

**Integrated Biological and Behavioral
Surveillance (IBBS) Survey among
Injecting Drugs Users
in Kathmandu Valley, Nepal**

Round V - 2011

June 2011



USAID | NEPAL
FROM THE AMERICAN PEOPLE



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We firmly believe that the trends identified by these surveys will be internalized and utilized by all policy makers, program planners and implementers alike to plan the national HIV response and tailor the response to the HIV epidemic being faced by the country.

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ABBREVIATIONS

| | | |
|-------|---|--|
| AIDS | - | Acquired Immuno-Deficiency Syndrome |
| DIC | - | Drop-in-centers |
| ELISA | - | Enzyme Linked Immuno Assays |
| FHI | - | Family Health International |
| FSW | - | Female Sex Workers |
| HIV | - | Human Immuno-Deficiency Virus |
| IBBS | - | Integrated Biological and Behavioral Surveillance |
| ID | - | Identification Number |
| IDU | - | Injecting Drug User |
| IEC | - | Information, Education and Communication |
| LALS | - | Life Giving and Life Shaving Society |
| MARPs | - | Most At Risk Populations |
| MLM | - | Male Labor Migrants |
| MSM | - | Men Having Sex with Men |
| NCASC | - | National Centre for AIDS and STD Control |
| NGO | - | Non-Governmental Organization |
| NHRC | - | Nepal Health Research Council |
| NPHL | - | National Public Health Laboratory |
| OE | - | Outreach Educator |
| PE | - | Peer Educator |
| PHSC | - | Protection of Human Subjects Committee |
| RDS | - | Respondent Driven Sampling |
| RDSAT | - | Respondent Driven Sampling Analysis Tools |
| RPR | - | Rapid Plasma Reagan |
| SACTS | - | STD/AIDS Counseling and Training Services |
| SLC | - | School Leaving Certificate |
| SMF | - | Siddhi Memorial Foundation |
| SPSS | - | Statistical Package for the Social Sciences |
| STI | - | Sexually Transmitted Infection |
| TPPA | - | Treponema Pallidum Particle Agglutination |
| USAID | - | United States Agency for International Development |
| VCT | - | Voluntary Counseling and Testing of HIV |
| WHO | - | World Health Organization |
| WLM | - | Wives of Labor Migrants |

EXECUTIVE SUMMARY

The National Centre for AIDS and STD Control (NCASC), Nepal has developed a comprehensive National HIV and STI Surveillance Plan that includes the Integrated Biological and Behavioral Surveillance (IBBS). This surveillance among injecting drug users (IDUs), men having sex with men (MSM), female sex workers (FSWs), male labor migrants (MLM) and wives of labor migrants (WLM) was conducted on a regular basis. These surveys are aimed at assessing health risk behaviors and monitoring the trend in the prevalence of HIV and Sexually Transmitted Infections (STIs) among Most At-Risk Populations (MARPs) to inform the national HIV response in Nepal.

The IBBS surveys are conducted by NCASC with technical and financial support from FHI/Nepal and the United States Agency for International Development (USAID). This round of the IBBS was conducted among male injecting drug users (IDUs) in Kathmandu valley. The primary objective of the survey was to collect strategic information to analyze trends in HIV prevalence, injecting drug and sexual behaviors relating to HIV and STIs among IDUs.

This report details the findings of the fifth round of the IBBS conducted among 340 male IDUs in the Kathmandu Valley, recruited using Respondent Driven Sampling (RDS). A structured questionnaire was administered to the respondents at a centrally located survey center. The questionnaire collected information on sexual behavior and HIV/AIDS awareness as well as socio-demographics. After the interview, clinical examinations were conducted by a Health Assistant and blood samples were collected for HIV and syphilis testing by a lab technician. The test results were provided in coordination with pre- and post-test counseling by a trained counselor in the survey center.

Key Findings

HIV/AIDS and STI Prevalence

The HIV prevalence among the IDUs in Kathmandu Valley in 2011 is 6.3 percent. HIV prevalence among the IDUs has significantly decreased since the first round in 2002 when the prevalence was 68 percent. A history of syphilis was detected among only 2.2 percent IDUs, while none of the survey participants were currently infected. This indicates that sexually transmitted infections are a relatively minor problem among IDUs in Kathmandu Valley.

Age, marital status, and literacy were significantly correlated to risk of HIV among IDUs. HIV prevalence was 7.8 percent among IDUs aged 20 years and above. Prevalence was significantly higher among the ever married IDUs (13.4%) compared to the never married IDUs (3.7%) and illiterate IDUs (51.8%) were more likely to be HIV-positive than the respondents who were literate or had received formal schooling (6%).

A significant correlation was found between HIV prevalence and duration of injecting drug use. HIV prevalence was found in 16.3 percent of IDUs who had been injecting drugs for more than five years while no HIV infection was found among those who had injected for less than one year.

Socio Demographic Characteristics

The age of IDUs ranged from 16 to 57 years and almost eighty-five percent of the IDUs in the Kathmandu Valley were below 30 years of age. A majority (73%) were unmarried. Among the 21 percent currently married IDUs in Kathmandu Valley, six percent lived without a sexual partner. The majority had some education with 82 percent having attended secondary school or higher education. Less than one percent were illiterate. A large proportion of IDUs (39.3%) were from the Newar community, followed by the Tamang/Lama/Magar (24.6%) communities and Chettri/Thakuri (20.1%) communities.

Around eighty percent of the IDUs had been imprisoned or detained at least once for some reason by the police. Out of the ever imprisoned IDUs, about 60.5 percent had been imprisoned or detained for some reason in the past one year. Two percent of the respondents had injected while they were in prison.

Alcohol Intake, Oral Drugs Use and Drug Injecting Practice

Alcohol consumption was common among the IDUs in Kathmandu Valley. About three-quarters of IDUs (75.6%) had consumed alcohol at least once in the past month and almost 14 percent consume alcohol everyday.

All respondents reported using oral drugs, an indication of combined drug use. The majority of IDUs had been using oral drugs for more than two years (91.7%).

A relatively high proportion of IDUs in Kathmandu are new. About 22 percent had been injecting for less than a year and another 26 percent had been injecting for one-two years. Nearly two-thirds of the IDUs (62%) had begun injecting drugs when they were 20 or younger.

One in ten respondents (11%) had not injected during the week preceding the survey. About one-quarter (24.6%) had injected two to three times, while 13.7 percent had injected four to six times during the week preceding survey. Overall, 46 percent had injected one or more times a day. Furthermore, a large proportion of IDUs (88.6%) injected a combination of drugs.

The average duration of injecting drugs has decreased from about six years in 2005 to about three years in 2011. However, the median age of the first injection has decreased from 20 years in 2005 to 19 years in 2011. The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has been increasing steadily since the first round. High-risk behavior such as injecting with previously used needles/syringes decreased significantly from 45 percent in the first round to three percent in the fifth round. Additionally, the proportion of IDUs who had not shared their needles/syringes in the past week increased from 41.3 percent in 2002 to 95.4 percent in 2011. Nevertheless, relatively higher proportions of IDUs (33.2%) reported sharing needles and syringes and the same proportion (33.2%) had drawn drug solutions from common containers that were used by others in the week preceding the survey.

Sexual Behavior

Almost 90 percent of the IDUs in Kathmandu Valley reported having ever had sexual contact. Among them, 73.9 percent had been sexually active in the past year. Although half

of them (50.4%) had had one sex partner, about 30 percent had had two-three sexual partners and about eight percent had seven or more partners. Over one-quarter of the IDUs in Kathmandu (27.2%) had sex with female sex workers in the past year. Of those, 62 percent had sexual contact with FSWs in the past month.

Condom use in the most recent sexual experience with sex workers was about 86.8 percent. The figure was comparatively higher than reported for most recent sexual encounters with non-regular partners (42%) and regular partners (30.2%). A similar pattern was observed among IDUs regarding consistent condom use with FSWs in the past year (76.4%). This was followed by non-regular partners (40%). Consistent use of condoms with regular sex partners was lowest, with only about nine percent of IDUs using condoms consistently with regular partners in the past year.

STI and HIV/AIDS Awareness and Treatment Practices

Knowledge of STI among IDUs in Kathmandu Valley is almost universal (98%). Those who had heard about STIs, most commonly cited genital symptoms of STIs were ulcer/sore blister (51.6% in female and 61.3% in male) and genital discharge (26.3% in female and 26.6% in male). Around 2 percent of IDUs in Kathmandu have had genital discharge and 7.8 percent had genital ulcers/sores in the past year. Twenty percent of those IDUs who had symptom in the last year reported genital discharge and 25.8 percent had genital ulcers/sores at the time of survey. About 54 percent of those IDUs who had experienced a STI symptom in the past year had not sought any treatment. Of those who did seek treatment, 31.9 percent had been to a clinic run by NGOs, 24.9 percent had been to a private doctor, and 22 percent had been to a hospital/health post for treatment.

Knowledge of all three major prevention measures ABC (A - abstinence from sexual contact, B - being faithful to one partner, and C - condom use during each sexual contact) was reported by 61.8 percent of IDUs. But comprehensive knowledge, BCDEF (D - a healthy looking person can be infected with HIV, E - a person cannot get the HIV virus from a mosquito bite, and F - sharing a meal with an HIV infected person does not transmit the HIV virus) of HIV was reported by 64.2 percent IDUs. The majority of the IDUs in Kathmandu Valley (89.9%) knew that a confidential HIV testing facility was available in their community. About 51 percent of the IDUs who had the knowledge of VCT had ever tested for HIV and around 87 percent of them who had tested had received their test results.

Exposure to the HIV/AIDS Related Programs

Sixty one percent of IDUs in the Kathmandu Valley had visited a DIC at least once in the last 12 months. However, more than half of the IDUs in Kathmandu Valley have not used other HIV and STI services targeted to IDUs. About 47.2 percent of IDUs had met with a peer/outreach educator, 20.2 percent had visited a VCT center and about three percent had visited an STI clinic in the last 12 months. A total of 45.8 percent of the respondents had participated in HIV and AIDS awareness-raising programs or similar community events during the 12 months prior to the survey.

Nearly one-third (30.8%) had participated in one program only, one-quarter (23.5%) had taken part in two or three programs, while about half (45.7%) had not participated in any HIV/AIDS awareness programs in the past year.

1. INTRODUCTION

1.1 Background

The number of people living with HIV worldwide is estimated to be 33.4 million, and, among them, approximately 4.7 million are in Asia (AIDS epidemic update report, UNAIDS, 2008). The National Centre for AIDS and STD Control (NCASC) has been compiling and publishing data on reported HIV cases in different population subgroups since 1991. In 2009, the NCASC estimated about 63,528 adult and children people (including children and adults above the age of 49 years) were infected with HIV in Nepal. However, there is a significant gap between the estimated number of HIV infections and the number of people who have actually been tested and know their status.

The IBBS surveys are conducted at regular intervals in Nepal. This is the fifth round of the survey conducted among IDUs in Kathmandu valley. IDUs function as a core HIV-risk group because of their high-risk behavior of sharing needles/syringes between different injecting partners and also re-using needles kept in public places. Moreover high-risk sexual behavior associated with drug use has also been found to be a major contributing factor in the spread of HIV among the non-injecting population (AIDS epidemic update report, UNAIDS, 2008).

The IBBS survey conducted in the Pokhara Valley revealed an HIV-positive prevalence rate of 22 percent in 2003 (New ERA/SACTS/FHI 2003); 21.7 percent in 2005 (New ERA/SACTS/FHI 2005); 6.8 percent in 2007 (New ERA/SACTS/FHI 2007); and 3.4 percent in 2009 (New ERA/SACTS/FHI 2009).

The latest round of IBBS conducted in 2009 showed a decline in HIV prevalence among IDUs in Kathmandu and Pokhara. The last round of surveys also indicated that, over time, IDUs developed greater levels of knowledge about how to protect themselves from HIV infection through safer sex and less harmful injecting practices. Although HIV prevalence among IDUs in 2009 was lower than the previous rounds of the survey in Kathmandu and Pokhara, it is still high.

These surveillance surveys are designed to monitor the trend in the key indicators of HIV over time. This survey is included in the National Surveillance Plan of HIV developed by NCASC. This fifth round of IBBS survey among male IDUs was conducted in the Kathmandu and Pokhara Valley. This report discusses the key findings of the survey conducted in the Kathmandu Valley.

2. DESIGN AND METHODOLOGY

2.1 Objectives of the Survey

In line with the objectives of the previous rounds of IBBS, this fifth round of the survey was also undertaken primarily to determine the trends of HIV and STI prevalence and to assess HIV and STI-related risk behavior among IDUs in Kathmandu Valley.

The specific objective of the survey was to collect information related to socio-demographic characteristics; drug using and needle sharing behaviors; sexual behavior including knowledge and use of condoms; knowledge of HIV/AIDS; knowledge and treatment of STIs; and exposure of IDUs to available HIV/STI services in Kathmandu.

2.2 Survey Population

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

2.2.1 Sample Size and Sampling Design

The sample size was calculated to detect 15 percent differences in key indicators, such as needle/syringe sharing and consistent condom use in four successive IBBS among IDUs. The sample size was determined by using basic statistical formula (Annex 2). Based on this formula, a total of 340 IDUs participated in this survey.

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

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

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

The preliminary mapping exercise carried out with the help of some local NGO partners before the initiation of the actual field survey acquainted the survey team with several IDUs, their gathering locations, and their networks.

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

The sampling process begins with the selection of a set of people in the target population who serve as 'seeds.' Seeds were informed of the survey protocol and procedures and were encouraged to recruit other eligible individuals from their social networks to participate in the survey. After participating in the survey, each seed is provided with maximum of three recruitment coupons, which they use to recruit other people from their networks. After participating in the survey, each participant of the survey are also provided with maximum of three recruitment coupons, which they then use to recruit others. The referral coupon had a unique serial number that was used to link the recruiter to his recruit. The recruitment continued this way, with the subjects recruiting more subjects, until the desired sample size was reached.

2.2.2 Seeds and Recruitment

Following RDS theory, research staff recruited the seeds (e.g., initial participants), who then began the chain referral by recruiting their peers into the survey. It was decided that "seeds" selected to initiate the recruitment process needed to be as diverse as possible (heterogeneous in geographical area, age, gender, ethnicity, and length of time participants had been injecting drugs). To ensure this all seeds and then generated survey participants were educated on the random recruitment of three peers from their network.

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

The recruitment process in this survey started with four 'seeds' and two more 'seeds' were added in between the survey periods. Initially four 'seeds' were selected from different sites/locations of the Kathmandu Valley in consultation with the concerned NGOs working with the IDUs communities. During the recruitment process, survey team felt that the 'seeds' had not covered Bhaktapur sites/locations and also more seeds were required to meet the target sample size required for the survey. Hence, two 'seeds', one from Bhaktapur and another from Bulbule locations were added. Altogether six "seeds" generated required sample size for the survey. Each "seed" was given three coupons to pass on three peers they recruited for the survey. These peers who successfully participated in the survey were given another three coupons. In this way, the recruitment process continued until 340 IDUs were recruited. Of the total six "seeds," one seed generated 12 waves, two seed generated 8 waves each, and another three each completed 4, 5, and 6 waves respectively (Annex 3). By RDS theory, if at least six waves of recruitments are generated in the survey an equilibrium will be reached. This means that the recruited IDUs will sufficiently represent the population being sampled. The seeds were able to penetrate many networks during the recruitment of participants in the

survey. One ‘seed’ each was able to penetrate site number 24, 23, 12, 9, 4, and 3 of the Kathmandu Valley respectively (Annex 4).

Since RDS is a dual incentive system to induce recruitment, each participant received Rs. 100 (equivalent to \$1.30) for their participation in the survey and another Rs. 50 (equivalent to \$0.70) for each individual they recruited to the survey. A participant could have received up to Rs. 250 for successfully participating and recruiting three peers in the survey.

Refusals

There were no refusal from the survey after survey participants were given their survey ID number. The IDUs who came with their coupon, were screened beforehand in the survey sites to ensure they met the survey criteria.

Those who did not meet the survey criteria and those who were not willing to participate in the survey because of personal reasons were not recruited into the survey. In total, there were 38 people screened out at the survey center. Twenty two were found to be oral drug users but not injecting drug users and hence did not meet the criteria; 11 had started injecting drugs less than three months prior to the survey; two were underage and had long injection gap of drugs injection; and 12 did not agree to take part in the survey when they were approached by the recruiter in the field due to lack of time.

2.3 Survey Process

A quantitative research approach was adopted in this survey. Structured questionnaires were used to collect behavioral data relating to drug injection, syringe/needle sharing, and sexual behavior among the IDUs. Additionally, specific socio-demographic details were collected. In order to draw up a comparative analysis of the behavioral trends over the time, questions asked during the first, second, third, and fourth rounds were repeated. A few questions were added in the final round as per the recommendation of the NCASC. The questionnaires were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000) (Annex 5).

Survey site was set up in Sundhara in Kathmandu. This centrally-located site was selected specifically for the convenience of meeting and bringing the survey population into the office. The field office had separate rooms for each activity, such as administration of the questionnaire, general physical and STI examinations, blood drawing and laboratory testing of blood, and post-test counseling.

Before initiating the actual interview, all those coming with the referral cards were informally asked certain questions in order to ensure that they met the criterion set for the survey. Injection marks were also checked in order to confirm the participant’s injecting behavior.



Apart from the structured questionnaire, questions related to STI symptoms were asked by a health assistant to verify the occurrence of such symptoms in the past or during the survey (Annex 5). The survey participants were provided with syndromic treatment for STI problems, and a lab technician collected blood samples to test for HIV and syphilis. Moreover, on the spot syphilis treatment was provided to all RPR reactive survey participants. On the spot RPR test was performed from the blood sample.

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

Fieldwork Started on January 16, 2011 and Was Completed on March 17, 2011.

2.3.1 Ethical Review

The research was conducted in compliance with both ethical and human rights standards. These standards included maintaining participants' anonymity as well as providing pre- and post-test counseling. As this survey focused on individuals who are highly stigmatized and as injecting drugs is illegal in Nepal, ethical as well as technical approvals were obtained from Protection of Human Subject Committee (PHSC), FHI's ethical review body, and Nepal Health Research Council (NHRC) prior to the commencement of the fieldwork. The survey protocols were carefully reviewed and approved by these organizations.

Verbal informed consent was obtained in the presence of a witness from all the participants prior to the interview and the collection of blood samples. The participants of the surveys were fully informed about the nature of the survey. They were informed that their participation was voluntary and that they were free to refuse to answer any question or to withdraw from the interview at any time. They were also briefed that such a withdrawal would not affect the services they would normally receive from their participation in the survey. A consent form describing the objectives of the survey, the nature of the participants' involvement, the benefits they would receive, as well as the confidentiality policy was clearly read aloud to them (Annex 7). Those who preferred to read it by themselves were provided the consent form in Nepali. Since the names and addresses of the interviewed IDUs were not recorded, the ID cards that were provided to the survey participants with specific numbers were the only identifications registered. The interviewer submitted the completed questionnaires to the field supervisor on the day of each interview. The supervisor kept those questionnaires in locked cabinets where no one else had access to them. The supervisor then transported the questionnaires after their review to the New ERA office every week where the questionnaires were kept in a locked coding room. Authorized data coding and data entry staff had access to the questionnaires. HIV test results were provided to the individual participants in the strictest confidence.

2.3.2 Clinical and Laboratory Procedure

The survey participants were clinically checked for any symptoms of STIs by the health assistant who also filled in a checklist with the information provided by the respondents (Annex 5). The clinical examination included a simple health check-up (measuring blood pressure, body temperature, weight, and pulse) and a symptomatic examination for STIs with syndromic treatment. Altogether 11 survey participants were treated with medicines free of cost for STI syndromes. They provided syndromic treatment to the respondents



with STI symptoms in accordance with the “National STI Case Management Guidelines” of NCASC. Other over-the-counter medicines such as paracetamol, alkalising agents, and vitamins were also given as necessary. Respondents with positive RPR tests were proposed a curative penicillin injection. There was provision of an ‘on call’ medical doctor to give the injection in the Youth Vision. However, one of the 6 RPR reactive cases gave their consent for the injection in spite of counseling and continuous follow up from the team members. In most cases the respondents were too scared to receive injections. Therefore, as an alternative treatment, oral medicines were provided to them as per the STI treatment guidelines.

Laboratory Service entailed on-site rapid screening of HIV1/2 and syphilis followed by a confirmation test. About 5 ml of whole blood was drawn from each survey participant using disposable syringes. The blood sample was placed in a centrifuge to separate the blood cells from the serum. Each sample was labeled with the ID number of the survey participant. Both HIV rapid tests and syphilis RPR tests were performed using serum by a lab technician from Intrepid Pvt. Ltd. of Kathmandu. The laboratories were designed to have confidential testing for HIV and Syphilis as per the national guidelines. Universal precautions and stringent waste management protocols were followed. Quality assurance tests were performed on all positive and a random 10 percent of the negative samples in the national public health laboratory (NPHL) in Kathmandu for both HIV and Syphilis serum samples.



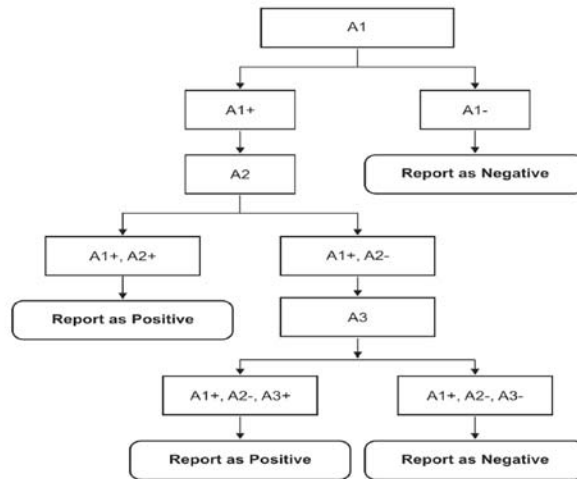
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HIV1/ 2

The HIV screening of the serum sample was performed using rapid test kits following the HIV testing strategy II algorithm. Determine HIV 1/2 (Abbott, Japan), Uni-Gold HIV 1/2 (Trinity Biotech, Ireland), and SD Bioline HIV 1/2 (Standard Diagnostics. Inc. South Korea) were used as later flow (rapid immunochromatography) kits for testing for the presence of

antibodies against HIV in the serum. Serum that tested positive with the initial kit was confirmed with the second kit. Samples that were found reactive on both tests were considered HIV antibody positive. Samples that were non-reactive on the first test were considered HIV antibody negative. Any sample that was reactive on the first test but non-reactive on the second was retested with the third “tie breaker” kit. The quality of the assay was assured by the in-built control of each kit.

HIV Testing Strategy II Algorithm



| NOTE: | |
|--------------------|--------------------|
| A1 (First test) : | Determine HIV 1/2 |
| A2 (Second test) : | Uni-Gold HIV |
| A3 (Third test) : | SD Bioline HIV 1/2 |
| "+" : | Reactive |
| "-" : | Non-reactive |

- ¹ Assay A1, A2, A3 represent 3 different assays.
- ² Such a result is not adequate for diagnostic purposes; use strategies II or III. Whatever the final diagnosis, donations which were initially reactive should not be used for transfusions or transplants.
- ³ Report: result may be reported.
- ⁴ For newly diagnosed individuals, a positive result should be confirmed on a second sample.
- ⁵ Testing should be repeated on a second sample taken after 14 days.
- ⁶ Result is considered negative in the absence of any risk of HIV infection.

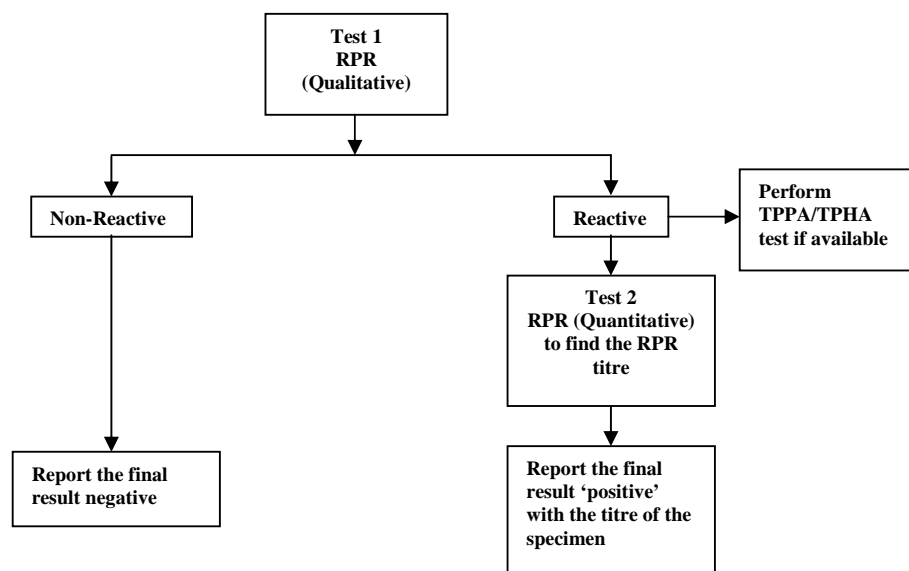
Sensitivity and Specificity of HIV 1/2 Kits

| Test Kits | Company | Initial | Confirm | Tie Break | Antigen Type | Speci. | Sensi. |
|---------------------------|---|---------|---------|-----------|---------------------------|--------|--------|
| Determine HIV 1-2 | Abbott, Japan Co. Ltd | X | | | Recom HIV-1 and HIV-2 | 99.40% | 100% |
| Uni-Gold HIV 1-2 | Trinity Biotech, Dublin, Ireland | | X | | HIV-1 and HIV-2 | 100% | 100% |
| SD Bioline HIV 1-2 | Standard Diagnostics, Inc, Kyonggi-do South Korea | | | X | HIV-1 (gp41;p24)-2 (gp36) | 99.30% | 100% |

Syphilis

A syphilis test was performed following the national guideline (National guideline on case management of sexually transmitted disease, NCASC, 2009). The serum was tested for non-specific and specific treponemal agents. A non-treponemal test Rapid Plasma Regain (RPR) [Becton, Dickson, and company USA] was used for both qualitative screening and quantitative titration. All RPR reactive serum was confirmed using the specific Treponema Pallidum Particle Agglutination (TPPA) test (Fujirebio Inc.) at Intrepid Nepal Pvt. Ltd. Laboratory. Serum samples that tested RPR positive with titer value above or equal to 1:8 were reported as active syphilis; titration less than 1:8 were reported as a case with a history of syphilis. The quality of reagents and test cards of the RPR test kit was assessed daily on-site using a set of strong and moderate positive and negative controls.

