the past year	36	45.0	108	56.0
1-2 years ago	20	25.0	60	31.1
2-4 years ago	18	22.5	21	10.9
More than 4 years ago	5	6.2	4	2.1
No response	1	1.2	0	0.0
Total	**80**	**100.0**	**193**	**100.0**

6.4 Source of Knowledge about HIV/AIDS

More than 90% of the respondents said their sources of knowledge of HIV/AIDS were radio, television, NGO workers, friends/relatives, billboards/signboards and pamphlets/posters. Similarly, newspapers/magazines (83.7%), health workers/volunteers (81%), cinema halls (68%) and street dramas (64.3%) were also commonly cited sources of information. This finding has program implications (Table 6.9).

Table 6.9: Sources of Knowledge Regarding HIV/AIDS

Sources of knowledge of HIV/AIDS	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Radio	298	99.3	294	98.0
Television	293	97.7	292	97.3
Billboard/signboard	291	97.0	285	95.0
Friends/Relatives	290	96.7	290	96.7
Pamphlets/Posters	273	91.0	285	95.0
NGO workers	262	87.3	292	97.3
Newspapers/Magazines	260	86.7	251	83.7
Cinema halls	219	73.0	204	68.0
Health workers/Volunteers	203	67.7	243	81.0
School/Teachers	149	49.3	161	53.7
Workplace	117	39.0	145	48.3
Community workers	110	36.7	140	46.7
Street drama	104	34.7	193	64.3
Comic books	103	34.3	127	42.3
Community events or training	32	10.7	138	46.0
Video van	80	26.7	141	47.0
Others	0	0.0	3	1.0

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

The percentage of respondents reporting to have received information on condom and HIV/AIDS had also significantly increased since 2003. When asked whether anyone had given them materials regarding HIV/AIDS such as brochures/booklets/pamphlets, condoms, or/and any specific information about HIV/AIDS during the last year about 80% of the respondents said that they received information about condoms, and 76% said they got materials regarding HIV/AIDS, such as brochures/booklets/pamphlets, during the past year. Sixty six percent and 64 percents of the respondents had respectively reported so in the first round of the survey. Similarly, the respondents who had reportedly received information on HIV/AIDS had reached from 80% in 2003 to 92% in 2005 (Table 6.10).

Table 6.10: Information/Materials Received During the Past Year

Informative materials received	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
Received information on condom				
Yes	198	66.0	241	80.2
No	102	34.0	59	19.7
Brochures/booklets/pamphlets on HIV/AIDS				
Yes	191	63.7	229	76.3
No	109	36.3	71	23.7
Received information on HIV/AIDS				
Yes	239	79.7	275	91.7
No	61	20.3	25	8.3
Other information				
Yes	2	0.7	9	3.0
No	298	99.3	291	97.0

CHAPTER - 7

PREVALENCE OF HIV

HIV status was derived from two rapid HIV tests (Capillus and Determine). Uni-Gold was reserved as a 'tie-breaker' rapid test kit in the parallel testing algorithm but was not used (is this right?). The clinical test results indicated that out of 300 blood samples of the IDUs participating in the study, 65 (21.7%) were HIV positive. HIV prevalence was 22% during the previous study conducted in 2003 which indicates that prevalence has not changed in the last two years.

7.1 Relation between Socio-Demographic Characteristics and HIV Infection

The incidence of HIV was found to be significantly higher ($p < 0.01$) among the older IDUs in both round surveys. For instance, about 24% of the IDUs 20 years and above tested positive, whereas only 8% in the age group below 20 years was infected. The rate of HIV also differed significantly ($p < 0.01$) with marital status in 2003 and 2005. Prevalence was higher among formerly and currently married IDUs than among those who had never been married. The data also showed a connection between literacy and HIV infection. The rate of infection among literate IDUs was half that among illiterate IDUs ($p < 0.05$). The relation is statistically significant in 2005, but no significant in 2003.

Table 7.1: Relation between Socio-Demographic Characteristics and HIV Infection

Socio-demographic characteristics	First round (2003)				Second round (2005)			
	Total	HIV+	%	P value	Total	HIV+	%	P value
Age								
Below 20 years	69	3	4.3	< 0.01	50	4	8.0	< 0.01
20 years and above	231	63	27.3		250	61	24.4	
Marital status								
Currently married	82	27	32.9	< 0.01	87	26	29.9	< 0.01
Formerly married	18	8	44.4		15	9	60.0	
Never married	200	31	15.5		198	30	15.2	
Literacy								
Illiterate	19	5	26.3	> 0.05	16	7	43.8	< 0.05
Literate/formal school	281	61	21.7		284	58	20.4	
Total	**300**	**66**	**22.0**		**300**	**65**	**21.7**	

7.2 Relation between Drug Injection Behavior and HIV

Literature on HIV/AIDS shows that HIV infection among IDUs is typically associated with their drug-injecting behavior. During this study, information was collected on various injecting behaviors, such as duration of injecting drugs, frequency of injections during the past week, use of publicly discarded syringes and use of other people's previously used syringes.

As shown in Table 7.2, those who have been injecting drugs for a long period of time have a greater chance of being infected with HIV and is significant in both 2003 and 2005 study. Among the IDUs who had been injecting drugs for more than five years, 44.4% were HIV positive. The infection rate dropped to 11.9% as the duration of injecting drugs decreased from more than five years to one to five years. None of the IDUs with a history of less than one year of injecting drugs tested positive for HIV.

Table 7.2: Relation between Drug Injecting Behavior and HIV Infection

Drug injecting behavior	First round (2003)				Second round (2005)			
	Total	HIV+	%	P Value	Total	HIV+	%	P Value
Injecting drugs since								
Less than 1 year	36	0	0.0		25	0	0.0	
1-5 years	199	34	17.1	< 0.01	176	21	11.9	<0.01
More than 5 years	65	32	49.2		99	44	44.4	
Frequency of injected drugs in the past week								
Not Injected	8	0	0.0		61	8	13.1	
1-3 times a week	59	14	23.7		45	8	17.8	
4 -6 times a week	42	8	19.0		48	14	29.2	
Everyday	59	11	18.6	> 0.05	58	17	29.3	> 0.05
2-3 times a day	118	27	22.9		86	18	20.9	
4 or more times a day	14	6	42.9		2	0	0.0	
Used another's previously used needle/syringe during the past week								
Not injected/Never	237	48	20.2		256	54	21.1	
Every time/Almost every time	15	4	26.7	> 0.05	10	1	10.0	> 0.05
Sometimes	48	14	29.2		34	10	29.4	
Used a needle/syringe kept in public place during the past week								
Not injected/Never	239	50	20.9		280	58	20.7	
Every time/Almost every time	31	10	32.3	> 0.05	1	0	0.0	> 0 .05
Sometimes	30	6	20.0		19	7	36.8	
Total	**300**	**66**	**22.0**		**300**	**65**	**21.7**	

The number of times the IDUs injected drugs during the past week was also found to have a positive association with HIV infection, but statistically insignificant in both round study ($p > 0.05$). Those who did it more often had a higher rate of infection. Similarly, the data indicates that sharing syringes makes the IDUs more vulnerable to being infected with HIV. Those who shared needles had a higher prevalence of HIV than those who did not. Likewise, the IDUs who used syringes left in public places were found to be more at risk of contracting HIV than those who avoided them. For example, around 36.8% of those who reported using such syringes during the past week were HIV positive, while only 20.7% of those who stayed away from them had HIV. However, these activities had no statistical significant ($p > 0.05$).

