Integrated Biological and Behavioral Surveillance Survey (IBBS) among Male Injecting Drug Users (IDUs) in Western to Far-Western Terai of Nepal Round III- 2009

Submitted to:

Family Health International /Nepal Baluwatar P.O. Box 8803 Kathmandu, Nepal

Submitted by:



New ERA P.O. Box 722 Rudramati Marga, Kalopul Kathmandu, Nepal

In Collaboration with



STD/AIDS Counseling and Training Services P.O. Box 7314 Pyukha, Kathmandu, Nepal

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~ Study Team New ERA ~

STUDY TEAM MEMBERS

Key Team Members

1.	Mr. Sidhartha Man Tuladhar	-	Team Leader
2.	Mr. Niranjan Dhungel	-	Project Coordinator
3.	Ms. Pranita Thapa	-	Research Officer
4.	Ms. Nira Joshi	-	Assistant Research Officer
5.	Mr. Ramesh Dangi	-	Senior Research Assistant
6.	Mr. Sachin Shrestha	-	Senior Research Assistant
7.	Mr. Laxmi Datta Sapkota	-	Senior Counselor
8.	Ms. Sarita Vaidya	-	Senior Computer Programmer

Field Study Team Members

	1.	Mr. Deepak Dhungel	-	Field Research Assistant
	2.	Mr. Rabindra Udash	-	Field Research Assistant
	3.	Mr. Tirtha Gautam	-	Field Supervisor
	4.	Mr. Mandeep Prasad Regmi	-	Field Supervisor
	5.	Mr. Dev Bahadur Dangi	-	Field Supervisor
	6.	Mr. Prithivi Bahadur Khadka	-	Field Supervisor
	7.	Mr. Anuj Kunwar	-	Field Supervisor
	8.	Mr. Gopal Prasad Regmi	-	Field Supervisor
	9.	Mr. Manoj Bikram Kathet	-	Field Supervisor
	10.	Mr. Ganesh Wagle	-	Field Supervisor
	11.	Mr. Bikash Bade	-	Health Assistant
	12.	Mr. Sagar Prajapati	-	Health Assistant
	13.	Mr. Kabiram Chaudhary	-	Runner
	14.	Mr. Ram Bahadur Chaudhary	-	Runner
	15.	Mr. Govinda Prasad Bhurtel	-	Counselor
	16.	Mr. Bahadur Sodari	-	Counselor
	17.	Mr. Bibha Rai	-	Counselor
	18.	Mr. Santosh Pathak	-	Counselor
	19.	Ms. Sajana Shaha	-	Counselor
	20.	Mr. Keshav Bhatta	-	Counselor
<u>Dat</u>	a E	ntry/Tabulation /Coding		
	1.	Mr. Babu Raja Dangol	-	Coder

1.	Mi. Dabu Kaja Dangoi	-	Couci
2.	Ms. Sujaya Dangol	-	Coder
3.	Mr. Birochan Upreti	-	Coder
4.	Mr. Himal Awosthi	-	Coder
5.	Ms. Sanu Maiya Shrestha	-	Data Entry Person
6.	Ms. Dejeena Amatya	-	Data Entry Person

Administration Support

1.	Ms. Geeta Shrestha (Amatya)	-	Senior Word Processor
2.	Mr. Rajendra Kumar Shrestha	-	Office Assistant

Laboratory Team (SACTS)

1.	Dr. Vijaya Lal Gurubacharya	-	Consultant Pathologist
2.	Mr. Shambhu Shrestha	-	Project Officer
3.	Mr. Janardan Kuinkel	-	Senior Lab Technician
4.	Mr. Narahari Poudel	-	Lab Technician
5.	Mr. Rajan Rajthala	-	Lab Technician
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# **ABBREVIATIONS**

AHH	_	Association for Helping the Helpless
AIDS	-	Acquired Immuno-Deficiency Syndrome
ASHA	-	Advancing Surveillance, Policies, Prevention, Care & Support to Fight
		HIV/AIDS
CMs	-	Community Mobilizers
DIC	-	Drop-in-Centre
FHI	-	Family Health International
FSW	-	Female Sex Worker
GOs	-	Governmental Organizations
HIV	-	Human Immuno-Deficiency Virus
IBBS	-	Integrated Biological and Behavioral Surveillance Survey
ID	-	Identification Number
IDU	-	Injecting Drug User
IEC	-	Information, Education and Communication
INF	-	International Fellowship Nepal
MARPs	-	Most at Risk Populations
MSM	-	Men who have Sex with Men
NCASC	-	The National Center for AIDS and STD Control
NGO	-	Non-Governmental Organization
NHRC	-	Nepal Health Research Council
NNSWA	-	Nepal National Social Welfare Association
NPHL	-	National Public Health Laboratory
N-SARC	-	Nepal STD & AIDS Research Center
OE	-	Outreach Educator
PE	-	Peer Educator
PHSC	-	Protection of Human Subjects Committee
PPS	-	Probability Proportional to Size
RPR	-	Rapid Plasma Reagin
SACTS	-	STD/AIDS Counseling and Training Services
SLC	-	School Leaving Certificate
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
WATCH	-	Women Acting Together for Change
WHO	-	World Health Organization

# **EXECUTIVE SUMMARY**

The National Center for AIDS and STD Control (NCASC), Nepal, has developed a comprehensive National Surveillance Plan for HIV and AIDS that includes a regular schedule for conducting an Integrated Biological and Behavioral Survey (IBBS) among populations that are most at risk (MARPs). These surveillance studies conducted at regular intervals, help to assess health risk behaviors and measure the prevalence of HIV and sexually transmitted infections (STIs) among MARPs, as well as monitoring trends in the epidemic to inform the HIV response in Nepal. The IBBS is conducted by NCASC with technical and financial support from Family Health International/Nepal (FHI/Nepal) and the United States Agency for International Development (USAID).

This report details the findings of the third round of the IBBS conducted among 300 male IDUs in the Western to Far-Western Terai of Nepal. The study was conducted with the primary objective of measuring HIV and syphilis prevalence among the study population and to assess their HIV/STI related risk behaviours including their sexual and drug using habits. It also aimed to assess their exposure to the HIV/AIDS/STI awareness and prevention programs targeted at IDUs in the Western to Far-Western Terai of Nepal

### **Study Methodology**

The study covered seven districts of the Western to Far-Western Terai in Nepal (Rupandehi, Kapilbastu, Dang, Banke, Bardia, Kailali and Kanchanpur). Two-stage cluster sampling was followed to draw the sample of the 300 male IDUs. The first stage was to develop the sampling frame and select the cluster, while the second stage entailed selecting 300 IDUs from the chosen cluster. The study team visited the study districts and collected information regarding IDUs from the concerned stakeholders, including key informants from government as well as from non-government organizations and the local population. At each location, information on population size was collected by direct and indirect counting. After estimating their number in different locations, these locations were divided into clusters. A location with at least 20 IDUs was defined as a cluster. Thirty clusters were selected using the probability proportional to size (PPS) method. In the next stage, 10 respondents were randomly selected from each cluster.

Study centers with laboratories/clinics were set up at easily accessible locations in six sites covering five study districts. Structured questionnaires were used to collect behavioral data and information on STI/HIV/AIDS awareness among respondents. The questionnaire was administered after obtaining each participant's informed consent. In order to draw up a comparative analysis of the behavioral trends over the years, questions asked during the previous rounds were repeated. Strict confidentiality was maintained throughout the study process. The respondents were provided unique ID number. The same ID number was used on the questionnaire, medical records and blood specimens of the respondents.

All respondents participated voluntarily in the study. Those who did not meet the study criteria and those who were not willing to participate were not involved in the study. Strict confidentiality was maintained through out the study process. 'Ethical' as well as 'technical' approval was obtained from FHI's ethical review body, the Protection of Human Subject committee (PHSC) and the Nepal Health Research Council (NHRC) prior to the

commencement of the fieldwork. Informed consent was obtained in the presence of a witness from all the participants prior to the interview and the collection of blood samples. Pre-test counseling sessions were held before the clinical examination and blood sample collections. All the respondents were then examined for STI identification and blood samples were collected for biological testing of HIV and syphilis. Study participants were provided symptomatic treatment for STI symptoms. HIV and syphilis test results were provided later at locally-established VCT centers, along with post-test counseling given by experienced counselors.

### Laboratory Methods

Syphilis was tested using BD. Micro-Vue Rapid Plasma Regain (RPR) card test. All the samples negative for RPR were recorded as negative. All positive samples for RPR were further tested with serial serum dilution up to 64 times and the test record was recorded with dilution factor. All the RPR positive serums were also tested by Treponema Pallidum Particle Agglutination (TPPA) test using Serodia TPPA as a confirmatory test.

HIV antibody screening was performed using serial testing approach. All the serum samples were tested using Determine HIV 1/2 (Abbott Japan Co. Ltd.) as a first test to detect antibodies against HIV. If the first test was negative, no further test was conducted, but if the first test was positive, a second test was performed using Uni-Gold (Trinity Biotech, Dublin, Ireland). In case of a tie between the first two tests, a third test was performed using SD Bioline HIV 1/2 (Standard Diagnostics, Inc., Kyonggi-do, South Korea) as a tie-breaker test.

### **Key Findings**

### Socio Demographic Characteristics

The age of the IDUs ranged from between 16 to 50 years, with a median age of 27. Overall, 54 percent of respondents were between 20 to 29 years; while adolescents of 19 years or younger made up eight percent of the respondents.

Forty-two percent of the IDUs were currently married. Forty one percent of IDUs were living with their spouse or with a female sexual partner at the time of survey.

The majority of the IDUs (93.6%) could read and write, however, 5.3 percent of them had no formal schooling; while 18 percent had completed SLC or above.

### **STI/HIV/AIDS Prevalence**

HIV prevalence among IDUs in the West and Far-West Terai was eight percent. Three percent of them had a history of syphilis, while 1.7 percent had active syphilis.

A significant association has been seen between the prevalence of HIV and the marital status of the IDUs as well as the length of time the respondents had been injecting drugs. Married IDUs had a high prevalence of HIV (12.2%) compared to unmarried ones (3.9%); likewise, those IDUs who had been injecting drugs for more than five years had significantly higher HIV prevalence (12.3%) than those who had injected for a shorter span of time (less than 2 years - 1.6%; 2-5 years - 4.9%).

Sexual behavior or the type and number of sexual partners of the IDUs in the past year did not show a significant relationship with HIV prevalence. However, those IDUs who did not have sex with non-regular partners in the past year had a higher HIV prevalence (10.4%) than those who have had such sexual encounters (2.4%).

### **Drug Injecting Practices**

The IDUs had been injecting drugs for 5.9 years on average. Over half (51.3%) had been injecting for five years or more. The IDUs started injecting drugs at the median age of 21 years. Most of them (70.7%) injected a combination of different drugs.

Over 90 percent of IDUs had avoided risky injecting practices in the last three injections. Likewise, the past week's injecting practice also showed that the majority of the IDUs had avoided risky injecting behaviors such as injecting with a used needle/syringe (88.3%); injecting with a syringe kept at a public place (92.3%); and sharing needles/syringes with others (88.7%).

Around eight in ten IDUs (81.7%) had injected in places outside their district or in other countries. Among them, 17.6 percent had used a pre-used needle/syringe and 19.6 percent had given their needle/syringe to someone else after use.

### **Sexual Behavior**

Ninety-eight percent of IDUs had maintained sexual contact before the date of survey. Around 87 percent of them were below 20 when they had their first sexual encounter.

Over one half of IDUs (52.8%) had sexual contact with two or more female partners in the past year.

Among 300 IDUs, 42.9 percent had sex with regular partners, 28.2 percent with nonregular female sex partners and 32.7 with female sex workers in the past year. Consistent use of condom was high with female sex workers compared to regular and non-regular partners. Fifty-one percent had used condoms consistently with female sex workers, compared to 37.3 percent with non-regular female sex partners and 8.7 percent with regular female sex partners in the past year.

### STI and HIV/AIDS Awareness and Treatment Practices

Seven percent of IDUs had not heard about STIs before. Overall, 12.3 percent of respondents had genital discharge and 9.7 percent had a genital ulcer/sore in the past year. Among these respondents who had STI symptoms last year, 32.4 percent had genital discharge and 31 percent had a genital ulcer/sore at the time of the survey also.

In total, 73.3 percent of IDUs knew about all three major HIV/AIDS preventive measures, such as abstinence from sexual contact, 'A'; being faithful to one partner, 'B'; and condom use during each sexual contact, 'C'. Meanwhile, 56 percent of IDUs were aware of 'B,C,D,E,F' (a healthy looking person can be infected with HIV, 'D'; a person cannot get the HIV virus from a mosquito bite, 'E'; and sharing meal with an HIV-infected person does not transmit the HIV virus, 'F').

### HIV Test

Ninety-four percent of IDUs knew that a confidential HIV testing facility was available in their community. However, 37.3 percent of respondents had never been tested for HIV. Among those who had been tested, most (93.1%) had taken up the test voluntarily, while 80.9 percent had received their test result too.

### **Exposure to HIV/AIDS-Related Programs**

Altogether, 81.7 percent of IDUs had met peer/outreach educators at least once in the past year; while 77.3 percent had visited a drop-in center (DIC), and 28.3 percent had visited a VCT (Voluntary Counseling and Testing) center in the past year. However, only 6.3 percent of IDUs had been to an STI clinic before.

Likewise, 29.7 percent of respondents had participated in at least one HIV/AIDS-related program or similar community event in the past year.

# **CHAPTER – 1.0: INTRODUCTION**

## 1.1 Background

According to the National Center for AIDS and STD Control (NCASC), the national estimation of HIV infection in Nepal in 2007 was approximately 70,000. As of May 2009 a cumulative total of 13,885 HIV infections, including 2,384 cases of AIDS, had been reported in Nepal (NCASC, May 14, 2009). There is a large gap between the estimated number of HIV infections and the number of people who have been tested and know their status. The HIV epidemic in Nepal is currently concentrated in MARPs. IDUs are one of the core risk group who practice high-risk behavior of sharing needles/syringes between different injecting partners, and also re-using needles kept in public places. Moreover, high-risk sexual behavior associated with drug use has also been found to be a major contributing factor in the spread of HIV among the non-injecting population (AIDS in Asia, MAP Report, 2004).

The previous rounds of IBBS conducted among IDUs as per the National Surveillance Plan of NCASC have shown that HIV prevalence among IDUs varies by study sites. The first round of the IBBS among IDUs revealed an HIV prevalence of 68 percent among IDUs in the Kathmandu Valley (2002 New ERA/SACTS/FHI); 22 percent among IDUs in Pokhara Valley (2003 New ERA/SACTS/FHI); and 35.1 percent in the Eastern Terai (2003 New ERA/SACTS/FHI); A similar study conducted in the Western to Far-Western Terai in 2005 found an HIV prevalence of 11.7 percent among IDUs in the region (New ERA/SACTS/FHI 2005). The second round of the IBBS conducted in 2007 further found an 11 percent HIV prevalence among IDUs in the Western Terai.

This report documents the findings from the third round of IBBS conducted this year (2009) among IDUs in the Western to the Far-Western Terai.

# **1.2** Objectives of the Study

In line with the objectives of the first two rounds, the third round of the survey has also been undertaken to measure HIV and syphilis prevalence among the study population and to assess their HIV/STI related risk behaviors including their sexual and drug using habits. It also aims to provide information regarding this population's exposure to ongoing interventions related to HIV/AIDS/STIs awareness and prevention. At the same time it has sought to analyze trends through the comparison of data on selected variables obtained from the first, the second and the third round of the IBBS.

The information in this report is aimed to help design timely intervention strategies and monitor HIV prevalence among the target population.

1

# CHAPTER – 2.0: DESIGN AND METHODOLOGY

## 2.1 Study Site and Population

The cross-sectional study covered seven districts of the West to Far-West Terai (Rupandehi, Kapilbastu, Dang, Banke, Bardia, Kailali and Kanchanpur).

All participants were screened for eligibility criteria. For the purposes of this study the inclusion definition for IDUs was, "those current injectors of 16 years of age and above who have been injecting illicit drugs for at least three months prior to the date of the survey".

### 2.2 Sampling Size and Sampling Design

This is the third round of the IBBS conducted among IDUs in the West to Far-West Terai districts of Nepal. The sample size used in the previous rounds of IBBS in Western to Far Western Terai was used in this round also. Based on the statistical formula (Annex - 2), 300 current IDUs took part in the survey. This included 120 IDUs from Rupandehi, 30 from Kapilbastu, 60 from Banke, 50 from Kailali and 40 from the district of Kanchanpur.

A preliminary field survey was first conducted to understand the actual field situation and to map out the sites where IDUs were concentrated in the study districts. The concerned stakeholders at district level, local governmental organizations' (GOs), and non-governmental organizations' (NGOs) representatives were consulted to collect information on IDUs and their injecting practices. A rapid list of the IDUs and their gathering/injecting locations was made. Both the maximum and minimum number of IDUs at the different locations was noted in all of the identified locations in the seven districts.

Two-stage cluster sampling was used to draw up the sample. A location with at least 20 IDUs was defined as a cluster in the first stage. Those sites with less than 20 estimated IDUs were combined with the neighboring site to make a cluster with a minimum size of 20 IDUs. In the first stage, 30 clusters were selected using the probability proportional to the size (PPS) method and in the second stage 10 respondents were selected randomly from each selected cluster.

### The fieldwork started on January 21, 2009, and was completed on February 28, 2009.

### 2.3 Study Process

### 2.3.1 Research Instruments

A quantitative research approach was adopted by the study. A structured questionnaire was used to collect behavioral data relating to drug injection, syringe/needle sharing and sexual behavior among the IDUs (Annex - 3). Additionally, information on some demographic and social characteristics and on program exposure were collected. In order to draw up a comparative analysis of the behavioral trends over the years, questions asked during the first and the second rounds were repeated. The questionnaires were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000).

### 2.3.2 Recruitment and Training of Research Team

When selecting field researchers, priority was given to those who had been involved in similar studies of HIV prevalence in the past. Their commitment to respect respondents' privacy was also considered important.

Before data collection started, a one-week intensive training course was organized for the study team. The training session familiarized the team with the study objectives, the characteristics of the target groups, rapport-building techniques, the contents of the questionnaire and the study process. The training session also included theory and practical classes on pre-test counseling and questionnaire administration. Role plays that attempted to be as true to the actual field situation as possible were carried out. This allowed for the discussion of potential problems that could be faced while approaching IDUs, and possible methods for overcoming such problems. A person from Youth Vision, an organization that works with IDUs helped familiarize the study team with general behavior of IDUs and the skills required to deal with them. The training also focused on providing a clear concept of informed consent to the research team.

### 2.3.3 Recruitment of Respondents in the Sample

As mentioned earlier, using the information about locations and the estimated number of IDUs in those locations, first stage clusters were defined and 30 such clusters were selected using pps method. Then from each of the first-stage clusters selected, 10 respondents were randomly selected in the sample. After careful observation of different sites within the clusters, the respondents were selected randomly and were approached and informed about the study. In this process if some of the selected IDUs were not easily identified, key people were used for the identification of the selected IDUs in those localities.

Because of the social stigma and discrimination associated with injecting drugs, some of the randomly selected IDUs were not easily accessible as they did not want to disclose their status. In such situations, community mobilizers and peer educators of on-going HIV/AIDS programs, ex-IDUs, social workers, IDUs who had successfully participated in the study, or other key people who could identify and approach the selected IDUs were mobilized. At least three attempts were made to contact and include the person randomly selected. If, after three attempts, such attempts were unsuccessful, that person was replaced by the next IDU in the cluster.

Before starting the actual interview, all those participating were asked certain screening questions relating in general to their injecting habits, duration of drug injections and names of drug used to ensure that they meet the definitions of IDUs prescribed for the survey. Injecting marks were also observed to confirm their injecting behavior.

Likewise, the study team asked each participant several questions to make sure this was the first time they had participated in the study. Such questions included queries relating to their experience of having undergone any blood tests, the part of the body from where the blood was taken, their experience of HIV testing or testing for other diseases, meeting with New ERA staff and peer educators, and possession of an ID card with the study number.

### 2.3.4 Refusal

All respondents participated voluntarily in the study. Those who did not meet the study criteria and those who were not willing to participate were not involved in the survey. Among 27 cases of refusal, 18 did not meet the study criteria, seven were not interested in taking part in the study, one IDU was too scared to give a blood sample for the HIV/syphilis test, and one did not have time to take part in the interview. However, those IDUs who did not take part in the study were also offered free health check-up at the study clinic.

