Integrated Biological and Behavioral Surveillance (IBBS) Survey among People who Inject Drugs (PWIDs) in Eastern Terai Highway Districts of Nepal

Round V - 2012

Ministry of Health and Population
National Centre for AIDS and STD Control
Teku, Kathmandu

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Field work conducted by:

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Government of Nepal
Ministry of Health & Population
NATIONAL CENTRE FOR AIDS AND STD CONTROL
4261653
4262753
4258219
Fax: 4261406
E-mail: ncasc@mos.com.np
Website: www.ncasc.gov.np
TEKU, KATHMANDU, NEPAL

Ref. No. .....

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I am confident that the findings of this important survey has provide important evidence of ground reality, and I hope the results help in framing policies to fight HIV in the country through improved HIV response plans.

Dr Naresh Pratap KC
Director

SURVEY TEAM

Investigators:

Dr Krishna Kumar Rai, Deepak Kumar Karki, Shambhu Kaphle

Survey Management and Monitoring Team:

Dr Sameer M Dixit, Rajesh Man Rajbhandari, Nischal Basnet, Biwesh Ojha, Keshab Deuba

Consultant:

Keshab Deuba

Survey Management and Monitoring Team:

Dr Sameer M Dixit, Rajesh Man Rajbhandari, Nischal Basnet

Intrepid Nepal Survey Members:

Dr Sameer M Dixit, Rajesh Man Rajbhandari, Nischal Basnet,
Bishwo Shrestha, Bishnu Nepal, Sanjeev Dhungel

Survey Field Team:

Shanti Ram Dahal, Hari Karki, Lomas Adhikari, Shubham Shrestha, BinitaTimilsina, Bibek Timilsina, Yogendra Shah, Hari Paneru

Data Entry, Management and Analysis Team:

Sanjeev Dhungel, Shekhar Devkota, Bandana Mainali, Latasha Chhetri, Manisha Subedi, Anupa Ghimire, Jasmine Maharjan, Priti Shrestha, Sizerin Dhungel

Laboratory Team:

Manoj Das, Tesilal Gupta

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LIST OF ABBREVIATIONS

AMDA	Association of Medical Doctors of Asia
ARC	Addiction Recovering Center
AIDS	Acquired Immuno-Deficiency Syndrome
BDS	Blue Diamond Society
BPKIHS	B.P. Koirala Institute of Health Science
CMs	Community Mobilizers
DIC	Drop-in-Centre
DYC	Dharan Youth Center
FHI	Family Health International
FPAN	Family Planning Association of Nepal
FSW	Female Sex Worker
GOs	Governmental Organizations
HIV	Human Immuno-Deficiency Virus
IBBS	Integrated Biological and Behavioral Surveillance Survey
ID	Identification Number
PWID	People Who Inject Drugs
IEC	Information, Education and Communication
KCC	Knight Chess Club
KYC	Kirat Yakthum Chumlung
LALS	Life giving and Life Saving Society
MARPs	Most at Risk Populations
MRGM	Mountain Hill Resource Management Group
MSM	Men who have Sex with Men
NCASC	National Centre for AIDS and STD Control
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
NIDS	Naxalbari Integrated Development Society
NPHL	National Public Health Laboratory
OE	Outreach Educator
PE	Peer Educator
PPS	Probability Proportional to Size
RPR	Rapid Plasma Regain
SACTS	STD/AIDS Counseling and Training Services
SIDC	Social Integrated Development Center
SLC	School Leaving Certificate
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
TPHA	Treponema Pallidum Hemagglutination Assay
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
YMC	Youth Mobilization Center

EXECUTIVE SUMMARY

National Centre for AIDS and STD Control (NCASC), Nepal, has developed a comprehensive national surveillance plan for HIV and STI surveillances through a regular Integrated Biological and Behavioral Surveys (IBBS) among Key population at higher Risk. These surveillance studies help in assessing health risk behaviors, measuring prevalence of HIV and Sexually Transmitted Infections (STIs) among high risk populations and monitoring trends in the epidemic; ultimately assisting in plans to respond against HIV/AIDS epidemic in Nepal.

Fifth round of IBBS among 360 male People who inject drugs (PWID) in three Eastern Terai districts (Jhapa, Morang and Sunsari) was conducted by the NCASC with financial support from the Global Fund. This Survey primarily collected strategic information needed to analyze trends in risk behaviors associated with HIV/STI infection among PWID.

Structured questionnaires were developed to capture behavioral data, including information on STI/HIV/AIDS awareness, among respondents. Survey centers with laboratories/clinics were set up at easily accessible locations in all Survey districts. Pre-test counseling sessions were held before the clinical examination and blood sample collection. All the respondents were then examined for clinical symptoms for STI and blood samples were collected for detection of HIV and syphilis infection. Survey participants were provided with treatment for STI if clinical/observational diagnosis was positive. Experienced counselor also provided posttest counseling prior to the distribution of test results for HIV/STI at these sites.

Survey Methodology

The sample size was determined by using a basic statistical formula that estimated a size of 360 samples. Two-stage cluster sampling was used to draw the sample. In the first stage, 30 clusters were selected using the probability proportional to the size (PPS) method and in the second stage equal number of (12) respondents were selected randomly from each selected clusters.

In order to draw up a comparative analysis of the behavioral trends over the years, questions asked during the previous rounds of IBBS surveys were repeated. Strict confidentiality was maintained throughout the Survey process. The respondents were provided a unique ID number. The same ID number was used on the questionnaire, medical records, and blood specimens of the particular respondents. All respondents participated voluntarily in the study. Those who did not meet the Survey criteria and those who were not willing to participate were not involved in the study. The Survey was conducted in compliance with both ethical and human rights standards. These standards included participants' anonymity as well as pre- and post-test counseling. 'Ethical' as well as 'technical' approval was obtained from 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.

Laboratory Methods

Syphilis was tested for using the Rapid Plasma Regain (RPR) test card and confirmed by means of the Serodia Treponema Pallidium Particle Agglutination (TPPA) test. Treponema Pallidum Particle

Agglutination (TPPA)-positive and all samples with positive RPR were further tested for the titre for dilution.

HIV was detected by using Determine HIV 1/2 (Abbott Japan Co. Ltd.) as a first test to detect antibodies against HIV. If the first test showed a negative result then no further test was conducted but if the first test was positive, the 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:

Demographic Characteristics

The participating PWID were mostly youth up to the age of 30 (81%), with median age of 24 years. Almost half (58.4%) of PWID were single. The survey also revealed that more than two third (70%) of the PWIDs was currently living with their sexual partners/ others while remaining (30%) were currently living with their spouse. PWID population in the Eastern Terai was fairly educated - 60% had completed their secondary level of education. The School Leaving Certificate (SLC) course and higher education had been completed by 14 per cent of the respondents. Very few (3%) had never attended school. Overall, half of the respondents (50%) were from disadvantaged janajati group and less than a quarter of the respondents (22.5%) belonged to the "upper cast" groups (Brahmin, Chhetri etc.).

STI and HIV/AIDS Prevalence

Among those tested, 8.1% were found to be HIV-positive (8.1%) and 1.7 percent of PWID were currently infected with Syphilis.

Drug Injecting Practice of PWIDs

More than half of the) PWIDs (64%) had been injecting drugs for more than 5 years while more than quarter (28%) had been injecting for past 2-5 years. Likewise, 8 percent of the PWID had started injecting drugs more recently. As for the frequency of injections on the past one week prior to the interview, a quarter (26%) reported that they injected 4-6 times a week, one fifth (21%) were found to inject 2-3 times a week and about one sixth (17%) injected daily. Only a small proportion of PWID (6%) had injected once a week. Likewise, one third of the respondents (35%) had injected once in the last day prior to interview while 30 percent had not injected at all in the last day. About one fifth (20%) had 2 injections while one-seventh (15%) had 3 or more injections on the last day. The mean number of times that the PWIDs had injected drugs on the last day was less than two (1.3).

Needle/Syringe using Practices

Data showed that many of the PWIDs had avoided high-risk behavior in their last three injections. Overall, 97 percent each in the most recent and the second most recent injections and 90 percent in third most recent injections had used a new syringe/needle which was either self-purchased or provided to them by NGO staff or friends or volunteers. On the other hand, one in ten PWID reported engaging in high-risk behavior in the third most recent injections (10%). Similarly, three percent had shared needle/syringe with at least two injecting partners in the most recent injection. Two percent had shared in a similar fashion in the second (2.2%) and third most recent (2.5%) injections. Findings

showed that 4 percent of the PWIDs interviewed had shared the needle/syringe with 3 or more partners in the third most recent injections. Nearly four-fifth PWID (76%) reported that they had injected drugs in any city/districts in Nepal or in other countries they had visited but most of them (95%) didn't use the needles given by others. Few (7%) PWIDs had given a needle/syringe used by them to someone else at the places they had visited in the past year. It is important to note that the study districts are close to the Indian border and movement across the border is not very difficult

Sexual Behavior and Condom Use

The majority of PWIDs (89%) in the study districts reported to be involved in sexual activity in the past 12 months. Among those, most (84%) had their first sexual contact before they turned 20 years. The median age of the respondents at their first sexual encounter was 16 years. Among sexually active respondent, three fourth (75%) had been sexually active in the last year. More than half (54%) had two or more sex partners during the same period. Nearly half (45%) of PWIDs had sex with non-regular female sex partners in the past year and 59 percent of them had sex with non-regular partners in last month preceding the interview. Among those, 72 percent had 1 to 4 sexual contacts in the last month while 28 percent had 5 or more sexual contacts during the same period. The findings showed that three in four PWID (74%) did not use condom in their last intercourse with their regular sex partner. However, condom use was higher in the last sexual contact with female sex worker (82%) than with non- regular partners (45%) or regular partners (26%).

Majority of respondents (84%) had previously heard about STIs. The respondents' knowledge regarding ways in which HIV is transmitted was also analyzed based on their understanding of the three main HIV/AIDS prevention measures including abstinence from sex (A), being faithful to one sex partner (B), and consistent condom use (C). The majority (81%) of the PWIDs were aware that using a condom every time during sex (C) could prevent them from HIV/AIDS. While three in five (61%) believed that being faithful to one person (B) and nearly half (46%) believed abstinence from sex (A) prevents them from contracting HIV. Additionally, high majority (90%) were aware that a healthy-looking person can be infected with HIV (D) and almost same number of respondents (89%) knew that sharing a meal with an HIV infected person did not transmit HIV (F). About three fifth PWIDs (61%) knew that HIV virus was not transmitted from mosquito bite. Majority of PWIDs reported that a person can get HIV by using a previously used needle/syringe (98%), through the transfusion of blood from an infected person to another (97%), through pregnant women infected by HIV virus to her new born baby (74%). A relatively lower percentage of respondents (51%) thought that women with HIV could transmit the virus to her newborn child through breastfeeding. More than four fifth (88%) had wrong perception that HIV could be transmitted through shaking hands. When asked if they were aware of ways in which a pregnant woman can reduce the risk of transmission of HIV to her unborn child, more than half (54.5%) were unaware of any such measures, while one third suggested that they should take medicine (Antiretroviral) (31%) and follow a doctor's advice (8%).

Knowledge about HIV Testing Facilities

Majority of the PWIDs (87%) were aware of the existence of HIV testing facility in their communities, but a significant number of PWIDs (11%) were unaware of it. Only two thirds of the PWIDs (68%) had agreed to HIV testing and among those most (88%) had received voluntary HIV test. It was found that two in three of the PWIDs (67%) had their test done one year back and less than a quarter (21.5%) had done it in between 13-24 months.

Exposure to HIV/AIDS Prevention Intervention

More than four fifth (88%) of the PWIDs had met PEs/OEs representing various organizations at least once and most reported that they discussed safe injecting behavior (84%), modes of HIV/AIDS transmission (53%), mode of STI transmission (36%). More than half (51%) of PWIDs had met PEs/OEs from Kirat Yakthum Chumlung (KYC). Few had also met PEs/OEs representing Richmond (18%); Knight Chess Club (KCC) (18%) etc. Three fifth (61%) of them were found to meet them more than once a month. Almost all (96%) of the PWIDs had been to the DIC in last one-year time. Majority of those (94%) had been to a DIC to get a new syringe while a quarter (25%) went to learn about the safe injecting behavior. One in five (20%) went to collect condom and learn the correct way to use the condom (15%). About one fifth (19%) had also participated in discussions on HIV transmission in DIC. The majority of the respondents (94%) had not been to a STI clinic in the past year. Almost a half (50%) of PWIDs had been to a HTC center in the past year. Among those, a large majority (92%) had given their blood for HIV testing, 76 percent received pre-test counseling, 73 percent had received test results, 65 percent had received post-test counseling and similar number had received information on safe injecting behavior. One third (36%) of PWID had visited the VCT center

Prevalence of distress and depression

Prevalence of distress and depression (65%) is very high among surveyed PWID.

CHAPTER 1

Introduction

1.1 Background

HIV has been one of the serious public health concerns in Nepal. Ever since the reporting of the first case of HIV/AIDS in Nepal in 1988, HIV/AIDS prevalence and incidence has been on the rise. UNAIDS estimates indicate that approximately 50,200 people [2011] in Nepal are HIV-positive. As of July 2012, a cumulative total of 20853 HIV infections have been reported in Nepal. Key population at higher Risk for HIV/AIDS in Nepal include sex workers (FSW, MSW) and their clients as well as their immediate sex partners, people who inject drugs (PWIDs), migrant workers and men who have sex with men (MSM). Although overall general prevalence for HIV/AIDS is around 0.3% for Nepal; among Key population at higher risk group the prevalence rate is much higher.

The IBBS surveys are conducted at regular intervals in Nepal. Latest round (round ~~IV, 2009~~ V, 2012) of the IBBS survey was conducted among People Who Inject Drugs (PWIDs) in Western and Far Eastern Terai Highway districts: Rupandehi, Kapilvastu, Banke, Kailali and Kanchanpur. PWID is one of the key HIV-risk groups because of their high-risk behavior of sharing needles/syringes between different injecting partners and use of contaminated needles. Moreover, high-risk sexual behavior associated with drug use has also been found to be a major contributing factor to the spread of HIV among the non-injecting population. Round IV (2009) IBBS studies conducted on PWIDs populations in eastern and west and far Eastern districts of Nepal have shown a high prevalence of HIV and STI (Syphilis) in these populations. HIV prevalence among PWIDs varies by location in Nepal. The first round of the IBBS conducted in 2002 indicated quite a high prevalence of HIV (68%) among PWIDs in the Kathmandu Valley. The third round of the IBBS conducted in 2007 indicated a 35 percent HIV prevalence rate among PWIDs in Kathmandu. PWIDs who lived in the Kathmandu Valley had a higher HIV prevalence compared to PWIDs from other places. In Pokhara, 22 percent of PWIDs were found to be HIV positive in 2003 and about 7 percent in the 2007. Similarly, in Eastern Terai HIV among PWIDs was 11.7 percent in 2005 and 11 percent in the 2007 and 8 percent in 2009.

This report focuses on the findings of the fourth round of IBBS carried out among PWIDs in the Eastern Terai and compares the results from all four surveys where possible.

1.2 Objectives of the Survey

In line with the objectives of the previous rounds of the IBBS, the fifth round of the Survey was also undertaken primarily to determine the prevalence of HIV/STIs and assess risk behavior among PWIDs in the Eastern Terai. In addition, this survey collected specific information on PWIDs; their socio-demographic characteristics, the level of awareness about HIV/STIs, as well as their exposure to intervention programs in the Eastern Terai.

The specific objectives include:

- To determine trends of HIV and STI prevalence in PWIDs population of Eastern Terai highway districts;
- To assess HIV and STI-related risk behavior among the PWIDs population of Eastern Terai highway districts;
- To collect information related to socio-demographic characteristics; drug use and needle sharing behaviors; sexual behavior including knowledge and use of condoms; knowledge of HIV/AIDS; knowledge and treatment of STIs; psychosocial factors exposure of PWIDs to available HIV/STI services in selected Survey areas;
- To explore association between the risk behaviors and HIV and other specified sexually transmitted infections among the PWIDs population of Eastern Terai highway districts.

CHAPTER 2

SURVEY METHODOLOGY

2.1 Survey Population

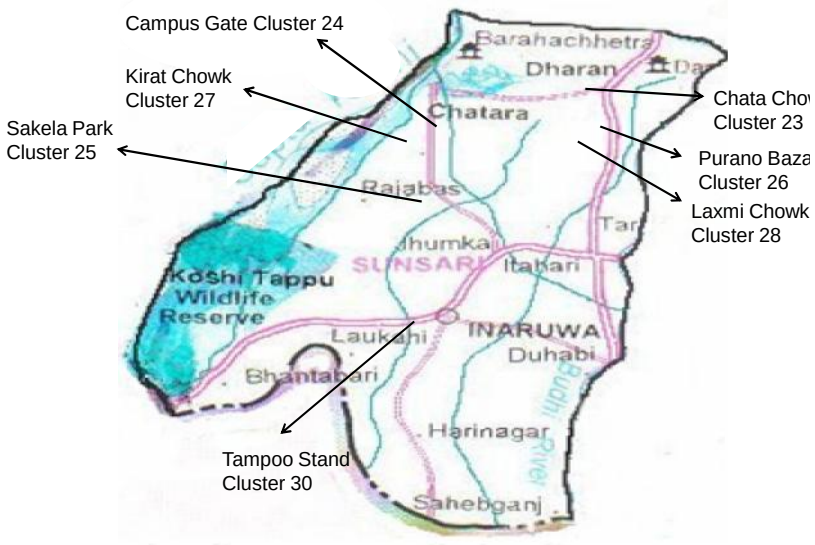
The cross-sectional Survey was conducted among PWIDs from three districts of the Eastern Terai region of Nepal (Jhapa Sunsari and Morang). PWIDs are considered to be one of key population at higher Risk transmitting HIV/STI infection in Nepal.