7.3 Relation between Sexual Behavior and HIV

Caution is needed when examining the association between HIV infection status (i.e. HIV prevalence) and risk behavior. Current behaviors may not be related to HIV status because participants may have been infected many years ago and then subsequently changed their behavior. Again the IDUs who do not engage in sex may inject drugs and share needles frequently. However, the relationship between sexual behavior and HIV infection was not as expected. For instance, the IDUs having sex with female sex workers had a lower rate of HIV infection compared to their peers. The IDUs having sex with sex workers and other regular and non-regular sex partners had a low rate of infection. Similarly, the higher the number of sex partners during the past 12 months, the lower was the rate of HIV infection (Annex 14).

7.4 Odds Ratio of HIV Infection by Selected Characteristics of IDUs

Unadjusted or gross odds ratio of HIV risk by selected characteristics of the IDUs was calculated. Table 7.3 shows that the risk of HIV infection is about 3.71 times greater among IDUs aged 20 years and above compared to those less than 20 years of age. This odds ratio is statistically significant in 2003 as well as in 2005.

Table 7.3: Odds Ratio of HIV Infection by Selected Characteristics of IDUs

Socio-Demographic and Injecting Characteristics	First round (2003)			Second round (2005)		
	Odd Ratio	# cases (n)	95% Confidence Interval	Odd Ratio	# cases (n)	95% Confidence Interval
Age						
<20 years	-	69		-	50	(1.21,
= >20 years	8.25	231	(2.39,34.12)	3.71	250	12.67)
Education						
Illiterate	1.29	19	(0.39,4.03)	3.03	16	(0.97, 9.37)
Literate	-	281		-	284	
Marital status						
Never married	-	200		-	198	(1.60, 5.35)
Ever married	2.94	100	(1.61,5.35)	2.93	102	
Injecting behavior						
Injected with another's previously used syringe during past week						
Yes	1.58	63	(0.80,3.09)	1.25	44	(0.55, 2.77)
No	-	237		-	256	
Injected with a syringe kept in public place						
Yes	1.34	61	(0.67,2.69)	2.06	20	(0.71, 5.86)
No	-	239		-	280	
Injected with a pre-filled syringe						
Yes	-	23	(0.35,3.40)	-	25	(0.37, 3.56)
No	1.06	269		1.12	275	
Injected in other parts of the country or in another country						
Yes	1.93	130	(1.07,3.49)	1.78	156	(0.98, 3.26)
No	-	170		-	144	

Illiterate IDUs have an almost 3.03% greater risk of being infected with HIV compared to those who are literate. The range of 95% confidence interval for estimated odds ratio is 0.97-9.37. This is insignificant in both the survey. Ever married IDUs are at greater risk compared to those who have never been married. For instance, the odds ratio is about 2.9 for ever married IDUs compared to those who have never been married. This odds ratio is statistically significant in the both round study. In this sample, the injecting behavior of the IDUs does not have a statistically significant association with HIV infection. An IDU who uses needles/syringes kept in a public place is almost 2.06 times more likely to contract HIV than those who do not. The estimated risk varies between 0.71 and 5.86, indicating that the relation is statistically insignificant. The risk of HIV infection is also statistically insignificant in 2005 compared to 2003 study for IDUs who have injected drugs in other parts of the country or in other countries, though they have about 1.8 times higher odds ratio of HIV infection compared to their peers (Table 7.3).

CHAPTER – 8

SUMMARY OF THE FINDINGS

The main objective of this study was to measure the prevalence of HIV among IDUs and assess their risk behaviors.

Structured questionnaires were used to collect behavioral data. Blood samples were obtained by pricking the finger and collected in capillary tubes for HIV testing. A parallel testing algorithm based on 3 rapid test kits was used to assess HIV status. Respondent driven sampling (RDS), a form of chain referral network sampling, was used to select 300 participants in the Pokhara Valley in a probability-based manner for the study.

Main Results

Socio-Demographics Characteristics

About 17% of the IDUs in the sample were under the age of 20 years. Overall, the median age of respondents was 23 years (range: x to y). A majority of the participants (93%) had formal schooling. Two-thirds of the respondents had never been married. Out of the total 300 respondents, 87 were currently married, and among them, 85 were living with their spouse.

Injecting Practice

Out of the 300 participants, more than half (54.7%) had been injecting drugs from the past two-five years. Almost two-thirds got into the habit when they were 20 years old or earlier. About 29% were injecting drugs two-three times a day. Drugs were in short supply during the time of the survey because of the declaration of emergency and frequent blockades in different parts of the country. The effect of this was that there was an increase in the use of a combination of drugs. Among the respondents, 58% reported using a combination of different drugs. About 15% of the IDUs reported using syringes during the past week that had been previously used by others. The percentage of IDUs reporting using a syringe kept in a public place was about 7%. There has been a slight improvement in the use of safe injecting practices compared to the first round of the study.

About 52% of the IDUs were found to be mobile and had injected drugs in other parts of the country or in another country. Knowledge of sources for new/unused needles was universal among the respondents. A great majority (97.3%) reported that they obtained new syringes from drugstores, and almost 90% cited local needle exchange programs as a source of new syringes.

Of the total 300 respondents, 44% had received some kind of treatment in the past for their drug habit. About 73% of the IDUs who received treatment had received it at residential rehabilitation centers.

Sexual Risk Behavior and Use of Condom

In the sample of 300 IDUs, almost 96% had experience of sex, and all had heard about condoms. Out of the 121 respondents who had engaged in sex with a female sex worker

during the past 12 months, 49.6% reported consistent use of a condom. But only 12.4% and 39.6% of the IDUs reported consistent use of a condom with regular and non-regular partners respectively. The percentage of consistent condom use with sex workers has gone down compared to the first round of the survey.

Knowledge of HIV

Almost all the respondents had heard about HIV/AIDS. Of the total sample population, 97.3% said that using a condom each time during sex could protect them from HIV. Similarly, 98% of the respondents knew that a person could get HIV by using other people's old needles. About 60% of the respondents claimed that IDUs could protect themselves from HIV by switching to non-injecting drugs.

HIV Prevalence

In the total sample of 300 IDUs, 65 (21.7%) were found to be HIV positive. The rate of HIV infection was almost similar to the findings of the first round of the survey. IDUs who are aged (>= 20 years), married and those who have injected drugs in other places or in other countries have a significantly higher risk of HIV infection compared to their peers. The risk of HIV infection among the IDUs who share needles is higher compared to those who do not, but the difference in risk is not statistically significant.

Recommendations

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

- HIV/AIDS awareness and prevention programs for IDUs should be continued in Pokhara. These programs should especially cover IDUs living without a sex partner or alone, since the survey results have shown that about 72 percent IDUs live without a sexual partner or alone in the valley.

- Around 22% of the IDUs reported of having used previously used needle/syringe or those left in public places in the last week preceding the survey. Education programs should emphasize the increased risk of HIV transmission due to such "risky" behaviors.

- Special strategies should be designed to cover mobile IDUs under HIV/AIDS awareness campaign as more than one-half of the IDUs (52%) in Pokhara valley were mobile sub-groups who had injected drugs elsewhere in Nepal or in other countries.

- Nine out of ten (90%) IDUs knew about needle exchange programs currently in operation in Pokhara. Such programs should be continued with proper counseling for detoxification for the IDUs.

- There is an urgent need to educate the IDUs in Pokhara valley on the risk of HIV transmission even through the use of common container for drawing drugs, as almost two-fifths (43.7%) reported of drawing drug solutions from a common container in the week preceding the survey.

- About two-thirds of the IDUs in the valley (62.4%) were adolescents and youths (below the age of 25 years). Awareness raising programs is urgently needed for this specific group.

- The median age of the respondents at the time of their first sexual encounter was 17 years. Workshops, interaction programs, training sessions should be conducted for adolescents both in schools and in the community to impart proper sex education and awareness on HIV/AIDS.