Syphilis Testing Algorithm



2.3.3 Quality Control of Laboratory Tests

Quality control was strictly maintained throughout the process of the collection of the specimens, as well as the handling and testing stages. All the tests were performed using internal controls. These controls were recorded with all the laboratory data. For external quality control assurance, all positive, and a 10 percent sample of the negative serum collected were submitted to the National Public Health Laboratory (NPHL) to test for HIV and syphilis. The same test kits and testing protocols were used in the NPHL for quality assurance.

2.3.4 External Quality Assessment

External quality assessment (EQA) is evaluation of the performance of a testing laboratory by an external agency. An External Quality Assessment Scheme (EQAS) is very essential in such studies to determine the quality of testing. All HIV positive and 10 percent of all HIV negative samples were retested at National Public Health Laboratory (NPHL) in this survey as an External Quality Assessment of HIV testing. Similarly, all RPR reactive and 10 percent of all RPR non-reactive samples were retested at NPHL as an EQA of Syphilis testing. Aliquots of selected serum specimens were prepared in the field and sent to Intrepid-Nepal's laboratory in Kathmandu within a week of specimen collection. Serum specimens were stored at Intrepid-Nepal's laboratory at a temperature below -20°C. Once testing activities in the field were completed, Intrepid-Nepal handed over the serum specimens to NPHL for retesting. The test kits as those used in the field were also provided to the NPHL.

HIV Testing:

Altogether 60 serum specimens were retested for HIV at NPHL. Among them 29 were HIV positive in the field. NPHL tested the specimens following the same HIV testing algorithm that was followed in the field. NPHL provided results of re-testing to FHI/ASHA Project Country Office. FHI/ASHA Project Country Office compared the results from the field and results from NPHL. The table below shows the comparison between results from field and NPHL.

| | | NPHL results | | Total |
|------------------|----------|--------------|----------|-------|
| | | Negative | Positive | |
| Intrepid results | Negative | 31 | 0 | 31 |
| | Positive | 0 | 29 | 29 |
| Total | | 31 | 29 | 60 |

The above table shows 100 percent agreement in rapid HIV test results between field and NPHL which means perfect agreement between field and NPHL results.

RPR Testing:

Altogether 39 serum specimens were retested for RPR at NPHL. Among them 6 were RPR reactive in the field. The table below shows the comparison between results from field and NPHL. Ninety-five percent agreement has been observed in RPR test results between field and NPHL. Two samples which were reactive in the field were found to be non-reactive at NPHL.

| | | NPHL results | | Total |
|------------------|----------|--------------|----------|-----------|
| | | Negative | Positive | |
| Intrepid results | Negative | 33 | 0 | 33 |
| | Positive | 2 | 4 | 6 |
| Total | | 35 | 4 | 39 |

TPPA Testing:

Four serum specimens were retested for TPPA at NPHL. All of them were TPPA Positive in the field. The table below shows the comparison between results from field and NPHL. One sample which was Positive in the field was found to be Negative at NPHL.

| | | NPHL results | | Total |
|------------------|----------|--------------|----------|----------|
| | | Negative | Positive | |
| Intrepid results | Negative | 0 | 0 | 0 |
| | Positive | 1 | 3 | 4 |
| Total | | 1 | 3 | 4 |

2.3.5 Control of Duplication

Each participant who completed the survey was informed before issuing the recruitment coupons that the same person could not take part more than once in the survey. Therefore, they should not recruit the same person who had already received a coupon from others and/or had already participated in this survey. In order to avoid repeated interviews with the same IDUs, before issuing the ID number, the participants were asked several questions relating to their experience of having undergone blood tests, the part of the body from where the blood was taken, their experience of HIV testing or testing for other diseases, previous meetings with the New ERA staff and peer educators, and possession of an ID card with a survey number.

2.4 Survey Management

The overall monitoring of the survey was done by NCASC. NCASC called three monitoring meetings. Moreover, the head of the Strategic Information (SI) unit at NCASC and the Surveillance officer at NCASC made monitoring visits in the Kathmandu survey site.

The survey was conducted by a team comprised of one survey director, one project associate, two research assistants, and one field teams. The field teams formed for the survey included one research assistant, four supervisors/interviewers, one health assistant, one lab technician, one counselor, one runner, and local motivator/s (as needed). The laboratory portion of the survey was the responsibility of Intrepid Nepal, which included one trained lab technician in each field team.

Before data collection started, a one-week intensive training was organized for the survey team. The training session familiarized the team with the survey objectives, characteristics of the target groups, rapport-building techniques, contents of the questionnaire, and the survey process. The training session also included theory and practical classes on pre-test counseling and questionnaire administration. Experienced counselors from Youth Vision conducted a

separate session on pre-test counseling. Technical experts from FHI discussed STIs, HIV/AIDS, and pre- and post-test counseling. The survey team was also familiarized with the general behavior of IDUs and skills required to deal with them by personnel from Youth Vision, an organization that works with IDUs. Additionally, the training focused on providing a clear concept of informed consent to the research team.

One centrally located survey center was established at Sundhara for the survey. Individual interviews, clinical examinations, blood collection, and counseling were carried out in separate rooms in this center.

2.4.1 Coordination and Monitoring

To ensure the quality of data under the leadership of NCASC, New ERA and ASHA Project staff supervised the fieldwork regularly. Moreover, monitoring of the field work was done from USAID as well. Field supervisors reviewed all the completed questionnaires and any inconsistencies in the responses were clarified through discussions with the concerned interviewer later that day. Cross-checking questions were also asked to the survey participants to avoid duplication.

New ERA carried out the overall coordination of the survey. Intrepid Nepal was responsible for setting up the laboratory and collecting, storing, and testing blood samples.

The key research team members monitored and supervised the field activities. The research assistant was responsible on a day-to-day basis for ensuring that the survey was implemented in the field according to the protocol. Team meetings were held every week to plan ahead and solve any field-level problems. The research assistant in the field reported to the senior research assistants or the project coordinator whenever necessary. ASHA Project staffs from the program, strategic information (SI) and technical unit also monitored the field work in alternate weeks. The observations and suggestions from ASHA Project monitors were shared with the research team in the field at the end of the monitoring visit and were also communicated with the team leader and project associate at New ERA and Intrepid Nepal. Even after the field work, ASHA Project SI unit staffs closely monitored the data entry, cleaning and analysis process. In addition, the key research team member from New ERA and Intrepid Nepal made periodic site visits throughout the fieldwork.

2.4.2 Constraints in the Field Work

It was a challenging task to convince the IDUs to participate in the survey. In many cases, the respondents were not interested in waiting for the test results, complaining that it took too much time. Frequent and strict police patrol also made it difficult for the researchers to find survey population. Priority of the survey participants to get drugs from the 'drugs market' made difficult to speed up the survey. However, no major constraint was faced during the field



Pre-post Test Counseling Session

work once the participants were recruited.

2.5 Post-Test Counseling and Test Result Distribution

All the survey participants received their test results after producing their ID cards. They were provided with HIV and syphilis test results and post-test counseling by a trained counselor at the survey site. The survey participants were informed about the operating hours of the survey site right after the collection of their blood sample for the test. A provision was made to provide test results to the survey participants on the same day of the interview.

Post-test counseling and individual report dissemination was completed within the survey period. Out of the 340 IDUs tested for HIV, only 149 (43.8%) turned up for the test results (Annex 8). Though the results were provided within an hour of drawing blood for the test in the survey center, many of the IDUs did not wait for their results. This might be because it took almost three hours to complete the entire survey, which included confirmation of IDU, verbal consent, an interview, pre-test counseling, a syndromatic examination for STI, a blood test for HIV, and RPR screening, and post-test counseling. The participants often said that they had no time, had to search for drugs, and would come the following day. But they did not return the next day. Many of the survey participants who received their test results visited the day after the test to receive their test results. There was no provision for reimbursement of transportation cost for those who wished to come back the next day, which might be one constraint for collecting the report. Trained counselors gave the test results to the participants in a private setting only after they had produced their ID cards. The counseling session was focused on high-risk behavior and other aspects of STIs and HIV. Some participants were also referred to Youth Vision for further services.

2.6 Data Management and Analysis

Data was entered using FoxPro Software. A double entry procedure was performed. Respondent-Driven Sampling Analysis Tool (RDSAT) software (RDSAT 5.6, Cornell University, 2005) was used for analysis of the samples. This software is designed to control three types of potential biases in chain-referral sampling namely (1) affiliation bias (2) homophile and (3) network size bias (Salganik, MJ. etc., 2004).

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

The network size reported by the IDUs as per the questionnaire and at the time of referral card distribution was reviewed to see if there is any major discrepancy. There was no major difference between two times reported network size, so network size reported during the interview was used to analyze the data. To eliminate extremely small and large network sizes, the reported network size was truncated to a minimum and a maximum possible value. For this, a sensitivity analysis was done where several truncation limits were calculated and tested. Finally, a value of minimum 4 and maximum 50 was setup. When the program encountered an individual whose average network size was outside of the specified bounds, it was changed manually to the set limits. For those whose average network was lower than 4 the value was changed to 4 and for those whose average network was more than 50 the value

was set to 50. This criterion of each end of network distribution was recommended by the RDS expert team of FHI and New ERA to define the modest network size.

There were certain limitations in using RDSAT for the entire data in the report. Some data obtained from the survey did not meet the required numerator to be calculated with RDSAT. Such data have been calculated using SPSS and have been marked with asterisks in the tables in this report. They represent unadjusted proportions.

Moreover, for some variables RDSAT had limited capacity to estimate the weighted percentages and range. Particularly when distribution of cases was heavy in one category such problems were seen and RDSAT gave odd results. In such a case SPSS results were used with notes.

2.7 Dissemination of IBBS survey findings

Dissemination of the IBBS surveys was conducted at three levels: First, the key findings were shared with the IDU community in Kathmandu valley and their comments were incorporated to support the IBBS findings. Secondly, it was shared at the national and central regional level in Kathmandu among a wider group of government, non-government organizations, donor agencies and stakeholders working in the field of HIV and AIDS in Nepal. This was done primarily as an update on the status and the trends of the HIV epidemic among IDUs in Kathmandu valley and to draw possible policy and program implications.

2.8 Primary use of Survey Findings

The survey results are primarily intended to use (in reference to the IDU population in Kathmandu) for:

- Tracking the trend in HIV and STI prevalence
- Tracking the trend in high risk behaviors
- Estimating and projecting HIV infection
- Evaluating the progress of HIV prevention interventions

3. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

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

3.1 Demographic Characteristics

The data presented in Table 3.1 reveals that a relatively high proportion of IDUs participating in this survey were quite young. Almost 21 percent were under 20 and about eighty-five percent of respondents were in their teens or twenties. Only about 15 percent were between the ages of 30 and 57. The age of the participants ranged from 16 to 57 years with a median age of 23 years.

About three-quarters of IDUs (73%) were unmarried, a small proportion of respondents (6.1%) were either divorced/separated from their wives, or were widowers. Nearly two-thirds (64.7%) of IDUs were married before they were 25 years. The median age at which the IDUs were married for the first time was 21 years. Among those currently married, 94.1 percent lived with their wives, whereas the rest lived without a sexual partner (Table 3.1).

Table 3.1: Demographic Characteristics

| Demographic Characteristics | Estimated Population Proportions (%) | 95% CI |
|-------------------------------------|--------------------------------------|-------------|
| Age | (N=340) | |
| ≤19 Years | 20.6 | 14.8 - 27.0 |
| 20-24 Years | 36.9 | 31.3 - 42.5 |
| 25-29 Years | 27.2 | 21.8 - 32.7 |
| 30-34 Years | 10.7 | 7.5 - 14.7 |
| 35-57 Years | 4.6 | 2.7 - 6.5 |
| Median Age | 23.00 | |
| Marital status | | |
| Married | 20.9 | 16.5-25.8 |
| Divorced/Separated/widower | 6.1 | 3.0-9.2 |
| Never married | 73.0 | 67.8-78.0 |
| IDUs living with | | |
| Spouse | 19.5 | 15.1-24.0 |
| Living without sexual partner/alone | 80.5 | 76.0-84.9 |
| Age at first marriage | (n=92) | |
| ≤19 Years | 23.3 | 7.0-43.9 |
| 20-24 Years | 41.4 | 18.4-64.2 |
| 25 and Years above | 35.3 | 13.1-59.1 |
| Median Age | 21.00 | |
| Married IDUs living with | (n=74) | |
| Wife | 94.1 | 86.4-97.6 |
| Without sexual partner/alone | 5.9 | 2.4-14.5 |

3.2 Social Characteristics

IDUs in Kathmandu Valley were fairly educated with 82 percent of them having attended secondary school or higher education. 15.5 percent had attended primary school, 1.7 percent was literate but had received no formal education, and one percent of the IDUs were illiterate.

Nearly two-fifths of IDUs (39.5%) belonged to the Newar ethnic group, 24.6 percent were Tamang/Lama/Magar, 22.4 percent were Brahmin/Chhetri/Thakuri, 9.3 percent were Gurung/Rai/ Limbu, and 4.3 percent were from other castes ethnicity.

The majority of IDUs (58.6%) had been living in the valley since their birth, 24.7 percent had spent five or more years in the valley, and the rest had lived in the Kathmandu Valley for less than five years (Table 3.2).

Table 3.2: Social Characteristics

| Social Characteristics | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Education | (N=340) | |
| Illiterate | 0.9 | 0.2-1.7 |
| Literate, no schooling | 1.7 | 0.5-3.0 |
| Primary | 15.5 | 11.3-20.0 |
| Secondary | 41.6 | 35.8-47.7 |
| SLC and above | 40.4 | 34.3-46.5 |
| Ethnicity | | |
| Newar | 39.3 | 32.2-46.5 |
| Tamang/Lama/Magar | 24.6 | 19.6-30.2 |
| Chhetri/Thakuri | 20.1 | 15.6-25.3 |
| Gurung/Rai/Limbu | 9.3 | 6.1-13.0 |
| Brahmin | 2.3 | 0.9-3.7 |
| Others (Tharu, Muslim, Damai, Sunwar, Sanyashi and Sherpa) | 4.3 | 1.8-6.6 |
| Duration of stay in Kathmandu Valley | | |
| Since birth | 58.6 | 51.9-65.0 |
| ≤5 years | 16.7 | 12.3-21.8 |
| More than 5 years | 24.7 | 19.4-30.0 |

3.3 History of imprisonment

In this round of IBBS among IDUs history of imprisonment was asked to all survey participants. Around eighty percent of IDUs reported having ever been imprisoned or detained for any reasons by police, 60.5 percent of them had been imprisoned or detained in the past year also. Of the 176 respondents who were imprisoned or detained in the past year, 54.2 percent were jailed or imprisoned because of drugs, and 31.2 percent respondents were imprisoned two or more times in the past year. However, only two percent of the respondents had injected drugs while they were in jail (Table 3.3).

Table 3.3: Imprisoned History

| Description | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Respondent ever imprisoned or detained for any reason | (N=340) | |
| Yes | 80.5 | 75.6-85.2 |
| No | 19.5 | 14.8-24.5 |
| Respondent imprisoned or detained for any reason in the past one year | (n=285) | |
| Yes | 60.5 | 52.4-66.4 |
| No | 39.5 | 33.6-47.7 |
| Respondent jailed/imprisoned in the past one year because of drugs | (n=176) | |
| Yes | 54.2 | 43.6-64.9 |
| No | 45.8 | 35.1-56.5 |
| Frequency of jailed/imprisoned in the past one year because of drugs | (n=103) | |
| Once | 69.8 | 44.9-82.4 |
| Twice | 21.9 | 9.6-40.4 |
| Three and more | 8.3 | 2.5-22.9 |
| Ever injected drugs during the jailed /imprisoned | (n=176) | |
| Yes | 2.0 | 0.8-5.69 |
| No | 98.0 | 94.4-99.2 |

4. PREVALENCE OF HIV AND STIS

4.1 HIV/STI Prevalence

In the Kathmandu Valley, about 6.3 percent of IDUs are estimated to be HIV-positive. Out of 340 IDUs in the sample, only 2.2 percent of the respondents had history of syphilis and no one was diagnosed with a current case of syphilis. This indicates that sexually transmitted infections are a relatively minor problem among IDUs in the Valley (Table 4.1). HIV prevalence among the IDUs has decreased significantly since the first round in 2002 (68% in 2002 to 6.3% in 2011). Prevalence of active syphilis on the other hand is fluctuating around one percent since 2007 but the trend is not statistically significant. The HIV and STI prevalence trend are under section 9.5 Chapter 9).

Table 4.1: HIV and STI Prevalence

| HIV and STI Prevalence | N | Estimated Population Proportions (%) | 95% CI |
|-------------------------------|-----|--------------------------------------|---------|
| HIV and STI Prevalence | | | |
| HIV | 340 | 6.3 | 3.9-8.9 |
| Syphilis History | 340 | 2.2 | 0.4-4.5 |
| Current Syphilis | 340 | 0.0 | 0.0 |

4.2 Relation between Socio-Demographic Characteristics and HIV Infection

Table 4.2 shows the relation of HIV infection and selected socio-demographic characteristics. HIV prevalence is 7.8 percent among IDUs above 20 years of age while no HIV prevalence is seen with their younger counterparts. The difference is statistically significant.

The difference in the prevalence of HIV based on marital status is also statistically significant. Prevalence is 13.4 percent among IDUs who had been married before and 3.7 percent among IDUs who had never been married.

The level of education is another important variable for HIV prevalence. Illiterate/literate no schooling IDUs (20.9%) were more likely to be HIV-positive than the rest of respondents who were literate/received formal schooling (5.8%). However it should be noted that number of cases in the illiterate/literate but no formal schooling category was only 12.

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

| Socio-demographic Characteristics | N=340 | Estimated HIV Prevalence (%) | 95% CI |
|---|-------|------------------------------|----------|
| Age | | | |
| < 20 years | 64 | 0 | 0-0 |
| 20 years and above | 276 | 7.8 | 4.8-11.2 |
| Marital status | | | |
| Ever married | 92 | 13.4 | 6.2-21.6 |
| Never married | 248 | 3.7 | 1.9-5.8 |
| Literacy | | | |
| Illiterate/Literate no formal schooling | 12 | 20.9 | 3.5-45.9 |
| Formal School | 336 | 5.8 | 3.5-8.5 |

4.3 Relation between Drug Injection Behavior and HIV

The relationship between HIV prevalence and duration of drug injection, the frequency of injections during the past week, and the type of syringes they used have been reviewed in this section.

Duration of injecting drugs is directly related to the duration of exposure for HIV infection. A statistically significant relation was observed between duration of injecting drugs and HIV prevalence. About 16 percent of the IDUs who had been injecting drugs for more five years were HIV-positive. The HIV prevalence was comparatively lower among those who had been injecting for two to five years (3.3%) and among those who had been injecting for less than one year (Table 4.3).

Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

| Drug injecting Behavior | N=340 | Estimated HIV Prevalence (%) | 95% CI |
|---|----------------|-------------------------------------|---------------|
| Injecting drugs since | | | |
| Up to 11 months | 51 | 0 | 0-0 |
| 12-24 months | 86 | 1.5 | 0-3.5 |
| 25-60 month | 83 | 3.3 | 0.7-7.5 |
| 61 + months | 120 | 16.3 | 9.6-24.1 |
| Frequency of injected drugs in the past week | | | |
| Not injected | 33 | 5.5 | 0.6-10.3 |
| Up to 6 times a week | 131 | 4.4 | 1.1-8.7 |
| Once a day | 79 | 8.9 | 3.4-14.9 |
| 2 or more times a day | 97 | 8.9 | 3.6-13.5 |
| Used other's previously used needle/syringe during the past week | | | |
| Not injected/Never Used | 329 | 5.9 | 3.6-8.5 |
| Used | 11 | 19.2 | 4.3-51.5 |
| Used a needle/syringe kept in public place during the past week | (n=307) | | |
| Never Used | 296 | 6.5 | 3.6-9.4 |
| Used | 11 | 13.0 | 4.5-34.6 |

Those who injected more than once a day has about 8.9 percent HIV prevalence compared to those who do not inject or inject occasionally (Table 4.3). However, the relationship between HIV infection and frequency of injection in the last week is not statistically significant as the estimated 95 percent confidence interval for these categories do overlap.

There are indications that HIV prevalence may be higher (i) among those who had injected with a previously used syringe at least once in the past week (19.2%) compared to the rest of the IDUs (5.9%); and (ii) among those who had used a syringe that was kept in public places in the past week (13%) compared to those who avoided this practice (6.5%) (Table 4.3). But none of these relationships are statistically significant and also the number of cases in these categories is small which weakens the power of the statistical test

4.4 Relationship between Sexual Behavior and HIV

In total, only 27 IDUs among the 340 had never had sexual intercourse, while the rest (313) had been involved in a sexual relationship before participating in the survey. The examination of the sexual behavior and its association with HIV infection among IDUs in the Kathmandu Valley has indicated that higher proportion of IDUs who had sex with their regular partners in the last 12 months (9.6%) were HIV-positive than those who had sex with a FSW (4.4%) or a non-regular partner (2.3%). Because HIV is not only a disease that is spread through sexual behaviors but also through injecting behaviors, those IDUs who have less number of sex partners also may have been infection if their injecting behavior is not safe. For instance, those IDUs who had no sexual experience at all before the survey also had around 4.5 percent HIV infection (Table 4.4).

Table 4.4: Relationship between Sexual Behavior and HIV

| Sex with Different Partners in the Past 12 Months | N=340 | Estimated HIV Prevalence (%) | 95% CI |
|---|----------------|-------------------------------------|---------------|
| Sex with regular female sex partner | | | |
| Yes | 69 | 9.6 | 2.7-17.6 |
| No | 244 | 5.6 | 3.0-8.6 |
| Never had sexual experience | 27 | 4.5 | 0.0-12.0 |
| Sex with Non-regular female sex partner | | | |
| Yes | 141 | 2.3 | 0.8-4.1 |
| No | 172 | 10.3 | 5.8-15.0 |
| Never had sexual experience | 27 | 0.5 | 0.0-12.3 |
| Sex with female sex worker | | | |
| Yes | 96 | 4.4 | 1.2-8.4 |
| No | 217 | 7.3 | 4.1-10.9 |
| Never had sexual experience | 27 | 4.5 | 0.0-12.0 |
| Number of regular female sex partner in the past 12 months | (n=69) | | |
| One partner | 69 | 8.7* | - |
| Number of non-regular female sex partner in the past 12 months | (n=141) | | |
| One partner | 84 | 4.0 | 0.5-7.2 |
| Two or more partners | 57 | 0.7 | 0-2.0 |
| Number of female sex workers in the past 12 months | (n=96) | | |
| One sex worker | 33 | 1.1 | 0-0 |
| Two or more sex workers | 63 | 5.7 | 0.6-13.1 |

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

5. DRUG USE, NEEDLE SHARING AND TREATMENT

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

5.1 Alcohol Consumption and Oral Drug Use

Alcohol consumption was common among the IDUs in the Kathmandu Valley. Around three-quarters of IDUs (75.6%) had consumed alcohol at least once in the past month. About 14 percent consumed alcohol every day in the past month while a fourth (25%) had an alcoholic drink more than once a week during the past month (Table 5.1).

Notably oral drug use was more common than alcohol intake among IDUs in the Kathmandu Valley. All respondents reported using oral drugs. Figure 1 indicates that the majority of IDUs had been using oral drugs for over two years (91.7%); around 56 percent had been taking oral drugs for five years or more; and a small proportion (8.3%) had been using oral drugs for two years or less.

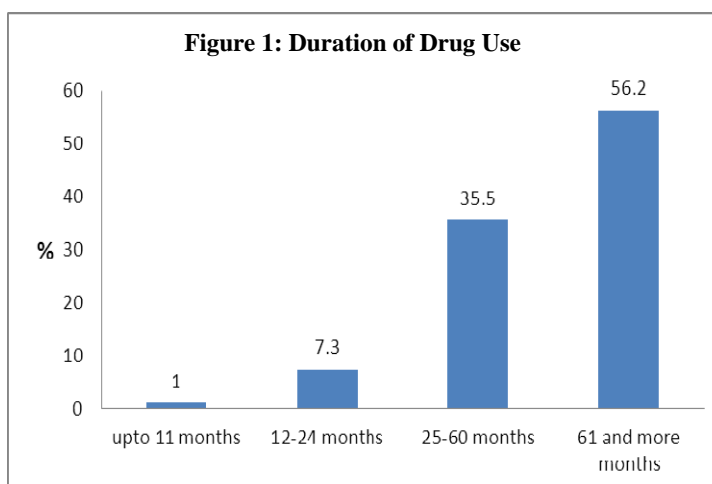


Table 5.1: Alcohol Intake and Oral Drug Use

| Alcohol Consumption and Oral Drug Use | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Alcohol used during the past month | (N=340) | |
| Everyday | 14.0 | 10.0-18.3 |
| More than once a week | 25.0 | 20.2-30.2 |
| Once/Less than once a week | 36.6 | 31.5-42.0 |
| Never | 24.4 | 19.8-29.1 |

IDUs preferred inhaling drugs such as marijuana - locally known as *Ganja* - with 80.4 percent having used it in the week preceding the survey. Other common drugs were Nitrovate (26.6%) followed by Proxygin (22.9%), Nitrosun (22.1%), Brown sugar (10.7%), and Chares (8.8%) (Table 5.2).