The survey populations were recruited based on eligibility criteria set by inclusion definition for PWIDs- "those current injectors aged 16 years and above who had been injecting illicit drugs for at least three months prior to the date of survey

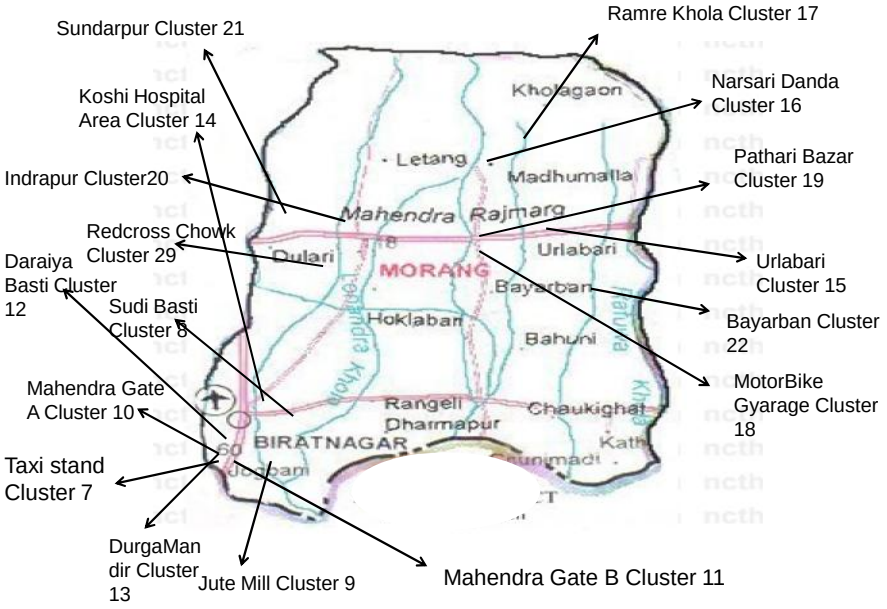
2.2 Survey Sites (Clusters)

This study was conducted on the PWIDs population (N=360) from Eastern districts of Terai region. The study team prepared a list of sites with estimated number of PWIDs where they could be contacted directly in person or through some sources. Considering their geographical proximity and PWIDs size these sites were clubbed to make a cluster. The survey site (clinic) were set up in 6 different locations (Biratnagar, Ithahari, Belbari, Dharna, Britamod and Damak) and each clinic covered PWIDs from clusters within their catchment area. The research site had 8 separate rooms with initial greeting and registration area, clinical observation area laboratory testing area, counseling and interview room. Each of these rooms had appropriate and effective Information, Education and Communication (IEC) materials to provide information on HIV and STI

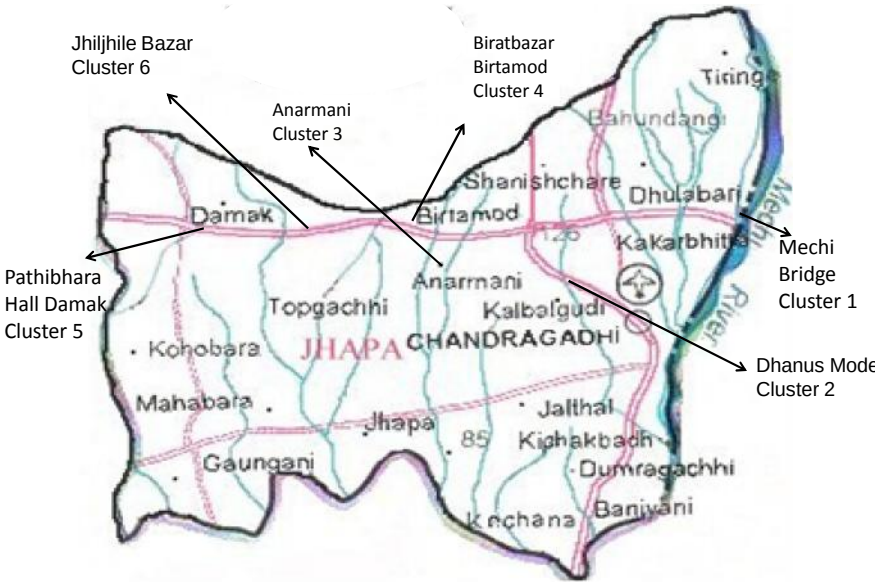
IBBS 2012 PWIDs SURVEY IN SUNSARI DISTRICT



IBBS 2012 PWIDs SURVEY IN MORANG DISTRICT



IBBS 2012 PWIDs SURVEY IN JHAPA DISTRICT



2.3 Sampling

2.3.1 Sample Design

Before the initiation of the study, a preliminary mapping survey was conducted to understand the actual field situation, map out the PWIDs concentration/injecting sites in the Survey districts and estimate their population. National and district level stakeholders including PWIDs network, concerned governmental and non-governmental organizations were consulted. The surveyor visited these sites. Consulted primary, secondary and tertiary stakeholders in that location to estimated maximum and minimum numbers of PWIDs in each site and recorded them.

Two-stage cluster sampling was used to draw the sample. A site with at least 30 PWIDs was defined as a cluster in the first stage. Those sites with less than 30 estimated PWIDs were combined with the neighboring site to make a cluster with a minimum size of 30. In the first stage, 30 Clusters were selected using the probability proportional to size (PPS) method and in the second stage from each selected cluster 12 respondents were selected randomly

Selected sample was identified refereeing to the code list of PWIDs and they were approached with help from field motivators. For hard to access samples, key people were used for identification of selected PWIDs in those sites. Some of the randomly selected PWIDs were not easily accessible as they did not want to disclose their injecting behavior; in such case at least three attempts were made to contact and include such samples in the study. If these attempts were unsuccessful then that person was replaced by the succeeding PWIDs in the sample frame..

Sampling frame and selection of samples

At the time of main survey the population size in each cluster developed from mapping survey were revisited to develop the final sampling frame. The mapping size estimates were shared with government agencies DACC and NGOs working in HIV/AIDS and with PWIDs network in survey districts. The site level latest data available with these organizations were merged with mapping data to develop draft sample frame. This sample frame was verified at site in close consultation with PWIDs peer educators, recovering PWIDs, stakeholders and other key informants like medical shopkeepers, tea shops near the sites. This final sampling frame including program non exposed PWIDs was used to sample the respondents. To maintain strict confidentiality of the respondents the name and address of the PWIDs was not recorded instead a numeric code was assigned to each PWIDs in sample frame. Systematic random sampling method was used for sampling the respondents. Selected respondent was identified referring to the code list of PWIDs and they were approached with help from field motivators. If the respondent was not available for interview or refused to give interview then was replaced by succeeding PWIDs in the sampling frame

2.3.2 Sample Size

The sample size was calculated to detect 15 percent difference in key indicators, such as HIV prevalence and needle/syringe sharing and condom use. The sample size reference in the previous rounds of IBBS in Eastern Terai was used in this round also. The sample size of 360 PWIDs was designed by using a basic statistical formula (Annex 2).

2.3.3 Identification and Recruitment of PWIDs in the Survey

PWIDs (n=12) were randomly selected from each PPS selected cluster. Non-program expose PWIDs were identified referring to the code list and recruited with the help of field motivators. Those PWIDs who do not meet the survey respondent eligibility criteria and also those PWIDs who failed in initial screening process like who don't have injections marks were not included in the survey. Some of the randomly selected PWIDs were not easily accessible as they did not want to disclose their PWIDs status, in such case at least three attempts were made to recruit them else they were replace by another PWIDs.

Refusal

All respondents participated voluntarily in the study. There were 23 PWIDs who refused to participate in the survey process all of them drop out during consent seeking process. The major reason cited by them were fear of being expose, time consuming process and low incentives.

2.3.4 Control of Duplication

Far quality assurances stages of sound mechanism were in placed to avoid the duplications. At 1st stage The PWIDs were verified with the help of the key stakeholders while developing sample frame itself. In 2nd stage each recruited PWIDs were screened by supervisor before enrolling in this survey process. In 3rd stage each survey participants were provided unique ID number which was used in questionnaires, medical records and blood samples this was also used for distributions of biological result. As per the national guideline of HIV testing and counseling strict confidentiality was maintained, including providing unique identity (ID) for each Survey participant. The ID was marked on each questionnaire, medical records, and blood specimen of the particular respondent. This was also used for distribution of the test results. Each survey participant who completed the survey was provided the uniquely coded number to avoid duplications thus same person could not take part more than once in the survey. In order to avoid repeated interviews instrument also have checking questions. During eligibility screening the participants were asked several questions to avoid duplications as well as other relating to their experience of having under gone blood tests.

2.4 Survey Instruments and Administration of tools

The IBBS consisted of two separate components:

- Quantitative Assessment using data collected by structured questionnaire from the sample size.
- Serological analysis for HIV and STI (Syphilis) screening using blood samples collected from the participants.

Data collection tools

A quantitative research approach was adopted by the survey. Structured questionnaires were used to collect behavioral data relating to drug injecting habits, syringe/needle sharing and sexual behavior among the PWIDs. Beside demographic and social characteristics of PWIDs, exposure to ongoing HIV/AIDS awareness program and participation on drug anonymous program and their networking program was also collected. In order to draw up a comparative analysis of the behavioral trends over the years, questions asked during the first four rounds were repeated. The questionnaires (Annex 3) were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000).

In addition to serological testing participants' were also treated for STI upon clinical/observational diagnosis. Anonymous identification number (ID) for each survey participant was generated and used throughout various processing steps of the survey.

2.5 Data Collection period

The actual field work was carried out from September 10 to October 16, 2012. The Survey sites (clinic) were set up in 5 different locations (Biratnagar, Ithahari, Belbari, Dharna, Britamod and Damak) and each clinic covered PWIDs from clusters within their catchment area.

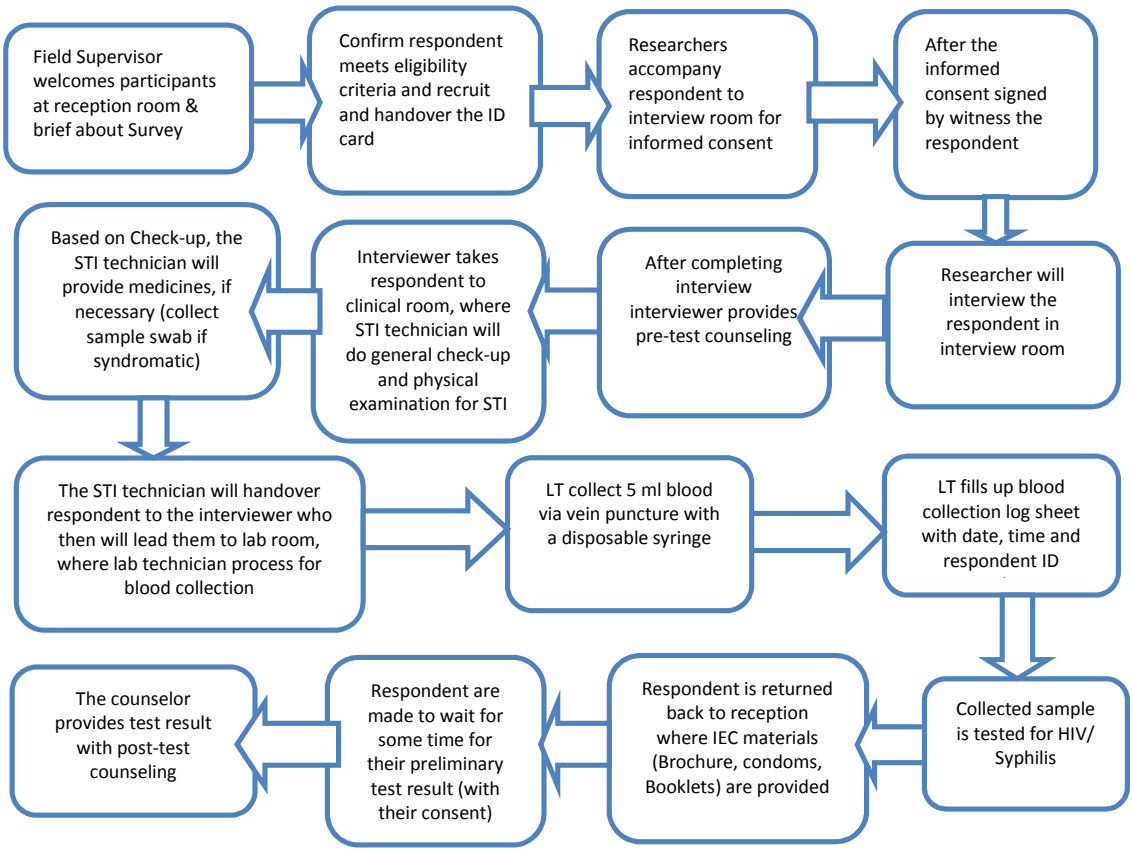
2.6 Survey team composition

Project team leader was overseeing overall study. Apart from the Team leader Survey Team had two coordinators, one Lab Advisor, 2 research officers, one data analyst, one lab supervisor, one field officer. Each field team had one field supervisor, three interviewer, one health assistant, one lab technician, one counselor one local motivator and one support staff. There were a total of 2 field teams for the study

2.7 Survey Field Procedures

The survey was quantitative in nature; structured questionnaires were developed to capture behavioral data, including information on STI/HIV/AIDS awareness, among respondents. Survey

centers with laboratories/clinics were set up at easily accessible locations in all Survey districts. Pre-test counseling sessions were held before the clinical examination and blood sample collection. All the respondents were then examined for clinical symptoms for STI and blood samples were collected for detection of HIV and syphilis infection. Survey participants were provided with treatment for STI if clinical/observational diagnosis was positive. Post-test counseling was also provided prior to the distribution of test results for HIV/STI at these sites by experienced counselor. The details process post recruitment of the respondent is outline by the diagram given below.



2.8 Ethical Issues

In order to ensure adherence to ethical aspects of the study, ethical approval was obtained from the national ethical body, Nepal Health Research Council prior to commencement of the study. The participants' rights to information, volunteerism, privacy and confidentiality and adherence to the compliance of both the ethical and human rights standards were maintained throughout the study, including during the fieldwork and data entry. Moreover, verbal informed consent was obtained from all the participants prior to the interview and collection of blood samples in the presence of a witness. The interview was carried out in a private setting. The verbal consent form used in the study is included in Annex 4. No personal identifiers were collected and the samples were labeled only with the ID number provided to the study participant. Interviewers handed completed questionnaires to field supervisor. Survey data and EQA blood samples were sent to Intrepid Nepal's office every week.

2.9 Clinical and Laboratory Procedure

Clinical Procedure

A standard medical procedure in accordance with the 'National STI Case Management Guidelines was followed for clinical examination. The study participants were clinically checked for any STI symptoms by the health assistant which included history of vital signs and inspection/examination of genital area (Annex 5). A symptomatic treatment of STI was also provided to the participants free of cost at the research site. Few cases were referred to other health facility for further treatment. Respondents with positive RPR tests were proposed a curative penicillin injection. RPR reactive respondents gave their consent for the injection. For those who refused, as an alternative treatment, oral medicines were provided.

Blood samples were tested for HIV antibody and syphilis serology. About 5 ml of whole blood was drawn from each survey participant using disposable syringes. After centrifuge the serum was separated and stored in a refrigerator at the study sites. Each serum sample was labeled with an ID number of survey participant. The specimens were transported to the laboratory (Intrepid Pvt. Ltd.) in Kathmandu in a cold box once a week. The serum samples were stored at a temperature of minus 12°C to minus 20°C at the Intrepid laboratory.

Laboratory procedure

Laboratory service entailed screening all the subjects/participants with initial & confirmatory tests (validated immune-chromatography HIV 1-2 detection device or Rapid Kits). In addition to HIV-1/2 screening, rapid screening test with rapid kits (as agreed) and confirmatory test with same kit in a different laboratory were carried out to find prevalence and status (current or history) of Syphilis. For screening of syphilis Biotech RPR was used and confirmatory test with TPPA were carried out to find prevalence and status (current or history) of Syphilis. RPR titration test determined the Syphilis progression.

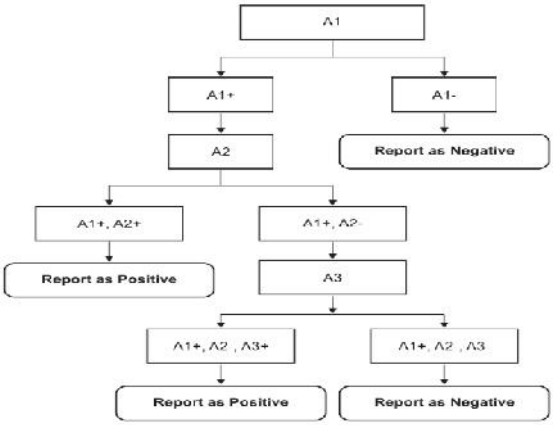
Blood samples were tested for HIV antibody and syphilis serology. About 5 ml of whole blood was drawn from each survey participant using disposable syringes. After centrifuge the serum was separated and stored in a refrigerator at the Survey sites. Each serum sample was labeled with an ID number of survey participant. The specimens were transported to the laboratory (Intrepid Pvt. Ltd.) in Kathmandu in a cold box once a week. The serum samples were stored at a temperature of minus 12°C to minus 20°C at the intrepid laboratory.

HIV 1 and 2

Detection of HIV infection was carried out by using rapid test kits following the HIV testing strategy II algorithm which is based upon the National Guidelines for Voluntary HIV/AIDS Counseling and Testing. Determine HIV1/2 (Abbott, Japan), Uni-Gold HIV1/2 (Trinity Biotech, Ireland), and SD Bioline HIV1/2 (Standard Diagnostics Inc., South Korea) were used as lateral flow (rapid immuno-chromatography) kits for testing for the presence of antibodies against HIV in the serum. Serum that tested positive with the initial kit was confirmed with the second kit. Samples that were found reactive on both tests were considered HIV antibody positive. Samples that were non-reactive on the first test were considered

HIV antibody negative. Any sample that was reactive on the first test but non-reactive on the second was retested with the third "tiebreaker" kit. The quality of the assay was assured by the in-built control of each kit.

Figure 2.1 HIV Testing Strategy II Algorithm



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

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

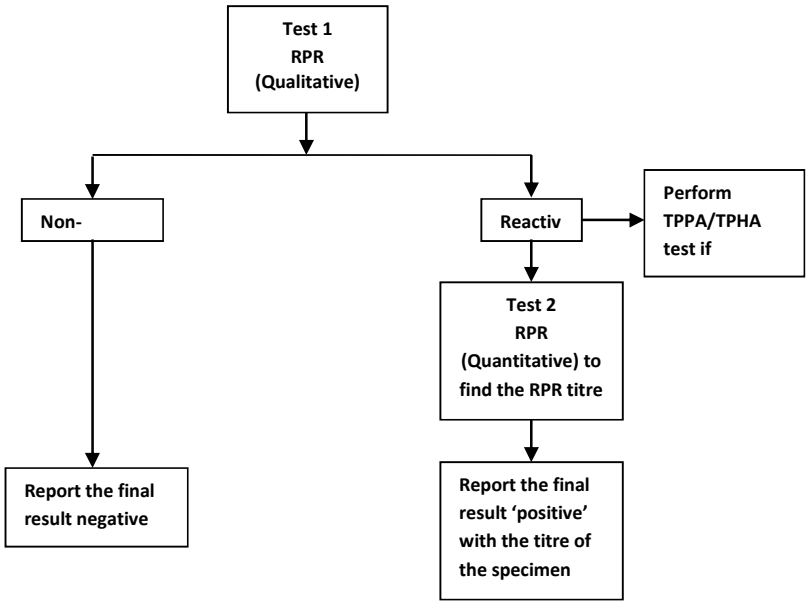
Table 2.1 Sensitivity and Specificity of HIV1/2Kits

Test Kits	Company	Initial	Confirmatory		Tie Breaker	Antigen Type	Specificity	Sensitivity
Determine	Abbott, Japan	X				RecomHIV-1 andHIV-2	99.40%	100%
Uni-Gold	Trinity Biotech		X			HIV-1andHIV-2	100%	100%
SD Bioline	Standard Diagnostics				X	HIV-1(gp41;p24)-2 (gp36)	99.30%	100%

Syphilis

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

Figure 2.2 Syphilis testing algorithm



Syphilis RPR and TPPA test:

The combination of RPR Qualitative, RPR titre and TPPA test result were used for interpretation of the syphilis status of the clients as follows:

a. RPR positive with more than or equal to 1:8 titre value and positive TPPA test confirms the Active Syphilis cases.
b. RPR positive with less than 1:8 titre value with positive TPPA test confirms the History Syphilis cases.
c. RPR positive with greater than or, lower than or, equal to 1:8 titre with negative TPPA test is considered Syphilis negative cases. This may be due to unspecific syphilis RPR positive scenarios.

Precautions, Disposal mechanism and Post exposure Management:

The Universal precaution and Post exposure management was followed as per recommendation of CDC and Nepal's national guidelines where applicable. In order to minimize possible spread of infection to clinical personnel and to the local community, the proper disposal mechanism was implemented. The color coded disposable plastic bags inserted in a thick, leak-proof container with tight seal was used. All materials were decontaminated (by disinfecting or incinerating) before disposal. Contaminated materials including specimens of body fluids, cotton gauze, broken glassware and used needles were decontaminated in 0.5% Sodium Hypochlorite each day. The plastic material, papers, cotton were incinerated. The used Sodium hypochlorite was poured down the drain or in a flushable toilet when available.

2.10 Quality Control of Laboratory Tests

On-site and external quality assurance of the samples was maintained while testing. The on-site audit includes quality control of test kits, record-keeping, and observation of staff performance. The on-site quality control of the kit was assessed by in-built control mechanism provided by the kit. While the trained laboratory personnel was responsible for the record-keeping on daily basis along with the quality control test that was performed. The staff performance was supervised by the supervisor who was stationed on the field.

2.11 External Quality Assurance

External Quality control / Blind Rechecking:

The External Quality Control or Blind Rechecking was performed by retesting samples in the Intrepid's Laboratory in Kathmandu. All positives and 10% of each cluster negative samples were sent to the national public health laboratory (NPHL).