- The use of a condom with a regular female sex partner was found to be low when compared to condom use with sex workers and non-regular partners. IDUs should be made aware on the need to use condom consistently with all kinds of sex partners.

- More target group specific IEC materials should be designed and distributed in the valley. Radio and television programs that have been very successful in disseminating information related to condoms and HIV/AIDS should be continued.

- Among the respondents who had experienced one or the other symptoms of STIs, almost 45% had not sought any treatment for their problems. Client friendly STI treatment and HIV test facilities should be made available to the target population to encourage more IDUs to voluntarily come forward for such services.

- Fifty six percent of the interviewed IDUs reported of not having received any treatment to break their drug taking habits Rehabilitation and detoxification centers should be supported for providing necessary assistance the IDUs in Pokhara valley especially to those from economically deprived families.

- Monitoring and evaluation of HIV prevalence and risk behaviors of IDUs is needed at regular time intervals.

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ANNEX – 1

Confidential

Integrated Bio- Behavioral Survey (IBBS) among Injecting Drug Users in Pokhara

FHI/New ERA/SACTS - 2005

Namaste! My name is….. I am here from New ERA to collect data for a research study. During this data collection, I will ask you some personal questions that will be about sexual behavior, use of condoms, HIV/AIDS and use of needle/syringe when taking drugs. You may feel uneasy responding to some personal questions. But it is important that you answer truthfully. The information given by you will be strictly treated as confidential and not shared with any one. Also we collect a few drops of blood for laboratory testing for HIV. You do not need to worry. Nobody will know whatever we talk about because your name will not be mentioned on this form. All the mentioned information will be used only for the study purpose. This survey will take about 40 to 60 minutes.

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

Would you be willing to participate? 1. Yes 2. No

Signature of the interviewer: _____ Date:_____/_____/2061

Operational Definition of Respondent:

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 3 months before the interview date. Those who have started injection within last three months are not eligible for interview.

Men under the age of 16 will be excluded.

Code Respondents:

Seed: 1. Yes 2. No

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

Coupon number given: 1) _____ 2) _____ 3) _____

Did the interviewee abandon the interview?

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

Interviewer Name: _____ Code Interviewer: _____

Date Interview: _____ / _____ / 2061
Checked by the supervisor: Signature: _____ Date: ____/ ____ / 2061

Data Entry # 1: Clerk's name: _____ Date _____/_____/2061
Data Entry # 2: Clerk's name: _____ Date _____/_____/2061

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

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

↓

When? _____Days ago **(close interview)**

002. Respondent ID #: | | | | | | |

002.1 Write down how you made contact? _____

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

_____

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

1. Yes 2. No

002.4 How long you have been injecting drugs? Years _____Months _____

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

003. Interview Location (to be filled by interviewer)

003.1 Name of location **(such as tole, chowk, lane etc.)**

_____

003.2 Ward No. _____

003.3 VDC/Municipality: _____

003.4 District: _____

003.5 Place of interview **(such as temple, restaurant, lodge, Institution etc.)**

_____

1.0 BACKGROUND OF RESPONDENT

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
101	Where are you living now? ***(Name of current place of residence)***	Ward ..... ☐☐ VDC/Municipality_____ District_____	
101.1	How long have you been living continuously at this location?	Month..... ☐☐☐ Always (since birth)..... 0 Others (Specify)_____96	
102	In the last 12 months have you been away from your home for more than one-month altogether?	Yes ..... 1 No ..... 2 Don't' know ..... 98 No response 99	
103	How old are you?	Age ..... ☐☐ ***(Write the completed years)***	
104	What is your educational status?	Illiterate..... 0 Literate..... 19 Grade..... ☐☐ ***(Write the completed grade)***	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
105	What is your caste? ***(Specify Ethnic Group/Caste)***	Ethnicity/Caste _____	
106	What is your marital status?	Never married ..... 1 → 108 Married ..... 2 Divorced/Permanently separated ... 3 Widow..... 4 Other (Specify)_____ 96	
107	How old were you when you first married?	Age ..... ☐☐ **(Write the completed years)**	
108	With whom you are living now?	Living with wife..... 1 Living with female sexual partner . 2 Living without sexual partner ..... 3 Others (Specify)_____ .. 96 No response 99	110
109	Do you think your wife/female sexual partner has any other sexual partners?	Yes ..... 1 No ..... 2 Don't' know ..... 98 No response 99	110
10 9.1	If yes, what is the sex of the partner?	Male ..... 1 Female..... 2	
110	During the past one-month how often have you had drinks containing alcohol? **(Such as beer, local beer etc.)**	Every day ..... 1 More than once a week ..... 2 Less than once a week..... 3 Never drink ..... 4 Others (Specify)_____ ..... 96 No response..... 99	

2.0 DRUG USE

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
201.	How long have you been using drugs? ***(Drug means medicine not used for treatment purpose rather used for Intoxication)***	Years..... ☐☐ Months ..... ☐☐ No response 99	
202.	How old were you when you first injected drugs? ***(Include self-injection or injection by another)***	Years ..... ☐☐ ***(Write the completed years)***	
203	How long have you been injecting drugs? ***(Include self-injection or injection by another)***	Years..... ☐☐ Months ..... ☐☐ No response 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
204.	Which of the following types of drugs have you used and/or injected in the past one-week? ***(Read the list, multiple answer possible)***		

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

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

3.0 NEEDLE SHARING BEHAVIORS

Q. N.	Questions and Filters	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 the place where they keep syringe other than his home)***	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me ..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ .... 4 I used a new needle/syringe given by NGO staff/volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe ..... 7 Others (Specify) _____ .. 96 Don't know ..... 98 No response 99	
302.1	The last time you injected, If you were in a group while injecting, how many different people in the group do you think used the same needle?	Nos. ..... ☐☐ Injected alone 96	
303.	Think about the time before the last time you injected, how did you get that syringe/needle? ***(+ Public place means the place where they keep syringe other than his home)***	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me ..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself ..... 4 I used a new needle/syringe given by NGO staff/volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe ..... 7 Others (Specify) _____ 96 Don't know ..... 98 No response 99	
303.1	That time, If you were in a group, how many different people in the group do you think used the same needle?	Nos. ……..... ☐☐ Injected alone 96	
304.	Now think about the time before **(before Q. 303)**, how did you get that syringe/needle? ***(+ Public place means the place where they keep syringe other than his home)***	My friend/relative gave it to me after his use ..... 1 Unknown person gave it tome ..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ ..... 4 I used a new needle/syringe given by NGO staff/volunteer ..... 5 I used a needle/syringe which I purchased ..... 6 I reused my own needle/sy ..... 7 Others (Specify)_____ . 96 Don't know ..... 98 No response 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
304.1	That time If you were in a group, how many different people in the group do you think used the same needle?	Nos.....…..…….. Injected alone 96	
305.	Think about the times, you have injected drugs during the past one-week. How often was it with a needle or syringe that had previously been used by someone else?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used..... 4 Not injected in the last week ..... 5 Don't know ..... 98 No response 99	→ 314
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 the place where they keep syringe other than his home)***	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
306.	In the past one-week, did you ever share needles and syringes with any of the following?		

