Behavioral and Seroprevalence Survey Among Injecting Drug Users in Pokhara Valley, Nepal 2003

Family Health International

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BEHAVIORAL AND SERO PREVALENCE SURVEY AMONG INJECTING DRUG USERs IN POKHARA VALLEY

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RESEARCH SUMMARY

HIV transmission among drug users is typically associated with those who share needles or syringes. Risky behavior has been defined here as needle sharing behaviors, unprotected sex with various partners and female sex workers. Injecting drug user function as a "bridging population" for HIV transmission between a core HIV risk group and the general population. The main objective of this study is "to estimate the prevalence of HIV among IDUs and assess their role in the transmission of HIV." The study was conducted in Pokhara Valley of Kaski districts. Three hundred IDUs were sampled from 20 randomly selected sites, through respondent driven sampling (RDS). Structured questionnaires were used to collect behavioral data and clinical blood tests were done to determine HIV infection. The clinical protocol used involved collecting blood from a subject's pricked finger, and then storing the collected blood in 3-4 capillary tubes until tests could be performed. In order to determine participants' HIV status, two rapid test 'Capillus' and 'Determine' were conducted. In case of tie a third test "Uni-Gold TM" was performed.

Demographic Characteristics

The median age of IDUs was 22 years, with 23 percent below the age of 20 years, suggesting injecting drug use gaining popularity among the younger generation. A significant proportions of IDUs are adolescents. A large percentage (66.7%) of respondents was unmarried. Almost one-third (33.3%) respondents were ever married. The median marriage age was 21 years and the majority of respondents (80%) were married between the ages of 15 and 24.

Almost three-quarter (73.3%) of IDUs were living without sexual partner or alone. Out of the 82 currently married IDUs participating in the study, 79 were living with their spouse. None of the currently married IDUs reported their wives having another male sexual partner.

Social Characteristics

The study shows that nearly three-quarter (72%) of IDUs had 6-10 years schooling and only 6.3 percent were illiterate. IDUs from different ethnic groups were represented in the sample. About 56 percent of IDUs were of Tamang/Lama/Magar/Gurung/Rai/Sherpa), followed by Chhetri (16.7%), occupational caste (11.3%), Newar (7%) and Brahmin (4.7%).

A large majority of participants were born in the Pokhara valley. Almost thirty-two percent of all participants had been living in the Pokhara valley for more than five years.

Alcohol and Oral Drugs Consumption among IDUs

About 84.3 percentage of IDUs in the sample have reported the consumption of alcohol. Two in five IDUs have reported daily consumption of alcohol. Similarly, 27.3 percent consume alcohol more than once a week during the past month. The average duration of oral drug use was 6.9 years. A majority of IDUs (55.3%) reported using drugs orally for over five years.

Drug Injecting Practice of IDUs

The duration of injecting drugs was lower than the use of oral drugs. For instance, the average duration of injecting drugs was 3.7 years among IDUs. While almost 22 percent of IDUs had injected drugs for more than five years, two third had injected drugs for 1-5 years and 12 percent had been injecting drugs for less than a year. Nearly two third (64%) of IDUs in the sample had first injected drugs when they were less than or equal to 20 years olds. Median age at first drug injection was 19 years.

Four in ten (39.3%) respondents reported that they inject drugs 2-3 times a day. About 20 percent respondents inject drugs once a day while only 5.3 percent inject once a week.

About 16 percent had injected three or more times in the previous day/last day while 56.7 percent injected only once in this period. Alternatively, 19 percent respondent had not injected drugs the day preceding the interview. The mean number of injections in the last 24 hours was two.

A majority of respondents (53.7%) take injections via the arm. However, around one-fourth of respondents (26.7%) inject drugs in their wrist. Similarly, almost eight percent of respondents were found to be injecting in left/right elbow.

Tidigesic was widely used by respondents (87.3%) in Pokhara. This was followed by a combination of various drugs, which appeared much higher (68.7%). Other drugs injected in the last week by a sizeable proportion of respondents include Phenargan, Brown sugar, Diazepam and Nitrosun.

Syringe Use and Sharing Behavior

Using a syringe that has been previously used by others greatly increases the risk of HIV/AIDS transmission. Around 76 percent of the respondents reported never use of another's previously used syringe in the last week. About one-fifth of participants had used such a syringe sometime in the past week. Similarly, one-fifth reported the use of a syringe kept in a public place and the same percentage of IDUs gave their used needle/syringe to some one in the last week.

Out of the total IDUs in the sample about two-thirds reported not sharing syringes with anyone in the past week. Of those who shared, it was mostly among friends (31%). Additionally, most of them shared between 2 partners.

Drug Sharing Behavior

Out of all respondents, nearly 97 percent had injected drugs within the past week. Of these respondents, 7.7 percent had injected with pre-filled syringes. Thirteen percent of IDUs used drugs from a syringe after someone had transferred drugs into it from his previously used syringe. Around, five percent IDUs shared materials such as bottles, spoons, cotton. Similarly, 71.7 percent of participants in the past week had drawn drug solution from a common container used by others.

Of the total 300 respondents, 43.3 percent were found mobile that means had either injected drugs in other parts of the country or in another country. Around sixteen percent of these

mobile groups had injected in different parts of India and abroad in Malaysia, Philippines and China.

Of the 130 IDUs who had either injected in other parts of the country or out of the country, 2.7 percent reported that they had used another's previously used syringe to inject drugs and 6.7 percent reported giving their used syringe to another.

Needle/Syringe Cleaning Practice

Furthermore, some other patterns of behavior among the IDUs that put them at greater risk for contracting HIV/AIDS also are observed. Improper cleaning of shared and reused needles/syringe presents a higher risk of HIV infection to IDUs. The proper method for cleaning a needle is to alternate between thorough rinses using distilled water and bleach, repeating the process several times. The study revealed that most of the IDUs clean their needles/syringes with saliva (30.8%) and distilled water (26.9%). About 14 percent IDUs clean used needles with plain water and 10 percent with bleach.

Accessibility of Syringe

Almost all the respondents were aware of sources for new syringes. About 97 percent cited drugstores as a source of new syringe. About eight in ten (81%) reported knowledge of the needle exchange program run by Naulo Ghumti. Other sources mentioned were friends (9%), hospitals (6%) and drug sellers (2%).

Treatment Practice

It was discouraging to note that majority of IDUs have not received treatment. It is even more discouraging to note that among those who had sought treatment less than one percent were currently under treatment. Thirty percent had undergone treatment previously. Out of the ever-treated population, 46.2 percent had received treatment within the past one-year.

More than 55 percent were treated in a residential rehabilitation center like, Naulo Ghumti, Ashara, Youth Vision, Navajeeban Kendra, Nawa Kiran, Freedom Center and Richmond Center. Around 18 percent reported they self tried to quit the drugs. Few respondents mentioned that they had received treatment from hospitals within the country and in India.

Sexual Behavior and Condom Use

HIV transmission among drug users is most often correlated with injecting or needle/syringe-sharing behavior. However, drug users' risky sexual behavior also contributes to the spread of HIV among both injecting and non-injecting sex partners.

Sexual Behavior of IDUs

Nine in ten (90%) IDUs have reported ever having sex with female sex partners. Of them 81.5 percent had gained first sexual experience at the age of less than 20 years. The median age of respondents at the first sexual intercourse was 17 years. Out of 270 respondents that reported having had sexual intercourse, 73 percent had sexual intercourse in the past 12 months. About half of the respondents who had sex in the last 12 months had two or more female sex partners.

Of the total 270 respondents who had sexual experience, 31.9 percent had sexual intercourse with a regular female sex partner in past 12 months. Regular female sex partner is defined as a spouse or female sexual partner living together with the respondent. Out of the 86 IDUs who had sex with regular female sex partners in the past 12 months, 16 (18.6%) had not had sex with them during the last month. Those who had sex with regular sex partners in the last month about two third (65.7%) have had sex for five or more times. Similarly, study shows that out of 77 respondents who had sex with non-regular female sex partners in the past 12 months, 53.2 percent had not had sex with them during the last month. And only about 22.2 percent IDUs who had sex with non-regular partners in the last month have had sex for five or more times in this period.

One-third respondents have reported having sex with female sex workers in the past 12 months. Of the 89 respondents who had sex with female sex workers in the past 12 months, 44.9 percent had sex with sex workers in the last month also. Out of the 40 respondents who had sex with female sex workers in the last month, about 22.5 percent have had sex with them for 5 or more times.

Knowledge and Use of Condom

All IDUs have heard of condoms. The use of a condom with a regular female sex partner was found to be low when compared to condom use with female sex workers and non-regular female sex partners. The use of condom reported by IDUs while having last sex with female sex workers was about 80 percent. While the use of condom with non-regular female sex partners was 46.8 percent. But, only 27.9 percent had used a condom with their regular female sex partner during the last sexual intercourse.

In order to protect oneself from sexually transmitted diseases, a condom must be used during all sex acts. In this context, consistent use of condoms with different female sexual partners during the year preceding the survey was assessed. The consistent condom use with regular and non-regular sex partners is low compared to consistent condom use with female sex workers. For instance, only 9.3 percent and 30 percent respondents reported consistent condom use when they had sex with regular and non-regular female sex partners respectively in the last 12 months. But the consistent use of condom with female sex workers during the same duration is about 60 percent.

A majority of the respondents who had sex with regular and non-regular female sex partners but did not use condom reported that they did not feel the necessity of using condoms while having sex with them. About thirteen percent of respondents having sex with a regular female sex partner reported the use of other means of contraception as the reason for not using condom. A majority of respondents who did not use condom while having sex with female sex workers cited that a condom was not available to them at the time of sexual intercourse.

Source of Condoms

Almost all IDUs had heard about condom. Overwhelming percentages of IDUs (95.3%) mentioned pharmacy as a source of condoms. Peer educator, followed by shop and hospitals were other major sources of condoms cited by the participants. Almost all of the respondents reported condoms as available within a 30 minutes walk from their place of residence.

Sources of Information about Condom

IDUs had heard about condoms from multiple sources of information. The most common sources of condom information were radio, television, hospitals, bill boards/signboards, pharmacy, newspapers/ posters and cinema halls.

As part of a strong effort to inform target groups about condoms, the National Health Education Information and Communication Center (NHEIC) has been launching radio and TV programs with technical assistance from various sources. The study gathered information on whether IDUs in the sample had heard specific condom messages broadcasted through radio and TV programs. The specific messages tested were *Condom Lagaaun AIDS Bhagaaun, Jhilke Dai Chha Chhaina Condom, Condom Bata Surakchhya Youn Swastha ko Rakchhya, Use condom for the protection from HIV/AIDS, Talks about HIV/AIDS from to-day, Gurujee Ra Antare and Dhale Dai.* Data shows that these programs have been largely successful in terms of disseminating messages about condoms, as a high percentage of IDUs had heard of specific messages. Among these messages, respondents' exposure to *Condom lagaaun AIDS bhagaaun* was highest (98.7%).

Knowledge of STIs

A great majority of respondents (94%) reported having heard about STIs. Those who demonstrated a general awareness about STIs were also aware of the symptoms of STIs. The most commonly cited STI symptoms among females included genital ulcers/ sore blisters, genital discharge, foul smelling discharge and itching around genital area. Similarly, major symptoms of STIs among males reported by male IDUs are genital ulcers/ sore blisters, genital discharge, burning pain during urination and itching around genital area. About two third and half of the respondents had no idea on the symptoms of STIs among females and males respectively. Study participants also mentioned that they have had STI symptoms in the past year. Around 5 percent IDUs reported a genital ulcer/sore blister, genital discharge within the past year. Similarly, among the respondents who had STI symptoms past year, around 27 percent had such problem at the time of survey also.

Out of the 300 respondents about 87 percent reported not having any STI symptoms. Those respondents who had ever experienced any symptom of STIs almost one third (35.9%) did not seek any treatment for such problems and more than half (56.4%) received treatment from private doctors. Percentage of respondents seeking treatment from hospitals and health posts was only about eight.

Knowledge of HIV/AIDS

Almost all IDUs had heard of HIV/AIDS. Six in 10 reported knowing a person who had died from HIV/AIDS. A majority (55.7%) of the respondents said that those who had died were their close friends and 37.1 percent reported knowing a non-relative who had died of AIDS.

Respondents were asked questions to understand their conceptions about HIV/AIDS prevention. About nine in ten respondents opined that a person could avoid HIV/AIDS through consistent use of condoms and about three-quarter (78.3%) of IDUs cited a monogamous sexual relationship as a means of protection. Similarly, 69.7 percent mentioned abstinence from sex as the way of protection from HIV/AIDS.

Almost 86 percent of IDUs were aware that sharing a meal with an HIV positive person does not transmit HIV/AIDS. Similarly, ninety-six percent knew a person could get HIV by using another's previously used needle. Among the 300 IDUs interviewed three-fourth believe that switching from injecting to non-injecting drugs could protect them against HIV/AIDS. However, 43.3 percent were found to believe HIV/AIDS could be transmitted from mosquito bite too.