2.12 Survey Management and Coordination

The survey was overall managed by Intrepid Nepal under the supervision of NCASC coordination with NCASC. The survey protocol was developed in close coordination with NCASC which was strictly fallow during the entire survey period. The core team member of the Intrepid Nepal were responsible for the management of the entire survey process that includes development and finalization of the research tools in Nepali Language, Laboratory SOP, training of the field teams, field planning, field monitoring matrix, data management, data analysis and report preparation.

2.13 Implementation of the Survey

Before implement the survey Field team was provided with 5 day intensive training (September 2-6, 2012). The training session covered Survey objectives, characteristics of the PWIDs, rapport-building techniques, content and scope of questionnaire and Survey protocol. The training session have practical session as well as theory class. The training session was facilitated by the resources person form NCASC, recovering Nepal, and Intrepid Nepal. The practical session of lab and STI session was conducted at intrepid laboratory. The technical expert have had conducted HIV pre-test post-test counseling.

2.14 Monitoring of the Survey Field work and Quality Assurance

Monitoring and follow-up mechanisms were in place to ensure quality throughout the research period. INPL ensured that the desk review and reference materials were being adequately referred to develop relevant and useful Survey tools and that the field researchers were well trained to develop their skills, to use the tools effectively and to gather data in coordination with NCASC. Similarly, the fields monitoring and follow-up were done by the INPL and NCASC staff in all the districts and locations throughout the entire field work. Apart from this, the core Survey members of INPL Nepal staff, NCASC and Stakeholders were involved in the field work supervision and M&E work.

Every day field supervisors reviewed all the completed questionnaires and inconsistencies within team members. Field supervised monitored and managed the required cold chain for EQS for samples and kits. The key research team members monitored and supervised the field activities. The field officer ensured this survey protocol strictly followed. Intrepid Nepal staff submitted field progress update to NCASC on weekly basis. The observations and suggestions from monitoring team were shared with field team at the end of the monitoring visit and were also communicated Intrepid and NCASC staff.

2.15 Post-Test Counseling and Test Result Distribution

All the Survey participants were provided HIV and Syphilis test results with post-test counseling by a trained counselor in a confidential setting. Counseling session was also focused on raising awareness on high-risk behavior pertaining to STI and HIV.

2.16 Data Management and Analysis

First round of verification of the forms were checked by field supervisor for missing and inconsistent data. Collected data was transported to INPL office for coding and entry for the data entry CSPro database programming was used. Double entry was adapted to ensure the quality of data further more batch edit programming was developed to check the inconsistency. Compiled Data file was transferred to SPSS for further analysis.

2.17 Dissemination of IBBS Survey Findings

As per the planed, IBBS survey result was disseminated at four levels: First, the key programmatic findings were shared with major stakeholder of the INGO, NGO and NCASC program person and their related comments were incorporated to the report. Secondly with the PWIDs community and local stakeholders at the survey districts and their suggestions were incorporated to finalized the report as well as for ownership among the communities' Thirdly, it was shared at the national level in Kathmandu among a wider group of government, non-government organizations, donor agencies and stakeholders working in the field of HIV and AIDS in Nepal. This was done primarily as an update on the status and the trends of the HIV epidemic among PWIDs in Eastern to draw possible policy and program implications. Lastly, dissemination meetings were organized at the regional level for all local government and non-government local stakeholders to share the survey findings so they can be used to improve the local response to the HIV epidemic.

2.18 Intended use of IBBS Survey Results

The survey results are primarily intended to use (in reference to the PWID population in eastern region) in for

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

2.19 Methodological Limitations of the Survey

- As PWIDs is the hidden populations recruited samples is not adequate to represent the PWIDs populations.
- Due to the mobile nature of PWIDs populations there is always variance in the first round and second round of mapping.
- During this round of the survey the field team made extra effort to investigate non-program exposed PWIDs in this survey, therefore this survey result could differ from previous rounds trends.

CHAPTER 3

FINDINGS OF THE SURVEY

3.1 Response Status of the Survey Participants

Cluster no	Cluster Name	Total PWIDs no	Sample size	Total interview	Refuse	Remarks
1	Mechi bridge Kakarvitta	40	12	12	-	
2	Dhanus Mode	34	12	14	2	
3	AnarmaniChowkBirtamode	25	12	12	-	
4	Birta Bazaar Birtamode	23	12	15	3	
5	Pathibhara Hall Damak	25	12	12	-	
6	PashuHattJhiljhile	23	12	12	-	
7	Boarder Taxi stand	42	12	14	2	
8	SudiBasti	31	12	12	-	
9	Jutmill	37	12	12	-	
10	Mahendra Gate A	34	12	13	1	
11	Mahendra Gate B	40	12	13	1	
12	DaraiyaBasti	30	12	12	-	
13	Durgamandir	30	12	13	1	
14	Koshi hospital area	33	12	12	-	
15	Urlabari	28	12	12	-	
16	NarsariDanda	33	12	12		
17	Ramrikhola Bridge	34	12	12		
18	MoterbikeGyarage	37	12	14	2	
19	PathariBazasar	43	12	12		
20	Indrapur	23	12	12		
21		33	12	13	1	
22	Sundarpur	29	12	13	1	Respondent was below 16 years
	Bayarban					
23	ChataChowk	28	12	13	1	
24	Campus gate	22	12	12		
25	Sakela park	27	12	14	2	
26	Purano Bazar	27	12	12		
27	KiratChowk	31	12	15	3	
28	Laxmichowk	33	12	15	3	
29	Red Cross Chowk	41	12	12		
30	Tempoo Stand	30	12	12		
Note: Total refused PWIDs in Eastern region					23	

3.2 Socio-Demographic Characteristics

This chapter deals with the demographic and social characteristics of 360 male PWIDs from the different areas of the Eastern Terai. The major variables analysed are: age group, marital status, cast/ethnicity, and educational attainment.

3.2.1 Socio - Demographic Characteristics

Most of the PWIDs are young below the age of 25 years. Within this age group, 20-24 age group formed the largest group (41%) followed by 16-19 age group (15%). Quarters (25%) of the respondents were aged between 25-29 years. Data reveals that less than 2 % were aged above 40 years (1.4%). The median age was 24 years. More than half (58%) of PWIDs were never married or single while more than one third (37%) of them were married. Few (4%) were either divorced or separated. The majority of those who had ever been married had been married before the age of 25. The median age at respondents' first marriage was 20 years (Table 3.1). The survey also reveals that more than two third (70%) of the PWIDs were currently living with their sexual partners/ others while remaining (30%) were currently living with their spouse (Table 3.1).

Table 3.1 Demographic Characteristics of the Sample Population

Demographic Characteristics	**N=360**	**%**
Age (Completed years)		
16- 19	54	15.0
20-24	148	41.1
25-29	91	25.3
30-34	45	12.5
35-39	17	4.7
≥ 40	5	1.4
Median age/ Std. dev	***24/5.60***	
Mean age/Range	***24.83/(16-52)***	
Current marital status		
Unmarried	209	58.1
Married	134	37.2
Divorced/Permanently separated	16	4.4
Widower	1	0.3
Age at first marriage (Completed years)		
< =14	3	2.0
15-19	55	36.4
20-24	63	41.7
25-29	24	15.9
≥30 +	6	4.0
Median age at marriage	***20***	
Mean age/Std. dev	***21.97/9.704***	
Current Living status		
Spouse	109	30.3
Sexual partner/Others	251	69.7

Nearly two third (60%) had completed their secondary level of education. The School Leaving Certificate (SLC) course and higher education had been completed by 14 per cent of the respondents. Very few (3%) had never attended school.

PWIDs from various castes/ethnicities were represented in this study. Overall, half of the respondents (50%) were from disadvantaged janajatis and less than a quarter of the respondents (22.5%) belong to the upper cast group (Brahmin, Chhetri etc.). Likewise, one tenth each belong to the dalit (10%) and relatively advantaged janajatis (9%)

Majority (69%) of the respondents had been born and resided in the districts under study, while the rest had migrated from other districts. Around one fifth had been living in the study districts for more than five years (21%) while 9 percent had migrated more recently (less than five years) (Table 3.2).

Table 3.2 Social Characteristics of the Sample Population

Social Characteristics of the Sample Population	**N=360**	**%**
Level of education		
Illiterate	12	3.3
No Schooling	10	2.8
Primary	72	20.0
Secondary	217	60.3
SLC and above	49	13.6
Caste/ethnicity		
Dalit	35	9.7
Disadvantaged Janajatis	181	50.3
Disadvantaged non-dalit	24	6.7
Terai caste groups	-	
Muslim	5	1.4
Relatively advantaged Janajatis	34	9.4
Upper caste groups	81	22.5
Duration of stay in Eastern Region		
Since birth	247	68.6
Since 5 years	34	9.4
More than 5 years	77	21.4
Others	2	.6
Total	360	100.0

Table 3.3 History of Imprisonment

History of Imprisonment	**N**	**%**
In the past year, have you ever been imprisoned or detained for any reason?		
Yes	145	58.7
No	102	41.3
Total	247	100.0

In the past year, have you ever been imprisoned for drug-related reason?		
Yes	81	57.9
No	59	42.1
Total	140	100.0

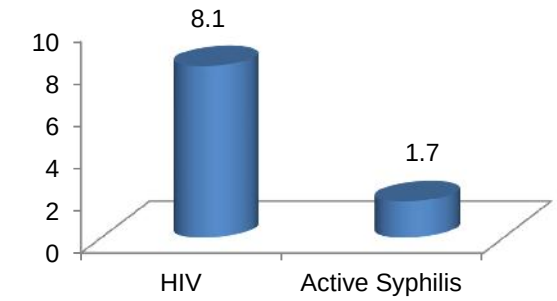
Out of total 247 respondents from Eastern Nepal who were asked about their previous imprisonment for any reasons, more than half of them, 58.7 per cent, replied positive while remaining 41.3 per cent said they were never imprisoned before. Similarly on a following query to the incarcerated respondents whether they were imprisoned for any drug related reasons, more than half, 57.9 per cent responses were affirmative followed by 42.1 per cent responses which did not suggest drug related imprisonment

3.3 Prevalence of HIV /STIs

3.3.1 Prevalence of HIV and STI Infections

The survey revealed that 29 PWIDs out of 360 tested were HIV-positive (8.1%) and 6 PWID were currently infected with Syphilis (1.7%) (Figure 3.1).

Figure 3.1 HIV and STI prevalence in %



3.4 Drug Use, Needle Sharing and Treatment behavior among PWIDs

This chapter deals with the drug-using behavior of the PWIDs specifically oral and injecting drug use and needle sharing behavior. It also deals with the treatment seeking behavior of PWIDs.

3.4.1 Alcohol Consumption and Oral Drug Use among PWIDs

PWIDs were found to be used more than 18 different types of oral drugs. Among the oral drugs used, marijuana, (ganja in Nepali) was the most popular, with 59 % reporting to have used it in the previous week, followed by Nitrosun (34%), Phensydyl (26%), Nitrovate (12%) and brown sugar (9%) which are listed in Table 3.4.

Table3.4 Types of Drugs Used Orally in Past Week

Types of drugs used orally	N	%
Brownsugar	34	9.4
Nitrosun	123	34.2
Marijuana (Ganja)	211	58.6
Chares	24	6.7
White sugar	3	.8
Phensydyl	92	25.6
Clampose	7	1.9
Diazepam	9	2.5
Codeine	8	2.2
Phenergan	5	1.4
Cocaine	6	1.7
Proxygin	29	8.1
Effidin	3	.8
Velium 10	13	3.6
LSD	4	1.1
Nitrovate	43	11.9
Combination	15	4.2
Others	22	6.1
Total	360	100.0

Percentage total may exceed to 100 due to multiple responses.

3.4.2 Drug Injecting Practice of PWIDs

Most of the respondents had been injecting drugs for a fairly long time, with an average of 6.8 years. More than three fifth (64%) of PWIDs had been injecting drugs for more than 5 years while more than quarter (28%) had been injecting for past 2-5 years. Likewise 8 percent had started injecting drugs more recently (less than 2 years).

The median age of the PWIDs first time they used drugs intravenously was 19 years. About two in three respondents were aged 20 years when they injected drugs for the first time (66%) while one third started injecting drugs for the first time when they were 21 years or over (34%).

As for the frequency of injections on the past one week prior to the interview a quarter (26%) reported that they injected 4-6 times a week , one fifth (21%) were found to inject 2-3 times a week and about one sixth (17%) injected daily Only a small proportion of PWIDs (6%) had injected once a week.

Likewise, one third of the respondents (35%) injected once in the last day prior to interview while 30 percent did not inject at all in the last day. About one fifth (20%) had 2 shots while one-seventh (15%) had 3 or more shots on the last day. The mean number of times that the PWIDs had injected drugs on the last day was less than two shots (1.3) (Table 3.5).

Table 3.5 Drug Injecting Practice

	N	%
Duration of drug injection habit		
Less than 2 years	29	8.1
2-5 years	102	28.3
60 months and more	229	63.6
Average duration in years	***6***	
Mean age/Std. dev	***6.75/4.47***	
Age at first drug injection		
Up to 20 years	239	66.4
21 years and more	121	33.6
Median age	**19**	
Mean age/Std. dev	**19.92/4.59**	
During the past one-week how often would you say you injected drugs?	**N=360**	
Once a week	23	6.4
2-3 times a week	77	21.4
4-6 times a week	93	25.8
Once a day	61	16.9
2-3 times a day	50	13.9
4 or more times a day	12	3.3
Not injected in the last week	40	11.1
Don't know	2	.6
No response	2	.6
Frequency of drug injections on the last day		
Not injected	109	30.3
1 time	127	35.3
2 times	71	19.7
3 times and more	53	14.7
Median	***1***	
Mean/Std.dev	***1.43/.644***	
Total	**360**	**100.0**

3.4.3 Syringe Use and Sharing Habits

Syringe use and sharing behavior of PWIDs were assessed in terms of their last three injections on the basis of how they had obtained the needle/syringe used for the last three injections. Answers provided by the PWIDs have been categorized as low or high risk injecting behavior in Table 3.6. Low risk was defined as using a new needle. High risk was using one's 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 PWIDs or by others. Data revealed that many of the PWIDs avoided high-risk behavior in their last three injections. Overall, 97 percent each in the most recent and the second most recent injections and 90

percent in third most recent injections had used a new syringe/needle either self-purchased or provided to them by NGO staff or friends or volunteers. On the other hand, one in ten PWIDs reported engaging in high-risk behavior in the third most recent injections (10%).

Similarly, 3 percent had shared the needle/syringe with at least two injecting partners in the most recent injection, two percent in the second (2.2%) and third most recent (2.5%) injection while 4 percent had shared the needle/syringe with 3 or more partners in the third most recent injections (Table 3.6).

The needle/syringe sharing behaviors further points towards an increasing consciousness among PWIDs regarding the risks associated with needle/syringe sharing. Many PWIDs had avoided high-risk behavior in the week preceding the survey.

Table 3.6 Syringe Use and Sharing Behavior among PWIDs during the Last Three Injections

Needle Syringe Use During Recent Drug Injections	**Drug Injecting Acts**					
	Most Recent		**Second Most Recent**		**Third Most Recent**	
	N	**%**	**N**	**%**	**N**	**%**
Low risk injection behavior						
Used a purchased new needle/syringe	113	31.4	116	32.2	100	27.8
Used new needle/syringe given by NGO staff/volunteers/friends	235	65.3	233	64.7	223	61.9
Low risk behavior total	**348**	**96.7**	**349**	**96.9**	**323**	**89.7**
High risk injection behavior						
Used own previously used needle/syringe	2	.6	4	1.1	3	.8
Used needle/syringe given by friend/relative after their use	6	1.7	1	.3	4	1.1
Used needle/syringe that had been kept in public place by Himself	-	-	-	-	1	.3
Others	4	1.1	6	1.7	29	8.1
High risk behavior total	12	3.4	11	3.1	37	10.3
Persons in the group using the same needle/syringe						
2 persons	10	2.8	8	2.2	9	2.5
3 or more persons	5	1.4	5	1.4	13	3.6
None/Alone	345	95.8	347	96.4	338	93.9

High majority (89%) of the PWIDs were not found to share the needles with anyone throughout the week and it was also found that they (91%) didn't use prefilled syringe and non-sterilize equipment (72%) (Figure 3.2).

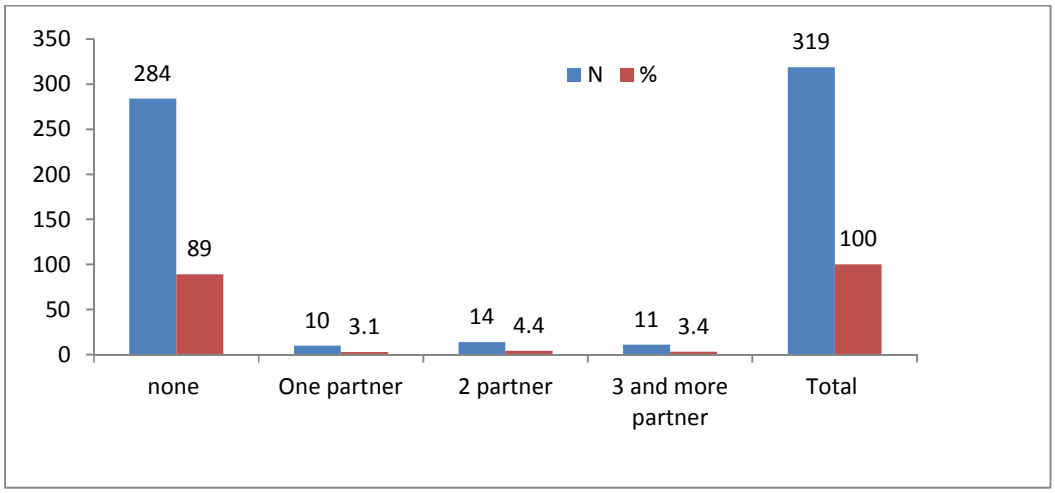


Figure 3.2 Syringe use and sharing behavior among PWIDs in the past one week

In the above diagram, the number of respondentwho shared and used syringe among 3 and more partner is found to be 10 (3.14%) and 1 respondent was unknown to the numbers that he/she shared syringe.

3.4.4 Drug Sharing Behavior

Further, they were asked if they have shared needles in any other city, district or country they have visited. Nearly four-fifth PWIDs (76%) reported that they had injected drugs in any city/districts in Nepal or in other countries they had visited but most of them (95%) didn't use the needles given by others. Instead few (7%) PWIDs had given a needle/syringe used by them to someone else at the places they had visited in the past year. It is important to note that the study districts are close to the Indian border and movement across the border is not very difficult (Table 3.7).

Table 3.7 Injecting Behavior of PWIDs in Other Parts of Country and Out of Country in the Past 12 Months

	N=360	%
In the past one-year, did you ever inject drug in another city/district (or another country)?		
Yes	273	75.8
No	87	24.2
Total	360	100
Used a needle/syringe that had been used by others		
Yes	14	5.1
No	259	94.9
total		
Gave a needle/syringe to someone else after use		
Sometimes	11	4.0
Everytime	10	3.7
Never	252	92.3
Total	**273**	**100.0**

Needle/Syringe Cleaning Practices

Previous studies have shown that some PWIDs inject with previously used syringes/needles after washing them. Improper cleaning of shared and used needles/syringes increases the risk of HIV infection.

The survey reveals that almost all the PWIDs clean the pre-used needle/syringe in the last week (97%). Among them one in ten (11%) clean the syringe with bleach while, the rest cleaned them improperly with substances like saliva, water, distilled water, paper and urine (Figure 3.3 and Table 3.8)

Figure 3.3 Cleaned a pre-used needle/ syringe in the past week in %

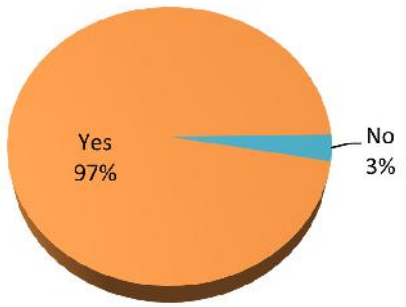


Table 3.8 Needle/Syringe Cleaning Practice of PWIDs

Ways of cleaning needle/syringe	N	%
Bleach	12	10.7
Without bleach	100	89.3
Total	**112**	**100.0**

3.5 Sexual Behavior and Condom Use

Although injecting drug users constitute a risk group in themselves, there is also an overlap between drug addiction and those involved in sex work. PWIDs who fall into both categories are therefore particularly vulnerable to HIV and are perhaps doubly stigmatized. The link between substance abuse and sex work is hard to pinpoint though there are a variety of factors that are common to including homelessness, unstable family lives, socio-economic deprivation, disrupted schooling, local authority care and confidence and esteem issues.