#### 2.3.5 Ethical review

The research was conducted in compliance with both ethical and human rights standards. These standards included participants' anonymity as well as pre- and post-test counseling. As this study focused on individuals who are highly stigmatized, and as injecting drugs is illegal in Nepal, 'ethical' as well as 'technical' approval was obtained from Family Health International's ethical review body, the Protection of Human Subject Committee (PHSC), and the Nepal Health Research Council (NHRC) prior to the start of the fieldwork. The study protocols were carefully reviewed and approved by these organizations. Moreover, verbal informed consent was obtained from all the participants prior to the interview and collection of blood samples occurred in the presence of a witness. The consent form was administered in a private setting. The verbal consent form used in the study is included in Annex 4. No personal identifiers were collected. All the respondents were provided with a unique ID number written on a plastic-coated card. The same number was marked on the questionnaire, the medical records, and on the blood specimen of that particular respondent. This card was also used for the distribution of the test results. Only those participants who produced the card were provided HIV and syphilis test results verbally with post-test counseling.

Moreover, the study team maintained the confidentiality of the data collected throughout the survey. The interviewer regularly submitted the completed questionnaires to the field supervisor on the day of each interview. The supervisor kept these questionnaires in separate locked cabinets where no one else had access to the information collected. The supervisor then transported the questionnaires to New ERA at regular intervals. In New ERA office, the questionnaires were kept in a locked coding room where absolutely no one except authorized data coding and data entry staff had access to individual questionnaire.

#### 2.4 **Field Operation Procedure**

#### 2.4.1 Study Centers

Centrally-located study centers were established at Bhairahawa and Butwal (Rupandehi); Taulihawa (Kapilvastu); Nepalgunj (Banke); Dhangadi (Kailali); and Bhim Dutta Nagar (Kanchanpur) to carry out the survey (Annex - 5). At each established site there were four or five rooms in total, allowing for a separate room for each activity, such as individual interviews, clinical examinations and blood sample collection.

#### 2.4.2 Clinical and Laboratory Procedure

The study 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 7). The clinical examination also included a simple health check which measured IBBS / IDUs in Western to Far Western Terai Report - 2009 blood pressure, body temperature, weight and pulse. The respondents with STI symptoms were provided symptomatic treatment in accordance with the National STI Case Management Guidelines. Other over-the-counter medicines such as paracetamol, alkalysing agents and vitamins were given as necessary.

### Collection, Storage and Transportation of Blood Samples

After pre-test counseling, the lab technician briefed the respondents about the HIV/STI testing process and sought their consent to take blood. Blood samples for testing HIV/syphilis were drawn from a vein from each of the study participants using a 5ml disposable syringe and were stored in a sterile glass tube labeled with the respondent's ID number. The blood sample was placed in a centrifuge to separate the blood cells from the serum. Serum samples were stored in the deep fridge compartment of the refrigerator at the study site at 2°C to 8°C. The survey period witnessed long hours of power cuts. However, sufficient numbers of ice packs were stored in the deep fridge compartment to ensure that proper temperature was maintained for storing the samples. The health assistant as well as the team leader constantly monitored the temperature in the thermometer kept in the compartment and recorded them in the log book . Each sample was labeled with the ID number of the study participant. The specimens were transported to the SACTS laboratories in Kathmandu in a cold box within10 days of collection. The serum samples were stored at a temperature of -12°C to -20°C at the SACTS laboratory.

### Laboratory Methods

Syphilis was tested using BD. Micro-Vue Rapid Plasma Regain (RPR) card test. All the samples negative for RPR were recorded as negative. All positive samples for RPR were further tested with serial serum dilution up to 64 times and the test record was recorded with dilution factor. All the RPR positive serums were also tested by Treponema Pallidum Particle Agglutination (TPPA) test using Serodia TPPA as a confirmatory test.

On the basis of titre of RPR, all the specimens with RPR/TPPA-positive results were divided into two categories.

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

HIV antibody screening was performed using serial testing approach. All the serum samples were tested using Determine HIV 1/2 (Abbott Japan Co. Ltd.) as a first test to detect antibodies against HIV. If the first test was negative, no further test was conducted, but if the first test was positive, a second test was performed using Uni-Gold (Trinity Biotech, Dublin, Ireland). In case of a tie between the first two tests, a third test was performed using SD Bioline HIV 1/2 (Standard Diagnostics, Inc., Kyonggi-do, South Korea) as a tie-breaker test. The testing protocol is based on the National VCT Guidelines of Nepal revised by NCASC in 2007. The interpretation of the test results was as follows:

- First test negative = negative
- First + second test positive = positive
- First test positive + second test negative + third test positive = positive
- First test positive + second test negative + third test negative = negative

### 2.4.3 Quality Control

Quality control was maintained strictly throughout the process of specimen collection, handling, and testing. All the tests were performed using internal controls. These controls were recorded with all the laboratory data. For quality control assurance, a 10 percent sample of the total serum collected (all positive samples and randomly selected negative samples to make 10% of total sample) was submitted to the NPHL to test for HIV and syphilis. The same test kit and testing protocols were used in NPHL for quality assurance.

To ensure the quality of data, New ERA and FHI officials supervised the fieldwork regularly. Research Assistants and Field Supervisors were responsible for ensuring that the project was carried out according to protocol on a day-to-day basis. Field supervisors reviewed all the completed questionnaires. Any inconsistencies in the responses were clarified through discussions with the concerned interviewer later the same day.

### 2.5 Study Management

The study was conducted under the leadership of NCASC, Ministry of Health and Population, Government of Nepal. The NHRC reviewed the study protocols and the study instruments and provided its approval to the study. The overall management of the study was carried out by New ERA in collaboration with STD/AIDS Counseling and Training Services (SACTS) while FHI/USAID Nepal provided technical support. SACTS was responsible for setting up the laboratory in the field site, providing training to the lab technician, supervising and collecting specimen samples, maintaining cold chain, conducting HIV and syphilis testing at their laboratory and also ensuring that EQA (External Quality Assessment) tests were performed using prescribed test kits and testing approach at National Public Health Laboratory (NPHL). New ERA's responsibility was to design the research methodology (including the sampling method), prepare the questionnaire, recruit and train survey team, collect data, transport the samples to the laboratories maintaining a proper temperature, analyze the collected information and coordinate and monitor the distribution the test results to the study participants with post-test counseling. Additionally, NPHL performed EQA test on 10 percent sample of the total serum collected for HIV and Syphilis.

The New ERA study team was made up of a team leader, a research coordinator, two research officers, two research assistants, a senior counselor and field teams. Each of the field teams consisted of one research assistant, five supervisors/interviewers, one health assistant, one lab technician, one runner and local motivator/s (as per the need).

## 2.6 Constrains to the Fieldwork

The long hours of load shedding scheduled during fieldwork posed some problem in maintaining the required temperature for storing the blood samples as well as in using the electronic centrifuge machine to separate the serum from the sample in the lab. To overcome the problem, both auto and manual centrifuge machine were installed for the purpose of separating the serum. Likewise, sufficient amount of icepacks were kept in the fridge in the study site as well as in the SACTS laboratory for proper storage of the serum even during power cut-offs.

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Besides, the recruitment process was rendered difficult as many randomly selected IDUs were not willing to come to participate in the study as they did not find the 'transportation cost' provided to them adequate. As an incentive for their participation, many demanded that the amount should be raised.

## 2.7 HIV/STI Pre- and Post-Test Counseling and Test Result Distribution

After the collection of the blood samples, all the study participants were informed of the date, location, and place where they could get their test results. They were also informed that they could have their test results only by showing the ID card bearing their study number that was provided to them by the study team; additionally they were informed of the importance of obtaining their results. Pre- and post-HIV/STI test counseling was provided to the study participants. Each study participant was also informed during the pre-test counseling session that he had the choice of receiving only the HIV result, only the syphilis result, or of receiving both.

All the study participants who went to receive their test results with their ID card were provided HIV and syphilis test results with post-test counseling by a trained counselor at local VCT centers. These centers included Namuna (Bhairawa); Naulo Ghumti (Butwal); Family Planning Association of Nepal/FPAN (Kapilbastu); NSARC (Banke); Ekikrit Swastha Sewa (Kailali); Nepal National Social Welfare Association (Kanchanpur).

Post-test counseling and individual report dissemination was completed between 10 February and 22 March 2009 at the VCT centers in the study districts. Of the 300 IDUs tested for HIV, only 35 (11.7%) turned up for the test results (Annex - 8). This could have been because there was no provision for reimbursement of transportation costs. The availability of confidential HIV testing facilities at local VCT centers was also perhaps one reason for such a low turn-out. For those who came to know their test results, trained counselors gave the results 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 other health facilities for health services.

## 2.8 Data Management and Analysis

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

Simple statistical tools, such as frequency distribution, percentages, range, proportion, mean and median, were used to analyze the results of the survey. Chi-square test values were also calculated to measure the statistical significance of the relationship between cross-tabulated categorical variables. Odd ratios were calculated to measure the relative risk of HIV infection between the categories of the selected explanatory variables. Clinical and behavioral data were merged in order to examine the relationship between the participants' HIV status, socio-demographic characteristics, injecting practices and sexual behaviors.

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# CHAPTER – 3.0: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

This chapter discusses the demographic and social characteristics of the male IDUs in the West and the Far-West Terai regions of Nepal.

## **3.1 Demographic Characteristics**

The demographic characteristics of the IDUs are presented in Table 3.1. Their age ranged between 16-50 years, with a median age of 27 years. Fifty-four percent of respondents were between 20 to 29 years of age; while adolescent of 19 years or younger made up eight percent of them. IDUs 40 years or older made up 3.7 percent of the respondents.

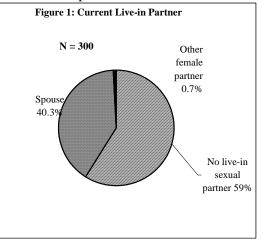
Demographic Characteristics	Ν	%	
Age			
< = 19 Yrs	24	8.0	
20-24	85	28.3	
25-29	77	25.7	
30-34	75	25.0	
35-39	28	9.3	
40 +	11	3.7	
Median	age	27	
Marital status			
Married	126	42.0	
Never married	153	51.0	
Divorced/Separated/Widower	21	7.0	
To	tal 300	100.0	
Age at first marriage			
<=14	10	6.8	
15-19	54	36.7	
20-24	60	40.8	
25-31	23	15.7	
Median	age	20	
Τα	tal 147	100.0	

**Table 3.1: Demographic Characteristics** 

Forty-two percent of the IDUs were married at the time of the survey. More than half of them (51%) were single, and seven percent were either divorced/separated from their wives or

were widowers. The median age at the respondents' first marriage was 20 years and the majority (84.3%) of those who were currently married or had previously been married had been married before they turned 25.

Fifty nine percent of the IDUs were living alone or without a sexual partner at the time of the survey. Two fifths of them (40.3 %) were living with their spouses. Only two IDUs (0.7%) had been living with other female sex partner at the time of the survey (Figure 1).



### **3.2** Social Characteristics

As Table 3.2 shows, 6.3 percent of the 300 respondents were illiterate. A similar proportion (5.3%) had never been to a formal school but could read and write. Four in ten (43.3%) had completed secondary level schooling, and 18 percent had passed SLC or a higher level of studies; while a little over a quarter (27%) had attended primary school.

IDUs from various castes/ethnicities were represented in this study. Twenty-four percent belonged to the Chhetri/Thakuri caste while 14.7 percent were Brahmin. The Muslim community was represented by 11.7 percent of the respondents; and a similar proportion of the respondents belonged to occupational castes (11%) and indigenous groups such as Tamang/Magar/Sherpa (10.3%).

The large majority (82.3%) of the IDUs were born in the districts covered by the study. Twelve percent had been living in the study districts for more than five years, while 5.7 percent had moved into the region in recent years (Table 3.2).

Social Characteristics	N = 300	%
Education		
SLC and above	54	18.0
Secondary	130	43.3
Primary	81	27.0
Literate only	16	5.3
Illiterate	19	6.3
Ethnicity		
Chhetri/Thakuri	72	24.0
Brahmin	44	14.7
Muslim	35	11.7
Occupational caste	33	11.0
Tamang/Magar/Sherpa	31	10.3
Terai caste	29	9.7
Newar	22	7.3
Gurung/Rai/Limbu	22	7.3
Chaudhary/Tharu	7	2.3
Giri/Puri/Sanyasi	5	1.7
Duration of stay in Western to Far-Western Terai		
Since birth	247	82.3
Since 5 years	17	5.7
More than 5 years	36	12.0

### Table 3.2: Social Characteristics

# CHAPTER – 4.0: PREVALENCE OF HIV AND STI

### 4.1 HIV/STI Prevalence

As seen in the following table, among the 300 IDUs taking part in the survey, eight percent were HIV-positive while three percent had a history of syphilis, with 1.7 percent of them having active syphilis.

Table 4.1:	HIV	and STI Prevalence

HIV and STI Prevalence	N = 300	%
HIV	24	8.0
Active Syphilis	5	1.7
Syphilis History	9	3.0

HIV prevalence was highest in Banke district with 23.3 percent. At the same time 8.3 percent IDUs were HIV positive in Rupandehi district. No HIV prevalence was found in other study districts of Kapilbastu, Kailali and Kanchanpur (Annex 6).

### 4.2 Relation between Socio-Demographic Characteristics and HIV Infection

Table 4.2 shows the relation between HIV infection and selected demographic and social characteristics of the respondents. The age difference of the IDUs and difference in their educational status show a little association with HIV prevalence. However, in both cases the differences are not large enough to be statistically significant.

On the other hand, a significant difference (p=<0.01) was observed between HIV prevalence and marital status of the respondents. IDUs who were married were more likely to be HIV-positive (12.2%) than unmarried IDUs (3.9%).

Socio-Demographic Characteristics	N = 300	HIV+	%	P Value
Age				
Below 20 years	24	0	0.0	>0.05
20 years and above	276	24	8.7	>0.03
Marital status				
Ever married	147	18	12.2	< 0.01
Never married	153	6	3.9	<0.01
Literacy				
Illiterate	19	2	10.5	>0.05
Literate/formal school	281	22	7.8	>0.05

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

## 4.3 Relationship between Drug Injection Behavior and HIV

The relationship between HIV prevalence and the drug injecting practices of the respondents such as the length of time they had been injecting drugs, frequency of injections during the past week, and the type of syringes they used have been reviewed in this section. A significant relationship was seen between duration of injecting drugs and HIV prevalence. The infection rate was 12.3 percent among those respondents who had been injecting drugs for more than five years. The rate dropped to 4.9 percent among those who had been injecting drugs for two to five years, and to 1.6 percent among those who had been injecting drugs for less than two years.

Other variables such as the frequency of injections during the past week and the kind of needle/syringes used in the past week did not have a significant association with HIV infection, even though a higher HIV prevalence was found among those IDUs who had injected at least once with a previously used needle/syringe or a needle/syringe kept in a public place in the past week than those who had avoided such risky practices (Table 4.3).

Drug Injecting Behavior	N = 300	HIV+	%	P value
Injecting drugs since				
Less than 2 year	64	1	1.6	
2-5 Years	82	4	4.9	< 0.01
More than 5 years	154	19	12.3	
Frequency of drugs injection in the past week				
Not Injected	65	3	4.6	
1-6 times a week	144	14	9.7	>0.05
Everyday	32	5	15.6	>0.05
2 or more times a day	59	2	3.4	
Injected with a previously used needle/syringe during the past week				
Not injected/Never	265	21	7.9	>0.05
Ever Injected	35	3	8.6	
Injected with a needle/syringe kept in public place during the past week				
Not injected/Never	277	21	7.6	>0.05
Ever Injected	23	3	13.0	

 Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

### 4.4 Relationship between Sexual Behavior and HIV

The association between HIV infection and risk behavior needs to be examined with caution. Current sexual behaviors may not necessarily be related to the HIV status of the respondents as they may have changed their behavior after being diagnosed with HIV.

Sex with Different Partners in the Past 12 Months	N = 300	HIV+	%	P value
With regular partner				
Yes	126	14	11.1	
No	168	10	6.0	>0.05
Never had sexual contact	6	0	0.0	
With Non-regular partners				
Yes	83	2	2.4	
No	211	22	10.4	< 0.05
Never had sexual contact	6	0	0.0	
With sex worker				
Yes	96	7	7.3	
No	198	17	8.6	>0.05
Never had sexual contact	6	0	0.0	
Number of regular partner in the past 12 months				
0 Partner	174	10	5.7	1
1 partner	125	14	11.2	>0.05
2 partners	1	0	0.0	>0.03
Number of non-regular partner in the past 12 months				
0 Partner	217	22	10.1	1
1 partner	39	2	5.1	>0.05
2 or more partners	44	0	0.0	>0.05
Number of sex workers in the past 12 months				
0 sex workers	204	17	8.3	1
1 sex worker	26	2	7.7	> 0.05
2 or more sex workers	70	5	7.1	>0.05

Table 4.4: Relation between Sexual Behavior and HIV Infection

Note: The cells with zero cases have been excluded from Chi-Square tests.

Similarly, IDUs who are not sexually active may share drugs/needles with others which may have infected them with HIV. Therefore their current sexual behavior may not be responsible for their HIV status.

The association between HIV prevalence and type of sexual partner/s of IDUs is not as expected. IDUs who had abstained from having sex with non-regular partners, had a higher HIV prevalence (10.4%) than IDUs who had maintained such sexual relations in the last year (2.4%). Statistically this is a significant difference. Additionally, IDUs who had sexual contact with regular partners had a higher prevalence of HIV (11.1%) than those who had not had such relations (6%) in the past year. On the other hand, IDUs who had sexual contact with FSWs in the past year had a lower HIV prevalence (7.3%) than those who had abstained from such sexual contact (8.6%), the difference however is not statistically significant. As mentioned above, it is important to note here that this trend reflects the IDUs current sexual behavior, which may have been different before. It is also possible that those IDUs who were not currently practicing unsafe sexual behavior may have practiced unsafe injecting behavior.

The number of different types of partners that the IDUs had in the year preceding the survey did not have a statistical impact on the HIV prevalence among IDUs in the West and Far-West Terai.

The odds ratio of HIV infection with certain characteristics was also calculated to analyze the risk associated with the infection. Although IDUs who had practiced unsafe injecting behavior such as using others' previously used needles/syringes, injecting with a syringe kept in a public place and injecting with a pre-filled syringe were more at risk of HIV infection than those who had not done so, the relation between such behavior and HIV infection was not found to be significant. Likewise, an IDU who had injected in places outside his district/city or in other countries was 1.63 times more likely to get HIV than those who did not do so. However, this relation is not statistically significant either.

On the other hand, the risk of HIV infection was significantly higher for IDUs who had been or were currently married. These IDUs had an approximately 3.42 times higher odds ratio of HIV compared to the unmarried ones (Table 4.5).

Characteristics	Odd Ratio	# Cases (n)	95% Confidence Interval
Education			
Illiterate	1.39	19	0.0, 6.88
Literate	-	281	
Marital status			
Never married	-	153	1.23, 9.96
Ever married	3.42	147	1.23, 9.90
Injected with someone else's previously used syringe durin	ng past week		
Yes	1.09	35	0.24, 4.16
No	-	265	0.24, 4.10
Injected with a syringe kept in public place			
Yes	1.83	23	0.40, 7.27
No	-	277	
Injected with a pre-filled syringe			
Yes	1.67	8	*
No	-	292	
Injected in another part of the country or in another country			
Yes	1.63	245	0.44, 7.12
No	-	55	1

Table 4.5: Odds Ratios of HIV Infection by Selected Characteristics of IDUs

# CHATPER – 5.0: DRUG USE, NEEDLE SHARING AND TREATMENT

The injecting practices and drug sharing behavior of IDUs is associated closely with their HIV risk and vulnerability. This chapter deals with the drug and needle using/sharing behavior of IDUs and their alcohol consumption. It also assesses the kind of treatment sought, if any, by the respondents in order to quit drugs.

## 5.1 Alcohol Consumption and Oral Drug Use among IDUs

The majority of IDUs (85.6%) had consumed alcohol at least once in the last month. Twentyeight percent had consumed alcohol every day, while 37.3 percent had had an alcoholic drink more than once a week in the previous month. On the other hand, 14.3 percent of IDUs had refrained from alcohol in the past month.

Alcohol and Oral Drug Use	N = 300	%
Alcohol intake during the past month		
Every day	84	28.0
More than once a week	112	37.3
Less than once a week	61	20.3
Never	43	14.3
Duration of drug use		
Less than 2 years	15	5.0
2 – 5 years	76	25.3
More than 5 years	209	69.7
Average duration in years	8.3	-

Table 5.1: Alcohol Intake and Oral Drug Use

The average duration of oral drug use among IDUs was 8.3 years. Overall, 69.7 percent of IDUs had been using drugs orally for over five years and 25.3 percent had been doing so for the last two to five years; few IDUs (5%) had started less than two years ago.