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

| Type of Drugs Used | Estimated Population Proportions (%) | 95% CI |
|-----------------------------------|--------------------------------------|-----------|
| Types of orally used drugs | (N=340) | |
| Ganja | 80.4 | 76.0-84.6 |
| Nitrovate | 26.6 | 22.0-31.7 |
| Proxygin | 22.9 | 17.0-28.1 |
| Nitrosun | 22.1 | 17.5-27.4 |
| Brown sugar | 10.7 | 7.3-14.1 |
| Chares | 8.8 | 6.1-12.0 |
| Codeine | 1.2 | 0.2-2.4 |
| Effidin | 0.4 | 0.1-0.8 |
| Velium 10 | 0.7 | 0.2-1.3 |
| Phenargon | 0.8 | 0.0-0.9 |
| Diazepam | 0.6 | 0.5-1.8 |
| Phensydyl | 0.4 | 0.1-1.1 |
| White sugar | 0.2 | 0.1-0.5 |
| Lysergic Acid Diethylamine (LSD) | 0.1 | 0.1-0.4 |
| Avil | 1.0 | 0.1-2.3 |
| Combination | 1.3 | 0.2-2.6 |
| Others | 11.6 | 8.7-15.2 |

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

5.2 Drug Injecting Practice

About a fifth of the respondents (21.5%) had been injecting drugs for the past two to five years and 29.9 percent reported having injected drugs for over five years. A relatively higher proportion of IDUs (48.6%) had started injecting less than two years before the survey. It is important to note that a higher proportion of the respondents had been using oral drugs longer than they had been injecting drugs.

IDUs in the Kathmandu Valley had mostly started injecting drugs at a young age. Nearly two-thirds of IDUs (62%) had their first shots when they were 20 or younger (Figure 2).

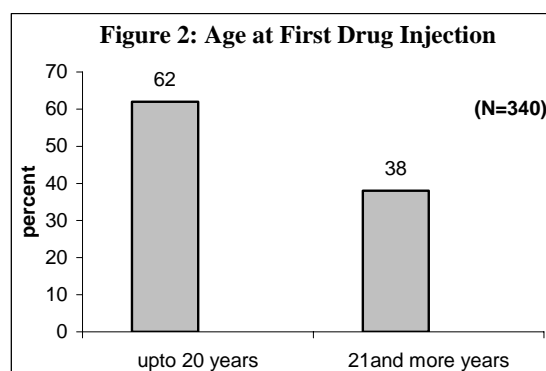


Table 5.3: Drug Injecting Practice

| Drug Injecting Practice | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Duration of drug injection | (N=340) | |
| Up to 11 months | 22.4 | 16.0-27.9 |
| 12-24 months | 26.2 | 20.9-31.8 |
| 25-60 months | 21.5 | 17.1-26.2 |
| 61 + months | 29.9 | 24.7-36.0 |
| Mean duration of drug injection | 2.9 years | |
| Frequency of drug injections within the past week | | |
| Not injected | 11.0 | 7.2-14.5 |
| Once a week | 4.7 | 2.3-7.4 |
| 2-3 times a week | 24.6 | 19.1-30.2 |
| 4-6 times a week | 13.7 | 10.0-18.0 |
| Once a day | 26.6 | 20.7-31.7 |
| 2-3 times a day | 19.0 | 15.9-23.7 |
| 4 or more times a day | 0.4 | 0.0-0.9 |
| Mean/median | 3.9/4.0 times | |
| Frequency of drug injection in the last day | | |
| Once | 72.3 | 67.3-76.7 |
| Twice | 22.2 | 18.0-26.7 |
| 3 or more times | 5.5 | 3.7-7.7 |

One in ten respondents (11%) had not injected during the week preceding the survey. About a fourth (24.6%) had injected two to three times in the past week, while 13.7 percent had injected four to six times during the preceding week. Overall, 46 percent had injected everyday of the week (one time a day or more). Just over one-fourth (26.6%) had one shot a day; 19 percent had injected drugs two to three times a day; and 0.4 percent had injected four or more times a day the week before the survey.

Respondents were also asked about the frequency of injections on the last day they injected drugs. Almost three-fourths (72.3%) of the respondents had injected once, while 22.2 percent had injected twice, and 5.5 percent had done so three or more times on the day they last injected drugs (Table 5.3).

Overall, 5.5 percent of respondents reported not having injected drugs on the day before the interview. The main reasons cited were: the respondents were trying to quit the habit slowly (39.2%), they were short of money (36.9%), they were using other medicines (6.3%), drugs were unavailable in the ‘drug market’ (5.2%), and they did not have enough time (5.2%) (Annex 9).

The respondents injected in different parts of the body according to the level of ease in locating veins. About one-third (33.6%) of them had injected on the joints between the leg and hip; 29.5 percent on the elbows, 16.3 percent on the arms, 13.4 percent on the palms, and 6.6 percent on the wrists (Annex 10).

Around six in ten respondents (62.5%) injected drugs either in their own room or that of a friend. Other places where they gathered to inject drugs included forest/bush, toilets, and riverbank/slum areas (Annex 11).

IDUs in the Kathmandu Valley mostly used combinations of drugs (Table 5.4). About 89 percent of the IDUs used combination of different drugs (Annex 12), while only three of them used brown sugar.

Table 5.4: Types of Drugs Injected

| Types of Drugs Injected | Estimated Population Proportions (%) (N=340) | 95% CI |
|-------------------------|--|-----------|
| Combination | 88.6 | 85.1-92.4 |
| Brown sugar | 1.1 | 0.1-2.7 |
| Diazepam | 0.4 | 0.2-0.9 |

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

In the past month only seven IDUs (2.1%) had switched from one drug to another. All of them had switched from their previous practice of injecting one type of drug to combining several different drugs. While 71.4 percent of IDUs could not find the drugs in the ‘drugs market’ that they were injecting, the other 42.8 percent of IDUs had to switch to combination drugs due to a reported lack of money (Annex 13).

In the past year, about 51 percent of the respondents had switched from sharing to non-sharing needle/syringe habits, and one-fourth reported never having shared a needle/syringe. However, about one-fourth (24.1%) had not changed their practice from sharing needle/syringe to non-sharing (Table 5.5).

Table 5.5: Switching Practice from Sharing to Non-Sharing Behavior in the Past Year

| Injection Sharing to Non-sharing Behavior | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Switching from sharing to non sharing behavior In past year | (N=340) | |
| Yes | 50.9 | 45.1-56.7 |
| No | 24.1 | 19.3-29.4 |
| Never shared needle/syringe | 25.0 | 19.9-30.0 |

5.3 Syringe Use and Sharing Habits

Syringe use and needle sharing habits were assessed in terms of their last three injections. Respondents were specifically asked about the sources of the needle/syringe used in their three most recent injections. Answers provided by the IDUs have been categorized as low risk (use of new needles and syringes obtained from different places) or high risk (use of previously used syringes, use of needles and syringes given by friends or relatives, use of needles and syringes by self or others that are kept in public places) injecting behavior in the following table (Table 5.6).

Table 5.6: Syringe Use and Sharing Behavior during the Last Three Injections

| Needle/Syringe Use During Recent Drug Injections | Drug injecting acts | | | | | |
|---|--|-----------|--|------------|--|------------|
| | Most recent | | Second most recent | | Third most recent | |
| | Estimated Population Proportions (%) (N=340) | 95% CI | Estimated Population Proportions (%) (N=340) | 95% CI | Estimated Population Proportions (%) (N=340) | 95% CI |
| Needle/syringe used | | | | | | |
| Low risk behavior | 99.1 | 98.3-99.7 | 99.5 | 98.6-99.9 | 99.2 | 98.3-99.8 |
| High risk behavior | 0.9 | 0.3-1.7 | 0.5 | 0.1-1.4 | 0.8 | 0.2-1.7 |
| Persons in the group using the same needle/syringe | | | | | | |
| 1-2 person | 0.4 | 0.1-0.8 | 1.7 | 0.0-2.6 | 0.9 | 0.0-1.3 |
| Alone | 99.6 | 99.2-99.9 | 98.3 | 97.4-100.0 | 99.1 | 98.7-100.0 |

As reflected in the above table most of the IDUs had consciously avoided high-risk behaviors like the use of pre-used needles and syringes in their last three injections. Almost 99 percent of them had used a new needle that was either self-purchased or given to them by an NGO staff or friends for each of their last three injections.

Only one percent of IDUs have reported to practiced high risk injecting behavior in their three most recent injections. Most of these IDUs had re-used needles/syringes that were used previously either by themselves or their friends/relatives. The majority of IDUs had injected their last three injections alone. One in a hundred had shared a needle/syringe during the most recent three injections (Table 5.6).

Data on needle/syringe using behavior in the last week as well as in the last three most recent injections indicates an increasing consciousness among current IDUs regarding the risks associated with needle/syringe sharing. More than eight in ten IDUs had never injected with a pre-used needle/syringe (97.4%) or with needles/syringes left in public places (98.3%) in the week preceding the survey (Table 5.7).

Table 5.7: Past Week's Syringe Use and Sharing Behavior

| Needle/Syringe Use Throughout the Past Week | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Used a needle/syringe that had been used by other | (N=340) | |
| Never used/Not injected | 97.4 | 95.4-99.0 |
| Used | 2.6 | 1.0-4.6 |
| Used a needle/syringe that had been kept in public place | (N=307) | |
| Never used | 98.3 | 97.1-99.2 |
| Used | 1.7 | 0.8-2.9 |
| Gave a needle/syringe to some one | (N=307) | |
| Yes | 1.8 | 0.6-4.5 |
| No | 98.2 | 95.5-99.4 |
| Number of needle/syringe shared partners | (N=307) | |
| None | 95.4 | 91.8-98.0 |
| Two partners | 3.8 | 1.8-7.3 |
| Three or more partners | 0.8 | 0.0-1.5 |
| Shared needle/syringe with | (N=307) | |
| Sexual partner | 2.0 | 0.0-3.0 |
| Friends | 3.2 | 1.4-6.1 |

Only about 1.8 percent IDUs reported passing their used needle/syringe to others, 2.6 percent had used somebody else's syringe, and 1.7 percent had used a syringe kept in a public place during the past week. The IDUs who shared their needles/syringes in the past week shared them mostly with their friends (3.2%) and sexual partners (2%) (Table 5.7).

5.4 Drug-Sharing Behavior

Some IDUs had followed some risky drug sharing practices in the past week: 4 percent had injected with a pre-filled syringe, 1.6 percent had injected with a syringe that was filled in with another syringe. Moreover, about a third (33.2%) of the surveyed IDUs had shared one or more pieces of injecting equipment, like a bottle, spoon, cooker, vial/container, cotton/filter, or water with others at least once in the preceding week. The same proportion of IDUs (33.2%) shared containers to draw solution at least once in the previous week (Table 5.8).

Table 5.8: Past Week's Drugs Sharing Behavior

| Drug Sharing Practice During Past Week | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Injected with a pre-filled syringe | (N=307) | |
| Yes | 4.0 | 1.9-6.4 |
| No | 94.9 | 91.5-96.7 |
| Don't know | 1.1 | 1.0-3.2 |
| Injected with a syringe after drugs were transferred into it from another's syringe | | |
| Injected with such syringe | 1.6 | 0.2-3.7 |
| Never injected with such syringe | 98.4 | 96.3-99.8 |
| Shared a bottle, spoon, cooker, vial/container, cotton/filter and rinse water | | |
| Shared | 33.2 | 28.1-40.5 |
| Never shared | 66.8 | 59.6-71.9 |
| Drew drug solution from a common container used by others | | |
| Drew at least once | 33.2 | 28.0-40.3 |
| Never | 66.8 | 59.7-72.0 |

A majority of IDUs in Kathmandu (95.3%) had not used previously used non-sterile needles/syringes in the past months; however, the remaining 4.7 percent were still using such needles/syringes in the past months. Similarly, one-third (32.9%) had used non-sterile injecting equipment like a bottle, spoon, cotton/filter, cooker and container with others at least once in the past months (Table 5.9).

Table 5.9: Needle/Syringe and Injecting Equipment Used in the Past Months

| Needle/Syringe Used in the Past Month | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Used previously used non-sterile needle/syringe in the past month | (N=307) | |
| Yes | 4.7 | 2.7-7.1 |
| No | 95.3 | 93.0-97.3 |
| Used non-sterile injecting equipments at any time in the past month | | |
| Yes | 32.9 | 27.8-38.4 |
| No | 67.1 | 61.6-72.2 |

Information on the movement of the IDUs both within and outside the country and their injecting practices in the place/s they visited was also collected during this survey. About 27.8 percent had injected drugs in places that they had visited in the past year. These places include both cities outside the Kathmandu Valley but still in Nepal or outside of the country altogether. Among the IDUs in the sample who had injected drugs outside the Kathmandu Valley or outside of the country, 7.2 percent had injected with someone else's previously used syringe and about three percent had passed their used needle/syringe to others (Table 5.10).

Table 5.10: Injecting Behavior in Other Parts of Country and Out of Country

| Injecting Practice in Other Parts of the Country and Out of the Country | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|------------|
| Injected in other parts of country as well as out of country | (N=340) | |
| Yes | 27.8 | 23.1-32.9 |
| No | 72.2 | 67.2-76.9 |
| Used a needle/syringe that had been used by other | (n=109) | |
| Yes | 7.2 | 0.0-24.2 |
| No | 92.8 | 75.8-100.0 |
| Gave a needle/syringe to someone after use | | |
| Sometimes – always | 3.4 | No Bound |
| Never | 96.6 | No Bound |

Note: No Bound - RDSAT conditions were not met

5.5 Needle/Syringe Cleaning Practices

Improper methods of cleaning not only reflect a lack of awareness but also put IDUs at a higher risk for contracting HIV. In the Kathmandu Valley, about nine percent of IDUs had re-used needles/syringes in the past week. Out of the nine percent, only 8.5 percent had cleaned the needle/syringe with bleach, others (91.5%) had cleaned them with substances like saliva, water, distilled water, paper, or urine (Table 5.11).

Table 5.11: Needle/Syringe Cleaning Practice

| Needle/Syringe Cleaning Behavior | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|------------|
| Cleaned previously used needle/syringe in the past week | N= (307) | |
| Yes | 8.6 | 5.9-11.8 |
| No | 0.9 | 0.0-1.6 |
| Never reused | 90.5 | 87.3-93.6 |
| Ways of cleaning needle/syringe | (n=72) | |
| Bleach | 8.5 | 0.0-14.7 |
| Without bleach | 91.5 | 85.3-100.0 |

5.6 Availability of New Syringes

A total of 98.1 percent of IDUs knew that they could obtain new needles/syringes from various sources. Among them, nearly all stated they could get a new needle/syringe from a drugstore (98.5%). A little over half of IDUs (51.3%) knew they could obtain new syringes

from the needle exchange program run by Life Giving and Life Shaving (LALS), while a third (33.4%) mentioned hospitals and a few mentioned friends (14.3%) as a source of new needles/syringes. About 9.2 percent cited the Richmond Fellowship (9.2%) as a source as well. Forty five percent of the IDUs reported that they received new syringes through needle exchange programs or from outreach worker/peer educators in the past year (Table 5.12).

Table 5.12: Knowledge of Sources of New Syringes

| Descriptions | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Could obtain new syringe | (N=340) | |
| Yes | 98.1 | 96.6-99.3 |
| No | 1.9 | 0.7-3.4 |
| Could obtain syringe from# | (n=333) | |
| Drugstore | 98.5 | 96.5-99.9 |
| LALS | 51.3 | 45.4-58.4 |
| Hospital | 33.4 | 27.6-39.4 |
| Friends | 14.3 | 9.8-18.6 |
| Richmond | 9.2 | 6.1-13.5 |
| SMF | 2.3 | 0.6-4.2 |
| Drug Whole-seller | 0.7 | 0.0-1.1 |
| Drug seller | 0.2 | 0.0-0.2 |
| Others | 0.9 | 0.2-1.8 |
| Given a new needles/syringes by outreach worker/peer educators or obtained from needle exchange program in the past year | (N=340) | |
| Yes | 44.7 | 39.9-51.1 |
| No | 55.3 | 48.9-60.1 |

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

5.7 Treatment Status

Table 5.13 shows the status of treatment received by IDUs in the Kathmandu Valley. The majority of the IDUs (56.8%) had not received any kind of treatment so far. Among those who had received some treatment, about half of the respondents (48.6%) had done so less than a year ago, whereas the rest had been treated more than a year ago. Around 91 percent of IDUs had been treated under residential rehabilitation programs by different NGOs (Annex 14).

Table 5.13: Treatment Received

| Treatment for De-addiction | Estimated Population Proportions (%) | 95% CI |
|-------------------------------------|--------------------------------------|-----------|
| Treatment status | (N=340) | |
| Ever treated | 43.2 | 37.5-49.6 |
| Never treated | 56.8 | 50.4-62.5 |
| Last treatment received | (n=177) | |
| Less than 6 months | 26.0 | 17.1-39.4 |
| 6-11 months before | 22.6 | 13.8-31.0 |
| 12-23 months before | 22.6 | 12.0-27.7 |
| 24-35 months before | 13.1 | 6.5-23.0 |
| 36-47 months before | 7.4 | 3.9-15.5 |
| 48 or more months before | 8.2 | 2.7-12.0 |
| Types of treatment received# | (n=177) | |
| Residential rehabilitation | 90.6 | 79.6-96.0 |
| Detoxification w/other drugs | 9.7 | 3.8-20.0 |
| Outpatient counseling | 1.0 | No Bound |
| Maintenance with methadone | 1.5 | 0.0-2.1 |
| Detoxification with methadone | 3.0 | No Bound |

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

No Bound - RDSAT conditions were not met

6. SEXUAL BEHAVIOR AND CONDOM USE

In this chapter the sexual behavior of the respondents and their sex partners is analyzed. HIV transmission among drug users is most often correlated with their needle/syringe-sharing behavior. In addition, practice of risky sexual behavior contributes greatly towards making IDUs more vulnerable to HIV transmission. HIV infected IDUs further transmit the virus to their spouses or sex partners through unsafe sexual contact. This chapter also discusses sexual history and condom use among IDUs.

6.1 Sexual Behavior

The majority of IDUs in Kathmandu were sexually active; 90.4 percent had experienced sexual intercourse before and 73.9 percent had had sex in the past 12 months. Among those who were sexually active, a high proportion (83.5%) were less than 20 at the time of their first sexual contact, and the median age was 17 years.

Table 6.1: Sexual History

| Sexual Behavior | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Ever had sexual intercourse | (N=340) | |
| Yes | 90.4 | 86.3-94.1 |
| No | 9.6 | 5.9-13.7 |
| Age at first sexual intercourse | (n=313) | |
| Below 20 years | 83.5 | 77.4-88.0 |
| 20 years & above | 16.5 | 12.0-22.6 |
| Median Age | 17.00 | |
| Sexual intercourse in the past 12 months | | |
| Yes | 73.9 | 68.4-79.1 |
| No | 26.1 | 20.9-31.6 |
| Numbers of different sexual partners in the past 12 months | (n=234) | |
| 1 partner | 50.4 | 44.4-61.3 |
| 2-3 partners | 29.7 | 20.0-35.3 |
| 4-6 partners | 12.0 | 7.4-19.3 |
| Seven and more partners | 7.8 | 3.0-10.9 |

Among those who had had sex in the past 12 months, half of the respondents (50.4%) had sex with one partner. Eight percent of IDUs reported having sex with as many as seven or more partners in the course of the year preceding the survey.

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

Table 6.2: Sexual Intercourse with Regular Female Sex Partners

| Sexual Practice | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Sex with a regular female sex partner in the past 12 months | (N=313) | |
| Yes | 22.2 | 18.2-28.2 |
| No | 77.8 | 71.9-81.8 |
| Number of regular partner in the past 12 months | (n=69) | |
| 1 partner | 100.0* | - |
| Sex with a regular female sex partner in last month | | |
| Yes | 89.9* | - |
| No | 10.1* | |
| Frequency of sex with last regular female sex partner during last month | (n=62) | |
| 1- 4 times | 37.6 | 6.0-43.2 |
| Five and more times | 56.4 | 8.8-78.1 |

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

About 22.2 percent of the IDUs reported having sex with a regular partner in the last 12 months. All of them had had only one regular partner, and 89.9 percent had had sex with their regular partner in the last month. Around 56 percent of those who had had sex with their regular partners in the past month had had sex more than once a week.

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

Table 6.3: Sexual Intercourse with Non-Regular Female Sex Partners

| Sexual Practice | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Sex with non-regular female sex partner in the past 12 months | (N=313) | |
| Yes | 43.6 | 37.2-49.2 |
| No | 56.4 | 50.8-62.8 |
| No. of Non-Regular female sex partner in the past 12 months | (n=141) | |
| 1 partner | 54.8 | 51.9-76.7 |
| More than one partner | 45.2 | 23.3-48.1 |
| Sex with non-regular female sex partner during last one month | | |
| Yes | 63.1 | 50.2-75.8 |
| No | 36.9 | 24.2-49.8 |
| Frequency of sex with last non regular female sex partners during last one month | (n=68) | |
| 1- 4 times | 79.0 | 26.7-80.6 |
| Five and more times | 21.0 | No Bound |

More than two-fifths of IDUs (43.6%) reported having sex with non-regular female partners in the last year. Among them, 54.8 percent had had one partner, while 45.2 had had two or more partners. More than three-fifths (63.1%) of them had had their most recent sexual encounter with their non-regular female partner in the month preceding the survey. Twenty one percent of those who had had sex with their non-regular partners in the past month had had sex more than once a week.

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

Overall, 27.2 percent of respondents had had sex with a FSW during the past 12 months. Among them 65.6 percent had sex with two or more paid partners in the past year, and 62 percent had their sexual experiences in the month preceding the survey. The majority of IDUs (77.1%) who had had sex with a FSW in the last month had fewer than four encounters (Table 6.4).

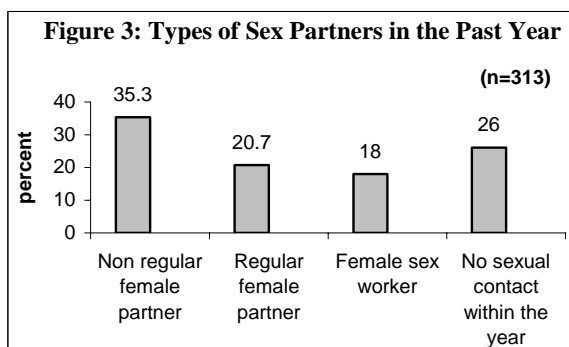
Table 6.4: Sexual Behavior with Female Sex Worker

| Sexual Practice | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Sex with female sex worker in the past 12 months | (N=313) | |
| Yes | 27.2 | 21.8-32.6 |
| No | 72.8 | 67.4-78.2 |
| Number of female sex workers in the past 12 months | (n=96) | |
| 1 partner | 34.4* | - |
| More than one partner | 65.6* | - |
| Sex with female sex worker during last one month | | |
| Yes | 62.0 | 30.4-77.5 |
| No | 38.0 | 22.6-69.6 |

| Sexual Practice | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|------------|
| Frequency of sex with last female sex worker during the last month | (n=53) | |
| 1- 4 | 77.1 | 32.1-100.0 |
| More than four | 22.9 | 0.0-68.0 |

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

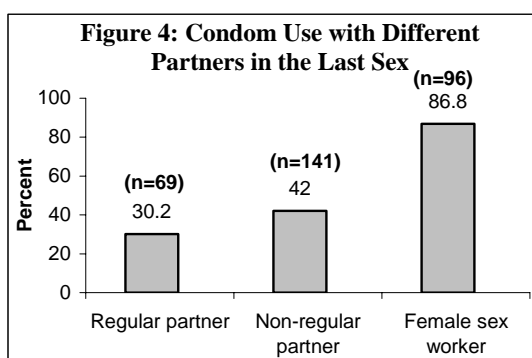
The IDUs were further asked about the most recent sexual partner with whom they had had sexual contact in the preceding year. Twenty-six percent of the IDUs reported not having had sex with anyone within the past year (Figure 3). A higher proportion of IDUs (35.3%) stated that the last time they had had sex was with their non-regular female partners. About 21 percent said that they had most recently had sex with regular partners, while 18 percent had had sex with female sex workers (Figure 3).



Moreover, the IDUs were asked if they ever had sex in exchange for money or drugs. In total 11 respondents ever have had such sex, and seven of them had such acts before starting injection while eight had practiced after they began to inject drugs. Four of them had been selling sex for money or drugs in the past year, half of them had one partners and other half had two or more such partners (Annex 16).

6.2 Knowledge and Use of Condoms

Condom promotion has been one of the important components of HIV/AIDS awareness campaigns. All the IDUs had heard of condoms before. However, consistent condom use was not common among participants. The rate of using condoms in their last sexual episode was 30.2 percent with regular partners, 42 percent with non-regular partners, and 86.8 percent with paid sex workers (Figure 4).



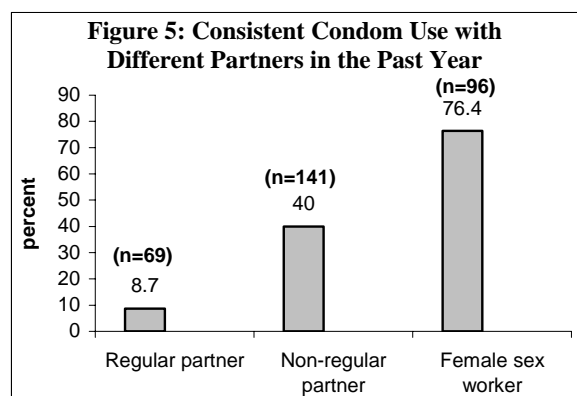
Respondents who reported not using condoms during their last sexual contact with different partners were asked their reasons for not using one. Data obtained from the survey participants (as shown in Annex 15) indicate that the IDUs in general did not consider it necessary (36.5%) or saw it only as a contraceptive method (31.7%) or simply because did not like them to use condom (28.5%) with their regular partners.