HIV transmission among drug users is most often correlated with their needle/syringe-sharing behavior. This, combined with the risky sexual behavior of the study population often associated with drug use, contributes greatly towards making PWIDs more vulnerable to HIV transmission. HIV infected PWIDs further transmit the virus to their spouses or sex partners through unsafe sexual contact. In this chapter the sexual behavior of the respondents and their sex partners has been reviewed. This chapter also deals with the sexual history of the PWIDs and condom use among them.

3.5.1 Sexual Behavior

The majority of PWIDs (89%) in the survey districts reported to be involved in sexual activity in the past 12 months. Among them, most (84%) had their first sexual contact before they turned 20 years. The median age of the respondents at their first sexual encounter was 16 years.

Among sexually active respondent, three fourth (75%) had been sexually active in the last year too. More than half (54%) had two or more sex partners during the same period (Table 3.9).

Table 3.9 Sexual Behavior

Sexual Behavior	N	%
Sexual Intercourse of PWIDs		
Never had sexual intercourse	40	11.1
Ever had sexual intercourse	320	88.9
Age at first sexual intercourse		
Below 20 years	287	89.7
20 years and above	33	10.3
Median age	***16 yrs***	
Mean/Std.dev	***15.34/5.95***	
Sexual intercourse in the past 12 months		
Yes	242	75.4
No	78	24.3
Numbers of different female sexual partners in the past 12 months		
1 partner	111	45.9
2 or more partners	131	54.1
Total	242	100.0
Median	**2**	
Mean	**2.77**	

The sex partners of the study population were categorized under regular partners, non- regular partners and female sex workers. A 'regular female sex partner' is defined as spouse or any sexual partner living together with the respondent. Among those respondents who had maintained sexual contact, 38 percent had sex with a regular female sex partner during the past year. Most (88%) had sex with their regular female sex partner in the month preceding the survey. Likewise, two third (65%) of PWIDs had sex for more than 5 times with the same partner during the same period (Table 3.10).

Table 3.10 Sexual Intercourse of PWIDs with Regular Female Sex Partners

	N	%
Sex with a regular partner during the past 12 months		
Yes	121	37.7
No	199	62.3
Sex with regular sex partner in the past one month		
Yes	107	88.4
No	14	11.6
Frequency of sex with the regular female sex partner during the last month		
1-4	37	34.6
5 and more	70	65.4
Total	107	100.0
Mean	**10.37**	

The PWIDs with sexual experience were also asked whether they ever had sex with non-regular female partners in the past year. 'Non-regular female sex partners' were defined as those with whom the

participants were not married or living together. However, non-regular female sex partners were also defined as being distinct and separate from female sex workers. Table 3.10 shows that nearly half (45%) of PWIDs had sex with non-regular female sex partners in the past year and 59% of them had sex with non-regular partners in last month preceding the interview. Among them, 72 percent had up to 1 to 4 sexual contacts in last month while 28 percent had 5 sexual contacts or more during the same period.

Table 3.11 Sexual Intercourse of PWIDs with Non-Regular Female Sex Partners

Sexual Intercourse of PWIDs with Female Sex Worker	N	%
Sex with non-regular partner in the past 12 months		
Yes	145	45.3
No	175	54.7
Sexual relationship of PWIDs with non-regular sex partner in the last month		
Yes	85	58.6
No	60	41.4
Frequency of sex with last non-regular female sex partners during last one month		
1-4	61	71.8
5 and more	24	28.2
Median	**2**	
Mean/Std.dev	**4.59/5.16**	
Total	85	100.0

Some of the PWIDs also had had sex with female sex workers during the past year. 'Female sex workers' were defined as those who sell sex in exchange for cash, kind or drugs. Nearly a quarter (23%) of PWIDs had sexual relations with a female sex worker in the past year. Among them nearly half (49%) had sex with FSW in the last one month. Three in five (61%) of PWIDs had two and more sexual partners in last month (preceding the survey) and 22 percent had 5 sexual contacts or more with female sex workers during the same period (Table 3.12).

Table 3.12 Sexual Intercourse of PWIDs with Female Sex Worker

Sexual Intercourse of PWIDs with Female Sex Worker	N	%
Sex with female sex worker in the past 12 months		
Yes	73	22.8
No	247	77.2
Sexual intercourse with FSW in the last month		
Yes	36	49.3
No	37	50.7
Number of sex partner in the last month		
One	22	61.1
Two and more	14	38.9
Frequency of sex with FSW		
1-4	28	77.8
5 and more	8	22.2
Mean	**3.4**	
Total	36	100.0

3.5.2 Knowledge and Use of Condoms

Condom promotion has been one of the important components of HIV/AIDS awareness campaigns. Consistent and correct use of the male latex condom reduces the risk of sexually transmitted disease (STD) and human immunodeficiency virus (HIV) transmission. However, condom use cannot provide absolute protection against any STD. The most reliable ways to avoid transmission of STDs are to abstain from sexual activity, or to be in a long-term mutually monogamous relationship with an uninfected partner. However, many infected persons may be unaware of their infection because STDs often are asymptomatic and unrecognized.

The data reveals that three in four PWIDs (74%) did not use condom in their last intercourse with their regular sex partner. However, condom use was higher in the last sexual contact with female sex worker (82%) than with non- regular partners (45%) or regular partners (26%) (Table 3.13).

Table 3.13 Use of Condoms in the last Sex with Different Partners

	N	%
Condom use with regular female sex partner during last sexual intercourse		
Yes	29	25.6
No	91	74.4
Don't Know	1	
Total	121	100.0
Condom use with non-regular female sex partner during last sexual intercourse		
Yes	64	44.1
No	81	55.9
Total	145	100.0
Condom use with female sex worker during last sexual intercourse		
Yes	60	82.2
No	13	17.8
Total	73	100.0

3.5.3 Sources of Condoms

The PWIDs were also asked if they knew about the places from where they could obtain condoms. High majority of PWIDs knew at least one place from where they could obtain condoms; 84percent said that they could get condoms from a pharmacy. Other sources of condoms as mentioned were peer/outreach educators (51%), hospital (41%) clinic (34%) shop (34%), DIC (18%), NGOs working for HIV/AIDS (15%) family planning center (14%), *paan*- shops (10%) etc.

High majority of PWIDs (95%) reported that they could get condoms in less than 30 minutes if necessary (Table 3.14).

Table 3.14 Known Sources of Condom and Time Needed to Obtain It

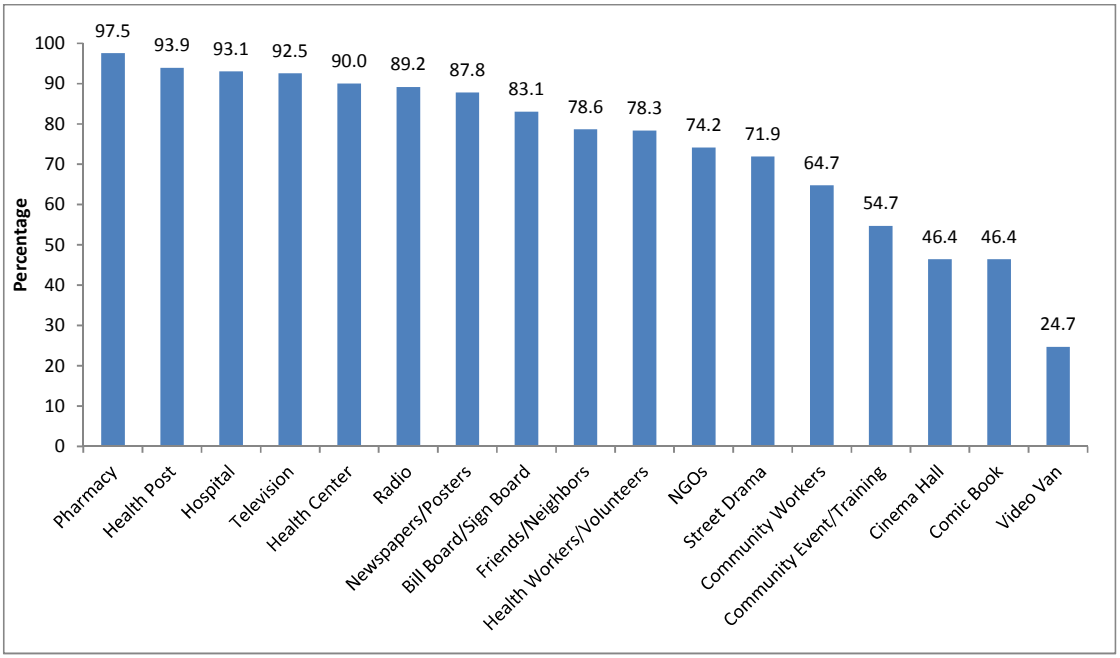
	N	%
Sources of condom(Multiple Responses) Total Respondents =355		
Shop	120	33.8
Pharmacy	297	83.7
Clinic	121	34.1
Hospital	144	40.6
Family planning center	50	14.1
Bar/Guest house/Hotel	7	2.0
Health worker	21	5.9
Peer Educator/Outreach doctor	181	51.0
Friend	10	2.8
Pan Pasal	35	9.9
DIC	65	18.3
NGOs working for HIV and AIDS	54	15.2
Others	32	9.0
Time taken to obtain condom		
Less than 30 minutes	336	94.6
More than 30 minutes	19	5.4
Total	**355**	**100.0**

Multiple responses

3.5.4 Sources of Information about Condoms

The most common source of information for more than or equal to 9 out of 10 respondents were Pharmacy (97.5%), health post (93.9), Hospital (93.1%), television (92.5%), and Health centers (90.0%). A substantial proportion of respondents had also heard about condoms from Radio (89.2%), Newspapers/posters (87.8%), and Billboard/Sign Board (83.1%). The other sources of information which were listed from respondents are itemized in the figure below.

Figure 3.4 Sources of information about condom



3.6 Knowledge about HIV and STIs

This chapter deals with the level of knowledge and awareness about STIs and HIV/AIDS, among PWIDs. Their knowledge about the availability of HIV testing facilities and perceptions of HIV testing are also covered in this chapter.

3.6.1 Knowledge about STIs

Majority of respondents (84%) had heard about STIs before. However there were 16 percent who had never heard about STIs before the survey (Figure 3.5).PWIDs who had heard about STIs had a general understanding of male and female STI symptoms. The most common symptoms cited by the respondents were genital ulcers/sores/ (57% infemale STI and65%inmale STI Symptom, followed by genital discharge (46% in female and 50% in male), and burning pain during urination (24% in male and 39% in female). Foul smelling (36%) was specifically mentioned as female STI symptoms (Table 3.15).

Figure 3.5 Knowledge about STIs

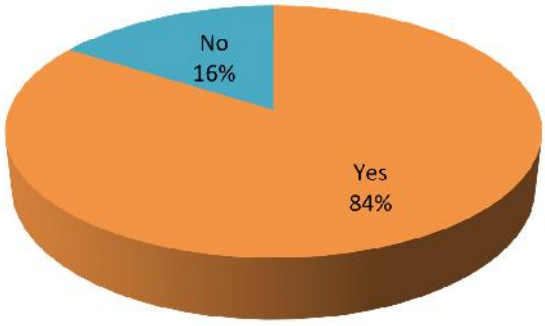


Table 3.15 Known Symptoms of Male and Female STI

	N	%
Symptoms of STI among women (Multiple Responses) Total Respondents =303		
Lower abdominal pain	50	16.5
Genital discharge	139	45.9
Foul smelling	110	36.3
Burning pain on urination	74	24.4
Genital ulcers/sore	173	57.1
Swelling in groin area	33	10.9
Itching	49	16.2
White discharge	7	2.3
Fever	6	2.0
Others	20	6.6
Don't know	98	32.3
Symptoms of STI among men		
Genital discharge	153	50.5
Burning pain on urination	119	39.3
Genital ulcers/sore blister	196	64.7
Swellings in groin area	54	17.8
Itching	44	14.5
Fever	5	1.7
Others	21	6.9
Don't know	87	28.7

Multiple responses

After assessing their awareness regarding STI symptoms, PWIDs were further asked if they ever had experienced any symptoms such as genital discharge, genital ulcers/sores in the past year. In response, only 16percent of PWIDs reported that they had genital discharge in the past, while a quarter (26%) of PWIDs mentioned that they had this problem at the time of study. The proportion of PWIDs suffering from genital ulcer/sore blister has increased in the present, compared to the last one year (43% vs. 13%) (Table 3.16).

Table 3.16 STI Symptom/s Experienced by PWIDs

STI Symptom/s Experienced by PWIDs	N	%
Had a genital discharge in the past year		
Yes	58	16.1
No	301	83.6
Don't know	1	.3
Total	360	100.0
Currently has genital discharge		
Yes	15	25.9
No	43	74.1
Total	58	100.0
Have you had a genital ulcer/sore blister during the last 12 months?		
Yes	47	13.1
No	313	86.9
Total	**360**	**100.0**
Currently has genital ulcer/sore blister		
Yes	20	42.6
No	25	53.2
No response	2	4.3
Total	**47**	**100.0**

Further, the PWIDs were asked if they had ever had some symptoms of STI in their entire life, and almost a quarter (23%) reported they had experienced STI symptoms, while the remaining 77 percent had never experienced any STI symptoms till date. Less than a tenth (8%) of PWIDs also reported that they were currently suffering from STI or had been experiencing STI symptoms (Figure 3.6 and Table 3.17).

Figure 3.6 STIs Experiences

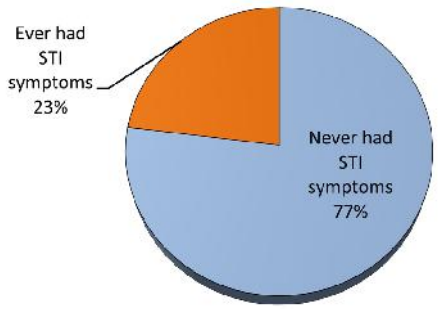


Table 3.17 STI Symptom Experienced and Treatment Sought

Currently experience STI	N	%
Yes	29	8.1
No	331	91.9
Total	360	100.0

3.6.2 Knowledge about HIV/AIDS

To investigate the knowledge/ awareness about HIV/AIDS all the PWIDs were asked if they know anyone who had HIV/AIDS or have died from AIDS. In response, more than three fifth (64%) of PWIDs reported that they knew people suffering from HIV or died from AIDS. More than half (52%) said they were their close friends and 15 percent said they were their close relatives. A quarter (33%) also mentioned no relationship with the people who they knew had HIV/AIDS or had died because of the disease (Table 3.18).

Table 3.18 Awareness of HIV/AIDS

Awareness of HIV/AIDS	N	%
Do you know anyone who is infected with HIV or who has died of AIDS?		
Yes	230	63.9
No	130	36.1
Total	360	100.0
Do you have close relative or close friend who is infected with HIV or has died of AIDS?		
Closed relatives	35	15.2
Close friends	120	52.2
No	75	32.6
Total	230	100.0

The respondents' knowledge regarding ways in which HIV is transmitted was also analyzed with the help of some questions regarding HIV/AIDS prevention measures. In this regard, their understanding of the three main HIV/AIDS prevention measures including abstinence from sex (A), being faithful to one sex partner (B), and consistent condom use (C) was assessed.

The majority (81%) of the PWIDs were aware that using a condom every time during sex (C) could prevent them from HIV/AIDS. While three in five (61%) believed that being faithful to one person (B) and nearly half (46%) believed abstinence from sex (A) prevent them from contracting HIV. Additionally, high majority (90%) were aware that a healthy-looking person can be infected with HIV (D) and almost same number of respondents (89%) knew that sharing a meal with an HIV infected person did not transmit HIV (F). About three fifth PWIDs (61%) knew that HIV virus was not transmitted from mosquito bite (E) (Table 3.19).

Table 3.19 Knowledge about Major Ways of Avoiding HIV/AIDS

Knowledge of Six Major Indicators on HIV/AIDS	N=360	%
HIV transmission can be avoided through:		
A Abstinence from sexual contact	167	46.4
B Being faithful to one partner	218	60.6
C Condom use during each sexual contact	293	81.4

Perception regarding HIV/AIDS:		
D A healthy-looking person can be infected with HIV	324	90.0
E A person cannot get the HIV virus from mosquito bite	221	61.4
F Sharing a meal with an HIV infected person does not transmit HIV virus	320	88.9

The PWIDs' understanding of HIV/AIDS and its different modes of transmission were further tested with the help of certain probing questions. Majority of PWIDs reported that a person can get HIV by using a previously used needle/syringe (98%), through the transfusion of blood from an infected person to another (97%), through pregnant women infected by HIV virus to her new born baby (74%). A relatively lower percentage of respondents (51%) said that women with HIV can transmit the virus to their newborn child through breast feeding. More than four fifth (88%) had wrong perception that HIV could be transmitted through shaking hands. Three in four PWIDs (74%) also believed that a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child. When asked if they were aware of ways in which a pregnant woman can reduce the risk of transmission of HIV to her unborn child, more than half 54.5 percent were unaware of any such measures, while one third suggested that they should take medicine (Antiretroviral) (31%) and follow a doctor's advice (8%).

Table 3.20 PWIDs' Knowledge on Ways of HIV/AIDS Transmission

	N	**%**
Blood transfusion from an infected person to the other transmit HIV	350	97.2
Injecting with a needle that was already used by someone else	353	98.1
Shaking hand with an infected person	317	88.1
An PWIDs can protect themselves from HIV/AIDS by switching to non-injecting drugs	183	50.8
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	265	73.6
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	184	51.1
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child		
Take medication (Antiretroviral)	103	31.0
Treatment/consultation with doctor	28	8.4
Counseling	3	.9
Others	24	7.2
Don't know	181	54.5
No response	4	1.2
Total	332	100.0

**Multiple responses allowed.*

3.6.3 Knowledge about HIV Testing Facilities

HIV/ AIDS are a taboo in our society, hence it is important to have confidential HIV testing centers. It allows people to have an HIV test promptly and without the fear of being exposed. Majorities (87%)

of the PWIDs were aware of the existence of HIV testing facility in their communities, but a significant number of PWIDs (11%) were unaware of it.

Only two third of the PWIDs (68%) had received HIV test and among them most (88%) had received voluntary HIV test. It was found that two in three of the PWIDs (67%) had their test done one year back and less than a quarter (21.5%) had done it in between 13-24 months. (Table 3.21).

Table 3.21 Knowledge about HIV Testing Facilities and History of HIV Test

	N	%
A confidential HIV testing facility is available in the community		
Yes	313	86.9
No	40	11.1
Don't know	7	1.9
Ever had HIV test		
Yes	246	68.3
No	113	31.4
No response	1	.3
Type of test taken		
Voluntary HIV test	217	88.2
Required HIV test	29	11.8
Total	246	100.0
Test result received		
Yes	226	91.9
No	19	7.7
No response	1	.4
Total	246	100.0
Timing of HIV test		
Within the past 12 months	164	66.7
Between 13-24 months	53	21.5
Between 25-48 months	18	7.3
More than 48 months	10	4.1
No response	1	.4
Total	246	100.0

3.6.4 Source of Knowledge about HIV/AIDS

PWIDs cited a variety of sources of information about HIV/AIDS among which pamphlets/posters (94%), television (93%), radio (91%), newspaper, magazines (88%), friends/relatives (85%), billboard/signboard (83%), health workers/volunteers (83%), school/ teachers (77%), NGO workers (77%), street drama (76%) etc were the most common source of information (Table 3.22).