Read out list. Multiple answers possible	**Yes**	**No**	**DK**	**NR**
1. Your usual sexual partner	1	2	98	99
2. A sexual partner who you did not know	1	2	98	99
3. A friend	1	2	98	99
4. A drugs seller	1	2	98	99
5. Unknown Person	1	2	98	99
96. Other (Specify) _____	1	2	98	99

307.	With how many different injecting partners did you share needles or syringes in the past one-week? ***(Count everyone who injected from the same syringe)***	Number of partners ...…….. Don't know ..... 98 No response 99	
308.	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
309.	In the past-week, did you ever inject with a pre-filled syringe? **(B*y that I mean a syringe that was filled without your witnessing it)***	Yes..... 1 No ..... 2 Don't know ..... 98 No response 99	
310.	In the past one-week, how often did you inject drugs using a syringe after someone else had squirted drugs into it from his/her used syringe? ***(front-loading/back-loading/ splitting)***	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
311.	In the past one-week, when you injected drugs, how often did you share a cooker/ vial/container, cotton/filter, or rise water?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
312.	In the past one-week, how often you draw up your drug solution from a common container used by others?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	

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

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

4.0 SEXUAL HISTORY

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

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

5.0 NUMBERS AND TYPES OF PARTNERS
(Check Q. 403.1 and circle the response of Q.501)

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
501.	Did you have sex with female regular partner during last 12 months?	Yes ..... 1 No 2	→ 502
501.1	Think about your most recent female regular sexual partner. How many times did you have sex with her during last one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	
501.2	The last time you had sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 501.4 → 501.4
501.3	Why did not you or your partner use a condom that time? ***(Do not read the possible answers, multiple answer possible)***	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 4 Used other contraceptive ..... 5 Didn't think it was necessary ..... 6 Didn't think of it ..... 7 Other (Specify) _____ .. 96 Don't know ..... 98 No response 99	
501.4	How often have you used a condom with female regular partners in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
501.5	Did your female regular partner also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.6	Have you had ever-anal sex with your female regular partners?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 502
501.7	The last time you had anal-sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.8	How often have you used a condom in an anal-sex with female regular partners in the past 12 months?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
502.	Did you have a sexual intercourse with a female sex worker in last 12 months? ***(Check 403.2 and circle the response of Q. 502)***	Yes ..... 1 No 2	→ 503
502.1.	Think about the female sex workers that you have had sex in the past one-month. In total how many were: Number of female sex workers, to whom you sold sex in exchange for money or drugs.	Nos. ..... ☐☐ Don't know ..... 98 No response 99	
502.1. 1	Number of female sex workers, to whom you bought sex in exchange for money or drugs.	Nos. ..... ☐☐ Don't know ..... 98 No response 99	
502.2	Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	
502.3	The last time you had sex with a female sex worker did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 502.5 → 502.5
502.4	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	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
502.6	Do you know whether your female sex worker also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
502.7	Have you had ever-anal sex with your female sex workers?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 503
502.8	The last time you had a anal-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	
502.9	How often have you used a condom in an anal sex with female sex workers in the past 12 months?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
503.	Did you have a sexual intercourse with a female non-regular sex partner during last 12 months? ***(Check 403.3 and circle the response of Q. 503)***	Yes ..... 1 No 2	→ 601
503.1	Think about your most recent female non-regular sexual partner. How many times did you have sexual intercourse with her over the past one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	
503.2	The last time you had a sex with a female non-regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 503.4 → 503.4
503.3	Why did not you and your partner use a condom that time? **(*Don't read the possible answers, multiple answer possible*)**	Not available ..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 4 Used other contraceptive ..... 5 Didn't think it was necessary ..... 6 Didn't think of it ..... 7 Other (Specify) _____ 96 Don't know ..... 98 No response 99	
503.4	How often have you used a condom with a female non-regular partner in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
503.5	Did you know whether your female non-regular partners also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
503.6	Have you had ever-anal sex with your female non-regular partners?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	→ 601
503.7	The last time you had an anal sex with a female non-regular partner, did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
503.8	How often have you used a condom in an anal-sex with female non-regular partners in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	

6.0 USE AND AVAILABILITY OF CONDOM

(Don't ask Q601 and 602 Check Q. 501.2, 501.4, 502.3, 502.5, 503.2, 503.4 and tick accordingly)

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

7.0 STIs

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
701.	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes ..... 1 No ..... 2 No response 99	→ 704
702.	Can you describe any symptoms of STIs in women? ***(Do not read possible answers, multiple answers possible.)***	Abdominal pain ..... 1 Genital discharge ..... 2 Foul smelling ..... 3 Burning pain on urination ..... 4 Genital ulcers/sore ..... 5 Swelling in groin area ..... 6 Itching ..... 7 Other (Specify) _____ 96 Don't know ..... 98 No response 99	

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

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
801.	Have you ever heard of HIV or the disease called AIDS?	Yes ..... 1 No ..... 2 Don't know..... 98 No response..... 99	
02.	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes ..... 1 No ..... 2 Don't know..... 98 No response..... 99	804
803.	Do you have close relative or close fried who is infected with HIV or has died of AIDS?	Yes, a close relative ..... 1 Yes, a close friend ..... 2 No ..... 3 Don't know..... 98 No response..... 99	
804.	Can people protect themselves from HIV, the virus that causes AIDS, by using a condom correctly every time they have sex?	Yes ..... 1 No ..... 2 Don't know..... 98 No response..... 99	
805.	Can a person get HIV, from mosquito bites?	Yes ..... 1 No ..... 2 Don't know..... 98 No response..... 99	
806.	Can people protect themselves from HIV, by having one uninfected faithful sex partner?	Yes ..... 1 No ..... 2 Don't know..... 98 No response..... 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
807.	Can people protect themselves from HIV, by abstaining from sexual intercourse?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
808.	Can a person get HIV, by sharing a meal with someone who is infected?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
809.	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
810.	Can people who inject drugs protect themselves from HIV, the virus that causes AIDS, by switching to non-injecting drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
811.	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	813
812.	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? ***(Do not read the possible answers, multiple answer possible)***	Take medication (Antiretrovirals) . 1 Others (Specify) _____ 96 Don't know ..... 98 No response 99	
813.	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
814.	Is it possible in your community for someone to get a confidential test to find out if they are infected with HIV? ***(By confidential, I mean that no one will know the result if you don't want him or her to know it.)***	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
15	I don't want to know the result, but have you ever had an HIV test?	Yes ..... 1 No ..... 2 No response 99	901
816.	Did you voluntarily undergo the HIV test, or were you required to have the test?	Voluntary ..... 1 Required ..... 2 No response 99	
817.	Please do not tell me the result, but did you find out the result of your HIV test?	Yes ..... 1 No ..... 2 No response 99	
818.	When did you have your most recent HIV test?	Within the past 12 months ..... 1 Between 13-24 months ..... 2 Between 25-48 months ..... 3 More than 49 months ..... 4 Don't know ..... 98 No response 99	

9.0 AWARENESS OF HIV/AIDS

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

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

10.0 PROMOTION OF CONDOM

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

Q. N.	Questions and Filters	Coding Categories		Skip to Q.N.
1001.	In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? ***(Read the following list, multiple answer possible)***			
	Sources	**Yes**	**No**	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	
	8. Friends/Neighbors	1	2	
	9. NGOs	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	

Q. N.	Questions and Filters	Coding Categories		Skip to Q.N.
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
	17. Community Workers	1	2	
	96. Others (Specify) _____	1	2	
1002.	Have you ever seen, heard or read following messages/characters during past one year? ***(Multiple answer possible)***			
	Message/characters	**Yes**	**No**	
	1. Jhilke Dai Chha Chhaina Condom	1	2	
	2. Condom Kina Ma Bhaya Hunna Ra	1	2	
	3. Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	1	2	
	4 Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	1	2	
	5. Condom Bata Surakchhya, Youn Swasthya Ko Rakchhya AIDS Ra Younrog Bata Bachna Sadhai Condom Ko Prayog Garau	1	2	
	6. HIV/AIDS Bare Aajai Dekhee Kura Garau	1	2	
	96. Others (Specify) _____	1	2	
1003.	Have you ever heard/seen or read messages or materials other than mentioned above?	Yes ..... 1 No ..... 2 →		1004
1003.1	What?	_____ _____		
1004.	Generally, where do you gather to inject drug?	_____ _____		
1005	How many IDUs do you know and also know you? **Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months – knowing each other**	Total _____ Don't know ..... 98 No response 99		
1005.1	Among them persons how many are male and female?	Male _____ Female _____ Don't know ..... 98 No response 99		
1006	Among those persons, please try to estimate the number of people by range of age:	Less than 15 years old [_____] 15-19 years old [_____] 20-24 years old [_____] 25-29 years old [_____] 30-40 years old [_____] > 40 years old [_____] Don't know ..... 98 No response ..... 99 Not applicable 97		