A large majority (88.7%) of IDUs were aware that a pregnant women infected with HIV could transmit the virus to her unborn child. A relatively lower percentage of respondents, nearly 50 percent stated that a woman with HIV could transmit the virus to her newborn child through breast-feeding also. However, a majority of respondents (78.3%) did not know what steps a pregnant woman can take to reduce the risk of HIV/AIDS transmission to her unborn child.

Knowledge about HIV Testing Facilities

All study participants were enquired on the current availability of confidential HIV testing and whether they had ever been tested for HIV?. About 57 percent of respondents think that confidential HIV testing is possible. About twenty-seven percent had tested their blood for HIV either voluntarily or as prescribed by a health professional. Around 92 percent of the respondents who were tested for HIV received the results of their test. Of the total tested respondents about 47 percent were tested within the 12 months.

Source of Knowledge about HIV/AIDS

Radio, television, billboards/signboards, friends/relatives, pamphlets/posters, NGO workers and pamphlet/posters are reported as the source of knowledge of HIV/AIDS by more than 90 percent respondents. Similarly NGO workers (87.3%), newspapers/magazines (86.7%), cinema halls (73%) and health workers/volunteers (67.7%) also are commonly cited sources of HIV/AIDS knowledge.

In this survey, about two-third respondents reported that they were given materials regarding AIDS such as brochure/booklets/pamphlets, condoms, or and any specific information about AIDS during the last year. For instance, 66 percent had received information about condoms and nearly 64 percent received printed materials related to HIV/AIDS and about 80 percent respondents had received information on HIV/AIDS from various sources.

HIV Status

HIV status was derived from two rapid 'Capillus' and 'Determine' tests. In case of tie in the first two test results "Uni-Gold TM" test was performed as the confirmatory test. Out of the 300 blood samples of IDU participating in the study 66 (22%) were tested positive.

Relation between Socio-Demographic Characteristics, Injecting and Sexual behaviors of IDUs and HIV Infection

The incidence of HIV was found to be higher among the older IDUs. For instance about 27 percent of IDUs of age 20 years and above were positive where as HIV infection in the age group below 20 years was only 4.3 percent. HIV status also differs significantly ($p < .01$) by

marital status. Prevalence is higher among formerly married IDUs than those who were either never married or are currently married. Data shows that literacy had a negative relationship with HIV infection among IDUs. HIV prevalence was found 26.3 percent among illiterate males compared to 21.7 percent among literate IDUs ($p = 0.65$).

Data shows that those who have been injecting drugs for a long period have a greater chance of HIV infection. Among those males who have been injecting for more than five years, 49.2 percent were HIV +ve. HIV infection rates dropped to 17.1 percent as duration of injecting drugs dropped to 1 to 5 years from more than five years. None of the IDUs with less than one year of injecting duration were tested HIV positives.

Frequency of injection in the past week was also found to have a positive association with HIV infection ($p = 0.35$). Those who had injected more often within the past week had higher rates of HIV infection. Similarly, data indicates that sharing a common syringe puts IDUs at a higher risk of HIV. Those who had shared needles in the past week had a higher prevalence of HIV than those who did not share. Likewise, IDUs who had used a syringe kept in a public place in the past week exhibited more risk for HIV infection than those who avoid such syringes. For example, around 32.3 percent who reported using such syringes had contracted HIV while a lesser 20.9 percent who avoided such syringes had HIV ($p = 0.34$).

The relationship between sexual behavior of IDUs and the HIV infection does not seem to be as expected. For instance, IDUs having sex with female sex workers have low HIV infection compared to their counterparts. In general IDUs having sex with sex workers and other regular and non-regular sex partners seems to have lower risk of HIV. Similarly, higher the number of sex partners in the last 12 months lower seems to be HIV infection. As IDUs who are not involved in sex may inject frequently and share needles these results should be interpreted cautiously after doing multivariate analysis to remove the confounding effects of other variables.

Recommendations

Based on the finding of this study, a few specific recommendations have been made. First is that the study should be conducted at an interval of one or two years in order to monitor and evaluate the HIV prevalence and risk behaviors of IDUs. Secondly, harm reduction programs for IDUs should be continuously targeted for minimizing syringe sharing and reusing the previously used syringes among the IDUs. Third is that the consistent use of a condom reported by IDUs with sexual partner is low which might increase HIV infection among their sex partners. Therefore, IDUs should be encouraged for correct and consistent use of condom with female sex workers as well as with different sexual partners through education programs. Fourthly, treatment of self-reported STD problems is low among injecting drug users. One of the reasons cited for low treatment practice was the economic condition of IDUs. So provision should be made to make the treatments economically and physically more accessible to IDUs. Lastly, knowledge of proper cleaning of used needles is low among the IDUs. IDUs who are not able to quit the injecting behaviors must be taught the ways and procedures of needle/syringe cleaning. This would minimize the spread of infection among the injectors.

CHAPTER 1
INTRODUCTION

1.1 Background

As of November 2003, a cumulative total of 3244 HIV infections, including 704 cases of AIDS and 182 deaths from AIDS have been reported in Nepal (NCASC, 2003). Although NCASC data reflects only the reported cases and therefore do not show the complete picture, it is estimated that one third of all HIV infections are among IDUs. Sharing and re-use of needles left by others in the public places has been a critical factor in the spread of HIV in several developing countries. In response to growing HIV epidemics, many governments, including Nepal have begun to develop intervention policies and programs that target 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).

'Risky' sexual behavior associated with drug use also may be a major contributing factor to the spread of HIV among the non-injecting population. Drug users function as a "bridging population," that is, a bridge for HIV transmission between a core HIV risk group and 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).

A HIV and Behavioral Surveillance Survey among IDUs conducted in 2001 showed about 68 percent HIV prevalence among the male IDUs in Kathmandu. The high prevalence of HIV among IDUs in Kathmandu indicated that other towns and cities where large number of IDUs are active also may have HIV high infection and need to be surveyed to understand their behavior which is needed for the development of proper HIV/AIDS prevention and care programs for this group. BSS and HIV studies were also needed to analyze the trend of HIV among the target group over time.

1.2 Objectives of the Study

The objective of this study is to estimate the prevalence of HIV among IDUs in Pokhara Valley and assess their 'at risk' behavior. Survey will provide baseline data for measuring the effectiveness of intervention programs aimed at reducing 'at risk' behavior among the IDUs in Pokhara.

The specific objectives of this study are:

- To estimate the number of IDUs in Pokhara Valley
- To collect socio-demographic characteristics of IDUs
- To understand both needle sharing and condom use behavior among IDUs
- To ascertain the IDU community's level of consciousness regarding syringe exchange programs, outreach workers and voluntary HIV counseling and testing services available in the valley
- To assess HIV/AIDS awareness among IDUs and their risk perceptions
- To estimate the current level of HIV prevalence among IDUs

CHAPTER 2
METHODOLOGY

2.1 Study Design

The study was done in the Pokhara sub-metropolitan municipality among the IDUs. 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 had injected drugs within the last three months prior the date of interview.

Structured questionnaires were used to collect behavioral data relating to drug injections, syringe/needle sharing and sexual behavior among IDUs. Additionally, some demographic and social characteristics were collected. 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).

2.1.1 Estimation of Number of IDUs

Number of IDUs and the sites/locations they gather for injecting purposes in the study area was not known prior the study. So an extensive mapping exercise was done before actual HIV testing and BSS for identification of the sites/locations and estimating the number of IDUs in those locations. The mapping exercise was completed in about three-weeks time. For this exercise field researchers were divided into four teams, each team consisting of two core researchers and one ex/current IDU from the study area. Pokhara municipality and the neighboring areas were divided into four parts and one team of field researchers was assigned to each part.

Popular locations where IDUs gather for injection were identified with the help of NGO's working for IDUs and local key informants. These informants included local leaders, shopkeepers, tourist guides, social workers, police, priests, local restaurant owners, transport workers, local residents, medical shops, saloons, public toilet cleaners, street children, ex/current IDUs, and drug dealers. After possible IDU 'hang-out' sites were identified, field teams counted the number of injecting drug users whom they talked with, the number of injecting drug users they observed, and the number of drug users as reported by key informants. Researchers recorded typical timings of IDU gatherings at particular sites and visited all possible locations for verification. After the triangulation of information obtained from different key informants, the reported number of injecting drug users was listed for each site.

Based on the mapping exercise about 52 sites and of 585 male IDUs were identified in Pokhara Valley (Annex 2). This is a much smaller number than usually coated by local NGOs in the Pokhara Valley.

The research team could count only a total of 20 female IDUs in the Pokhara Valley and the team was able to contact only with two female IDUs. Key informants reported that female IDUs are small in number in Pokhara and most of them are from relatively economically better households of the community. They also indicated that most of them are hidden and inject in isolation.

2.1.2 Sample Size and Sampling Design

As the number of female IDUs was estimated to be fairly low this study was designed to interview only male IDUs. A sample of 300 male IDUs was estimated to measure about 12 percent to 16 percent increase in HIV among IDUs from the assumed rate of 20 percent in Pokhara (Annex 3).

Traditional probability sampling methods, such as simple random, cluster and stratified sampling used in household surveys, are unsuitable for reaching IDUs and other such hidden populations, as sampling frame are not available and response rates are usually low and lacking in candor (Spreen and Zwaagstra, 1994). Similarly, the street-based location sampling methods that have dominated much risk-reduction research (Semaan et al., 1998) such as targeted sampling (Watters and Biernacki, 1989) tend to exclusively 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, respondent driven sampling (RDS), a form of chain referral *network* sampling was used.

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

Out of the initially identified 52 sites in the study area, twenty sites were selected randomly (using systematic probability sampling). One 'seed' or initial respondent was chosen from each site. After interview and blood sample collection, each 'seed' was asked to recruit two drug-injecting friends. This group was considered the 'first wave'. Subsequently, each study participant in the first wave was then asked to recruit two more drug-injecting friends (second wave). Similarly, each study participant in the second wave was asked to bring two more drug-injecting friends (third wave). If an IDU could not bring two additional friends, other participating IDUs of the same wave were asked to bring more friends in order to compensate accordingly. In this manner, each 'seed' yielded a total of 15 respondents from the site (Annex 4). Researchers choose the 'seeds' in a way that would tap into networks of both old injectors (using more than five years) and new users (less than or equal to five years). Similarly, attempts were made to use both old and young injector 'seeds'. In each case, the 'seed' was given a card to give to the friends he recruited. Each card had a unique identification number, indicating the code for the site, the initial seed, and the wave. Only those respondents who came with a referral card were recruited for the study. Data shows that out of 18 wards of Pokhara sub-metropolitan municipality, study participants from 17 wards are represented in the sample.

In order to maintain the confidentiality of study participants their names and full addresses were not recorded. Instead, they were provided a unique ID number written in a plastic coated card. This card was used for the test result distribution purposes also. Only those participants who produced the card were provided the HIV test results. Each respondent was provided Rs. 200 (equivalent $ 2.5) to cover the local transportation costs needed for visiting the interview sites and bringing two friends recruited by them to the sites.

The fieldwork started on February 17, 2003 and completed on March 21, 2003.

2.1.3 Informed Consent

The research study was conducted in compliance with both ethical and human rights standards. These standards include participant anonymity as well as pre-and post-test counseling. As this study was done with the human subjects who are highly stigmatized and the injecting drugs is illegal in the country 'ethical" as well as "technical" approvals were taken from Family Health International's ethical body "Protection of Human Subject Committee (PHSC) and the Nepal Health Research Council (NHRC) prior the field work of the study. Prior the interview and blood sample collection, informed oral consent was obtained from all participants. The oral consent form used in the study is given in Annex 5. All possible precautions were taken in order to maintain confidentiality. Consequently, names and full addresses of the study participants were not taken.

2.1.4 Blood Sample Collection and HIV Testing

The blood sample for HIV test was obtained by finger pricks and was collected in capillary tubes. Two rapid tests namely, 'Capillus' and 'Determine' were conducted in order to determine HIV infection among study participants. In case of tie in the first two tests a third test "Uni-Gold TM" was performed. The tests were done by qualified laboratory technician form SACTS in the laboratory of INF at Pokhara. Collected blood samples were kept in the cold chain within one hour of collection and the tests were done on the same day of sample collection.

The Abbott Determine HIV-1/2 is an In Vitro, 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 from infected individuals.

The trinity Biotech Capillus HIV-1/HIV-2 is a 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 in low volume testing facilities, emergency situations, or in areas where sophisticated equipment is not available.

Quality of information provided by study participants and clinical specimen collection was monitored through 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.

Field workers involved in the mapping exercise underwent four days of training. After training, researchers were divided into four teams consisting of two field researchers and one ex/current IDU from the study area.