Among several oral drugs, the respondents popularly used marijuana, locally known as *ganja*, (63.3%) in the past week. Around two-fifths of them (40.3%) had used *charas*. Some other IDUs had used Nitrosun (33.7%), brown sugar (31.7%), and Nitrovate (23.7%).

Types of Orally Used Drugs in the Last Week	N = 300	%
Ganja	190	63.3
Chares	121	40.3
Nitrosun	101	33.7
Brown Sugar	95	31.7
Nitrovate	71	23.7
Phensydyl	46	15.3
Proxygin	40	13.3
Codeine	11	3.7
Velium 10	10	3.3
Calmpose	8	2.7
White Sugar	8	2.7
Diazepam	5	1.7
Cocaine	3	1.0
Combination	9	3.0
Others	75	25.0

 Table 5.2: Types of Orally Used Drugs

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

## 5.2 Drug Injecting Practices of IDUs

Over half of respondents (51.3%) had been injecting drugs for five years or more; 27.3 percent had been doing so for the past two to five years; while 21.3 percent of respondents had started injecting in the last two years. On average, the respondents had been injecting drugs for 5.9 years.

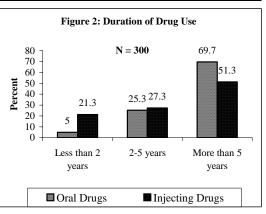
The median age of the IDUs at the time of first injection was 21 years, and 46.3 percent had injected drugs for the first time when they were under 21. Drug injecting practice in the week preceding the survey showed that 21.7 percent of IDUs had not injected even once, while almost same proportion (21.3%) had injected 4-6 times in the past week. While 10.7 percent had injected once a day, 19 percent of IDUs had injected 2-3 times a day in the previous week. There were a few IDUs (0.7%) who had injected four or more times a day in the week preceding the survey.

As for number of shots on the last day respondents injected drugs, 27 percent had injected twice and 10.7 percent of them had injected three or more times on the last day. The majority (62.3%) had injected only once.

Drug Injecting Practice	N = 300	%
Duration of drug injection		
Less than 2 years	64	21.3
2-5 years	82	27.3
More than 5 years	154	51.3
Average duration years	5.	.9
Age at the time of injecting drug for first time		
Up to 20 years	139	46.3
21 + years	161	53.7
Median age	2	1
Frequency of drug injections within the past week		
Not injected	65	21.7
Once a week	26	8.7
2-3 times a week	54	18.0
4-6 times a week	64	21.3
Once a day	32	10.7
2-3 times a day	57	19.0
4 or more times a day	2	0.7
Frequency of drug injections on the last injected day		
1 time	187	62.3
2 times	81	27.0
3 or more times	32	10.7
Mean	1.	.5

Table 5.3: Drug Injecting Practices

The duration of oral and injecting drug use among IDUs has been illustrated in Figure 2. While 69.7 percent of IDUs had been using oral drugs for more than five years, 51.3 percent of them had been injecting for that long. On the other hand, five percent of IDUs had been doing drugs orally for less than 2 years while 21.3 percent had been injecting drugs for the same span of time.



Fifty percent of IDUs had not injected on the previous day of the interview. Among these IDUs, 51.3 percent mentioned lack of money as one of the main reasons for not injecting drugs on the previous day (Annex 9)

IDUs reported injecting drugs on different parts of the body as per their convenience in locating the veins. Fifty-seven percent of them mentioned that they injected into their calves. Fifteen percent each had injected into their upper arm and thigh (Annex - 10).

The respondents gathered at different sites to inject drugs. Around two-fifths (42.3%) met in forests/bush/farmland. Some crossed the border and injected at the nearby Indian town of Sunauli (18.3%). Seventeen percent injected in their own/friend's room or at a drug seller's house. (Annex - 11).

As for the types of drugs injected by the respondents during the past week, 70.7 percent of them had used a combination of various drugs (Table 5.4). In this regard, the most common combination were Phenargan and Lubrigesic, followed by Diazepam, Tidigesic and Hydrocole (for other types of combinations see Annex - 12). Eleven percent of the respondents had injected brown sugar in the week preceding the survey; a few had injected other types of drugs as listed in Table 5.4.

Types of Drugs Injected	N = 300	%
Combination	212	70.7
Brown sugar	33	11.0
Tidigesic	10	3.3
Phenergan	4	1.3
Diazepam	3	1.0
Calmpose	3	1.0
Others	9	3.0

 Table 5.4: Types of Drugs Injected in Past Week

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

In the past month only eight IDUs (2.7%) had switched from one drug to another. Most of them had switched to brown sugar and unavailability of the previous drugs in the market was cited as the main reasons for this change (Annex 13).

# 5.3 Syringe Use and Sharing Behavior

The drug injecting/sharing habits of the IDUs were assessed in terms of their last three injections. The respondents were asked how they had obtained the needles/syringes used in the last three injections. Answers provided by the IDUs have been categorized as low- or high-risk injecting behaviors in Table 5.5. Low-risk injection behaviors were considered to be the use of new needles and syringes obtained from different places, and high-risk behaviors were the use of own previously used syringe, use of needles and syringes given by friends or relatives, and the use of needles and syringes kept in public places by the IDU himself or by others.

The majority of the respondents had adopted low-risk behavior in their last three injections. Overall, 96.3 percent in most recent injection, 94.7 percent in second most recent injection and 95.7 in third most recent injection used a new syringe/needle, either self-purchased or given to them by an NGO staff or a friend. Around six in ten of these IDUs had used a self-purchased needle/syringe during the last three injections (Table 5.5).

However, some IDUs had adopted high-risk injecting behavior in the most recent injection (3.7%), second most recent injection (5.3%), and third most recent injection (4.3%). They had injected with a previously used needle/syringe used by themselves, given by friends or that left at a public place (Table 5.5).

Additionally, over 90 percent of IDUs had also avoided high-risk behavior such as sharing a needle/syringe to inject drugs with other people when in a group in the last three injections.

	Drug injecting acts N = 300					
Injecting Behavior	Most Recent		Second Most Recent		Third Most Recent	
	Ν	%	Ν	%	Ν	%
Low risk injecting behavior						
Used a new needle/syringe that was purchased	198	66.0	189	63.0	196	65.3
Used new needle/syringe given by NGO staff/volunteers/friend	91	30.3	95	31.7	91	30.3
Low risk behavior total	289	96.3	284	94.7	287	95.7
High risk injecting behavior						
Used own previously used needle/syringe	4	1.3	8	2.7	7	2.3
Used needle/syringe given by friend/relative after his/her use	5	1.7	7	2.3	4	1.3
Used needle/syringe that had been kept in public place by self	1	0.3	1	0.3	2	0.7
Used needle/syringe that had been kept in public place by someone else	1	0.3	0	0.0	0	0.0
High risk behavior total	11	3.7	16	5.3	13	4.3
Persons in the group using the same needle/syringe						
2 persons	17	5.7	22	7.3	20	6.7
3 or more persons	8	2.7	6	2.0	7	2.3
None/Alone	275	91.7	272	90.7	273	91.0
Total	300	100.0	300	100.0	300	100.0

 Table 5.5: Injecting Practice during Last Three Injections

Nevertheless, the injecting practice of the IDUs in the past week showed that 11.7 percent of IDUs had used an old needle/syringe; 7.7 percent had injected with a syringe left at a public place; and 10.3 percent had given their used needle/syringe to others at least once (Table 5.6). Moreover, 11.4 percent of IDUs had shared their syringe with one or more injecting partners in the week preceding the survey. While all of them had shared their needle/syringe with their friends, one IDU each (2.9%) had also shared with an unknown person and with a regular sex partner respectively.

Table 5.6:	Injecting	Practice in	n the P	ast Week
I able citte	mjeeung	I fuctice if		ust meen

Needle/Syringe Use in the Past Week	Ν	%
Used a needle/syringe that had been used by others		
Never Used	265	88.3
Used	35	11.7
Used a needle/syringe that had been kept in public place		
Never Used	277	92.3
Used	23	7.7
Gave a needle/syringe to some one else		
Yes	31	10.3
No	269	89.7
Number of needle/syringe shared partners		
None	266	88.7
1 – 2 partners	23	7.7
Three or more partners	11	3.7
Total	300	100.0
Types of needle/syringe sharing partner *		
Friend	34	100.0
Unknown person	1	2.9
Usual Sex Partner	1	2.9
Total	34	*

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

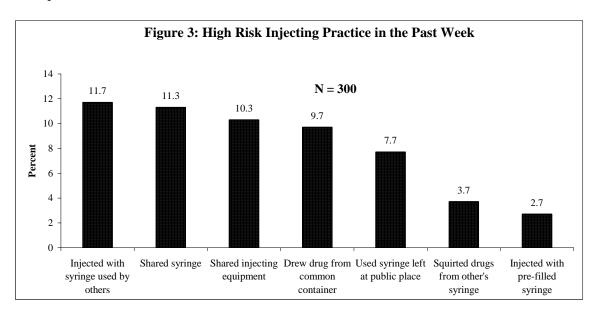
## 5.4 Drug Sharing Behavior

The majority of the respondents had avoided unsafe injecting practices in the week preceding the survey. However, 2.7 percent of IDUs had injected with a pre-filled syringe, and 3.7 percent had injected with a syringe filled from another syringe at least once. Additionally, 10.3 percent of respondents had shared injecting materials such as spoon, cooker, vial/container and cotton and 9.7 percent had drawn drug solutions from a common container in the past week at least once (Table 5.7).

Drug Sharing Practice in the Past Week	N = 300	%
Injected with a pre-filled syringe		
Yes	8	2.7
No	292	97.3
Injected with a syringe after drugs were transferred into it from other's syringe		
Never injected	289	96.3
Injected	11	3.7
Shared bottle, spoon, cooker, vial/container, cotton/filter and rinsing water with others		
Never shared	269	89.7
Shared	31	10.3
Drew drug solution from a common container also used by others		
Never	271	90.3
Drew at least once	29	9.7

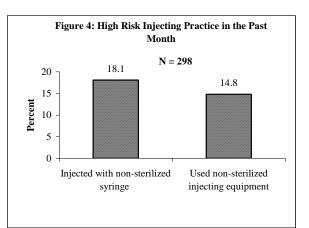
 Table 5.7: Syringe Using and Sharing Practice in The Past Week

Figure 3 below summarizes high risk injecting and drug sharing behavior practiced by IDUs in the past week.



Some IDUs had practiced high risk injecting behavior even in the month preceding the survey. Overall, 99.3 percent of the IDUs had injected drug in the past month. Among these IDUs, 18.1 percent had used non-sterile needle/syringe while 14.8 percent of them had used non-sterile injecting equipment at least once in the month prior to the survey (Figure 4).

The respondents were also asked if they had injected in other places outside their district/city or in other countries. Around



eight in ten respondents (81.7%) had injected drugs elsewhere in Nepal or in other countries that they had visited in the past year. Among these IDUs, 17.6 percent had injected with somebody else's previously-used syringe and 19.6 percent had given their used needle/syringe to others at least once while injecting at the place/s of their visit (Table 5.8).

Injecting Practice in Other Parts of the Country and Out of the Country in the Past 12 Months	Ν	%
Injected in other parts of country/out of country		
Yes	245	81.7
No	55	18.3
Total	300	100.0
Used a needle/syringe that had been used by others		
Yes	43	17.6
No	202	82.4
Gave a needle/syringe to someone else after use		
Sometimes – Always	48	19.6
Never	197	80.4
Total	245	100.0

Table 5.8: Injecting Behavior in Other Parts of Country and Abroad

### 5.5 Needle/Syringe Cleaning Practice

Previous studies have shown that some IDUs consider it safe to inject with a previously used syringe/needle after washing it with water or certain substances. The respondents were asked if they had cleaned a used needle/syringe to re-use it in the past week. Although the majority of the respondents (84.7%) denied having done so, 15.3 percent of IDUs had cleaned a used needle/syringe before using them again. Among them, only two respondents (4.3%) had used bleach to clean such needles/syringes, while others had used other substances such as water, urine and saliva (Table 5.9).

Needle/Syringe Cleaning Practice		Ν	%
Cleaned used needle/syringe in the past week			
Yes		46	15.3
No		254	84.7
	Total	300	100.0
Cleaned a used needle/syringe with:			
Bleach		2	4.3
Without bleach		44	95.7
	Total	46	100.0

Table 5.9: Needle/Syringe Cleaning Practice

### 5.6 Knowledge of and Access to New Needles/Syringes

The majority (99.3%) of IDUs said that they could obtain a new syringe whenever necessary. The drug stores (97%) and needle exchange programs (82.7%) run by different NGOs were named as important sources. Other sources mentioned by the respondents have been listed in Table 5.10. Moreover, 67.7 percent of IDUs had received a new needle/syringe from an OE/PE or staff of a needle exchange program at least once in the past year.

New Syringe Accessibility	N = 300	%
Can obtain new syringe		
Yes	298	99.3
No	2	0.7
Can obtain syringe from*		
Drugstore	291	97.0
Needle exchange program	248	82.7
Hospital	68	22.7
Drug seller	50	16.7
Friends	39	13.0
Other shop	8	2.7
Drug wholesaler	7	2.3
Health Worker	7	2.3
Drug User	2	0.7
Received new needle/syringe from OE/PE or staff of Needle Exchange program		
in past 12 months		
Yes	203	67.7
No	97	32.2

Table 5.10: Knowledge/Sources of New Syringes

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

### 5.7 Treatment Practice

As seen in Table 5.11, 35 percent of IDUs had received de-addiction treatment before the date of survey. Among them, 50.5 percent had received such treatment less than a year ago. Most of these respondents (77.1%) had been provided with residential rehabilitation, while some had received detoxification treatment with or without the help of drugs (17.1%) and outpatient counseling (9.5%) For the types of services and organizations involved in de-addiction treatment, see Annex 14.

Table 5.11: Treatment Received and Types of Such Treatment

Treatment for De-addiction	Ν	%
Treatment Received		
Ever treated	105	35.0
Never treated	195	65.0
Total	300	100.0
Last treatment received		
Less than 6 months before	25	23.8
6-11 months before	28	26.7
12-23 months before	19	18.1
24-35 months before	12	11.4
36-47 months before	9	8.6
48 or more months before	9	8.6
No Response	3	2.9
Total	105	100.0
Types of treatment received		
Residential Rehabilitation	81	77.1
Detoxification with/without drug	18	17.1
Out Patient Counseling	10	9.5
Others	3	2.9
Total	105	*

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

# **CHAPTER – 6.0: SEXUAL BEHAVIOR AND CONDOM USE**

Risky sexual behavior associated with drug use has also been associated with HIV transmission among drug users. This chapter deals with the sexual behavior of the IDUs and types of their sex partners. It also explains the respondents' sexual behavior and knowledge and use of condoms.

### 6.1 Sexual Behavior of IDUs

Ninety-eight percent of the respondents have had at least one sexual contact prior to the survey. The median age at the time of first sexual relations was 17 years. Among these respondents, 79.3 percent had been sexually active and were engaged in sexual intercourse even in the past year. While 47.2 percent had one sex partner, the rest (52.8%) had sexual contact with two or more partners (Table 6.1).

Sexual Behavior	N %	
Sexual behavior		
Ever had sexual intercourse	294	98.0
Never had sexual intercourse	6	2.0
Total	300	100.0
Age at first sexual intercourse		
Below 20 years	256	87.1
20 years and above	38	12.9
Median age	1	7.0
Sexual intercourse in the past 12 months		
Yes	233	79.3
No	61	20.7
Total	294	100.0
Numbers of female sexual partners in the past 12 months		
1 partner	110	47.2
2 or more partners	123	52.8
Total	233	100.0

Table 6.1: Sexual Behavior

The sex partners of the IDUs were categorized as regular partners, non-regular partners and female sex workers. Regular female sex partners were defined as the spouse or any sexual partner living together with the respondents. Around 43 percent of those respondents who had ever maintained sexual contact had sex with regular female partners in the past year. Most of them (90.5%) had such sexual contact even in the month preceding the survey and 76.3 percent of them had at least five such sexual contacts during the last month (Table 6.2).

Sexual Practice		Ν	%
Sex with a regular partner during the past 12 months			
Yes		126	42.9
No		168	57.1
	Total	294	100.0
Sex with a regular partner during the last month			
Yes		114	90.5
No		12	9.5
	Total	126	100.0
Frequency of sex with a last regular female sex partner during the last month			
1-4		27	23.7
5+		87	76.3
	Total	114	100.0

The IDUs with sexual experience were also asked whether they had sex with non-regular female partners in the past year. 'Non-regular female sex partners' were defined as those sex partners with whom the respondents were neither married, nor were living together. However, such partners were defined as being distinct from sex workers. As seen in the following Table 6.3, 28.2 percent of IDUs had sex with non-regular female sex partners in the past 12 months. Of them, 53 percent have had two or more non-regular female sex partners while 47 percent had one such partner in the past year. Among these respondents, 55.4 percent had sexual contact with their non-regular female sex partners even in the month preceding the survey. The majority of them (84.8%) had 1-4 such sexual contacts in the past month (Table 6.3).

Sexual Practice	Ν	%
Sex with non-regular female sex partner in the past 12 months		
Yes	83	28.2
No	211	71.8
Total	294	100.0
Number of non-regular female sex partner in the past 12 months		
1 partner	39	47.0
2 or more partners	44	53.0
Sex with non-regular female sex partner during past month		
Yes	46	55.4
No	37	44.6
Total	83	100.0
Frequency of sex with last non-regular female sex partners during past month		
1-4	39	84.8
5+	7	15.2
Total	46	100.0

Table 6.3: Sexual contact with Non-Regular Female Sex Partner

The IDUs were further asked if they had maintained a sexual relationship with female sex workers during the past year. 'Female sex workers' were defined as those who were paid in cash/commodities or drugs in exchange for sex. Nearly one-third (32.7%) of those IDUs who ever had sexual contact had sex with female sex worker in the past year (Table 6.4). The majority of them (72.9%) had had sex with two or more FSWs in the past year. Almost 63 percent of the IDUs who had sex with sex workers in the last 12 months had sexual encounters with FSWs even in the month preceding the survey. Among them, 95 percent had at least four instances of sexual contact, while others (5%) had more than five instances of sexual contact during the same period of time.

Table 6.4: Sexual Intercourse with Female Sex worke	r
-----------------------------------------------------	---

Sexual Practice	Ν	%
Sex with female sex worker in the past 12 months		
Yes	96	32.7
No	198	67.3
Total	294	100.0
Number of female sex workers visited in the past 12 months		
1 FSW	26	27.1
2 or more FSWs	70	72.9
Sex with female sex worker during past month		
Yes	60	62.5
No	36	37.5
Total	96	100.0
Frequency of sex with last female sex worker during the past month		
1-4	57	95.0
5+	3	5.0
Total	60	100.0

## 6.2 Knowledge and Use of Condoms

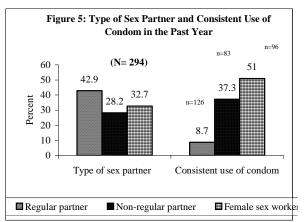
All the IDUs had heard of condoms before the survey. Table 6.5 compares the pattern of condom use by IDUs with different partners (Table 6.5). As can be seen in the Table, a larger proportion of IDUs had used a condom the last time they had sexual contact with a female sex worker (67.7%) than with non regular partners (59%) and regular partners (23.8%).

Use of Condom in the Last Sex	Ν	%
Condom use with regular female sex partner during last sexual intercourse		
Yes	30	23.8
No	96	76.2
Total	126	100.0
Condom use with non-regular female sex partner during last sexual intercourse		
Yes	49	59.0
No	34	41.0
Total	83	100.0
Condom use with female sex worker during last sexual intercourse		
Yes	65	67.7
No	31	32.3
Total	96	100.0

Table 6.5: Use of Condoms in the Last Sex with Different Partners

HIV/AIDS awareness campaigns focus on educating the target groups on the need to use a condom consistently in all sexual encounters. In this context, all the IDUs were asked how often they had used condoms with different female sex partners during the year preceding the survey.

Figure 5 shows the types of sex partners that the IDUs had in the past year and compares condom usage patterns during sexual contact with them. Ninety eight percent of IDUs ever had sexual relation with a female partner. Over two-fifths (42.9%) of them have had sexual contact with regular partners followed by 32.7 percent with female sex workers and 28.2 percent with non-regular sex partners in the past year. The condom usage pattern was not uniform by type of partner; more IDUs had used condoms consistently with



female sex workers (51%) than with non-regular partners (37.3%) and regular partners (8.7%) in the past year.