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
1007	Again, among those guys, please try to estimate the number of people by religion:	Hindu [_____] Buddhist [_____] Muslim [_____] Christian [_____] Others (Specify) _____ [_____] Don't know ..... 98 No response ..... 99 Not applicable 97	
1008	With regard to the person who gives you the coupon to come here, was he….	A close friend ..... 1 A friend ..... 2 Your sexual partner ..... 3 A relative ..... 4 A stranger ..... 5 Others (Specify)_____ . 96 Don't know ..... 98 No response 99	

ANNEX - 2

Basic Equation Used In Sample Design

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

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

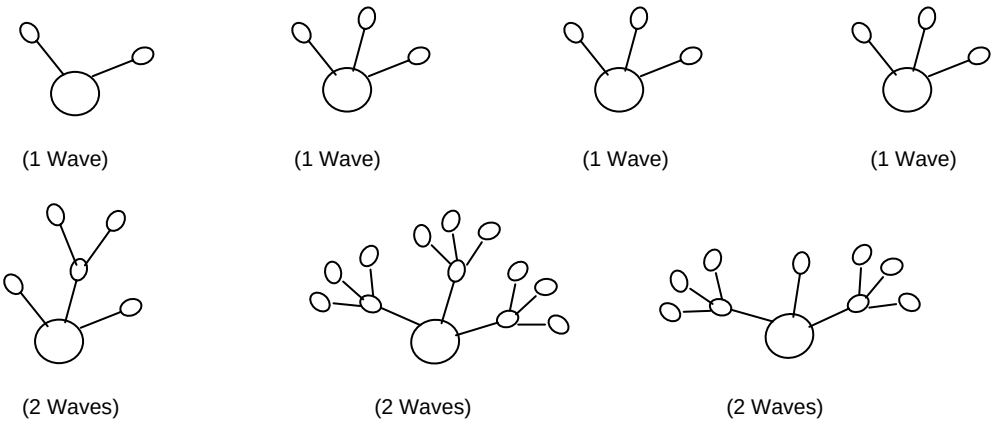
P_1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

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 (α – the level of statistical significance), and

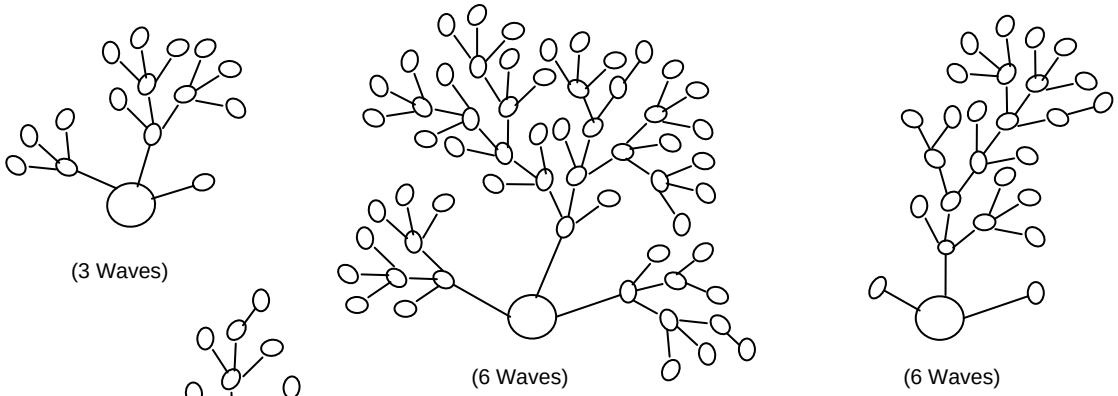
Z_β = the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P_1-P_2) if one actually occurred (β – statistical power).

ANNEX - 3
Respondent Driven Sample of IDUs in Pokhara Valley

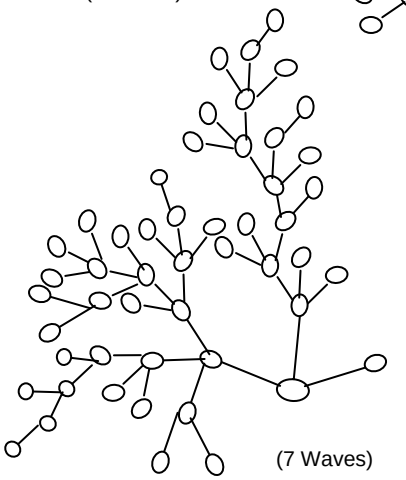


(1 Wave) (1 Wave) (1 Wave) (1 Wave)

(2 Waves) (2 Waves) (2 Waves)



(3 Waves) (6 Waves) (6 Waves)



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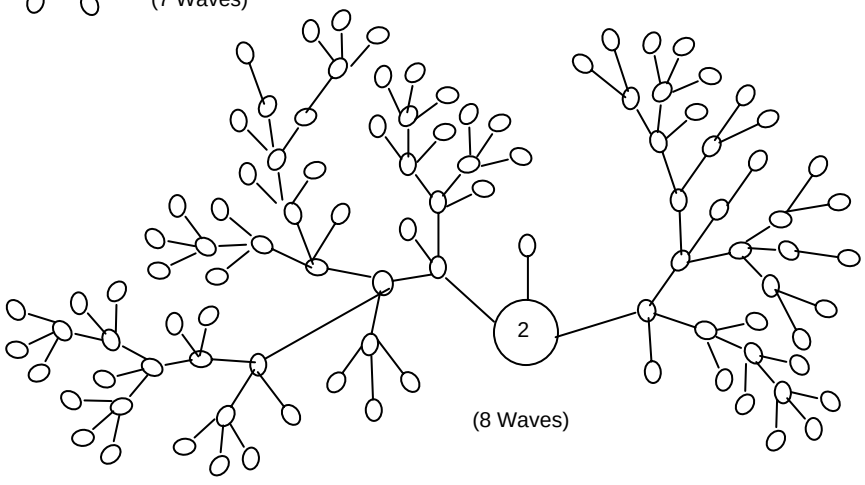

(8 Waves)

ANNEX - 4

FAMILY HEALTH INTERNATIONAL (FHI), NEPAL
Oral Informed Consent

Name of Research Study	:	Behavioral and Sero Prevalence Survey among male Injection Drug Users (IDUs) in Selected Sites of Nepal.
Principal Investigators	:	Asha Basnyat, FHI/Nepal
	:	Laxmi Bilas Acharya, PhD, FHI/Nepal
Co- Investigators	:	Dimitri Prybylski, PhD, FHI/APDThailand
	:	Siddhartha Tuladhar, New ERA, Nepal
	:	Niranjan Dhungel, New ERA, Nepal
	:	Dr. Vijayalal Guruvacharya, SACTS, Nepal

Introduction

This Consent Form contains information about the research named above. In order to be sure that you are informed about being in this research study, we are asking you to read (or have read to you) this Consent Form. You will be asked to say out loud in front of two persons whether you agree to be part of the study or not. The Protection of Human Subject Committee (PHSC) of Family Health International (FHI) and Nepal Health Research Council (NHRC) have approved this study. We will give you a copy of this form if you would like. This consent form might contain some words that are unfamiliar to you. Please ask us to explain anything you may not understand.