Table 3.22 Sources of Knowledge Regarding HIV/AIDS

Types of sources	N=360	%
Radio	327	90.8
TV	336	93.3
Newspapers/Magazines	317	88.1
Pamphlets/Posters	338	93.9
School/Teachers	276	76.7
Health Worker/Volunteer	299	83.1
Friends/Relatives	306	85.0
Work place	224	62.2
People from NGO	278	77.2
Video Van	96	26.7
Street Drama	275	76.4
Cinema Hall	165	45.8
Community Event/Training	181	50.3
Bill Board/Sign Board	299	83.1
Comic Book	171	47.5
Community Workers	227	63.1
Others	17	4.7

In the past year, the study participants had also received HIV/AIDS-related IEC materials from different sources. Majority, had received condom/ information on condom (86%) information on HIV/AIDS (84%) and brochure/pamphlets/booklets on HIV/AIDS (78%) (Table 3.23).

Table 3.23 Information/Materials Received During the Past Year

Informative Materials Received	N=360	%
Condom/information on condom	308	85.6
Brochure/booklets/pamphlets on HIV/AIDS	281	78.1
Information on HIV/AIDS	304	84.4
Others	56	15.6

3.6.5 Perceptions on Risks of HIV among PWIDs

The stigma associated with HIV/AIDS increases the impact of HIV on the patients. The perception of the PWIDs regarding HIV-infected people and the stigma associated with the disease was examined with the help of a series of questions.

Almost all (97%) of the respondents were ready to take care of an HIV-positive male relative or an HIV-positive female relative (94%) in their home if needed. More than three fifth (63%) said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

Majority of the respondents (88%), said that they would readily buy food from an HIV- infected

vendor.

When asked about the health care needs of HIV-infected persons, less than three forth (72%) of PWIDs mentioned that they should also be provided with the same care and treatment deemed necessary for patients with other chronic diseases, while almost a quarter (22%) believed that the health care needs of an HIV-infected person are much higher than for people suffering from other chronic diseases The majority (89%) also agreed that unless very sick, people with HIV/AIDS should be allowed to continue with their job(Table 3.24).

Table 3.24 Attitude towards HIV/AIDS

Attitude towards HIV/AIDS	N	%
If a male relative of yours gets HIV, would you be willing to take care of him in your household?		
Yes	349	96.9
No	11	3.1
If a female relative of yours gets HIV, would you be willing to take care of her in your household?		
Yes	339	94.2
No	21	5.8
If a member of your family gets HIV, would you want to keep it a secret?		
Yes	228	63.3
No	131	36.4
Don't know	1	.3
If you knew a shopkeeper or food seller had HIV, would you buy food from him/her?		
Yes	317	88.1
No	43	12
Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease		
Same	260	72.2
More	80	22.2
Less	19	5.3
Don't know	1	.3
If one of your colleagues has HIV but he/she is not very sick, Do you think he/she should be allowed to continue working		
Yes	321	89.2
No	36	10.0
Don't know	3	.8
Total	**360**	**100.0**

3.7 Exposure to HIV/AIDS Prevention Intervention

The exposure and participation of the PWIDs to the ongoing HIV/AIDS awareness programs and their participation in these activities has been examined in the survey. Respondents were solicited several questions regarding different components of HIV/AID- related programs being run by different organizations.

3.7.1 Peer/Outreach Education

The peer/outreach education component consists of activities that involve mobilization of peer educators (PEs) and community mobilizers (CMs) and outreach educators (OEs) who conduct awareness-raising activities at community sites. The main responsibility of the peer educators are to meet the target group and hold discussions with them regarding HIV/AIDS and safe injecting practices, safe sex and other related topics. They also distribute IEC materials, condoms, and refer the target group to drop-in centers and STI treatment services. Some also carry new needles/syringes for distribution among the PWIDs. More than four fifth (88%) of the PWIDs had met PEs/OEs representing various organizations at least once and most reported that they discussed safe injecting behavior (84%), modes of HIV/AIDS transmission (53%), mode of STI transmission (36%) etc.

More than half (51%) of PWIDs had met PEs/OEs from Kirat Yakthum Chumlung (KYC) few had also met PEs/OEs representing Richmond (18%); Knight Chess Club (KCC) (18%) etc. three fifth (61%) of them were found to meet them more than once a month (12 times a year) (Table 3.25).

Table 3.25 PWIDs' Meeting with Peer Educators (PE)/Outreach Educators (OE) in the Past Year

	N	%
Met or discussed or interacted with PE or OE in the last 12 months		
Yes	317	88.1
No	43	11.9
Total	**360**	**100.0**
How many times have these PE, OE, CM and/or CE met you in the last 12 months?		
Once	6	1.9
2-3 times	52	16.4
4-6 times	41	12.9
7-12 times	26	8.2
More than 12 times	192	60.6
Total	**317**	**100.0**
Activities carried out with OE/PEs		
Discussion on how HIV/AIDS is/isn't transmitted	167	52.7
Discussion on how STI is/isn't transmitted	115	36.3
Discussion on safe injecting behavior	267	84.2
Regular/non-regular use of condom	77	24.3
Demonstration on using condom correctly	70	22.1
Others	25	7.9
Organizations represented by OE/PEs		
KCC	56	17.7
HELP	1	.3
KYC	163	51.4
PSK	1	.3
LALS	1	.3
Youth Vision	1	.3
RICHMOND	58	18.3
NavKiran	1	.3
Others	37	11.7
Don't know	25	7.9

Multiple responses

3.7.2 Drop-in-Centers Visiting Practice

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

Almost all (96%) the PWIDs had been to the DIC in last one year time. Majority of them (94%) had been to a DIC to get a new syringe while a quarter (25%) went to learn about the safe injecting behavior. One in five (20%) went to collect condom and learn the correct way to use the condom (15%). About one fifth (19%) had also participated in discussions on HIV transmission in DIC.

DICs visited by the respondents were run by various organizations implementing HIV/AIDS awareness and prevention programs in the region, such as KYC (47%), Richmond (20%), KCC (17%) etc. More than two third (70%) reported that they have visited the DIC center more than 12 times in the past year (Table 3.26).

Table 3.26 DIC Visiting Practices in the Past Year

Organizations represented by DIC		
	N	%
Have you visited or been to any out-reach center (DIC, IC or CC) in the last 12 months? Drop-In Center (DIC)		
Yes	346	96.1
No	14	3.9
Total	360	100.0
How many times have you visited out-reach centers (DIC, IC or CC) in the last 12 months?		
Once	7	2.0
2-3 times	32	9.2
4-6 times	29	8.4
7-12 times	35	10.1
More than 12 times	243	70.2
Total	346	100.0
Participated activities at DIC		
Went to collect condoms	70	20.2
Went to learn the correct way of using condom	54	15.6
Went to learn about the safe injecting behavior	85	24.6
Went to watch film on HIV/AIDS	19	5.5
Participated in discussion on HIV transmission	66	19.1
Went to have new syringe	323	93.4
Went for medicine	10	2.9
Others	36	10.4
Organizations represented by DIC		
KCC	60	17.3
KYC	163	47.1
PSK	1	.3
LALS	1	.3
RICHMOND	70	20.2
AMDA	1	.3
Others	27	7.8
Don't know	41	11.8

Multiple responses

3.7.3 STI Clinic Visiting Practices

Sexually transmitted diseases (STD),also referred to as sexually transmitted infections (STI) and venereal diseases (VD), are illnesses that have a significant probability of transmission between humans by means of human sexual behavior, including vaginal intercourse, oral sex, and anal sex. While in the past, these illnesses have mostly been referred to as STDs or VD, in recent years the term sexually transmitted infections (STIs) has been preferred, as it has a broader range of meaning; a person may be infected, and may potentially infect others, without having a disease. Some STIs can also be transmitted via the use of IV drug needles after its use by an infected person, as well as through childbirth or breastfeeding.

The PWIDs engaged in unsafe sexual intercourse are likely to have STIs. Timely detection of STIs may prevent serious health hazards. There are different clinics being run by government as well as non-government organizations to provide STI testing and treatment facilities. Nevertheless, the majority of the respondents (94%) had not been to an STI clinic in the past year. Among the few (6%) who had visited an STI clinic, had visited for testing blood for STI, for physical examination for STI detection, to participate in the discussion on modes of STI transmission etc. (Table 3.27)

Table 3.27 STI Clinic Visiting Practices in the Past Year

	N	%
Have you visited any STI clinic in the last 12 months?		
Yes	21	5.8
No	339	94.2
Total	**360**	**100.0**
Number of visits to STI clinics		
Once	10	47.6
2-3 times	8	38.1
4-6 times	2	9.5
More than 12 times	1	4.8
Total	**21**	**100.0**
Participated activities at STI clinic		
Blood tested for STI	16	76.2
Physical examination conducted for STI identification	14	66.7
Discussion on how STI is/isn't transmitted	6	28.6
Discussion on safe injecting behavior	3	14.3
Regular/non-regular use of Condom	5	23.8
Took a friend with me	2	9.5
Name of organizations that run STI clinic visited by them		
AMDA	3	14.3
CAC	1	4.8
NSARC	1	4.8
Others	14	66.7
Don't know	2	9.5
Total	**21**	**100.0**

Multiple responses

3.7.4 HIV Testing and Counseling Centres Visiting Practice

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

Almost a half (50%) of PWIDs had been to a HTC center in the past year. Among them large majority (92%) had given their blood for HIV test,76 percent received pre-test counseling, 73 percent had received test results, 65 percent had received post-test counseling and similar number had received information on safe injecting behavior. One third (36%) of PWIDs had visited the VCT center run by

the KYC. The other VCT centers visited are run by Richmond (12%), AMDA (3%), BDS (2%) FPAN (1%) etc. More than half (53%) had been to a HTC center once, while around 35 percent had visited a VCT two or three times in the past year.

Table 3.28 HTC Visiting Practices in the Past Year

	N	%
Have you visited any Voluntary Counseling and Testing HTC centers in the last 12 months?		
Yes	179	49.7
No	181	50.3
Total	360	100.0
For how many times have you visited HTC center in the last 12 months?		
Once	94	52.5
2-3 times	62	34.6
4-6 times	11	6.1
7-12 times	1	.6
More than 12 times	11	6.1
Total	179	100.0
Participated activities at HTC		
Received pre-HIV/AIDS test counseling	136	76.0
Blood sample taken for HIV/AIDS test	164	91.6
Received post HIV/AIDS test counseling	116	64.8
Received information on safe injecting behavior	116	64.8
Received HIV/AIDS test result	130	72.6
Received counseling on using condom correctly in each sexual intercourse	26	14.5
Received information on HIV/AIDS window period	5	2.8
Took a friend with me	6	3.4
Others	3	1.7
Name of the organization that run the HTCs visited by them		
AMDA	5	2.8
Youth Vision	1	.6
Naulo Ghumti	1	.6
NSARC	1	.6
FPAN	2	1.1
DIC	24	13.4
Richmond	21	11.7
KYC	65	36.3
BDS	4	2.2
Others	30	16.8
Don't know	29	16.2
Total	179	100.0

Multiple responses

3.7.5 Needle Syringe Exchange Programe

Under the needle/syringe exchange program a large majority, 88.3%, of PWIDs in Eastern Nepal have reportedly exchanged used syringes/needles with new ones from outreach staffs. However one-tenth of them, 11.7%, had apparently not exchanged syringes/needles from available outreach staffs of NSEP.

Table 3.29 Needle/Syringe Exchange Program (NSEP)

Use of needle exchange services	East PWIDs	
	N	%
Yes	318	88.3
No	42	11.7
Total	360	100.0

3.7.6 Participation in HIV Awareness Programe

Supposedly, the participation of East PWIDs in any HIV Awareness program was low. Only one fifth, 19.4%, out of total 360 respondents, reported of participating in a HIV awareness program followed by a large majority, 80.6%, who had not participated in any above mentioned programs.

Table 3.30 Participation in HIV Awareness program

	East PWIDs	
	N	%
Yes	70	19.4
No	290	80.6
Total	360	100.0

3.8 Psychosocial Health of people who inject drugs

3.8.1 Housing Instability

At present majority of respondents, 81.1%, lived in their own houses followed by more than one-tenth respondents, 15.3%, who reportedly lived in rented apartment/room, whereas 1.1 % were homeless living on the streets. Similarly 9 respondents out of total 360 had other means.

Table 3.36 Housing instability

	East PWIDs	
	N	%
Homeless on the street	4	1.1
Living in own home	292	81.1
Rented apartment/Room	55	15.3
Others	9	2.5
Total	360	100.0

Table 3.37 Depression

Valid	Frequency	Percent
Euthymic	126	35.0
Distressed	69	19.2
Depressed	165	45.8
Total	360	100.0

Prevalence of distress and depression (65%) was very high among surveyed PWID.

3.8.2 Social Support and Level of Satisfaction

The mean SSQN was .71 and that score ranged from 0-3.3. The 0 signifies the situation some PWID's have nobody to rely to seek social support at the time when they actually need. In terms of satisfaction level, the mean score was 4.9 ranging from .33 to 5.8.

Table 3.38 Social support number and satisfaction level score among PWIDs

Social support	Mean	Range
Social support questionnaire number score (SSQN)	.7143	0-3.3
Social support questionnaire satisfaction level score (SSQS)	4.89	.33-5.8

CHAPTER 4

TREND ANALYSIS OF KEY INDICATORS

This chapter seeks to analyze the trend in the selected indicators using the data from five rounds of IBBS conducted eastern terai region, using same sampling design and procedures. Each round of survey was conducted in an interval of two years starting from 2003- 2012. It specifically examines socio-demographic characteristics, drug injecting habits, needle/syringe use, and condom use behavior among PWIDs.

4.1 Prevalence of HIV and Syphilis Infection

HIV prevalence was found to be high among PWIDs of Morang district, followed by Sunasari districts in all five rounds of survey. The proportion of HIV infection among PWIDs in Morang seems to decrease in the first four rounds (52% in 1st round, 41.5% in 2nd round, 21.5% in 3rd round 13% in 4th round) but finally in the fifth round it radically increased to 48%. Similarly, in Sunsari district, the HIV infection rate has increased significantly from 15% in 2007 and 5% in 2009, to 31% in 2012 (Table 4.1).

Table 4.1 HIV prevalence by districts

District Interviewed	First round (2003)			Second round (2005)			Third round (2007)			Fourth round (2009)			Fifth Round (2012)		
	Total Sample	HIV+	%	Total Sample	HIV+	%	Total Sample	HIV+	%	Total Sample	HIV+	%	Total Sample	HIV+	%
Morang	135	70	51.8	135	56	41.5	135	29	21.5	135	17	12.6	192	14	7.3
Sunsari	135	45	33.3	135	45	33.3	135	20	14.8	135	4	5.2	96	9	9.4
Jhapa	7	6	8.0	75	8	10.7	75	10	13.3	75	4	5.3	72	6	8.33
Total	**345**	**121**	**35.1**	**345**	**109**	**31.6**	**345**	**59**	**17.1**	**345**	**28**	**8.1**	**360**	**29**	**8.1**

4.2 Socio-demographic Characteristics of PWIDs

Socio-demographic characteristics of the study participants present a similar pattern in all five rounds as same sampling methodology was used in all five rounds of survey (Table 4.2).

Age wise trend shows that more than half of the PWIDS were more than 25 years in 1st, 2nd and 3rd round survey while in the 4th and 5th round of survey more PWIDSs were found be less than 25 years of age. Hence, the median age for the PWIDs in 4th and 5th round survey is 24 years.

PWIDs were young in all four surveys, the median age decreased to 24 in 2009 compared to 25 in 2003, 2005 and 2007. The proportion of respondents younger than 25 years increased from 45.5 percent in the first two rounds and 49 percent in the third round to 51 percent in the fourth round of the survey. However, the increase is not statistically significant. Higher proportion of PWIDs in all the five rounds had completed their secondary education while more than one fifth had completed

SLC and above education up to four rounds and decreased to 14 percent in fifth round (Table 4.2).

Table 4.2 Socio-Demographic Characteristics

Socio-demographic characteristics	First round (2003)		Second round (2005)		Third round (2007)		Fourth round (2009)		Fifth round (2012)	
	N=345	%	N=345	%	N=345	%	N=345	%	N=360	%
Age										
16 -25 Yrs	157	45.5	157	45.5	169	49.0	176	51.0	202	56.1
=>25 Yrs	188	54.5	188	54.5	176	51.0	169	49.0	158	43.9
Median age	**25**	-	**25**	-	**25**	-	**24**	-	**24**	
Education										
Illiterate	15	4.3	18	5.2	8	2.3	10	2.9	12	3.3
Literate only	5	1.4	5	1.4	10	2.9	18	5.2	10	2.8
Primary	48	13.9	76	22.0	59	17.1	55	16.0	72	20.0
Secondary	200	58.0	177	51.3	195	56.5	165	47.8	217	60.3
SLC & above	77	22.3	69	20.0	73	21.2	97	28.1	49	13.6

4.3 Drug Injecting Practices

Most of the study participants had been injecting drugs for more than five year in all five rounds, with the average duration of 4.1 years in 2003, 5 years in 2005, 4.8 years in 2007, 4.6 years in 2009 and 6.81 years in 2012. Comparatively, less than 2percent of PWIDs have started injecting in the last one year in the round five (2011).

The median age of the respondents was found to 21 in 1st round and 20 in 2nd, 3rd and 4th round but in the 5th round PWIDs seems to have started injecting quite early (age 19).

The proportion of PWIDs having their first injecting experience before they were 20 years increased steadily from 46 percent in 2003, to 51 percent in 2005 to 59 percent in 2007, before coming down to 56 percent in 2009 and then increased to 66 percent in 2012.

Table 4.3 Drug Injecting Practices

Drug Injecting Practice	First round (2003)		Second round (2005)		Third round (2007)		Fourth round (2009)		Fifth round (2012)		P-value
	N=345	%	N=345	%	N=345	%	N=345	%	N=360	%	
Duration of drug Injection habit											
Up to 11 months	44	12.8	31	9.0	33	9.6	40	11.6	8	2.2	.000
12–23 months	56	16.2	38	11.0	36	10.4	52	15.1	21	5.8	
24-59 months	113	32.8	124	35.9	117	33.9	117	33.9	102	28.3	
More than 60	132	38.3	152	44.1	159	46.1	136	39.4	229	63.6	

months											
Average duration years	**4.1**	**-**	**5.0**	**-**	**4.8**	**-**	**4.6**	**-**	***6.81***		
Age at first drug injection											
Up to 20 years	158	45.8	176	51.0	202	58.6	193	55.9	239	66.4	.020
21+ years	187	54.2	169	49.0	143	41.4	152	44.1	121	33.6	
Median age	**21**	**-**	**20**	**-**	**20**	**-**	**20**	**-**	**19**	**-**	

4.4 Needle/Syringe Usage in the Past Week

Data relating to the injecting practices of the study population in the past weekin the first four rounds showed that the PWIDs were increasingly more cautious and were avoiding risky behavior. 92% of PWIDs in the 5th round reported to never use the syringe and needle used by other people.

Further, all the PWIDs in all five rounds of survey were asked if they have ever used the syringe/ needle kept in a public place in the past one week and majority of them in all the four rounds (76.5% in 1st round, 76% in 2nd round, 93% in 3rd round, 89% in 4th round) said no. Majority of not using needle/syringe kept in public palce, increased to 97% in 5th round.

It was found that, high majority of PWIDs in all the five rounds did not share the syringe/ needle with anyone in the past one week (prior to interview). However, the proportion of not sharing the needles is high in the fifth round (92%) compared to previous rounds of survey. Likewise, the trend of sharing the syringe/ needle with two partners has also decreased in time. For instance: a quarter (25%) in 2003, 22% in 2005, 14% in 2007, 12% in 2009 and finally 2.5 % in 2012.

In the same way, fewer PWIDs in the fifth round than the earlier four rounds had injected with a previously-used needle/syringe in the past week. For instance: Compared to 65% in 2003, which went up to 57% in 2005, 32% in 2007, and 37 % in 2009 and now in 2012 it has drastically decreased to 4% (Table 4.4).

