Integrated Biological and Behavioral Surveillance Survey (IBBS) among Injecting Drug Users in Kathmandu Valley

Round IV - 2009

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

July 2009

USAID | NEPAL
FROM THE AMERICAN PEOPLE

ASHA
Advancing Surveillance, Policies, Prevention, Care and Support to Fight HIV/AIDS

***Submitted by*:**

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

In Collaboration with

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

Family Health International/Nepal
USAID Cooperative Agreement #367-A-00-06-00067-00
Strategic Objective No. 9 & 11

ACKNOWLEDGEMENTS

We would like to express our sincere gratitude to Family Health International/Nepal (FHI/Nepal) for entrusting us the responsibility to conduct the survey. Our deep appreciation goes to Ms. Jacqueline McPherson, Country Director, FHI/Nepal and Mr. Satish Raj Pandey, Deputy Director, FHI/Nepal. Their inputs proved invaluable throughout the course of this study. Special thanks go to Dr. Laxmi Bilas Acharya, Team Leader - Strategic Information (SI) Unit, FHI/Nepal for his technical inputs and guidance throughout the whole process of the study.

Furthermore, the study team would like to thank Youth Vision for their entire support in the study including post test counseling service and test result dissemination to the study participants.

We are also indebted to various organizations such as Life Giving and Life Saving Society (LALS), Beginning, Richmond, and Recovering Nepal for their valuable suggestions and contributions throughout the study period. We would like to gratefully acknowledge Nepal Police, National Center for AIDS and STD Control (NCASC) and District Public Health Office and Chief District Officer in the study districts for providing necessary administrative support during the study period.

Special appreciation goes to our respondents, who spend their time for the interview and shared their personal experiences to bring the study to this shape.

This study is the outcome of the dedicated efforts of the entire survey team. We would like to thank all the members of the study for their extreme hard work and significant contribution to the successful completion of this study.

~ Study Team New ERA ~

STUDY TEAM MEMBERS

Key Team Members

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

Field Study Team Members

1. Mr. Rabindra Udash - Field Research Assistant
2. Mr. Durga Prasad Acharya - Field Research Assistant
3. Mr. Surendra Kumar Mahato - Field Supervisor
4. Mr. Tirtha Gautam - Field Supervisor
5. Mr. Dhurba Raj Thapa - Field Supervisor
6. Mr. Anil Bhattarai - Field Supervisor
7. Mr. Niraj Kumar Shah - Field Supervisor
8. Mr. Prithivi Bahadur Khadka - Field Supervisor
9. Mr. Hari Bhakta Joshi - Field Supervisor
10. Mr. Mukti Prasad Dahal - Health Assistant
11. Mr. Sagar Prajapati - Health Assistant
12. Mr. Warren Bashnet - Counselor
13. Mr. Laxuman Dhungel - Runner
14. Mr. Ram Bahadur Chaudhary - Runner

Data Entry/Tabulation /Coding

1. Mr. Babu Raja Maharjan - Coder
2. Ms. Sujaya Dhungel - Coder
3. Mr. Birochan Uperiti - Coder
4. Mr. Himal Awosthi - Coder
5. Ms. Sanu Maiya Shrestha - Data Entry Officer
6. Ms. Dejeena Amatya - Data Entry Officer

Administration Support

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

Laboratory Team (SACTS)

1. Dr. Vijaya Lal Gurubacharya - Consultant Pathologist
2. Mr. Janardan Kuinkel - Senior Lab Technician
3. Mr. Shanti Khanal - Lab Technician
4. Mr. Parmananada Chaudhari - Lab Technician

TABLE OF CONTENTS

ACKNOWLEDGEMENTS iii
STUDY TEAM MEMBERS iv
TABLE OF CONTENTS v
LIST OF FIGURES vii
ABBREVIATIONS viii
EXECUTIVE SUMMARY ix
CHAPTER – 1.0: INTRODUCTION 1
1.1 BACKGROUND 1
CHAPTER 2.0: DESIGN AND METHODOLOGY 3
2.1 OBJECTIVES OF THE STUDY 3
2.2 STUDY POPULATION 3
2.2.1 Sample Size and Sampling Design 3
2.2.2 Seeds and Recruitment 4
2.3 STUDY PROCESS 5
2.3.1 Ethical Review 5
2.3.2 Clinical and Laboratory Procedures 6
2.3.3 Collection, Storage and Transportation of Samples 7
2.3.4 Quality Control of Laboratory Tests 7
2.3.5 Control of Duplication 7
2.4 STUDY MANAGEMENT 8
2.4.1 Coordination and Monitoring 9
2.4.2 Constraints in the Field Work 9
2.5 POST-TEST COUNSELING AND TEST RESULT DISTRIBUTION 9
2.6 DATA MANAGEMENT AND ANALYSIS 10
CHAPTER - 3.0: SOCIO-DEMOGRAPHIC CHARACTERISTICS 10
3.1 DEMOGRAPHIC CHARACTERISTICS 10
3.2 SOCIAL CHARACTERISTICS 12
CHAPTER - 4.0: PREVALENCE OF HIV AND STI 13
4.1 HIV/STI PREVALENCE 13
4.2 RELATIONSHIP BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS AND HIV INFECTION 13
4.3 RELATIONSHIP BETWEEN DRUG INJECTION BEHAVIOR AND HIV 13
4.4 RELATIONSHIP BETWEEN SEXUAL BEHAVIOR AND HIV 14
CHAPTER - 5.0: DRUG USE, NEEDLE SHARING AND TREATMENT 17
5.1 ALCOHOL CONSUMPTION AND ORAL DRUG USE 17
5.2 DRUG INJECTING PRACTICE 18
5.3 SYRINGE USE AND NEEDLE SHARING HABITS 19
5.4 DRUG SHARING BEHAVIOR 20
5.5 NEEDLE/SYRINGE CLEANING PRACTICE 22
5.6 ACCESSIBILITY OF SYRINGE 22
5.7 TREATMENT STATUS 23
CHAPTER - 6.0: SEXUAL BEHAVIOR AND CONDOM USE 25
6.1 SEXUAL BEHAVIOR 25
6.2 KNOWLEDGE AND USE OF CONDOM 28
6.3 SOURCES OF CONDOMS 29
6.4 SOURCES OF INFORMATION ABOUT CONDOM 30
CHAPTER - 7.0: KNOWLEDGE OF STIs AND HIV/AIDS 32
7.1 KNOWLEDGE OF STIS, SYMPTOMS EXPERIENCED AND TREATMENT 32
7.2 KNOWLEDGE OF HIV/AIDS 33
7.3 KNOWLEDGE ABOUT HIV TESTING FACILITIES 36
7.4 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS 36
7.5 PERCEPTION ABOUT HIV/AIDS 37

CHAPTER - 8.0: EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS 39
8.1 PEER/OUTREACH EDUCATION 39
8.2 DROP-IN-CENTERS 40
8.3 STI CLINIC 41
8.4 VCT CENTERS 41
8.5 PARTICIPATION IN HIV/AIDS AWARENESS PROGRAM 42
CHAPTER - 9.0: COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS 45
9.1 SOCIO-DEMOGRAPHIC CHARACTERISTIC 45
9.2 DRUG INJECTING PRACTICES 46
9.3 NEEDLE/SYRINGE USING PRACTICE IN THE PAST WEEK 46
9.4 CONSISTENT USE OF CONDOM WITH DIFFERENT PARTNERS 47
9.5 HIV PREVALENCE 49
CHAPER - 10.0: SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS 50
10.1 SUMMARY OF MAJOR FINDINGS 50
10.2 RECOMMENDATIONS 51
REFERENCES 53
ANNEX – 1: Indicators for Monitoring and Evaluation of HIV 47
ANNEX – 2: Sample Size Estimation 49
ANNEX – 3: Questionnaire 50
ANNEX – 4: Oral Informed Consent 75
ANNEX – 5: Clinical/Lab Checklist 79
ANNEX – 6: Respondent Driven Sample of IDUs 80
ANNEX – 7: Participation in Post Test Counseling 82
ANNEX – 8: Reasons for Not Injected Drugs on the Previous Day 82
ANNEX – 9: Part of the Body for Injecting Drugs 82
ANNEX – 10: Gathering Place to Inject Drugs 82
ANNEX – 11: Combination of Different Drugs Injected 83
ANNEX – 12: Drug Switching Practice and Reasons for it 84
ANNEX – 13: Types of Treatment and Institutions from Where Treatment Received 84
ANNEX – 14: Reasons for Not Using Condom in the Last Sex with Different Sex Partners . 85

LIST OF FIGURES

Figure 1: Marital Status 10

Figure 2: Duration of Drug Use 15

Figure 3: Age at First Drug Injection 16

Figure 4: Condom Use with Different Sex Partners in the Last Sex in the Past Year 24

Figure 5: Consistent Use of Condom with Different Sex Partners in the Past Year 25