Reason for the Research

You are being asked to be in a research study to find out the prevalence of HIV, the virus that causes AIDS as well as risk behaviors among injection drug users who live in the Kathmandu Valley /Pokhara Valley /Eastern Terai/Western to Far Western Terai. The His Majesty's Government of Nepal and local groups will use the results of this study to help prevent such infections among the target groups.

General Information about the Research Methods

If you agree to be in this research we will not take your name. We will ask you some questions and take few drops of blood from finger prick in small capillary tubes.
If we think you might have skin abscesses from injecting drugs, you will be informed of the probable place where you will be given treatment if you desire.

Your Part in the Research

Your part in the research will take about **60** minutes. About **1245** male IDUs will take part in this research in Kathmandu Valley/Pokhara Valley/Eastern Terai/Western to Far Western Terai.

If you agree to be in the research, you will be asked some questions about your age, education and ethnicity. We will ask you about your injection behaviors, sexual history and any symptoms related to sexually transmitted infections. We will ask you about drug and alcohol use. You will also be counseled about sexual infections and the HIV. You will be told about what the lab tests mean and the treatments or care available to you. We will then take a blood sample from your fingertips with the help of small capillary tube.

We will not record your name on any of the questions or the lab tests. They will only be labeled with a code number. The blood sample will be tested for HIV infection.

We will be able to give you the results of the lab tests for the HIV infections after 7 days from the date of blood sample collection. At the time of blood sample collection the study team members will give you the detail address of the place and the exact dates where you can go to receive your result of HIV test. 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. We will refer you to places where you can go for treatment of any other sexual health problems if you would like to do so. If you are HIV positive you will be counseled for further precautions and will be referred to available care and support services in and around your place.

Possible Risks and Benefits

You will feel uncomfortable while taking blood from your fingertips but it does not harm you and increase the risk of any other problems. There is a chance that some of the questions asked may make you feel ill at ease. At any time, you may refuse to answer any question or withdraw from the study.

You may be scared or feel sad by learning your blood test results. If you decide to come in for the results, you will be provided with HIV counseling. You will be given the names of places where you can go for more help. We will not take your name so no one will learn of your test results unless you tell them.

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

You will be helped by this study because we will inform you about the places where you can get treatment for some kind of wounds on your skin while injecting drugs. We will teach you how to avoid infections in the future. We will give you your HIV test result. You will also learn about sexual infections and HIV, and ways to prevent these infections. We will not treat you for HIV but will inform you about the places for follow-up. The information we obtain from this study will also help us to design programs in this area to slow down the spread of HIV infections and AIDS.

If you decide not to be in the Research

You are free to refuse to be in this research and it will not affect the health care you would normally receive from the study.

Confidentiality

We will protect information about you and your taking part in this research to the best of our ability. Your name will not be recorded anywhere. Blood specimens will be labeled with a study code number. You will be given a card with your code number. This will allow you to obtain your HIV infection test results if you wish. We will not be able to identify you and give you your test results without the study ID card.

If the results of this research were published, your name would not be shown because we will not have your name. However, the officials of International Health Center may sometimes look at records of those who take part in the research study. These will not have your name. A court of law could order research records shown to other people, but that is unlikely.

Compensation

We will provide you a fixed amount of Nepalese Rupees (NRs.) 100.00 (approximately, US$ 1.50) after completing the study requirements as a compensation for local transportation costs and an additional NRs. 50.0 (US$ 0.70) for successful referral each peer for the study. You may refer up to three peers or friends. We will also give you condoms and IEC materials to compensate you for your time.

Leaving the Research Study

You may leave the research study at any time and refuse to answer any questions. If you decide to leave the study you will be asked for the reason to do so.

Contact for Questions

We will give you a separate sheet with contact information, should you have any questions or problems about this research, questions about your rights as a study participant, or have a problem that you think might be related to the research.

VOLUNTEER AGREEMENT

Study ID number: _____

If you understand what is being asked of you for this research project, the person explaining the research to you will read the following paragraph and sign this consent form.

"I have read and explained this informed consent form to the study recruit. He has explained the study activities back to me and I am convinced he understands the activities that will occur. He has not been coerced, and he has given his oral consent to participate in all the aspects of this study".

_____ _____

Date **Signature of person who obtained consent**

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

_____ _____

Date **Signature of Witness**

CONTACT INFORMATION (to be given to the participant)

If you have any questions or problems about this research, please contact

Asha Basnyat
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ANNEX - 5
Districts and Lab Centers (2005)

District	Lab Centers	Sample Covered
Kaski	Pritivichowk, Pokhara	150
Kaski	Pritivichowk, Pokhara	150
Total		**300**

ANNEX - 6
Participation in Post Test Counseling (2005)

Date	Counseling Center	Expected Client	Client Counseled		Client with HIV+	Client with HIV-
			N	%		
March 06 to April 05, 2005	Pokhara	300	34	11.3	5	29

ANNEX – 7
The Reasons for Not Injecting Drugs Yesterday

Injecting practice	First round (2003)		Second round (2005)	
	n=57	%	n= 155	%
Reasons for not injecting yesterday				
Lack of money	14	24.6	48	31.0
To quit slowly	12	21.0	60	38.7
Smoked ganja	7	12.3	0	0.0
Due to pulling brown sugar	6	10.5	0	0.0
Injected alternate day	5	8.8	0	0.0
Drank alcohol	5	8.8	0	0.0
Unavailability/Lack of drugs	2	3.5	43	27.7
Was in custody	2	3.5	0	0.0
Used Nitrosun orally	2	3.5	0	0.0
Due to illness	0	0.0	2	1.3
Taking other medicines	0	0.0	2	1.3
Busy in housework	0	0.0	2	1.3
Others	10	17.5	6	3.9

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

ANNEX 8
Part of the Body Where Injection is Taken

Typical injection Points	First round (2003)		Second round (2005)	
	N=300	%	N=300	%
In upper arm	161	53.7	70	23.3
In wrist	80	26.7	130	43.3
In forearm	25	8.3	47	15.7
In calf	12	4.0	3	1.0
In thigh	7	2.3	22	7.4
In the back of palm	7	2.3	12	4.0
In the back of knee	3	1.0	0	0.0
In armpit	0	0.0	4	1.3
In finger	0	0.0	6	2.0
Others	5	1.7	6	2.0

ANNEX – 9
Gathering Place of IDUs to Inject Drugs

SN	Gathering places of IDUs to inject drugs	First round (2003)		Second round (2005)	
		N=300	%	N=300	%
1.	Forest/Bushes	104	34.7	187	62.3
2.	Open Ground/Town planning area	54	18.0	0	0.0
3.	River bank/Slum area/Pond	47	15.7	26	8.7
4.	Own room/friends room	43	14.3	45	15.0
5.	Bus Park	18	6.0	9	3.0
6.	Around school/Campus/Stadium	6	2.0	7	2.3
7.	Camp/Company	4	1.3	0	0.0
8.	Cannel	4	1.3	0	0.0
9.	Pool House/Swimming pool	3	1.0	8	2.7
10.	Garage/Junk store	3	1.0	5	1.7
11.	Toilet/Public toilet	3	1.0	2	0.7
12.	Hotel/Lodge/Restaurant	2	0.7	8	2.7
13.	Temple Area	2	0.7	0	0.0
14.	Vacant house	2	0.7	0	0.0
15.	Shop	2	0.7	0	0.0
16.	Around airport	1	0.3	0	0.0
17.	Chowk/Tole/Galli	1	0.3	0	0.0
18.	Lonely place	1	0.3	0	0.0
19	Other	0	0.0	3	1.0