About 22 percent of participants, who had not used condoms during their most recent period of sexual intercourse with FSWs, said that they did not like them, while about the same proportion of respondents (21.7%) reported that condoms were not available at the time. Other reasons cited by the participant to explain their lack of condom use were that their partner objected (11%) and that they did not think to use condoms with non-regular partners (5.6%).

Of the IDUs who had sex with non regular partner without using a condom, about 44 percent of the IDUs did not think it necessary to use a condom. Other reasons cited by the IDUs for not using condoms in their last sexual encounter with non regular female partners were that they did not like using them (22.5%), did not have condoms with them at that moment (14.2%), or they had not thought of it (10.6%). Some of them (5.3%) reported that their partner objected (Annex 15).

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

Figure 5, shows 76.4 percent of IDUs had used condoms consistently with female sex workers compared to 40 percent who used condoms consistently with non-regular female sex partners and 8.7 percent who use condoms consistently with regular female sex partners in the past year also.



6.3 Sources of Condoms

IDUs were asked if they knew about the places from where they could obtain condoms. All IDUs cited at least one source. Among them, 98.9 percent said that they could obtain condoms from a pharmacy. Other common sources of condoms were the hospital (43%), peer educators/outreach workers (37.6%), LALS (31.2%), shop (20.4%), pan shop (19.7%), and clinic (18.8%). Most of the IDUs said that they could have them if necessary in less than 30 minutes (99.8%) indicating condoms are readily available at these sources. About 17 percent of IDUs reported that they often carry condoms on their person. However, only 2.9 percent could present condoms during the interview when asked (Table 6.5).

Table 6.5: Sources of Condom and Time Needed to Obtain It

| Sources of Condom and Time to Obtain It | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Place/person from where condom can be obtained# | (N=340) | |
| Pharmacy | 98.9 | 98.2-99.5 |
| Hospital | 43.0 | 37.2-48.9 |
| Peer educator/outreach worker | 37.6 | 31.8-43.3 |
| LALS | 31.2 | 26.1-36.9 |
| Shop | 20.4 | 15.8-25.4 |
| Pan shop | 19.7 | 15.1-24.7 |
| Clinic | 18.8 | 14.4-23.3 |
| Richmond | 7.1 | 4.2-10.0 |
| Friends | 6.9 | 3.8-10.1 |
| Health worker/health post | 4.1 | 2.1-6.1 |
| Bar/Guest house/hotel | 3.7 | 1.9-5.8 |
| Family planning center | 1.6 | 0.6-2.9 |
| SMF | 0.8 | 1.0-2.1 |
| Naulo Ghumti | 0.8 | 0.1-1.6 |
| Others | 5.7 | 3.9-7.9 |

| Sources of Condom and Time to Obtain It | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|------------|
| Time taken to obtain condom | | |
| ≤ 30 minutes | 99.8 | 99.7-100.0 |
| ≥ 31 and more minutes | 0.2 | 0.0-0.3 |
| Respondent mostly carry condom | | |
| Yes | 16.6 | 12.0-21.2 |
| No | 83.4 | 78.8-88.0 |
| Number of condom carried now | | |
| None | 97.2 | 95.1-98.8 |
| One | 2.2 | 0.7-4.1 |
| Two and more | 0.7 | 0.2-1.3 |

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

6.4 Sources of Information about Condoms

IDUs had heard about condoms from different sources. The most common sources of information, cited by more than eight in ten respondents were billboards/signboards (93.7%), television (93.5%), pharmacies (90.4%), newspapers/posters (87.3%), and Radio (80%). The list of other sources of information identified by the respondents is shown in Table 6.6 below.

Table 6.6: Sources of Information about Condoms

| Sources of Knowledge of Condom | Estimated Population Proportions (%) | 95% CI |
|--------------------------------|--------------------------------------|-----------|
| Types of sources# | (N=340) | |
| Bill board/sign board | 93.7 | 90.9-96.1 |
| Television | 93.5 | 90.4-96.3 |
| Pharmacy | 90.4 | 87.0-93.5 |
| Newspapers/posters | 87.3 | 83.3-91.1 |
| Radio | 80.0 | 75.3-84.4 |
| Friends/neighbors | 79.0 | 74.0-83.8 |
| NGO workers | 61.6 | 55.8-67.5 |
| Health workers/volunteers | 57.0 | 51.3-62.6 |
| Hospital | 59.7 | 54.1-65.3 |
| Health Center/Health Post | 40.6 | 35.0-46.4 |
| Cinema hall | 28.8 | 23.7-34.1 |
| Comic books | 28.5 | 23.2-34.2 |
| Community worker | 23.9 | 19.9-29.2 |
| Street drama | 17.3 | 13.4-21.5 |
| Community event/training | 11.3 | 8.3-15.1 |
| Video van | 0.7 | 0.2-1.4 |

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

In order to further analyze the exposure of IDUs to the ongoing initiatives to educate the target groups about condoms, the IDUs were asked if they were aware of any of the messages being publicized via Information, Education and Communication (IEC) materials like posters, pamphlets, billboards, radio, or television. The survey asked the respondents about certain specific messages about condoms and HIV/STI prevention. A good proportion of the respondents were aware of messages like *Condom bata surakchhya youn swastha ko rakchhya* (73%), *HIV/AIDS bare aajai dekhi kura garau* (71.6%), *Jhilke dai chha chhaina condom* (64%), *Condom kinna ma bhaya hunna ra* (63.4%), *Youn rog ra AIDS bata bhachnalai* (62.6%), and *Ramro sanga prayog gare jokhim huna dinna* (61.4%). About a third (31.9%) of respondents had also heard the message *Maya garaun sadbhav badaun* (Table 6.7).

Table 6.7: Exposure of IDUs to Specific Messages in the Past Year

| Heard/Seen/Read the Following Messages/Characters in Past One Year# | Estimated Population Proportions (%) (N=340) | 95% CI |
|---|---|---------------|
| Condom Bata Surakchhya Youn Swastha ko Rakchhya | 73.0 | 67.8-78.1 |
| HIV/AIDS Bare Aaji Dekhi Kura Garaun | 71.6 | 66.0-77.2 |
| Jhilke Dai Chha Chhaina Condom | 64.0 | 58.5-69.3 |
| Condom Kina Ma Bhaya Hunna Ra | 63.4 | 58.0-68.8 |
| Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai | 62.6 | 56.9-68.1 |
| Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna | 61.4 | 55.5-66.7 |
| Maya Garaun Sadbhav Badaun | 31.9 | 26.3-37.0 |
| Manis Sanga Manis Mile Hara Jeeta Kasko Hunchha | 14.9 | 11.1-19.2 |
| Ek Apas ka kura | 6.4 | 3.8-9.2 |
| Des Pardes | 2.3 | 0.9-4.1 |
| Others | 4.0 | 2.2-6.0 |

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

7. KNOWLEDGE ABOUT STIs AND HIV/AIDS

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

7.1 Knowledge about STIs

Knowledge of STI that means the percentage of IDUs in the Kathmandu Valley who have heard of STIs before the survey is almost universal (98.3%).

IDUs who had heard of STIs had a general understanding of male and female STI symptoms. The most commonly cited symptoms were genital ulcer/sore blister (51.6% in female and 61.3% in male) and genital discharge (26.3% in female and 26.6% in male). Symptoms like foul smelling discharges (15.6%) and abdominal pain (2.2%) were specifically mentioned as female STI symptoms by some IDUs. Similarly, a burning sensation while urinating was mentioned as male STI symptom by 26.6 percent of respondents (Table 7.1).

Table 7.1: Knowledge about STI Symptom

| Knowledge of symptoms of STIs | Female STI symptoms (N=337) | | Male STI symptoms (N=337) | |
|-------------------------------|--------------------------------------|-----------|--------------------------------------|-----------|
| | Estimated Population Proportions (%) | 95% CI | Estimated Population Proportions (%) | 95% CI |
| Genital ulcer/sore blisters | 51.6 | 45.2-57.5 | 61.3 | 55.6-67.6 |
| Genital discharge | 26.3 | 21.3-32.6 | 26.6 | 21.5-32.7 |
| Foul-smelling discharge | 15.6 | 11.6-20.3 | | |
| Burning/pain during urination | 15.2 | 11.2-19.7 | 26.6 | 21.4-31.9 |
| Itching | 24.5 | 20.0-29.6 | 26.4 | 21.2-31.9 |
| Swelling in groin area | 11.7 | 7.9-15.8 | 18.6 | 14.2-23.5 |
| Abdominal pain | 2.2 | 0.9-3.6 | | |
| Others | 2.2 | 1.0-3.7 | 1.9 | 0.5-3.7 |
| Don't know | 31.8 | 26.0-37.7 | 25.7 | 20.1-31.4 |

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

All the respondents were asked if they had ever experienced symptoms like genital discharges and/or genital ulcers/sores in the past year. Overall, 89.8 percent had never experienced any STI symptom, 2.5 percent of IDUs said that they have experienced genital discharge, while 7.8 percent mentioned that they had had genital ulcers/sores in the past year.

Among those IDUs who reported having had genital discharge in the past year, 20 percent said that they were experiencing genital discharge at the time of the survey. Similarly, among those IDUs who had had genital ulcers/sores in the past year, 25.8 percent reported having the symptom at the time of survey (Table 7.2).

Table 7.2: STI Symptom/s Experienced in the Past Year

| STI symptoms Experienced | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Had genital discharge in the past year | (N=340) | |
| Yes | 2.5 | 0.1-4.2 |
| No | 97.5 | 95.8-99.0 |
| Had genital ulcer/sore blister in the past year | | |
| Yes | 7.8 | 5.3-10.9 |
| No | 92.2 | 89.1-94.7 |
| Currently had genital discharge | (n=10) | |
| Yes | 20.0* | - |
| No | 80.0* | - |
| Currently Had genital ulcer/sore blister | (n=31) | |
| Yes | 25.8* | - |
| No | 74.2* | - |

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

Around 54 percent of those IDUs who had experienced a STI symptom in the past year had never sought any treatment. However, among those who had treatment, 31.9 percent had been to clinics run by NGOs, 24.9 percent had been to a private doctor, while 22 percent had been to a hospital/health post to seek treatment (Table 7.3).

Table 7.3: STI Symptom Experienced and Treatment Sought in the Past Year

| STI Symptoms and Treatment | Estimated Population | 95% CI |
|--|----------------------|-----------|
| STI experienced in the past year | (N=340) | |
| Yes | 10.2 | 7.1-13.5 |
| No | 89.8 | 86.5-92.9 |
| STI treatment sought in the past year | (n=39) | |
| Yes | 46.2* | - |
| No | 53.8* | - |
| Source of treatment | (n=18) | |
| NGOs | 31.9 | No Bound |
| Private Doctor | 24.9 | No Bound |
| Hospital/Health Post | 22.0 | No Bound |
| Others | 21.2 | No Bound |

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

7.2 Knowledge about HIV/AIDS

All respondents had heard about HIV/AIDS before. A good proportion of them (61.1%) knew people who had either died due to AIDS or currently had HIV/AIDS. When asked about their relationships to those who had HIV/AIDS or lost their lives to AIDS, 46.2 percent said that they were their close friends, and 17.5 percent said that they were their relatives (Table 7.4).

Table 7.4: Awareness HIV/AIDS

| Knowledge about HIV/AIDS | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Know anyone who has HIV/AIDS/died due to AIDS | (N=340) | |
| Yes | 61.1 | 55.1-67.5 |
| No | 38.9 | 32.5-44.9 |
| Nature of relationship with the person living with HIV/AIDS /died due to AIDS | (n=232) | |
| Close friend | 46.2 | 38.4-56.7 |
| Close relative | 17.5 | 9.9-22.4 |
| Both (Close friend and relative) | 3.1 | 0.7-6.6 |
| No relation | 33.2 | 25.5-41.5 |

About a fourth (25.4%) respondents reported that they know an IDU who died in the last year, while about same proportion reported knowing 2 or more IDUs in the past year who died due to HIV/AIDS (Table 7.5).

Table 7.5: Number of Known IDUs Died in the Past Year

| Number of IDUs died | Estimated Population Proportions (%) (N=340) | 95% CI |
|---|--|-----------|
| Known IDUs died in the past one year (n=340) | | |
| None | 50.1 | 44.1-55.3 |
| 1 | 25.4 | 20.6-30.7 |
| 2 | 13.7 | 10.7-17.1 |
| 3 and more | 10.7 | 7.4-14.21 |
| Don't know | 0.2 | 0.0-0.4 |

IDUs' knowledge about ways in which HIV is transmitted was further analyzed with the help of some questions on HIV/AIDS prevention. In this regard their understanding of the three major HIV/AIDS prevention measures including (A) abstinence from sex (B) being faithful to one sex partner (C) and regular condom use was assessed. In total, 61.8 percent of IDUs were aware of all three knowledge indicators. Fewer respondents were aware that abstinence from sex (63.7%) would prevent HIV than those who were aware of being faithful (94.6%) and using condoms regularly (99.1%) as preventative measures.

Additionally, 98.2 percent were aware that a healthy looking person can be infected with HIV (D), and a similar proportion (95.4%) also knew that sharing meal with an HIV infected person did not put them at risk of contracting HIV (F). However, a relatively low proportion of IDUs (69.5%) believed that a person could not get the HIV virus from mosquito bites (E). In total, 64.2 percent of IDUs were aware of all the five major indicators (BCDEF - excluding abstinence) (Table 7.6).

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

| Knowledge of six major indicators on HIV/AIDS | Estimated Population Proportions (%) (N=340) | 95% CI |
|---|--|-----------|
| HIV transmission can be avoided through | | |
| A Abstinence from sexual contact | 63.7 | 58.0-69.6 |
| B Being faithful to one partner | 94.6 | 91.9-97.0 |
| C Condom use during each sexual contact | 99.1 | 97.7-99.9 |
| Perception on HIV/AIDS transmission | | |
| D A healthy-looking person can be infected with HIV | 98.2 | 97.0-99.2 |
| E A person cannot get the HIV virus from mosquito bite | 69.5 | 64.0-74.5 |
| F Sharing a meal with an HIV infected person do not transmit HIV | 95.4 | 93.0-97.5 |
| Knowledge of all three ABC | 61.8 | 56.2-68.0 |
| Knowledge of all five BCDEF | 64.2 | 58.9-69.3 |

IDUs' understanding of HIV/AIDS and its different modes of transmission were further assessed with the help of probing questions: More than nine in ten said that HIV can be transmitted through the transfusion of blood from an infected person to another (99.8%), a person can get HIV by using previously used needles/syringes (98.9%), a person cannot get HIV by holding an HIV infected person's hand (98.5%), and a drug user can protect himself from HIV by switching to non-injecting drugs (93.2%). A considerable proportion of respondents also said that a pregnant woman infected with HIV/AIDS could transmit the virus to her unborn child (85%). A relatively lower percentage of respondents (49.1%) claimed that women with HIV could transmit the virus to her newborn child through breast-feeding.

Those IDUs who said that an HIV infected pregnant woman could transmit the virus to her unborn child were asked if they were aware of any measures that could reduce such risk of HIV transmission. Among them, only 18.7 percent of respondents suggested that the expecting mother could take medicine or antiretroviral treatment. Others suggested different measures like consulting with the doctor or performing a cesarean delivery.

Table 7.7: Knowledge about Ways of HIV/AIDS Transmitting

| Statements related to HIV/AIDS# | Estimated Population Proportions (%) (N=340) | 95% CI |
|--|--|------------|
| A person can get HIV by using previously used needle by others | 98.9 | 97.2-99.9 |
| An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs | 93.2 | 89.9-95.6 |
| Blood transfusion from an infected person to the other transmit HIV | 99.8 | 99.7-100.0 |
| A person cannot get HIV by holding an HIV infected person's hand | 98.5 | 98.2-100.0 |
| A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child | 85.0 | 80.8-89.0 |
| A woman with HIV/AIDS can transmit the virus to her new-born child through breast feeding | 49.1 | 43.4-54.8 |
| Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child | (n=287) | |
| Take medicine (Anti retro viral) | 18.7 | 12.6-22.9 |
| Others | 18.7 | 13.9-25.5 |
| Don't know | 62.6 | 55.5-70.0 |

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

7.3 Knowledge about HIV Testing Facilities

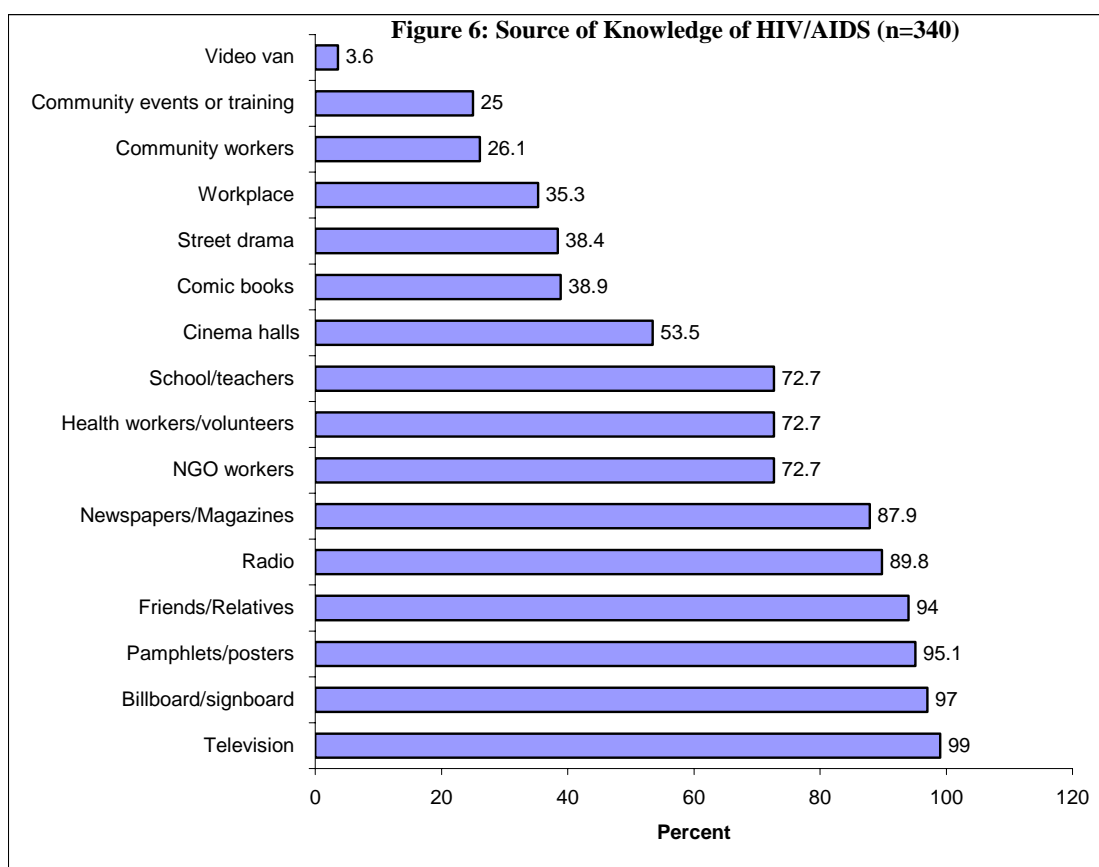
Respondents were asked about the availability of a confidential HIV testing facility and their awareness that the clinics allow people to take the HIV test promptly and without the fear of being exposed. Although a good proportion of the IDUs (89.9%) were aware of the existence of such a facility in their communities, 49 percent of respondents had never tested themselves for HIV, while the rest (51%) had been tested before. Among them, 62 percent had taken the test voluntarily, and the majority (86.8%) had received their test results. However, only 43.3 percent of IDUs had taken the test in the last year. The rest of the IDUs had been tested more than a year ago (Table 7.8).

Table 7.8: Knowledge about HIV Testing Facilities and History of HIV Test

| Description of HIV Testing | Estimated Population Proportions (%) (N=340) | 95% CI |
|---|--|-----------|
| A confidential HIV testing facility available in the community | | |
| Yes | 89.9 | 85.6-93.6 |
| No | 8.9 | 5.2-13.0 |
| Don't know | 1.2 | 0.3-2.6 |
| Ever had HIV test | | |
| Yes | 50.9 | 44.6-57.5 |
| No | 49.1 | 42.5-55.4 |
| Types of taste taken | (n=197) | |
| Required HIV test | 38.0 | 28.6-48.5 |
| Voluntary HIV test | 62.0 | 51.5-71.5 |
| Test result received | | |
| Yes | 86.8 | 84.3-94.6 |
| No | 13.2 | 5.4-15.7 |
| Timing of last HIV test | | |
| Within the past 12 months | 43.3 | 38.5-58.3 |
| Between 13-24 months | 29.7 | 17.1-33.7 |
| Between 25-48 months | 17.0 | 11.0-24.7 |
| 49 and more months | 9.9 | 3.7-15.3 |

7.4 Source of Knowledge about HIV/AIDS

Television and billboards/signboards were the two most cited sources of information about HIV/AIDS among the IDUs. These sources of information were mentioned by around 99 percent and 97 percent, respectively, of the survey population. A similar proportion of the respondents had become aware of HIV/AIDS through pamphlets/posters (95.1%), friends/relatives (94%), radio (89.8%), and newspaper/magazines (87.9%). About 73 percent of respondents also mentioned NGO workers, health worker/volunteers, and school/school teachers. Other sources of information identified by the IDUs are listed in the table below (Figure 6).



In the past year IDUs had also received HIV/AIDS-related IEC materials from different sources. HIV-related information had been disseminated to 68.5 percent of the respondents. IEC materials like brochures/booklet/pamphlets on HIV/AIDS had reached 58.8 percent of IDUs, while 45.3 percent had received condoms/information relating to condoms (Table 7.9).

Table 7.9: Information/Materials Received during the Past Year

| Informative Materials Received | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Received information on Condom | (N=340) | |
| Yes | 45.3 | 39.5-51.0 |
| No | 54.7 | 49.0-60.6 |
| Received brochures/booklets/pamphlets on HIV/AIDS | | |
| Yes | 58.8 | 53.2-64.7 |
| No | 41.2 | 35.3-46.8 |

| Informative Materials Received | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Received information on HIV/AIDS | | |
| Yes | 68.5 | 63.3-73.8 |
| No | 31.5 | 26.2-36.7 |
| Received other IEC materials | | |
| Yes | 3.6 | 1.6-5.7 |
| No | 96.4 | 94.3-98.4 |

7.5 Perception on HIV/AIDS

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

The majority of respondents were prepared to take care of an HIV-positive male relative (96.1%) or an HIV-positive female relative (95.2%) in their homes if such a need arose. Nearly six in ten (58.6%) of the sample population, however, said that if a family member had HIV, they would prefer to keep it confidential and not talk about it with others.

The majority of participants (95.7%) said that they would readily buy food from an HIV - positive vendor. Around 97 percent agreed, unless very sick, people with HIV/AIDS should be allowed to continue their jobs.

When asked about the health care needs of HIV infected persons, 51.4 percent of IDUs maintained that they should be provided with the same care and treatment as necessary for chronic disease patients. Additionally, 44.9 percent believed that the health care needs of an HIV infected person were more than those of people suffering from chronic diseases (Table 7.10).

Table 7.10: Attitude towards HIV/AIDS

| Stigma and Discrimination | Estimated Population Proportions (%) (N=340) | 95% CI |
|--|--|-----------|
| Willing to take care of HIV positive male relative in the household | | |
| Yes | 96.1 | 93.7-98.2 |
| No | 3.9 | 1.8-6.3 |
| Willing to take care of HIV positive female relative in the household | | |
| Yes | 95.2 | 92.6-97.6 |
| No | 4.8 | 2.4-7.4 |
| Willing to maintain confidentiality of a HIV positive family member | | |
| Yes | 58.6 | 52.6-64.0 |
| No | 41.4 | 36.0-47.4 |
| Willing to buy food from HIV infected shopkeeper | | |
| Yes | 95.7 | 93.1-97.9 |
| No | 4.3 | 2.1-7.0 |
| HIV infected person should get the same, more or less health care than someone with any other chronic disease | | |
| Same | 51.4 | 45.5-57.6 |
| More | 44.9 | 38.6-51.1 |
| Less | 3.7 | 1.6-5.9 |
| HIV infected person should be allowed to continue working together | | |
| Yes | 96.7 | 94.4—98.6 |
| No | 3.3 | 1.4-5.6 |

8. EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

The exposure of the IDUs to the ongoing HIV/AIDS awareness programs and their participation in these activities has been examined in the survey. Respondents were asked several questions relating to some of the most important components of the current HIV/AIDS-related programs run by different organizations.

8.1 Peer/Outreach Education

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

Less than half (47.2%) of participants had met with one PE/OE at least once before the survey. During their meetings, 83.9 percent had received new syringes, 52.5 had discussed safe injecting behaviors, while 51.2 percent had been taught about how HIV is transmitted. IDUs were also informed about strategies for quitting drugs (11.2%), taught about basic STI knowledge and how to avoid contracting STIs (9.5%), and given free condoms (8%).

The majority of meetings were held by the OE/PE from LALS (63.1%) followed by the Richmond Fellowship (27.3%) and Youth Vision (21.8%). It is further evident that IDUs meet PE/OEs quite often, as only two percent of IDUs had met PE/OEs just once and others had met them more than twice in the past one year (Table 8.1).