Figure 6: STI Symptoms Experienced 28

Figure 7: Knowledge of Major Indicators on HIV/AIDS Prevention 29

Figure 8: HIV Test and Types of Test Taken 31

Figure 9: Exposure to HIV/AIDS Related Programs/Activities in the Past Year 38

ABBREVIATIONS

AIDS	-	Acquired Immuno-Deficiency Syndrome
ASHA	-	Advancing Surveillance, Policies, Prevention, Care & Support to Fight HIV/AIDS
CI	-	Confidence Interval
DIC	-	Drop-in-Centre
EPP	-	Estimated Population Proportion
FHI	-	Family Health International
FSW	-	Female Sex Worker
HIV	-	Human Immuno-Deficiency Virus
IBBS	-	Integrated Biological and Behavioral Surveillance Survey
ID	-	Identification Number
IDU	-	Injecting Drug User
IEC	-	Information, Education and Communication
LALS	-	Life Giving and Life Saving Society
MARPs	-	Most At Risk Populations
MSM	-	Men who have Sex with Men
NCASC	-	National Centre for AIDS and STD Control
NGO	-	Non-Governmental Organization
NHRC	-	Nepal Health Research Council
OE	-	Outreach Educator
PE	-	Peer Educator
PHSC	-	Protection of Human Subjects Committee
RDS	-	Respondent Driven Sampling
RDSAT	-	Respondent Driven Sampling Analysis Tools
RPR	-	Rapid Plasma Reagin
SACTS	-	STD/AIDS Counseling and Training Services
SLC	-	School Leaving Certificate
SMF	-	Siddhi Memorial Foundation
SPSS	-	Statistical Package for the Social Sciences
STI	-	Sexually Transmitted Infection
TPPA	-	Treponema Pallidum Particle Agglutination
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization

EXECUTIVE SUMMARY

As part of the national response to the HIV epidemic, National Centre for AIDS and STD Control (NCASC) conducts surveillance to monitor HIV prevalence rates and risk behaviors. This surveillance among injecting drug users (IDUs), female sex workers (FSWs), male labor migrants (MLM), wives of labor migrants and men having sex with men (MSM) is done on a regular basis conducting Integrated Biological and Behavioral Surveillance Surveys (IBBS). This study is the fourth round of IBBS conducted among 300 male IDUs in the Kathmandu Valley. The study was undertaken to measure the prevalence of HIV and syphilis, and associated risk behaviors among IDUs. Demographic, sexual behavior and injecting behavior data were collected through structured questionnaire while the prevalence of HIV and syphilis were selectively measured by testing blood sample. HIV test was performed using Determine HIV 1/2 test to detect antibodies against HIV, Uni-Gold test as a second test and SD Bioline HIV 1/2 test as a tie breaker test. The Rapid Plasma Reagin (RPR) analysis with quantification was used to diagnosis syphilis and the diagnosis was confirmed by means of *Treponema Pallidum Particle Agglutination (TPPA)* test.

Key Findings

Prevalence of HIV and STIs

The HIV prevalence among IDUs in the Kathmandu Valley in 2009 was as high as 20.7 percent. However, this is a significant decrease from the previous rounds of IBBS conducted in the Valley (68% in first round, 51.7% in second round and 34.8% in third round).

STIs among IDUs in the Kathmandu Valley are relatively a minor problem. Syphilis history was detected among 4.1 percent of IDUs, while only 1.5 percent had current syphilis.

HIV prevalence differed significantly according to age, literacy status and duration of drug injection. Those IDUs who were older than 20 years were more likely to be HIV-positive (23%) than younger IDUs (5.4%). HIV prevalence among literate IDUs was 19.3 percent, while among illiterate IDUs it was 70.5 percent. Likewise, HIV prevalence was significantly higher among those who had been injecting drugs for more than five years (38.4%) than those who have been injecting drugs for less than five years (12.3%).

Socio-Demographic Characteristics

The IDUs were predominantly young, including 83 percent below 30 years of age, with nearly half of them (47 %) being younger than 25 years. Nine percent of IDUs were illiterate or have no formal education

Many IDUs (67.1%) were unmarried. Around 15 percent among married were living without a sexual partner.

IDUs in Kathmandu Valley were from all major caste/ethnic groups. The majority of the IDUs (28.7%) were from the Newar community followed by the Chhetri/Thakuri (25.7%) and Tamang/Lama/Magar (19.9%) communities.

Alcohol Intake, Oral Drugs Use and Injecting Behavior

The majority of the IDUs (38.4%) had been using drugs for more than five years while less than one percent had been injecting drugs for less than two years. Most of them (67.9%) had started injecting drugs at a young age i.e., below 20 years.

Overall, 19 percent of the respondents were consuming alcohol everyday. However, 30 percent had never consumed alcohol.

Use of oral/inhaled drugs was common practice among IDUs. *Ganja* was the most popular drug, taken by 80 percent of IDUs in the week preceding the survey followed by Nitrovate, brown sugar, and Proxygin.

The majority of respondents were 20 or younger (67.9%) when they injected for the first time. Eighty-seven percent of IDUs injected combination of different drugs.

All of the respondents knew about the sources for getting new syringes. Almost all of IDUs mentioned that they could get a new syringe whenever necessary from a drugstore. Similarly, a large proportion of IDUs (81.2%) said that the needle exchange program conducted by LALS made new syringes available whenever they needed one.

Among those IDUs who had been mobile in the past year two percent had injected with a pre-used needle/syringe and six percent had given a needle/syringe to someone else after use at the place/s of their visit.

The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has been increasing steadily since the first round. High-risk behavior such as injecting with previously used needles/syringes decreased significantly from 45 percent in the first round to seven percent in the current fourth round. Additionally, the proportion of IDUs who had not shared their needle/syringe with anyone in the past week increased from 41 percent in 2003 to 93 percent in 2009.

Sexual Behavior

Overall 95 percent IDUs in Kathmandu had had sex before the survey. Seven in ten were sexually active in the past year also. The sex partners of IDUs in Pokhara included regular female parents, non-regular female partners as well as female sex workers.

In the year preceding the survey, 29 percent each had sex with regular partner and with FSWs, while 27 percent had non-regular sex partners.

Among those IDUs who had regular sex partner, eighty-seven percent had sex with them in the past month. Likewise, among those IDUs who had sex with non-regular partner, 65 percent had it in last month and among those who had non-regular partner, fifty percent had sex with them in the past month.

Condom use in the last sex with FSWs was reported by 67 percent of respondents. The proportion of those who used condoms in last sex with regular partner was 54 percent and with non-regular partner was 39 percent. A similar pattern was observed in consistent condom use in the past year. It was highest with FSWs (49.4%) followed by with non-regular partners (33.4%). Consistent use of condoms with the regular sex partners was lowest, with only about six percent of IDUs using condom consistently in the past year.

Knowledge of HIV/AIDS/STIs and exposure to the HIV/AIDS Prevention Programs

Six percent of IDUs had genital discharge and three percent had genital ulcers/sores in the past year. Among those who had STIs before, 20 percent and 29 percent reported having genital discharge and genital ulcers/sores respectively during the survey. More than half (57.2%) of those IDUs who had experienced at least one STI symptom in the past year had not sought any treatment.

More than nine in ten IDUs (94.4%) were aware of the 'ABC' (A- abstinence from sex, B- being faithful to one partner and C- condom use during each sexual contact) as HIV preventive measures while only two-thirds (67.6%) had comprehensive knowledge on HIV i.e. "BCDEF' (D- a healthy looking person can be infected with HIV, E- a person can not get the HIV virus from mosquito bite and F- sharing meal with an HIV infected person do not transmit HIV virus). Furthermore, almost all IDUs (97.8%) knew that a person can get HIV by using previously used needles/syringes.

The majority of respondents (95.9%) knew that a confidential HIV testing facility was available in their communities. Only half of the IDUs (53%) had ever tested themselves for HIV. The majority (85.3%) had tested voluntarily and others had done so as per requirement. Most of the IDUs (88.7%) who have had tested for HIV had received the test result.

During the preceding year three-fourths (75) had interacted with a peer educator/outreach educator and a similar proportion (75.7%) had visited a drop-in-centre. Only 20 percent of IDUs had visited a VCT centre at least once. Very few IDUs (2%) had visited an STI clinic. Sixty-two percent of IDUs had participated in different HIV/AIDS awareness raising programs.

CHAPTER – 1.0: INTRODUCTION

1.1 Background

The spread of HIV/AIDS has become a global threat to humankind, affecting individuals, families, communities, nations and the world as a whole. As of May 2009, in Nepal, the National Centre for AIDS and STD Control (NCASC) reported 2,384 confirmed AIDS cases and 13,885 confirmed HIV positive people (NCASC, May 2009). In 2007, NCASC has estimated that around 70,000 people are living with the HIV in Nepal. At this point in time the HIV epidemic in Nepal is still concentrated among high-risk groups. As part of the national response to the HIV epidemic, NCASC conducts surveillance through the Integrated Biological and Behavioral Surveillance Surveys (IBBS) on a regular basis to monitor HIV prevalence rates and risk behaviors with groups of people who have very high risk behaviors, including injecting illicit drug users (IDUs), female sex workers (FSWs), male labor migrants (MLMs), wives of labor migrants and men having sex with men (MSM).

The HIV/AIDS epidemic in Nepal has largely been the result of transmission through injecting illicit drugs and unprotected sexual contact. IDUs function as a core HIV risk group because of their high-risk behavior of sharing needles/syringes between different injecting partners and re-using needles kept in public places. Moreover high-risk sexual behavior associated with drug use has also been found to be a major contributing factor in the spread of HIV among the non-injecting population.

The results of the IBBS conducted so far among IDUs indicate that the HIV prevalence varies by study areas in Nepal. The first, second and third rounds of the IBBS among IDUs conducted in 2002, 2005 and 2007 in Kathmandu Valley indicated a staggering HIV prevalence rate of 68 percent in 2002 (New ERA/SACTS/FHI 2002); 52 percent in 2005 (New ERA/SACTS/FHI 2005); and 34.8 percent in 2007 (New ERA/SACTS/FHI 2007) respectively. The IBBS study conducted in the Pokhara Valley revealed the prevalence rate of 22 percent in 2003 (New ERA/SACTS/FHI 2003); 21.7 percent in 2005 (New ERA/SACTS/FHI 2005); and 6.8 percent in 2007 (New ERA/SACTS/FHI 2007).