All the respondents reporting not having used a condom in their last sexual contact with different partners were further asked their reasons for not using condom. Data obtained from the study participants as shown in Annex 15 indicate that the reasons for not using condoms differ according to the type of partners. IDUs did not consider it necessary to use condoms (40.6%) when they had sex with regular partners, while 35.4 percent did not use it because they had been using other contraceptive devices.

Likewise, 45.2 percent each had not used condom when they had last sex with female sex workers as condoms were not available at the time and because they did not like to use them. About one third (32.4%) of those IDUs who had sexual contact with sex workers had not

used a condom during the last sexual act because it was not available. Another 26.5 percent each said that they did not use a condom when they last had sex with a sex worker because they did not like condoms and because they did not consider it necessary to use them (Annex 15).

## 6.3 Source of Condoms

All the IDUs knew at least one place from where they could get condoms. While 88.3 percent said that they could get condoms from a pharmacy, 75.7 percent said that they could get condoms from peer and/or outreach educators. Other popular sources of condoms were shops (46.3%), hospitals (37.7%) and clinics (27%).

Seven in ten respondents (75.3%) had received condom free of cost from an organization in the past 12 months.

Since 99.3 percent of IDUs said that they could get condoms if necessary in less than 30 minutes, it is obvious that condoms are easily available to the respondents (Table 6.6).

Sources of Condom and Time Needed to Obtain One	N = 300	%
Place/person from where condom can be obtained*		
Pharmacy	265	88.3
Peer Educator/Outreach Educator	227	75.7
Shop	139	46.3
Hospital	113	37.7
Clinic	81	27.0
Pan shop	68	22.7
International Nepal Fellowship	27	9.0
Health worker/Health Post	25	8.3
Friends	21	7.0
Family Planning Center	19	6.3
Association for Helping Helpless (AHH)	12	4.0
NAMUNA	12	4.0
Change Team	9	3.0
Naulo Ghumti	8	2.7
Bar/Guest house/Hotel	7	2.3
Paschim Tara	6	2.0
Krishi Evem Gram Bikash Sasthan (KEGVS) India	4	1.3
Others	17	5.7
Received condom (free of cost) from an organization in the past 12 months		
Yes	226	75.3
No	74	24.7
Time taken to obtain condom		
Less than 30 minutes	298	99.3
More than 30 minutes	2	0.7

 Table 6.6: Known Sources of Condom and Time Needed to Obtain it

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

#### 6.4 Sources of Information about Condoms

The IDUs in the study districts had heard about condoms from different sources. The most common sources of information for more than 90 percent of respondents were radio (97%), television (96.3%) and NGOs workers (90.7%). A considerable proportion of respondents had also heard about condoms from friends/neighbors (87%), newspapers/posters (82.7%) and the pharmacy (82.7%); as well as billboards/signboards (72.3%) and hospitals (66.7%) (Table 6.7).

Sources of Knowledge of Condom	N = 300	%
Radio	291	97.0
Television	289	96.3
NGO people	272	90.7
Friends/neighbors	261	87.0
Pharmacy	248	82.7
Newspapers/posters	248	82.7
Bill board/sign board	217	72.3
Hospital	200	66.7
Health workers/volunteers	155	51.7
Health Post	140	46.7
Street drama	120	40.0
Health Center	120	40.0
Cinema hall	111	37.0
Community worker	91	30.3
Community event/training	81	27.0
Comic books	67	20.3
Video van	33	11.0
Others	1	0.3

Note: Because of multiple answers, the percentages 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 study participants were asked if they were aware of any of the messages being publicized with the help of IEC materials, such as posters, pamphlets, and billboards or messages aired on radio/television. The survey asked the respondents about certain specific messages about condoms and HIV/STI prevention. Among different messages listed in Table 6.8, a considerable proportion of IDUs were aware of messages such as 'Youn rog ra AIDS bata bhachnalai' (81%), 'Jhilke dai chha chhaina condom' (79.3%), 'Condom kinna ma bhaya hunna ra' and 'Condom bata surakchhya youn swastha ko rakchhya' (77% each), 'Ramro sanga prayog gare jokhim huna dinna' (71%) and 'HIV/AIDS bare aajai dekhi kura garau' (58.3%).

 Table 6.8: Exposure to Specific Condom Messages in the Past Year

Heard/Seen/Read Messages/Characters in Past One Year	N = 300	%
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	243	81.0
Jhilke Dai Chha Chhaina Condom	238	79.3
Condom Kinna Ma Bhaya Hunna Ra	231	77.0
Condom Bata Surakchhya Youn Swastha ko Rakchhya	231	77.0
Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	213	71.0
HIV/AIDS Bare Aaji Dekhi Kura Garaun	175	58.3
Maya Garaun Sadbhav Badaun	79	26.3
Manis Sanga Manis Mile hara Jeet kasko Hunchha	44	14.7
Ek Apas Ka Kura	31	10.3
Des Pardes	26	8.7
Others	28	9.3

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

## CHAPTER – 7.0: KNOWLEDGE OF STIs AND HIV/AIDS

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

## 7.1 Knowledge about STIs

Ninety-three percent of IDUs had heard about STIs. However, there were 21 respondents (7%) who had not heard about STIs before this survey (Table 7.1).

Table 7.1: Awareness of STIs

Heard of STIs	N = 300	%
Yes	279	93.0
No	21	7.0

The IDUs who had heard of STIs were asked questions on STI-related symptoms in order to assess their level of knowledge. They were asked to state male as well as female STI symptoms that they were aware of. A relatively high proportion of IDUs identified STI symptoms such as genital ulcers/sores/blisters among females (86.4%) as well as males (91%). Genital discharge was also identified as another male STI symptom by 68.1 percent of IDUs, and female STI symptoms by 58.1 percent of them. Additionally, symptoms like foul smelling discharge and abdominal pain were mentioned as female-specific STI symptoms by 40.1 percent and 8.6 percent of respondents respectively. Additionally, the IDUs also mentioned burning or pain during urination as one of the symptoms of STIs among males (31.2%) and also among females (17.6%) (Table 7.2).

STI Sumatoms of Montional by IDUs		STI Symptoms			
STI Symptoms as Mentioned by IDUs	Among Fe	Among Female (n=279)		Among Male (n=279)	
	Ν	%	Ν	%	
Genital ulcer/sore blisters	241	86.4	254	91.0	
Genital discharge	162	58.1	190	68.1	
Foul-smelling discharge	112	40.1			
Burning/pain during urination	49	17.6	87	31.2	
Itching	53	19.0	55	19.7	
Abdominal pain	24	8.6			
Swelling in groin area	16	5.7	28	10.0	
Become thinner	4	1.4	5	1.8	
Fever	6	2.2	6	2.2	
Pain at the time of intercourse	1	0.4	1	0.4	
Ulcer in the body	3	1.1	3	1.1	
Others	11	3.9	7	2.5	
Don't know	20	7.2	20	7.2	

 Table 7.2: Known Symptoms of Male and Female STIs

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

The IDUs were also asked if they had experienced any symptoms such as genital discharge and genital ulcers/sores in the past year. While 12.3 percent had genital discharge, 9.7 percent of IDUs had genital ulcers/sores in the past year (Table 7.3).

Table 7.3: STI Symptom/s Experienced in the Past Year

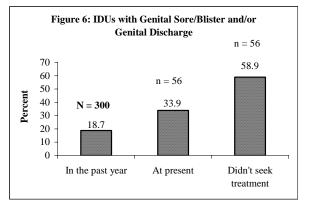
STI Symptoms	N = 300	%
Had genital discharge in the past year		
Yes	37	12.3
No	263	87.7
Had genital ulcer/sore blister in the past year		
Yes	29	9.7
No	271	90.3

Those IDUs who have had symptom of an STI in the past year were also asked if they had such symptoms at the time of the study. Twelve (32.4%) of those respondents who had genital discharge in the past year, had such symptoms at the time of the study. Similarly, nine (31%) of IDUs who had genital ulcers/sores in the past year, had such symptoms during the time of the study (Table 7.4).

Table 7.4: STI Symptom Currently Experienced and Treatment Sought

STI Symptoms and Treatment	Ν	%
Currently experiencing genital discharge		
Yes	12	32.4
No	25	67.6
Total	37	100.0
Currently experiencing genital ulcer/sore blister		
Yes	9	31.0
No	20	69.0
Total	29	100.0

Figure 6 shows the proportion of IDUs who reportedly had at least one STI symptom like genital discharge and genital ulcers/sores in the past year and/or at the time of the survey. Overall, 56 IDUs (18.7%) had experienced such symptom in the past year. Among them, 19 IDUs (33.9%) had been experiencing at least one of these symptoms even at the time of the survey. Almost 59 percent of those respondents who have had such symptom in the past year or at the time of the survey



had not sought treatment; 14.3 percent had been to a private doctor while 12.5 percent had visited a hospital/health post for treatment (data not shown).

## 7.2 Knowledge about HIV/AIDS

All the IDUs had heard of HIV/AIDS before. Three-fourths of them (75.7%) also knew people who had HIV/AIDS or had died of AIDS- related illness. When asked about the type of relationship that they shared with such individuals, 58.6 percent said they were close friends and 8.4 percent said they were relatives. Thirty-three percent of IDUs had heard/seen such people but did not have any relationship with them (Table 7.5).

<b>Table 7.5:</b>	Awareness of HIV/AIDS

Knowledge of HIV/AIDS	Ν	%
Know anyone who is living with HIV/AIDS or has died due to AIDS related illness		
Yes	227	75.7
No	73	24.3
Total	300	100.0
Nature of relationship with the person		
Close friend	133	58.6
No relation	75	33.0
Close relative	19	8.4
Total	227	100.0

Respondents were asked about measures to prevent HIV/AIDS. Their understanding of the major HIV/AIDS prevention measures was assessed, including abstinence from sex (A); being faithful to one sex partner (B); and consistent condom use (C). The majority of the IDUs (96.7%) were aware that using a condom every time during sex (C) prevented them from contracting HIV, while 89.3 percent knew that being faithful to one sexual partner (B) protected them from HIV transmission. At the same time, 79.3 percent of IDUs knew that they could also protect themselves against HIV through abstinence from sexual contact (A).

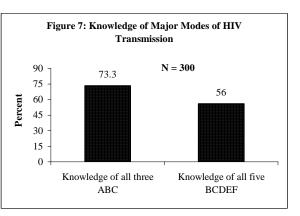
Additionally, 96.7 percent of IDUs knew that a healthy-looking person can be infected with HIV (D); and 88.7 percent knew that sharing meal with an HIV-infected person did not transmit HIV (F). However, a relatively smaller proportion of IDUs (65.3%) agreed that a person cannot get the HIV virus from a mosquito bite (E).

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

Knowledge of Six Major Indicators on HIV/AIDS	N = 300	%
HIV transmission can be avoided through		
A Abstinence from sexual contact	238	79.3
B Being faithful to one partner	268	89.3
C Condom use during each sexual contact	290	96.7
Perception regarding HIV transmission		
D A healthy-looking person can be infected with HIV	290	96.7
E A person can not get the HIV virus from mosquito bite	196	65.3
F Sharing a meal with an HIV infected person does not transmit HIV virus	266	88.7

Overall, 73.3 percent of IDUs were aware of all three major modes of transmission, i.e. 'ABC' as mentioned above. On the other hand, 56 percent of IDUs were aware of five ways one can protect oneself against HIV and ways in which it cannot be transmitted. ('BCDEF'),(Figure 7).

The respondents were also asked certain probing questions regarding different modes of HIV transmission. The majority of respondents knew that HIV can be



transmitted through the transfusion of blood from an infected person to another, and that a person can get HIV by using previously used needles/syringes (98.3% each). They knew that a person cannot get HIV by holding an HIV-infected person's hand (93.7%). About eight in ten respondents also agreed that a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child (89%) and that a drug user can protect himself from HIV by switching to non-injecting drugs (83.3%). A relatively lower percentage of respondents

(63.3%) said that women with HIV could transmit the virus to her newborn children through breast-feeding.

Those IDUs who said that a pregnant woman infected with HIV/AIDS could transmit the virus to her unborn child were further asked if they were aware of any measures by which such risk of transmission could be reduced. Thirty-nine percent of such IDUs mentioned that they should take medicine while the same proportion of IDUs (39.7%) had no idea about any such measures (Table 7.7).

Statements Related to HIV/AIDS	N = 300	%
A person can get HIV by using previously used needle by others	295	98.3
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	250	83.3
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	190	63.3
Blood transfusion from an infected person to the other transmit HIV	295	98.3
A person can not get HIV by holding an HIV infected person's hand	281	93.7
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	267	89.0
Total	300	100.0
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her		
unborn child		
Take medicine	104	39.0
Treatment/ consult with doctor	57	21.3
Don't Know	106	39.7
Total	267	100.0

Table 7.7: Knowledge on Ways of HIV/AIDS Transmission

#### 7.3 Knowledge about HIV Testing Facilities

The availability of a confidential HIV testing facility and awareness of the existence of such allow people to undertake testing promptly and without the fear of getting exposed. Ninety-four percent of the respondents were aware of the existence of this type of facility in their communities.

Overall, 62.7 percent of respondents had been tested once for HIV, while the rest (37.3%) had never taken up such testing. The majority (93.1%) of those who had been tested had done so voluntarily, and 80.9 percent of them had received the test result. Although 42.6 percent had taken up the test within the past year, others had been tested more than one year before (Table 7.8).

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

Description on HIV Testing	Ν	%
A confidential HIV testing facility is available in the community		
Yes	282	94.0
No	18	6.0
Ever had an HIV test		
Yes	188	62.7
No	112	37.3
Total	300	100.0
Type of test taken		
Required HIV test	13	6.9
Voluntary HIV test	175	93.1
Test result received		
Yes	152	80.9
No	36	19.1
Timing of last HIV test		
Within the past year	80	42.6
1-2 years ago	86	45.7
2-4 years ago	14	7.4
More than 4 years ago	8	4.3
Total	188	100.0

## 7.4 Sources of Knowledge About HIV/AIDS

Radio (97.3%), television (96.7%) and NGO workers (91.7%) were the three most commonly cited sources of information regarding HIV/AIDS among the study participants. A large proportion of the respondents had also derived some information on HIV/AIDS from pamphlets/posters (88.3%), their friends/relatives (87.7%), newspaper/magazines (78%), billboards/signboards (72.3%), and from their workplaces (69%). Other sources of information have been shown in Table 7.9.

Sources of Knowledge of HIV/AIDS	N=300	%
Radio	292	97.3
Television	290	96.7
NGO workers	275	91.7
Pamphlets/posters	265	88.3
Friends/relatives	263	87.7
Newspapers/magazines	234	78.0
Bill board/sign board	217	72.3
Workplace	207	69.0
Health workers/volunteers	164	54.7
Street drama	157	52.3
Cinema halls	147	49.0
School/teachers	147	49.0
Community workers	103	34.3
Community events or training	92	30.7
Comic books	84	28.0
Video van	56	18.7

 Table 7.9:
 Sources of Knowledge Regarding HIV/AIDS

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

Some of the IDUs had also received HIV/AIDS-related Information Education and Communication (IEC) materials and other information from different sources in the past year. The majority of them (90.3%) had received HIV- related information from such materials and sources. About eight in ten (79%) respondents had received IEC materials such as brochures/booklets/pamphlets on HIV/AIDS and condoms/information relating to condoms in the past year. Other IEC materials such as T-shirts/vests/caps with HIV/AIDS messages had been received by 6.7 percent of respondents (Table 7.10).

Informative Materials Received	N = 300	%
Condoms/information on condom		
Yes	236	78.7
No	64	21.3
Brochure/booklets/pamphlets on HIV/AIDS		
Yes	237	79.0
No	63	21.0
<b>Received Information on HIV/AIDS</b>		
Yes	271	90.3
No	29	9.7
Others IEC materials		
Yes	20	6.7
No	280	93.3

 Table 7.10: Information/Materials Received During the Past Year

## 7.5 Perceptions about HIV/AIDS

IDUs' perceptions about HIV-infected people and the stigma associated with the disease were examined with the help of questions such as whether or not they would take care of an HIV-infected member of the family. The majority of the respondents were ready to take care of an HIV-positive male relative (94.3%) or a HIV-positive female relative (93.7%) in their home.

However, more than half of the IDUs (55.7%) said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

At the same time, 91.3 percent of the IDUs said they would readily buy food from a HIVinfected vendor. Ninety-two percent agreed that unless very sick, people with HIV/AIDS should be allowed to continue their jobs. Furthermore, when asked about the health care needs of HIV-infected persons, 55 percent of IDUs maintained that the health care needs of an HIV-infected person were more than for other chronic diseases, while 43.3 percent believed that they should be provided same care and treatment as necessary for patients with other chronic illnesses (Table 7.11).

Individual Perception	N = 300	%
Would readily take care of HIV positive male relative in the household		
Yes	283	94.3
No	17	5.7
Would readily take care of HIV positive female relative in the household		
Yes	281	93.7
No	19	6.3
Would prefer not to talk about a family member being HIV positive		
Yes	167	55.7
No	133	44.3
Would readily buy food from HIV infected shopkeeper		
Yes	274	91.3
No	26	8.7
Believe that the health care needs of a HIV infected person is same, more or less than those required by someone with other chronic disease		
Same	130	43.3
More	165	55.0
Less	5	1.7
Believe that HIV infected person should be allowed to continue working unless very sick		
Yes	276	92.0
No	24	8.0

 Table 7.11: Attitude towards HIV/AIDS

## CHATPER – 8.0: EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

Various intervention programs are underway to create awareness and educate people in HIV/AIDS and to disseminate information regarding preventive measures. Some of these programs target specific groups of MARPs while some others conduct general awareness campaigns. This chapter deals with the exposure of the IDUs to the ongoing HIV/AIDS awareness programs and their participation in such activities. Respondents were asked several questions relating to different components of current HIV/AIDS-related programs run by different organizations.

#### 8.1 Peer/Outreach Education

Different organizations mobilize peer educators (PEs) and/or community mobilizers (CMs) and outreach educators (OEs) to conduct awareness raising activities in communities. They meet the target groups and hold discussions with them regarding HIV/AIDS/ STIs and safer injecting practices, safer sex practices and other related topics (Table 8.1). 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 for distribution among the IDUs.

Meeting with Peer Educators (PE) or Outreach Educators (OE)	Ν	%
Met/discussed/interacted with PE or OE in the last 12 months		
Yes	245	81.7
No	55	18.3
Total	300	100.0
Activities performed while with PE/OEs		
Discussion on how HIV/AIDS is/isn't transmitted	210	85.7
Discussion on safe injecting behavior	161	65.7
Was given syringe	95	38.8
Was given condom	93	38.0
Discussion on how STI is/isn't transmitted	70	28.6
Demonstration on using condom correctly	49	20.0
Discussion on regular/non-regular use of condom	47	19.2
Discussion on giving up drugs	6	2.4
Was suggested to stay at rehabilitation center	6	2.4
Was given alcohol pad/swab	5	2.0
Was given HIV related pamphlet/poster	5	2.0
Was given distilled water	3	1.2
Others	7	2.9
Tota	1 245	*
Organizations represented by PE/OEs		
Naulo Ghumti	77	31.4
АНН	71	29.0
Namuna	62	25.3
INF Nepalgunj	34	13.9
Nagarjun Development Council	23	9.4
Change Team	20	8.2
Aastha	14	5.7
SAHARA Nepal	7	2.9
Paschim Tara Nepal	9	3.7
Thagil	5	2.0
Watch	3	1.2
Wisdom Foundation	3	1.2
Life Line Help Group	3	1.2
Krishi Evem Gram Bikash Sasthan (KEGVS) India	3	1.2
	3	1.2
N-SARC		
N-SARC Youth Vision Others	2	0.8 5.3

Table 8.1: Meeting with Peer Educators/Outreach Educators in the Past Year

Meeting with Peer Educators (PE) or Outreach Educators (OE)	Ν	%
Total	245	*
Frequency of meeting with PE or OE		
Once	3	1.2
2-3 times	44	18.0
4-6 times	36	14.7
7-12 times	36	14.7
More than 12 times	126	51.4
Total	245	100.0

Around eight in ten respondents (81.7%) had met PE/OEs at least once in the past year. In such meetings 85.7 percent had been told about how HIV/AIDS is/is not transmitted from one person to another, while 65.7 percent had discussed safer injecting behaviors with PE/OEs. The PE/OEs had also given them new syringes (38.8%) and condoms (38%).

While 31.4 percent of these IDUs had met PE/OEs from Naulo Gumti, 29 percent had met those who had come from AHH, and 25.3 percent from Namuna. It is further evident from Table 8.1 that the IDUs meet the PE/OEs quite often, as 51.4 percent of IDUs had met PE/OEs more than 12 times in the past year.