Before the data collection, an intensive seven-day training was provided to all study team members. This training allowed field teams to become familiar with research instruments, study methodology and information collection techniques. Two-day theory and practice on pre-test counseling was also provided to the trainees. Questionnaires were practiced using

both classroom-based role-play exercises and the field practices. The field researchers were divided into two teams. These teams consisted of one research assistant, four researchers and one lab technician.

Two centers were established nearby the selected sites for interviewing participants and collecting blood samples. These two centers covered 9 and 11 sites respectively (Annex 6). Individual interviews and blood collection activities were carried out in separate rooms after obtaining participant's informed oral consent. Before blood collection pre-test counseling was provided for all study participants. Blood samples were collected through finger pricks. The blood was then stored in 3-4 capillary tubes until tests were performed in the laboratory of INF Pokhara by the field lab technician of STD/AIDS Counseling and Training Service (SACTS). Ten percent blood samples were tested independently to conform the quality of the test.

In order to assure the quality of data collection, New ERA and FHI officials supervised fieldwork regularly. Field supervisors reviewed all the completed questionnaires on the day of data collection. Any inconsistencies in responses were clarified through discussions with the concerned interviewer later that day.

In order to avoid duplication/repetition in study participant recruitment a researcher was exchanged between the two centers after study activities were completed for one site. Moreover, some basic cross check questions also were asked to the recruited participants before the interview to conform that they are not repeatedly interviewed. Centers, sites and locations of interview are presented in Annex 6.

2.3 Post Test Counseling and Test Result Distribution

After the blood sample collection all study participants were informed about the time and place where they should contact for test results with the ID card issued to them at the time of interview. They were also pre-informed that test results will be provided with post-test counseling by a trained counselor.

Post-test counseling and individual report dissemination was completed between April 3-23, 2003. Out of 300 IDUs tested for HIV only 66 turned out for the test results (Annex 7). The test results were given to the participants only after producing ID cards in a private setting by trained counselors. They were advised on various aspects of STI and HIV and the measures to be taken by participants who had HIV+ or HIV- results. The participants were referred to INF Hospital, Naulo Ghumti and PALUWA for further services. Those participants who wanted to re-confirm their blood test results were allowed to do so free of cost at the Green Pasture Hospital in Pokhara and SACTS laboratory in Kathmandu.

2.4 Data Cleaning and Analysis

All the questionnaires were collected in the New ERA Kathmandu office after the completion of fieldwork. Questionnaires were thoroughly checked for any inconsistencies before the data was entered into the computer using Fox Pro software. Later data file was transferred into SPSS files for further analysis.

Simple statistical tools, such as frequency distribution, percentages, range, proportion, mean and median were used to analyze the result of the survey. Chi-square values also are

calculated for the cross tables to measure the statistical significance of the relationship between two variables presented in the table. Odd ratios are calculated to analyze 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 their background characteristics and injecting and sexual behaviors.

CHAPTER 3
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

This chapter discusses the demographic and social characteristics of 300 male IDUs recruited in the sample from the Pokhara Valley.

3.1 Demographic Characteristics

Demographic characteristics of the IDUs are presented in Table 3.1. The median age of IDUs was 22 years. Injecting drug use seems to be common among younger generation also. About 23 percent of IDUs are below the age of 20. More than two third IDUs are adolescents and youths (below the age of 25 years).

A large percentage (66.7%) of respondents were never married. One in three (33.3%) IDUs were ever married. Of them six percent were found divorced/separated. Median age at marriage is 21 years and the majority of respondents (80%) were married by the age of 15 to 24.

Almost three-quarter (73.3%) IDUs were living without sexual partner or alone. Among the 100 ever-married IDUs, 79 were living with their spouse. None of the currently married IDUs reported having another sexual partner of their spouse (Table 3.1).

3.2 Social Characteristics

Nearly three-quarter (72%) of IDUs had 6-10 years schooling and only 6.3 percent were illiterate. Similarly 3.7 percent IDUs had attained SLC or above education.

IDUs from different ethnic groups had participated in the sample. About 56 percent IDUs were from Mongolian tribe (Tamang/ Lama/Magar/Sherpa), followed by Chhetri (16.7%), occupational caste (11.3%), Newar (7%) and Brahmin (4.7%).

A large majority (62.3%) of participants were born in the Pokhara valley. Among the migrant IDUs (IDUs whose birth place was not in the Pokhara valley) majority (97 out of 113) were living within the valley for more than five years (Table 3.2).

Table 3.0: Demographic Characteristics of the Sample Population

Characteristics	No. of IDUs	
	n	%
Age		
14-19	69	23.0
20-24	137	45.7
25-29	47	15.7
30-34	31	10.3
35-39	16	5.3
Median age	**22**	
Marital Status		
Married	82	27.3
Divorced/Separated	18	6.0
Never married	200	66.7
Total	**300**	**100.0**
Age at First Marriage		
10-14	1	1.0
15-19	29	29.0
20-24	51	51.0
25-29	16	16.0
30-34	3	3.0

Table 3. 0: Social Characteristics of the Sample Population

Characteristics	No. of IDUs	
	n=300	%
Education		
Illiterate	19	6.3
Literate only	3	1.0
Grade 1-5	51	17.0
Grade 6-10	216	72.0
SLC and above	11	3.7
Ethnicity		
Brahmin	14	4.7

CHAPTER 4
DRUG USE, NEEDLE SHARING AND TREATMENT

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

4.1 Alcohol Consumption among IDUs

The use of alcohol is common among IDUs in Pokhara Valley. Percentage of IDUs reporting never use of alcohol is only about 16 percent. In the sample of 300 IDUs about 42 percent reported daily consumption of alcohol and about 27 percent reported more than once a week in the past month. Similarly, about 15 percent of IDUs reported that they consumed alcohol less than once a week during the past month.

Table 4. 1: Consumption of Alcohol and Oral Drug use among IDUs

Alcohol and oral drug use acts	No. of IDUs	
	n=300	%
Alcohol Used during the past month		
Every day	127	42.3
More than once a week	82	27.3
Less than once a week	44	14.7
Never	47	15.7
Duration of Oral Drug Use		
Up to 12 months	5	1.7
13 – 60 months	129	43.0
More than 60 months	166	55.3
Average duration in years	**6.9**	

IDUs were asked about the duration of oral drug use. A higher percentage of IDUs had been using oral drugs for quite a long time. The average duration for oral drug use was 6.9 years. A majority of IDUs (55.3%) had been using drugs orally for over sixty months and 43.0 percent of IDUs were using drug orally since last 13-60 months (Table 4.1).

4.2 Drug Injecting Practice of IDUs

The duration of injecting drugs was lower than the use of oral drugs. For instance, the average duration of injecting drug use was 3.7 years among IDUs. Almost 22 percent of IDUs were injecting drugs for more than sixty months. Data indicates that 59.7 percent of the IDUs had been using injecting drugs for a period ranging 13-60 months and that 18.7 percent had been using injecting drugs since 12 months. Nearly two third (64%) of the sampled IDUs had injected drugs when they were less than or equal to 20 years of age. Median age of the IDUs at the first drug injection was 19 years.

Table 4. 2: Drug Injecting Practice of Respondents

Drug Injecting practice	No. of IDUs	
	n=300	%
Duration of Drug Injection habit		
Up to 12 months	56	18.7
13 – 60 months	199	59.7
More than 60 months	65	21.7
Average duration years	**3.7**	
Age at first Drug Injection		
Up to 20 years	192	64.0
21 + years	108	36.0
Median age	**19**	
Frequency of Drug Injections within the Past Week		
Not injected	8	2.7
Once a week	16	5.3
2-3 times a week	43	14.3
4-6 times a week	42	14.0
Once a day	59	19.7
2-3 times a day	118	39.3
4 or more times a day	14	4.7
Frequency of Drug Injections Yesterday/last day		
1 time	170	56.7
2 times	81	27.0
3 or more times	49	16.3
Mean	**2**	

A large percentage of respondents (39.3%) reported that they inject drugs 2-3 times a day. Similarly, about 20 percent inject once in a day and about 5.3 percent inject once a week.

However, about 5 percent reported injecting drugs four times or more in a day.

The frequency of drug injection was also enquired for the day preceding the interview and or last day. About 16 percent had injected three or more times the previous day and or last day while 56.7 percent had injected drug only once. The mean number of drug injected in the yesterday/last day was two (Table 4.2). Alternatively, 57 (19%) respondents had not injected drugs the day preceding the interview. For about a quarter of the respondents the main reason for not injecting was the lack of money. Other reasons cited are desire to slowly quit drug-injecting habits, more ganja smoked, due to brown sugar pull and unavailability of drugs (Annex 8).

The arms were reported (53.7%) as the most common part of the body used for injecting drugs by IDUs. However, around one-fourth of respondents (26.7%) inject drugs in their wrist also. Similarly, almost eight percent of respondents were found to be injecting in elbows (Table 4.3).

Table 4. 3: Part of the Body Where Injection is Taken

Typical Injection Points	No.of IDUs n=300	%
In left/right arms	161	53.7
In left/right wrist	80	26.7
In front of left/right elbow	25	8.3
In left/right muscles of leg	12	4.0
In the joint of leg and hip	7	2.3
In front of knee	3	1.0
In the back of palm of the hand	7	2.3
Others	5	1.7

The most common place for injecting drugs among respondents was either forest/bushes or open ground/town planning area. Other common places included river bank/slum area/pond, own rooms/friends room and bus park (Annex 9).

Table 4.4 provides information on types of drugs injected in the past week. Tidigesic was widely used by respondents (87.3%). This was followed by a combination of various drugs, which appeared much higher (68.7%). Most common drug used in the combination was tidigesic with other drugs like Phenarmine, Phenargan, Algic, Diazepham, etc. (For types of combination see Annex 10). Other drugs injected by a sizeable proportion of respondents within the last week included Phenargan, Brown sugar, Diazepam and Nitrosun.

Table 4. 4: Types of Drugs Injected by Respondents

Types of drugs	No. of IDUs n=300	%
Tidigesic	262	87.3
Phenergan	21	7.0
Brown Sugar	15	5.0
Diazepam	12	4.0
Nitrosun	3	1.0
Calmpose	2	0.7
Proxygin	1	0.3
Codeine	1	0.3
Valium 10	1	0.3
Combination	206	68.7
Others	2	0.7

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

All IDUs in the sample were asked about types of drugs used orally or inhaled. Around 78 percent IDUs reported using 'ganja' within the past week. Other drugs taken either orally or inhaled that constituted sizeable proportions of IDUs were Nitrosun, Chares, Brown Sugar and Nitrovate (Annex 11).

Information was also collected on drug-switching behavior among IDUs. Data shows that only 1 respondent had switched from one drug to another drug. To reduce tidigesic/leave drug slowly was the reason mentioned for switching drugs (Annex 12).

4.3 Syringe Use and Sharing Behavior

Respondents were asked several questions about their needle/syringe use and sharing behavior in the last three injection acts.

In response to the questions "last time you injected, how did you get that syringe/needles" almost 54 percent of respondents reported they used a purchased new syringe and around 32 percent reported that they injected with a new syringe provided by NGO staff/volunteers. The response in all three last injecting acts was similar. Similarly, 9 to 12 percent IDUs used their own previously used syringe and three percent received syringe from friends/relatives after their use in all the last three drug injecting acts (Table 4.5).

Table 4. 5: Behavior of Respondents Regarding Syringe Use and Sharing within the Last Three Injections

Needle/syringe use during recent drug injections	Drug injecting acts					
	Most Recent		Second Most Recent		Third Most Recent	
	N	%	N	%	N	%
Needle/syringe received from						
Used a purchased new needle/syringe	161	53.7	160	53.3	163	54.3
Used new needle/syringe given by NGO staff/volunteers	95	31.7	92	30.7	94	31.3
Used own previously used needle/syringe	28	9.3	36	12.0	28	9.3
Friend/relatives gave after his use	9	3.0	9	3.0	9	3.0
Used new needle/syringe given by friend	6	2.0	2	0.7	2	0.7
Used needle/syringe that had been kept	1		1		2	

In response to another question: "when 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?", about nine in ten IDUs reported that they did not share syringe/needle or injected alone. While remaining one in ten IDUs had shared same syringe with 2 or more people in all the last three drug injecting acts (Table 4.5).

Information on the needle/syringe-sharing behavior of respondents in the past week also was collected. Around 76 percent of IDUs reported having never used others previously used needle/syringe. One-fifth (21%) of IDUs had shared syringe sometimes in the past week. Similarly, one-fifth (20.3%) of participants were found to use syringes kept in a public place in the past week (Table 4.6).