Likewise, the study among IDUs in the Eastern Terai (Morang, Sunsari, and Jhapa) revealed an HIV prevalence rate of 35 percent in 2003 (New ERA/SACTS/FHI 2003); 32 percent in 2005 (New ERA/SACTS/FHI 2005); and 17 percent in 2007 (New ERA/SACTS/FHI 2007). The study conducted in the Western to Far-Western Terai revealed an HIV prevalence of 11.7 percent in 2005 (New ERA/SACTS/FHI 2005) and 11 percent in the 2007 study (New ERA/SACTS/FHI 2007).

In all rounds of IBBS, IDUs in the Kathmandu Valley had a higher HIV prevalence compared to IDUs from other places. The latest round of IBBS conducted in 2007 showed a decline in HIV prevalence among IDUs in Kathmandu, Pokhara and the Eastern Terai, whereas the HIV prevalence among IDUs in the west to far-west region has remained stable. These studies also indicated that IDUs have greater levels of knowledge about how to protect themselves from HIV infection through safer sex and less harmful injecting practices. Although HIV prevalence among

IDUs in 2007 was lower than the previous rounds of the study, it is still alarmingly high.

The fourth round of the IBBS among IDUs was conducted in the Kathmandu Valley, the Pokhora Valley, and the Eastern Terai. The survey carried out in West to Far-West Terai was of third round. This report deals with the findings of the Kathmandu Valley and presents a socio-demographic profile, prevalence of HIV and syphilis, and associated risk and prevention behaviors among 300 IDUs of the Kathmandu Valley.

CHAPTER 2.0: DESIGN AND METHODOLOGY

2.1 Objectives of the Study

The overall objectives of the study were to measure the prevalence of HIV and syphilis among IDUs of the Kathmandu Valley, to assess their HIV/STI-related risk and prevention behaviors, to access the impact of intervention programs for IDUs, and to analyze trends through the comparison of selected data variables from the first, second and third rounds of the IBBS conducted in 2002, 2005 and 2007 with the current fourth round.

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

2.2 Study Population

The cross-sectional IBBS study was conducted among IDUs who are considered to be one of the high-risk sub-populations. The eligibility criteria used in the study were: "current injectors of Kathmandu Valley aged 16 years or above who had been injecting drugs for at least three months prior to the date of the survey."

2.2.1 Sample Size and Sampling Design

The sample size used in the previous rounds of IBBS in this site was used in this round also. Initially the sample size was determined using basic statistical formula (Annex 2). As in the first, the second and the third rounds of the survey, a sample of 300 IDUs was drawn for this round of IBBS also.

It is a challenge to collect information from high-risk population groups as they are highly stigmatized and potential respondents may be reluctant to come forward to participate in the study. Innovative sampling methods are needed in order to reach these populations. Respondent Driven Sampling (RDS) is a relatively new adaptation of chain-referral sampling, where subsequent respondents are recruited by previous respondents through their network of acquaintances. It is one of the most effective methods used to sample hidden type of population. The sampling process begins with the selection of a set of people in the target population who serve as 'seeds'. After participating in the study, each seed is provided with three recruitment coupons, which they use to recruit other people from their networks. After participating in the study, each participant of the study are also provided with three recruitment coupons, which they then use to recruit others. The recruitment continues this way, with the subjects recruiting more subjects, until the desired sample size was reached.

RDS has the potential to reach individuals who are not easily accessible, such as intravenous drug users, men who have sex with men, male sex workers, female sex

workers and the homeless. These populations lack a sampling frame, and sampling is further complicated by privacy concerns based on the stigma associated with membership in the population. RDS relies on social networks and attempts to overcome biases such as masking, volunteerism and over-sampling of groups with large networks. This method therefore gives unbiased estimates of population parameters and provides more representative samples (Heckathorn, 1997). In RDS, the sampling frame is created based on information collected from the participants during the sampling process itself. This information includes (i) who recruited whom; (ii) the relationship of the participants to the recruiter and the fact that the participants know each other; (iii) the participant's personal network sizes (this is used to estimate the average network size by different sample characteristics such as age, race, ethnicity and gender).

In this study, the preliminary information on IDUs net works and locations where network leaders are found was collected with the help of local NGO partners, IDU networks and community people before the start of the actual field study. This information helped the study team recruit a total of four known IDUs as 'seeds' from different sites and different injecting groups who met the study eligibility criteria. In some cases the local key informants helped in the seed recruitment process.

2.2.2 Seeds and Recruitment

Using the RDS method, research staff recruited 'seeds', who then began the chain referral by recruiting their peers into the study. It was decided that seeds selected to initiate the recruitment process needed to be as diverse as possible (heterogeneous in age, ethnicity and duration of injecting habits).

The recruitment process in this study started with four such seeds. Each one was given three coupons to pass on to three peers they recruited for the study. Those peers who successfully participated in the study were given another three coupons. In this way the recruitment process continued until 300 IDUs were recruited. At the end, the 'seed' and 'recruiter' generated up to 14 waves. Of the four total seeds, one completed three waves, another completed four waves and the other reached up to five waves. The remaining seed however generated up to fourteen waves. (Annex 6). Using RDS theory, if at least six waves of recruitment can be generated, there will be equilibrium, which means that the recruited IDUs will sufficiently represent the population being sampled.

Since RDS is a dual incentive system to induce recruitment, each participant received Rs. 100 (equivalent to $ 1.30) for their participation in the study and another Rs. 50 (equivalent to $ 0.60) for each individual they recruited to the study. A participant could have received up to Rs. 250 for successfully participating and recruiting three peers into the study.

Refusals

Those who did not meet the study criteria and those who were not willing to participate in the study because of personal reasons were not recruited into the study. In total, there were 15 refusals. Seven were found to be oral drug users but

not injecting drug users. Seven had started injecting drugs less than three months prior to the study, while one was under age.

2.3 Study Process

A field office (study site) was set up in Sundhara in Kathmandu. This centrally-located site was purposively selected considering the convenience in meeting the study population and in bringing them to the site. The field office had separate rooms for each activity, including administration of the questionnaire, examination for STIs with general physical check-up, drawing of blood, and centrifuging blood for separation of sera, , as well as a separate room for counseling.

A quantitative research approach was adopted in the study. Before initiating the actual interview, all those coming with the referral cards were informally asked certain questions in order to ensure that they met the inclusive criteria set for the study. Injecting marks were also observed to confirm their injecting behavior. The structured questionnaire that was used in the previous rounds of IBBS and pre-tested by study team during the training of the field staff was used in this round also. The questionnaire includes questions on socio-demographic characteristics; drug injecting behavior (syringe/needle sharing practices); and sexual behaviors i.e. sexual history, use of condoms, and risk perception; as well as exposure of the IDUs to the ongoing HIV/AIDS awareness programs and their participation in such activities (Annex 3).

Apart from the structured questionnaire, questions related to STI symptoms were asked by a health assistant to verify the occurrence of such symptoms in the past or during the survey (Annex 5). The study participants were provided syndromic treatment for STI problems and a lab technician collected blood samples to test for HIV and syphilis.

Strict confidentiality was maintained throughout the study process. Neither the names of the study participants nor their full addresses were recorded anywhere. Instead, they were provided a unique ID number written on a plastic-coated card. The same number was marked on the questionnaire, the medical records, and the blood specimen of each respondent. This card was also used for the distribution of the test results. Only those participants who produced the card were provided the HIV and syphilis test results with pre- and post-test counseling.

The fieldwork started on 6 March 2009 and was completed on 24 April 2009.

2.3.1 Ethical Review

The research was conducted in compliance with both ethical and human rights standards. These standards included participants' anonymity as well as pre- and post-test counseling. As this study focused on individuals who are highly stigmatized and as injecting drugs is illegal in Nepal, 'ethical' as well as 'technical' approval was obtained from Family Health International's ethical review body, the Protection of Human Subject Committee (PHSC), and from the Nepal Health Research Council

(NHRC) prior to the commencement of the fieldwork. The study protocols were carefully reviewed and approved by these organizations.

The participants of the surveys were fully informed about the nature of the study. They were informed that their participation was voluntary and that they were free to refuse to answer any question or to withdraw from the interview at any time. They were also briefed that such a withdrawal would not affect the services they would normally receive from the study site. A consent form describing the objectives of the study, the nature of the participants' involvement, the benefits they would receive as well as confidentiality issues was clearly read out to them (Annex 4). Those who preferred to read it by themselves were provided the consent form written in Nepali. Since the names and addresses of the interviewed IDUs were not recorded elsewhere, the ID cards that were provided to the study participants with specific number identified them. HIV test results were provided to the individual participants in the strictest confidence.

The study team maintained the confidentiality of the data collected through out the survey. The interviewer submitted the completed questionnaires to the field supervisor on the day of each interview. The supervisor kept those questionnaires in separate locked cabinets where no one else had access to them. The supervisor then transported the questionnaires to the New ERA office every week where the questionnaires were kept in a locked coding room. Authorized data coding and data entry staff, had access to the questionnaires.

2.3.2 Clinical and Laboratory Procedures

Clinical Procedures

All the participants were offered a clinical examination as an incentive to participate in the study. The clinical examination included a simple health check-up (measuring blood pressure, body temperature, weight and pulse) and symptomatic examination for STI with syndromic treatment. The participants were asked whether they had current STI symptoms of genital discharge, genital ulcers, or pain in the groin, and those presenting with these symptoms were treated syndromically according to national guidelines. Other medicines such as paracetamol, alkalysing agents, and vitamins were given as necessary. An external genital examination was complemented with a speculum examination as per the need.