Table 4.4 Syringe Using and Sharing Practice in Past Week

Needle/syringe Use throughout the Past Week	**First round (2003)**		**Second round (2005)**		**Third round (2007)**		**Fourth round (2009)**		**Fifth round (2012)**		**P-value**
	N=345	**%**	**N=345**	**%**	**N=345**	**%**	**N=345**	**%**	**N=360**	**%**	
Used a needle/syringe that had been used by another											
Never Used	229	66.4	240	69.6	297	86.1	295	85.5	331	91.9	.000
Ever Used	116	33.6	105	30.4	48	13.9	50	14.5	29	8.1	
Used a needle/syringe that had been kept in public place											
Never Used	264	76.5	261	75.7	322	93.3	308	89.3	348	96.7	.000
Ever Used	81	23.5	84	24.3	23	6.7	37	10.7	12	3.3	

Number of needle/syringe shared partners											
None	172	49.9	207	60.0	276	80.0	286	82.9	332	92.2	.000
Two partners	85	24.6	76	22.0	49	14.2	42	12.2	9	2.5	
Three or more partners	88	25.5	62	18.0	20	5.8	17	4.9	11	3.1	
Reused needle/syringe in the past week											
Yes	224	64.9	196	56.8	108	31.3	116	33.6	13	3.6	
No	121	35.1	149	43.2	237	68.7	229	66.4	347	96.4	

4.5 Comprehensive Knowledge of HIV

Upon evaluating comprehensive knowledge of HIV among East PWIDs, only one third i.e. 33.6% were reported as having the comprehensive understanding followed by remaining two third, 66.4%, who still bore misconceptions regarding HIV

Table 4.5 Comprehensive Knowledge of HIV

Comprehensive knowledge	**East PWIDs**	
	N	**%**
Yes	121	33.6
No	239	66.4
Total	360	100.0

4.6 Condom Use Behavior with Different Sexual Partners

In the past year, relatively fewer PWIDs used condoms consistently in sexual contact with regular female sex partners than with non-regular female sex partners in all the five rounds. The trend of using condom with the female sex worker was increasing in all the four rounds. In the last fifth round (2012), 67.2% PWIDs reported to use condom every time they have sex with FSW in the last one year time.

The trend of using condom with regular partners is decreasing with time. For instance12% of PWIDS used condom in 1st round, 11% in

A change in condom using practices with non-regular partners was also observed. Consistent condom use with non-regular partners has increased (29% in the fifth round vs. 28% in the first round). The consistent use of condoms with sex workers increased to 67.2% in the fifth round (2012) from 57% in 2007 and 50% in 2005 (Table 4.6).

Table 4.6 Consistent Use of Condom with Different Sex Partners in the Past Year

Consistent use of condom	First round (2003)		Second round (2005)		Third round (2007)		Fourth round (2009)		Fifth round (2012)		
	N	%	N	%	N	%	N	%	N	%	
Use of condom with regular female sex partners during past 12 months											
Every time	15	12.2	14	11.3	12	9.2	6	5.6	6	5	.000
Sometimes - Never	108	87.8	110	88.7	119	90.8	102	94.4	115	95	
Total	123	100.0	124	100.0	131	100.0	108	100.0	121	100.0	
Use of condom with non-regular female sex partners during past 12 months											
Every time	14	28.0	19	24.1	30	33.0	23	23.7	42	29	.003
Sometimes – Never	36	72.0	60	75.9	61	67.0	74	76.3	103	71	
Total	50	100.0	79	100.0	91	100.0	97	100.0	145	100.0	
Use of condom with female sex workers during past 12 months											
Every time	29	41.4	42	50.0	51	57.3	40	44.5	49	67.2	.000
Sometimes – Never	41	58.6	42	50.0	38	42.7	50	55.5	24	32.8	
Total	70	100.0	84	100.0	89	100.0	90	100.0	73	100.0	

4.7 Exposure to HIV Programs in the Past Year

A valid large majority of respondents i.e. 88.1 per cent were reportedly exposed to HIV related programs in the past year. However, a minor 11.9 per cent of the total could not be incorporated to the HIV programs.

Table 4.7 Exposure to HIV programs in the Past Year

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	317	88.1	88.1	88.1
No	43	11.9	11.9	100.0
Total	360	100.0	100.0	
P-value	**.000**			

4.8 Relationship between Sexual Behavior and HIV

This section examines sexual behavior and its relationship to HIV among PWIDs in the Eastern Terai. It is important to interpret the findings in this section with caution, as some PWIDs may have changed their past sexual behavior since being diagnosed with HIV.

Among 360 total PWIDs (interviewed) 29 of them were found to be HIV positive.

The HIV infection rate is 12 percent among those PWIDs with a regular female sex partner, 5.5 percent among those who have non-regular partners, and 3 percent among those who had sexual intercourse with a female sex worker in past twelve months. Similarly, PWIDs who had two and more regular female

sex partners are more than two times likely to have HIV (13%) than those who do not have regular female sex partner in the past twelve months (6%). The HIV infection rate is 9 percent among those PWIDs who do not had causal female sex partner in the past month, 8 percent among those with two and more casual partner in the past month and PWIDs who had sexual intercourse with two and more female sex workers in the past month were more likely to have HIV (14%) than those who do not had sexual intercourse with any female sex workers in the past month. This finding further indicates that the current sexual behavior of the PWIDs is not necessarily associated with HIV status.

Table 4.8 Between Sexual Behavior and HIV

	N	HIV +		HIV -		P-value
		N	%	N	%	
Sex with female regular partner (wife or live-in partner) during last 12 months?						
Yes	121	14	11.6	107	88.4	.124
No	239	15	6.3	224	93.7	
Sexual intercourse with a female non-regular sex partner during last 12 months?						
Yes	145	8	5.5	137	94.5	
No	215	21	9.8	194	90.2	.209
Sexual intercourse with a female sex worker in last 12 months?						
Yes	73	2	2.7	71	97.3	
No	287	27	9.4	260	90.6	.103
Number of Regular female sex partner in the past month						
0 Partner	252	15	6.0	237	94	
1 partner	9	1	11.1	8	88.9	
2 and more partners	99	13	13.1	86	86.9	
Number of casual female sex partner in the past month						
0 Partner	275	24	8.7	251	91.3	
1 partner	19					
2 and more partners	66	5	7.6	61	92.4	
Number of female sex worker in the past month						
0 Partner	349	28	8.0	321	92	
1 partner	4	0	0	4	100	
2 and more partners	7	1	14.3	6	85.7	.868
Total	360	29	8.1	331	91.9	

4.9 Knowledge of and Access to New Needles/Syringes

Almost all respondents (99.7%) reported that they could obtain a new syringe whenever necessary. Needle exchange programs run by different NGOs and the drugstore (89% each) were the most common places from which PWIDs could get a new syringe. Few also reported that they could get it from friends (14%), hospital (11%) and drug sellers (11%). Furthermore, high majority (90%) of PWIDs had received new needle/syringe from outreach worker/peer educator or from staff of needle exchange program in the last 12 months (Table 4.9).

Table 4.9 Knowledge of Sources of New Syringes

	N	%
Can obtain new syringe		
Yes	359	99.7
No	1	0.3
Can obtain syringe from		
Drugstore	321	89.4
Other shop	4	1.1
Health worker	4	1.1
Hospital	41	11.4
Drug wholesaler/drug agency	16	4.5
Family/relatives	1	0.3
Sexual partner	2	0.6
Friends	51	14.2
Other drugs users	19	5.3
Drugs seller	39	10.9
Needle exchange program	318	88.6
Others	6	1.7
Q316.4. In the last 12 months, have any of an outreach worker, a peer educator or a staff from a needle exchange program provided you with a new syringe		
Yes	326	90.6
No	34	9.4
Total	**360**	**100.0**

Multiple responses

4.10 Treatment Practice

Table 4.10 shows the status of treatment received for their drug habits by PWIDs in the study districts. Two third (66%) of PWIDs have not received any treatment. Among them who received the treatment less than a quarter (23%) received it in between one to two years before the interview. A similar number of the respondent (23%) had received treatment recently (less than six months).Few of them had also received their last treatment more than four years ago (12%).

Table 4.10 Treatment Received and Types of such treatment

	N	**%**
Treatment status		
Ever treated	124	34.4
Never treated	236	65.6
Last treatment received		
Less than 6 months	28	22.6
6-11 months before	18	14.5
12-23 months before	29	23.4
24-35 months before	21	16.9
36-47 months before	13	10.5
48 or more months before	15	12.1
Total	124	100.0

Multiple responses

CHAPTER 5

SUMMARY OF MAJOR FINDINGS AND POSSIBLE POLICY AND PROGRAMME IMPLICATIONS

5.1 Summary of Major Finding

HIV prevalence among PWIDs in Eastern terai is 8.1 percent, while 1.7 percent were currently infected with syphilis.

Majority of the PWIDs in Eastern terai were young with 56 percent being below the age of 25 years. Nearly three fourth (70%) of the PWIDs were currently living with their sexual partners/others while remaining 30 percent were living with their spouse. Very few PWIDs were illiterate (3.3%).

Almost two third (64%) of PWIDs had been injecting drugs for over five years. The PWIDs in Eastern terai had been injecting drugs in a quite young age. The median age of the PWIDs the first time they used drugs intravenously was 19 years. Data revealed that many of the PWIDs avoided high-risk behavior in their last three injections while one in ten PWIDs reported engaging in high-risk behavior in the third most recent injections (10%).

Majority of the PWIDs (89%) in the survey districts reported to be sexually active. Among them most (88%) had sexual intercourse with regular female sex partner and 58.6 percent had sexual contact with non-regular female sex partner while 49.3 percent had also sexual relations with female sex workers in the past month. However, the condom use was found to be low in the last sex with regular partners (25.6%) followed by non-regular partners (54.5%). Condom use was the highest with female sex workers (82.2%) in the last sex.

All the respondents knew at least one place from where they could obtain condoms. As for the reasons provided by PWIDs for not using condoms with non-regular partners, 54.2 percent said that condoms were not available at the time of need, while half of them said that they did not like using condoms. About 35 percent of PWIDs who had sex with FSWs said they could not use a condom because condoms were not available. Little more than a quarter (27.3%) said they did not like condoms and so did not use them the last time they had sex with a sex worker.

Over four-fifth of the respondents (84%) had heard about sexually transmitted diseases, while 28.7 percent of PWIDs could not correctly name any symptom of STIs in men. On the other hand, 13.1 percent had experienced at least one symptom of STI in the past 12 months.

While 87 percent of PWIDs knew about 'ABC', 42.3 percent were aware of all of 'BCDEF' (A: abstinence, B: being faithful to one partner, C: consistent condom use prevent HIV transmission, D: a healthy looking person can be infected with HIV, E: a person cannot get HIV from a mosquito bite and F: HIV is not transmitted while sharing meal with an HIV infected person).

87 percent of PWIDs knew about a confidential HIV testing facility in their community. About 68percenthadevertakenanHIVtest.Amongthem, 67percenthadtakenthetestwithinthepastyear.

Most of the PWIDs (88%) had met peer/out-reach educators at least once while almost all (96%) had visited a drop-in center (DIC).The majority of them (94%) had been to a DIC to get a new syringe. On the other, the majority of the respondents (94%) had not been to an STI clinic in the past year while half of the PWIDs (50%) had been to a VCT center in the past year.

More than three fourth of the respondents (80.6%) in the Survey districts had never participated in any HIV/AIDS awareness-raising program or similar community event so far. Those who had participated in HIV/AIDS awareness programs mostly participated in the programs organized by NAMUNA, FAITH and AHH.

5.2 Possible Policy and Program, Implications

The findings of the study have some important policy/program implications:

Data from the study indicate that a considerable proportion of PWIDs in Eastern Terai are young below the age of 25 years (56%), while 66.4 percent had their first injection at the age of below 20 years. Specific program activities that target youths and adolescents should be designed to impart HIV/AIDS awareness and sex education in an effective way.

Though the high majority of the respondents had practiced safe injecting behaviors, one in ten PWID are found engaged in high risks behaviors associated with needle/syringe sharing. Interventions that promote behavioral change activities should be further strengthened and scaled up to cover more PWIDs. Harm reduction initiatives should also be continued and expanded further.

The median age of sexual debut was 16 years, and 84 percent had sex by the time they were 20 years. Of the 360 respondents, 75 percent had sex in the past 12 months. Consistent use of condoms was reported by only 5.6 percent of PWIDs with regular partners, 23.7 percent with non-regular partners and 44.5 percent with commercial sex workers in the past year. The low consistence condom use with sex partners is a cause of concern. Continuing efforts to encourage condom use with commercial as well as non-regular partners and emphasizing condom use with regular sex partner should be stressed.

Around 61 percent of PWIDs had never been to a de-addiction treatment center. PEs/OEs and DICs should put more emphasis on treatment alternatives. Rehabilitation and detoxification centers should be further extended and also supported to allow them to provide PWIDs with the necessary services, especially to PWIDs belonging to economically deprived families. Rehabilitation programs should also incorporate family counseling services to make them more effective

Around 51 percent of those PWIDs who had ever experienced any STI symptoms had never sought any treatment. At the same time, majorities (87%) of the PWIDs were aware of the existence of HIV testing facility in their communities, while about one-third had never taken up HIV testing (31.4%). Increasing awareness about confidential HIV testing facilities in the community and increasing HIV test uptake is of crucial importance. Strengthen on client-friendly service provision of HIV test uptake and STI treatment services.

Peer/outreach educators are good contact points to disseminate necessary information related to STI and HIV/AIDS, safe injecting practices, safe sex and other related topics. Around 88 percent of respondents had met them at least once in the past year. One-to-one education for behavioral change and safe injecting and sexual practices through outreach education programs should be continued and

expanded to cover more PWIDs. Local NGOs should be focused onto increase access to more of target population in such facilities.

Periodic IBBS with sub-population will help design and implement timely intervention strategies and monitor the changes in diversity of sexual networks and effectiveness of the interventions in controlling the epidemic.

Utilize different mediums of communications such as hotlines, websites, PEs/OEs, print media, radio/television and social media to reach these groups.

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ANNEXES

Annex 1: Indicators for Monitoring and Evaluation of HIV

Prevention 1: HIV related risk and transmission among PWIDs	**Results (%)**	**Indicator**
Impact/Outcome indicators		
Percentage of PWIDs who are HIV infected	8.1	National/ UNGASS
Percentage of PWIDs who had adopted behavior that reduce transmission of HIV i.e. who both avoided using non sterile injecting equipment and used condom in the last sex in last month	23.9	National
Percentage of PWIDs reporting the use of sterile injecting equipment in the last time they injected	84	UNGASS
Percentage of PWIDs who avoided sharing injecting equipment in the last month	89	
Percentage of PWIDs who used condom at last sex with female sex worker in the last 12 months	82.2	
Percentage of PWIDs who say they consistently use a condom when they have sex with a female sex worker in the last 12 months	23.4	
Percentage of PWIDs who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	42.3	National/ UNGASS
Output/Coverage Indicators		
Percentage of PWIDs reached with targeted HIV prevention service programs (BCC with OE/PE or DIC or STI Clinics or VCT or community events / trainings or drug treatment or rehabilitation)	19.4	National
Percentage of PWIDs reached with HIV prevention programs (Knows where to receive HIV test and received condoms)	88.1	UNGASS
Percentage of PWIDs who received an HIV test in the last 12 months and who know their results	94.5	UNGASS

Annex 2: Formula for Calculating Sample Size*

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 you want to be able to detect.

$\bar{P}$ = (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: Survey Questionnaires

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

Integrated Biological and Behavioral Surveillance Survey among Male Injecting Drug Users in Terai highway districts

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

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

Would you be willing to participate?

1. Yes 2. No

Signature of the interviewer: _____Date:_____/_____/2012

Operational definition of PWIDs:

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

Did the interviewee abandon the interview?

1. Yes (Precise the number of the last question completed: Q __)

2. No

Interviewer Name: _____Code Interviewer: _____

Date Interview: ___/ _____/ 2069

Checked by the supervisor: Signature: _____Date: ___/ ___/ 2012

Data Entry # 2: Clerk's Date / /2012

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

1. Yes 2. No (continue interview)

↓

When?

_____Days ago (make sure that it was interviewed by ……. and close the interview)

002. Respondent's ID #: ☐☐☐☐☐☐

002.2 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?

1. Yes 2. No

002.4 How long you have been injecting drugs?

Years ☐☐ Months ☐☐

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

003. Interview Location
(to be filled by interviewer)

003.1 Name of location_____

☐☐

003.2 Ward No.

003.3 VDC/Municipality: _____

003.4 District: _____

1.0 BACKGROUND OF RESPONDENT

Q.N.	Questions	Coding Categories	Skip to
101	Where are you living now? **(Write current place of residence: Ward No. Tole, Lane etc.)**	Ward ..... VDC/Municipality_____ District_____	

☐☐

101.1	How long have you been living continuously at this location? **(Write 995 if less than one month)**	Month ..... Always (since birth) ..... 0 Others (Specify)_____99	
102	In the last 12 months have you been away from your home for more than one-month altogether? **(Left home, village/district)**	Yes ..... 1 No .....2 Don't' know ..... 98 No response 99	
103	How old are you?	Age ..... **(write the completed years)** ☐☐	
104	What is your educational status? **(Circle '0' if illiterate, '19' for the literate without attending the school, and write exact number of the passed grade)**	Illiterate..... 0 Literate..... 19 Grade ..... **(write the completed grade)** ☐☐ Others(Specify)…..…… 96	
105	What is your caste? **(Specify Ethnic Group/Caste)**	Ethnicity/Caste _____ Code No.....	☐☐
106	What is your current marital status?	Never married..... 1 Married ..... 2 Divorced/Permanently separated ..... 3 Widow ..... 4 Other (Specify)_____..... 96	→107.1
107	How old were you when you first got married?	Age ..... **(write the completed years)**	
107.1	Which of the following best describes your current living situation? (Select only one option)	Homeless on the street…….....…..1 Living in own home…….....…2 Living in a residential hotel.....…….3 Rented apartment/Room.....…4 Other(specify)…….……..... 96	→ 110
108	With whom you are living now?	Living with wife ..... 1 Living with female sexual partner ..... 2 Living without sexual partner ..... 3 Others (Specify)_____96 No response 99	110
109	Do you think your wife/female sexual partner has any other sexual partners?	Yes ..... 1 No ..... 2 Don't' know ..... 98 No response 99	110
109.1	If yes, what is the sex of your partner?	Male ..... 1 Female 2	
110	During the past one-month how often have you had drinks containing alcohol?	Every day..... 1 More than once a week ..... 2 Less than once a week..... 3	

2.0 DRUG USE

Q.N.	Questions	Coding Categories	Skip to
201	How long have you been using drugs? **(Drug means medicine not used for treatment purpose rather used for Intoxication**)	Years ..... Months ..... No response 99	
202	How old were you when you first injected drugs? **(Include self-injection or injection by another)**	Years ..... **(write the completed years)**	
203	How long have you been injecting drugs? **(Include self-injection or injection by others)**	Years ..... Months ..... No response 99	
203.1	Have you injected drugs in the last month?	Yes .....1 No .....2 →	204
203.2	If Yes, have you used non-sterile syringe/needle at any time in the last month?	Yes .....1 No 2	
203.3	Have you used non-sterile injecting equipment at any time in the last month?	Yes .....1 No 2	

204 Which of the following types of drugs have you used and/or injected in the past one-week?
(Read the list, multiple answer possible)

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

204.1	In the last month, did you switch from one drug to another?	Yes……1 No----------2 →	205

Q.N.	Questions	Coding Categories	Skip to
204.1.1	If yes, which drug?	From _____drug To _____drug	
204.1.2	What is the reason for switching?		
205	How many times would you say you injected drugs yesterday?	Times ..... → Not injected 0	209