#### 8.2 Drop-in-Centers

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 (Table 8.2). The DICs offer a number of services to the target groups, including group counseling, group classes, group discussions, individual counseling, and video shows on STIs/HIV/AIDS. Certain NGOs also run needle exchange programs through their DICs. The IDUs are also provided IEC materials and condoms at the DICs.

DIC Visiting Practices		Ν	%
Visit ed a DIC in the last 12 months			
Yes		232	77.3
No		68	22.7
	Total	300	100.0
Participated activities at DIC			
Collected a new syringe		192	82.8
Collected condoms		113	48.7
Participated in discussion on HIV transmission		87	37.5
Learnt about safe injecting behavior		83	35.8
Watched television		66	28.4
Learnt about the correct way of using condom		38	16.4
Watched film on HIV/AIDS		17	7.3
Collected medicine		13	5.6
Participated in discussion on reducing drug intake		5	2.2
Played		5	2.2
Went to have treatment		4	1.7
Others		8	3.4
	Total	232	*
Name of organizations that run the visited DIC			
Naulo Ghumti		74	31.9
AHH		73	31.5
Namuna		61	26.3
INF Nepalgunj		31	13.4
Nagarjun Development Council		18	7.8
Change Team		13	5.6
Thagil		9	3.9
N-SARC		7	3.0

Table 8.2: DIC Visiting Practices in the Past Year

DIC Visiting Practices		Ν	%
Paschim Tara		4	1.7
Community Support Group		3	1.3
Others		15	6.5
	Total	232	*
Frequency of visits to the DICs			
Once		5	2.2
2-3 times		32	13.8
4-6 times		35	15.1
7-12 times		36	15.5
More than 12 times		124	53.4
	Total	232	100.0

In the past year, 77.3 percent of IDUs had paid a visit to a DIC. The majority of them (82.8%) had been to a DIC to collect a new syringe. While 48.7 percent had collected condoms, 37.5 percent had participated in discussions related to HV transmission, and another 35.8 percent of IDUs had also learnt about safer injecting behavior.

Around 31 percent of the respondents had visited DICs run by Naulo Ghumti (31.9%) and AHH (31.5%). Others had been to Namuna DIC (26.3%) and to INF DIC at Nepalgunj (13.4%). Although a few of the IDUs (2.2%) had visited a DIC just once, the rest had been more than once in the past year. This included 53.4 percent of IDUs who had visited DICs more than once a month on average in the year preceding the survey.

## 8.3 STI Clinics

The IDUs who engage in unsafe sexual encounters are at risk of contracting certain sexually transmitted infections (STIs). Timely detection of STIs may prevent serious health problems. There are different clinics being run by different government agencies as well as non-government organizations which provide STI testing and treatment facilities. Some of these programs specifically target certain MARPs, while some are meant for all people.

The majority of the IDUs (93.7%) had, however, not been to an STI clinic in the past year. Among the few (6.3%) who had visited an STI clinic, the majority received a physical examination to detect STIs (73.7%) and had given a blood sample for STI identification (42.1%) at the clinic (Table 8.3). Some also participated in discussions regarding STI transmission (31.6%) and on the use of condoms (26.3%).

STI Clinic Visiting Practices	Ν	%
Visited any STI clinic in the last 12 months		
Yes	19	6.3
No	281	93.7
Total	300	100.0
Participated activities at STI clinic		
Physical examination conducted for STI identification	14	73.7
Blood tested for STI	8	42.1
Participated in discussion on STI transmission	6	31.6
Participated in discussion on regular/non-regular use of condom	5	26.3
Discussion on safe injecting behavior	2	10.5
Took a friend	1	5.3
Others	8	42.1
Total	19	*
Name of organizations that run the visited STI clinic		
Private clinic	6	31.6
Bheri hospital	4	21.1
Naulo Ghumti	4	21.1
N-SARC	3	15.8
NRCS	1	5.3
0.1	4	21.1
Others		
Others Total	19	*
Others Total Frequency of visits to STI clinics		*
Total Frequency of visits to STI clinics		* 57.9
Total	19	

Around three in ten of these IDUs (31.6%) had visited STI private clinics. Others had been to Bheri hospital and Naulo Ghumti clinic (21.1% each) and to Nepal STD and AIDS Research Center/N-SARC (15.8%).

Around 58 percent of these respondents had visited an STI clinic only once in the past year.

## 8.4 VCT Centers

There are number of VCT centers that provide HIV/AIDS and STI testing along with preand post-test counseling to IDUs and other MARPs. These centers form an integral part of the HIV/AIDS prevention program. Such centers provide information related to HIV/AIDS/STI transmission and also have treatment facilities. Certain IEC materials and condoms are also distributed through some of these centers.

Overall, 28.3 percent of IDUs had visited a VCT center in the past year. The majority of them (90.6%) had given a blood sample for HIV testing. They had also received pre-HIV test counseling (84.7%), post-HIV test counseling and their HIV test result (69.4% each) when they had visited these centers. Among those IDUs who had visited a VCT center in the past year, 31.8 had visited the Namuna VCT center, while 29.4 percent had been to Naulo Ghumti VCT center. More than one half had been to a VCT center only once (57.6%), while 35.3 percent had visited the centers two or three times in the past year (Table 8.4).

VCT Visiting Practices	Ν	%
Visited VCT center in the last 12 months		
Yes	85	28.3
No	215	71.7
Total	300	100.0
Participated activities at VCT		
Gave blood sample for HIV test	77	90.6
Received pre- HIV test counseling	72	84.7
Received post HIV test counseling	59	69.4
Received HIV test result	59	69.4
Received information on safe injecting behavior	24	28.2
Received counseling on using condom correctly in each sexual intercourse	20	23.5
Took a friend	9	10.6
Got information on HIV/AIDS window period	3	3.5
Others	1	1.2
Total	85	*
Name of the organization that run the visited VCTs		
Namuna	27	31.8
Naulo Ghumti	25	29.4
INF	8	9.4
N-SARC	7	8.2
FPAN	5	5.9
Hospital	5	5.9
WATCH	4	4.7
FHI	4	4.7
NNSWA	3	3.5
NRCS	2	2.4
Others	7	8.2
Total	85	*
Frequency of visits to VCTs		
Once	49	57.6
2 - 3 times	30	35.3
More than 3 times	6	7.1
Total	85	100.0

Table 8.4:	VCT Visiting Practices in the Past Year
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#### 8.5 Participation in HIV/AIDS Awareness Programs

A number of HIV/AIDS awareness activities such as workshops, training sessions, talkprograms and street dramas are conducted by various government agencies as well as by nongovernment organizations. Some of these programs specifically target the most at-risk populations, while some include all people.

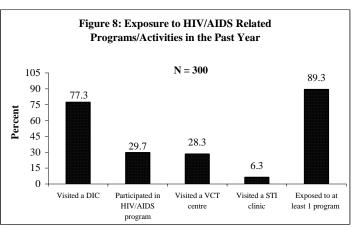
The IDUs were also asked if they had ever participated in any HIV/AIDS awareness programs. A total of 31.7 percent of respondents had participated in at least one HIV/AIDS awareness-raising program or in a similar community event. Almost half of them (49.5%) had taken part in AIDS Day celebrations. Some IDUs had participated in Condom Day celebrations (27.4%) and HIV/AIDS-related workshops (27.4%); in training (24.2%); and in group discussions (23.2%).

Among those IDUs who had participated in such events around three in ten IDUs (29.5%) reported taking part in events organized by Naulo Ghumti, while 18.9 percent of them had participated in activities conducted by Namuna. When asked about the frequency of such participation in the past year, 29.7 percent IDUs said they had participated at least once while 70.3 percent of them had not taken part at all in any of such activities in the past year (Table 8.5).

Participations in HIV/AIDS Awareness Programs	Ν	%
Ever participated in HIV/AIDS awareness raising program or community events		
Yes	95	31.7
No	205	68.3
Total	300	100.0
Participated activities		
AIDS Day celebration	47	49.5
Condom Day celebration	26	27.4
Street drama	26	27.4
HIV/AIDS related training	23	24.2
Group discussions	22	23.2
HIV/AIDS related Workshops	4	4.2
Condom use demonstration	3	3.2
Others	4	4.2
Total	95	*
Name of the organizations that conducted such activities		
Naulo Ghumti	28	29.5
Namuna	18	18.9
АНН	14	14.7
INF	13	13.7
Change Team	7	7.4
SAHARA	4	4.2
N-SARC	4	4.2
WATCH	3	3.2
Recovery Nepal	3	3.2
NRCS	3	3.2
Richmond Fellowship	2	2.1
Nagarjun Development Council	2	2.1
Can't Say	2	2.1
Others	18	18.9
Total	95	*
Frequency of participation in such programs in past 12 months		
Once	42	14.0
2-3 times	40	13.3
4-6 times	7	2.3
Did not participate	211	70.3
Total	300	100.0

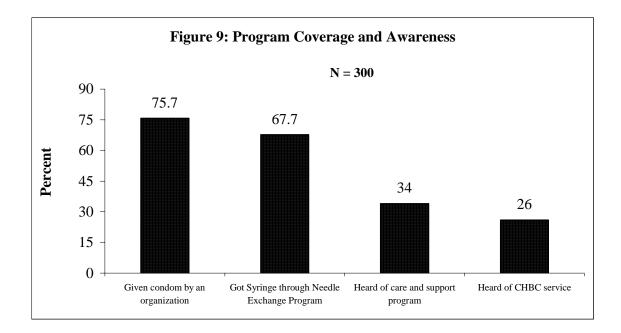
Table 8.5: Participation in HIV/AIDS Awareness Programs	Table 8.5:	Participation	in HIV/AIDS A	wareness Programs
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Figure 8 compares the exposure level of the IDUs to different program components of ongoing HIV/AIDS preventive and awareness initiatives. Overall, 89.3 percent of IDUs had participated in at least one of these targeted HIV/AIDS prevention activities in the West and Far-West Terai. The majority of them (81.7%) had met and /or interacted with PE/OEs in the past year. Around



seven in 10 of them (77.3%) had also visited a DIC in the year preceding the survey. Comparatively, a smaller proportion of IDUs had participated in HIV/AIDS-related programs (29.7%) and had visited a VCT center (28.3%). Only few IDUs (6.3%) had visited an STI clinic in the past year.

Furthermore, as seen in Figure 9, 75.7 percent of IDUs had received a condom from an organization at least once in the past year, 67.7 percent of them further had received a new syringe from a PE/OE or other staff from a Needle Exchange Program during the same span of time. At the same time, 34 percent of the IDUs had ever heard about care and support program that provide ART (Antiretroviral therapy) services and information related to the therapy to HIV – positive people while 26 percent of IDUs had heard about Community Home Based Care services provided to HIV – positive people.



## CHAPTER – 9.0: A COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter compares data on selected indicators to analyze changes between the first, second and third rounds of IBBS among IDUs in the Western to Far Western Terai highway districts of Nepal. It specifically deals with trends in HIV and STI prevalence over the years. The socio-demographic characteristics, drug injecting behavior, practices of needle/syringe usage, and condom use among study participants have also been analyzed.

#### 9.1 Socio-Demographic Characteristic

The demographic characteristics of the IDUs indicate more or less similar pattern in all three rounds of the survey. More than half of the respondents in all three rounds (58.7% in 2005, 67.3% in 2007 and 63.7% in 2009) were over 25 years of age. The median age of the respondents was 25 years in the first round and 27 years in the second and third rounds.

The overall educational status of the respondents was not significantly different between the three rounds. A little over one-fourth of the IDUs had passed the primary level of education in all three rounds (26% in 2005, 25.7% in 2007 and 27% in 2009). However, a slight increase in the proportion of IDUs who had completed secondary level schooling in the third round (37.7% in 2005, 35.3% in 2007 and 43.3% in 2009). Similarly, while in the previous two rounds, over one in ten IDUs was illiterate (11.3% in 2005 and 14% in 2007), a relatively smaller proportion of IDUs (6.3%) were illiterate in the third round (Table 9.1).

Serie Demonstellie Characteristics	First round (2005)		Second ro	und (2007)	Third round (2009)		
Socio-Demographic Characteristics	N=300	%	N=300	%	N=300	%	
Age							
< 25Yrs.	124	41.3	98	32.7	109	36.3	
>25 years	176	58.7	202	67.3	191	63.7	
Median age	2	25	2	7	2	7	
Education							
Secondary	113	37.7	106	35.3	130	43.3	
Primary	78	26.0	77	25.7	81	27.0	
SLC and above	61	20.3	60	20.0	54	18.0	
Illiterate	34	11.3	42	14.0	19	6.3	
Literate only	14	4.7	15	5.0	16	5.3	
Ethnicity							
Chhetri/Thakuri	91	30.3	76	25.3	72	24.0	
Occupational caste	41	13.7	44	14.7	33	11.0	
Tamang/Magar/Sherpa	36	12.0	37	12.3	31	10.3	
Brahmin	31	10.3	31	10.3	44	14.7	
Terai caste	30	10.0	26	8.7	29	9.7	
Musalman	26	8.7	32	10.7	35	11.7	
Gurung/Rai/Limbu	20	6.7	17	5.7	22	7.3	
Newar	16	5.3	23	7.7	22	7.3	
Chaudhary/Tharu	6	2.0	3	1.0	7	2.3	
Giri/Puri/Sanyasi	2	0.7	4	1.3	5	1.7	
Majhi/Sunuwar	0	0.0	3	1.0	0	0.0	
Thakali	0	0.0	2	0.7	0	0.0	
Marwadi	0	0.0	1	0.3	0	0.0	
Others	1	0.3	1	0.3	0	0.0	

 Table 9.1: Socio-Demographic Characteristics

The ethnic/caste composition of the IDUs has not changed significantly since 2005. In the sample IDUs from Chhetri/Thakuri cast were 30.3 percent in the first round, 25.3 percent in

the second round, and 24 percent in the third round. Similarly, the proportion of other caste/ethnic groups differed only slightly between all three rounds.

## 9.2 Drug Injecting Practices

Most of the IDUs in all three rounds had been injecting drugs for more than a year, with the average duration being 4.3 years in 2005, 5.5 years in 2007, and 5.9 years in 2009. Those IDUs who had been injecting for less than two years made up 25 percent of the study participants in 2005, 18.7 percent in 2007 and 21.3 percent in 2009. However, the proportion of IDUs injecting for five or more years increased from 28 percent in 2005 to 44 percent in 2007 and 51.3 percent in 2009.

The median age of the respondents at their first injection was 21 years in 2005 and 2009, while it was 22 years in 2007. In 2005, 42 percent of respondents had injected drugs for the first time before they turned 21; in 2007 this proportion was down to 38.7 percent, which again increased to 46.3 percent in 2009 (Table 9.2).

Dung Injecting Prosting	First round	First round (2005)		und (2007)	Third round (2009)	
Drug Injecting Practice	N=300	%	N=300	%	N=300	%
Duration of drug injection habit						
Up to 2 years	75	25	56	18.7	64	21.3
2-5 years	141	47	112	37.3	82	27.3
> 5 years	84	28	132	44.0	154	51.3
Average duration years	4.	4.3		5.5		.9
Age at first drug injection						
Up to 20 years	126	42.0	116	38.7	139	46.3
21 + years	174	58.0	184	61.3	161	53.7
Median age	2	21		22		1

 Table 9.2: Drug Injecting Practices

## 9.3 Needle/Syringe Using Practice in the Past Week

Data relating to the injecting practices of the study population in all the rounds show that the majority of the respondents had avoided unsafe injecting behavior such as injecting with others' previously used needles/syringes (81 percent in 2005, 89.7% in 2007 and 88.3% in 2009); and using needles/syringes kept in public places (84.7% in 2005, 95.7% in 2007 and 92.3% in 2009). Although the findings indicate a positive trend since the first round, comparison between the data of the second and third rounds show that the proportion of respondents involved in risky injecting practices has increased slightly since the second round. In 2007, 10.3 percent of the IDUs had ever used a needle/syringe that had been used by others, while in 2009, 11.7 percent had done so. At the same time, 4.3 percent of respondents had ever used a needle/syringe kept in public place in 2007, while 7.7 percent IDUs had done so in 2009.

Nevertheless, IDUs who had not shared their needle/syringe with anyone else in the past week increased from 70.7 percent in the first round to around 88 percent in second as well as in third round of the survey (Table 9.3).

Likewise, the proportion of respondents who had cleaned a previously used syringe in the past week to re-use it had decreased since the first round (38.7 percent in 2005, 22 percent in 2007 and 15.3 percent in 2009).

Needle/Cominge Use in the Dest Week	First roun	d (2005)	Second ro	und (2007)	Third rou	nd (2009)
Needle/Syringe Use in the Past Week	N = 300	%	N = 300	%	N = 300	%
Used a needle/syringe that had been used by another						
Never Used	243	81.0	269	89.7	265	88.3
Ever Used	57	19.0	31	10.3	35	11.7
Used a needle/syringe that had been kept in public place						
Never Used	254	84.7	287	95.7	277	92.3
Ever Used	46	15.3	13	4.3	23	7.7
Number of needle/syringe shared partners						
None	212	70.7	265	88.3	266	88.7
Two or more partners	88	29.3	35	11.7	34	11.3
Re-used needle/syringe in the past week						
Yes	116	38.7	66	22.0	46	15.3
No	184	61.3	234	78.0	254	84.7

Table 9.3: Syringe Using and Sharing Practice in Past Week

#### 9.4 Condom Use with Different Partners

Partner-wise, condom use was more consistent in the past year's sexual contacts with FSWs than with non-regular and regular partners. At the same time, very few IDUs had used condoms consistently with regular partners in all the three rounds.

Overall, consistent condom use was highest with female sex workers followed by with nonregular sex partners and least with regular sex partners. While over two fifths of IDUs who had sexual contact with female sex workers in the past year had used condom consistently with them in the first and the second round (46.5% and 48.4%), 51 percent of them reported so in the third round. At the same time, around three in ten respondents had used condoms consistently with non-regular female sex partners in the year preceding the survey in all three rounds (31.5% in 2005, 39.3% in 2007 and 37.3% in 2009). However, consistent use of condom with regular partner was still low among IDUs (3.9% in 2005, 7% in 2007 and 8.7% in 2009) throughout the three rounds.

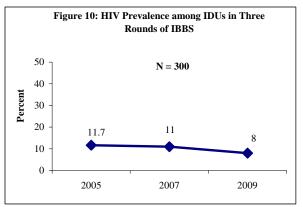
Consistent Use of Condom Fi		nd (2005)	Second ro	ound (2007)	Third round (2009)	
		%	Ν	%	N	%
Use of condom with regular female sex partners during past 12 months						
Every time	5	3.9	10	7.0	11	8.7
Sometime – never	123	96.1	133	93.0	115	91.3
Total	128	100.0	143	100.0	126	100.0
Use of condom with non-regular female sex partners during past 12 months						
Every time	17	31.5	22	39.3	31	37.3
Sometime – never	37	68.5	34	60.7	52	62.7
Total	54	100.0	56	100.0	83	100.0
Use of condom with female sex workers during past 12 months						
Every time	47	46.5	44	48.4	49	51.0
Sometime – never	54	53.5	47	51.6	47	49.0
Total	101	100.0	91	100.0	96	100.0

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

#### 9.5 HIV Prevalence among IDUs

HIV prevalence among the IDUs has decreased slightly since the first round. As seen in Table 9.5, the first round of IBBS showed that the rate of infection was 11.7 percent in 2005, 11 percent in 2007 and eight percent in 2009 (Figure 10).

Among different study centers in the Western to Far-Western Terai, Banke



still had the highest HIV prevalence (30% in 2005, 31.7% in 2007 and 23.3% in 2009); followed by Rupandehi (13.3% in 2005, 10% in 2007 and 8.3% in 2009). As in the previous two rounds, no HIV prevalence was found in the Kailali and Kanchanpur study centers. The third round of the survey included 30 respondents from Taulihawa (Kapilbastu) but no HIV prevalence was found among any of these respondents either.

	First r	ound (20	05)	Second round (2007)			Third round (2009)		
Study Center	Total Sample	HIV +	%	Total Sample	HIV +	%	Total Sample	HIV+	%
Study centers (Districts)									
Bhairahawa/Butawal (Rupandehi)	150	20	13.3	140	14	10.0	120	10	8.3
Taulihawa (Kapilbastu)	na	na	na	na	na	na	30	0	0.0
Nepalgunj (Banke)	50	15	30.0	60	19	31.7	60	14	23.3
Dhanagadi (Kailali)	50	0	0.0	50	0	0.0	50	0	0.0
Bhimdutta Nagar (Kanchanpur)	50	0	0.0	50	0	0.0	40	0	0.0
Total	300	35	11.7	300	33	11.0	300	24	8.0

## **CHAPTER – 10.0: CONCLUSIONS AND RECOMMENDATIONS**

#### **10.1 Summary of Major Findings**

HIV prevalence among IDUs in the West and Far-West Terai was eight percent. Three percent of them had a history of syphilis, while 1.7 percent had active syphilis.