About one-fifth (22%) of the IDUs had given syringes to someone after they injected while three-fourth respondents had 'never' gave a

Table 4. 6: Past Week's Syringe Use and Sharing Behavior

Needle/syringe use throughout the past week	No. of IDUs	
	n=300	%
Used a needle/syringe that had been used by another		
Every time	4	1.3
Almost every time	11	3.7
Some times	48	16.0
Never	229	76.3
Not injected last week	8	2.7
Used a needle/syringe that had been kept in Public place		
Every time	7	2.3
Almost every time	24	8.0
Some times	30	10.0
Never	231	77.0
Not injected last week	8	2.7
Gave a needle/syringe to some one	3	1.0
Every time	10	3.3

syringe to some one else after injection. Out of the total IDU population surveyed, about two-third (65.3%) reported not sharing syringes with anyone in the past week. Of those who shared, it was mostly among friends (31%). Additionally, most of the IDUs who shared, shared between 2 partners (Table 4.6).

4.4 Drug Sharing Behavior

This section describes the drug-sharing behavior of respondents. Out of all respondents, nearly 97 percent had used injection drugs during the past week prior the date of survey. Of the total respondents, 7.7 percent had injected with pre-filled syringes. Similarly, about 13 percent IDUs used drugs from a syringe after someone had transferred drugs into it from his previously used syringe. Materials such as bottles, spoons, cotton, etc. were shared by 5.3 percent of respondents. But almost three fourth (71.7 %) respondents had drawn drug solution from a common container used by others during the same time period (Table 4.7).

Table 4. 7: Past Week's Drugs Sharing Behavior

Drug sharing practice during past week	No. of IDUs	
	n=300	%
Injected with a pre-filled syringe		
Yes	23	7.7
No	269	89.7
No injection	8	2.7
Injected with a syringe after drugs were transferred into it from another's syringe		
Every time	1	0.3
Almost every time	2	0.7
Sometimes	35	11.7
Never	254	84.7
No injection	8	2.7
Shared a bottle, spoon, cooker, vial/ container, cotton/filter and rinse water		
Every time	1	0.3
Sometimes	15	5.0
Never	276	92.0
No injection	8	2.7
Drawn drug solution from a common container used by others		
Every time	55	18.3
Almost every time	89	29.7
Sometimes	71	23.7
Never	77	25.7

Information on the internal and external mobility and injecting practices of the respondents was also collected in this survey. Of the total 300 respondents, 43.3 percent were mobile and had injected drugs either in other parts of Nepal or in another countries. Among these 130 mobile IDUs 21 had injected in India, Malaysia, Philippines and China (Annex 13).

Of the 130 IDUs who had either injected in other parts of the country or out of the country, only 2.7 percent reported that they had injected with previously used syringes and about 6.7 percent had given their used syringes to others (Table 4.8).

Table 4. 8: Injecting Behavior of IDUs in Other Parts of Country and Out of Country

Injecting practice in other parts of the country and out of the country	No. of IDUs	
	n=300	%
Used a needle/syringe that had been used by another		
Every time	2	0.7
Almost every time	2	0.7
Sometimes	4	1.3
Never	122	40.7
No injection	170	56.7
Gave a needle/syringe to someone else after use		
Every time	2	0.7
Almost every time	2	2.7
Sometimes	10	3.3
Never	116	38.7
No injection last week	170	56.7

4.5 Needle/Syringe Cleaning Practice

Improper cleaning of shared and reused needles/syringe increases the risk of HIV infection among IDUs. The prescribed method for cleaning used needles/syringes is: first wash five times by clean water, then wash five times by bleach and finally wash it five times by clean water. But the IDUs in Pokhara do not clean the used needles as prescribed. Most of the IDUs reported cleaning used needles/ syringes with saliva (30.8%) and distilled water (26.9%). Similarly, about 14 percent and 10 percent IDUs reported of cleaning needles by plain water and bleach respectively (Table 4.9).

Table 4. 9: Needle/Syringe Cleaning Practice of Respondents

Needle/syringe cleaning behavior	No. of IDUs	
	n	%
Re-used needle/syringe in the past week		
Yes	156	52.0
No		
Total		
Ways of cleaning needle/syringe		
Paper	13	
Medicine (Tidigesic, Phenarmine, Algic, Phenargan)	12	
Boil in the water		
Urine		
Total		

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

4.6 Knowledge of and Access to New Needle/Syringe

All respondents reported that they could obtain new syringes when they need it. Moreover, almost all respondents were aware of sources for obtaining new needles/syringes. About 97 percent cited drugstores as a source of new syringe. About eight in ten (81%) know about the needle exchange programs (like program run by Naulo Ghumti). Other sources of new syringes mentioned by IDUs were friends (9%), hospitals (6%) and drug sellers (2%) (Table 4.10).

Table 4. 10: Knowledge of Sources of New Syringe

Descriptions	No. of IDUs	
	n=300	%
Could obtain new syringe from		
Drugstore	290	96.7
Needle exchange program (Naulo Ghumti)	243	81.0
Hospital	27	9.0
Friends	18	6.0
Drug seller	6	2.0
Other shop	6	2.0
Others	5	1.7

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

4.7 Treatment Practice

Table 4.11 provides information on treatment sought by IDUs to break drug habits. Majority of respondents (69.7) had not received any treatment. Only one respondent was under treatment at the time of survey. Thirty percent had undergone for treatment previously. Out of the 91 ever-treated IDUs, 46.2 percent had received treatment within the last 12 months.

Table 4. 11: Treatment Received by Respondents

Treatment practice	No. of IDUs	
	n	%
Treatment Status		
Currently Receiving Treatment	1	0.3
Was in treatment but not now	90	30.0
Have not received treatment	209	69.7
Total	**300**	**100.0**
When Treatment Was Received?		
Less than 6 months	22	24.2
6-11 months before	20	22.0
12-23 months before	22	24.2
24-35 months before	13	14.3
36-47 months before	8	8.8
48 or more months before	6	6.6
Total	**91**	**100.0**

About fifty-seven percent IDUs who had ever received treatment were treated in residential rehabilitation centers like, Naulo Ghumti, Asara, Youth Vision, Navajeeban Kendra, Nawa Kiran, Freedom center and Richmond center in Pokhara. Around 18 percent IDUs had reported that they self tried to quit the drugs. Only few respondents mentioned that they had received treatment from hospitals in Nepal and India (Table 4.12).

Table 4. 12: Types of Treatment and Institutions from Where Treatment Received

Types of Treatments / Types of Institutions	Residential rehabilitation		Out patient counseling		Forced to quit		Helped to quit		Without drug		With other drug		Total	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Naulo Ghumti	16	17.6	4	4.4	-		-	-	-	-	2	2.2	22	24.2
Jamai in Sikkim	-	-	1	1.1	-	-	-	-	-	-	-	-	1	1.1
Gandaki Hospital	-	-	-	-	-	-	-	-	-	-	1	1.1	1	1.1
Doctor	-	-	-	-	-	-	-	-	1	1.1	6	6.6	7	7.7
Dankan Hospital	-	-	-	-	-	-	-	-	-	-	1	1.1	1	1.1
Self Tried	-	-	-	-	-	-	9	9.9	4	4.4	3	3.3	16	17.6
Pharmacy	-	-	-	-	-	-	-	-	-	-	4	4.4	4	4.4
Manipal Medical College	-	-	-	-	-	-	-	-	-	-	1	1.1	1	1.1
Medicare Hospital	-	-	-	-	-	-	-	-	-	-	1	1.1	1	1.1
Ashra/Youth Vision/Navajeevan	24	26.4	-	-	-	-	-	-	-	-	-	-	24	26.4
Nawa Kiran	2	2.2	-	-	-	-	-	-	-	-	-	-	2	2.2
Freedom Center	3	3.3	-	-	-	-	-	-	-	-	-	-	3	3.3
Richmond Fellowship Center	5	5.5	-	-	-	-	1	1.1	-	-	-	-	6	6.6
Seren Foundation	1	1.1	-	-	-	-	-	-	-	-	-	-	1	1.1
Lajau Detox Center	1	1.1	-	-	-	-	-	-	-	-	-	-	1	1.1
Relatives House	-	-	-		1	1.1	-	-	-		-	-	1	1.1
Total	**52**	**57.2**	**5**	**5.5**	**1**	**1.1**	**10**	**11.0**	**5**	**5.5**	**19**	**20.9**	**91**	**100.0**

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

CHAPTER 5
SEXUAL BEHAVIOR AND CONDOM USE

HIV transmission among injecting drug users is most often correlated to needle/syringe-sharing behaviors. However, drug users' unsafe sexual behaviors contribute to spread HIV among the non-injecting population like their spouses, girlfriends and other sex partners. In order to understand IDUs' sexual behavior, respondents were asked a number of questions related to their sexual history, number and type of sexual partners, and knowledge and use of condoms. This chapter discusses the main responses provided by study participants.

5.1 Sexual Behavior of IDUs

Nine in ten (90%) respondents reported ever having sex with female. Of the total respondents, 81.5 percent had gained sexual experience while they were in teen ages. The median age of respondents at first sexual encounter was 17 years. Data shows that median age at first sexual intercourse is lower than the median age at first injection (see Table 4.2). Out of 270 respondents that reported ever having sex, 73 percent had sex in the past 12 months also. Of those who had sex in the past year about half had two or more female sex partners (Table 5.1).

Table 5. 1: Sexual History

Sexual behavior	No. of IDUs	
	n	%
Had sexual intercourse	270	90.0
Never had sexual intercourse	30	10.0
Total	**300**	**100.0**
Age at first sexual intercourse		
Below 20 years	220	81.5
20 years of age and Above	50	18.5
Median Age	**17**	
Sexual intercourse in the past 12 months		
Yes	197	73.0
No	73	27.0
Total	270	**100.0**
Numbers of different female sexual partners in the past 12 months		
1 partner	99	50.2
2 or more partners	98	49.8
Total	**197**	**100.0**

Of the total 270 respondents who had sexual experience, 31.9 percent had sexual intercourse with a regular female sex partner in past 12 months. Regular female sex partner is defined as a spouse or any sexual partner living together with the respondent. Out of the 86 IDUs who had sex with regular female sex partners in the past 12 months, 16 (18.6%) had not had sex with them during the last month. Of the 70 IDUs who had sex in the last month with a regular female sex partner, about two third reported at least five sexual intercourse during that period (Table 5.2). Of the total 86 IDUs who had sex with regular female sex partners in the 12 months, only 3 (3.5%) ever had anal sex with them.

Table 5. 2: Sexual Intercourse with Regular Female Sex Partners

	270	**100.0**
Regular female sex partner		
1 partner	85	98.8
2 partners	1	1.2
Sex with a regular female sex partner during the last month		
Yes	70	81.4
No	16	18.6
Total	**86**	**100.0**
Frequency of sex with a regular female sex partner during the last month	24	34.3
1- 4	46	65.7
5+		
Total	**70**	**100.0**

IDUs who had sexual experience were asked whether they had ever had sex with non-regular female sex partners in the past year. 'Non-regular female sex partners' were defined as those to whom the participants were not

married to or living with. However, non-regular female sex partners were also defined as distinct and separate from female sex workers. Table 5.3 shows that slightly more than a quarter (28.5%) IDUs had sex with non-regular female sex partners. Of them, more than half respondents reported of having two or more non-regular female sex partners. Similarly, out of 77 respondents who had sex in the past 12 months, 46.8 percent had sex with non-regular female sex partners throughout the past month. Of those who had sex with non-regular female sex partners in the past month, 77.8 percent reported to have sex 1-4 times during that time.

Table 5. 3: Sexual Intercourse with Non-Regular Female Sex Partner

Sexual practice	No. of IDUs	
	n	%
Sex with non-regular female sex partner in the past 12 months		
Yes	77	28.5
No	193	71.5
Total	**270**	**100.0**
Non-Regular female sex partner		
1 partner	36	46.
2 or more partners		

Of the 77 responds who had sex with non-regular female sex partners, only 3 (3.9%) were found ever involved in anal sex with them.

IDUs were also asked about their sexual relationship with female sex workers during the past year. 'Female sex workers' are defined as those who sale sex in exchange for cash or kind or drugs. One third reported having sex with female sex workers in the past 12 months. Of the 89 respondents who had sex with female sex workers in the past year, 44.9 percent have reported such encounters during the last month as well. Out of the 40 respondents who had sex in the past one month, about 22.5 percent reported having sex 5 or more times (Table 5.4). Of the 89 respondents who had sex with female sex workers in the past year, 12 (13.5%) were ever involved in the anal sex with female sex worker. Moreover, of the total 300 respondents, 9 (3.0%)were found ever had involved in anal sex with male partners and only 11.1 percent of the 9 respondents were involve in such activities in the past 12 months.