206	Would you like to tell me why you did not injected yesterday?	_____	
207	How many days ago did you get injected?	Days ago	
208	How many times would you say you injected drugs on the last day?	Times	
209	During the past one-week how often would you say you injected drugs?	Once a week ..... 1 2-3 times a week..... 2 4-6 times a week..... 3 Once a day ..... 4 2-3 times a day ..... 5 4 or more times a day ..... 6 Not injected in the last week ..... 7 Don't know ..... 98 No response 99	
210	(Ask whether the respondent was ever arrested or not then ask the following questions) Have you ever been imprisoned or detained for any reason?	Yes .....1 No .....2 → 301 No response 99	
210.1	In the past year, have you ever been imprisoned or detained for any reason?	Yes .....1 No .....2 → 301 No response 99	
210.2	In the past year, have you ever been imprisoned for drug-related reason?	Yes .....1 No .....2 → 301 No response 99	
210.3	In the past year, how many times have you been imprisoned for drug-related reason?	Times ..... No response 99	
210.4	Have you ever injected drugs while in prison?	Yes .....1 No .....2 No response 99	

3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Questions	Coding Categories	Skip to
301	Think about the times, you have injected drugs yesterday/last day. How many times did you inject drugs on that day? **(Fill the number from answer to Q. 205 or 208 and verify by asking the respondent)**	Times	
302	The last time you injected, how did you get that syringe/needle? **(Public place means places other than the PWID's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me after he use ..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ ..... 4 I used a new needle/syringe given by NGO staff/volunteer_____..... 5 **(write the name of Organization)** I used a needle/syringe which I purchased..... 6 I reused my own needle/syringe ..... 7 My friend gave new needle/syringe..... 8 Others (Specify) _____ 96 Don't know..... 98 No response 99	
302.1	If you were in a group the last time that you injected, how many different people in the group do you think used the same needle?	Nos. ..... Injected alone 95	

303	Think about the time before the last time you injected, how did you get that syringe/needle? **(Public place means places other than the PWID's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me after he use..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ ..... 4 I used a new needle/syringe given by NGO staff/ volunteer_____..... 5 **(write the name of Organization)** I used a needle/syringe which I purchased..... 6 I reused my own needle/syringe ..... 7 My friend gave new needle/Syringe. .... 8 Others (Specify) _____..... 96 Don't know..... 98 No response 99	
303.1	That time, If you were in a group, how many different people in the group do you Think had used the same needle?	Nos. ..... Injected alone 95	
304	Now think about the time before (before Q. 303), how did you get that syringe/ needle? **(Public place means places other than the PWID's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me after he use..... 2 I picked it up from a public place which was left there by others+ ..... 3 I picked it up from a public place which was left there by myself+ ..... 4 I used a new needle/syringe given by NGO staff/ volunteer_____..... 5 **(Write the name of Organization)** I used a needle/syringe which I purchased..... 6 I reused my own needle/syringe ..... 7 My friend gave new needle/ syringe..... ..... 8 Others (Specify) _____..... 96 Don't know..... 98 No response 99	
304.1	That time If you were in a group, how many different people in the group do you think had used the same needle?	Nos. ..... Injected alone 95	
305	Think about the times, you have injected drugs during the past one-week. How often was it with a needle or syringe that had previously been used by someone else?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Not injected in the last week ..... 5 →	314
		Don't know ..... 98 No response 99	
305.1	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? **(Public place means places other than the PWID's home that are used to hide syringe/ needle)**	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
306	In the past one-week, did you ever share needles and syringes with any of the following?		

Read out list. Multiple answers possible	**Yes**	**No**	**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			
307	With how many different injecting partners did you share needles or syringes in the past one-week? **(Count everyone who injected from the**	Number of partners ..... Don't know ..... 98 No response 99				
308	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
309	In the past-week, did you ever inject with a pre-filled syringe? **(By that I mean a syringe that was filled without you witnessing it)**	Yes ..... 1 No ..... 2 Don't' know ..... 98 No response 99				
310	In the past one-week, how often did you inject drugs using a syringe after someone else had squirted drugs into it from his/her used syringe? **(Front-loading/back-loading/splitting)**	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
311	In the past one-week, when you injected drugs, how often did you share a cooker/ vial/container, cotton/filter, or rise water?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
312	In the past one-week, how often you draw up your drug solution from a common container used by others?	Every times..... 1 Almost every-times .....;..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99				
312.1	In the past one year have you switched from sharing to non-sharing practice?	Yes .....1 No 2				
	Check Q no. 305 and those who have not injected in the last one week go to 314					
313	In the past one-week, when you injected with needles or syringes that had previously been used, how often did you clean them first?	Every time ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Never reused..... 5 Others (Specify)_____ ..... 96 Don't know ..... 98 No response 99				314
313.1	If cleaned, how did you usually clean them?	With water ..... 1 With urine ..... 2 With saliva..... 3 Boil the syringe in water ..... 4 With bleach..... 5 Burning the needle with matchstick.....6 Others (Specify)_____.... .... 96 Don't know ..... 98 No response 99				
314	Can you obtain new, unused needles and syringes when you need them?	Yes ..... 1 No ..... 2 Don't' know ..... 98 No response 99				316

315	Where can you obtain new unused needles and syringes? **(Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?")**	Drugstore ..... 1 Other shop ..... 2 Health worker ..... 3 Hospital ..... 4 Drug wholesaler/drug agency ..... 5 Family/relatives ..... 6 Sexual partner..... 7 Friends ..... 8 Other drugs users..... 9 Drugs seller..... 10 Needle exchange program of __..... 11 **(write the name of Organization)** Steal from legitimate source (hospital./pharmacy)..... 12 Buy on streets ..... 13 Other (Specify) _____.... 96	
316	In the past one-year, did you ever inject drug in another city/district (or another country)?	Yes ..... 1 No ..... 2 Don't' remember..... 98 No response 99	316.4
316.1	If yes, in which other cities/districts did you inject, including cities in other countries?	Cities_____ Districts_____ Country _____	
346.1.1	How often you cross the border (Indo-Nepal) to buy and use the illicit drugs in the past 12 months?	Always…….. 1 Most of the time…….. 2 Sometimes…….. 3	
316.2	Think about the times you injected drugs in another city/district (including abroad) how often was it with a syringe/needle that had previously been used by someone else?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response 99	
316.3	When you injected drugs in another city, how often did you give a syringe/needle to some one else?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response..... 99	
316.4	In the last 12 months, have any of an outreach worker, a peer educator or a staff from a needle exchange program given you a new needle/syringe?	Yes ..... 1 No ..... 2 Don't' remember..... 98 No response 99	
317	Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?	Currently under treatment .....1 Was in treatment but not now ..... 2 Have never received treatment. ..... 3 No response 99	401
318	How many months ago did you last receive treatment or help for your drug use?	Months ..... Don't know ..... 98 No response 99	
319	What kind of treatment or help you received? (Do not read out the responses, probe asking, "Are there any other kinds of treatment that you've received?" (**Multiple Answers Possible)**		

	Types of Treatments	**Name of Institutions**	
	1. Outpatient counseling		
	2. Self-help groups		
	3. Detoxification w/methadone		
	4. Maintenance w/methadone		
	5. Detoxification w/other drugs		
	6. Detoxification with no drug		
	7. Residential rehabilitation		
	8. Helped for *cold turkey* without medicine		

	9. Forced for *cold turkey* by others without treatment		
	96. Other (Specify)		
	99. No response		

4.0 SEXUAL HISTORY

Q.N.	Questions	Coding Categories	Skip to
401	How old were you at your first sexual intercourse?	Years old ☐☐ ***(Write completed years)*** Never had sexual intercourse ..... 0 Don't know ..... 98 No response 99	→ 601
402	Have you had sexual intercourse in the last 12 months?	Yes ..... 1 No ..... 2 No response 99	404
403	In total, how many different female sexual partners have you had sex in the last 12	Total Number ☐☐	
403.1	How many were female "regular partners"? **(Your wife or live-in sexual partners)**	Number ☐☐ Don't know ..... 98 No response 99	
403.2	How many were female "sex worker"? **(Partners to whom you bought or sold sex in exchange for money or drug)**	Number ..... Don't know ..... 98 No response 99	
403.3	How many were female "non-regular partners"? **(Sexual partners, you are not married to and have never lived with and did not have sex in exchange for money)**	Number ..... Don't know ..... 98 No response 99	
404	We have just talked about your female sexual partners? Have you ever had any male sexual partners also?	Yes ..... 1 No ..... 2 No response 99	501
404.1	If yes, have you had anal sex with any of your male partners in the last 12 months?	Yes ..... 1 No ..... 2 No response 99	501
404.2	With how many different male partners have you had anal sex in the last 12 months?	Number ..... ☐☐ Don't know ..... 98 No response 99	☐☐
404.3	The last time you had anal sex with a male sex partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't Know ..... 98 No response 99	
404.4	How often have you used a condom in an anal sex with male sex partner in the past 12 months	Every Times ..... 1 Almost Every Times ..... 2 Some Times ..... 3 Never Used ..... 4 Don't Know ..... 98 No response 99	

5.0 NUMBERS AND TYPES OF PARTNERS

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

Q. N.	Questions	Coding Categories	Skip to
501.	Did you have sex with female regular partner (wife or live-in partner) during last 12 months?	Yes ..... 1 No 2	→ 502
501.1	Think about your most recent female regular sexual partner. How many times did you have sex with her during last one-month?	Times ..... ☐☐ Don't know ..... 98 No response 99	

501.2	The last time you had sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	501.4 → 501.4 }
501.3	Why did not you or your partner use a condom that time? **(Do not read the possible answers, multiple answer possible)**	Not available..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 4 Used other contraceptive..... 5 Didn't think it was necessary..... 6 Didn't think of it ..... 7 Other (Specify) _____..... 96 Don't know ..... 98 No response 99	
501.4	How often have you used a condom with female regular partners in the past year?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
501.5	Did your female regular partner also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.6	Have you ever had anal sex with your female regular partners?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	} 502
501.7	The last time you had anal-sex with a female regular partner did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
501.8	How often have you used a condom in an anal-sex with female regular partners in the past 12 months?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
502	Did you have a sexual intercourse with a female sex worker in last 12 months? **(Check 403.2 and circle the response of Q. 502 *if necessary you may need to ask 403.2 once again and correct the response)***	Yes ..... 1 No ..... 2 →	503
502.1	Think about the female sex workers that you have had sex in the past one-month. In total how many female sex workers you sold sex in exchange for money or drugs?	No.. ..... Don't know ..... 98 No response 99	
502.1.1	With how many sex workers you had sex in last month by paying them money or drugs?	No.. ..... Don't know ..... 98 No response 99	

502.1.2	Where did you have sex with a last sex worker?	Hotel/lodge ..... 1 Own house ..... 2 Sex worker's house ..... 3 Injecting site ..... 4 Tea shop ..... 5 Park/garden ..... 6 Dance restaurant ..... 7 Massage parlor ..... 8 Bhattipasal ..... 9 Dohori restaurant ..... 10 Other (Specify) _____..... 96 Don't Know..... 98 No response 99	
502.2	Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month?	Times ..... Don't know ..... 98 No response 99	
502.3	The last time you had sex with a female sex worker did you and your partner use a condom?	Yes ..... 1 → 502.5 No……..……2 Don't know .....98 No response..... 99 → 502.5	
502.4	Why did not you and your partner use a condom that time? **(Do not read the possible answers, multiple answer possible)**	Not available..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like them ..... 4 Used other contraceptive..... 5 Didn't think it was necessary… ..... .6 Didn't think of it ..... 7 Other (Specify) _____..... 96 Don't know ..... 98 No response 99	
502.5	How often have you used a condom with female sex workers in the past year?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
502.6	Do you know whether female sex worker with whom you had sex also injected drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
502.7	Have you ever had anal sex with your female sex workers?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99 → 503	
502.8	The last time you had anal-sex with a female sex worker did you use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
502.9	How often have you used a condom in an anal sex with female sex workers in the past 12 months?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
503	Did you have a sexual intercourse with a female non-regular sex partner during last 12 months? **(Check 403.3 and circle the response of Q. 503 *if necessary you may need to ask 403.3 once again and correct the response)***	Yes ..... 1 No ..... 2 → 504	

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

Q. N.	Questions	Coding Categories	Skip to
504.2	The last time you had anal sex with him; did you use condom? **(Check answer in Q no 404.3)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	504.4 504.4
504.3	Why didn't you use condom at that time? **(Don't read possible answer, multiple answer possible)**	Not available..... 1 Too expensive ..... 2 Partner objected ..... 3 Don't like ..... 4 Used other contraceptive..... 5 Didn't think it was necessary..... 6 Didn't think of it ..... 7 Other (Specify) _____ .....96 Don't know ..... 98 No response 99	
504.4	How often have you used a condom during anal sex with a male partner is the past year? **(Check Q no. 404.4)**	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
504.5	Do you know if your male partner with whom you had anal sex also injected drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
504.6	Have you ever had sex in exchange for money or some commodities?	Yes ..... 1 No 2	
504.7	Before starting injecting drugs did you have sex in exchange for money or some commodities?	Yes ..... 1 No 2	
504.8	After starting injecting drugs did you have sex in exchange for money or some commodities?	Yes ..... 1 No 2	
504.9	Did you have sex in exchange for money or some commodities in the last 12 months?	Yes ..... 1 No 2	 504.11
504.10	In the last 12 month how many such sexual contacts did you have?	Number	
504.11	In the last 12 month how many such partners did you sell sex to?	Number	
505	Have you had sexual intercourse in the last month?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response..... 99	 507
505.1	If yes, did you or your partner use a condom when you had last sex in the last month?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response..... 99	
506	In the last month, how often did you or your partner use a condom when you had sex?	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
507	With whom did you have the last sexual intercourse?	FSW ..... 1 Regular partner ..... 2 **(Wife or live in sexual partner)** Other female friend ..... 3 Male friend ..... 4 Did not have sexual contact in the past year..... 5 Don't Know..... 98 No response 99	 601 →
508	Did you use condom in the last sexual intercourse	Yes ..... 1 No 2	

6.0 USE AND AVAILABILITY OF CONDOM

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

Q. N.	Questions	Coding Categories	Skip to
601	Haveyou everheardofacondom? **(Showpictureorsampleofcondom)Probe ifthe responseisNo**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	701
602	Haveyou everusedacondom?	Yes ..... 1 No 2	
603	Doyouknowofany placeorpersonfromwhich youcan obtain condom?	Yes ..... 1 No ..... 2 No response 99	701
604	Fromwhich placeorpeople,youcanobtain condoms?	Shop ..... 1 Pharmacy ..... 2 Clinic 3	
604.1	Didanyorganizationgiveyou condominthe last12months?	Yes, free of cost..... . 1 Yes, by taking money..... 2 No 3	
605	Howlong wouldittake**(fromyourhouseortheplacewhereyouwork)**toobtaina condom?	Less than 30 minutes ..... 1 More than 30 minutes ..... 2 Don't know ..... 98 No response 99	
606	Doyouusuallycarry condomwithyou?	Yes ..... 1 No ..... 2 →	701
607	Atthismomenthowmanycondomsdoyou haveat-hand with you? **(Observeandwrite)**	Numbers	

7.0 KNOWLEDGE AND TREATMENT OF STIs

Q. N.	Question	Coding Categories	Skip to
701	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes ..... 1 No ..... 2 No response 99	704
702	Can you describe any symptoms of STIs in women? **(Do not read possible answers, multiple answers possible.)**	Lower abdominal pain ..... 1 Genital discharge..... 2 Foul smelling ..... 3 Burning pain on urination ..... 4 Genital ulcers/sore..... 5 Swelling in groin area ..... 6 Itching..... 7 Other (Specify) _____..... 96 Don't know ..... 98 No response 99	
703	Can you describe any symptoms of STIs in men? **(Do not read possible answers, multiple answer possible)**	Genital discharge..... 1 Burning pain on urination ..... 2 Genital ulcers/sore blister..... 3 Swellings in groin area..... 4 Others (Specify) _____..... 96 Don't know ..... 98 No response 99	
704	Have you had genital discharge/burning urination during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	705

704.1	Currently, do you have genital discharge/burning urination problem?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
705	Have you had a genital ulcer/sore blister during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	706
705.1	Currently, do you have genital ulcer/sore blister?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
706	Last time you had a genital discharge/ burning urination or a genital ulcer/sore blister, where did you go for treatment?	Did not seek treatment ..... 1 With private doctor ..... 2 In hospital ..... 3 Never had such symptoms ..... 4 Others (Specify) _____..... 96	

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

Q. N.	Question	Coding Categories	Skip to
801	Have you ever heard of HIV or the disease called AIDS? **(Probe if the response if No)**	Yes .....1 No .....2 No response 99	
802	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes .....1 No .....2 No response 99	804
803	Do you have close relative or close fried who is infected with HIV or has died of AIDS?	Yes, a close relative.....1 Yes, a close friend .....2 No .....3 No response 99	
804	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly during each sexual act?	Yes .....1 No .....2 Don't know .....98 No response 99	
805	Can a person get HIV, from mosquito bites?	Yes .....1 No .....2 Don't know .....98 No response 99	
806	Can a person protect himself/herself from HIV, by having only one uninfected faithful sex partner?	Yes .....1 No .....2 Don't know .....98 No response 99	
807	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse?	Yes .....1 No .....2 Don't know .....98 No response 99	
808	Can a person get HIV, by sharing a meal with someone who is infected?	Yes .....1 No .....2 Don't know .....98 No response 99	
809	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes .....1 No .....2 Don't know .....98 No response 99	
810	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? **(Oral or inhaling drugs)**	Yes .....1 No .....2 Don't know .....98 No response 99	

811	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes .....1 No .....2 Don't know .....98 No response 99	813
812	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? **(Do not read the possible answers, multiple answer possible)**	Take medication (Antiretroviral) .....1 Others (Specify) _____.....96 Don't know .....98 No response 99	
813	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes .....1 No .....2 Don't know .....98 No response 99	
813.1	Do you think a healthy-looking person can be infected with HIV?	Yes .....1 No .....2 Don't know 98	
813.2	Can a person get HIV by shaking hand with an infected person?	Yes .....1 No .....2 Don't know 98	
813.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes .....1 No .....2 Don't know 98	
814	Is it possible in your community for someone to have a confidential HIV test? **(By confidential, I mean that no one will know the result if you don't want him or her to know it.)**	Yes .....1 No .....2 Don't know .....98 No response 99	901
814.1	Do you know where to go for HIV test?	Yes .....1 No 2	
815	I don't want to know the result, but have you ever had an HIV test?	Yes .....1 No .....2 No response 99	901
816	Did you voluntarily take up the HIV test, or were you required to have the test?	Voluntary.....1 Required .....2 No response 99	
817	When did you have your most recent HIV test?	Within the past 12 months .....1 Between 13-24 months.....2 Between 25-48 months.....3 More than 48 months .....4 Don't know ..... 98 No response 99	
818	Please do not tell me the result, but did you find out the result of your HIV test?	Yes .....1 → 901 No .....2 No response .....99 → 901	
818.1	Why did you not receive the test result?	Sure of not being infected .....1 Afraid of result .....2 Felt unnecessary .....3 Forgot it 4	

9.0 AWARENESS OF HIV/AIDS

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

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

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

Q. N.	Question	Coding Categories		Skip to
1001	In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? ***(Read the following list, multiple answer possible)***			
	Source	**Yes**	**No**	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center _____	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	
	8. Friends/Neighbors	1	2	
	9. NGOs	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
	17. Community Workers	1	2	
	96. Others (Specify)	1	2	
1002	Have you ever seen, heard or read following messages/characters during past one year? ***(Multiple answer possible)***			
	Message/characters	**Yes**	**No**	