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

| Meeting with Peer Educators (PE) or Outreach Educators (OE) in the Last 12 Month | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Met or discussed or interacted with PE or OE in the last 12 months | (N=340) | |
| Yes | 47.2 | 42.5-54.1 |
| No | 52.8 | 45.9-57.5 |
| Activities carried out with OE/PE# | (n=206) | |
| Given syringe | 83.9 | 76.2-88.4 |
| Discussion on safe injecting behavior | 52.5 | 46.4-64.3 |
| Discussion on how HIV/AIDS is/isn't transmitted | 51.2 | 45.5-65.2 |
| Discussion of giving up drugs | 11.2 | 6.4-13.5 |
| Discussion on how STI is/isn't transmitted | 9.5 | 6.4-18.8 |
| Given condom | 8.0 | 3.8-12.4 |
| Discussion on regular/non-regular use of condom | 6.2 | 2.5-9.9 |
| Demonstration on using condom correctly | 5.6 | 1.8-8.1 |
| Others | 29.4 | 22.0-38.9 |
| Organizations represented by OE/PE# | | |
| LALS | 63.1 | 49.2-69.9 |
| RICHMOND | 27.3 | 19.1-37.6 |
| Youth Vision | 21.8 | 16.7-33.9 |
| Sathi Samuha | 18.6 | 9.9-29.3 |
| Naya Goreto | 15.3 | 7.7-21.8 |
| Prerana | 3.8 | 0.8-10.3 |
| SMF | 2.6* | - |
| Positive Voice | 1.9 | No Bound |
| Nawa Kiran | 1.6 | 0.7-3.2 |
| Sahara Nepal | 1.6 | 0.4-3.9 |
| Recovery Youth Group | 1.2 | 0.3-4.5 |
| Sparsha Nepal | 1.1 | 0.4-2.5 |
| BDS | 0.8 | 0.0-1.3 |
| New Hope Foundation | 0.5* | - |
| Others | 4.9 | 1.6-7.8 |
| Don't know | 0.9 | 0.0-1.1 |
| Number of meeting with PE or OE | | |
| Once | 1.8 | No Bound |
| 2-3 times | 11.5 | 7.0-19.3 |
| 4-6 times | 19.3 | 7.7-20.5 |
| 7-12 times | 4.2 | 1.7-8.2 |
| 13 and more times | 63.3 | 56.5-74.1 |

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

8.2 Drop-in-Center

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

A total of 61 percent of respondents had visited a DIC in the past year. Among them, the majority (96.3%) had been to a DIC to get a new syringe. A fourth of them (24.1%) had been there to collect alcohol swab/pad, 21.4 percent had been informed about safe injecting behaviors at the DIC, and a similar proportion of them (20.6%) participated in discussions on HIV transmission. Moreover some IDUs had collected condoms from DICs (19.2%) and had been treated or given medicine (12.5%).

DICs run by LALS (54%) were the most frequented centers followed by those run by Sathi Samuha (23.7%), Richmond (15.9%), Naya Goreto (11.9%), Youth Vision (8.5%), and Siddhi Memorial Foundation (6.6%). The majority of IDUs (99.7%) had been to DICs more than once a year (Table 8.2).

Table 8.2: DIC Visiting Practices in the Last 12 Months

| DIC visiting practices | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Visited DIC/IC/CC in the last 12 months | (N=340) | |
| Yes | 61.0 | 55.9-66.8 |
| No | 39.0 | 33.2-44.1 |
| Participated activities at DIC/IC/CC # | (n=246) | |
| Got new syringe | 96.3 | 94.4-98.9 |
| Collect alcohol pad/swab | 24.1 | 19.6-31.5 |
| Learnt about safe injecting behavior | 21.4 | 15.1-28.2 |
| Participated in discussion on HIV transmission | 20.6 | 14.2-29.0 |
| Collected condoms | 19.2 | 14.9-26.8 |
| Had treatment/medicine | 12.5 | 6.3-14.9 |
| Watched TA/film about HIV/AIDS | 10.7 | 6.5-17.5 |
| Had wound dressing | 7.0 | 3.0-10 |
| Got distilled water | 5.1 | 1.5-9.3 |
| Learnt the correct way of using condom | 4.0 | 1.6-7.0 |
| Got bleach | 0.6 | 0.0-0.9 |
| Others (discussion on drug reduction, play games and read paper/magazine) | 16.6 | 11.4-22.4 |
| Name of organizations that run DIC/IC/CC visited by them# | | |
| LALS | 54.0 | 44.4-63.1 |
| Sathi Samuha | 23.7 | 14.4-34.1 |
| RICHMOND | 15.9 | 10.4-23.2 |
| Naya Goreto | 11.9 | 7.4-18.7 |
| Youth Vision | 8.5 | 5.4-12.8 |
| SMF | 6.6 | 0.9-18.9 |
| New Hope Foundation | 0.8* | - |
| Sahara Nepal | 0.4 | 0.4-1.2 |
| Recovering Youth Group | 1.2 | 0.3-2.6 |
| Others | 3.0 | 1.4-5.5 |
| Number of visits to the DIC/IC/CC s | | |
| Once | 0.3* | - |
| 2-3 times | 14.4 | 7.0-17.6 |
| 4-6 times | 13.3 | 9.1-20.4 |
| 7-12 times | 8.5 | 4.4-13.2 |
| 13 and more times | 63.8 | 56.9-72.5 |

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

8.3 STI Clinic

Timely detection of STIs may prevent serious health problems. In Nepal, there are several clinics being run by different government as well as non-governmental organizations that provide STI testing and treatment facilities. In this survey, only 2.9 percent of the IDUs had visited a STI clinic in the past year. Fifty eight percent of them had participated in physical examinations for STIs, and while 42 percent of them accompanied their friends. About 18 percent had given blood samples and 9.1 percent of them had discussions on the ways in which STIs are transmitted. They all had visited private clinics and hospitals as opposed to governmental facilities. Ninety one percent of those who had visited clinics paid only one visit, while the rest had visited two or three times in the past year (Table 8.3).

Table 8.3: STI Clinic Visiting Practices in the Last 12 Months

| STI Clinic Visiting Practices | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Visited any STI clinic in the last 12 months | (N=340) | |
| Yes | 2.9 | 1.2-5.1 |
| No | 97.1 | 95.0-98.8 |
| Participated activities at STI clinic# | (n=11) | |
| Participated in physical examination for STI identification | 58.0 | No Bound |
| Accompanied their friends | 42.0 | No Bound |
| Blood tested for STI detection | 18.2* | - |
| Participated in discussion STI transmission modes | 9.1 * | - |
| Name of organizations that run STI clinic visited# | | |
| Private Clinic | 54.5* | - |
| Hospital | 18.2 * | - |
| Others | 27.3* | - |
| Number of visits to STI clinics | | |
| Once | 90.9* | - |
| 2-3 times | 9.1 * | - |

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

8.4 VCT Centers

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

Eighty percent of IDUs in Kathmandu had not visited any of the VCT centers in the last year. Of the 20 percent of respondents who had been to a VCT center in the past year, all of them visited the center to give their blood sample for HIV testing. About 92 percent of them had received the HIV test results and almost 84 percent of the respondents had received post HIV test counseling or pre HIV test counseling (77%). Some respondents had also received information on window period on HIV (13.2%), safe injecting behavior (12.8%) or correct use of condoms (5.5%) at these centers.

The VCT center run by Recpec (42.9%), Hospitals (29.2%) and Youth Vision (25.7%) were the most popular among the IDUs. Among the IDUs who had visited VCT centers, 90.6 percent had visited a center just once (Table 8.4).

Table 8.4: VCT Center Visiting Practices in the Last 12 Months

| VCT Center Visiting Practices | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|------------|
| Visited VCT center in the last 12 months | (N=340) | |
| Yes | 20.2 | 15.4-25.7 |
| No | 79.8 | 74.3-84.6 |
| Participated activities at VCT center # | (n=80) | |
| Gave blood sample for HIV test | 100.0 * | - |
| Received HIV test result | 92.1 | No Bound |
| Received post HIV test counseling | 83.7 | 61.1-96.2 |
| Received pre-HIV test counseling | 77.0 | 43.6-90.9 |
| Got information on HIV/AIDS window period | 13.2 | 6.2-36.2 |
| Received information on safe injecting behavior | 12.8 | 7.9-32.5 |
| Received counseling on using condom correctly in each sexual intercourse | 5.5 | 2.8-16.7 |
| Name of the organization that run the VCT centers visited# | | |
| Recpech # | 42.7 | 4.7- |
| Hospital | 29.2 | 2.8-36.1 |
| Youth Vision | 25.7 | 16.2-55.6 |
| WHIC | 19.6 | 2.7-33.2 |
| Sparsha Nepal | 6.3* | - |
| SACTS | 0.9* | - |
| Others | 11.3* | - |
| Number of visits to VCT centers | | |
| Once | 90.6 | 89.0-100.0 |
| 2-3 times | 9.4 | 0.0-11.0 |

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

8.5 Participation in HIV/AIDS Awareness Program

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

About half (45.8%) of surveyed IDUs in the Kathmandu Valley had participated in HIV/AIDS awareness programs. Three-quarters of them had participated in street dramas, while 29.1 percent had been involved with AIDS Day celebrations and the same proportion (28.9%) had participated in HIV/AIDS-related trainings in the past year.

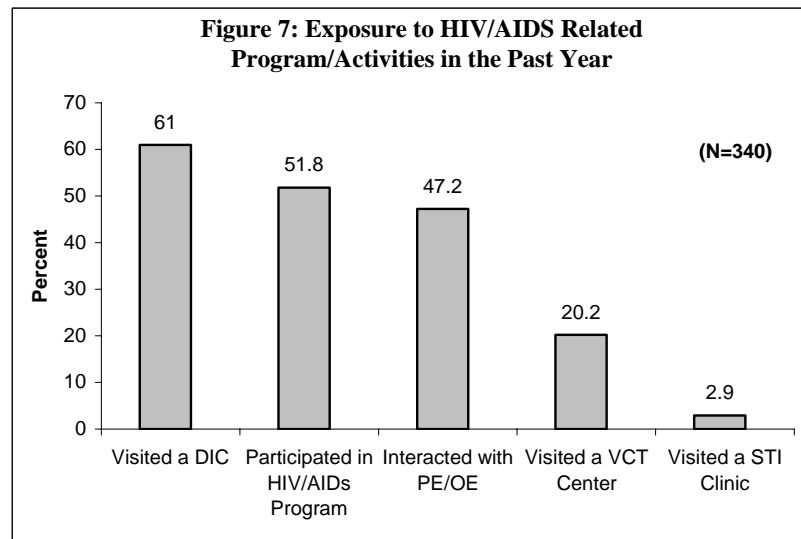
The activities in which the respondents participated were conducted by LALS (5.8%) and Youth Vision (5.6%). However, half of them (49.9%) reported that they did not know the name of these organizations (Table 8.5). A majority of the survey participants (48.2%) did not participated in any program in the past year. Nearly one-third (30.8%) had participated in one program only, while one-fourth (23.5%) had taken part in two or three programs (Table 8.5).

Table 8.5: Participation in HIV/AIDS Awareness Programs

| Participations in HIV/AIDS Awareness Programs | Estimated Population Proportions (%) | 95% CI |
|--|---|---------------|
| Ever participated in HIV/AIDS awareness raising program or community events | (N=340) | |
| Yes | 45.8 | 40.0-51.7 |
| No | 54.2 | 48.4-60.0 |
| Participated in HIV/AIDS awareness raising program or community events in the Past Year | (n=170) | |
| Yes | 51.8 | 39.3-66.4 |
| No | 48.2 | 33.7-60.7 |
| Activities participated in# | | |
| Street drama | 74.6 | 58.2-80.7 |
| AIDS Day celebration | 29.1 | 21.5-40.4 |
| HIV/AIDS related training | 28.9 | 19.0-41.9 |
| Condom Day celebration | 11.9 | 4.9-17.8 |
| Group discussions | 4.4 | 0.6-7.0 |
| HIV/AIDS related Workshops | 4.0 | No Bound |
| Video Shows | 1.5 | 1.4-5.0 |
| Condom use demonstrations | 0.5 | 0.3-1.0 |
| Name of the organizations that organized such activities# | | |
| Saathi Samuha | 9.0 | 2.5-17.4 |
| Mother's Group | 9.0 | 0.8-15.3 |
| LALS | 5.8 | 2.5-10.2 |
| Youth Vision | 5.6 | 1.4-8.7 |
| From School | 5.2 | 0.3-14.3 |
| RICHMOND | 4.1* | - |
| SMF | 2.4* | - |
| Recovery Youth Group | 2.4 | 1.1-10.6 |
| Nawa Kiran Plus | 2.1 | No Bound |
| Naya Goreto | 1.9 | 0.2-6.1 |
| Positive Voice | 1.9 | 0.6-4.9 |
| New Hope Foundation | 1.2* | |
| Recovery Nepal | 0.7 | No Bound |
| Others | 15.7 | 10.3-25.2 |
| Don't Know | 49.9 | 35.7-58.1 |
| Frequency of such participation in past 12 months | | |
| Once | 30.8 | 22.5-47.5 |
| 2-3 times | 23.5 | 11.0-28.4 |
| 4-6 times | 2.4* | - |
| 7-12 times | 0.6* | - |
| More than 12times | 0.6* | - |
| Not Participated During the Past Year | 45.7 | 32.8-60.3 |

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

As seen in Figure 7, a higher proportion of IDUs had visited a DIC in the past year. Little more than half of the IDUs had participated in the HIV/AIDS related program. Interaction and VCT visiting practice is not common in Kathmandu Valley. The practice of visiting an STI clinic was lowest; this is probably because IDUs usually do not consider themselves at the risk of STI transmission. That is why although 20.2 percent of the respondents had visited a VCT center only 2.9 percent had been to an STI clinic despite the fact that VCT centers also provide information about STI clinic and encourage IDUs to visit them.



It is likely that those IDUs who come into contact with OE/PE also come to know about other services from them. Further analysis was carried out to know what proportion of respondents who had met/interacted with PE/OE had also visited such service centers in the past year. Data presented in Annex 17 shows that among the IDUs who had met OE/PE in past year, 94.7 percent had been to a DIC, 38.3 percent had participated in HIV/AIDS awareness program, 32.5 percent of them had visited a VCT center while 4.9 percent of them had been to a STI clinic.

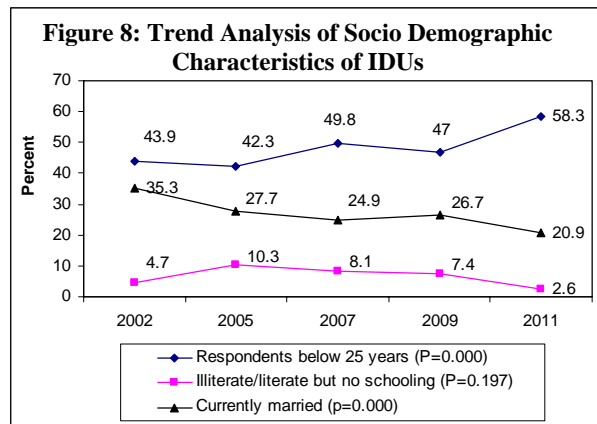
9. COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter analyzes the trend in the selected indicators by comparing the data obtained from all five rounds of IBBS among IDUs conducted in the Kathmandu Valley. It focuses on socio-demographic characteristics, drug injecting habits, needle/syringe using practices, and condom use among IDUs. In all rounds of IBBS among IDUs in Kathmandu RDS sampling methods were used. However, in the 2002 round of IBBS, RDS was used with limitations. For instance, in the first round conducted in 2002, relatively large numbers of seeds were used in RDS. Moreover, SPSS was used to analyze the data from 2002 and 2005 survey and RDSAT was used to analyze the data from 2007 onwards.

Although there have been some improvements in the use of RDS and data are analyzed by RDSAT in some rounds as per the assessment of the situation in the survey areas, largely we are safe to compare these data for trend analysis.

9.1 Socio-Demographic Characteristic

As seen in Figure 8, the percentage of the IDUs that were younger than 25 years has increased significantly to 58.3 percent in 2011 compared to 43.9 percent in 2002. The trend over time is statistically significant at one percent significance level. This is a clear indication that proportion of young injecting drug users in Kathmandu is increasing over the time. However, analysis indicates that there is no significant change in the percentage who are illiterate over the time ($p=0.197$) and it has remained low throughout the study years.

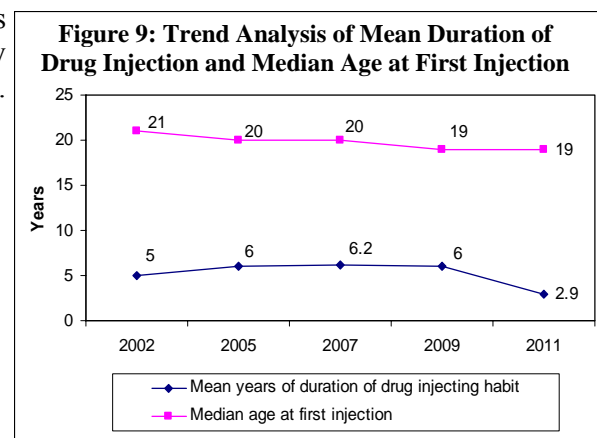


The marital status of the IDUs has also changed over the years. There were 35.3 percent of the IDUs who were married at the time of survey in 2002; the percentage of respondents reporting so significantly came down to 20.9 percent in 2011 ($p=0.000$).

9.2 Drug Injecting Practices

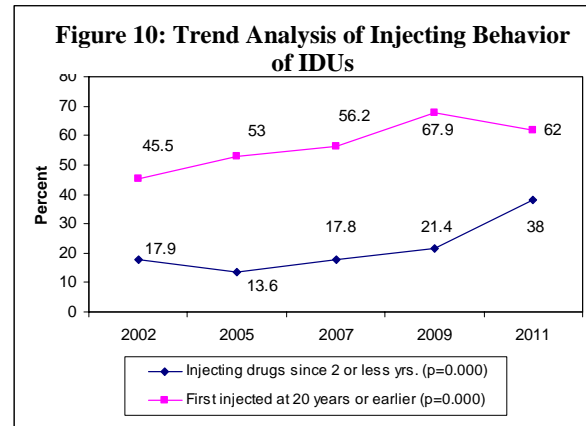
The average duration of injecting drugs came down to 2.9 years in 2011 survey from average duration of 5 years in 2002. The median age of the respondents at their first injection has also come down to 19 years in 2011 compared to 21 years in 2002 (Figure 9).

Similar to findings from previous rounds of the survey, a large percentage of respondents reported injecting drugs since the past two or more years. However, as seen in Figure 10 the proportion of IDUs



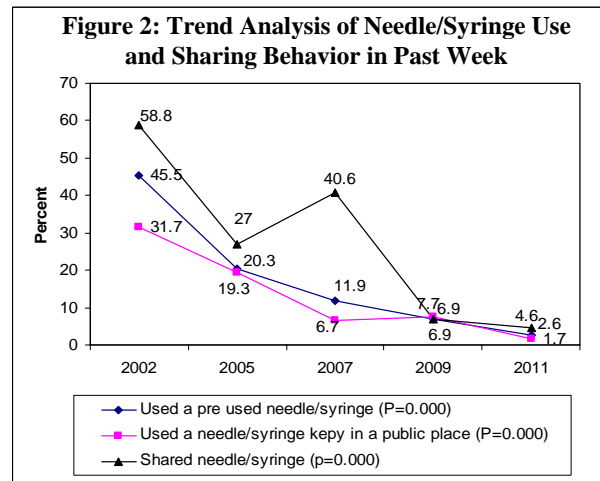
injecting for less than two years increased significantly from 17.9 percent in 2002 to 38 percent in 2011 ($p=0.000$). This finding indicates that there have been new entries to the IDUs group in the Kathmandu Valley.

The percentage of IDUs who had started to inject drugs at the age of less than 20 years has increased over time. This is a clear indication that higher proportion of younger boys in Kathmandu valley is joining the injecting groups over time. About 45.5 percent of IDUs had injected first before turning 20 years in 2002 which has increased to 62 percent in 2011. This increasing trend is statistically significant ($p=0.000$).



9.3 Needle/Syringe Using Practice in the Past Week

Very sharp declining trend is observed in the three needle/syringe using practices of IDUs in the Kathmandu Valley. The percentage of IDUs who injected with a previously used needle/syringe went down from 45.5 percent in 2002 to 2.6 percent in 2011.

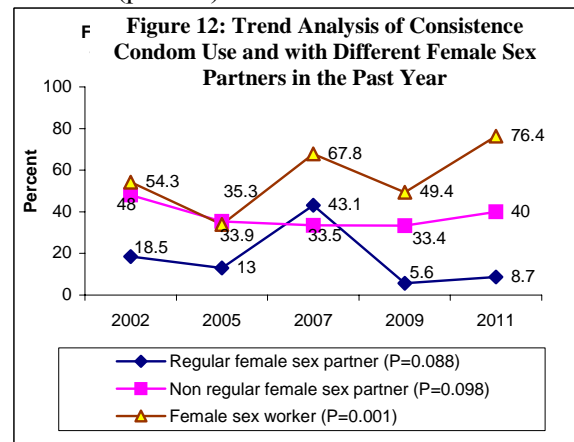


In the same way, 31.7 percent of IDUs had injected with syringes left in a public place in the week preceding the 2002 survey and this percentage also has decreased to 1.7 percent in the fifth round which is a statistically significant decrease.

Likewise, the percentage of IDUs who had shared their needles with others also has gone down from 58.8 percent in 2002 to 4.6 percent in 2011 ($p<0.01$).

9.4 Condom Use with Different Partners

IDUs who reported using condoms consistently with their regular sex partners in this fifth round decreases sharply compared to the other four rounds of the survey. Some improvement in the proportion of respondents using condoms consistently with their non-regular partners is observed in the current survey round compared to the second, third, and fourth rounds but the overall trend is not significant. That indicates that consistent condom use with



partners other than FSWs has remained more or less stable in the last nine years. A significantly higher number of IDUs used condoms consistently with FSWs in 2011 compared to previous rounds. This increasing trend in consistent condom use with FSWs is statistically significant also (Figure 12).

9.5 HIV and Syphilis Prevalence

Figure 13 analyze the trend of HIV and STI over the time. HIV prevalence among the IDUs has decreased significantly since the first round in 2002. In the first round of IBBS 68 percent of IDUs were HIV positive, which decreased to 6.3 percent in 2011 in the Kathmandu Valley. Syphilis test was introduced only from the third round of IBBS in 2007. Active syphilis is fluctuating around one percent but the trend is not statistically significant.

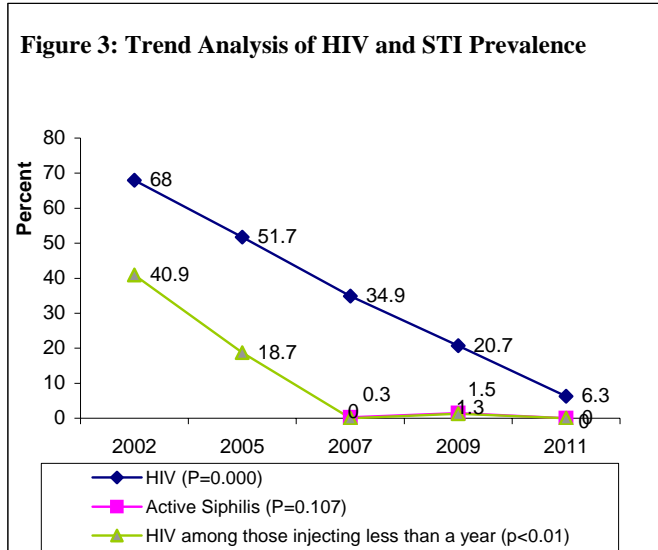
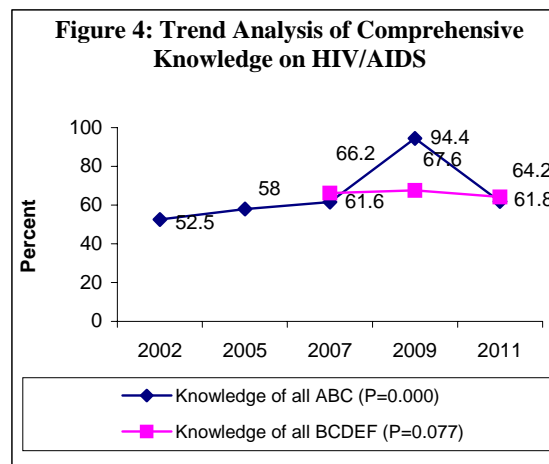


Figure 13 also illustrates the trend of HIV among those IDUs who started injecting drugs less than 1 year ago. There is a significant decline in the HIV prevalence among these new IDUs. The HIV prevalence for this group can also be a proxy on the HIV incidence among IDUs.

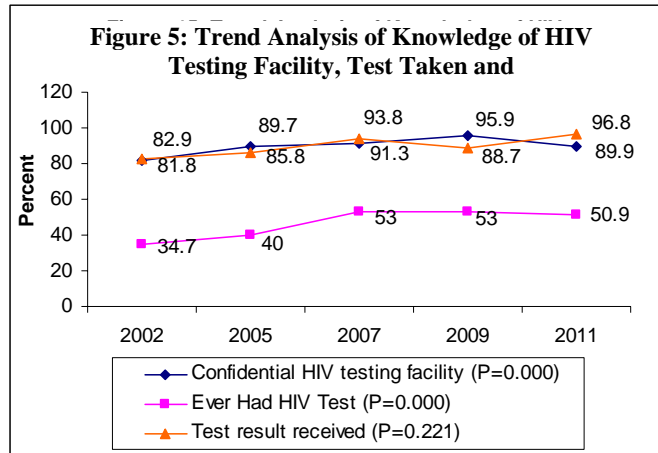
9.6 Knowledge and Behavior

IDUs' knowledge about HIV/AIDS prevention and ways in which HIV is transmitted was assessed. They are: (A) abstinence from sex (B) being faithful to one sex partner and (C) regular condom use. The percentage of IDUs who were aware of all three has increased to 61.8 percent in 2011 from 52.5 percent in 2002 with an hike in 2009. The overall increasing trend on this indicator was statistically significant.