Laboratory Methods

Screening for syphilis:-

Syphilis was tested using BD..Micro-Vue RPR test card. All the samples negative for RPR were recorded as negative. All the positive samples for RPR were tested with serial dilution up to 64 times and the test record was recorded with dilution factor. All the RPR positive serums were also tested by *Treponema Pallidum Particle Agglutination (TPPA)* test using Serodia TPPA as a confirmatory test. On the basis of titre of RPR, all the specimens with RPR/TPPA-positive results were divided into two categories.

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

Polymer Chain Reaction (PCR) was performed for the detection of Neisseria Gonorrhea and Chlamydia Trachomatis among the study population. The urine specimen was collected and test was conducted in the laboratory of NRL in Kathmandu.

Screening for HIV antibodies:-

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

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

2.3.3 Collection, Storage and Transportation of Samples

After pre-test counseling, the lab technician briefed the respondents about the HIV testing process and sought their consent to take blood. Blood samples from each of the study participants for HIV/syphilis were drawn from a vein using a 5ml disposable syringe and were stored in a sterile glass tube with the respondent's ID number. Serum was separated and put in a sterile serum vial with the ID no written on it. The samples were kept in a refrigerator at the field site and were transported to the SACTS laboratory in Kathmandu every day in a cold box. The serum samples were stored at the SACTS laboratory at a temperature of minus 12^0C to minus 20^0C.

2.3.4 Quality Control of Laboratory Tests

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

2.3.5 Control of Duplication

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

2.4 Study Management

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

The study was conducted by a team made up of one study director, one research coordinator, one research officer, one assistant research officer, two research assistants and a field team. The field team formed for the survey included a research assistant, four supervisors/interviewers, a health assistant, a lab technician and a runner. When selecting field researchers for the study, priority was given to researchers who had been involved in IBSS or a sero survey among IDUs in the past.

A one-week intensive training was provided for all the field researchers by trainers from FHI, SACTS and NEW ERA. Training was conducted on 4-11 January, 2009 at New ERA's Kathmandu office. The training was focused on an introduction to the study, the sampling process, administration of the questionnaire (including characteristics of the target groups), methods of approaching the target group, and rapport building techniques. In addition, the training session also involved mock interviews, role-plays, class lectures, and sharing of previous experiences (problems and solutions). Role-play practice was carried out assuming the actual field situation. The study team was also made familiar with the general behavior of IDUs and the skills required dealing with them. The training also focused on providing a clear

concept of informed consent, pre-test counseling, and basic knowledge of HIV/AIDS and STIs to the research team.

2.4.1 Coordination and Monitoring

New ERA carried out the overall coordination of the study. SACTS was responsible for setting up the field clinic and performing the laboratory and clinical part of the study, including collecting, storing, and testing blood samples.

The key research team members conducted the monitoring and supervision of the field activities. The research assistant was responsible on a day-to-day basis for ensuring that the study was implemented according to the protocol in the field. Team meetings were held frequently to plan ahead and to solve any field-level problems. The research assistant in the field reported to the senior research assistants or to the project coordinator whenever necessary. Officers of FHI also supervised the ongoing study to deal with any problems reported from the field as and when necessary. In addition, the key research team member made periodic site visits throughout the fieldwork.

2.4.2 Constraints in the Field Work

The ongoing political instability in the country created challenges in conducting the field work. Likewise the 16 hours of load shedding in a day created difficulty in separating the serum from the sample in the lab. Besides, the low incentive for the IDUs was another fact for the intricacy for recruiting the sample. To overcome the problem arising from the load shedding, both auto and manual centrifuge machine were provided for the purpose of separating the serum. Likewise, bulks of icepacks were kept in fridge in the field as well as in the SACTS laboratory to store the serum during power cut-off.

2.5 Post-Test Counseling and Test Result Distribution

All the study participants who went to receive their test results with their ID cards were provided their HIV and syphilis test results with post-test counseling by a trained counselor at VCT center run by Youth Vision. The study participants were informed about the location and operating hours of the VCT site immediately after the collection of their blood sample for the test. Participants had a choice to collect both HIV and Syphilis test results or any one of these two test results.

Post-test counseling and individual report dissemination was completed between 22 March to 8 May 2009 at the VCT Centre of Youth Vision/Kathmandu. Out of the 300 IDUs tested for HIV, only 21 turned up for the test results (Annex 7). This might be because there was no provision for reimbursement of the transportation cost. The gap between the interview and the dissemination of the test result might have also diminished the IDUs concern for the test result. Trained counselors from Youth Vision/Kathmandu gave the test results to the participants in a private setting only after seeing their ID cards. The counseling session was focused on high-risk behavior and other aspects of STIs and HIV.

2.6 Data Management and Analysis

Data was entered using FoxPro Software. A double-entry procedure was performed. Respondent-Driven Sampling Analysis Tool (RDSAT) software (RDSAT 5.6, Cornell University, 2005) was used for analysis of the sample. This software is designed to control three types of potential biases in chain-referral sampling namely (1) affiliation bias, (2) homophily and (3) network size bias (Heckathorn 1998).

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

The network size reported by the IDUs initially and at the end of the interview was calculated to get the average network size of each of the respondents. A new network size was thus prepared. To eliminate extremely small and large network sizes, this new network size was set to the value of the nearest lower or upper bound. For this, several network sizes were calculated and tested. Finally, a value of minimum 6 and maximum 50 was setup. When the program encountered an individual whose average network size was outside of the specified bounds, it was changed manually to the set limits. For those whose average network was lower than 6 the value was changed to 6 and for those whose average network was more than 50 the value was set to 50. This criterion of each end of network distribution was recommended by the RDS expert team of FHI and New ERA to define the modest network size.
There were certain limitations in using RDSAT for the entire data in the report. Some data obtained from the study did not meet the required numerator to be calculated with RDSAT. Such data has been calculated using SPSS and has been marked with an asterisk in the tables in this report.

CHAPTER - 3.0: SOCIO-DEMOGRAPHIC CHARACTERISTICS

This chapter describes the socio-demographic characteristics of a total of 300 IDUs in the Kathmandu Valley sample.

3.1 Demographic Characteristics

Table 3.1 shows the demographic characteristics of the IDUs recruited in the study. The age of the participants ranged from 17 to 47 years with a median age of 24 years. The IDUs were primarily young, including 83 percent below 30 years of age and 47 percent were younger than 25 years.

A little over two-thirds of the IDUs (67.1%) were unmarried. Around 27 percent were married, while a small proportion (6.2%) was divorced/ separated from their wives or were widowers (Figure 1).

Figure 1: Marital Status

Eighty-four percent of IDUs were married before they were 25 years. The median age at which the IDUs were married for the first time was 22. Among those currently married, a little over eight in ten (85.2%) lived with their wives whereas the rest lived without a sexual partner.

Table 3.1: Demographic Characteristics

Demographic Characteristics	Estimated Population Proportions (%)	95% CI
Age	**(N=300)**	
≤19 Yrs	10.6	7.2 – 14.0
20-24	37.3	32.2 – 44.3
25-29	35.4	28.8 – 40.8
30-34	9.7	6.4 – 12.0
35-47	7.0	3.6 – 11.5
Median Age	**24 yrs**	
Marital status	**(N=300)**	
Married	26.7	21.4 – 32.8
Divorced/Separated/widower	6.2	3.3 – 9.6
Never married	67.1	60.5 – 72.7
Age at first marriage	**(n=95)**	
≤19	25.9	11.5 – 42.6
20-24	58.3	40.9 – 68.2
25 and above	15.8	8.4 – 31.0
Median Age	**22 yrs**	
IDUs living with	**(N=300)**	
Spouse	25.0	19.6 – 30.3
Living with female sexual partner	0.3	0.0 – 0.5
Living without sexual partner/alone	74.7	69.6 – 80.2
Married IDUs living with	**(n=76)**	
Wife	85.2	63.6 – 93.3
Without sexual partner	14.8	6.7 – 36.5

3.2 Social Characteristics

IDUs in the Kathamandu Valley were fairly educated with nearly 70 percent having attended secondary school or higher education. About one in five (21.9%) had attended primary school, five percent had no formal education but could read and write, while four percent of the IDUs were illiterate (Table 3.2).

IDUs from all major caste/ethnic groups were represented in the study. The majority of the IDUs (28.7%) were from the Newar community followed by the Chhetri/Thakuri (25.7%) and Tamang/Lama/Magar (19.9%) communities. A few of the respondents (6.2%) were from occupational caste groups. A detailed ethnic composition of the respondents is shown in Table 3.2.

The majority of the respondents (60.5%) had been living in the valley since birth while nearly a quarter (23.6%) had migrated to Kathmandu more than five years ago. Sixteen percent were relatively new, having moved to the valley less than five years ago (Table 3.2)

Table 3.2: Social Characteristics

Social Characteristics	Estimated Population Proportions (%) (N=300)	95% CI
Education		
Illiterate	3.9	1.6 – 6.7
Literate, no schooling	4.8	2.2 – 7.8
Primary	21.9	16.7 – 27.2
Secondary	43.9	37.8 – 49.8
SLC and above	25.5	20.1 – 31.3
Ethnicity		
Brahmin	6.0	3.3 – 8.8
Chhetri/Thakuri	25.7	21.1 – 30.7
Newar	28.7	22.4 – 35.5
Tamang/Lama/Magar	19.9	14.5 – 24.3
Gurung/Rai/Limbu	9.9	6.4 – 13.8
Occupational caste	6.2	3.2 – 9.5
Others (Tharu, Sanyashi and Sherpa)	3.6	1.8 – 6.2
Duration of stay in Kathmandu Valley		
Since birth	60.5	54.8 – 66.2
≤5 yrs.	15.9	11.4 – 20.6
More than 5 years	23.6	18.5 – 28.8

CHAPTER - 4.0: PREVALENCE OF HIV AND STI

4.1 HIV/STI Prevalence

In the Kathmandu Valley, 20.7 percent of IDUs were estimated to be HIV-positive. Out of 300 IDUs sampled, only five of the participants had active syphilis with nine having a history of the disease. This indicates that sexually transmitted infections are relatively a minor problem among IDUs in the Kathmandu Valley.