Table 5. 4: Sexual Intercourse with Female Sex Worker

Sexual practice	No. of IDUs	
	N	%
Sex with female sex worker in the past 12 months		
Yes	89	33.0
No	181	67.0
Total	**270**	**100.0**
Number of female sex workers in the past 12 months		
1 partner	28	31.5
2 or more partners	61	68.5
Sex with female sex worker during		

Table 5. 5: Knowledge and Use of Condoms among IDUs

Knowledge and Use of Condom in the last sex	No. of IDUs	
	n	%
Ever heard of a condom		
Yes	300	100
No	0	.0
	0	0.0
Total	**300**	**100.0**
Condom use with regular female sex partner during last sexual intercourse		
Yes	24	27.9
No	62	72.1

5.2 Knowledge and Use of Condom

All respondents were asked whether they were aware of condoms, and whether they had used condom during the last sex. All IDUs have heard of condoms. The use of a condom with a regular female sex partner was found to be low when compared to condom use with female sex workers and non-regular female sex partners.

More than a quarter (27.9%) respondents had used a condom with their regular female sex partner during the last sex. The use of condoms with non-regular female sex partners was 46.8 percent. However, the use of condoms with female sex workers was about 80 percent during the last sexual encounter (Table 5.5).

In order to protect oneself from sexually transmitted diseases, a condom must be used during all sex acts. In this context, all IDUs were asked about the consistent use of condoms with different female sexual partners during the year preceding the survey. Only 9.3 percent respondents reported consistent condom use when they had sex with regular female sex partners, and about half (53.5%) had never used condoms with their regular female sex partner. Similarly, about thirty percent respondents also reported that they have been consistently using condom with non-regular female sex partners. About three in five respondents reported consistent use of condoms with female sex workers in the last 12 months. Thirty-nine percent IDUs never used a condom with sex workers during the last 12 months (Table 5.6).

Table 5. 6: Consistent Use of Condom with Different Sexual Partners in the Past 12 Months

Consistent use of condom	No. of IDUs n	%
Use of condom with regular female sex partners during past 12 months		
Every time	8	9.3
Almost every time	8	9.3
Sometimes	24	27.9
Never	46	53.5
Total	**86**	**100.0**
Use of condom with non-regular female sex partners during past 12 months		
Every time	23	29.9
Almost every time	15	19.5
Sometimes	9	11.7
Never	30	39.0
Total	**77**	**100.0**
Use of condom with female sex workers during past 12 months	53	59.6
Every time	22	24.7
Almost every time	6	6.7
Sometimes	8	9.0
Never		
Total	**89**	**100.0**

Respondents who had sex with different female partners but had not used a condom were asked about why they had chosen not to use one. A majority of the respondents who had sex with regular and non-regular female sex partners reported that they did not feel it was necessary to use. About thirteen percent of respondents having sex with a regular female sex partner reported the use of other means of contraception as the reason for not using condom. A majority (44.4%) of respondents who did not use condom with female sex workers cited that a condom was not available to them at the time of sexual intercourse.

5.3 Source of Condoms

Respondents who had heard about or used condoms were asked about the sources of condom. Overwhelming percentages of respondents (95.3%) mentioned pharmacies as a source of condoms. Peer educator, followed by shops and hospitals were other major sources of condoms cited by IDUs. Almost all the respondents reported condoms were available within a 30 minutes walk.

able 5. 7: Sources of Condom and Time Needed to btain It

Sources of Condom and Time to Obtain It	No. of ID n	%
Place/person from where e obtained		
		6.3
Naulo Ghumti	17	5.7
Health worker/Health Post	14	4.7
Family Planning Center	11	3.7
Friends	10	3.3
Sex worker	6	2.0
Ward Office	5	1.7
Bar/Guest house/hotel	4	1.3
Others	3	1.0
Don' t know	1	0.3
Total	**300**	**100.0**
Time taken to obtain condom		
Less than 30 minutes	294	98.3
More than 30 minutes	5	1.7
Total	**299**	**100.0**

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

5.4 Sources of Information about Condom

As discussed above all respondents had heard about condoms. Those who had heard were then asked about the sources of condom information. Respondents had heard about condom from multiple sources of information. The most common sources of information on condom reported were radio, television, bill boards/ signboards, pharmacy, newspapers/posters, hospitals, friends/neighbors, NGOs and cinema halls (Table 5.8).

As part of a strong effort to inform target group about condoms, the National Health Education Information and Communication Center (NHEIC) has been launching radio and TV programs with technical assistance from various sources. The survey asked respondents whether they had heard specific messages about condom and HIV/STI broadcasted through radio and TV programs. More than 90 percent respondents reported exposure to the specific programs such as*, Condom Lagaaun AIDS Bhagaaun, Jhilk Dai Chha Chhaina Condom, Condom Bata Surakchhya Youn Swastha ko Rakchhya, Use condom for the protection from HIV/AIDS and Talks about HIV/AIDS from to-day. Messages like Gurujee Ra Antare and Dhale Dai also were heard by about three quarter of the respondents.* Data indicates that these programs have been largely successful in terms of disseminating messages about condoms in protecting HIV/STI on the target groups.

Table 5. 8: Sources of Information about Condoms

Sources	No. of IDUs	
	n=300	%
Radio	296	98.7
Television	294	98.0
Bill board/sign board	292	97.3
Pharmacy	289	96.3
Newspapers/posters	287	95.7
Hospital	279	93.0
Friends/neighbors	278	92.7
NGO's peoples	262	87.3
Cinema hall	220	73.3
Health Post	205	68.3
Health workers/volunteers	184	61.3
Health Center	163	54.3
Community worker	104	34.7
Comic books	101	33.7
Street drama	85	28.3
Video van	75	25.0
Community event/training	41	13.7

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

Table 5. 9: Exposure to Specific Condom Messages in the Past Year

Specific messages	No. of IDUs	
	n=300	%
Condom Lagaaun AIDS Bhagaaun	296	98.7
Jhilke Dai Chha Chhaina Condom	289	96.3
Condom Bata Surakchhya Youn Swastha ko Rakchhya	287	95.7
UseCondom for the protection from HIV/AIDS	286	95.3
Talk about HIV/AIDS from today	280	93.3
Gurujee Ra Antare	231	77.0
Dhale Dai	230	76.7
Others	2	0.7

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

CHAPTER 6
KNOWLEDGE OF STIs AND HIV/AIDS

In this survey, a series of questions were asked pertaining to respondents' general level of consciousness about STIs and HIV/AIDS, their specific knowledge about how such diseases are contracted, and where testing facilities are available. The results are discussed below.

Table 6. 0: IDUs who have Heard about STIs

Heard of STIs	No. of IDUs	
	n=300	%
Yes	282	94.0
No	18	6.0

6.1 Knowledge of STIs

Out of the 300 respondents almost all (94%) have heard about STIs. Those who demonstrated a general awareness about STIs were also asked about the symptoms of STIs. The most commonly cited STI symptoms among females reported by male IDUs included genital ulcers/sore blisters, genital discharge, foul smelling discharge and itching around genital area. Similarly, major symptoms of STIs among males are genital ulcers/ sore blisters, genital discharge, burning pain during urination and itching around genital area. About two third and half of the respondents had no idea on the symptoms of STIs among females and males respectively (Table 6.2).

Table 6. 0: Symptoms of STIs Cited by Respondents who have Heard about STIs

Symptoms of STIs	Respondents who had heard of STIs n=282			
	Among Females	%	Among Males	%
Genital ulcer/sore blisters	72	25.5	116	41.1
Genital discharge	52	18.4	93	33.0
Foul smelling discharge	45	16.0	0	0.0
Itching	19	6.7	21	7.4
Burning/pain during urination	15	5.3	55	19.5
Abdominal pain	10	3.5	0	0.0
Swelling in groin area	7	2.5	10	3.5

Only about five percent respondents reported to have genital discharge in the past year and out of them about 27% had that symptom at the time of survey as well. More or less same percentages (5% and 29%) of respondents have reported the symptom of a genital ulcer/sore blister within the past year and at the time of survey (Table 6.3).

Table 6. 0: Genital Discharge and Genital Ulcers/Sore Blisters Experienced within the Past year and currently

STI symptoms	No. of IDUs	
	n	%
Had a genital discharge in the past year		
Yes	15	5.0
No	285	95.0
Total	**300**	**100.0**
Have such genital discharge currently		
Yes	4	26.7
No	11	73.3
Total	**15**	**100.0**
Had a genital ulcer/sore blister in the past year		
Yes	14	4.7
No	286	95.3
Total	**300**	**100.0**
Have such genital ulcer/sore blister currently		
Yes	4	28.6
No	10	71.4
Total	**14**	**100.0**

Out of the 300 respondents about 87 percent reported not having any STI symptoms. Those respondents who had ever experienced any symptom of STIs almost one third (35.9%) did not seek any treatment for such problems and

Table 6. 0: Treatment of STI Symptoms by IDUs

Treatment Received	No. of IDUs	
	n=300	%
Never had STI symptoms	261	87.0
Ever had some symptoms	39	13.0
Source of Treatment	**n=39**	**%**
Private Doctor	22	56.4
Hospital/Health Post	3	7.8
Did not Seek Treatment	14	35.9

more than half (56.4%) received treatment from private doctors. Percentage of respondents seeking treatment from hospitals and health posts was only about eight (Table 6.4).

6.2 Knowledge of HIV/AIDS

HIV/AIDS knowledge also is universal among the IDUs. Almost all respondents in the sample had heard of the infection/disease. Six in 10 respondents reported knowing a person who had died from HIV/AIDS. A majority (55.7%) of the respondents said that those who had died were their close friends and 37.1 percent reported knowing a non-relative who had died of AIDS (Table 6.5).

Table 6. 5: Awareness of HIV/AIDS among IDUs

Knowledge on HIV/AIDS	No. of IDUs	
	n	%
Heard about HIV/AIDS		
Yes	299	99.7
No	1	0.3
Know anyone who died due to AIDS		
Yes	194	64.7
No	97	32.3
Don't Know	9	3.0
Total	**300**	**100.0**
Nature of Relationship to the deceased		
Close friend	108	55.7
No relation	72	37.1
Close relative	14	7.2
Total	**194**	**100.0**

Respondents were asked several separate questions to understand their conceptions about HIV/AIDS prevention. About nine in ten respondents opined that a person could avoid HIV/AIDS through consistent use of condoms and about three quarter (78.3%) of IDUs cited a monogamous sexual relationship as a means of protection. Similarly, 69.7 percent mentioned abstinence from sex as the way of protection from HIV/AIDS (Table 6.6).

Table 6.6: Knowledge of Ways to Avoid HIV/AIDS

Methods of Protection Against HIV/AIDS	No. of IDUs	
	n=300	%
Can protect themselves through condom use every time during sex	271	90.3
Can protect themselves through monogamous sexual relations	235	78.3
Can protect themselves through abstinence from sexual contact	209	69.7

Almost 86 percent of respondents were aware that sharing a meal with an HIV positive person could not transmit HIV/AIDS. Similarly, ninety-six percent knew a person could get HIV by using another's previously used needle, three-fourth opine that switching from injecting to non-injecting drugs could protect them against HIV/AIDS. However, 43.3 percent respondents believe that HIV/AIDS could be transmitted from mosquito bite (Table 6.7).

A large majority (88.7%) of respondents were aware that a pregnant women infected with HIV could transmit the virus to her unborn child. A relatively lower percentage of respondents, nearly 50 percent stated that a woman with HIV could transmit the virus to her newborn child through breast-feeding. However, a majority of respondents did not know what actions a pregnant woman can take to reduce the risk of HIV/AIDS transmission to her unborn child (Table 6.7).

Table 6. 7: Respondents Knowledge on Ways of HIV/AIDS Transmission

Statements related to HIV/AIDS and pregnant women	No. of IDUs	
	n=300	%
Can not get HIV/AIDS by sharing meal with HIV+ person	257	85.7
Can get HIV/AIDS by sharing needles	288	96.0
Can protect themselves from HIV/AIDS by switching to non-injecting drugs	226	75.3
Can get HIV/AIDS from a mosquito bite	130	43.3
A pregnant women infected with HIV/AIDS can transmit the virus to her unborn child	266	88.7
A women with HIV/AIDS can transmit the virus to her child through breast-feeding	144	48.0
A pregnant women with HIV/AIDS can reduce risk of transmission to her unborn child by:		
Taking medicine	28	9.3
Others	2	0.7
No response	1	0.3
Don't know	235	78.3

6.3 Knowledge about HIV Testing Facilities

All study participants were asked whether or not confidential HIV testing facility is currently available, and whether they had ever been tested for HIV. Data presented in Table 6.8 indicates that only about half (57%) respondents were aware of confidential HIV testing. Twenty- two-percent respondents had tested their blood for HIV as a requirement, about five percent had tested voluntarily and remaining 73.3 percent had never tested. Almost all (92%) respondents tested for HIV had received the results of their test. Out of the total tested respondents 45 percent were tests within the past one-year.