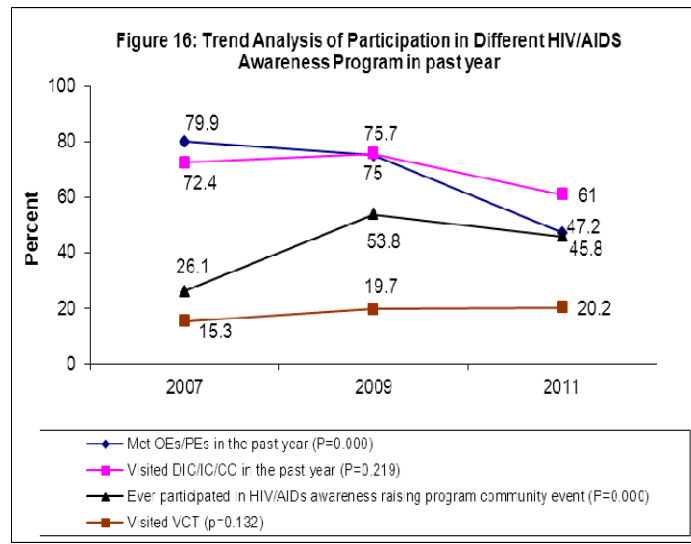


Comprehensive knowledge about HIV/AIDS also was assessed. The proportion of respondents who had proper knowledge on all five components of comprehensive knowledge (BCDEF) was almost the same in all five rounds and trend was not statistically significant at five percent level (Figure 14).

Figure 15 shows that the knowledge of IDUs on the availability of confidential HIV testing in their community and ever had an HIV test has statistically significant increasing trend. Moreover, the percentage of IDUs who receive the HIV test result increased to about 90 percent in 2011 from about 82 percent in 2002 but it is not a significantly increasing trend (p=0.221).



The trend in the percentage of survey participants who interacted with OE or PE has been decreasing at a significant level. But trend in the percentage of IDUs who attended DIC/IC/CC has remained more or less stable over the time (trend not significant, p=0.219). The percentage of IDUs in Kathmandu Valley participating in HIV/AIDS awareness raising programs and community events has increased to 46 percent in 2011 from 26 percent in 2002 (Figure 16).



10. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

10.1 Summary of Major Findings

The HIV prevalence rate among IDUs in the Kathmandu Valley is still high, with 6.3 percent, which ranges between 3.9-8.9 percent at a 95 percent confidence interval. However, this represents a significant decrease from the previous round of the survey.

Compared to HIV, STIs are a relatively minor problem among IDUs; a history of syphilis was detected among 2.2 percent of IDUs while no respondents were diagnosed with a current case of syphilis (RPR Positive in 1:8 titre or more) at the time of this survey.

HIV prevalence differed significantly according to age, literacy status, and duration of injection drug use. Those IDUs who were older than 20 years were more likely to be HIV-positive (7.8%) than those IDUs who were less than 20 years old (0%). HIV prevalence among literate IDUs was six percent, while among illiterate IDUs it was 51.8 percent. Likewise, HIV prevalence was significantly higher among those who have been injecting drugs for more than five years (16.5%) than those who have been injecting drugs for less than five years (4.8%).

The IDUs consisted predominantly of young people; 84.7 percent were below the age of 30 years. More than half (57.5%) were younger than 25 years, and almost three-fourths (73%) were unmarried.

Drinking alcohol and taking oral drugs were common practices among IDUs; all of the respondents had taken oral drugs, while three-fourths (75.6%) had consumed alcoholic drinks in the week preceding the survey. However, 24.4 percent had never consumed alcohol. The majority of the sample (91.7%) had been using oral drugs for more than two years.

About 49 percent of the surveyed IDUs began injecting drugs in the two years prior to the survey, while the majority had been injecting for more than two years. Most of them (62%) had started injecting drugs at a young age i.e. in their teens up to 20 years.

The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has been increasing steadily since the first round. High risk behavior such as injecting with previously used needles/syringes decreased significantly from 45 percent in the first round to three percent in this fifth round. Additionally, the proportion of IDUs who had not shared their needles/syringes with anyone in the past week increased from 41 percent in 2002 to 95 percent in 2011.

The past week injecting practices of the respondents indicated that 2.6 percent had injected with a syringe used by others and 1.7 percent had used a syringe left at a public place.

Around 90 percent of IDUs reported having experienced sexual intercourse before. Among them, 73.9 percent reported being sexually active in the past year. In the year preceding the survey, 22.2 percent had had sex with a regular partner, 43.6 percent had been with non-regular partners, and 27.2 percent had had sex with FSWs.

The proportion of those who used condoms in their most recent sexual encounter with their regular partner was 30.2 percent; 42 percent with their non-regular partner; and 86.8 percent with FSWs. A similar pattern was observed in consistent condom use in the past year. Condom use was highest with FSWs (76.4%) followed by non-regular partners (40%). Consistent use of condoms with regular sex partners was lowest, with only about nine percent of IDUs using condoms consistently in the past year with regular partners.

Only 1.7 percent of IDUs had not heard about STIs before the survey. Overall, 2.5 percent complained of genital discharge and 7.8 had suffered from genital ulcers/sores in the past year. Among them, 20 percent had genital discharge and 25.8 percent had genital ulcers/sores at the time of survey.

In total, 62 percent were aware of the three major HIV prevention measures (A-abstinence, B-being faithful to single partner, and C-consistent condom use), while 64.2 percent had comprehensive knowledge on HIV i.e., knowledge of B, C, and DEF (three major misconceptions about HIV transmission). In addition, almost all (98.9%) IDUs knew that a person can get HIV by using other people's previously used needles.

The majority of respondents (89.9%) knew that a confidential HIV testing facility was available in their community. Only half of the IDUs (50.9%) had ever had an HIV test. The majority (62%) had tested voluntarily and others had done so as a requirement. Most of the IDUs (86.8%) who had been tested for HIV had received the test result.

Overall, 47.2 percent IDUs had met with PE/OEs in the past year. Of them almost 95 percent had visited a DIC at least once in the past year. Over thirty percent of them had visited an STI clinic (38.3%) and a VCT center (32.5%). However, very few IDUs (4.9%) had interacted with OE/PE had participated in HIV and AIDS awareness programs in the past year.

10.2 Recommendations

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

1. The high number of new IDUs joining the IDU population annually is one of the contributions to the decrease in prevalence of HIV. The finding of no HIV cases among new IDUs suggests that new injectors have less exposure to HIV infection. Some new IDUs may be more aware of the associated risk for HIV; however, this awareness may not imply safer practices. This indicates the need for repeated prevention education and strengthened community and peer-based outreach activities, with a focus on new IDUs.
2. Injecting drug use is most likely to begin in adolescence and among young people under 20 years of age, leaving these youth vulnerable to the associated risks, including HIV transmission. HIV and STI prevention programs need to reach adolescents and youth who are at higher risk of entering the IDU sub population as new users.
3. Although there has been improvement in the injecting behavior of IDUs over the years, there are still some IDUs who inject with pre-used needles and/or share injecting equipment. Strategic behavioral change communication to promote safer

injecting behavior should continue and be strengthened. Comprehensive prevention interventions must be promoted.

4. Although ever tested for HIV has increased among IDUs over time, only half of the IDUs in Kathmandu had been tested for HIV and only 20% had visited a VCT center in the past year. This indicates the importance of continued education to IDUs, through outreach and counseling, about the importance of regular VCT and knowing their HIV status.
5. The increasing trend in testing for HIV should be maintained by strengthening access to information for IDUs, particularly focusing on risk perception and increasing knowledge on the importance of VCT.
6. About one third of the IDUs are married and about one quarter of them are having sex with sex workers, which increases the risk of transmission between FSWs and IDUs and their sex partners. Programs on safer sex should be strengthened to reach IDUs and their sex partners.
7. In Kathmandu, the reach to IDUs by peer or outreach educators has decreased over time from 80% in 2007 to 47% in 2011. Visits to Drop-in Centers have also decreased. New and comprehensive community and peer-based strategies and approaches are required to reach unreached IDUs with education on safer injecting and safer sexual practices.
8. Exposure to multiple risks is observed such as having unsafe sex with FSWs and frequent alcohol consumption. A national comprehensive package should be designed to include all components of risk reduction through prevention of sexual transmission and harm reduction.

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ANNEXES

ANNEX – 1: Indicators for Monitoring and Evaluation of HIV Prevention Intervention

| Prevention 1: HIV related risk and transmission among IDUs | Results (%) | 95% CI |
|--|--------------------|---------------|
| Impact/Outcome indicators | | |
| Percentage of IDUs who are HIV infected | 6.3 | 4.0-9.0 |
| Percentage of IDUs who had adopted behavior that reduce transmission of HIV i.e. who both avoided using non sterile injecting equipment and used condom in the last sex in last month | 23.3 | 9.9-29.9 |
| Percentage of IDUs reporting the use of sterile injecting equipment in the last time they injected | 66.7 | 61.5-71.8 |
| Percentage of IDUs who avoided sharing injecting equipment in the last month | 59.0 | 52.8-64.7 |
| Percentage of IDUs who used condom at last sex with female sex worker in the past year | 86.8 | 53.2-98.7 |
| Percentage of IDUs who say they consistently use a condom when they have sex with a female sex worker in the past year | 76.4 | 40.5-91.9 |
| Percentage of IDUs who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission | 64.2 | 59.0-69.6 |
| Output/Coverage Indicators | | |
| Percentage of IDUs reached with targeted HIV prevention service programs (BCC with OE/PE or DIC or STI Clinics or VCT or community events / trainings or drug treatment or rehabilitation) | 78.7 | 73.6-84.1 |
| Percentage of IDUs reached with HIV prevention programs (Knows where to receive HIV test and received condoms) | 39.6 | 34.3-45.2 |
| Percentage of IDUs who received an HIV test in the last 12 months and who know their results | 21.4 | 16.7-26.4 |

ANNEX – 2: Sample Size Estimation

Basic Equation in Calculating the Sample Size

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

n = required minimum sample size per survey round

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

P₁ = the estimated proportion at the time of the first survey.

P₂ = the target population at some future date, so that (P₂-P₁) is the magnitude of change of change you want to be able to detect.

$$\bar{P} = (P_1 + P_2)/2$$

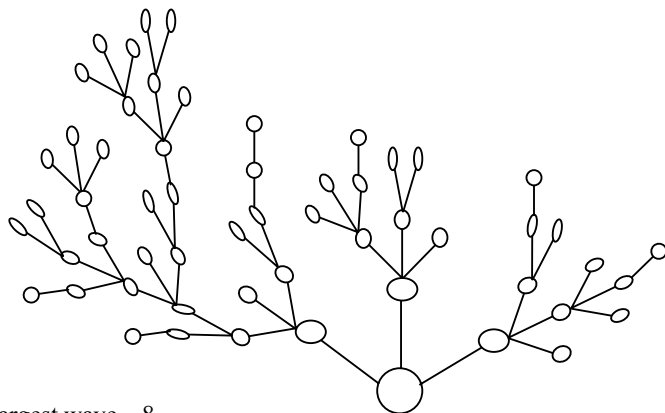
Z_{1- α} = the Z-score corresponding to the level of significance

Z_{1- β} = the Z-score corresponding to the level of power

*Guidelines for repeated behavioral surveys in populations at risk of HIV, Page 47, FHI-2000.

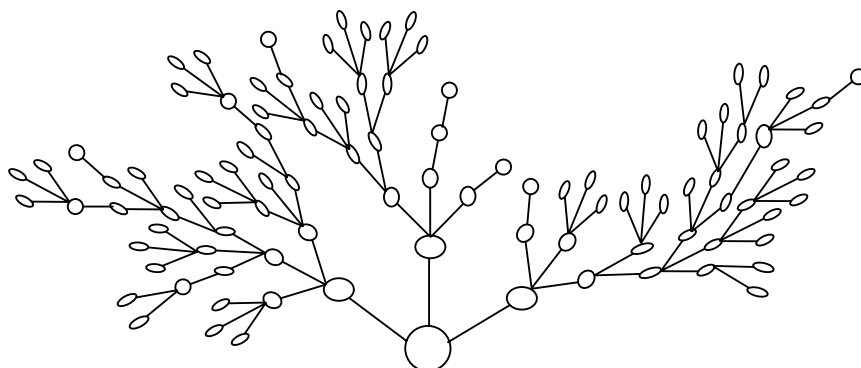
ANNEX – 3: Wave of Recruitment of IDUs by ‘SEEDS’

SEED No. 1: Dallu, Kathmandu



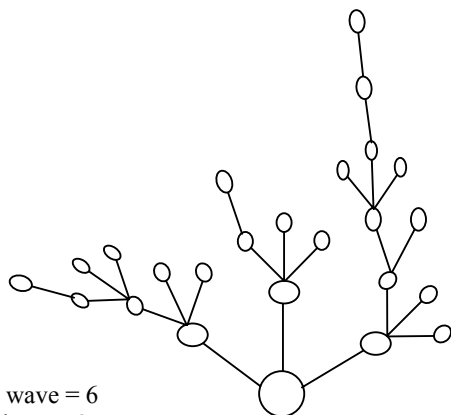
Largest wave – 8
Total clients = 57
(Including Seeds)

SEED No. 2: Dhumbarahi, Kathmandu



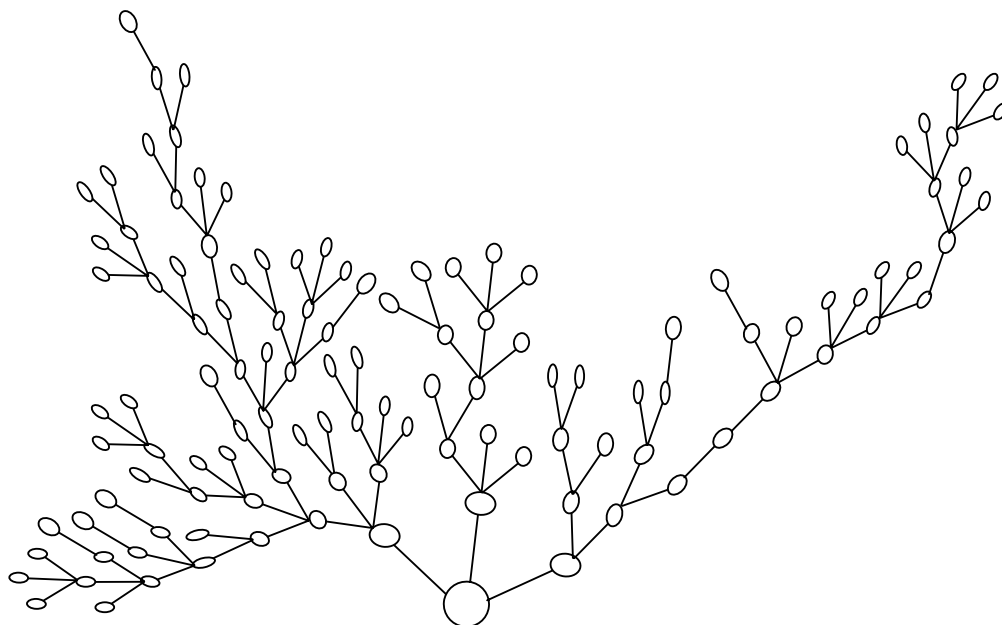
Largest wave = 8
Total clients = 100
(Including Seeds)

SEED No. 3: Kuleshwor, Kathmandu



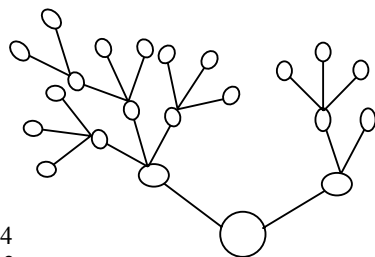
Largest wave = 6
Total clients = 25
(Including Seeds)

SEED No. 4: Patan, Lalitpur



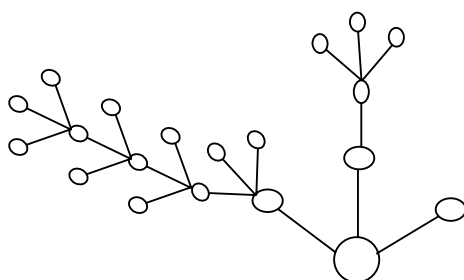
Largest wave = 12
Total client = 116
(Including Seeds)

SEED No. 5: Bulbule, Kathmandu



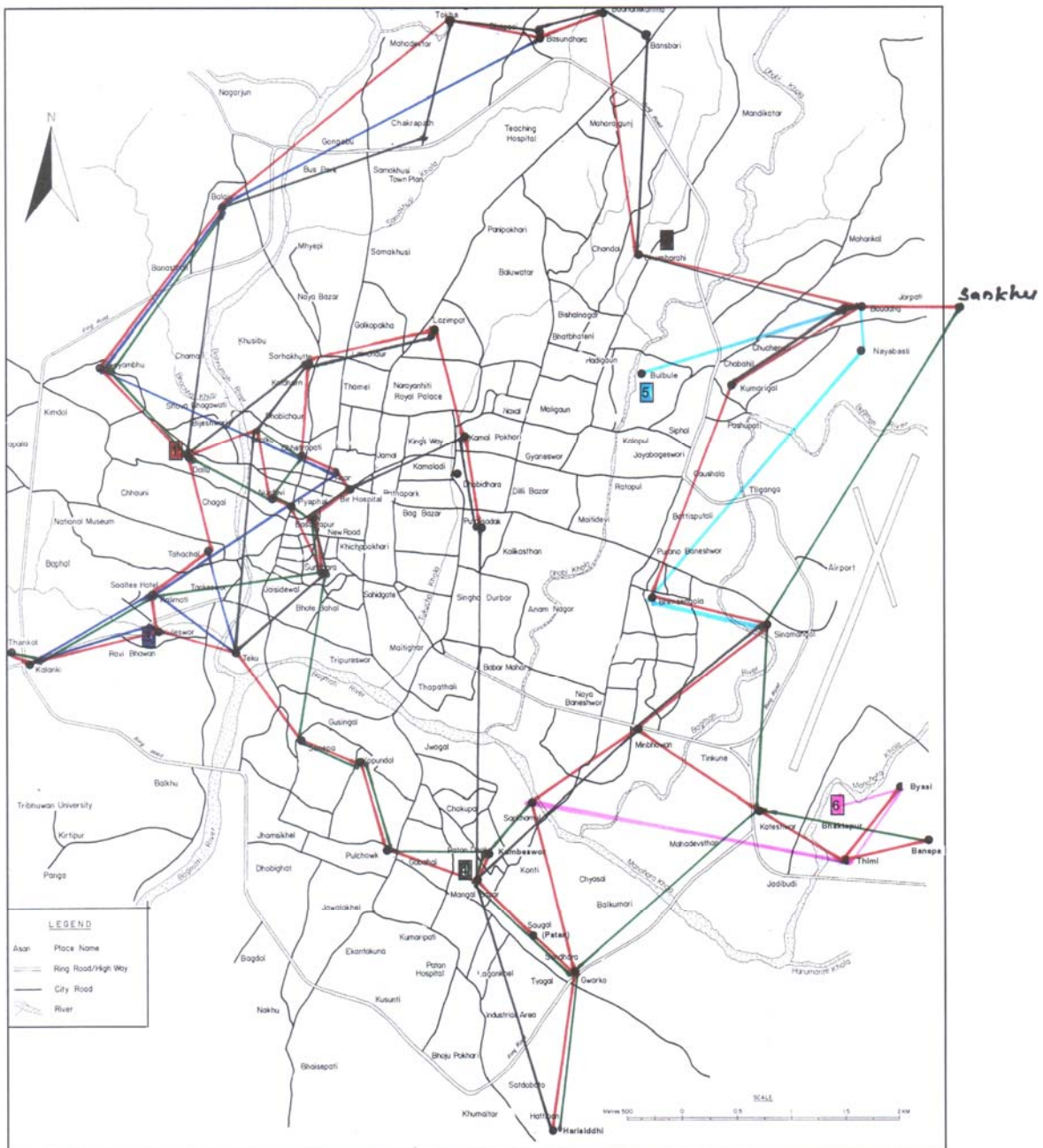
Largest wave – 4
Total clients – 22
(Including Seeds)

SEED No. 6: Bhaktapur



Largest wave = 5
Total clients = 20
(Including Seeds)

ANNEX – 4: Recruitment Areas of IDUs In Kathmandu Valley



- Seed 1
- Seed 2
- Seed 3
- Seed 4
- Seed 5
- Seed 6.

ANNEX – 5: Questionnaire

National Centre for AIDS and STD Control
Ministry of Health and Population
Government of Nepal

Integrated Biological and Behavioral Surveillance Survey among Male Injecting Drug Users in Kathmandu and Pokhara Valley

Namaste! My name is, I am here fromto collect data for a research survey . This survey is being conducted by National Centre for AIDS and STD Control (NCASC), Ministry of Health and Population with support from and FHI's ASHA Project and USAID are providing technical assistance for the survey . During this interview, I will ask you some personal questions that will be about sexual behavior, use and promotion of condoms, STI/HIV/AIDS and use of drugs and needle/syringes. You may feel uncomfortable to answer some questions relating to your personal behavior, but it is important that you provide correct information. We will also take about 5-7 ml blood sample for testing HIV and syphilis infection. If it is determined that you have any STI symptoms, we will provide treatment free of charge. We also will treat for syphilis on the basis of RPR test on the same day of interview. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk about because your name will not be mentioned on this form and collected samples. All the mentioned information will be used only for the survey purpose. This survey will take about an hour.

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

Would you be willing to participate?

1. Yes 2. No

Signature of the interviewer: _____ Date: ____/____/2067

Operational definition of IDUs:

“Current drug injectors aged 16 years or above who had been injecting drugs for non medical purposes for at least three months prior to the date of the survey”

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

Coupon number given:

1.

2.

3.

Did the interviewee abandon the interview?

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

Interviewer Name: _____ Code Interviewer: _____

Date Interview: ____ / ____ / 2067

Checked by the supervisor: Signature: _____ Date: ____ / ____ / 2067

Data Entry # 1: Clerk's name: _____ Date ____ / ____ / 2067

Data Entry # 2: Clerk's name: _____ Date ____ / ____ / 2067

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

1. Yes
2. No (continue interview)



When?

_____ Days ago (make sure that it was interviewed by and close the interview)

002. Respondent's ID #:

002.1 Respondent referred by coupon no.

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

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

1. Yes
2. No

002.4 How long you have been injecting drugs?

Years Months

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

003. Interview Location
(to be filled by interviewer)
- 003.1 Name of location _____
- 003.2 Ward No.
- 003.3 VDC/Municipality: _____
- 003.4 District: _____

1.0 BACKGROUND OF RESPONDENT

| Q.N. | Questions | Coding Categories | Skip to |
|-------|---|---|---------|
| 101 | Where are you living now? (Write current place of residence: Ward No. Tole, Lane etc.) | Ward <input type="text"/> <input type="text"/> VDC/Municipality _____ District _____ | |
| 101.1 | How long have you been living continuously at this location? (Write 995 if less than one month) | Month <input type="text"/> <input type="text"/> <input type="text"/> Always (since birth) 0 Others (Specify) 996 | |
| 102 | In the last 12 months have you been away from your home for more than one-month altogether? (Left home, village/district) | Yes 1 No 2 Don't know 98 No response 99 | |
| 103 | How old are you? (write the completed years) | Age <input type="text"/> <input type="text"/> | |
| 104 | What is your educational status? (Circle '0' if illiterate, '19' for the literate without attending the school, and write exact number of the passed grade) | Illiterate..... 0 Literate..... 19 Grade <input type="text"/> <input type="text"/> (write the completed grade) | |
| 105 | What is your caste? (Specify Ethnic Group/Caste) | Ethnicity/Caste _____ Code No..... <input type="text"/> <input type="text"/> | |
| 106 | What is your current marital status? | Never married..... 1 Married 2 Divorced/Permanently separated 3 Widow 4 Other (Specify) 96 | 108 |
| 107 | How old were you when you first got married? | Age <input type="text"/> <input type="text"/> (write the completed years) | |
| 108 | With whom you are living now? | Living with wife 1 Living with female sexual partner 2 Living without sexual partner 3 Others (Specify) 96 No response 99 | 110 |
| 109 | Do you think your wife/female sexual partner has any other sexual partners? | Yes 1 No 2 Don't know 98 No response 99 | 110 |
| 109.1 | If yes, what is the sex of your partner? | Male 1 Female 2 | |