Table 4.1: HIV and STI Prevalence

HIV and STI Prevalence	Estimated Population Proportions (%) (N=300)	95% CI
HIV and STI Prevalence		
HIV	20.7	14.9 – 26.2
Active Syphilis	1.5	0.3 – 3.0
Syphilis History	4.1	1.8 – 6.9

4.2 Relationship between Socio-Demographic Characteristics and HIV Infection

Table 4.2 shows the relation of HIV infection and selected socio-demographic characteristics. The prevalence of HIV was significantly higher among respondents aged 20 years and above compared to younger IDUs. The infection rate was 23 percent among IDUs aged 20 or more years and 5.4 percent among IDUs aged 20 or less.

The prevalence rate of HIV was higher among married IDUs (27.2%) than among single IDUs (18.1%). However, this difference is not statistically significant. On the other hand, the prevalence of HIV differs significantly among illiterate and literate IDUs. Illiterate IDUs (70.5%) were more than three times more likely to be HIV-positive than literate IDUs (19.3%).

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

Socio-Demographic Characteristics	Estimated HIV Prevalence (%) (N=300)	95% CI
Age		
< 20 years	5.4	5.2 – 18.7
20 years and above	23.0	17.4 – 29.4
Marital status		
Ever married	27.2	17.4 – 38.9
Never married	18.1	11.6 – 23.8
Literacy		
Illiterate	70.5	30.7 – 90.5
Literate/formal School	19.3	14.1 – 25.1
Total	**20.7**	**14.9 – 26.2**

4.3 Relationship between Drug Injection Behavior and HIV

The relationship between HIV prevalence and some of the drug injecting practices such as the duration of the injection, the frequency of injections during the past week and risk behavior in syringe use has been reviewed below.

As table 4.3 indicates, participants who have been injecting drugs for a longer time were significantly at a greater risk of HIV. HIV prevalence was higher among those who have been injecting drugs for more than five years (38.4%) compared to those who have been injecting drugs for two to five years (11.6%). This difference is statistically significant.

Although no significant difference was noted, the rate of HIV infection was higher among IDUs who had been injecting drugs twice or more a day (23%) or once everyday (25.9%) in the past week than those who injected six or less times a week (10.7%). However, the IDUs who answered that they had not injected in the past week had an HIV prevalence rate of 38.7 percent.

Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

Drug Injecting Behavior	Estimated HIV Prevalence (%) (N=300)	95% CI
Injecting drugs since		
Less than 2 years	0.7	0.5 – 2.1
2-5 years	11.6	4.7 – 18.1
More than 5 years	38.4	29.0 – 47.5
Frequency of injected drugs in the past week		
Not injected	38.7	12.2 – 67.0
Up to 6 times a week	10.7	4.5 – 19.8
Everyday	25.9	14.8 – 36.7
2 or more times a day	23.0	15.2 – 31.4
Used other's previously used needle/syringe during the past week		
Not injected/Never Used	20.4	15.4 – 26.6
Used	24.3	5.2 – 47.3
Used a needle/syringe kept in public place during the past week		
Not injected/Never Used	19.7	14.3 – 25.4
Used	93.7	90.8 – 97.0
Total	**20.7**	**14.9 – 26.2**

The rate of HIV infection was somewhat similar among those IDUs who had used someone else's syringe in the past week (24.3%) and among those who had either not injected in the past week or who had never injected with a previously-used needle/syringe (20.4%). The prevalence of HIV among those who had used the needle/syringe kept in a public place in the past week was, astonishingly, higher (93.7%) compared to those who had not done so (19.7%). Moreover, the association is also significant (Table 4.3).

4.4 Relationship between Sexual Behavior and HIV

Only 12 IDUs among the 300 had never had a sexual experience, while the rest (288) had entered into a sexual relationship before the survey. The data indicates those who had sex in the last 12 months with female sex workers (11%) were less likely to be HIV-positive than those who had sex with either regular partners (19.8%) or non-regular partners (20.6%).. Furthermore, the rate of HIV infection among those who never had a sexual experience in the past year was noted to be higher than those who had sex with either of the sex partners (Table 4.4). It is important to interpret the findings with caution in this section, as some IDUs may have changed their past sexual behavior after being diagnosed with HIV. One of the possible explanations as to why not having sex is associated with higher HIV prevalence is

that IDUs who are diagnosed with HIV may be more likely to abstain from having sex. However, there is no significant relationship between HIV infection and the sexual behavior of IDUs.

Table 4.4: Relation between Sexual Behavior and HIV Infection

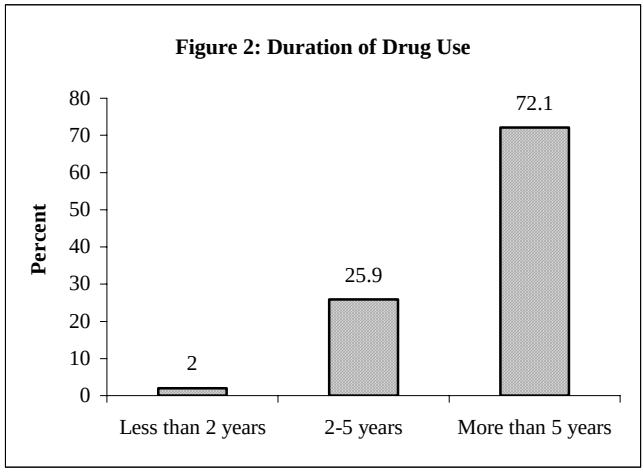
Sex with Different Partners in the Past 12 Months	Estimated HIV Prevalence (%) (N=300)	95% CI
Sex with regular female sex partner		
Yes	19.8	11.0 – 30.0
No	21.0	15.0 – 28.3
Never had sexual experience	28.2	6.7 – 63.6
Sex with Non-regular female sex partner		
Yes	20.6	10.2 - 33.9
No	19.7	13.9 – 25.5
Never had sexual experience	32.0	7.1 – 64.4
Sex with female sex worker		
Yes	11.0	4.0 – 17.0
No	23.5	16.6 – 30.7
Never had sexual experience	31.8	7.3 – 64.2
Number of regular female sex partner in the past 12 months		
None	21.7	15.4 – 28.5
One partner	20.0	11.4 – 29.7
Number of non-regular female sex partner in the past 12 months		
None	20.9	14.7 – 26.3
One partner	13.6	3.0 – 26.9
Two or more partners	34.6	13.8 – 55.3
Number of female sex workers in the past 12 months		
None	24.2	18.0 – 31.4
One sex worker	10.4	3.1 – 20.9
Two or more sex workers	10.2	1.8 – 18.8
Total	**20.7**	**14.9 – 26.2**

CHAPTER - 5.0: DRUG USE, NEEDLE SHARING AND TREATMENT

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

5.1 Alcohol Consumption and Oral Drug Use

The majority of IDUs (72.1%) had been using drugs for more than five years. A quarter of them (25.9%) had been using drug for two to five years, while a small proportion (2%) had been taking illicit drug for less than two years (Figure 2).



Alcohol consumption was common among the IDUs in Kathmandu. Overall, seven in ten IDUs had consumed alcohol at least once in the past month. Table 5.1 shows that overall, 19 percent of the respondents consumed alcohol everyday and a similar proportion of IDUs were consuming it more than once a week. Thirty-two percent had consumed alcohol at least once or were consuming it less frequently in the month preceding the survey. Thirty percent of the IDUs reported that they had not consumed alcohol in the past month.

Table 5.1: Alcohol Intake and Oral Drug Use

Alcohol Consumption and Oral Drug Use	Estimated Population Proportions (%) (N=300)	95% CI
Alcohol used during the past month		
Everyday	19.1	13.6 – 24.9
More than once a week	19.1	13.8 – 24.0
Once/Less than once a week	31.9	26.3 – 37.5
Never	29.9	24.9 – 35.8
Types of orally used drugs		
Ganja	80.1	75.1 – 85.1
Nitrovate	30.6	24.5 – 36.8
Brown sugar	25.5	20.1 – 31.1
Proxygin	23.3	18.6 – 28.7
Charas	22.2	17.2 – 27.2
Nitrosun	20.4	15.6 – 25.6
Codeine	3.2	1.6 – 5.1
Combination	0.4	0.1 – 0.9
Others	19.0	15.1 – 24.3

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

Use of oral/inhaled drugs was common among the IDUs in Kathmandu. All IDUs reported using oral drug. Table 5.1 further shows that they had used a variety of oral/inhaled drugs in the week preceding the survey. The most preferred was

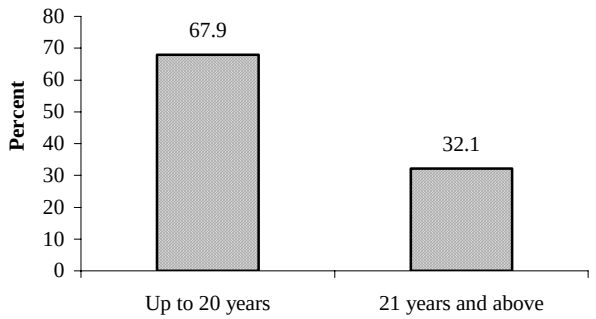
marijuana, an inhaled drug locally known as *ganja*, which had been taken by 80 percent of IDUs in the past week. This was followed by Nitrovate (30.6%), brown sugar (25.5%), Proxygin (23.3 %) Nitrosun (20.4%) and *charas* (22.2%)

5.2 Drug Injecting Practice

One in five (21.5%) IDUs started injecting drug less than two years ago. Around one third (32.9%) had been injecting drugs for the past 2 to 5 years, while a large proportion (45.6%) had been injecting drugs for more than five years (Table 5.2). It is important to note that respondents had been using oral drugs longer than they had been injecting.