Married IDUs had a significantly high prevalence of HIV (12.2%) compared to unmarried ones (3.9%); likewise, those IDUs who had been injecting drugs for more than five years had significantly higher HIV prevalence (12.3%) than those who had injected for a shorter span of time (less than 2 years - 1.6%; 2-5 years - 4.9%).

The age of the IDUs ranged from between 16 to 50 years, with a median age of 27. Overall, 54 percent of respondents were between 20 to 29 years; while adolescents of 19 years or younger made up eight percent of the respondents.

Forty-two percent of the IDUs were currently married and overall, 41 percent were living with their spouse or with a female sexual partner at the time of survey.

The IDUs had been injecting drugs for 5.9 years on average. Two in ten IDUs (21.3%) had been injecting since less than two years.

Over 90 percent of IDUs had avoided risky injecting practices in the last three injections. Likewise, the past week's injecting practice also showed that the majority of the IDUs had avoided risky injecting behaviors such as injecting with a used needle/syringe (88.3%); injecting with a syringe kept at a public place (92.3%); and sharing needles/syringes with others (88.7%).

Around eight in ten IDUs (81.7%) had injected in places outside their district or in other countries. Among them, 17.6 percent had used a pre-used needle/syringe and 19.6 percent had given their needle/syringe to someone else after use.

Ninety-eight percent of IDUs had maintained sexual contact before the date of survey. Around 87 percent of them were below 20 when they had their first sexual encounter.

Over one half (52.8%) had sexual contact with two or more female partners in the past year.

Fifty-one percent had used condoms consistently with female sex workers, compared to 37.3 percent with non-regular female sex partners and 8.7 percent with regular female sex partners in the past year.

Fifty six IDUs (18.7%) ever had at least one STI symptom. Among them, 58.9 percent had not sought any treatment.

In total, 73.3 percent of IDUs were aware of all three main prevention measures, namely, (A) abstinence from sex, (B) being faithful to one sex partner and (C) and regular condom use. Fifty six percent of IDUs were aware of 'B,C,D,E,F' (a healthy looking person can be

infected with HIV, 'D'; a person cannot get the HIV virus from a mosquito bite, 'E'; and sharing meal with an HIV-infected person does not transmit the HIV virus, 'F').

Ninety four percent of IDUs knew that a confidential HIV testing facility was available in their community.. However only 37.3 percent of them had never taken up HIV testing before.

Altogether, 81.7 percent of IDUs had met peer/outreach educators at least once in the past year; while 77.3 percent had visited a drop-in center (DIC), and 28.3 percent had visited a VCT (Voluntary Counseling and Testing) center in the past year. However, only 6.3 percent of IDUs had been to an STI clinic before.

Likewise, 29.7 percent of respondents had participated in at least one HIV/AIDS-related program or similar community event in the past year.

#### **10.2 Recommendations**

Based on the findings of this study, some specific recommendations have been made. These recommendations, however, are not definitive and comprehensive; they simply highlight the study's key findings and are complementary to some of the strategies/programs that are already being implemented. They are as below;

- This survey shows that 46.3 percent of IDUs had their first injection at the age of less than 21 years and that 61.3 percent had completed at least secondary education. HIV/AIDS educational efforts targeting youths/adolescents should be continued and updated. Information and awareness campaign through wider distribution of IEC materials like pamphlets, posters, banners, radio and television programs should be continued targeting this specific age group.
- The majority of the IDUs were aware of the risk associated with unsafe injecting and needle sharing behavior, as approximately 95 percent of them had avoided high-risk injecting behavior such as injecting with a previously used syringe and injecting with a syringe left at public place in the last three injections. Information services and prevention activities should be further improved with emphasis on behavioral change activities and health promotion intervention. Harm reduction initiatives such as wider dissemination of information on safe injecting behavior and needle exchange programs should be continued and further expanded.
- Consistent use of condoms was reported by only 8.7 percent of IDUs with regular partners, 37.3 percent with non regular partners and 51 percent with commercial sex workers in the past year. When stating their reasons for not using condoms, around four in ten (40.6%) had not considered it necessary to use condom during the last sexual encounter with a regular partner, while 45.2 percent each cited unavailability of condoms and their dislike for the product as reasons for not using condoms with a sex worker; and 32.4 percent again cited non-availability of condoms as reasons for not using one with non-regular partners. Barriers to inconsistent condom use should be explored further to design intervention strategies to address them.

- Thirty-five percent of IDUs had ever been to a de-addiction treatment center; 50.5 percent of them had received their last treatment less than a year before the survey. More consideration is needed to integrate rehabilitation support and a psychosocial component (counseling, support groups) into the continuum of services for IDUs.
- While 37.3 percent had never taken up HIV testing, around 60 percent of those IDUs who had experienced STI symptoms had never sought any treatment. Client-friendly STI testing and treatment facilities and VCT centers should be made available to encourage more IDUs to voluntarily come forward for such services.
- Radio and television are important sources that can be mobilized for disseminating necessary information to the target groups, as more than 90 percent of IDUs named these mediums as their information sources regarding condoms and information on HIV/AIDS. PE/OEs are good contact points to disseminate necessary information and IEC materials to the target population. Around 82 percent of respondents had met them at least once in the past year. Mobilization of PEs/OEs should continue in order to provide one-to-one education for behavioral change and safe injecting and sexual practices.
- Around seven in ten IDUs (77.3%) had visited a DIC at least once in the past year. More DICs with expanded activities at central locations could cover more of the target groups.
- Around 68 percent of respondents had never participated in any HIV/AIDS-related programs. Ongoing programs should be expanded geographically and the capacity building of local NGOs should be focused on in order to increase access to more of the target population.

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# ANNEXES

## ANNEX – 1: Indicators for Monitoring and Evaluation Framework for HIV

Prevention 1: HIV related risk and transmission among IDUs	Results (%)	Indicators
Impact/outcome indicators		
Percentage of IDUs who are HIV infected	8.0	PMP/ASHA/ National/UNGASS
Percentage of IDUs who had adopted behavior that reduce		National
transmission of HIV i.e. who both avoided using non sterile injecting equipment and used condom in the last sex in last month	33.0	
Percentage of IDUs reporting the use of sterile injecting equipment in the last time they injected	96.2	UNGASS
Percentage of IDUs who avoided sharing injecting equipment in the last month	84.7	ASHA
Percentage of IDUs who used condom at last sex with female sex worker in the last 12 months	67.7	PMP/ASHA
Percentage of IDUs who say they consistently use a condom when they have sex with a female sex worker in the last 12 months	51.0	PMP/ASHA
Percentage of IDUs who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	56.0	PMP/ASHA/ National/UNGASS
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		ASHA/National
community events / trainings or drug treatment or rehabilitation)	89.3	
Percentage of IDUs reached with HIV prevention programs (Knows where to receive HIV test and received condoms)	71.3	UNGASS
Percentage of IDUs who received an HIV test in the last 12 months and who know their results	23.3	UNGASS

#### ANNEX – 2: Basic Equation Used in Sample Design *

$$n = D \frac{\left[Z_{1-\alpha} \sqrt{2 \,\overline{p}(1-\overline{P})} + Z_{1-\beta} \sqrt{P_1(1-P_1)} + P_z(1-P_z)\right]^2}{(P_2 - P_1)^2}$$

- n = required minimum sample size per survey round
- D = design effect (assumed in the following equations to be the default value of 2)
- $P_1$  = the estimated proportion at the time of the first survey.
- $P_2 =$  the target population at some future date, so that  $(P_2-P_1)$  is the magnitude of change of change you want to be able to detect.

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

- $Z_{1-\alpha}$  = the Z-score corresponding to the level of significance
- $Z_{1-\beta}$  = 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:** Questionnaire

#### Government of Nepal Ministry of Health and Population (MoHP) National Center for AIDS and STD Control (NCASC) - 2009

#### Integrated Biological and Behavioral Surveillance Survey (IBBS) among Male Injecting Drug Users (IDUs) in Kathmandu Valley, Pokhara Valley, Eastern Terai and West-Far Western Terai of Nepal

Namaste! My name is..... I am here from New ERA to collect data for a research study being conducted under the leadership of **National Centre for AIDS and STD Control (NCASC), Ministry of Health and Population, Government of Nepal.** During this data collection, 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 your blood sample for testing HIV and STI infection. If it is determined that you have any STI symptoms, we will provide treatment free of charge. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk about because your name will not be mentioned on this form and collected samples. All the mentioned information will be used only for the study 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: ____/2065

#### **Operational definition of respondent:**

Male Injecting Drug User (IDU): Male injectors who inject different types of drugs in their nerves for intoxication. Please bear in mind that those people who inject for medical purpose should not be treated as IDUs. Respondents should be a current injector and should have been injecting drugs for at least three months prior to the date of survey. Those who have been injecting drugs for a period of less than three months should not be included in the survey.

#### Male IDUs under the age of 16 will be excluded.

#### Code Respondents: (Kathmandu and Pokhara Sites only)

Seed: 1. Yes

2. No

	TFICATION NUMBER (Coupon Number): (Write '0' for seed) number given: (For only Pokhara and Kathmandu sites)
Did the	<ul> <li>interviewee abandon the interview?</li> <li>1. Yes (Precise the number of the last question completed: Q)</li> <li>2. No</li> </ul>
Intervie	ewer Name: Code Interviewer:
	terview: / 2065 d by the supervisor: Signature: Date: / / 2065
Data Er Data Er	ntry # 1: Clerk's name: Date/2065 ntry # 2: Clerk's name: Date/2065
001.	Has someone interviewed you from New ERA with a questionnaire in last few weeks?
	1. Yes 2. No ( <b>continue interview</b> )
	$\downarrow$
	When? Days ago (make sure that it was interviewed by New ERA and close the
	interview)
002.	Respondent's ID #:
002.1	Respondent referred by coupon no. (Only for Kathmandu and Pokhara IBBS study)
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,only for Kathmandu and Pokhara IBBS study)1. Yes2. No
002.4	How long you have been injecting drugs?
	Years Months 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
101	Where are you living now?		
		Ward	
	(Write current place of residence: Ward No.	VDC/Municipality	
	Tole, Lane etc.)	District	
101.1	How long have you been living continuously at		
	this location?	Month	
		Always (since birth)0	
		Others (Specify)96	
102	In the last 12 months have you been away from	Yes1	
	your home for more than one-month altogether?	No2	
	(Left home, village/district)	Don't' know	
		No response99	
103	How old are you?		
		Age	
101		(write the completed years)	
104	What is your educational status?	Illiterate0	
		Literate19	
		Grade	
		(write the completed grade)	
105	What is your caste?	Ethnicity/Caste	
	(Specify Ethnic Group/Caste)	Code No	
106	What is your current marital status?	Never married1—	► 100
100	what is your current maritar status?	Married	108
		Divorced/Permanently separated 3	
		Widow	
		Other (Specify)96	
107	How old were you when you first got married?	Other (Specify)	
107	now old were you when you mist got married.	Age	
		(write the completed years)	
108	With whom you are living now?	Living with wife1	
		Living with female sexual partner2-	h
		Living without sexual partner	-110
		Others (Specify)96	
		No response99-	γ
109	Do you think your wife/female sexual partner	Yes1_	L
	has any other sexual partners?	No2	<u> </u>
		Don't' know98	
		No response	٢
109.1	If yes, what is the sex of your partner?	Male	
110	Decine the meeting and the first t	Female	
110	During the past one-month how often have you	Every day	
	had drinks containing alcohol?	More than once a week	
	(Such as been level here stal)		
	(Such as beer, local beer etc.)	Never drink	
		Others (Specify)96	
		No response	

#### 2.0 DRUG USE

Q.N.	Questions			Coding Categories				Skip	
201	How long have you been using drugs?		Va	0.00					
			16	Years					
				onths					
	purpose rather used for Intoxication)		No	response	e			99	
202	How old were you when you first injected drugs?							<u> </u>	
202	(Include self-injection or injection by a	nother)	Ye	ars					
				(write	the com	pleted y	ears)		
203	How long have you been injecting drugs?	?	Ve	are					
			10	Years					
	(Include self-injection or injection by o	thers)		onths					
202.1	<b>T</b>	0		response					
203.1	Have you injected drugs in the last month	1?		s					
202.2		/ 11		•••••					▶204
203.2	If Yes, have you used non-sterile syringe	/needle a		s					
202.2	any time in the last month?			~					
203.3	Have you used non-sterile injecting equip	oment at		s					
		any time in the last month? No							
204	Which of the following types of drugs have you used and/or injected in the past one-week? ( <i>Read the</i>								
	list, multiple answer possible)	T	od in I	Last-We	olz	Inic	otod in	Loct W	look
	Description	YES	NO	DK	NR	YES	NO	Last-W	NR
	1. Tidigesic	1	2	98	99	1	2	98	99
	2. Brown Sugar	1	2	98	99	1	2	98	99
	3. Nitrosun	1	2	98	99	1	2	98	99
	4. Ganja	1	2	98	99	1	2	98	99
	5. Chares	1	2	98	99	1	2	98	99
	6. White Sugar	1	2	98	99	1	2	98	99
	7. Phensydyl	1	2	98	99	1	2	98	99
	8. Calmpose	1	2	98	99	1	2	98	99
	9. Diazepam	1	2	98	99	1	2	98	99
	10. Codeine	1	2	98	99	1	2	98	99
	11. Phenergan	1	2	98	99	1	2	98	99
	12. Cocaine	1	2	98	99	1	2	98	99
	13. Proxygin	1	2	98	99	1	2	98	99
	14. Effidin 15. Velium 10	1	$\frac{2}{2}$	98	99 99	1	2	98 98	99 99
	16. Lysergic Acid Dithylamide(LSD)	1	2	98 98	99 99	1	2	98	99
	17. Nitrovate	1	2	98	99	1	2	98	99
	18. Combination (Specify)	1	2	98	99	1	2	98	99
	96. Others (Specify)	1	2	98	99	1	2	98	99
204.1	In the last month, did you switch from on	e drug to	) Ye	s				1	
	another?	U						2	205
204.1.	If yes, which drug?		Fro	om			drug		
1							drug		
							-		
204.1.	What is the reason for switching?								
2	Ĵ								
								_	
205	How many times would you say you i	njected						1	200
	drugs yesterday?			nes				-	209
			No	t injected	1		(	3	

Q.N.	Questions	Coding Categories	Skip
206	Would you like to tell me why you did not injected		
	yesterday?		
207	How many days ago did you get injected?		
		Days ago	
208	How many times would you say you injected		
	drugs on the last day?	Times	
209	During the past one-week how often would you	Once a week1	
	say you injected drugs?	2-3 times a week2	
		4-6 times a week	
		Once a day4	
		2-3 times a day5	
		4 or more times a day6	
		Not injected in the last week7	
		Don't know98	
		No response99	

## 3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Questions	Coding Categories	Skip
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	
302	The lat time you injected, how did you get that syringe/needle? (Public place means places other than the IDU's home that are used to hide syringe/needle)	My friend/relative gave it to me after his use	
302.1	If you were in a group the last time that you injected, how many different people in the group do you think used the same needle?	No response   99     Nos.   Injected alone	

Q.N.	Questions	Coding Categories	Skip
303	Think about the time before the last time you	My friend/relative gave it to me after	
	injected, how did you get that syringe/needle?	his use1	
		Unknown person gave it to me after	
		he use	
		I picked it up from a public place which was left there by others $^+$ 2	
		which was left there by others ⁺ 3 I picked it up from a public place	
		which was left there by $myself^+$ 4	
	(Public place means places other than the IDU's	I used a new needle/syringe given	
	home that are used to hide syringe/needle)	by NGO staff/ volunteer	
		(write the name of Organization)	
		I used a needle/syringe which I	
		purchased 6	
		I reused my own needle/syringe7	
		My friend gave new needle/	
		syringe	
		Others (Specify) 96	
		Don't know	
303.1	That time, If you were in a group, how many	No response	
505.1	different people in the group do you	Nos	
	Think had used the same needle?	Injected alone	
304	Now think about the time before (before Q. 303),	My friend/relative gave it to me	
304	how did you get that syringe/ needle?	after his use 1	
	now did you get that symmetry needle.	Unknown person gave it to me after	
		he use	
		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 $myself^+ \dots 4$	
		I used a new needle/syringe given	
	(Public place means places other than the IDU's	by NGO staff/ volunteer5	
	home that are used to hide syringe/needle)	(write the name of Organization)	
		I used a needle/syringe which I	
		purchased	
		My friend gave new	
		needle/syringe	
		Others (Specify)96	
		Don't know	
		No response 99	
304.1	That time If you were in a group, how many		
	different people in the group do you think had	Nos	
207	used the same needle?	Injected alone	
305	Think about the times, you have injected drugs	Every times	
	during the past one-week. How often was it with a needle or syringe that had previously been used by	Almost every-times	
	someone else?	Sometimes	
		Not injected in the last week	→ 314
		Don't know	► J14
		No response	
		110 105001150	

Q.N.	Questions	Coding Categories			5	Skip
305.1	When you injected drug during the past week, how					•
	often did you use a syringe/needle that had been	Almost every-times 2				
	left in public place?					
	(Public place means places other than the IDU's	Never			4	
	home that are used to hide syringe/needle)	Don't kn	ow			
		No respo	onse			
306	In the past one-week, did you ever share needles					
	and syringes with any of the following?					
	Read out list. Multiple answers possible	Yes	No	DK	NR	
	1. Your usual sexual partner	1	2	98	99	
	2. A sexual partner who you did not know	1	2	98	99	
	3. A friend	1	2	98	99	
	4. A drugs seller	1	2	98	99	
	5. Unknown Person	1	2	98	99	
	96. Other (Specify)	1	2	98	99	
207		1	-	20		
307	With how many different injecting partners did	Number	of partna	rs		
	you share needles or syringes in the past one-					
	week? (Count everyone who injected from the					
	same syringe)					
308	In the past one-week, how often did you give a	Every tin	Every times 1			
	needle or syringe to someone else, after you had	Almost every-times				
	already used it?					
309	In the past-week, did you ever inject with a pre-					
	filled syringe?					
	(By that I mean a syringe that was filled					
210	without you witnessing it)					
310	In the past one-week, how often did you inject					
	drugs using a syringe after someone else had			es		
	squirted drugs into it from his/her used syringe?					
				•••••		
	(front-loading/back-loading/ splitting)	Don't know				
211	In the post one meals when over initiated do					
311	In the past one-week, when you injected drugs,					
	how often did you share a cooker/ vial/container,		-	es		
	cotton/filter, or rise water?					
210						
312	In the past one-week, how often you draw up your					
	drug solution from a common container used by			es		
	others?					
		No respo	onse			