Table 6. 8: Knowledge about HIV Testing Facilities and History of HIV Test

Description	No. of IDUs	
	n	%
Is it possible for someone to get a confidential HIV test?		
Yes	171	57.0
No	114	38.0
Don't know	15	5.0
Type of Test Taken		
Required HIV test	66	22.0
Voluntary HIV test	14	4.7
Not tested	220	73.3
Total	**300**	**100.0**
Test result received		
Yes	74	92.5
No	6	7.5
Timing of last HIV test		
Within the past year	36	45.0
1-2 years ago	20	25.0
2-4 years ago	18	22.5
More than 4 years ago	5	6.2
No response	1	1.2
Total	**80**	**100.0**

6.4 Source of Knowledge about HIV/AIDS

Radio, television, billboards/signboards, friends/ relatives, pamphlets/posters, an NGO worker and pamphlet/posters are reported as the sources of knowledge of HIV/AIDS by more than 90 percent respondents. Similarly, NGO workers (87.3%), newspapers/magazines (86.7%), cinema halls (73%) and health workers/volunteers (67.7%) also are commonly cited sources of HIV/AIDS knowledge. This finding has program implications (Table 6.9).

Table 6.9: Sources of Knowledge Regarding HIV/AIDS

Sources	No. of IDUs	
	n=300	%
Radio	298	99.3
Television	293	97.7
Bill board/sign board	291	97.0
Friends/Relatives	290	96.7
Pamphlets/Posters	273	91.0
NGO workers	262	87.3
Newspapers/Magazines	260	86.7
Cinema halls	219	73.0
Health workers/Volunteers	203	67.7
School/Teachers	149	49.3
Workplace	117	39.0
Community workers	110	36.7
Street drama	104	34.7
Comic books	103	34.3
Community events or training	32	10.7
Video van	80	26.7

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

In this survey, about two-third respondents reported that they were given materials regarding AIDS such as brochure/booklets/pamphlets, condoms, or and any specific information about AIDS during the last year. For instance, 66 percent had received information about condoms and nearly 64 percent received printed materials related to HIV/AIDS and about 80 percent respondents had received information on HIV/AIDS (Table 6.10).

Table 6. 10: Information/Materials Received During the Past Year

Informative Materials Received	No. of IDUs	
	n=300	%
Received information on Condom		
Yes	198	66.0
No	102	34.0
Brochure/booklets/pamphlets on HIV/AIDS		
Yes	191	63.7
No	109	36.3
Received Information on HIV/AIDS		
Yes	239	79.7
No	61	20.3
Others Information		
Yes	2	0.7
No	298	99.3

CHAPTER 7
PREVALENCE OF HIV

HIV infection status of the study participants was derived from two rapid tests 'Capillus' and 'Determine' of the blood samples collected from finger pricks. In case of tie in the first two test results " Uni- Gold TM" test was performed as the confirmatory test. Out of the 300 blood samples of IDU participating in the study 66 (22%) were tested positive.

7.1 Relation between Socio-Demographic Characteristics and HIV Infection

The incidence of HIV was found to be significantly higher (p <.01) among the older IDUs. For instance about 27 percent of IDUs of age 20 years and above were positive where as HIV infection in the age group below 20 years was only 4.3 percent. HIV status also differs significantly (p <.01) by marital statuses. Prevalence is higher among formerly and currently married IDUs than those who were never married. Literacy has no strong association with HIV infection. Although percentage of HIV +ves is slightly lower among literates such relation is not statistically significant (p = 0.65).

Table 7. 1: Relation between Socio-Demographic Characteristics and HIV Infection

Characteristics	No. of IDUs			
	Total	HIV+	%	P value
Age				
Below 20 years	69	3	4.3	<.01
20 years and Above	231	63	27.3	
Marital Status				
Currently married	82	27	32.9	
Formerly married	18	8	44.4	<.01
Never Married	200	31	15.5	
Literacy				
Illiterate	19	5	26.3	
Literate/formal school	281	61	21.7	0.65
Total	**300**	**66**	**22.0**	

7.2 Relation between Drug Injection Behavior and HIV

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

As revealed in Table 7.2, those who have been injecting drugs for a long period have a greater chance of HIV infection. Among those males who have

Table 7. 2: Relation between Drug Injecting Behavior and HIV Infection

Drug injecting behavior	No. of IDUs			
	Total	HIV+	%	P Value
Injecting Drugs Since				
Less than 1 year	36	0	0.0	
1-5 Years	199	34	17.1	<.01
More than 5 years	65	32	49.2	
Frequency of Injected Drugs in the Past week				
Not Injected	8	0	0.0	
1-3 times a week	59	14	23.7	
4 -6 times a week	42	8	19.0	0.25
Everyday	59	11	18.6	
2-3 times a day	118	27	22.9	
4 or more times a day	14	6	42.9	
Used another's previously used needle/syringe during the past week				
Not injected/Never	237	48	20.2	
Every time/Almost every time	15	4	26.7	0.35
Some time	48	14	29.2	
Used a needle/syringe kept in public place during the past week				
Not injected/Never	239	50	20.9	
Every time/ Almost every time	31	10	32.3	0.34
Some times	30	6	20.0	
Total	**300**	**66**	**22.0**	

been injecting for more than five years, 49.2 percent were HIV +ve. HIV infection rates dropped to 17.1 percent as duration of injecting drugs dropped to 1 to 5 years from more than five years. None of the IDUs with less than one year of injecting duration were tested to be HIV positive.

Frequency of injection in the past week was also found to have a positive association with HIV infection (p = 0.25). Those who had injected more often within the past week had higher rates of HIV infection. Similarly, data indicates that sharing a common syringe puts IDUs at a higher risk of HIV. Those who had shared needles in the past week had a higher prevalence of HIV than those who did not share. Likewise, IDUs who had used a syringe left in a public place in the past week exhibited more of a risk for HIV infection than those who avoid such syringes. For example, around 32.3 percent who reported using such syringes had contracted HIV while a lesser 20.9 percent who avoided such syringes had HIV.

7.3 Relation between Sexual Behavior and HIV

The relationship between sexual behavior of IDUs and the HIV infection does not seem to be as expected. For instance, IDUs having sex with female sex workers have low HIV infection compared to their counterparts. In general IDUs having sex with sex workers and other regular and non-regular sex partners seems to have lower risk of HIV. Similarly, higher the number of sex partners in the last 12 months lower seems to be HIV infection (Annex 14). As IDUs who are not involved in sex may inject and share needles frequently these results should be interpreted cautiously.

7.4 Odds Ratio of HIV Infection by Selected Characteristics of IDUs

Unadjusted or gross odds ratio of HIV risk by selected characteristics of IDUs was calculated. Table 7.3 shows that risk of HIV infection is about 8.3 times higher among older IDUs of age 20 years and above compared to IDUs less than 20 years of age. Although illiterate peoples have almost 30 percent higher risk of HIV, such association is statistically insignificant. The range of 95 percent confidence interval for estimated odds ratio is 0.39-4.03. Ever married IDUs are at a greater risk of HIV infection compared to those who are never married. For instance, the odds ratio is about 2.9 for ever-married IDUs compared to IDUs who have never married. This odds ratio is statistically significant. In this sample injecting behavior of IDUs does not have statistically significant association with HIV infection. An IDU who uses needle/syringe kept in

Table 7. 3: Odds Ratio of HIV Infection by Selected Characteristics of IDUs

Characteristics	Odd Ratio	# cases (n)	95% Confidence Interval
Age			
<20 years	-	69	
= >20 years	8.25	231	(2.39,34.12)
Education			
Illiterate	1.29	19	(0.39,4.03)
Literate	-	281	
Marital status			
Never Married	-	200	
Ever married	2.94	100	(1.61,5.35)
Injecting behavior			
Injected with another's previously used during past week			
Yes	1.58	63	(0.80,3.09)
No	-	237	
Injected with a syringe kept in public place			
Yes	1.34	61	(0.67,2.69)
No	-	239	
Injected with a pre-filled syringe			
Yes	-	23	
No	1.06	269	(0.35,3.40)
Injected in either another part of the country or another country			
Yes	1.93	130	(1.07,3.49)
No	-	170	

a public place is almost 1.3 times more likely to contract HIV compared to those who do not use such needle/syringe. But the estimated risk varies between 0.67 and 2.69 indicating that the relation is not statistically significant. However, the risk of HIV infection is significantly higher for those IDUs who had previously injected in either other parts of the country or other countries (Table 7.3). Those who had injected in other parts of the country or in other countries had about 2 times higher odds ratio of HIV infection compared to their counterparts.

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 collected from finger pricks and stored in capillary tubes were used for HIV test. Two rapid tests 'Capillus' and 'Determine' were conducted in order to test HIV. In case of tie in these tests 'Uni-gold' test was used as confirmatory test. Respondent Driven Sampling (RDS), a form of chain referral network sampling, was used to recruit study participants from 20 randomly selected sites. In total 300 IDUs were interviewed and tested for HIV.

Main Results

Socio-Demographics Characteristics

About one quarter (23%) IDUs in the sample were under the age of 20 years. . The median age of the respondents was 22 years. A majority of study participants (82.7%) had formal schooling. About two-third respondents were never married. Out of the total 300 respondents 82 were currently married and among them 79 were living with their spouse.

Injecting Practice

Out of 300 participants, two-third had been injecting drugs since last 2-5 years. Almost two-third began injecting before or at the age of 20. About 40 percent were using injected drugs 2-3 times a day. Eighty seven percent respondents reported the use of Tidigesic. About 21 percentages of IDUs reported using syringes previously used by others during the past week. The percentage of IDUs reporting the use of a syringe kept in a public place during the past week was also same (20.3%).

About 43 percentage of IDUs were found to be mobile and had injected drugs in either another part of the country or in another country. Knowledge of sources for new/unused needles is universal among the respondents. A great majority (81%) reported that they received new syringe from local needle exchange program.

Of the total 300 respondents, 30.3 percent had received some kind of treatment against drug taking habits in the past. About fifty-seven percent IDUs who received treatment had received from residential rehabilitation centers.

Use of Condom

In the sample of 300 IDUs, almost 90 percent ever had sex but all had heard about condom. Out of the 89 respondents who had engaged in sex with a female sex worker in the last 12 months, 59.6 percent reported consistent use of condom. But only 9.3 and 29.9 percent of IDUs reports consistent use of condom with regular and non-regular sex partners respectively.

Knowledge of HIV

Almost all respondents had heard about HIV/AIDS. Of the total sample population, 90.3 percent thought that using a condom in all sexual intercourse could protect HIV. Similarly, 96 percent of respondents knew that a person could get HIV through the use of another's previously used needle. About 75 percent respondents claimed that IDUs could protect themselves from HIV infection by switching to non-injecting drugs.

HIV Prevalence

In the total sample of 300 IDUs, 66 (22%) were found to be HIV positive. Aged (>= 20 years), married and IDUs who have injected in other places or other countries have significantly higher risk of HIV infection compared to their counterparts. Risk of HIV infection among needle sharing IDUs is higher compared to not sharing IDUs but the difference in risk is not statistically significant.

Recommendations

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

i. The study should be conducted at an interval of one or two years in order to monitor and evaluate the HIV prevalence and risk behaviors of IDUs.

ii. Practice of using syringe kept/left in public places and sharing syringe among injecting partners, increase the possibility of HIV infection in IDUs community. Thus, harm reduction programs for IDUs should be continuously targeted for minimizing syringe sharing and reusing the previously used syringes among the IDUs.

iii. Consistent use of a condom reported by IDUs with regular and non-regular sexual partner is low in comparison to use with sex worker. This practice might increase HIV infection among their other sex partners as they might bridge the infection. Therefore, IDUs should be encouraged for correct and consistent use of condom with female sex workers as well as with different sexual partners through education programs.

iv. Treatment of self-reported STD problems is low among injecting drug users. One of the reasons cited for low treatment practice was the economic condition of IDUs. So provision should be made to make the treatments economically and physically more accessible to IDUs.

v. Knowledge of proper cleaning of used needles is low among the IDUs. IDUs who are not able to quit the injecting behaviors must be taught the ways and procedures of needle/syringe cleaning. This would minimize the spread of infection among the injectors.

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ANNEXES

ANNEX - 1

Confidential

Behavioral and Sero Prevalence Survey
Among Injecting Drug Users (IDUs)
In Pokhara Valley

FHI/New ERA – 2002

(Male Questionnaire)

(The respondent must be a current injector, and have started injecting at least 3 months ago)

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. 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 any 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:_____

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?