ANNEX – 10
Combination of Different Drugs Injected by IDUs

S.N.	Drugs combination	First round (2003)	Second round (2005)
		N	N
1.	Tidigesic + Phenarmine	85	1
2.	Tidigesic + Phenargan	77	0
3.	Tidigesic + Algic	75	6
4.	Tidigesic + Diazepam	46	5
5.	Codeine + Proxigin + Effidin	7	0
6.	Tidigesic + Calmpose	5	0
7	Tidigesic + Phensidyle	4	0
8.	Tidigesic + Avil	3	0
9.	Tidigesic + Saipam	2	1
10.	Tidigesic + Nitrosun	2	0
11.	Phenargan + Algic	2	0
12.	Tidigesic + Pheromine	1	0
13.	Tidigesic + Proxygin	1	0
14.	Tidigesic + Codeine	1	0
15.	Phenargan + Calmpose	1	0
16.	Phenarmine + Diazepam + Algic	1	0
17.	Phenargan + Phenarmine + Algic	1	0
18.	Phenargan + Saipam	1	0
19.	Phenargan + Diazepam + Phenarmine + Algic	1	0
20.	Phenarmine + Algic + Avil	1	0
21.	Phenargan + Diazepam	1	0
22.	Proxyvon + Corex	1	0
23.	Proxyvon + Becof	1	0
24.	Spasiminton + Effidin + Phoxico	1	0
25.	Norphin + Algic	0	37
26.	Norphin + Diazepam	0	29
27.	Norphin + Avil	0	16
28.	Norphin + Phenaromain	0	10
29.	Norphin + Diazepam + Algic	0	9
30.	Norphin + Avil + Diazepam	0	5
31.	Norphin + Phenaromain + Diazepam	0	5
32.	Norphin + Algic + Saipam	0	3
33.	Norphin + Saipam	0	3
34.	Norphin + Diazepam + Phenargan	0	3
35.	Norphin + Phenargan	0	3
36.	Norphin + Phenarmine + Algic	0	2
37.	Norphin + Diazepam + Angil	0	2
38.	Diazepam + Tidigesic + Phenargan	0	2
39.	Brown sugar + Vitamin C + Lemon	0	2
40.	Norphin + Diazepam + Tidigesic + Algic	0	2
41.	Norphin + Brown sugar	0	2
42.	Norphin + Diazepam + Algic + Saipam	0	2
43.	Diazepam + Algic	0	2
44.	Avil + Rodphil	0	1
45.	Norphin + Diazepam + Jitminormine	0	1
46.	Norphin + Avil + Phenargan	0	1
47.	Norphin + Diazepam + Calmpose	0	1
48.	Diazepam + Phenargan + Brown sugar	0	1
49.	Norphin + Avil + Diazepam + Spasmindan	0	1
50.	Tidigesic + Brown sugar	0	1
51.	Diazepam + Algic + Saipam	0	1
52.	Norphin + Calmpose	0	1
53.	Tidigesic + LGT	0	1
54.	Norphin + Tidigesic	0	1
55.	Norphin + Tidigesic + Algic	0	1
56.	Norphin + Diazepam + Saipam	0	1
57.	Brown sugar + Vitamin C	0	1
58.	Norphin + Phenarmine + Saipam	0	1
59.	Norphin + Avil + Algic	0	1
60.	Norphin + Diazepam + Phenarmine + Avilvate	0	1
61.	Phenarmine + Algic + Lubrigesic	0	1
62.	Algic + Brown sugar	0	1
63.	Phenargan + Diazepam + Algic	0	1
64.	Norphin +Algic + Calmpose	0	1
65.	Phenargan + Codeine	0	1
	Total	**206**	**174**

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

ANNEX – 11
Switched from one Drug to another and the Reasons for it

Drug switching behavior of IDUs	First round (2003)		Second round (2005)	
	N	%	N	%
Switched from one drugs to another drugs in past month				
Yes	1	0.3	5	1.7
No	299	99.7	295	98.3
Total	**300**	**100.0**	**300**	**100.0**
Switched from				
Tidigesic to Nitrosun, Ganga and Charas	1	100.0	0	0.0
Norphin to Alcohol	0	0.0	1	20.0
Norphin to Norphin + Nitrovate	0	0.0	1	20.0
Brown Sugar to Norphin	0	0.0	1	20.0
Brown Sugar to Tidigesic	0	0.0	1	20.0
Brown Sugar + Diaqepam to Norphin	0	0.0	1	20.0
Reasons for switching *				
To reduce Tidigesic/Leave slowly	1	100.0	0	0.0
Due to lack of money/expensive	0	0.0	3	60.0
Unavailability/scarcity of drugs	0	0.0	2	40.0
Total	**1**	*****	**5**	*****

ANNEX – 12
Cities/District and Countries Where Drugs were Injected by IDUs During Last 12 Months

City	Districts	Country	First round (2003)		Second round (2005)	
			n=130	%	n=156	%
Kathmandu	Kathmandu	Nepal	72	55.4	81	51.9
Birgunj	Parsa	Nepal	25	19.2	23	14.7
Sunauli	Rupandehi	Nepal	12	9.2	0	0.0
Narayangad	Chitawan	Nepal	6	4.6	10	6.4
Beni	Myagdi	Nepal	4	3.1	0	0.0
Bhairahawa	Rupandehi	Nepal	4	3.1	0	0.0
Syangja	Syangja	Nepal	3	2.3	2	1.3
Nepaljung	Banke	Nepal	3	2.3	0	0.0
Biratnagar	Morang	Nepal	2	1.5	0	0.0
Sunwal	Nawalparasi	Nepal	2	1.5	0	0.0
Butwal	Rupandehi	Nepal	2	1.5	8	5.1
Damauli	Tanahu	Nepal	2	1.5	0	0.0
Charaudi	Dhading	Nepal	2	1.5	0	0.0
Itahari	Sunsari	Nepal	1	0.8	0	0.0
Dharan	Sunsari	Nepal	1	0.8	1	0.6
Parsa Bazar	Chitawan	Nepal	1	0.8	0	0.0
Madhe	Chitawan	Nepal	1	0.8	0	0.0
Kirtiipur	Nawalparasi	Nepal	1	0.8	0	0.0
Lalitpur	Lalitpur	Nepal	1	0.8	1	0.6
Thimi	Bhaktapur	Nepal	1	0.8	0	0.0
Gorkha	Gorkha	Nepal	1	0.8	1	0.6
Danda Thok	Lamjung	Nepal	1	0.8	0	0.0
Arjun chaupari	Syangja	Nepal	1	0.8	0	0.0
Hile	Parbat	Nepal	1	0.8	0	0.0
Chittre	Parbat	Nepal	1	0.8	0	0.0
Dimuwa	Parbat	Nepal	1	0.8	0	0.0
Baglung	Baglung	Nepal	1	0.8	2	1.3
Bhairahawa	Kapilvastu	Nepal	1	0.8	1	0.6
Pipara	Kapilvastu	Nepal	1	0.8	0	0.0
Hile	Dhankuta	Nepal	1	0.8	0	0.0
Bandipur	Tanahu	Nepal	1	0.8	0	0.0
Chhirkeni	Tanahu	Nepal	1	0.8	0	0.0
Janakpur	Dhanusa	Nepal	1	0.8	0	0.0
Kakadbhitta	Jhapa	Nepal	0	0.0	1	0.6
Naubise	Dhading	Nepal	0	0.0	1	0.6
Hetauda	Makwanpur	Nepal	0	0.0	7	4.5
Gaur	Rautahat	Nepal	0	0.0	1	0.6
Piple	Chitwan	Nepal	0	0.0	1	0.6
Tandi	Chitwan	Nepal	0	0.0	3	1.9
Abu Khaireni	Tanahu	Nepal	0	0.0	1	0.6
Bichari Chautara	Syangja	Nepal	0	0.0	1	0.6
Tatopani (Bhurung)	Syangja	Nepal	0	0.0	1	0.6
Mukundapur	Nawalparasi	Nepal	0	0.0	1	0.6
Samera Marchawar	Rupandehi	Nepal	0	0.0	1	0.6
Krishna Nagar	Kapilvastu	Nepal	0	0.0	1	0.6
Raksaul	-	India	5	3.8	4	2.6
Nautanuwa	-	India	2	1.5	0	0.0
Delhi	-	India	2	1.5	0	0.0
Darjiling	-	India	2	1.5	2	1.3
Bombay	-	India	1	0.8	0	0.0
Madras	-	India	1	0.8	0	0.0
Deharadun	-	India	1	0.8	1	0.6
Gujarat	-	India	1	0.8	0	0.0
Bardapur	-	India	1	0.8	0	0.0
Sunauli Bazar	-	India	0	0.0	4	2.6
Silgudhi	-	India	0	0.0	1	0.6
Sikkim	-	India	0	0.0	1	0.6
Banaras	-	India	0	0.0	1	0.6
Baharain	-	India	0	0.0	1	0.6
Kotkelang Batuappa	-	Malaysia	1	0.8	0	0.0
Kamati Nagar	-	Malaysia	1	0.8	0	0.0
Kwalalampur	-	Malaysia	0	0.0	1	0.6
Manila	-	Philippines	1	0.8	0	0.0
Hongkong	-	China	2	1.5	0	0.0
Singapore	-	Singapore	1	0.8	0	0.0