Q.N.       Questions       Coding Categorie         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.       Almost every-times       No	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
aneedles or syringes that had previously been used, how often did you clean them first?       Almost every-times	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
how often did you clean them first?       Sometimes	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
313.1       If cleaned, how did you usually clean them?       Never	$\begin{array}{c} & & & & & & \\ & & & & & & \\ & & & & & $
313.1       If cleaned, how did you usually clean them?       Others (Specify)	$ \begin{array}{c}         96 \\         98 \\         99 \\         99 \\         99 \\         $
313.1       If cleaned, how did you usually clean them?       Others (Specify)	$ \begin{array}{c}         96 \\         98 \\         99 \\         99 \\         99 \\         $
313.1       If cleaned, how did you usually clean them?       Don't knowNo responseNo response         313.1       If cleaned, how did you usually clean them?       With waterWith waterWith salivaBoil the syringe in waterWith bleachBurning the needle with matchstickOthers (Specify)	98 99 1 2 3 4 5 6 96 96 98 99 99 1 1 2
313.1       If cleaned, how did you usually clean them?       With water         313.1       If cleaned, how did you usually clean them?       With water         With value       With water       With urine         With saliva       Boil the syringe in water       Boil the syringe in water         Burning the needle with       matchstick       Others (Specify)         Don't know       No response       No         314       Can you obtain new, unused needles and syringes       Yes         when you need them?       Yes       No         315       Where can you obtain new unused needles and syringes?       Drugstore         315       Where can you obtain new unused needles and syringes and syringes?       Drugstore         (Do not read out list. Multiple answers       Other shop.       Health worker         Hospital       Other drugs users       Sexual partner	99 
313.1       If cleaned, how did you usually clean them?       With water	
314       Can you obtain new, unused needles and syringes       Yes         314       Can you obtain new, unused needles and syringes       Yes         when you need them?       No         315       Where can you obtain new unused needles and syringes?       Drugstore         315       Where can you obtain new unused needles and syringes?       Drugstore         Other shop       Health worker         Health worker       Hospital         Drug wholesaler/drug agend Family/relatives       Sexual partner         Friends       Other drugs users	2 3 4 5 6 96 98 99 1 2 1
314       Can you obtain new, unused needles and syringes       Yes         314       Can you obtain new, unused needles and syringes       Yes         315       Where can you obtain new unused needles and syringes?       Don't know         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Where can you obtain new unused needles and syringes?       Drugstore         315       Where can you obtain new unused needles and syringes?       Drugstore         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Where can you obtain new unused needles and syringes?       Drugstore         317       Where can you obtain new unused needles and syringes?       Drugstore         316       Where can you obtain new unused needles and syringes?       Drugstore         317       Where can you obtain new unused needles and syringes?       Drugstore         318       Where can you obtain new unused needles and syringes       Drugstore         319       Where can you obtain new unused needles and syringes       Drugstore         310       Where can you obtain new unused needles and syringes       Drugstore         317       Where can you obtain new unused needles and syringes       Drug wholesaler/drug agence         319       Where can you obtain new	
314       Can you obtain new, unused needles and syringes when you need them?       Yes         315       Where can you obtain new unused needles and syringes?       Yes         315       Where can you obtain new unused needles and syringes?       Drugstore         Other shop       Other shop         Health worker       Hospital         Drug wholesaler/drug agend Family/relatives       Sexual partner         Friends       Other drugs users	
314       Can you obtain new, unused needles and syringes when you need them?       Yes         315       Where can you obtain new unused needles and syringes?       Yes         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Other shop       Health worker         Where can you obtain new unused needles and syringes?       Drugstore         Where can you obtain new unused needles and syringes?       Other shop         Where can you obtain new unused needles and syringes?       Drugstore         Other shop       Health worker         Hospital       Drug wholesaler/drug agend Family/relatives         Sexual partner       Sexual partner         Friends       Other drugs users	
314       Can you obtain new, unused needles and syringes when you need them?       Yes       No         315       Where can you obtain new unused needles and syringes?       Yes       No         315       Where can you obtain new unused needles and syringes?       Drugstore       Other shop.         Where can you obtain new unused needles and syringes?       Drugstore       Other shop.         Where can you obtain new unused needles and syringes?       Drugstore       Other shop.         Where can you obtain new unused needles and syringes?       Other shop.       Health worker         Where can you obtain new unused needles and syringes?       Other shop.       Health worker         Where can you obtain new unused needles and syringes?       Other shop.       Health worker	
314       Can you obtain new, unused needles and syringes when you need them?       Yes         315       Where can you obtain new unused needles and syringes?       Yes         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Other shop       Health worker         Where can you obtain new unused needles and syringes?       Drugstore         Other shop       Health worker         Health worker       Hospital         Drug wholesaler/drug agend Family/relatives       Sexual partner         Friends       Sexual partner         Other drugs users       Other drugs users	96 
314       Can you obtain new, unused needles and syringes when you need them?       Yes	96 
314       Can you obtain new, unused needles and syringes when you need them?       Yes         314       Can you obtain new, unused needles and syringes when you need them?       Yes         315       Where can you obtain new unused needles and syringes?       Don't' know         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Understand       Drugstore         Where can you obtain new unused needles and syringes?       Drugstore         Understand       Drugstore         Where can you obtain new unused needles and syringes?       Drugstore         Up to the shop       Health worker         Health worker       Hospital         Drug wholesaler/drug agend Family/relatives       Sexual partner         Friends       Sexual partner         Friends       Other drugs users	
314       Can you obtain new, unused needles and syringes when you need them?       Yes         315       Where can you obtain new unused needles and syringes?       Don't' know         315       Where can you obtain new unused needles and syringes?       Drugstore         316       Understand       Drugstore         317       Where can you obtain new unused needles and syringes?       Drugstore         318       Where can you obtain new unused needles and syringes?       Drugstore         319       Understand       Drugstore         310       Understand       Drugstore         311       Understand       Drugstore         312       Understand       Drugstore         313       Understand       Drugstore         314       Understand       Drug wholesaler/drug agend         Family/relatives       Sexual partner         Sexual partner       Friends         Sexual partner       Other drugs users	
314       Can you obtain new, unused needles and syringes when you need them?       Yes	
when you need them?       NoDon't' knowDon't' knowNo response         315       Where can you obtain new unused needles and syringes?       DrugstoreOther shopHealth workerDorug wholesaler/drug agend Family/relativesDrug wholesaler/drug agend Family/relativesFriendsFriends         (Do not read out list. Multiple answers       Other drugs users	
315       Where can you obtain new unused needles and syringes?       Drugstore	
315       Where can you obtain new unused needles and syringes?       Drugstore	00 11 211
315       Where can you obtain new unused needles and syringes?       DrugstoreOther shopHealth worker         Year       Year       Health worker         Hospital       Drug wholesaler/drug agend Family/relatives         Sexual partner       Friends         Other drugs users       Other drugs users	
syringes?       Other shop         Health worker       Health worker         Hospital       Drug wholesaler/drug agend         Family/relatives       Sexual partner         Friends       Friends         Other drugs users       Other drugs users	
syringes?       Other shop         Health worker       Health worker         Hospital       Drug wholesaler/drug agend         Family/relatives       Sexual partner         Friends       Friends         Other drugs users       Other drugs users	1
(Do not read out list. Multiple answers Other drugs users	
(Do not read out list. Multiple answers Other drugs users	
(Do not read out list. Multiple answers Other drugs users	4
(Do not read out list. Multiple answers Other drugs users	
(Do not read out list. Multiple answers Other drugs users	
(Do not read out list. Multiple answers Other drugs users	
(Do not read out list. Multiple answers Other drugs users	
Needle exchange program o	
Steal from legitimate source	
(hospital./pharmacy)	
Buy on streets	
Other (Specify)	
316 In the past one-year, did you ever inject drug in Yes	
another city/district (or another country)?	
Don't' remember	
No response	
316.1 If yes, in which other cities/districts did you inject, Cities	
Country	
316.2   Think about the times you injected drugs in   Every times	
another city/district (including abroad) how often Almost every-times	
was it with a syringe/needle that had previously Sometimes	
been used by someone else? Never	
Don't know	
No response	
316.3 When you injected drugs in another city, how Every times	1
often did you give a syringe/needle Almost every-times	
to some one else? Sometimes	2
Never	2
Don't know	2
No response	

Q.N.	Questions	Coding Categories	Skip
316.4	In the last 12 months, have any of an outreach	Yes 1	
	worker, a peer educator or a staff from a needle	No2	
	exchange program given you a new	Don't' remember	
	needle/syringe?	No response	
317	Are you currently under treatment (or receiving	Currently under treatment1	
	help) or have you ever received treatment (or help)	Was in treatment but not now2	
	because of your drug use?	Have never received treatment3—	<b></b> 401
		No response	
318	How many months ago did you last receive	Martha	
	treatment or help for your drug use?	Months	
		No response	
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 Possi		
	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		

#### SEXUAL HISTORY 4.0

Q.N.	Questions	Coding Categories	Skip
401	How old were you at your first sexual intercourse?	Years old	▶ 601
		0	
		Don't know	
402	Have you had sexual intercourse in the last 12 months?	Yes	- 404
403	In total, how many different female sexual partners have you had sex in the last 12 months?	Total Number	
403.1	How many were female "regular partners"?	Number	
	(Your wife or live-in sexual partners)	Don't know	
403.2	How many were female "sex worker"?	Number	
	(Partners to whom you bought or sold sex in	Don't know	
	exchange for money or drug)	110 response	

Q.N.	Questions	Coding Categories Skip
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)	Number98Don't know98No response99
404	We have just talked about your female sexual partners? Have you ever had any male sexual partners also?	Yes 1 No
404.1	If yes, have you had anal sex with any of your male partners in the last 12 months?	Yes
404.2	With how many different male partners have you had anal sex in the last 12 months?	Number
404.3	The last time you had anal sex with a male sex partner did you and your partner use a condom?	Yes
404.4	How often have you used a condom in an anal sex with male sex partner in the past 12 months	Every Times1Almost Every Times2Some Times3Never Used4Don't Know98No response99

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

Q. N.	Questions	Coding Categories	Skip
501.	Did you have sex with female regular partner	Yes1	
	(wife or live-in partner) during last 12 months?	No2—	→ 502
501.1	Think about your most recent female regular	Times	
	sexual partner. How many times did you have	Don't know	
	sex with her during last one-month?	No response	
501.2	The last time you had sex with a female regular	Yes1-	▶ 501.4
	partner did you and your partner use a condom?	No2	
		Don't know98	501.4
		No response99_	
501.3	Why did not you or your partner use a condom	Not available1	
	that time?	Too expensive2	
		Partner objected3	
	(Do not read the possible answers, multiple	Don't like them4	
	answer possible)	Used other contraceptive5	
		Didn't think it was necessary6	
		Didn't think of it7	
		Other (Specify) 96	
		Don't know	
<b>501 4</b>		No response	
501.4	How often have you used a condom with female	Every times1	
	regular partners in the past year?	Almost every-times2	
		Sometimes	
		Don't know	
		No response99	

Q. N.	Questions	Coding Categories	Skip
501.5	Did your female regular partner also inject	Yes1	
	drugs?	No2	
		Don't know98	
		No response	
501.6	Have you ever had anal sex with your female	Yes1	
	regular partners?	No	502
		Don't know	502
501.7	The last time you had anal-sex with a female	Yes1	
501.7	regular partner did you and your partner use a	No2	
	condom?	Don't know98	
		No response99	
501.8	How often have you used a condom in an anal-	Every times1	
	sex with female regular partners in the past 12	Almost every-times2	
	months?	Sometimes3	
		Never used4	
		Don't know	
502	Did you have a sexual intercourse with a female	No response	
502	sex worker in last 12 months?	No	▶ 503
	(Check 403.2 and circle the response of Q. 502)	100	F 505
	Think about the female sex workers that		
	you have had sex in the past one-	No	
502.1	month.	Don't know	
	In total how many female sex workers you sold	No response99	
502 1 1	sex in exchange for money or drugs?		
502.1.1	With how many sex workers you had sex in last month by paying them money or drugs?	No	
	month by paying them money of drugs?	Don't know98	
		No response99	
502.2	Think about your most recent female sex	Times	
	worker. How many times did you have sexual	Don't know	
	intercourse with her in the past one-month?	No response99	
502.3	The last time you had sex with a female sex	Yes1-	→ 502.5
	worker did you and your partner use a condom?	No2	
		Don't know	502.5
502.4	W/here did used assess and assess of the	No response	
502.4	Why did not you and your partner use a condom that time?	Not available   1     Too expensive   2	
		Partner objected	
		Don't like them	
		Used other contraceptive5	
	(Do not read the possible answers, multiple	Didn't think it was necessary6	
	answer possible)	Didn't think of it	
		Other (Specify) 96 Don't know	
		No response	
502.5	How often have you used a condom with female	Every times1	
	sex workers in the past year?	Almost every-times2	
		Sometimes	
		Never used4	
		Don't know	
500 6		No response	
502.6	Do you know whether female sex worker with	Yes1 No2	
	whom you had sex also injected drugs?	No	
		No response	
	L		1

Q. N.	Questions	Coding Categories	Skip
502.7	Have you ever had anal sex with your female	Yes1	
	sex workers?	No2	n I
		Don't know98	503
		No response99	J
502.8	The last time you had anal-sex with a female sex	Yes1	
	worker did you use a condom?	No2	
		Don't know98	
		No response	
502.9	How often have you used a condom in an anal	Every times1	
	sex with female sex workers in the	Almost every-times2	
	past 12 months?	Sometimes	
		Never used4	
		Don't know	
502		No response	
503	Did you have a sexual intercourse with a female	Yes1	5.04
	non-regular sex partner during last 12 months?	No2-	→ 504
	(Check 403.3 and circle the response of Q. 503)		
503.1	Think about your most recent female non-		
505.1	regular sexual partner. How many times did you	Times	
	have sexual intercourse with her over the past	Don't know98	
	one-month?	No response	
503.2	The last time you had sex with a female non-	Yes1-	▶ 503.4
	regular partner did you and your partner use a	No2	
	condom?	Don't know98	503.4
		No response99_	503.4
503.3	Why did not you and your partner use a condom	Not available1	
	that time?	Too expensive2	
		Partner objected	
		Don't like them4	
		Used other contraceptive5	
	(Don't read the possible answers, multiple	Didn't think it was necessary	
	answer possible)	Didn't think of it	
		Other (Specify) 96 Don't know	
		No response	
503.4	How often have you used a condom with a	Every times	
505.4	female non-regular partner in the past year?	Almost every-time	
	remaie non regular paraler in the past year?	Sometimes	
		Never used4	
		Don't know	
		No response	
503.5	Did you know whether your female non-regular	Yes1	
	partners also injected drugs?	No2	
	-	Don't know98	
		No response	
503.6	Have you ever had anal sex with your female	Yes1	
	non-regular partners?	No2-	$\uparrow$
		Don't know	504
502.5		No response	۲
503.7	The last time you had anal sex with a female	Yes1	
	non-regular partner, did you and your partner	No	
	use a condom?	Don't know	
		No response99	

Q.N.	Questions	Coding Categories	Skip
503.8	How often have you used a condom in an anal-sex	Every times 1	
	with female non-regular partners in the past year?	Almost every-times 2	
		Sometimes	
		Never used	
		Don't know	
		No response	
504	Have you had anal sex with a male partner in the	Yes	
201	past one year?	No	▶ 505
	(See the response in Q. 404.1 and circle Q. 504	100	1 202
	response)		
504.1	Think of your last male sex partner with whom		
	you had anal sex: in the last one month, how many	Times	
	times you had anal sex with him?	Don't know	
		No response	
504.2	The last time you had anal sex with him; did you	Yes 1-	▶ 504.4
	use condom?	No2 _	L
		Don't know	-504.4
		No response	504.4
504.3	Why didn't you use condom at that time?	Not available1	
501.5	why didn't you use condonn at that time.	Too expensive	
		Partner objected	
	(Don't read possible answer, multiple answer	Don't like	
	possible)	Used other contraceptive	
	possible)	Didn't think it was necessary	
		Didn't think it was necessary	
		Other (Specify) 96	
		Don't know	
504.4	How often have you used a condom during anal	No response	
504.4	How often have you used a condom during anal	Every times 1	
	sex with a male partner is the past year?	Almost every-times	
		Sometimes	
		Never used	
		Don't know	
504.5		No response	
504.5	Do you know if your male partner with whom you	Yes 1	
	had anal sex also injected drugs?	No	
		Don't know	
		No response	
505	Have you had sexual intercourse in the last month?	Yes	
		No	
		Don't know	507
		No response99_	Υ
505.1	If yes, did you or your partner use a condom when	Yes 1	
	you had last sex in the last month?	No2	
		Don't know	
		No response99	
506	In the last month, how often did you or your	Every times 1	
	partner use a condom when you had sex?	Almost every-times 2	
	•	Sometimes	
		Never used 4	
		Don't know	
		No response	

Q.N.	Questions	Coding Categories	Skip
507	With whom did you have the last sexual intercourse?	FSW       1         Regular partner       2         (Wife or live in sexual partner)       2         Other female friend       3         Male friend       4	
		Did not have sexual contact in the past year	→ 601
508	Did you use condom in the last sexual intercourse	Yes	

#### 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)

Q. N.	Questions	Coding Categories	Skip
601	Have you ever heard of a condom? (Show picture or sample of condom)	Yes1 No2 Don't know98	701
602 603	Have you ever used a condom? Do you know of any place or person from which you can obtain condom?	No response         99           Yes         1           No         2           Yes         1           No         2           No         2           No         9           No         9           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	
604.1	Did any organization give you condom in the last 12 months?	Yes, free of cost1 Yes, by taking money2 No3	
605	How long would it take ( <i>from your house or the place where you work</i> ) to obtain a condom?	Less than 30 minutes	

Q. N.	Questions	Coding Categories	Skip
701	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes1 No2— No response99—	704
702	Can you describe any symptoms of STIs in women?	Lower abdominal pain1 Genital discharge2 Foul smelling3 Burning pain on urination4	
	(Do not read possible answers, multiple answers possible.)	Genital ulcers/sore	
703	Can you describe any symptoms of STIs in men?	Genital discharge1 Burning pain on urination2 Genital ulcers/sore blister3	
	(Do not read possible answers, multiple answer possible)	Swellings in groin area4Others (Specify)96Don't know98No response99	
704	Have you had genital discharge/burning urination during the last 12 months?	Yes1 No2- Don't know98 No response99_	705
704.1	Currently, do you have genital discharge/burning urination problem?	Yes1 No2 Don't know98 No response99	
705	Have you had a genital ulcer/sore blister during the last 12 months?	Yes1 No2- Don't know98 No response99_	-706
705.1	Currently, do you have genital ulcer/sore blister?	Yes	
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	

## 7.0 KNOWLEDGE AND TREATMENT OF STIS

8.0 Q. N.	Questions	Coding Categories	Skip
801	Have you ever heard of HIV or the disease	Yes1	экір
801	called AIDS?	No	
	called AIDS!	No response	
000		-	
802	Do you know anyone who is infected with HIV	Yes1	
	or who has died of AIDS?	No	<b>→</b> 804
		No response	
803	Do you have close relative or close fried who is	Yes, a close relative1	
	infected with HIV or has died of AIDS?	Yes, a close friend2	
		No	
004		No response	
804	Can a person protect himself/herself from HIV,	Yes1	
	the virus that causes AIDS, by using a condom	No	
	correctly during each sexual act?	Don't know	
805	Con a parson get HIV from magguite hite?	No response	
805	Can a person get HIV, from mosquito bites?	Yes1 No2	
		Don't know	
		No response	
806	Can a person protect himself/herself from HIV,	Yes1	
800	by having only one uninfected faithful sex	No2	
	partner?	Don't know	
	purtier.	No response	
807	Can a person protect himself/herself from HIV,	Yes1	
007	by abstaining from sexual intercourse?	No2	
		Don't know98	
		No response99	
808	Can a person get HIV, by sharing a meal with	Yes1	
	someone who is infected?	No2	
		Don't know98	
		No response	
809	Can a person get HIV, by getting injections with	Yes1	
	a needle that was already used by someone else?	No2	
		Don't know98	
		No response99	
810	Can a person who inject drug protect	Yes1	
	himself/herself from HIV, the virus that causes	No2	
	AIDS, by switching to non-injecting drugs?	Don't know98	
	(Oral or inhaling drugs)	No response99	
811	Can a pregnant woman infected with HIV	Yes1	
	transmit the virus to her unborn child?	No2	
		Don't know	> 813
010		No response	μ
812	What can a pregnant woman do to reduce the	Take medication	
	risk of transmission of HIV to her unborn child?	(Antiretroviral)1	
	(Do not read the possible answers, multiple	Others (Specify) 96	
	answer possible)	Don't know	
Q12	Can women with HIV transmit the virus to her	No response	
813	newborn child through breast-feeding?	Yes1 No2	
	newborn child unough bleast-reeding?	No	
		No response	
813.1	Do you think a healthy-looking person can be	Yes1	
015.1	infected with HIV?	No2	
		Don't know	
		2 on t know	

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

Q. N.	Questions	Coding Categories	Skip
813.2	Can a person get HIV by shaking hand with an	Yes1	
	infected person?	No2	
		Don't know98	
813.3	Can blood transfusion from an infected person	Yes1	
	to the other transmit HIV?	No2	
		Don't know98	
814	Is it possible in your community for someone to	Yes1	
	have a confidential HIV test?	No2	
	(By confidential, I mean that no one will	Don't know98	
	know the result if you don't want him or her	No response99	
	to know it.)		
814.1	Do you know where to go for HIV test?	Yes1	
		No2	
815	I don't want to know the result, but have you	Yes1	
	ever had an HIV test?	No2-	<b>9</b> 01
		No response99_	
816	Did you voluntarily take up the HIV test, or	Voluntary1	
	were you required to have the test?	Required2	
		No response99	
817			
817.1			
818	When did you have your most recent HIV test?	Within the past 12 months1	
		Between 13-24 months2	
		Between 25-48 months3	
		More than 48 months4	
		Don't know	
819	Discourse do not tall me the recult but did find	No response	<b>N</b> 001
819	Please do not tell me the result, but did you find	Yes1– No2	<b>9</b> 01
	out the result of your HIV test?	No2 No response	► <u>901</u>
010.1			► 901
819.1	Why did you not receive the test result?	Sure of not being infected	
		Afraid of result	
		Felt unnecessary	
		Forgot it4Others (Specify)96	
		No response	
		110 105001150	

## 9.0 AWARENESS OF HIV/AIDS

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

Q. N.	Questions	Coding (	Categories	Skip to Q.N.
901	Of the following sources of information, from whi HIV/AIDS? ( <i>Read the following list, multiple answers possible</i> )		1 learned about	
	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 iter ( <i>Multiple answer possible, read the list</i> )	ms in the past year?	<u> </u>	
	Items	Yes	No	
	1. Condom	1	2	7
	2. Brochure/Booklets/Pamphlets about HIV/AIDS	1	2	1
	3. Information about HIV/AIDS	1	2	7
	96. Others (Specify)	1	2	1

Q. N.	Questions	Coding C	Categories	Skip
1001	In the past one-year have you seen, read or heard a	any advertisements a	bout condoms	
	from the following sources?			
	(Read the following list, multiple answer possible	·)	[	
	Sources	Yes	No	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	
	8. Friends/Neighbors	1	2	
	9. NGOs	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
	17. Community Workers	1	2	
	96. Others (Specify)	1	2	
1002	Have you ever seen, heard or read following mess	ages/characters duri	ng past one vear?	
	(Multiple answer possible)	-8	-8 F ) )	
	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	Yes	1	
	materials other than mentioned above?	No		→ 1004
1003. 1	What? Have you seen, read or heard of ?			
1004	Generally, where do you gather to inject drug?			