1. Yes 2. No

003. Interview Location

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)***	
105	What is your caste? ***(Specify Ethnic Group/Caste)***	Ethnicity/Caste _____	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
106	What is your marital status?	Never married.....1 Married .....2 Divorced/Permanently separated.....3 Widow .....4 Other (Specify)_____.....96	109
107	How old were you when you first married?	Age .....☐☐ **(write the completed years)**	
108	Do you think your wife/female sexual partner has any other sexual partners?	Yes.....1 No .....2 Don't' know.....98 No response 99	109
108.1	If yes, what is the sex of the partner?	Male.....1 Female 2	
109	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	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.....☐☐	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
		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

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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	

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204.1.2	What is the reason for switching?	_____ _____	
205.	How many times would you say you injected drugs yesterday?	Times .....☐ Not injected 0	209 206
206.	Would you like to tell me why you did not injected yesterday?	_____ _____	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
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 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	Nos..... ☐☐	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
	the same needle?	Injected alone 96	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
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 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 .....0 Unknown person gave it to me.....1 I picked it up from a public place which was left there by others+ .....2 I picked it up from a public place which was left there by myself+ .....3 I used a new needle/syringe given by NGO staff/ volunteer.....4 I used a needle/syringe which I purchased.....5 Don't know.....98 No response 99	
304.1	That time If you were in a group, how many different people in the group do you think used the same needle?	Nos..... ☐☐ Injected alone 96	

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305.	Think about the times, you have injected drugs during the past one-week. How often was it with a needle or syringe that had previously been used by someone else?	Every times.....1 Almost every-times .....2 Sometimes .....3 Never used.....4 Not injected in the last week ....5 Don't know .....98 No response 99	314

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
305.1	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? ***(Public place means 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	

Q. N.	Questions and Filters	Coding Categories				Skip to Q.N.
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 gave 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	to Q.N.
	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 Not injected .....6 Others (Specify)_____ .....96 Don't know .....98 No response 99	313.1 314
	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	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
		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 _____	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
316.2	Think about the times you injected drugs in another city/district (including abroad) how often was it with a syringe/needle that had previously been used by someone else?	Every times.....1 Almost every-times .....2 Sometimes .....3 Never .....4 Don't know .....98 No response 99	
316.3	When you injected drugs in another city, how often did you gave a syringe/needle to some one else?	Every times.....1 Almost every-times .....2 Sometimes .....3 Never .....4 Don't know .....98 No response 99	
317.	Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?	Currently under treatment .....1 Was in treatment but not now .....2 Have never received treatment.....3 No response 99	 318 401
	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) _____		

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
	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 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	
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

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
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	

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 him 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	501.4 501.3 501.4
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	
501.5	Did your female regular partner also inject drugs?	Yes.....1 No.....2 Don't know .....98 No response 99	
	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	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
		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:	Nos. .....☐☐ Don't know .....98 No response 99	
502.1.1	Number of female sex workers, to whom you sold sex in exchange for money or drugs.	Nos. .....☐☐ Don't know .....98 No response 99	
502.1.2	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 him in the past one-month?	Times.....☐☐ Don't know .....98 No response 99	
	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	502.5 502.4 502.5
502.4	Why did not you and your partner use a condom that time? ***(Do not read the possible answers, multiple answer possible)***	Not available.....1 Too expensive.....2 Partner objected.....3 Don't like them .....4 Used other contraceptive .....5 Didn't think it was necessary .....6 Didn't think of it .....7 Other (Specify) _____ .....96 Don't know .....98 No response 99	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
502.5	How often have you used a condom with female sex workers in the past year?	Every times.....1 Almost every-times .....2 Sometimes .....3 Never used.....4 Don't know .....98 No response 99	
502.6	Do you know whether 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 him 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	503.4 503.3 503.4

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

6.0 USE 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 male condom?	Yes.....1 Don't know .....98 No response 99	701
604.	From which place or people, you can obtain male 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 male condom?	Less than 30 minutes .....1 More than 30 minutes.....2 Don't know .....98 No response 99	

7.0 STDs

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 STDs in women?	Abdominal pain .....1 Genital discharge.....2 Foul smelling.....3	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
	(Do not read possible answers, multiple answers possible.)	Burning pain on urination.....4 Genital ulcers/sore.....5 Swelling in groin area.....6 Itching.....7 Other (Specify) _____.....96 Don't know .....98 No response 99	
703.	Can you describe any symptoms of STDs 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 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	
802.	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
	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	
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	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
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	
	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	
815	I don't want to know the result, but have you ever had an HIV test?	Yes.....1 No.....2 No response.....99	901
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 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 AIDS

(To be asked to those who have answered yes to Q. 801)

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 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 AIDS	1	2	
	3. Information about 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/Neighbours	1	2	
	9. NGOS	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
	17. Community Workers	1	2	
	96. Others (Specify) _____	1	2	
1002.	Have you ever seen, heard or read following messages/characters during past one year? ***(Multiple answer possible)***			
		Yes	**No**	
	1. Dhaale Dai	1	2	
	2. Guruji and Antare	1	2	
	3. Condom Lagaoun AIDS Bhagaun	1	2	
	4. Condom Bata Surakchhya Youn Swasthya KO Rakchhya	1	2	
	5. Jhilke Dai Chha Chhaina condom	1	2	
	6. Use condom for the protection from HIV/AIDS and STI	1	2	
	7. Talk about HIV/AIDS from today	1	2	
	96. Others (Specify) _____	1	2	

→
→

1003.	Have you ever herd/seen or read messages or materials other than mentioned above?	Yes.....1 No.....2	1003.1 1004
1003.1	What?	_____ _____	

Q. N.	Questions and Filters	Coding Categories	Skip to Q.N.
1004.	Generally, where do you gather to inject drug?	_____ _____	

ANNEX - 2
Description of Samples

Description	Pokhara Valley	Remarks
Estimated Sites	52	
Estimated Numbers of Males IDUs	585	
Selected Sites	20	
Interviewed IDUs	300	
Refusals	32	Refused at the time of approach by research team and referral client

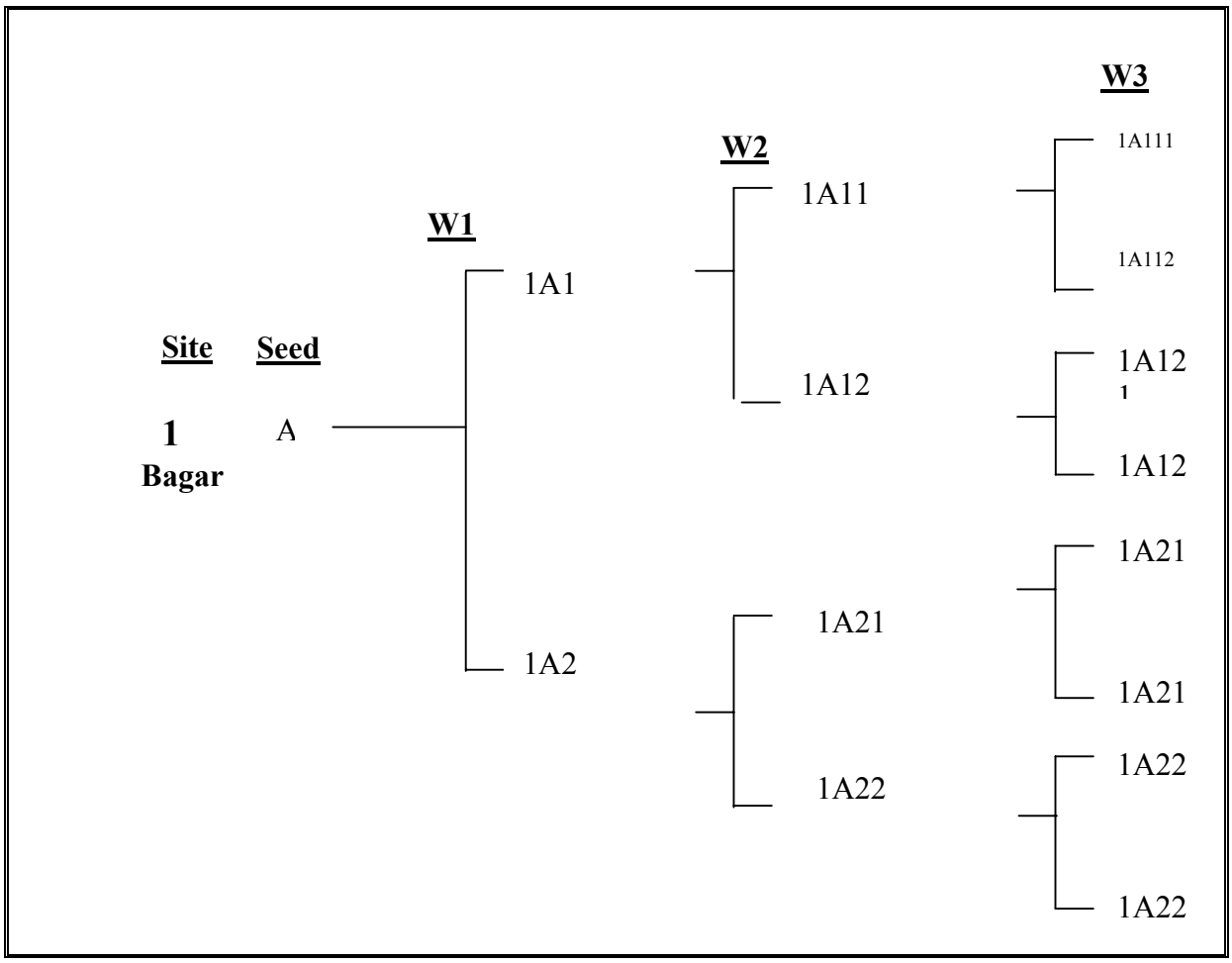
ANNEX - 3

Basic formula used in sample design

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

n= required minimum sample size per survey round or comparison groups
D = design effect (assumed in the following equations to be the default value of 2
P_1 = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area
P_2 = the expected level of the indicator either at some future date or for the project area such that the quantity (P_2-P_1) is the size of the magnitude of change it is desired to be able to detect
Z_α = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P_2-P_1) would not have occurred by chance (α – the level of statistical significance), and
Z_β = the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P_1-P_2) if one actually occurred (β – statistical power).

ANNEX - 4
Respondent Driven Sampling Method Chart



ANNEX – 5
FAMILY HEALTH INTERNATIONAL (FHI), NEPAL
Oral Informed Consent

Name of Research Study:	**HIV Prevalence and Risk Behavior Among Injecting Drug Users (IDUs) in Pokhara Valley: A Cross Sectional Survey**
Co-Principal Investigators:	Siddhartha Man Tuladhar, New ERA Stephen Mills, Family Health International Laxmi Bilas Acharya, Family Health International Jim Ross, Family Health International

Introduction

This Consent Form provides you the information on the above-mentioned research. In order to ensure that you are informed about the study and your participation in the study, you will be asked to read it or it will be read for you. You will be asked to show your agreement on whether you are willing to participate in the study or not by saying it loudly in presence of other two witnesses. The whole research work has been designed as per the norms set by Family Health International (FHI) and Nepal Health Research Council (NHRC). The ethics review committee(s) of Family Health International and the Nepal Health Research Council have approved this research. We will provide you a copy of this, if you want. This consent form might contain some words that are unfamiliar to you. Please do not hesitate to ask us if you do not understand or you have any query.

Rational for the Research

You are being asked to participate in the research, which aims to find out the rate of HIV, the virus that causes AIDS and the risk behaviors among the people who inject drugs in Pokhara. The Ministry of Health and local groups will use the findings of this research in planning and formulating strategies to prevent such infections.

General Information on Research Methodology

If you agree to participate in this research we would like to convince you that your name will not be taken in any parts of the research. We will ask you some questions and take a few drops of blood sample from your fingertips. You will be provided with the necessary treatment if you have some skin problems caused by injecting drugs, if you want.

Your Role in the Research

Your participation in the research will take about one hour. About 300 male injecting drug users of Pokhara will participate in the research.

You will be asked some questions regarding your age and education if you agree to participate in the research. We will ask you some questions about the history of your sexual behavior and symptoms of sexually transmitted diseases and provide you counseling on HIV that causes AIDS and other sexually transmitted diseases as well. We will explain you what the laboratory (Lab.) test is and what treatment and care is available to you. We will then take a blood sample from your finger by using a small finger stick.

Your name will neither be recorded on blood sample nor in the questionnaire. Both the questionnaire and the blood sample will be labeled with a code number. All the collected blood samples will be tested in a laboratory for HIV that causes AIDS. We can provide you HIV test results (reports) after a

month. The research team will inform you about the right place for you to collect your report. You will be given a code number and you will have to show it to us to get the report. Otherwise we will not be able to provide you the report.

Possible Risk and Benefits

You may feel uncomfortable while taking blood from your fingertips but it neither does any harm to you nor it is risky for you. Since your name has not been recorded anywhere, no one will be able to know that this laboratory test report belongs to you. Some of the questions we ask might put you in trouble or make you feel uncomfortable to answer them. You are free not to answer such questions and also to withdraw yourself from participating the research process at any time you like to do so. You might feel some mental stress after getting your report. If you come for the report, you will also get counseling on HIV.