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

2.0 DRUG USE

| Q.N. | Questions | Coding Categories | Skip to | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|---|-------------|-------------------|-----------------------|----|----|-----------------------|--|--|--|-----|----|----|----|-----|----|----|----|--------------|--|--|--|--|---|---|----|----|----------------|---|---|----|----|---|---|----|----|-------------|---|---|----|----|---|---|----|----|----------|---|---|----|----|--|--|--|--|-----------|---|---|----|----|--|--|--|--|----------------|---|---|----|----|--|--|--|--|--------------|---|---|----|----|--|--|--|--|-------------|---|---|----|----|---|---|----|----|-------------|---|---|----|----|---|---|----|----|-------------|---|---|----|----|---|---|----|----|---------------|---|---|----|----|---|---|----|----|-------------|---|---|----|----|--|--|--|--|--------------|---|---|----|----|---|---|----|----|-------------|---|---|----|----|---|---|----|----|---------------|---|---|----|----|---|---|----|----|------------------------------------|---|---|----|----|--|--|--|--|---------------|---|---|----|----|---|---|----|----|---------------------------|---|---|----|----|---|---|----|----|----------|---|---|----|----|---|---|----|----|----------------------|---|---|----|----|---|---|----|----|--|
| 201 | How long have you been using drugs? (Drug means medicine not used for treatment purpose rather used for Intoxication) | Years..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/> No response99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 | How old were you when you first injected drugs? (Include self-injection or injection by another) | Years <input type="text"/> <input type="text"/> (write the completed years) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 203 | How long have you been injecting drugs? (Include self-injection or injection by others) | Years..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/> No response99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 203.1 | Have you injected drugs in the last month? | Yes1 No2 | → 204 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 203.2 | If Yes, have you used non-sterile syringe/needle at any time in the last month? | Yes1 No2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 203.3 | Have you used non-sterile injecting equipment at any time in the last month? | Yes1 No2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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) | <table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th colspan="4">Used in Last-Week</th> <th colspan="4">Injected in Last-Week</th> </tr> <tr> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> </tr> </thead> <tbody> <tr><td>1. Tidigesic</td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>2. Brown Sugar</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>3. Nitrosun</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>4. Ganja</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>5. Chares</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>6. White Sugar</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>7. Phensydyl</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>8. Calmpose</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>9. Diazepam</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>10. Codeine</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>11. Phenergan</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>12. Cocaine</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>13. Proxygin</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>14. Effidin</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>15. Velium 10</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>16. Lysergic Acid Dithylamide(LSD)</td><td>1</td><td>2</td><td>98</td><td>99</td><td></td><td></td><td></td><td></td></tr> <tr><td>17. Nitrovate</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>18. Combination (Specify)</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>19. Avil</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> <tr><td>96. Others (Specify)</td><td>1</td><td>2</td><td>98</td><td>99</td><td>1</td><td>2</td><td>98</td><td>99</td></tr> </tbody> </table> | Description | Used in Last-Week | | | | Injected in Last-Week | | | | YES | NO | DK | NR | YES | NO | DK | NR | 1. Tidigesic | | | | | 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 | | | | | 5. Chares | 1 | 2 | 98 | 99 | | | | | 6. White Sugar | 1 | 2 | 98 | 99 | | | | | 7. Phensydyl | 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 | | | | | 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 | | | | | 17. Nitrovate | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | 18. Combination (Specify) | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | 19. Avil | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | 96. Others (Specify) | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | |
| Description | Used in Last-Week | | | | Injected in Last-Week | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | YES | NO | DK | NR | YES | NO | DK | NR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Tidigesic | | | | | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Chares | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. White Sugar | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Phensydyl | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17. Nitrovate | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. Combination (Specify) | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19. Avil | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 96. Others (Specify) | 1 | 2 | 98 | 99 | 1 | 2 | 98 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 204.1 | In the last month, did you switch from one drug to another? | Yes1 No2 | → 205 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Q.N. | Questions | Coding Categories | Skip to |
|---------|---|---|---------|
| 204.1.1 | If yes, which drug? | From _____ drug To _____ drug | |
| 204.1.2 | What is the reason for switching? | _____ _____ _____ | |
| 205 | How many times would you say you injected drugs yesterday? | Times <input type="checkbox"/> → 209 Not injected 0 | |
| 206 | Would you like to tell me why you did not injected yesterday? | _____ _____ | |
| 207 | How many days ago did you get injected? | Days ago <input type="checkbox"/> <input type="checkbox"/> | |
| 208 | How many times would you say you injected drugs on the last day? | Times <input type="checkbox"/> | |
| 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 | |
| 210 | (Ask whether the respondent was ever arrested or not then ask the following questions) Have you ever been imprisoned or detained for any reason? | Yes 1 No 2 → 301 No response 99 | |
| 210.1 | In the past year, have you ever been imprisoned or detained for any reason? | Yes 1 No 2 → 301 No response 99 | |
| 210.2 | In the past year, have you ever been imprisoned for drug-related reason? | Yes 1 No 2 } 210.4 No response 99 | |
| 210.3 | In the past year, how many times have you been imprisoned for drug-related reason? | Times <input type="checkbox"/> <input type="checkbox"/> No response 99 | |
| 210.4 | Have you ever injected drugs while in prison? | Yes 1 No 2 No response 99 | |

3.0 NEEDLE SHARING BEHAVIORS

| Q.N. | Questions | Coding Categories | Skip to |
|-------|--|---|---------|
| 301 | Think about the times, you have injected drugs yesterday/last day. How many times did you inject drugs on that day? (Fill the number from answer to Q. 205 or 208 and verify by asking the respondent) | Times <input type="text"/> <input type="text"/> | |
| 302 | The last time you injected, how did you get that syringe/needle? +(Public place means places other than the IDU's home that are used to hide syringe/needle) | My friend/relative gave it to me after his use 1 Unknown person gave it to me after he use 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 (write the name of Organization) I used a needle/syringe which I purchased 6 I reused my own needle/syringe 7 My friend gave new needle/syringe 8 Others (Specify) 96 Don't know 98 No response 99 | |
| 302.1 | If you were in a group the last time that you injected, how many different people in the group do you think used the same needle? | Nos. <input type="text"/> <input type="text"/> Injected alone 95 | |
| 303 | Think about the time before the last time you injected, how did you get that syringe/needle? (Public place means places other than the IDU's home that are used to hide syringe/needle) | My friend/relative gave it to me after his use 1 Unknown person gave it to me after he use 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 (write the name of Organization) I used a needle/syringe which I purchased 6 I reused my own needle/syringe 7 My friend gave new needle/Syringe 8 Others (Specify) 96 Don't know 98 No response 99 | |
| 303.1 | That time, If you were in a group, how many different people in the group do you think had used the same needle? | Nos. <input type="text"/> <input type="text"/> Injected alone 95 | |

| Q.N. | Questions | Coding Categories | Skip to |
|-------|---|---|-----------|
| 304 | Now think about the time before (before Q. 303), how did you get that syringe/ needle? (Public place means places other than the IDU's home that are used to hide syringe/needle) | My friend/relative gave it to me after his use 1 Unknown person gave it to me after he use..... 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 (Write the name of Organization) I used a needle/syringe which I purchased..... 6 I reused my own needle/syringe 7 My friend gave new needle/ syringe..... 8 Others (Specify) 96 Don't know 98 No response 99 | |
| 304.1 | That time If you were in a group, how many different people in the group do you think had used the same needle? | Nos. <input type="text"/> <input type="text"/> Injected alone 95 | |
| 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 | → 312.1 |
| 305.1 | When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? (Public place means places other than the IDU's home that are used to hide syringe/ needle) | Every times..... 1 Almost every-times 2 Sometimes 3 Never 4 Don't know 98 No response 99 | |
| 306 | In the past one-week, did you ever share needles and syringes with any of the following? Read out list. Multiple answers possible | | |
| | | Yes | No |
| | 1. Your usual sexual partner | 1 | 2 |
| | 2. A sexual partner who you did not know | 1 | 2 |
| | 3. A friend | 1 | 2 |
| | 4. A drugs seller | 1 | 2 |
| | 5. Unknown Person | 1 | 2 |
| | 96. Other (Specify) _____ | 1 | 2 |
| 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 <input type="text"/> <input type="text"/> Don't know 98 No response 99 | |
| 308 | In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it? | Every times..... 1 Almost every-times 2 Sometimes 3 Never 4 Don't know 98 No response 99 | |
| 309 | In the past-week, did you ever inject with a pre-filled syringe? (By that I mean a syringe that was filled without you witnessing it) | Yes 1 No 2 Don't know 98 No response 99 | |

| Q.N. | Questions | Coding Categories | Skip to |
|---|--|--|---------|
| 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 | |
| 312.1 | In the past one year have you switched from sharing to non-sharing practice? | Yes 1 No 2 | |
| Check Q no. 305 and those who have not injected in the last one week go to 314 | | | |
| 313 | In the past one-week, when you injected with needles or syringes that had previously been used, how often did you clean them first? | Every time 1 Almost every-times 2 Sometimes 3 Never 4 Never reused..... 5 Others (Specify)..... 96 Don't know 98 No response 99 | } 314 |
| 313.1 | If cleaned, how did you usually clean them? | With water 1 With urine 2 With saliva..... 3 Boil the syringe in water 4 With bleach..... 5 Burning the needle with matchstick..... 6 Others (Specify)..... 96 Don't know 98 No response 99 | |
| 314 | Can you obtain new, unused needles and syringes when you need them? | Yes 1 No 2 Don't know 98 No response 99 | } 316 |
| 315 | Where can you obtain new unused needles and syringes? (Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?") | Drugstore 1 Other shop 2 Health worker..... 3 Hospital 4 Drug wholesaler/drug agency 5 Family/relatives..... 6 Sexual partner..... 7 Friends 8 Other drugs users..... 9 Drugs seller..... 10 Needle exchange program of _____ 11 (write the name of Organization) Steal from legitimate source (hospital./pharmacy)..... 12 Buy on streets..... 13 Other (Specify) 96 | |

| Q.N. | Questions | Coding Categories | Skip to |
|-------|--|--|---------|
| 316 | In the past one-year, did you ever inject drug in another city/district (or another country)? | Yes 1 No 2 Don't remember.....98 No response99 | } 316.4 |
| 316.1 | If yes, in which other cities/districts did you inject, including cities in other countries? | Cities _____ Districts _____ Country _____ | |
| 316.2 | Think about the times you injected drugs in another city/district (including abroad) how often was it with a syringe/needle that had previously been used by someone else? | Every times..... 1 Almost every-times 2 Sometimes 3 Never 4 Don't know98 No response 99 | |
| 316.3 | When you injected drugs in another city, how often did you give a syringe/needle to some one else? | Every times..... 1 Almost every-times 2 Sometimes 3 Never 4 Don't know98 No response..... 99 | |
| 316.4 | In the last 12 months, have any of an outreach worker, a peer educator or a staff from a needle exchange program given you a new needle/syringe? | Yes 1 No 2 Don't remember.....98 No response99 | |
| 317 | Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use? | Currently under treatment 1 Was in treatment but not now 2 Have never received treatment. 3 No response 99 | } 401 |
| 318 | How many months ago did you last receive treatment or help for your drug use? | Months <input type="text"/> <input type="text"/> Don't know 98 No response 99 | |
| 319 | What kind of treatment or help you received? (Do not read out the responses, probe asking, "Are there any other kinds of treatment that you've received?" (Multiple Answers Possible)) | | |
| | Types of Treatments | Name of Institutions | |
| | 1. Outpatient counseling | | |
| | 2. Self-help groups | | |
| | 3. Detoxification w/methadone | | |
| | 4. Maintenance w/methadone | | |
| | 5. Detoxification w/other drugs | | |
| | 6. Detoxification with no drug | | |
| | 7. Residential rehabilitation | | |
| | 8. Helped for <i>cold turkey</i> without medicine | | |
| | 9. Forced for <i>cold turkey</i> by others without treatment | | |
| | 96. Other (Specify) | | |
| | 99. No response | | |

4.0 SEXUAL HISTORY

| Q.N. | Questions | Coding Categories | Skip to |
|------|--|--|---------|
| 401 | How old were you at your first sexual intercourse? | Years old <input type="text"/> <input type="text"/> <i>(Write completed years)</i> Never had sexual intercourse 0 Don't know 98 No response 99 | → 601 |

| Q.N. | Questions | Coding Categories | Skip to |
|-------|---|--|---------|
| 402 | Have you had sexual intercourse in the last 12 months? | Yes 1 No 2 No response 99 | } 404 |
| 403 | In total, how many different female sexual partners have you had sex in the last 12 months? | Total Number <input type="text"/> <input type="text"/> | |
| 403.1 | How many were female "regular partners"? (Your wife or live-in sexual partners) | Number <input type="text"/> <input type="text"/> 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 <input type="text"/> <input type="text"/> 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 <input type="text"/> <input type="text"/> Don't know 98 No response 99 | |
| 404 | We have just talked about your female sexual partners? Have you ever had any male sexual partners also? | Yes 1 No 2 No response 99 | } 501 |
| 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 <input type="text"/> <input type="text"/> Don't know 98 No response 99 | |
| 404.3 | The last time you had anal sex with a male sex partner did you and your partner use a condom? | Yes 1 No 2 Don't Know 98 No response 99 | |
| 404.4 | How often have you used a condom in an anal sex with male sex partner in the past 12 months | Every Times 1 Almost Every Times 2 Some Times 3 Never Used 4 Don't Know 98 No response 99 | |

5.0 NUMBERS AND TYPES OF PARTNERS

(Check Q. 403.1 and circle the response of Q.501 if necessary you may need to ask 403.1 once again and correct the response)

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|--|--------------------|
| 501. | Did you have sex with female regular partner (wife or live-in partner) during last 12 months? | Yes 1 No 2 | → 502 |
| 501.1 | Think about your most recent female regular sexual partner. How many times did you have sex with her during last one-month? | Times <input type="text"/> <input type="text"/> Don't know 98 No response 99 | |
| 501.2 | The last time you had sex with a female regular partner did you and your partner use a condom? | Yes 1 No 2 Don't know 98 No response 99 | → 501.4 } 501.4 |

| Q. N. | Questions | Coding Categories | Skip to |
|---------|--|--|---------|
| 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 | |
| 501.6 | Have you ever had anal sex with your female regular partners? | Yes 1 No 2 Don't know 98 No response 99 | } 502 |
| 501.7 | The last time you had anal-sex with a female regular partner did you and your partner use a condom? | Yes 1 No 2 Don't know 98 No response 99 | |
| 501.8 | How often have you used a condom in an anal-sex with female regular partners in the past 12 months? | Every times..... 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99 | |
| 502 | Did you have a sexual intercourse with a female sex worker in last 12 months? (Check 403.2 and circle the response of Q. 502 if necessary you may need to ask 403.2 once again and correct the response) | 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 female sex workers you sold sex in exchange for money or drugs? | No..... <input type="checkbox"/> <input type="checkbox"/> Don't know 98 No response 99 | |
| 502.1.1 | With how many sex workers you had sex in last month by paying them money or drugs? | No..... <input type="checkbox"/> <input type="checkbox"/> Don't know 98 No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|---------|---|--|--------------------|
| 502.1.2 | Where did you have sex with a last sex worker? | Hotel/lodge 1 Own house 2 Sex worker's house 3 Injecting site 4 Tea shop 5 Park/garden 6 Dance restaurant 7 Massage parlor 8 Bhatti pasal 9 Dohori restaurant 10 Other (Specify) 96 Don't Know 98 No response 99 | |
| 502.2 | Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month? | Times <input type="text"/> Don't know 98 No response 99 | |
| 502.3 | The last time you had sex with a female sex worker did you and your partner use a condom? | Yes 1 No 2 Don't know 98 No response 99 | → 502.5 } 502.5 |
| 502.4 | Why did not you and your partner use a condom that time? (Do not read the possible answers, multiple answer possible) | Not available 1 Too expensive 2 Partner objected 3 Don't like them 4 Used other contraceptive 5 Didn't think it was necessary... 6 Didn't think of it 7 Other (Specify) 96 Don't know 98 No response 99 | |
| 502.5 | How often have you used a condom with female sex workers in the past year? | Every times 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99 | |
| 502.6 | Do you know whether female sex worker with whom you had sex also injected drugs? | Yes 1 No 2 Don't know 98 No response 99 | |
| 502.7 | Have you ever had anal sex with your female sex workers? | Yes 1 No 2 Don't know 98 No response 99 | } 503 |
| 502.8 | The last time you had anal-sex with a female sex worker did you use a condom? | Yes 1 No 2 Don't know 98 No response 99 | |
| 502.9 | How often have you used a condom in an anal sex with female sex workers in the past 12 months? | Every times 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|---|--------------------|
| 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 if necessary you may need to ask 403.3 once again and correct the response) | Yes 1 No 2 | → 504 |
| 503.1 | Think about your most recent female non-regular sexual partner. How many times did you have sexual intercourse with her over the past one-month? | Times <input type="text"/> Don't know 98 No response 99 | |
| 503.2 | The last time you had sex with a female non-regular partner did you and your partner use a condom? | Yes 1 No 2 Don't know 98 No response 99 | → 503.4 } 503.4 |
| 503.3 | Why did not you and your partner use a condom that time? (Don't read the possible answers, multiple answer possible) | Not available 1 Too expensive 2 Partner objected 3 Don't like them 4 Used other contraceptive 5 Didn't think it was necessary 6 Didn't think of it 7 Other (Specify) 96 Don't know 98 No response 99 | |
| 503.4 | How often have you used a condom with a female non-regular partner in the past year? | Every times 1 Almost every-time 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 injected drugs? | Yes 1 No 2 Don't know 98 No response 99 | |
| 503.6 | Have you ever had anal sex with your female non-regular partners? | Yes 1 No 2 Don't know 98 No response 99 | } 504 |
| 503.7 | The last time you had anal sex with a female non-regular partner, did you and your partner use a condom? | Yes 1 No 2 Don't know 98 No response 99 | |
| 503.8 | How often have you used a condom in an anal-sex with female non-regular partners in the past year? | Every times 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99 | |
| 504 | Have you had anal sex with a male partner in the past one year? (See the response in Q. 404.1 and circle Q. 504 response if necessary you may need to ask 404.1 once again and correct the response) | Yes 1 No 2 | → 505 |
| 504.1 | Think of your last male sex partner with whom you had anal sex: in the last one month, how many times you had anal sex with him? | Times <input type="text"/> Don't know 98 No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|--------|---|--|------------------------|
| 504.2 | The last time you had anal sex with him; did you use condom? (Check answer in Q no 404.3) | Yes 1 No 2 Don't know 98 No response 99 | → 504.4 } 504.4 |
| 504.3 | Why didn't you use condom at that time? (Don't read possible answer, multiple answer possible) | Not available..... 1 Too expensive 2 Partner objected..... 3 Don't like 4 Used other contraceptive..... 5 Didn't think it was necessary..... 6 Didn't think of it 7 Other (Specify) _____ 96 Don't know 98 No response 99 | |
| 504.4 | How often have you used a condom during anal sex with a male partner is the past year? (Check Q no. 404.4) | Every times..... 1 Almost every-times 2 Sometimes 3 Never used..... 4 Don't know 98 No response 99 | |
| 504.5 | Do you know if your male partner with whom you had anal sex also injected drugs? | Yes 1 No 2 Don't know 98 No response 99 | |
| 504.6 | Have you ever had sex in exchange for money or some commodities? | Yes 1 No 2 | → 505 |
| 504.7 | Before starting injecting drugs did you have sex in exchange for money or some commodities? | Yes 1 No 2 | |
| 504.8 | After starting injecting drugs did you have sex in exchange for money or some commodities? | Yes 1 No 2 | |
| 504.9 | Did you have sex in exchange for money or some commodities in the last 12 months? | Yes 1 No 2 | → 505 |
| 504.10 | In the last 12 month how many such sexual contacts did you have? | Number <input type="text"/> | |
| 504.11 | In the last 12 month how many such partners did you sell sex to? | Number <input type="text"/> | |
| 505 | Have you had sexual intercourse in the last month? | Yes 1 No 2 Don't know 98 No response..... 99 | } 507 |
| 505.1 | If yes, did you or your partner use a condom when you had last sex in the last month? | Yes 1 No 2 Don't know 98 No response..... 99 | |
| 506 | In the last month, how often did you or your partner use a condom when you had sex? | Every times..... 1 Almost every-times 2 Sometimes 3 Never used..... 4 Don't know 98 No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|--|---------|
| 507 | With whom did you have the last sexual intercourse? | FSW 1 Regular partner 2 (Wife or live in sexual partner) Other female friend 3 Male friend 4 Did not have sexual contact in the past year 5 Don't Know 98 No response 99 | → 601 |
| 508 | Did you use condom in the last sexual intercourse | Yes 1 No 2 | |

6.0 USE AND AVAILABILITY OF CONDOM

(Check responses in Q.N. 404.3, 404.4, 501.2, 501.4, 501.7, 501.8, 502.3, 502.5, 502.8, 502.9, 503.2, 503.4, 503.7, 503.8, 504.4, 505.1, 506, 508 and circle responses in Q. 601 & 602 and Probe if the response is contradictory)

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|--|---------|
| 601 | Have you ever heard of a condom? (Show picture or sample of condom) Probe if the response is No | Yes 1 No 2 Don't know 98 No response 99 | } 701 |
| 602 | Have you ever used a condom? | Yes 1 No 2 | |
| 603 | Do you know of any place or person from which you can obtain condom? | Yes 1 No 2 No response 99 | } 701 |
| 604 | From which place or people, you can obtain condoms? (Multiple answer possible. Don't read the list but probe) | Shop 1 Pharmacy 2 Clinic 3 Hospital 4 Family planning center 5 Bar/Guest house/Hotel 6 Health worker 7 Peer Educator/Outreach doctor 8 Friend 9 <i>Pan Pasa</i> 10 Others (Specify) 96 No response 99 | |
| 604.1 | Did any organization give you condom in the last 12 months? | Yes, free of cost 1 Yes, by taking money 2 No 3 | |
| 605 | How long would it take (from your house or the place where you work) to obtain a condom? | Less than 30 minutes 1 More than 30 minutes 2 Don't know 98 No response 99 | |
| 606 | Do you usually carry condom with you? | Yes 1 No 2 | |
| 607 | At this moment how many condoms do you have at-hand with you? (Observe and write) | Numbers <input type="text"/> <input type="text"/> | |

7.0 KNOWLEDGE AND TREATMENT OF STIs

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|--|---------|
| 701 | Have you ever heard of diseases that can be transmitted through sexual intercourse? | Yes 1 No 2 No response 99 | } 704 |
| 702 | Can you describe any symptoms of STIs in women? (Do not read possible answers, multiple answers possible.) | Lower abdominal pain 1 Genital discharge 2 Foul smelling 3 Burning pain on urination 4 Genital ulcers/sore 5 Swelling in groin area 6 Itching 7 Other (Specify) 96 Don't know 98 No response 99 | |
| 703 | Can you describe any symptoms of STIs in men? (Do not read possible answers, multiple answer possible) | Genital discharge 1 Burning pain on urination 2 Genital ulcers/sore blister 3 Swellings in groin area 4 Others (Specify) 96 Don't know 98 No response 99 | |
| 704 | Have you had 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 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 genital ulcer/sore blister? | 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 Never had such symptoms 4 Others (Specify) 96 | |

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

| Q. N. | Questions | Coding Categories | Skip to |
|-------|--|--|---------|
| 801 | Have you ever heard of HIV or the disease called AIDS? (Probe if the response if No) | Yes 1 No 2 No response 99 | |
| 802 | Do you know anyone who is infected with HIV or who has died of AIDS? | Yes 1 No 2 No response 99 | } 804 |
| 803 | Do you have close relative or close friend who is infected with HIV or has died of AIDS? | Yes, a close relative 1 Yes, a close friend 2 No 3 No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|---|---------|
| 804 | Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly during each sexual act? | Yes 1 No 2 Don't know 98 No response 99 | |
| 805 | Can a person get HIV, from mosquito bites? | Yes 1 No 2 Don't know 98 No response 99 | |
| 806 | Can a person protect himself/herself from HIV, by having only one uninfected faithful sex partner? | Yes 1 No 2 Don't know 98 No response 99 | |
| 807 | Can a person protect himself/herself from HIV, by abstaining from sexual intercourse? | Yes 1 No 2 Don't know 98 No response 99 | |
| 808 | Can a person get HIV, by sharing a meal with someone who is infected? | Yes 1 No 2 Don't know 98 No response 99 | |
| 809 | Can a person get HIV, by getting injections with a needle that was already used by someone else? | Yes 1 No 2 Don't know 98 No response 99 | |
| 810 | Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? (Oral or inhaling drugs) | Yes 1 No 2 Don't know 98 No response 99 | |
| 811 | Can a pregnant woman infected with HIV transmit the virus to her unborn child? | Yes 1 No 2 Don't know 98 No response 99 | } 813 |
| 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 (Antiretroviral) .. 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 | |
| 813.1 | Do you think a healthy-looking person can be infected with HIV? | Yes 1 No 2 Don't know 98 | |
| 813.2 | Can a person get HIV by shaking hand with an infected person? | Yes 1 No 2 Don't know 98 | |
| 813.3 | Can blood transfusion from an infected person to the other transmit HIV? | Yes 1 No 2 Don't know 98 | |
| 814 | Is it possible in your community for someone to have a confidential HIV test? (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 | |
| 814.1 | Do you know where to go for HIV test? | Yes 1 No 2 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|---|----------------|
| 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 take up the HIV test, or were you required to have the test? | Voluntary 1 Required 2 No response 99 | |
| 817 | | | |
| 817.1 | | | |
| 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 48 months 4 Don't know 98 No response 99 | |
| 819 | Please do not tell me the result, but did you find out the result of your HIV test? | Yes 1 No 2 No response 9 | ► 901 ► 901 |
| 819.1 | Why did you not receive the test result? | Sure of not being infected 1 Afraid of result 2 Felt unnecessary 3 Forgot it 4 Others (Specify) 96 No response 99 | |

9.0 AWARENESS OF HIV/AIDS
(If answer to Q. 801 "No", Go to Q. 902)

| Q. N. | Questions | Coding Categories | | Skip to |
|----------------------------|--|-------------------|-----------|---------|
| 901 | Of the following sources of information, from which sources have you learned about HIV/AIDS? <i>(Read the following list, multiple answers possible)</i> | | | |
| | 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? <i>(Multiple answer possible, read the list)</i> | | | |
| | Items | Yes | No | |
| | 1. Condom | 1 | 2 | |
| | 2. Brochure/Booklets/Pamphlets about HIV/AIDS | 1 | 2 | |
| | 3. Information about HIV/AIDS | 1 | 2 | |
| 96. Others (Specify) _____ | 1 | 2 | | |