Note: Because of multiple answer, percentage and number may add up to more than the actual figure.

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

Types of institutions \ Types of treatments	Residential rehabilitation		Out patient counseling		Forced to quit		Helped to quit		Without drug		With other drug		Detoxification with methadone		Total	
	First round	Second round	First round	Second round	First round	Second round	First round	Second round	First round	Second round	First round	Second round	First round	Second round	First round	Second round
	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Ashra/Youth Vision/Navajeevan	26.4	8.3	-	-	-	-	-	-	-	-	-	-	-	1.5	**26.4**	**9.8**
Naulo Ghumti	17.6	30.3	4.4	3.8	-	-	-	-	-	-	2.2	1.5	-	-	**24.2**	**35.6**
Richmond Fellowship Center	5.5	6.1	-	-	-	-	1.1	-	-	-	-	-	-	-	**6.6**	**6.1**
Freedom Center	3.3	0.8	-	-	-	-	-	-	-	-	-	-	-	-	**3.3**	**0.8**
Nawa Kiran	2.2	4.5	-	-	-	-	-	-	-	-	-	-	-	-	**2.2**	**4.5**
Seren Foundation	1.1	18.2	-	-	-	-	-	-	-	-	-	-	-	-	**1.1**	**18.2**
Lajau Detox Center	1.1	-	-	-	-	-	-	-	-		-	-	-		**1.1**	-
Jumai in Sikkim	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	**1.1**	-
Gandaki Hospital	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	**1.1**	-
Doctor	-	-	-	-	-	-	-	-	1.1	-	6.6	0.8	-	-	**7.7**	**0.8**
Dankan Hospital	-	-	-	-	-	-	-	-	-	-	1.1		-	-	**1.1**	-
Self Tried	-	-	-	-	-	-	9.9	7.6	4.4	3.0	3.3	3.0	-	-	**17.6**	**13.6**
Pharmacy	-	-	-	-	-	-	-	-	-	-	4.4	0.8	-	-	**4.4**	**0.8**
Manipal Medical College	-	-	-	-	-	-	-	-	-	-	1.1	0.8	-	-	**1.1**	**0.8**
Medicare Hospital	-	-	-	-	-	-	-		-		1.1	-	-	-	**1.1**	-
Relatives House	-	-	-	-	1.1	2.2	-	-	-		-	1.5	-	-	**1.1**	**3.8**
Teaching Hospital	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	**0.8**
Fishtail Hospital	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	**0.8**
Pratigya Drop Center	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.8**
Gateway Foundation	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.8**
Support and Care Center	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.5**
Sahara Treatment Center	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.8**
Kohinoor Rehabilitation	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.8**
Total	**57.2**	**72.7**	**5.5**	**3.8**	**1.1**	**2.3**	**11.0**	**7.6**	**5.5**	**3.0**	**20.9**	**9.8**	**0.0**	**1.5**	**100.0**	**100.0**

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

ANNEX - 14
Relation between Sexual Behavior and HIV

Sex with different partners in the past 12 months	First round (2003)				Second round (2005)			
	Total	HIV+	%	P value	Total	HIV+	%	P value
With regular partner								
Yes	86	26	30.2	> 0.05	89	27	30.3	> 0.05
No	184	34	18.5		199	34	17.1	
Never had sexual experience	30	6	20.0		12	4	33.3	
With Non-regular partners								
Yes	77	10	13.0	> 0.05	96	18	18.8	>0.05
No	193	50	25.9		192	43	22.4	
Never had sexual experience	30	6	20.0		12	4	33.3	
With sex worker								
Yes	89	13	14.6	> 0.05	121	18	14.9	< 0.05
No	181	47	26.0		167	43	25.7	
Never had sexual experience	30	6	20.0		12	4	33.3	
Number of Partners in the past 12 months Number of Regular partner in the past 12 months								
0 Partner	214	40	18.7	> 0.05	211	38	18.0	< 0.01
1 partner	85	26	30.6		89	27	30.3	
2 partners	1	0	0.0		0	0	0.0	
Number of non-regular partner in the past 12 months								
0 Partner	223	56	25.1	> 0.05	204	47	23.0	> 0.05
1 partner	36	5	13.9		51	7	13.7	
2 or more partners	41	5	12.2		45	11	24.4	
Number of sex workers in the past 12 months								
0 Partners	211	53	25.1	> 0.05	179	47	26.3	< 0.05
1 sex worker	28	4	14.3		22	5	22.7	
2 or more sex workers	61	9	14.7		99	13	13.1	
Total	**300**	**66**	**22.0**		**300**	**65**	**21.7**	

ANNEX - 15
Reasons of Not Using Condom in the Last Sex with Different Female Sex Partners

Reasons of not using condom	First round (2002)		Second round (2005)	
	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
Don't like them	12	19.4	11	19.6
Used other contraceptive	8	12.9	17	30.4
Didn't think it was necessary	43	69.4	26	46.4
Didn't think of it	0-	0.0	5	8.9
Willing to have baby	0	0.0	3	5.4
Others			6	10.7
Total	**62**	*	**56**	*
Reasons of not using condom with sex worker in the last sexual intercourse				
Not available	8	44.4	15	48.4
Partner objected	0	0.0	2	6.5
Don't like them	4	22.2	11	35.5
Didn't think it was necessary	3	16.7	4	12.9
Didn't think of it	2	11.1	9	29.0
Others	1	5.6	1	3.2
Total	**18**	*	**31**	*
Reasons of not using condom with non- regular partner in the last sexual intercourse				
Not available	13	31.7	10	23.3
Partner objected	1	2.4	10	23.3
Don't like them	6	14.6	12	27.9
Used other contraceptive	1	2.4	1	2.3
Didn't think it was necessary	15	36.6	19	44.2
Didn't think of it	5	12.2	9	20.9
Trust on partner	0	0.0	3	7.0
Sexual unsatisfaction	0	0.0	1	2.3
Others	1	2.4	0	0.0
Total	**41**	*	**43**	*

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