IDUs in the Kathmandu Valley had mostly started injecting drugs when they were relatively young. Around seven in ten IDUs (67.9%) had their first shot when they were 20 years old, while 32 percent were 21 years and above (Figure 3).

Figure 3: Age at First Drug Injection



As for the frequency of injections in the past week, five percent had not injected in the week preceding this survey. Thirty-seven percent of respondents had injected more than once a day, around 30 percent had injected once everyday, 16 percent had injected 4 to 6 times a week, while 10 percent had it done so two to three times a week in the week preceding the interview (Table 5.2) .

IDUs were also asked about the number of shots on the last day they had injected drugs (Table 5.2). More than half (54.7%) had injected only once, while 35 percent had injected twice and 10 percent had more than three shots during last day they had injected.

Table 5.2: Drug Injecting Practice

Drug Injecting Practice	Estimated Population Proportions (%) (N=300)	95% CI
Duration of drug injection		
Less than 2 years	21.5	16.2 – 27.1
2 – 5 years	32.9	27.3 – 39.1
More than 5 years	45.6	39.0 – 52.5
Frequency of drug injections within the past week		
Not injected	5.0	2.5 – 7.7
Once a week	2.5	0.7 – 4.8
2-3 times a week	9.7	5.9 – 13.9
4-6 times a week	16.2	11.6 – 22.6
Once a day	29.6	23.4 – 34.5
2-3 times a day	33.9	28.4 – 39.8
4 or more times a day	3.1	1.3 – 5.3
Frequency of drug injection in the last day		
Once	54.7	48.8 – 60.3
Twice	34.9	29.7 – 40.3
3 or more times	10.4	7.2 – 14.0

Overall, 21 percent of IDUs reported not having injected drugs on the day before the interview (not shown in the Table). Annex 8 shows the reasons for not injecting drugs the preceding day. The main reasons were to quit the habit slowly (34%), being short of money (18.6%), due to scarcity of drugs in the market (17.6%), busy in work (17.3%) and taking other medicines (12.1%).
IDUs injected into different parts of the body according to the ease of locating the vein. The majority of respondents (39%) injected into the joint of the leg and hip, followed by the arm (34%), and the wrist (21.9%). Details of typical injecting points in the body as given by respondents are shown in Annex 9.

IDUs meeting places for injecting drugs is shown in Annex 10. The majority of the respondents (43.2%) reported gathering and injecting in their own rooms or in those of a friend, near the forest/bush or in woodland (23.4%). Others reported meeting in toilet (10.3%), and on the riverbank (10%) to inject drugs. Other places reported by the IDUs were houses under construction, temple areas, roads, hotels/lodges/restaurants, around schools/campuses, and bus/taxi garages.

The IDUs in Kathmandu predominantly injected a combination of different drugs (87%). The drugs injected are listed in Table 5.3 (for various combinations see Annex 11).

Table 5.3: Types of Drugs Injected

Types of Drugs Injected	Estimated Population Proportions (%) (N=300)	95% CI
Combination	87.0	82.1 – 91.7
Brown sugar	14.1	9.7 – 18.7
Tidigesic	2.7	0.7 – 5.2
Phenergan	2.7	0.0 – 3.1
Calmpose	1.8	0.0 – 2.8
Diazepam	1.5	0.2 – 3.5
Others	4.5	1.3 – 9.0

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

In the past month, five of the IDUs (1.7%) had switched from one drug to another. One had done so because of the scarcity of the drug and the remaining four had done so because they wanted to quit the injecting habit slowly (Annex 12).

5.3 Syringe Use and Needle Sharing Habits

The syringe use and needle sharing habits of the IDUs were assessed in terms of their last three injections. Respondents were specifically asked about the sources of the needles/syringes used in the last three injections. The IDUs answers have been categorized as ‘low risk’ or ‘high risk’ injecting behavior. Low risk means the use of new needles and syringes obtained from various places, while high risk is the use of one’s previously used syringe, the use of used needles and syringes given to the IDU by friends or relatives, the use of needles and syringes kept in public places by the IDU (Table 5.4).

Table 5.4: Syringe Use and Needle Sharing Habits during the Last Three Injections

Needle/syringe Use During Recent Drug Injections	Drug Injecting Acts		
	Most Recent	Second Most Recent	Third Most Recent

	Estimated Population Proportions (%) (N=300)	95% CI	Estimated Population Proportions (%) (N=300)	95% CI	Estimated Population Proportions (%) (N=300)	95% CI
Needle/syringe used:						
Low risk behavior	99.1	97.1 – 99.1	99.1	98.2 – 99.8	98.7	97.4 – 99.6
High risk behavior	0.9	0.9 – 2.9	0.9	0.2 – 1.8	1.3	0.4 – 2.6
Persons in the group using the same needle/syringe						
Among three persons	-	-	-	-	0.6	0.1 – 1.7
Among two persons	2.7	0.8 – 5.2	2.8	0.2 – 3.2	2.6	0.9 – 4.6
Alone	97.3	94.8 – 99.2	97.2	96.8 – 99.8	96.8	94.4 – 98.6

As reflected in Table 5.4, most of the IDUs had consciously avoided high-risk behaviors like the use of pre-used needles and syringes in their last three injections. More than 98 percent of the respondents had used a new needle, either self-purchased, or given by a friend or an NGO in the last three injections. Likewise in their last three injections more than 96 percent of the IDUs had not shared the needle with others.

Data on needle/syringe using behavior in the week preceding the survey points towards increasing consciousness among current IDUs regarding the risks associated with sharing needles/syringes. A significant proportion of IDUs (93.1%) had not used a needle/syringe that had been used by others while 94 percent had not given any needles/syringes to anyone else after using them. Around 92 percent had avoided needles/syringes kept in a public place and 93 percent had not shared a syringe in the week preceding the interview (Table 5.5). On the other hand, around seven percent of IDUs reported the risky behavior of either passing their used needle/syringe to others, using a needle/syringe kept in public place, and sharing the needle among two or more injecting partners.

Table 5.5: Past Week's Syringe Use and Sharing Behavior

Needle/Syringe Use Throughout the Past Week	Estimated Population Proportions (%) (N=300)	95% CI
Used a needle/syringe that had been used by other		
Never used/Not injected	93.1	90.2 – 95.9
Used	6.9	4.2 – 9.8
Used a needle/syringe that had been kept in public place		
Never used/Not injected	92.3	89.0 – 95.5
Used	7.7	4.5 – 11.1
Gave a needle/syringe to some one		
Yes	6.0	3.4 – 9.0
No/Not injected	94.0	91.0 – 96.6
Number of needle/syringe shared partners		
None/Not injected	93.1	90.1 – 95.8
Two or more partners	6.9	4.2 – 9.9
Shared needle/syringe with		
Friends	6.9	4.1 – 9.9
Not shared	93.1	90.1 – 95.9

5.4 Drug Sharing Behavior

Table 5.6 shows that although the majority of the respondents had abstained from unsafe drug sharing practices, some had engaged in risky behavior such as injected with a pre-filled syringe (11.8%) or injected with a syringe that was filled by another syringe (14%). Moreover, 39 percent had drawn drugs from a common container and 43 percent had shared injecting equipment such as bottles, spoons, cookers,

vials/containers, cotton/filters, or water with others at least once in the week before the survey.

Table 5.6: Past Week's Drug-Sharing Behavior

Drug Sharing Practice during Past Week	Estimated Population Proportions (%) (N=300)	95% CI
Injected with a pre-filled syringe		
Yes	11.8	8.4 – 15.7
No	88.2	84.3 – 91.6
Injected with a syringe after drugs were transferred into it from another's syringe		
Injected with such syringe	14.0	10.2 – 18.2
Never injected with such syringe	86.0	81.9 – 89.8
Shared a bottle, spoon, cooker, vial/container, cotton/filter and rinse water		
Shared	43.2	37.4 – 49.1
Never shared	56.8	50.9 – 62.6
Drew drug solution from a common container used by others		
Drew at least once	38.5	33.1 – 44.4
Never	61.5	55.6 – 67.0

Similarly, data on using non-sterile needles/syringes in the month preceding the survey also indicate that a large proportion of IDUs had avoided such behavior. Almost nine in ten respondents (89%) replied that they had not used previously-used non-sterile needles/syringes in the month preceding the survey. Likewise, more than half (56.2%) of the IDUs responded that they had not used non-sterile injecting equipment at any time in the last month (Table 5.7).

Table 5.7: Past's Month Needle/Syringe and Injecting Equipment Using Behavior

Needle/Syringe Use in the Past Month	Estimated Population Proportions (%) (N=300)	95% CI
Used previously used non-sterile needle/syringe in the past month		
Yes	11.0	7.6 – 14.8
No	89.0	85.2 – 92.4
Used non-sterile injecting equipments at any time in the last month		
Yes	43.8	3.8.6 – 50.0
No	56.2	50.0 – 62.4

Information on the movement of the IDUs both within and outside the country and their injecting practices in the places they visited was also collected during this survey (Table 5.8). Of the total 300 IDUs, 30 percent had injected drugs at the places they visited in the past year. Among those IDUs in the sample who had injected drugs outside the Kathmandu Valley, the majority of respondents had neither used others' needles/syringes (97.8%) nor had given their used needle/syringe to anyone else (94.1%).