To talk about the benefits of this research, you will be provided with free treatment, if you are having some kind of wounds on your skin while injecting drugs. You will be given lab test result of HIV and made aware of how HIV is transmitted and how it can be prevented and controlled. You will also be provided with information on safe sex and safe injecting behavior. The information we obtain from this research will help us plan and formulate strategies to control and prevent further spread of AIDS and other sexually transmitted diseases.

If You do not Give Your Consent to Participate in the Research

You are free to decide whether to participate or not. Whatever be your decision, this will not affect in any way in the health services you have been seeking now.

Confidentiality

We will do our best to deal with the information regarding you and your participation in the research as a highly confidential matter. We are not interested to know your name so it will not be recorded anywhere. A code number will be assigned to each questionnaire and sample of your blood. You will be given a card with the code number. If you want to get the report of lab test of your blood, you can do so by showing the card with the code number to us. We will not be able to identify you and give the report to you without the card.

We will not record your name anywhere so your name will not be mentioned in the report of this research, if published. However, the officials of International Health Center, in rare cases, might show interest to have a look at the record of the participants of the research and court sometimes might ask to show the record of the research to others. Whatever be the case, these records will not have your name.

Compensation

You will be given Rs.200 (Two Hundred), a condom and some reading materials as compensation for your participation in the research.

Withdraw from Participating the Research

You are free to withdraw yourself from participating the research process at any time you like or not to respond the questions you do not prefer to answer.

Contact

If you have any questions or queries regarding this research please contact the following persons/agencies:
Siddhartha Man Tuladhar
New ERA, Kalopool, Kathmandu, Nepal
Phone Number: 01-413603

Jim Ross
Family Health International (FHI),
Gairidhara, Kathmandu,
Phone Number: 01-427540

If you have some problems or queries regarding your rights as a participant of this research please contact:

Jim Ross
Family Health International (FHI)
Gairidhara, Kathmandu, Nepal
Phone Number: 01-427540

OR

David Borasky
Institutional Representative, Human Rights Protection Committee,
P.O.Box. 13950,
Research Triangle Park, North Carolina, USA
Phone Number: 00-1-919-405-1445,
E-mail:
dborasky@fhi.org
OR Cable: FAME.HEALTH

If you encounter any problem just because of your participation in this research please contact:

Siddhartha Man Tuladhar
New ERA
Kalopool, Kathmandu, Nepal
Phone No. 413603, 430060

OR

Asha Basnyat
Family Health International (FHI)
Gairidhara, Kathmandu
Phone No. 427540

If you need more help, we can provide you a referral where you may have to pay.

Volunteer Agreement

If you have fully understood what is being asked to you in the process of research, the person who is explaining these things to you will read the following words for you and sign on the form.

"I have read and explained the contents of this consent paper to the respondent. He explained the research activities back to me and from his understanding I am convinced that he is fully aware of the research activities. He has given his oral consent, on his own willingness, to participate in this study. No pressure was given to him to participate in the research work".

Date: _____ _____
Signature of the person who obtained consent

I was present while reading out the benefits, risk and methods of the study for the respondent. All the questions were answered and the respondent has agreed to participate in the study.

Date: _____ _____
Signature of the witness

ANNEX - 6
Centers Where Interviews and Blood Collection of IDUs Conducted

S. N.	Center	Sample Sites	Locations	Team	Completed Date
1.	Mahendra Pool	1. Bagar	Naya galli	A	Febreary 17-March 20, 2003
		2. Sukumbasi Tole	Sukumbasi Tole		
		3. Archale Bote	Archale Bote		
		4. Baglung Bus park	Baglung Bus park		
		5. Nalamukh	Nalamukh		
		7. Bagale tole	Bagale Tole		
		8. New Road	Simalchaur		
		19.Simpani	Laltin bazar		
		20. Bagar	K.I.Singh pool		
2.	Prithivi chowk	6. Male Patan	Parsyang	B	February 17-March 21, 2003
		9. Fulbari	Backside of army camp		
		10. Ramghat	In front of public health camp		
		11. Hospital Chowk	Gita Mandir		
		12. Laxmi Tole	Laxmi Tole		
		13. Ram mandir Chowk	Dhara Tole		
		14. Tutung	Tutung		
		15. Srijana Chowk	Simal Chour		
		16. Pardi Birauta	Himali Tole		
		17. Lakeside	Ammote Tole		
		18. Lake Side	Tal Barahi Mandir		

ANNEX - 7
Date and Place of Counseling Performed to IDUs

Date	Counseling center (Male IDUs)	Expected Client	Client Counseled	Client with HIV+	Client with HIV-
3-23 April, 2003	PALUWA Counseling Center, Pokhara	300	66	22	44

ANNEX - 8
The Reasons of Not Injecting Drugs Yesterday

Injecting Practice	n=57	%
Reasons of Not Injecting Yesterday		
Lack of money	14	24.6
To quite slowly	12	21.0
More ganja smoked	7	12.3
Due to brown sugar pull	6	10.5
Injected alternate day	5	8.8
Drink Alcohol	5	8.8
Unavailability	2	3.5
Was in custody	2	3.5
Nitrosun Used orally	2	3.5
Others	10	17.5

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

ANNEX – 9
Gathering Place of IDUs to Inject Drugs

S.N.	Characteristics	No. of IDUs	
		n=300	%
1.	Forest/Bushes	104	34.7
2.	Open Ground/Town planning area	54	18.0
3.	River Bank/Slum Area/Pond	47	15.7
4.	Own room/friends room	43	14.3
5.	Bus Park	18	6.0
6.	Around school/Stadium	6	2.0
7.	Camp/Company	4	1.3
8.	Cannel	4	1.3
9.	Toilet/Public Toilet	3	1.0
10.	Pool House/Swimming Pool	3	1.0
11.	Garage/Junk Store	3	1.0
12.	Temple Area	2	0.7
13.	Vacant House	2	0.7
14.	Shop	2	0.7
13	Hotel	2	0.7
16.	Around airport	1	0.3
17.	Chowk/Tole/Galli	1	0.3
18.	Lonely Place	1	0.3

ANNEX - 10
Combination of Different Drugs Injected by IDUs

S.No.	Drugs Combination	n
1.	Tidigesic + Phenarmine	85
2.	Tidigesic + Phenargan	77
3.	Tidigesic + Algic	75
4.	Tidigesic + Diazepam	46
5.	Codeine + Proxigin + Effidin	7
6.	Tidigesic + Calmpose	5
7	Tidigesic + Phensidyle	4
8.	Tidigesic + Avil	3
9.	Tidigesic + Saipam	2
10.	Tidigesic + Nitrosun	2
11.	Phenargan + Algic	2
12.	Tidigesic + Pheromine	1
13.	Tidigesic + Proxygin	1
14.	Tidigesic + Codeine	1
15.	Phenargan + Calmpose	1
16.	Phenarmine + Diazepam + Algic	1
17.	Phenargan + Phenarmine + Algic	1
18.	Phenargan + Saipam	1
19.	Phenargan + Diazepam + Phenarmine + Algic	1
20.	Phenarmine + Algic + Avil	1
21.	Phenargan + Diazepam	1
22.	Proxyvon + Corex	1
23.	Proxyvon + Becof	1
24.	Spasiminton + Effidin + Phoxico	1
	Total	**206**

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

ANNEX - 11
Types of Drugs Used Orally by Respondents

Types of drugs	Used in last-week	
	n=300	%
Ganja	235	78.3
Nitrosun	107	35.7
Chares	103	34.3
Brown Sugar	93	31.0
Nitrovate	74	24.7
Diazepam	29	9.7
Codeine	28	9.3
Proxygin	27	9.0
Effidin	19	6.3
Phenergan	16	5.3
Phensydyl	12	4.0
Velium 10	10	3.3
Calmpose	7	2.3
Combination	2	0.7
Lysergic Acid Dithylamidel (LSD)	4	1.3
White Sugar	4	1.3
Cocaine	2	0.7
Others	21	7.0

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

ANNEX – 12
Switched from one Drug to another and the Reasons of it

Responses	No. of IDUs	
	n	%
Switched from one drugs to another drugs in past month		
Yes	1	0.3
No	299	99.7
Total	**300**	**100.0**
Switched From		
Tidigesic to Nitrosun, Ganga and Charas	1	100.0
Reasons of Switching		
To reduce Tidigesic/Leave slowly	1	100.0
Total	**1**	**100.0**

ANNEX - 13
Cities/District and Countries Where Drugs were Injected by IDUs During Last 12 Months

City	District	Country	No. of IDUs	
			n	%
Kathmandu	Kathmandu	Nepal	51	39.2
Birgunj	Parsa	Nepal	25	19.2
Sunauli	Rupandehi	Nepal	12	9.2
Narayangad	Chitawan	Nepal	6	4.6
Sukumbasi	Kathmandu	Nepal	5	3.8
Beni	Myagdi	Nepal	4	3.1
Bhairahawa	Rupandehi	Nepal	4	3.1
Syangja	Syangja	Nepal	3	2.3
Gongabu	Kathmandu	Nepal	3	2.3
Nepaljung	Banke	Nepal	3	2.3
Biratnagar	Morang	Nepal	2	1.5
Sunwal	Nawalparasi	Nepal	2	1.5
Butwal	Rupandehi	Nepal	2	1.5
Baneswor	Kathmandu	Nepal	2	1.5
Basantapur	Kathmandu	Nepal	2	1.5
Damauli	Tanahu	Nepal	2	1.5
Charaudi	Dhading	Nepal	2	1.5
Itahari	Sunsari	Nepal	1	0.8
Dharan	Sunsari	Nepal	1	0.8
Parsa Bazar	Chitawan	Nepal	1	0.8
Madhe	Chitawan	Nepal	1	0.8
Kirtiipur	Nawalparasi	Nepal	1	0.8
Lagankhel	Lalitpur	Nepal	1	0.8
Thimi	Bhaktapur	Nepal	1	0.8
Maharajgung	Kathmandu	Nepal	1	0.8
Bagbazar	Kathmandu	Nepal	1	0.8
Teku	Kathmandu	Nepal	1	0.8
Thamel	Kathmandu	Nepal	1	0.8
Sundhara	Kathmandu	Nepal	1	0.8
Airport	Kathmandu	Nepal	1	0.8
Kamalpokhari	Kathmandu	Nepal	1	0.8
Kalanki	Kathmandu	Nepal	1	0.8
Mehpi	Kathmandu	Nepal	1	0.8
Gorkha	Gorkha	Nepal	1	0.8
Danda Thok	Lamjung	Nepal	1	0.8
Arjun chaupari	Syangja	Nepal	1	0.8
Hile	Parbat	Nepal	1	0.8
Chittre	Parbat	Nepal	1	0.8
Dimuwa	Parbat	Nepal	1	0.8
Baglung	Baglung	Nepal	1	0.8
Bhairahawa	Kapilvastu	Nepal	1	0.8
Pipara	Kapilvastu	Nepal	1	0.8
Hile	Dhankuta	Nepal	1	0.8
Bandipur	Tanahu	Nepal	1	0.8
Chhirkeni	Tanahu	Nepal	1	0.8
Janakpur	Dhanusa	Nepal	1	0.8
Raksaul	-	India	5	3.8
Nautanuwa	-	India	2	1.5
Delhi	-	India	2	1.5
Darjiling	-	India	2	1.5
Bombay	-	India	1	0.8
Madras	-	India	1	0.8
Deharadun	-	India	1	0.8
Gujarat	-	India	1	0.8
Bardapur	-	India	1	0.8
Kotkelang Batuappa	-	Malaysia	1	0.8
Kamati Nagar	-	Malaysia	1	0.8
Manila	-	Philippines	1	0.8
Hongkong	-	China	2	1.5
Singapore	-	Singapore	1	0.8
Total			**130**	**100.0**

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

ANNEX - 14
Relation between Sexual Behavior and HIV

Sex with different partners in the past 12 months	No. of IDUs			
	Total	HIV+	%	P value
With regular partner				
Yes	86	26	30.2	
No	184	34	18.5	0.09
Never had sexual experience	30	6	20.0	
With Non-regular partners				
Yes	77	10	13.0	
No	193	50	25.9	0.07
Never had sexual experience	30	6	20.0	
With sex worker				
Yes	89	13	14.6	
No	181	47	26.0	0.10
Never had sexual experience	30	6	20.0	
Number of Partners in the past 12 months				
Number of Regular partner in the past 12 months				
0 Partner	214	40	18.7	
1 partner	85	26	30.6	0.07
2 partners	1	0	0.0	
Number of Non-Regular partner in the past 12 months				
0 Partner	223	56	25.1	
1 partner	36	5	13.9	0.08
2 or more partners	41	5	12.2	
Number of sex workers in the past 12 months				
0 Partners	211	53	25.1	
1 sex worker	28	4	14.3	0.13
2 or more sex workers	61	9	14.7	
Total	**300**	**66**	**22.0**	

Family Health International
HIV/AIDS Prevention, Control and Care Program

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