10.0 PROMOTION OF CONDOM (If answer to Q. 601 “No” Go to Q. 1004)

| Q. N. | Questions | Coding Categories | | Skip to |
|----------------------------|--|---------------------|--|---------|
| 1001 | In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? <i>(Read the following list, multiple answer possible)</i> | | | |
| | Sources | Yes | No | |
| | 1. Radio | 1 | 2 | |
| | 2. Television | 1 | 2 | |
| | 3. Pharmacy | 1 | 2 | |
| | 4. Health Post | 1 | 2 | |
| | 5. Health Center | 1 | 2 | |
| | 6. Hospital | 1 | 2 | |
| | 7. Health Workers/Volunteers | 1 | 2 | |
| | 8. Friends/Neighbors | 1 | 2 | |
| | 9. NGOs | 1 | 2 | |
| | 10. Newspapers/Posters | 1 | 2 | |
| | 11. Video Van | 1 | 2 | |
| | 12. Street Drama | 1 | 2 | |
| | 13. Cinema Hall | 1 | 2 | |
| | 14. Community Event/Training | 1 | 2 | |
| | 15. Bill Board/Sign Board | 1 | 2 | |
| | 16. Comic Book | 1 | 2 | |
| 17. Community Workers | 1 | 2 | | |
| 96. Others (Specify) _____ | 1 | 2 | | |
| 1002 | Have you ever seen, heard or read following messages/characters during past one year? <i>(Multiple answer possible)</i> | | | |
| | Message/characters | Yes | No | |
| | 1. Jhilke Dai Chha Chhaina Condom | 1 | 2 | |
| | 2. Condom Kina Ma Bhaya Hunna Ra | 1 | 2 | |
| | 3. Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai | 1 | 2 | |
| | 4. Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna | 1 | 2 | |
| | 5. Condom Bata Surakchhya, Youn Swasthya Ko Rakchhya AIDS Ra Younrog Bata Bachna Sadhai Condom Ko Prayog Garau | 1 | 2 | |
| | 6. HIV/AIDS Bare Aajai Dekhee Kura Garau | 1 | 2 | |
| | 7. Ek Apas Ka Kura | 1 | 2 | |
| | 8. Maya Garaun Sadbhav Badaun | 1 | 2 | |
| | 9. Des Pardes | 1 | 2 | |
| | 10. Manis Sanga Manis Mile hara Jeeta Kasko Hunchha | 1 | 2 | |
| 96. Others (Specify) _____ | 1 | 2 | | |
| 1003 | Have you ever heard/seen or read messages or materials other than mentioned above? | Yes 1 | No 2 | → 1004 |
| 1003.1 | What? Have you seen, read or heard of ? | _____ | | |
| 1004 | Generally, where do you gather to inject drug? (Type of injecting site and location too) | _____ | | |
| 1005 | How many IDUs do you know who also know you well? (Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months) | Total _____ | <input type="text"/> <input type="text"/> <input type="text"/> | } 1008 |
| | | Don't know 98 | No response 99 | |

| Q. N. | Questions | Coding Categories | Skip to |
|--------|--|--|---------|
| 1005.1 | Among them, how many are male and female? | Male _____ <input type="text"/> <input type="text"/> <input type="text"/> Female _____ <input type="text"/> <input type="text"/> <input type="text"/> Don't know.....98 No response99 | |
| 1006 | Among those persons, please try to estimate the number of people by range of age: | Less than 15 years old . <input type="text"/> <input type="text"/> <input type="text"/> 15-19 years old <input type="text"/> <input type="text"/> <input type="text"/> 20-24 years old..... <input type="text"/> <input type="text"/> <input type="text"/> 25-29 years old..... <input type="text"/> <input type="text"/> <input type="text"/> 30-40 years old..... <input type="text"/> <input type="text"/> <input type="text"/> > 40 years old..... <input type="text"/> <input type="text"/> <input type="text"/> | |
| 1007 | Again, among those, please try to estimate the number of people by religion: | Hindu <input type="text"/> <input type="text"/> <input type="text"/> Buddhist..... <input type="text"/> <input type="text"/> <input type="text"/> Muslim..... <input type="text"/> <input type="text"/> <input type="text"/> Christian <input type="text"/> <input type="text"/> <input type="text"/> Others (Specify) _____ <input type="text"/> <input type="text"/> <input type="text"/> | |
| 1008 | How is the person who gave you the coupon related to you? (Do not ask to the Seed) | A close friend1 A friend2 Your sexual partner3 A relative4 A stranger5 Others (Specify).....96 Don't know.....98 No response99 | |
| 1009 | In the past one year how many IDUs that you knew have died? | Numbers <input type="text"/> <input type="text"/> Don't know.....98 | |

11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|---|---------|
| 1101 | Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizers (CM) or Community Educators (CE) in the last 12 months? | Yes1 No2 No response99 | 1105 |
| 1102 | What activities did these PE or OEs involve you in when you met them? (Multiple answers. DO NOT READ the possible answers) | Discussion on how HIV/AIDS is/isn't transmitted.1 Discussion on how STI is/isn't transmitted.....2 Discussion on safe injecting behavior.....3 Regular/non-regular use of condom4 Demonstration on using condom correctly.....5 Others (Specify).....96 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|--|--|---------|
| 1103 | Do you know which organization were they from? (Multiple answers. DO NOT READ the possible answers) | KCC.....1 HELP.....2 KYC.....3 PSK.....4 LALS.....5 Youth Vision.....6 Naulo Ghumti.....7 CSG.....8 INF (Nepalgunj).....9 SMF.....10 AHH.....11 RICHMOND.....12 Nav Kiran.....13 Jhapa Plus.....14 Namuna.....15 Others (Specify).....96 Don't know.....98 | |
| 1104 | How many times have these PE, OE, CM and/or CE met you in the last 12 months? | Once.....1 2-3 times.....2 4-6 times.....3 7-12 times.....4 More than 12 times.....5 | |
| 1105 | Have you visited or been to any out reach center (DIC, IC or CC) in the last 12 months? Drop-In Center (DIC), Information Center (IC), Counseling Center (CC) | Yes.....1 No.....2 | → 1109 |
| 1106 | What did you do when you went to the out reach center (DIC, IC or CC) in the 12 last months? (Multiple answers. DO NOT READ the possible answers) | Went to collect condoms.....1 Went to learn the correct way of using condom.....2 Went to learn about the safe injecting behavior.....3 Went to watch film on HIV/AIDS..4 Participated in discussion on HIV transmission.....5 Went to have new syringe.....6 Other (Specify).....96 | |
| 1107 | Do you know which organizations run those out reach center (DIC, IC or CC)? (Multiple answers. DO NOT READ the possible answers) | KCC.....1 HELP.....2 KYC.....3 PSK.....4 LALS.....5 Youth Vision.....6 Naulo Ghumti.....7 CSG.....8 INF (Nepalgunj).....9 SMF.....10 AHH.....11 RICHMOND.....12 AMDA Nepal.....13 WHOMS.....14 Namuna.....15 Others (Specify).....96 Don't know.....98 | |
| 1108 | How many times have you visited out reach centers (DIC, IC or CC) in the last 12 months? | Once.....1 2-3 times.....2 4-6 times.....3 7-12 times.....4 More than 12 times.....5 | |
| 1109 | Have you visited any STI clinic in the last 12 months? | Yes.....1 No.....2 | → 1113 |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|---|--|---------|
| 1110 | What did you do when you visited such STI clinic? (Multiple answers. DO NOT READ the possible answers given below) | Blood tested for STI..... 1 Physical examination conducted for STI identification.....2 Discussion on how STI is/isn't transmitted.....3 Discussion on safe injecting behavior.....4 Regular/non-regular use of Condom.....5 Took a friend with me.....6 Other (Specify).....96 | |
| 1111 | Do you know which organizations run those STI clinics? (Multiple answers. DO NOT READ the possible answers) | AMDA.....1 SACTS.....2 NFCC.....3 CAC.....4 Paluwa.....5 Siddhartha Club.....6 NSARC.....7 NRCS.....8 FPAN.....9 Others (Specify).....96 Don't know.....98 | |
| 1112 | How many times have you visited STI clinic in the last 12 months? | Once.....1 2-3 times.....2 4-6 times.....3 7-12 times.....4 More than 12 times.....5 | |
| 1113 | Have you visited any Voluntary Counseling and Testing (VCT) centers in the last 12 months? | Yes.....1 No.....2 | → 1117 |
| 1114 | What did you do when you visited such VCT center/s? (Multiple answers. DO NOT READ the possible answers) | Received pre-HIV/AIDS test counseling.....1 Blood sample taken for HIV/AIDS test.....2 Received post HIV/AIDS test counseling.....3 Received information on safe injecting behavior.....4 Received HIV/AIDS test result.....5 Received counseling on using condom correctly in each sexual intercourse.....6 Received information on HIV/AIDS window period.....7 Took a friend with me.....8 Other (Specify).....96 | |
| 1115 | Do you know which organizations run those VCT centers? (Multiple answers. DO NOT READ the possible answers) | AMDA.....1 Youth Vision.....2 SACTS.....3 NFCC.....4 CAC.....5 Naulo Ghumti.....6 NSARC.....7 NRCS.....8 FPAN.....9 WATCH.....10 Namuna.....11 Others (Specify).....96 Don't know.....98 | |

| Q. N. | Questions | Coding Categories | Skip to |
|-------|--|--|---------|
| 1116 | For how many times have you visited VCT center in the last 12 months? | Once 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times..... 5 | |
| 1117 | Have you ever participated in HIV/AIDS awareness raising program or community events in the last 12 months? | Yes 1 No 2 | → 1121 |
| 1118 | If Yes, What activities did you participate in? (Multiple answers. DO NOT READ the possible answers) | Street drama..... 1 AIDS Day 2 Condom Day 3 Video Shows 4 Group discussions 5 Talk programs 6 HIV/AIDS related training 7 HIV/AIDS related Workshops..... 8 Condom use demonstrations 9 Others (Specify) 96 | |
| 1119 | Do you know which organizations organized those activities? (Multiple answers. DO NOT READ the possible answers given below) | AMDA 1 HELP 2 KYC..... 3 Youth Vision 4 NFCC..... 5 LALS 6 Naulo Ghumti 7 WATCH 8 GWP 9 NRCS 10 NSARC 11 AHH 12 Recovery Nepal 13 SAHARA 14 CSG 15 Others (Specify) 96 Don't know 98 | |
| 1120 | How many times have you participated in such activities in the last 12 months? | Not participated within last year..... 0 Once..... 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times..... 5 | |
| 1121 | Have you heard of any Community Home Based Care (CHBC) services that are provided for HIV positive people? | Yes 1 No 2 | |
| 1122 | Have you heard of care and support programs that provide information regarding ART and ART services necessary for HIV infected people? | Yes 1 No 2 | |

12.0 STIGMA AND DISCRIMINATION

| Q. N. | Questions | Coding Categories | Skip |
|-------|---|--|------|
| 1201 | If a male relative of yours gets HIV, would you be willing to take care of him in your household? | Yes 1 No 2 Don't know 98 | |
| 1202 | If a female relative of yours gets HIV, would you be willing to take care of her in your household? | Yes 1 No 2 Don't know 98 | |

| Q. N. | Questions | Coding Categories | Skip |
|-------|---|---|------|
| 1203 | If a member of your family gets HIV, would you want to keep it a secret? | Yes 1 No 2 Don't know 98 | |
| 1204 | If you knew a shopkeeper or food seller had HIV, would you buy food from him/her? | Yes 1 No 2 Don't know 98 No response 99 | |
| 1205 | Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease? | Same 1 More 2 Less 3 Don't know 98 No response 99 | |
| 1206 | If one of your colleagues has HIV but he/she is not very sick, Do you think he/she should be allowed to continue working? | Yes 1 No 2 Don't know 98 No response 99 | |

ANNEX – 7: Oral Informed Consent

Oral Informed Consent Form for male Injecting Drug Users

Title: Integrated Biological and Behavioral Surveillance Survey among Injecting Drug Users in Kathmandu Valley

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

Principal Investigator/s: Dale Davis, MPH, FHI/Nepal
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Introduction

We are asking you to take part in a research survey to collect information on knowledge of human immunodeficiency virus (HIV)/sexually transmitted infections (STIs), HIV/STI related risk behaviors, STI treatment practices and to track the trend in the prevalence of HIV and Syphilis among the populations like you. We want to be sure that you understand the purpose of the research and your responsibilities before you decide if you want to participate in the survey. This discussion is important. You can listen and learn about the survey, ask questions, and then decide if you want to participate. If you choose to participate, one person will explain the survey to you and another person will witness and make sure you understand the survey. Both people will sign the form. You will not be asked to sign the form. You can ask us to explain any words or information that you may not understand.

Information about the Research and Your Role

This survey selects its survey participants from Kathmandu valley who are injecting drug users using respondent driven sampling process (RDS). Survey participants will be selected by a process in which individuals who have participated in the survey invite others they know who meet the survey criteria to participate. You are in the pool of possible candidates, but the final selection would be based on your choice. In total 340 men like you will be selected for this survey from Kathmandu Valley. If you agree to participate in the survey we will interview you using a structured questionnaire and then ask you to provide about 5-7 ml blood sample for HIV and Syphilis test. We will draw blood from vein. If you have any STI symptom, we will provide free treatment. You will be provided your confirmatory HIV test results and RPR titer test result on the same day if you want to receive it. Test results will be provided with counseling by a qualified counselor. If you are RPR reactive, a confirmatory test result for syphilis will be provided at the nearest VCT clinic in Kathmandu and you will be informed about the time and clinic where you need to obtain those results.

You will have to spend about 60 minutes with us if you decide to participate in this research. You will have to wait another 60 minutes if you want to collect the HIV test result on the same day. Further, if you decide to participate in the “on the spot treatment plan” for syphilis based on the RPR test you may then need to spend about 60 minutes more after you are given the Penicillin injection for observation by medical doctor for any adverse reactions. We would like to inform that this is a research survey and not health care provision service.

Possible Risks

The risk of participating in this survey is the minor discomfort during blood drawing. Providing blood sample does not put you at any other risk. Some of the questions we ask might make you feel awkward or uncomfortable to answer them. You are free not to answer such questions and also to stop participating in the research at any time you want to do so. You might feel some mental stress after getting your test results. But you will get counseling before and after the test for HIV through a qualified counselor. He/she will provide information and address for seeking assistance for any mental stress you may have.

There is a small risk of being socially discriminated if people know that you have participated in a HIV related survey. But we will keep all the information confidential so that such risk would be minimal.

Possible Benefits

You will be provided with free treatment, if you currently have any STI symptoms. Furthermore, if you are tested positive for Syphilis and provide consent for treatment, we will provide you Penicillin injection in the presence of a medical doctor. You will be given lab test results and made aware of how STI/HIV is transmitted and how it can be prevented and controlled. We would refer you for treatment for HIV in case you are tested positive for HIV, but the survey team will not provide this treatment for you. Follow up treatment costs will not be paid by the research team. You will be provided with information on safe sex. The information we obtain from this research will help to plan strategies to control and prevent further spread of HIV/AIDS and other sexually transmitted infections.

After the blood sample collection it will be tested for HIV and Syphilis infection. You can collect your test results of HIV on the same day. For syphilis test results confirmed by TPPA test you will be given time and venue to come back for collecting test results. A qualified counselor with pre and post test counseling will give test result. Survey ID card will be issued to you before the interview. Test results can only be obtained by presenting the survey ID card with your code number on it. If you do not have the ID card, we cannot give you the results because we will not have your name written anywhere.

If You Decide Not to Be in the Research

You are free to decide whether or not to take part in this research. Your decision will not affect the health services you are seeking now and you would normally receive from the survey centre.

Confidentiality

We will protect information collected about you and your taking part in this survey to the best of our ability. We will not use your name in any reports. A court of law could order medical records shown to other people, but that is unlikely. We will not ask you to put your name or sign on this form, but only ask you to agree verbally (with spoken words). We will be responsible and serious about confidentiality during interview, STI examination and treatment. We assure you that all the activities will be confidential.

Payment

We will not pay you for your participation but you will be given, condom and reading materials about STI/HIV/AIDS as compensation for your participation in the research. We will provide NRs 100.00 (USD 1.5) as a local transportation for coming to survey centre for interview and test result collection. The survey participants will also receive a maximum of up to NRs. 150 (USD 2) for recruiting up to three friends through the coupons provided by the research team (NRs. 50 or USD 0.67 for recruiting one friend successfully).

Leaving the Research

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

If you have a questions about the survey

If you have any questions about the research, call:

Dale Davis, ASHA project- FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173; **OR**

Laxmi Bilas Acharya, ASHA project- FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173

We will not be able to pay for/care for injuries that occur as a result of the survey.

Your Rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Family Health International and Nepal Health Research Council (NHRC). If you have any questions about how you are being treated by the survey or your rights as a participant you may contact :

Ethical Review Board, Nepal Health Research Council, Ram Shah Path, P.O. Box 7626

Phone: **977-1-4254220/4227460** Email: nhrc@healthnet.org.np

Or you may contact **Mahesh Shrestha**, FHI CO Nepal: GPO Box: 8803, Gopal Bhawan, Anamika Galli Ward No: 4, Baluwatar, Kathmandu Tel: 977-1-4437173. Email: mshrestha@fhi.org

VOLUNTEER AGREEMENT

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

Signature of witness

Date

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

Signature of Person Who Obtained Consent

Date

ANNEX – 8: Participation In Post Test Counseling

| Post Test Counseling Date | Counseling Center | Expected Client | Client Counseled | |
|--------------------------------|-----------------------|-----------------|------------------|------|
| | | | N | % |
| 16 January 2011- 13 March 2011 | Sudhara/Survey Center | 345 | 149 | 43.2 |

ANNEX – 9: Reasons for Not Injected Drugs on the Previous Day

| Injecting Practice | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| Reasons for not injecting yesterday n=115 | | |
| To quit slowly | 39.2 | 18.8-53.6 |
| Lack of money | 36.9 | 24.8-54.1 |
| Taking other medicines | 6.3 | 1.8-13.0 |
| Scarcity of drugs | 5.2 | 3.5-22.5 |
| Busy in work/Out of home for work | 5.2* | - |
| Due to illness | 0.9* | - |

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

ANNEX – 10: Part of the Body for Injecting Drugs

| Typical Injection Points | Estimated Population Proportions (%) (N=340) | 95% CI |
|--------------------------|--|-----------|
| Joint of leg and hip | 33.6 | 28.1-39.6 |
| Elbow | 29.5 | 24.0-35.3 |
| Arm | 16.3 | 11.6-20.9 |
| Palm | 13.4 | 10.0-17.5 |
| Wrist | 6.6 | 3.9-9.3 |
| Calf | 0.6 | 0.2-1.3 |

ANNEX – 11: Gathering Place to Inject Drugs

| Gathering Places of IDUs to Inject Drugs | Estimated Population Proportions (%) (N=340) | 95% CI |
|---|--|-----------|
| Own/friends/Drug-user's room/House | 62.5 | 56.2-69.1 |
| Forest/Bushes/lawn/Farmland/chaar/Bansghari | 17.6 | 13.0-22.9 |
| Toilet | 6.0 | 3.9-8.8 |
| River bank | 5.4 | 1.5-6.3 |
| Constructing house | 4.5 | 2.2-5.9 |
| Hotel/Lodge/Restaurant | 3.7 | 1.5-6.3 |
| Around school/Campus | 1.0 | 0.0-3.0 |
| Bus/taxi garage | 1.0 | 0.0-3.0 |

ANNEX – 12: Combination of Different Drugs Injected

| S.N. | Drugs Combination | Fifth Round - 2011 |
|------|---|--------------------|
| | | n=305 |
| 1 | Norphin + Diazepam | 29.8* |
| 2 | Norphin + Diazepam + Phenergan | 12.8* |
| 3 | Norphin+ Stargun+Diazepam | 10.5* |
| 4 | Norphin +Avil + Diazepam + Stargun | 6.2* |
| 5 | Norphin + Phenergan+ Diazepam + Stargun | 5.6* |
| 6 | Norphin + Avil + Diazepam | 4.9* |
| 7 | Norphin + Avil + Diazepam + Phenergan | 4.9* |
| 8 | Norphin + Diazepam + Phenaromain + Stargun | 3.3* |
| 9 | Norphin +Avil +Phenergan+ Stargun + Diazepam | 1.6* |
| 10 | Norphin + Diazepam + Phenaromain + Phenergan | 1.3* |
| 11 | Norphin + Diazepam + Algie + Phenergan+Avil | 1.0* |
| 12 | Norphin + Diazepam + Phenaromain + Stargun+ Phenergan | 1.0* |
| 13 | Diazepam+Lubrigesic+ Phenergan | 1.0* |
| 14 | Avil + Phenaromain+ Diazepam + Stargun | 1.0* |
| 15 | Norphin+ Phenaromain+Diazepam | 0.7* |
| 16 | Norphin + Avil + Phenergan | 0.7* |
| 17 | Norphin + Diazepam + Phenaromain + Phenergan+Avil | 0.7* |
| 18 | Norphin + Avil+ Phenergan +Stargun | 0.7* |
| 19 | Norphin + Avil + Phenaromain+ Diazepam + Stargun | 0.7* |
| 20 | Avil + Diazepam + Phenergan | 0.7* |
| 21 | Diazepam+Lubrigesic | 0.7* |
| 22 | Avil +Phenergan+ Phenaromain + Stargun | 0.7* |
| 23 | Others | 9.8* |

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

ANNEX – 13: Drug Switching Practice and Reasons for It

| Drug Switching Behavior of IDUs | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|--------|
| Switched from one drugs to another drugs in past month (N=340) | | |
| Yes | 2.1* | - |
| No | 97.9* | - |
| Switched from (n=7) | | |
| Norphin to Lubrigesic | 14.3* | - |
| Brown sugar to Norphin+Diazepam+Avil | 14.3* | - |
| Norphin+diazepam to Proxyvon+ nitrodate | 14.3* | - |
| Diazepam+Phenargan+Lubrigesic to Norphin+Diazepam+Phenargan | 14.3* | - |
| Phensydyl +Clojup to Norphin+Brufin | 14.3* | - |
| Avil +Phenargan+Algie+Stargun to Norphin+Diazepam+ slani | 14.3* | - |
| Diazepam+ Lubrigesic to Norphin+ Nitrodate | 14.3* | - |
| Reasons for switching one drug to another # (n=7) | | |
| Unavailability/scarcity of drugs | 71.4* | - |
| Lack of money | 42.8* | - |

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

ANNEX – 14: Types of Treatment and Institutions from Where Treatment Received

| Types of Institutions | Types of Treatments (n=177) | | | | |
|--|------------------------------|--------------------------|----------------------------------|---------------------------------|------------------------------|
| | Residential rehabilitation % | Out patient counseling % | Detoxification with other drug % | Detoxification with methadone % | Maintenance with methadone % |
| Richmond Fellowship | 4.0 | 0.6 | | | |
| Youth vision | 9.6 | | 7.9 | | |
| Nawa Kiran Asharam | 7.3 | | | | |
| LALS | 6.8 | | 1.1 | | |
| Sparsha Nepal | 3.4 | | | | |
| Sangati | 4.0 | 0.6 | | | |
| The Recovery Group | 5.6 | | | | |
| Punar Jeevan Kendra | | | 1.1 | | |
| Wisdom Happy Nepal | | | | | |
| Aashra Sudhar Kendra | 4.0 | | | | |
| Prayas Nepal | | | 0.6 | | |
| Model hospital+Paropakar medical (Pokhara) | | | 0.6 | | |
| Self treatment by using medicine | | | 2.8 | | |
| Positive voice | | | 0.6 | | |
| Sarathi Nepal | | | | 0.6 | 2.3 |
| Aawash Samuha | | | | 0.6 | |
| Sahara treatment center | 2.8 | | | | |
| Clear vision | 2.3 | | | | |
| Prarambha rehabilitation center | 2.3 | | | | |
| Bons Baek | 2.3 | | | | |
| Re–Unity rehabilitation center | 3.4 | | | | |
| Others | 29.4 | | | | |

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

ANNEX – 15: Reasons for Not Using Condom in the Last Sex With Different Sex Partners

| Reasons of Not Using Condom | Estimated Population Proportions (%) | 95% CI |
|---|--------------------------------------|-----------|
| Reasons of not using condom with regular partner in the last sex (n=50) | | |
| Don't like them | 28.5 | 11.0-78.1 |
| Didn't think it was necessary | 36.5 | No Bound |
| Used other contraceptive | 31.7 | 5.9-61.8 |
| Partner objected | 2* | - |
| Didn't think of it | 6* | - |
| Reasons of not using condom with sex worker in the last sex (n=18) | | |
| Not available | 21.7 | No Bound |
| Don't like them | 22.2 * | - |
| Didn't think of it | 5.6* | - |
| Partner objected | 11.1 * | - |
| Reasons of not using condom with non- regular partner in the last sex (n=76) | | |
| Don't like them | 22.5 | 5.6-31.4 |
| Not available | 14.2 | 2.2-20.5 |
| Didn't think of it | 10.6 | 10.0-40.5 |
| Partner objected | 5.3* | - |
| Didn't think it was necessary | 44.2 | - |

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

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

NC – Not calculated (RDSAT conditions were not met)

ANNEX – 16: Ever Had Sex for Money or Goods

| Sex for Money or Goods | Estimated Population Proportions (%) (N=340) | 95% CI |
|--|--|-----------|
| Ever had sex for money or goods | | |
| Yes | 2.6 | 0.9-4.7 |
| No | 97.4 | 95.3-99.1 |
| Had sex for money or goods before started injecting drugs | | |
| | n=11 | |
| Yes | 63.6* | - |
| No | 36.4* | - |
| Had sex for money or goods after started injecting drugs | | |
| Yes | 72.7* | - |
| No | 27.3* | - |
| Had sex for money or goods in the past one year | | |
| Yes | 36.4* | - |
| No | 63.6* | - |
| Number of such sex partners in the past one year | | |
| | n=4 | |
| One | 50.0 | - |
| Two | 25.0 | - |
| Three and more | 25.0 | - |
| Frequency of sex with such partners in the past one year | | |
| 5 times | 25.0* | - |
| 20 times | 25.0* | - |
| 21 times | 25.0* | - |
| 30 times | 25.0* | - |

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

ANNEX – 17: Distribution of Respondents Reached by OE/PE by Use of Other Services

| Respondents reached by services in past year | Estimated Population Proportions (%) | 95% CI |
|--|--------------------------------------|-----------|
| DIC visit | | |
| | N=206 | |
| Yes | 44.0 | 39.5-50.7 |
| No | 56.0 | 49.3-60.5 |
| Total | 100.0 | |
| Participated in HIV/AIDS awareness program activities | | |
| Yes | 15.2 | 11.6-19.0 |
| No | 84.8 | 81.0-88.4 |
| Total | 100.0 | |
| VCT visit | | |
| Yes | 14.0 | 10.4-18.2 |
| No | 86.0 | 81.8-89.6 |
| Total | 100.0 | |
| STI clinic visit | | |
| Yes | 2.0 | 0.8-3.5 |
| No | 98.0 | 96.5-99.2 |
| Total | 100.0 | |