Table 5.8: Injecting Behavior in Other Parts of the Country and Out of Country

Injecting Practice In Other Parts of the Country and Out of the Country	Estimated Population Proportions (%)	95% CI
Injected in other parts of country as well as out of country	**(N=300)**	
Yes	30.4	24.8 – 35.9
No	69.6	64.1 – 75.2
Used a needle/syringe that had been used by other	**(n=104)**	
Yes	2.2	0.8 – 3.2
No	97.8	96.8 – 99.2
Gave a needle/syringe to someone after use	**(n=104)**	
Sometimes – always	5.9	No Bound
Never	94.1	No Bound

*No Bound: RDSAT was unable to calculate confidence interval

5.5 Needle/Syringe Cleaning Practice

IDUs follow different practices of cleaning a used needle/syringe before re-use. Improper methods of cleaning not only reflect lack of awareness but also put IDUs at a greater risk of HIV transmission. Table 5.9 shows that 14 percent of IDUs had cleaned a pre-used needle/syringe in the past week. Among them, only 30 percent had cleaned it with bleach before re-using it. Others had used saliva, water, distilled water or paper/cotton to clean their needle/syringe.

Table 5.9: Needle/Syringe Cleaning Practice

Needle/Syringe Cleaning Behavior	Estimated Population Proportions (%)	95% CI
Cleaned previously used needle/syringe in the past week	**(N=300)**	
Yes	14.4	10.5 – 19.2
No	1.4	0.2 – 2.8
Never used/Not injected	84.2	79.5 – 88.6
Ways of cleaning needle/syringe	**(n=47)**	
Bleach	29.7	5.1 – 30.9
Without bleach	70.3	69.1 – 94.9

5.6 Accessibility of Syringe

All of the IDUs knew about the sources for new syringes. Among them nearly all stated they could get a new needle/syringe from a drugstore (99.8%) whenever necessary. Similarly, a large proportion of IDUs (81.2%) said that they could obtain it from needle exchange program conducted by LALS. Others replied that they could obtain a new syringe from hospitals, friends, Richmond, drug sellers and others. Three-fourths of IDUs (75.5%) had obtained a new needle/syringe from OEs/PEs from different organizations in the year preceding the survey (Table 5.10).

Table 5.10: Knowledge of Sources of New Syringe

Descriptions (N=300)	Estimated Population Proportions (%)	95% CI
Could obtain new syringe	**(N=300)**	
Yes	100.0*	NC
No	0.0*	NC
Could obtain syringe from	**(N=300)**	
Drugstore	99.8	99.5 – 99.8
LALS	81.2	75.1 – 87.6
Hospital	12.3	8.8 – 16.3
Friends	12.1	7.7 – 16.9
Richmond	9.9	5.9 – 14.2
Drug seller	7.1	4.1 – 10.5
SMF	2.2	0.5 – 4.6
Drug Whole-seller	1.3	0.0 – 1.6
Others	9.7	6.2 – 14.3
Given a new needles/syringes by outreach worker/peer educators or obtained from needle exchange program in the past year	**(N=300)**	
Yes	75.5	69.7 – 81.3
No	24.5	18.4 – 30.1

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

5.7 Treatment Status

Table 5.11 shows the status of treatment received by the IDUs in Kathmandu. More than half (52.5%) had not received any kind of treatment so far. Out of those who have been treated before, a quarter of them (26.8%) had been treated less than six months before the survey, and 15 percent had received treatment 6 to11 months prior to the survey. Others had been treated more than a year ago. The types of treatment received by the IDUs mostly included outpatient rehabilitation (82%) and detoxification treatment with the help of other drugs (10.3%). Details on types of treatment and organization/institution from where the IDUs received treatment are shown in Annex 13.

Table 5.11: Treatment Received

Treatment for De-Addiction	Estimated Population Proportions (%)	95% CI
Treatment status	**(N=300)**	
Ever treated	47.5	41.9 – 53.2
Never treated	52.5	46.8 – 58.2
Last treatment received	**(n=150)**	
Less than 6 months	26.8	14.9 – 31.3
6-11 months before	15.4	7.1 – 22.8
12-23 months before	19.5	9.7 – 31.1
24-35 months before	18.2	10.3 – 31.2
36-47 months before	7.2	2.6 – 17.4
48 or more months before	12.9	0.4 – 23.4
Types of treatment received	**(n=150)**	
Residential rehabilitation	82.0	78.1 – 91.8
Detoxification w/other drugs	10.3	3.4 – 17.8
Detoxification w/no drugs	0.9	0.0 – 1.5
Other treatment	7.0	1.5 – 8.6

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

CHAPTER - 6.0: SEXUAL BEHAVIOR AND CONDOM USE

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 IDUs more vulnerable to HIV transmission. HIV-infected IDUs 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 sexual history, and condom use among the IDUs.

6.1 Sexual Behavior

The majority of IDUs in Kathamndu were sexually active: 95 percent had ever experienced sexual intercourse before the survey and 71 percent had had sex in the past 12 months. Among those who had ever had sex before, a high proportion (78.1%) were in their teens at the time of their first sexual encounter. A little over half (51.4%) among those who had sex in the last 12 months had more than one partner (Table 6.1).

Table 6.1: Sexual History

Sexual Behavior	Estimated Population Proportions (%)	95% CI
Sexual experience	**(N=300)**	
Had sexual intercourse	95.3	92.2 – 97.8
Never had sexual intercourse	4.7	2.2 – 7.8
Age at first sexual intercourse	**(n=288)**	
<20 years	78.1	73.4 – 83.1
20 years & above	21.9	16.9 – 26.6
Median Age	**19 yrs**	
Sexual intercourse in the past 12 months	**(n=288)**	
Yes	70.8	64.8 – 76.0
No	29.2	24.1 – 35.3
Numbers of different sexual partners in the past 12 months (n=199)		
1 partner	48.6	39.9 – 58.1
2 –3 partners	34.7	26.3 – 41.9
4 – 6 partners	12.8	7.7 – 21.0
More than seven partners	3.8	1.3 – 5.3

Among those respondents who had sex at least once in the past 12 months, 29 percent had sex with a regular female partner. All of them had one regular female sex partner. Nearly nine in ten (87.4%) IDUs who reported having regular partners mentioned that they had sexual contact with their regular partner in the month preceding the survey. Sixty-five percent of them had more than four sexual encounters with their regular partners during the preceding month (Table 6.2).

Table 6.2: Sexual Behavior with Regular Female Sex Partners

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with a regular female sex partner during the past 12 months	**(n=288)**	
Yes	29.0	23.1 – 34.8
No	71.0	65.2 – 76.9
Number of regular partner	**(n=79)**	
1 partner	100.0*	NC
Sex with a regular female sex partner during last month	**(n=79)**	
Yes	87.4	71.8 – 95.6
No	12.6	4.5 – 28.2
Frequency of sex with last regular female sex partner during last month	**(n=67)**	
1- 4 times	35.4	8.3 – 58.9
More than four times	64.6	41.4 – 91.8

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

The respondents were also asked whether they had ever had sex with non-regular female partners in the past year. "The definition of 'non-regular partner' included those sex partners who were neither the respondents' spouses nor their live-in partners and who did not exchange money or drugs for sex.

Table 6.3 shows that 27 percent of IDUs had sex with non-regular female partners in the past year. Of them, over half (61.2%) had only one partner whereas 39 percent had two or more non-regular sex partners. Sixty-five percent of IDUs with non-regular female partners had sexual contact with them in the preceding month and among them, a quarter (25.9%) had sex more than four times in the past month.

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

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with non-regular female sex partner in the past 12 months	**(n=288)**	
Yes	27.1	21.3 – 31.9
No	72.9	68.1 – 78.7
No. of Non-Regular female sex partner in the past 12 months	**(n=81)**	
1 partner	61.2	45.8 – 85.4
More than one partner	38.8	14.6 – 54.2
Sex with non-regular female sex partner during last one month	**(n=81)**	
Yes	65.1	31.9 – 77.7
No	34.9	22.3 – 68.1
Frequency of sex during last one month with last non-regular female sex partners	**(n=40)**	
1- 4 times	74.1	59.3 – 94.0
More than four times	25.9	6.0 – 40.8

In order to further examine their sexual behavior, the IDUs were also asked if they had ever maintained sexual relations with sex workers. In this context, 'sex workers' were defined as those who bought or sold sex in exchange for money or drugs or any other goods.

Twenty-nine percent of sexually active IDUs had sex with female sex workers (FSWs) during the past year, and half of them (50%) in the month preceding the survey. The majority of those (65.3%) who had sex with FSWs in the last year had done so with more than one partner. A considerable proportion (88.2%) of those who had sex with FSWs in the last month had done so less than five times.

Table 6.4: Sexual Behavior with Female Sex Worker

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with female sex worker in the past 12 months	**(n=288)**	
Yes	29.2	24.1 – 35.1
No	70.8	64.8 – 75.9
Number of female sex workers in the past 12 months	**(n=87)**	
1 partner	34.7	16.1 – 54.1
More than one partner	65.3	45.9 – 84.0
Sex with female sex worker during last one month	**(n=87)**	
Yes	49.9	31.5 – 69.6
No	50.1	30.4 – 68.5
Frequency of sex with last female sex worker during the last month	**(n=34)**	
1- 4	88.2*	NC
More than four	11.8*	NC

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

The IDUs were further asked about their most recent sexual partner with whom they had sexual contact in the preceding year. Twenty-nine percent of the IDUs reported not having sex with anyone within the past year. A higher proportion of IDUs (27.3%) stated that the last tine they had sex was with their regular female partner. Twenty-two percent said that they last had sex FSWs while, a similar proportion of IDUS (21.6%) retain the last sex with non-regular female partners (Table 6.5).