	1. Jhilke Dai ChhaChhaina Condom	1	2	
	2. CondomKinaMaBhayaHunna Ra	1	2	
	3. YounRog Ra AIDS Bata BachnalaiRakhnu ParchhaSarbatra Paine Condom Lai	1	2	
	4 RamroSangaPrayogGareJokhimHuna DinnaBharpardoChhuSantoshDinchhu Jhanjhat Manna Hunna	1	2	
	5. Condom Bata Surakchhya, YounSwasthyaKoRakchhya AIDS Ra Younrog Bata BachnaSadhai Condom	1	2	
	6. HIV/AIDS Bare AajaiDekhee Kura Garau	1	2	
	7. EkApasKa Kura	1	2	
	8. Maya GaraunSadbhavBadaun	1	2	
	9. Des Pardes	1	2	
	10. ManisSangaManis Mile haraJeetaKasko Hunchha	1	2	
	96. Others (Specify)	1	2	
1003	Have you ever heard/seen or read messages or materials other than	Yes .....1 No .....2 →		1004
1003.1	What? Have you seen, read or heard of ?			
1004	Generally, where do you gather to inject drug? **(Type of injecting site and location too)**			
1005	How many PWIDs do you know who also know you well? **(Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months)**	Total _____ Don't know.....98 No response 99		1008

Q. N.	Question	Coding Categories	Skip to
1005.1	Among them, how many are male and female?	Male _____ ☐☐☐ Female ☐☐☐ Don't know.....98 No response 99	
1006	Among those persons, please try to estimate the number of people by range of age:	Less than 15 years old . ☐☐☐ 15-19 years old ..... 20-24 years old ..... 25-29 years old ..... 30-40 years old ..... > 40 years old	
1007	Again, among those, please try to estimate the number of people by religion:	Hindu ..... ☐☐☐ Buddhist..... Muslim..... Christian ..... Others (Specify) _____	

1008	How is the person who gave you the coupon related to you? **(Only Applicable for Kathmandu and pokhara Valley)**	A close friend .....1 A friend .....2 Your sexual partner .....3 A relative .....4 A stranger .....5 Others (Specify)_____96 Don't know.....98 No response 99	
1009	In the past one year how many PWIDs that you knew have died?	Numbers ..... ☐☐ Don't know.....98	

1010	Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week

SCORING: zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column.	**Rarely on none of the time (less than 1 day)**	**Some or a little of the time (1-2 days)**	**Occasionally or moderate of the time (3-4 days)**	**Most or all the time (5-7 days)**
I1. I was bothered by things that usually don't bother me	1.	1.	1.	1.
I2. I did not feel like eating; my appetite was poor.	2.	2.	2.	2.
I3. I felt that I could not shake off the blues even with help from my family or friends.	3.	3.	3.	3.
I4. I felt I was just as good as other people	4.	4.	4.	4.
I5. I had trouble keeping my mind on what I was doing.	5.	5.	5.	5.
I6. I felt depressed	6.	6.	6.	6.
I7. I felt that everything I did was an effort.	7.	7.	7.	7.
I8. I felt hopeful about the future.	8.	8.	8.	8.
I9. I thought my life had been a failure.	9.	9.	9.	9.
I10. I felt fearful.	10	10.	10.	10.
I11. My sleep was restless	11.	11.	11.	11.
I12. I was happy	12.	12.	12.	12.
I13. I talked less than usual	13.	13.	13.	13.
I14. I felt lonely.	14.	14.	14.	14.
I15. People were unfriendly	15.	15.	15.	15.
I16. I enjoyed life.	16.	16.	16.	16.
I17. I had crying spells.	17.	17.	17.	17.
I18. I felt sad.	18.	18.	18.	18.
I19. I felt that people dislike me.	19.	19.	19.	19.
I20. I could not get "going."	20.	20.	20.	20.

1011	The following questions ask about people in your environment who you provide you with help and support. Each question has two parts. **For the first part,** list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the persons initials, their relationships to you. **Do not list more than one person next to each of the numbers beneath the question.** **For the second part,** circle how satisfied you are with the overall support you have**. If you have no support for a question, check the words "No one", but still rate your level of satisfaction.** Do not list more than 9 persons per question.
H1.	Whom can you really count one to be dependable when you need help? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)
H2.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied
H3.	Whom can you really count on to help you feel more relaxed when you are under pressure or tense? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)
H4.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied
H5.	Who accepts you totally, including both your worst and your best points? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)

H6.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied
H7.	Whom can you really count on to care about you, regardless of what is happening to you? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)
H8.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied
H9.	Whom can you really count on to help you feel better when you are feeling generally down-in-the dumps? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)
H10.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied
H11.	Whom can you count on to console you when you are very upset? No one ….. 1) 2) 3) 4) 5) 6) 7) 8) 9)
H12.	How satisfied? 6- very satisfied, 5- fairly satisfied, 4- a little satisfied, 3- a little dissatisfied, 2- fairly dissatisfied 1- very dissatisfied

11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

Q. N.	Question	Coding Categories	Skip to
1101	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizes (CM) or Community Educators (CE) in the last 12	Yes .....1 No .....2→ No response 99	1105
1102	What activities did these PE or OEs involve you in when you met them? **(Multiple answers. DO NOT READ the possible answers)**	Discussion on how HIV/AIDS is/isn't transmitted. .....1 Discussion on how STI is/isn't transmitted……. .....2 Discussion on safe injecting behavior .....3 Regular/non-regular use of condom .....4 Demonstration on using condom correctly.....5 Others (Specify)_____96	
1103	Do you know which organization were they from? **(Multiple answers. DO NOT READ the possible answers)**	KCC. .....1 HELP..... .....2 KYC.....3 PSK ....4 LALS . .....5 Youth Vision .....6 NauloGhumti ....7 CSG .....8 INF (Nepalgunj) .....9 SMF .....10 AHH .....11 RICHMOND .....12 NavKiran .....13 Jhapa Plus .....14 Namuna .....15 Others (Specify) _____96 Don't know 98	
1104	How many times have these PE, OE, CM and/or CE met you in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	

1105	Have you visited or been to any out reach center (DIC, IC or CC) in the last 12 months? Drop-In Center (DIC), Information Center	Yes .....1 No .....2 → 1109	
1106	What did you do when you went to the out reach center (DIC, IC or CC) in the 12 last months? **(Multiple answers. DO NOT READ the possible answers)**	Went to collect condoms.....1 Went to learn the correct way of using condom .....2 Went to learn about the safe injecting behavior.....3 Went to watch film on HIV/AIDS .....4 Participated in discussion on HIV transmission .....5 Went to have new syringe .....6 Other (Specify)_____96	
1107	Do you know which organizations run those out reach center (DIC, IC or CC)? **(Multiple answers. DO NOT READ the possible answers)**	KCC. .....1 HELP. .....2 KYC.....3 PSK .....4 LALS. .....5 Youth Vision .....6 NauloGhumti .....7 CSG .....8 INF (Nepalgunj) .....9 SMF .....10 AHH .....11 RICHMOND .....12 AMDA Nepal .....13 WHOMS.....14 Namuna .....15 Others (Specify) _____.....96 Don't know 98	
1108	How many times have you visited out reach centers (DIC, IC or CC) in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
1109	Have you visited any STI clinic in the last 12 months?	Yes .....1 No .....2 → 1113	
1110	What did you do when you visited such STI clinic? **(Multiple answers. DO NOT READ the possible answers given below)**	Blood tested for STI .....1 Physical examination conducted for STI identification.....2 Discussion on how STI is/isn't transmitted. .....3 Discussion on safe injecting behavior .....4 Regular/non-regular use of Condom .....5 Took a friend with me .....6 Other (Specify)_ 96	
1111	Do you know which organizations run those STI clinics? **(Multiple answers. DO NOT READ the possible answers)**	AMDA .....1 SACTS.....2 NFCC .....3 CAC .....4 Paluwa .....5 Siddhartha Club.....6 NSARC .....7 NRCS.....8 FPAN .....9 Others (Specify)_____.....96 Don't know 98	

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1112	How many times have you visited STI clinic in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
1113	Have you visited any Voluntary Counseling andTesting (VCT) centers in the last 12 months?	Yes .....1 No .....2 →	1117
1114	What did you do when you visited such VCT center/s? **(Multiple answers. DO NOT READ the possible answers)**	Received pre-HIV/AIDS test counseling.....1 Blood sample taken for HIV/AIDS test.....2 Received post HIV/AIDS test counseling.....3 Received information on safe injecting behavior.....4 Received HIV/AIDS test result .....5 Received counseling on using condom correctly in each sexual intercourse ....6 Received information on HIV/AIDS window period.....7 Took a friend with me .....8 Other (Specify)_ 96	
1115	Do you know which organizations run those VCT centers? **(Multiple answers. DO NOT READ the possible answers)**	AMDA .....1 Youth Vision .....2 SACTS.....3 NFCC.....4 CAC .....5 NauloGhumti .....6 NSARC .....7 NRCS.....8 FPAN .....9 WATCH .....10 Namuna .....11 Others (Specify) _____.....96 Don't know 98	
1116	For how many times have you visited VCT center in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
1117	Have you ever participated in HIV/AIDS awareness raising program or community events in the last 12 months?	Yes .....1 No .....2 →	1121
1118	If Yes, What activities did you participate in? **(Multiple answers. DO NOT READ the possible answers)**	Street drama.....1 AIDS Day .....2 Condom Day .....3 Video Shows .....4 Group discussions .....5 Talk programs .....6 HIV/AIDS related training .....7 HIV/AIDS related Workshops... .....8 Condom use demonstrations .....9 Others (Specify) 96	

1119	Do you know which organizations organized those activities? **(Multiple answers. DO NOT READ the possible answers given below)**	AMDA .....1 HELP .....2 KYC.....3 Youth Vision .....4 NFCC.....5 LALS .....6 NauloGhumti .....7 WATCH .....8 GWP .....9 NRCS .....10 NSARC .....11 AHH .....12 Recovery Nepal .....13 SAHARA .....14 CSG .....15 Others (Specify) _____.....96 Don't know 98	
1120	How many times have you participated in such activities in the last 12 months?	Not participated within last year.....0 Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
1121	Have you heard of any Community Home BasedCare (CHBC) services that are provided for HIVpositive people?	Yes .....1 No 2	
1122	Have you heard of care and support programs thatprovide information regarding ART and ART services necessary for HIV infected people?	Yes .....1 No 2	
1123	Think about the last time you felt sick and you wanted to access to needle exchange (harm reduction) programs or other services. Were you able to access a needle exchange (harm reduction) programs or other services?	Yes.....1 No.....2 Not required…….....3	

12.0 STIGMA AND DISCRIMINATION

Q. N.	Question	Coding Categories	Skip
1201	If a male relative of yours gets HIV, would you be willing to take care of him in your household?	Yes .....1 No .....2 Don't know 98	
1202	If a female relative of yours gets HIV, would you be willing to take care of her in your household?	Yes .....1 No .....2 Don't know 98	
1203	If a member of your family gets HIV, would you want to keep it a secret?	Yes .....1 No .....2 Don't know 98	
1204	If you knew a shopkeeper or food seller had HIV, would you buy food from him/her?	Yes .....1 No .....2 Don't know.....98 No response 99	

Q. N.	Question	Coding Categories	Skip
1205	Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?	Same .....1 More .....2 Less .....3 Don't know.....98 No response 99	
1206	If one of your colleagues has HIV but he/she is not very sick, Do you think he/she should be allowed to continue working?	Yes .....1 No .....2 Don't know.....98 No response 99	

Thank You!!

Annex 4: Clinical and Laboratory Checklist

CONFIDENTIAL

INTEGRATED BIO- BEHAVIORAL SURVEY (IBSS) AMONG INJECTING DRUG USERS IN SELECTED SITES OF NEPAL

Clinical/Lab Checklist

Respondent ID Number: | | | | | | | Date: 2069/___/__

Name of Clinician: _____

Name of Lab Technician: _____

(A) Clinical TEST		(B) Specimen collection		
			Yes	**No**
Weight	: _____Kg	Pre-test counseled	1	2
B.P.	: _____mm of Hg	Blood Collected for		
		HIV & Syphilis	1	2
Pulse	: _____	Date & place for		
		post-test results given	1	2
Temperature	: _____º F	Condom given	1	2
		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. Yes 2. No

[If yes, give genital ulcer syndrome treatment and time for follow-up]

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

1. Yes 2. No

[If yes, give inguinal swelling (bubo) syndrome treatment and time for follow-up]

Annex 5: Study Centers

District	Lab Centers	No. of Centers	Sample Covered	Total
Jhapa	Kakarvitta	2	12	72
	Bhadrapur		120	
	Birtamod		240	
	Damak		25	
Morang	Urlabari	2	720	192
	Belbari		365	
	Biratnagar		84	
Sunsari	Dharan	2	60	96
	Itahari		36	
Total		**6**	**360**	**360**

Annex 6: HIV Prevalence by Study Centers

District Interviewed	**Total sample**	**HIV Positive**	**%**
Jhapa	72	6	8.3
Morang	192	14	7.3
Sunsari	96	9	9.4
Total	360	29	8.1

Annex 7: Reasons for Not Injected Drugs on the Previous Day of the Survey

Injecting practice	**First round (2003)**		**Second round (2005)**		**Third round (2007)**		**Fourth round (2009)**		**Fifth round (2012)**	
	n=50	**%**	**n=89**	**%**	**n=78**	**%**	**n=81**	**%**	n=300	**%**
Reasons for not injecting the previous day yesterday*										
Lack of money	17	34.0	51	57.3	32	41.0	27	33.3	46	42.2
To quite slowly	17	34.0	15	16.9	17	21.8	14	17.3	18	16.5
Unavailability/lack of drugs	6	12.0	6	6.7	5	6.4	25	30.9	6	5.5
Busy in house work	5	10.0	7	7.9	9	11.5	5	6.2	18	16.5
Due to illness	0	0.0	3	3.3	4	5.1	1	1.2	1	0.9
Trying other medicines	0	0.0	3	3.3	0	0.0	4	4.9	1	0.9
Not a regular users (Use sometimes only)	0	0.0	0	0.0	6	7.7	3	3.7	1	0.9
Fear to know about family members									5	4.6
Not getting friend									1	0.9
Not interested									2	1.8
Others	7	14.0	6	6.7	6	7.7	4	4.9	10	9.2

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

Annex 8: Typical Injecting Points

Typical injection points	First round (2003)		Second round (2005)		Third round (2007)		Fourth round (2009)		Fifth round (2012)	
	N=345	%	N=345	%	N=345	%	N=34	%	N=300	%
Upper arms	141	40.9	104	30.1	82	23.8	35	10.2	181	50.3
Wrists	107	31.0	73	21.2	119	34.5	51	14.8		
Forearms	43	12.5	76	22.0	11	3.2	95	27.5		
Back of palm	24	7.0	16	4.6	7	2.0	3	0.9		
Calves	14	4.1	3	0.9	42	12.2	138	40.0		
Thigh	9	2.6	46	13.3	2	0.6	19	5.5	31	8.6
Armpit	0	0.0	13	3.8	75	21.7	0	0.0		
Arch	0	0.0	4	1.2	0	0.0	3	0.9		
Others	7	2.0	10	2.9	7	2.0	1	0.3	148	41.1

Annex 9: Gathering Place to Inject Drugs

Gathering places of PWIDs to inject drugs	First round (2003)		Second round (2005)		Third round (2007)		Fourth round (2009)		Fifth round (2012)	
	N=345	%	N=345	%	N=345	%	N=345	%	N=360	%
Own room/friends room/Drugs eller's/User's house	115	33.3	36	10.4	75	21.7	47	13.6	61	17
Jogbani (India)	70	20.3	136	39.4	105	30.4	88	25.5		
Forest/ Bushes	70	20.3	98	28.4	98	28.4	144	41.7	104	28.9
Open ground/town planning area/open places	35	10.1	0	0.0	0	0.0	0	0.0		
Riverbank/Slum area/Pond/bridge area	16	4.6	42	12.2	22	6.4	33	9.6	41	11.4
Garage/Junk store/Bus park	12	3.5	6	1.7	0	0.0	1	0.3		
Pani Tanki (India)	7	2.0	7	2.0	15	4.3	2	0.6		
Temple area	5	1.4	0	0.0	0	0.0	3	0.9		
Shop	5	1.4	0	0.0	0	0.0	0	0.0		
Vacant house/New construction home	4	1.2	0	0.0	1	0.3	2	0.6	47	13.1
Galgaliya (India)	3	0.9	0	0.0	17	4.9	8	2.3		
Pool house/ Swimming pool	2	0.6	0	0.0	0	0.0	0	0.0		
Toilet/Public toilet	1	0.3	6	1.7	7	2.0	12	3.5		
Road/Rail way lick	0	0.0	8	2.3	0	0.0	1	0.3	103	28.6
Naxal badi (India)	0	0.0	2	0.6	0	0.0	0	0.0		
Around campus/ school	0	0.0	2	0.6	0	0.0	4	1.2		
Others	0	0.0	2	0.6	5	1.4			4	1.1

Annex 10: Drug Switching Practice of PWIDs and Reasons for it

Drug switching behavior of PWIDs	First round (2003)		Second round(2005)		Third round (2007)		Fourth round (2009)		Fourth round (2012)	
	N	%	N	%	N	%	N	%	N	%
Switched from one drugs to another drugs in past month Q204.1										
Yes	8	2.3	5	1.4	3	0.9	12	3.5	6	2
No	337	97.7	340	98.6	342	99.1	333	96.5	354	98
Total	**345**	**100.0**	**345**	**100.0**	**345**	**100.0**	**345**	**100.0**	**360**	**100**
Switched From										
Brown sugar to Tidigesic	8	100.0	1	20.0	0	0.0	0	0.0	1	16.7
Brown sugar to Proxyvon	0	0.0	1	20.0	0	0.0	0	0.0	1	16.7
Brown sugar to Norphin+Diazepam	0	0.0	1	20.0	0	0.0	0	0.0		
Norphin+Nitrovate to Avil	0	0.0	1	20.0	0	0.0	0	0.0		
Norphin+Diazepam+Avil to Alcohol+ Phensydole	0	0.0	1	20.0	0	0.0	0	0.0		
BrownSugar to Nergesic	0	0.0	0	0.0	1	33.3	0	0.0		
Norphin+Fortwin to Nergesic+Diazepam+Avil	0	0.0	0	0.0	1	33.3	0	0.0		
Tidigesic+Diazepam+Phenergan+ Algic to Brown Sugar	0	0.0	0	0.0	1	33.3	0	0.0		
Norphin+Diazepam+Avil to Proxyvon	0	0.0	0	0.0	0	0.0	1	8.3		
Diazepam+Tidigesic+Avil to Phensydyl	0	0.0	0	0.0	0	0.0	1	8.3		
Lubrigesic to Velium10	0	0.0	0	0.0	0	0.0	1	8.3		
Brownsugar to Diazepam+Phenergan+ Lubrigesic	0	0.0	0	0.0	0	0.0	1	8.3		
Diazepam+Avil+Nerjesic to Corex+Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3	1	16.7
Avil+Phenergan+Nerjesic to Corex+Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3		
Diazepam+Avil+Nerjesic to Marijuana+Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3	1	16.7

Diazepam+Avil+Nerjesic to Brownsugar+ Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3	1	16.7
Avil+Phenergan+Nerjesic to Phensydyl+Corex+ Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3	1	16.7
Diazepam+Tidigesic+Phenergan to Norphin+ Diazepam +Avil+Phenergan	0	0.0	0	0.0	0	0.0	1	8.3		
Brownsugar to Diazepam+Phenergan+ Nerjesic	0	0.0	0	0.0	0	0.0	1	8.3		
Norphin+Diazepam+Avil to Marijuana+Spasmo + Nitrosun	0	0.0	0	0.0	0	0.0	1	8.3		
Total	**8**	**100.0**	**5**	**100.0**	**3**	**100.0**	**12**	**100.0**	**6**	**100**
Reasons for switching										
Not access of brown sugar	5	62.5	0	0.0	0	0.0	0	0.0	8	33.3
To reduce/Leave slowly of drug	3	37.5	0	0.0	0	0.0	3	25.0	2	33.3
Unavailability/Scarcity of drug	0	0.0	3	60.0	1	33.3	4	33.3	1	16.7
Lack of money	0	0.0	2	40.0	1	33.3	3	25.0	1	16.7
Others	0	0.0	0	0.0	1	33.3	2	16.7		
Total	**8**	**100.0**	**5**	**100.0**	**3**	**100.0**	**12**	**100.0**	**6**	**100**