## 10.0 PROMOTION OF CONDOM (If answer to Q. 601 "No" Go to Q. 1004)

Q. N.	Questions	Coding Categories	Skip
1005	How many IDUs do you know who also know you well?	Total	
	Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months	Don't know	1008
1005. 1	Among them, how many are male and female?	Male           Female           Don't know	
1006	Among those persons, please try to estimate the number of people by range of age:	Less than 15 years old	
1007	Again, among those, please try to estimate the number of people by religion:	HinduBuddhist	
1008	How is the person who gave you the coupon related to you ? (For Pokhara and Kathmandu only)	A close friend1A friend2Your sexual partner3A relative4A stranger5Others (Specify)96Don't know98No response99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
1101	Have you met or discussed or interacted with	Yes1	
	Peer Educators (PE) or Outreach Educators (OE)	No2—	▶1105
	or Community Mobilizes (CM) or Community	No response99	
	Educators (CE) in the last 12 months?		
1102	What activities did these PE or OEs involve you	Discussion on how HIV/AIDS	
	in when you met them?	is/isn't transmitted1	
		Discussion on how STI is/isn't	
	(Multiple answers. DO NOT READ the	transmitted2	
	possible answers)	Discussion on safe injecting	
		behavior	
		Regular/non-regular use of	
		condom4	
		Demonstration on using	
		condom correctly5	
1102		Others (Specify) 96	
1103	Do you know which organization were they from?	KCC1	
		HELP	
		KYC3	
	(Multiple answers. DO NOT READ the	PSK	
	possible answers)	LALS	
		Youth Vision	
		Naulo Ghumti7	
		CSG	
		INF (Nepalgunj)9 SMF10	
		AHH11	
		RICHMOND12	
		Nav Kiran	
		Jhapa Plus	
		Namuna	
		Others (Specify) 96	
		Don't know	
1104	How many times have these PE, OE, CM and/or	Once1	
	CE met you in the last 12 months?	2-3 times2	
		4-6 times3	
		7-12 times4	
		More than 12 times5	
1105	Have you visited or been to any out reach center	Yes1	
	(DIC, IC or CC) in the last 12 months?	No2-	▶ 1109
	Drop-In Center (DIC), Information Center		
	(IC), Counseling Center (CC)		
1106	What did you do when you went to the out reach	Went to collect condoms1	
	center (DIC,IC or CC) in the 12 last months ?	Went to learn the correct way of	
		using condom2	
	(Multiple answers. DO NOT READ the	Went to learn about the safe	
	possible answers)	injecting behavior3	
		Went to watch film on HIV/AIDS4	
		Participated in discussion on	
		HIV transmission5	
		Went to have new syringe6	
		Other (Specify)96	
1107	Do you know which organizations run those out	KCC1	
	reach center (DIC, IC or CC)?	HELP2	
		KYC3	
		PSK4	

## 11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

IBBS / IDUs in Western to Far Western Terai Report - 2009

Q. N.	Questions	Coding Categories	Skip to Q.N.
	(Multiple answers. DO NOT READ the	LALS5	-
	possible answers)	Youth Vision6	
	•	Naulo Ghumti7	
		CSG8	
		INF (Nepalgunj)9	
		SMF10	
		AHH11	
		RICHMOND12	
		Nav Kiran13	
		Jhapa Plus14	
		Namuna15	
		Others (Specify) 96	
		Don't know98	
1108	How many times have you visited out reach	Once1	
	centers (DIC, IC or CC) in the last 12 months?	2-3 times2	
		4-6 times	
		7-12 times4	
		More than 12 times5	
1109	Have you visited any STI clinic in the last 12	Yes1	1110
	months?	No2-	▶1113
1110	What did you do when you visited such STI	Blood tested for STI1	
	clinic?	Physical examination conducted for	
		STI identification	
	(Multiple answers. DO NOT READ the	Discussion on how STI is/isn't	
	possible answers given below)	transmitted	
		Discussion on safe injecting behavior4	
		Regular/non-regular use of	
		Condom	
		Took a friend with me	
		Other (Specify)96	
1111	Do you know which organizations run those STI	AMDA	
	clinics?	SACTS2	
		NFCC	
		CAC4	
	(Multiple answers. DO NOT READ the	Paluwa5	
	possible answers)	Siddhartha Club6	
		NRCS	
		NSARC8	
		FPAN	
		Others (Specify)96 Don't know	
1112	How many times have you visited STI clinic in	Once	
1112	the last 12 months?	2-3 times2	
		4-6 times	
		7-12 times4	
		More than 12 times	
1113	Have you visited any Voluntary Counseling and	Yes1	
1115	Testing (VCT) centers in the last 12 months?	No2—	1117
	resung (ver) centers in the last 12 monthls?	110	▶1117

Q. N.	Questions	Coding Categories	Skip to Q.N.
1114	What did you do when you visited such VCT center/s? (Multiple answers. DO NOT READ the	Received pre-HIV/AIDS test counseling1 Blood sample taken for HIV/AIDS test2 Received post HIV/AIDS test	
	possible answers)	counseling	
		Took a friend with meOther (Specify)96	
1115	Do you know which organizations run those VCT centers?	AMDA         1           Youth Vision         2           SACTS         3           NFCC         4	
	(Multiple answers. DO NOT READ the possible answers)	CAC       5         Naulo Ghumti       6         NSARC       7         NRCS       8         FPAN       9         WATCH       10         Namuna       11         Others (Specify)       96         Don't know       98	
1116	For how many times have you visited VCT center in the last 12 months?	Once1         2-3 times	
1117	Have you ever participated in HIV/AIDS awareness raising program or community events in the last 12 months?	Yes1 No2—	→1121
1118	If Yes, What activities did you participate in? (Multiple answers. DO NOT READ the possible answers)	Street drama	

Q. N.	Questions	Coding Categories	Skip
1119	Do you know which organizations organized	AMDA1	
	those activities?	HELP2	
		KYC3	
	(Multiple answers. DO NOT READ the	Youth Vision4	
	possible answers given below)	NFCC5	
		LALS6	
		Naulo Ghumti7	
		WATCH8	
		GWP9	
		NRCS10	
		NSARC11	
		AHH12	
		Recovery Nepal13	
		SAHARA14	
		CSG15	
		Others (Specify)96	
		Don't know98	
1120	How many times have you participated in such	Not participated within last year0	
	activities in the last 12 months?	Once1	
		2-3 times2	
		4-6 times3	
		7-12 times4	
		More than 12 times5	
1121	Have you heard of any Community Home Based	Yes1	
	Care (CHBC) services that are provided for HIV	No2	
	positive people?		
1122	Have you heard of care and support programs that	Yes1	
	provide information regarding ART and ART services	No2	
	necessary for HIV infected people?		
			L

#### 12.0 STIGMA AND DISCRIMINATION

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

## **ANNEX – 4: 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, Pokhara Valley, Eastern <i>terai</i> Districts, and Western to Far Western <i>terai</i> Districts.
Sponsor:	ASHA Project- FHI/Nepal and USAID/Nepal
Principal Investigator/s:	Satish Raj Pandey, FHI/Nepal Laxmi Bilas Acharya, FHI/Nepal
Address:	GPO Box 8803 Gopal Bhawan, Anamika Galli, Ward No4, Baluwatar, Kathmandu, Nepal Phone: +977 1 443 7173 FAX: +977 1 441 7475
Introduction	

#### Introduction

We are asking you to take part in research study to collect information on knowledge of human immunodeficiency virus (HIV)/ sexually transmitted infections (STIs), HIV/STI related risk behaviors, STI treatment practices and to measure the prevalence of HIV and STI among the populations like you. We want to be sure you understand the purpose and your responsibilities in the research before you decide if you want to be in it. Please ask us to explain any words or information that you may not understand. This discussion is the process needed before the study occurs. You will not be asked to sign this form, and you are only to tell us you understand it and whether you agree to participate in this research. One person will explain you about the study and another person will witness the consent taking process. Both consent taker and the witness will sign the form.

#### **Information about the Research**

In total 1245 male injecting drug users (IDUs) will be selected for interview from Kathmandu Valley, Pokhara Valley, Eastern terai highway districts and Western to Far Western terai highway districts. You are in the pool of possible candidates, but the final selection would be based on your choice. Study participants in the Kathmandu Valley and the Pokhara Valley will be selected by a process in which individuals who have participated in the study invite others they know to participate. In the Eastern terai highway districts and western to far western terai highway districts two stage cluster sampling method will be used to select study participants. We will ask you some questions and then ask you to provide blood sample for HIV and syphilis test. We will draw 5-6 ml blood by 10 ml disposable syringe from your vein in your arm.

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

#### **Possible Risks**

The risk of participating in this study is the minor discomfort during blood drawing. Providing blood sample does not put you at any other risk. Some of the questions we ask make you feel 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 at such time you will get counseling on HIV and STI through a qualified counselor. They will provide information about STIs and counseling for any mental stress you have.

There may be some risk that people may see you associated with the study, either now or when you return for your test results. If you know the status of your HIV and other STI tests you may have some mental stress related to the treatment of STI and other related issues.

#### **Possible Benefits**

You will be provided with free treatment, if currently you have any STI symptoms. You will be given lab test results of HIV and Syphilis and made aware of how STI/HIV is transmitted and how it can be prevented and controlled. If your STI tests are positive for the curable sexual infection such as syphilis and you have not already been treated for this, you will be offered free treatment. We will refer you for treatment for HIV but will not provide this treatment for you. If you go to the ART sites/hospital run by the Government of Nepal, you will get service free of cost. You will also be provided with information on safer sex to reduce your risk of being infected by or infecting your sexual partners. 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 diseases in your cities and particularly among your community.

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

#### If You Decide Not to Be in the Research

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

#### Confidentiality

We will protect information collected about you and your taking part in this study to the best of our ability. We will not use your name in any reports. 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 on this form, but only ask you to agree verbally (with spoken words).

#### Payment

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

#### Leaving the Research

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

#### If you have a questions about the study

If you have any questions about the research, please contact:

*Satish Raj Pandey*, ASHA project - FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173; **OR** *Siddhartha Man Tuladhar*, New ERA, Kalopool, Kathmandu, Phone: 01-4413603; **OR** *Laxmi Bilas Acharya*, ASHA project - FHI/Nepal, Baluwatar, Kathmandu, Phone: 01-4437173 We will not be able to pay for/care for injuries that occur as a result of the study.

#### Your Rights as a Participant

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

#### **VOLUNTEER AGREEMENT**

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

Signature of witness

Date

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

Signature of Person Who Obtained Consent

Date

# **ANNEX – 5: Study Centers**

District	Study centers	No. of Centers	Sample Covered	Total Sample
Kanchanpur	Bhimdutta Nagar		40	
Kailali	Dhangadhi		50	
Banke	Nepalgunj		60	
Dunandahi	Bhairahawa	6	35	300
Rupandehi	Butwal		85	
Kapilbastu	Taulihawa		30	

# **ANNEX – 6: HIV Prevalence by Study Districts**

Study Center (District)	Third Round (2009)		
	Total Sample	HIV+	%
Bhairawa/Butwal (Rupandehi)	120	10	8.3
Taulihawa (Kapilbastu)	30	0	0.0
Nepalgunj (Banke)	60	14	23.3
Dhangadi (Kailali)	50	0	0.0
Bhimdutta Nagar (Kanchanpur)	40	0	0.0
Total	300	24	8.0

## ANNEX – 7: Clinical/Lab Checklist

#### CONFIDENTIAL

#### INTEGRATED BIO- BEHAVIORAL SURVEY (IBSS) AMONG INJECTING DRUG USERS IN SELECTED SITES OF NEPAL FHI/NEW ERA/SACTS – 2009

#### **Clinical/Lab Checklist** Date: 2065/ / Respondent ID Number: Name of Clinician: Name of Lab Technician: (33A) Clinical TEST (B) Specimen Collection No Yes : Kg. 1 2 Weight Pre-test counseled B.P. : _____mm of Hg Blood Collected for HIV & Syphilis 2 1 Pulse :_____ Date & place for post-test results given 2 1 Temperature: _____ ° F 2 Condom given 1 IEC materials given 1 2 1.0 **Syndromic Treatment Information** 101. Have you experienced genital discharge/burning urination/swelling and tenderness of testis or epididymis in the past one month? 1. Yes 2. No [If yes, give urethral discharge/scrotal swelling syndrome treatment]

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

1. Yes2. No[If yes, give genital ulcer syndrome treatment and time for follow-up]

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

1. Yes2. No[If yes, give inguinal swelling (bubo) syndrome treatment and time for follow-up]

Date	Counseling Center	Total	Client Counseled		Client with	Client with
		Sample	Ν	%	HIV+	HIV-
15 – 22 March. 2009	Bhimdutta Nagar	40	4	10.0	0	4
03 – 22 March. 2009	Dhangadhi	50	4	8.0	0	4
12 February – 01 March, 2009	Nepalgunj	60	8	13.3	3	5
10 – 16 February, 2009	Bhairahawa	35	4	11.4	0	4
17 – 27 February, 2009	Butwal	85	11	12.9	0	11
06 – 13 March, 2009	Taulihawa	30	4	13.3	0	4
	Total	300	35	11.7	3	32

## **ANNEX – 8:** Participation in Post Test Counseling

# ANNEX – 9: Reasons for Not Injecting Drugs on the Previous Day of the Survey

Reasons for not injected on the Previous day*	n = 150	%
Lack of money	77	51.3
To quit slowly	24	16.0
Taking other medicines	22	14.7
Unavailability/ Lack of drugs	19	12.7
Busy in house work/lack of time	16	10.7
Illness	2	1.3
Guardian not allowed to go outside	2	1.3
Not a regular User (do drugs sometimes only)	2	1.3
Fear of being arrested by police	2	1.3
Others	2	1.3

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

# **ANNEX – 10:** Typical Injecting Points

Typical Injection Points	N=300	%
Calf	171	57.0
Upper arm	45	15.0
Thigh	44	14.7
Wrist	24	8.0
Forearm	4	1.3
Palm	4	1.3
Finger	3	1.0
Armpit	2	0.7
Others	3	1.0

# **ANNEX – 11:** Gathering Place to Inject Drugs

Gathering Places of IDUs to Inject Drugs	N=300	%
Forest/Bushes/Farm/Lawn/bamboo field	127	42.3
Own room/friend's room/ drug seller's/ user's home	51	17.0
River bank/Slum area/Pond	20	6.7
Toilet/Public toilet	18	6.0
Around school/Campus	6	2.0
Sunauli (India)	55	18.3
Gaurifanta (India)	3	1.0
Rupediya (India)	8	2.7
Temple	4	1.3
Others	8	2.7

# **ANNEX – 12: Combination of Different Drugs Injected**

Types of Combinations	N=212
Phenargan + Lubrigesic	65
Diazepam + Tidigesic + Hydrocole	49
Diazepam + Tidigesic + Phenargan	20
Diazepam + Phenargan + Lubrigesic	15
Diazepam + Lubrigesic + Hydrocole	9
Tidigesic + Phenargan + Hydrocole	7
Norphin + Diazepam + Phenargan	6
Diazepam + Tidigesic	5
Norphin + Phenargan	3
Tidigesic + Phenargan	3
Diazepam + Phenargan	3
Phenargan + Calmpose + Lubrigesic	3
Diazepam + Calmpose	2
Tidigesic + Phenargan + Calmpose	2
Diazepam + Proxygin	2
Brown Sugar + Vitamin C	2
Fortwin + Stargun	2
Norphin + Avil + Diazepam + Spamindan	1
Tidigesic + Phenargan + Hydrocole	1
Norphin + Diazepam + Phenargan	1
Diazepam + Tidigesic + Calmpose	1
Tidigesic + Calmpose + Hydrocole	1
Phenargan + Lubrigesic + Hydrocole	1
Diazepam + Lubrigesic	1
Norphin + Phenargan + Hydrocole	1
Diazepam + Fortwin	1
Calmpose + Brown Sugar	1
Diazepam + Tidigesic + Brown Sugar + Vitamin C	1
Norphin + Diazepam + Nitrosun	1
Diazepam + Tidigesic + Proxygin	1
Norphin + Avil + Diazepam + Phenargan + Stargun	1
Note: Because of multiple answers, numbers may add up to more than 100.	

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

## ANNEX – 13: Drug Switching Practice of IDUs and Reasons for Such Change

Drug Switching Behavior of IDUs	Ν	%
Switched from one drugs to another drugs in past month		
Yes	8	2.7
No	292	97.3
Total	300	100.0
Name of old and new drugs		
Tidigesic to Brown Sugar	2	25.0
Norphin + Nitrovate to Brown Sugar	1	12.5
Diazepam + Tidigesic to Brown Sugar	2	25.0
Tidigesic to Proxyvon	1	12.5
Diazepam + Tidigesic + hydrocole to Norphin + Diazepam + hydrocole	1	12.5
Norphin + Diazepam to Brown Sugar + Corex + Nitrosun	1	12.5
Total	8	100.0
Reasons for changing drugs		
Lack of money	3	37.5
Non-availability/scarcity of drugs	5	62.5
Others	1	12.5
Total	8	*

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

# **ANNEX – 14:** Name of the Institution and Types of Treatment Received

Types of Treatments Types of Institutions n=105	Residential Rehabilitati on	Help for Cold turkey	Without drug	With other drug	Out Patient Counseling	Detoxific ation with Metha- done	Other treat- ment/ help
-, pes of mononon-100	%	%	%	%	%	%	%
Sahara Treatment Center	18.1	-	-	-	-	-	-
Richmond Fellowship	17.2	-	1.9	-	1.0	-	-
Lumbini Punarsthapana	15.2	-	-	-	-	-	-
Youth Vision	4.8	-	-	-	-	-	-
Naulo Ghumti	3.8	-	-	-	-	-	-
Happy Nepal Wisdom Foundation	3.8	-	-	-	-	-	-
International Nepal Fellowship	2.9	-	-	4.8	4.8	-	-
Tinal Chailence Rehab. centre	2.5	-	-	1.0	-	-	-
Nawa Kiran Ashram	-	-	-	1.9	-	-	-
Seren Foundation	1.9	-	-	-	-	-	-
LALS	1.9	-	-	-	-	-	-
Nawa Kiran Rehab. Centre	1.0	-	-	-		-	-
Support and Care Centre	1.0	-	-	-	-	-	-
Own home	-	-	-	-	-	-	1.0
Don't Know	1.9	-	-	-	-	-	-
Others	1.9	1.0	1.0	6.7	3.8	1.0	-
Total	77.1	1.0	2.9	14.3	9.5	1.0	1.0

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

# ANNEX – 15: Reasons for not Using Condom in the Last Sex by Type of Sex Partners

Reasons of not Using Condom in the Last Sexual Intercourse With:	Ν	%
Regular partner		
Didn't think it was necessary	39	40.6
Used other contraceptive	34	35.4
Don't like them	28	29.2
Want to have child	14	14.6
Partner objected	8	8.3
Trust partner	8	8.3
Wife is pregnant	1	1.0
Not available	1	1.0
Others	2	2.1
Total	96	*
Sex worker		
Not available	14	45.2
Don't like them	14	45.2
Didn't think of it	3	9.7
Trust own partner	1	3.2
Didn't think it was necessary	1	3.2
Others	3	9.7
Total	14	*
With non- regular partner		
Not available	11	32.4
Don't like them	9	26.5
Didn't think it was necessary	9	26.5
Trust partner	5	14.7
Partner objected	3	8.8
Didn't think of it	2	5.9
Used other contraceptive	1	2.9
Others	1	2.9
Total	34	*