Table 6.5: Types of Sex Partner in the Last Sex within the Past Year

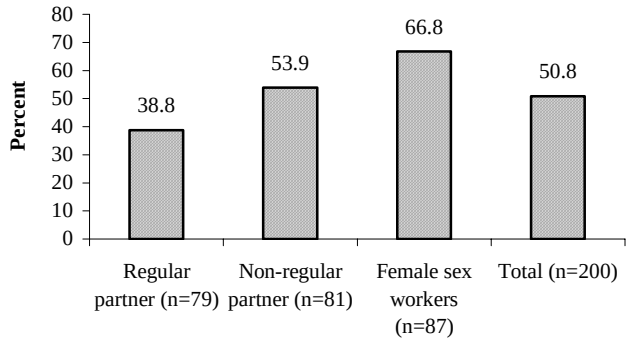
Sexual Partner in the Last Sex	Estimated Population Proportions (%) (n=288)	95% CI
Regular female partner	27.3	22.2 – 33.3
Non-regular female partner	21.6	16.2 – 25.9
Female sex worker	21.8	16.7 – 27.0
Male partner	0.1	0.1 – 0.4
No sexual contact within one year	29.2	24.0 – 35.1

6.2 Knowledge and Use of Condom

Condom promotion is one of the vital components of the HIV/AIDS awareness campaign. All the IDUs had heard of condoms before. Nevertheless, condom use was not common among the study participants.

Half of the respondents (50.8%) had used a condom the last time they had sex. Respondents were asked about condom use the last time they had sex with their regular partners, their non-regular partners and FSWs. Overall, only 39 percent of IDUs had used a condom in the last sex with their regular partners. A little over half (53.9%) of IDUs had used a condom with their non regular sex partner, and two-thirds (66.8) of IDUs had used them with FSWs. Condom use in the last sex was highest

Figure 4: Condom Use with Different Sex Partners in the Last Sex in the Past Year



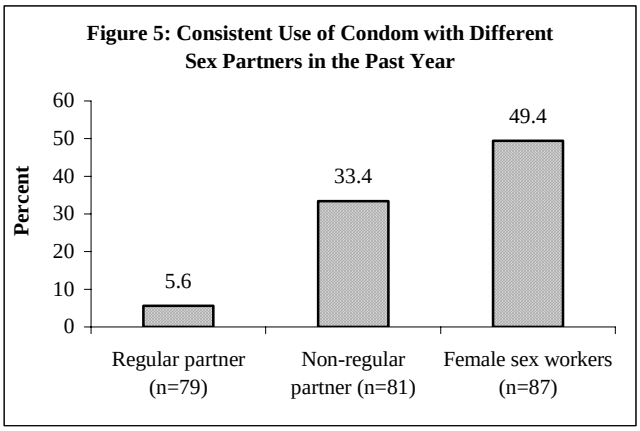
with FSWs and lowest with regular partners (Figure 4).

Respondents who reported not using a condom the last time they had sex with regular partners, non regular partners and FSWs were asked their reason for not doing so (Annex 14). Nearly half of them (47.2%) reported that they simply do not like using condoms with their regular partners, while one third (35.8%) replied that they do not think that condom use was necessary with their regular partners. Thirty-two percent of IDUs said that they were using other contraceptives while one-fourth (24.5%) replied that they did not use them due to the objection of their regular partners.

Forty-five percent of IDUs who had not used a condom the last time they had sex with non-regular partners said that they did not like using condoms, around four in ten IDUs said that condoms were not available at that time, while a little over one fifth (28.6%) did not think of it. The other reasons for not using condoms with non-regular partners are listed in Annex 14.

In contrast, IDUs were more conscious of the need to use condoms with FSWs. The main reasons given for not using a condom in the last time they had sex with a FSW were unavailability of condoms (66.7%), because they didn't like using them (57.2%), that they did not think of using them (28.6%), and due to partner's objection (9.5%).

HIV/AIDS prevention campaigns focus on educating their target groups on the need to use a condom for every act of sexual intercourse to avoid HIV/STI transmission. The IDUs were also asked about their consistent use of condoms with their sex partners in the past year. Comparing their responses for the three categories of partners, it was noted that respondents had used condoms more consistently with FSWs than with regular and non-regular sex partners in the year preceding the survey (Figure 5). Overall, half of the IDUs (49.4%) had used a condom every time they had sex with a female sex worker and 33 percent had used condoms consistently with non-regular female sex partners in the past year. On the other hand, only about six percent IDUs had been consistently using condoms with regular female sex partners in the past year.



The findings indicate that the regular female partners of IDUs were at a higher risk of HIV than non-regular or paid partners, as they are more likely to have sex and to have sex more often with their IDU partners who were reluctant to use condoms consistently with them.

6.3 Sources of Condoms

IDUs were asked if they knew about the places from where they could obtain condoms (Table 6.6) Pharmacies were cited by almost all of the IDUs (99%) as the most common place to obtain condoms. Peer educators/outreach workers were the second most important source of condoms as reported by 64 percent of IDUs. Other major sources of condoms were shops (58%), LALS: a local NGO (47.9%), hospitals (32.9), *paan shops* (29.6%) etc.

Almost all the IDUs (99.2%) said that they could get condoms in less than 30 minutes if necessary and the rest stated that it takes more than 30 minutes to access condoms (Table 6.6).

Table 6.6: Sources of Condom and Time Needed to Obtain It

Sources of Condom and Time to Obtain It	Estimated Population Proportions (%) (N=300)	95% CI
Place/person from where condom can be obtained#		
Pharmacy	99.0	98.0 – 99.7
Peer educator/outreach worker	63.6	56.7 – 69.4
Shop	58.0	51.6 – 63.9
LALS	47.9	41.4 – 53.9
Hospital	32.9	27.1 – 38.6
Pan shop	29.6	24.6 – 35.2
Clinic	10.9	7.6 – 14.7
Richmond	6.6	3.6 – 10.0
Bar/Guest house/hotel	3.2	1.3 – 5.2
Friends	3.1	1.5 – 5.0
Health worker/health post	2.3	1.0 – 3.8
Family planning center	2.2	0.4 – 4.4
SMF	1.8	0.5 – 3.7
Naulo Ghumti	0.9	0.1 – 1.9
Others	10.5	7.1 – 14.2
Time taken to obtain condom		
Less than 30 minutes	99.2	98.5 – 99.8
More than 30 minutes	0.8	0.2 – 1.5

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

6.4 Sources of Information about Condom

HIV/AIDS awareness campaigns have focused on raising awareness about condoms with the help of various IEC materials disseminated through print as well as electronic media. The IDUs had heard about condoms from various sources. The most common sources of information as cited by more than nine in ten were friends/neighbors, bill boards/sign boards, television, radio and the pharmacy. Newspapers/posters, NGO workers and hospitals were other good sources of information about condoms as reported by more than 70 percent of the respondents. IDUs other sources of information about condoms are listed in Table 6.7.

Table 6.7: Sources of Information about Condoms

Sources of Knowledge of Condom	Estimated Population Proportions (%) (N=300)	95% CI
Friends/neighbors	95.3	92.9 – 97.4
Bill board/sign board	95.0	92.9 – 96.9
Television	93.1	90.1 – 95.9
Radio	92.7	89.4 – 95.6
Pharmacy	90.5	87.0 – 93.9
Newspapers/posters	87.7	83.7 – 91.4
NGO workers	87.0	81.3 – 91.9
Hospital	70.8	65.0 – 76.3

Health workers/volunteers	67.5	61.4 – 73.2
Health Center/Health Post	60.0	53.9 – 66.3
Cinema hall	33.9	28.3 – 39.8
Street drama	27.1	21.9 – 32.3
Community event/training	24.6	19.7 – 29.4
Community worker	17.0	13.3 – 21.1
Comic books	12.1	8.6 – 16.1
Video van	1.8	0.2 – 1.9

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

In order to analyze the exposure of the IDUs to the ongoing initiatives to educate the target groups about condoms and HIV/AIDS prevention in the Kathmandu Valley, respondents were also asked if they were aware of any of the messages being publicized with the help of IEC materials such as posters, pamphlets, billboards or those aired on radio/television. The survey focused on certain specific messages about condoms and HIV/STI prevention. A good proportion of the respondents were aware of messages such as *'Jhilke dai chha chhaina condom'* (89.1%); *'Condom kinna ma bhaya hunna ra'* (88.4%); *'Yaun rog ra AIDS bata bachnalai rakhnu parchha sarbatra paine condom lai'* (84.6%); *'Ramro sanga prayog gare jokhim huna dinna'* (75.6%); *'Condom bata surakchhya youn swastha ko rakchhya'* (75.2%); *'HIV/AIDS bare aajai dekhi kura garau'* (72.2%). Table 6.8 shows the specific condom message to which the IDUs had been exposed to the past year.

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

Heard/Seen/Read the Following Messages/Characters in Past One Year	Estimated Population Proportions (%) (N=300)	95% CI
Jhilke Dai Chha Chhaina Condom	89.1	85.2 – 92.8
Condom Kina Ma Bhaya Hunna Ra	88.4	84.3 – 92.0
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	84.6	79.8 – 88.6
Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	75.6	70.4 – 80.9
Condom Bata Surakchhya Youn Swastha ko Rakchhya	75.2	69.8 – 80.5
HIV/AIDS Bare Aaji Dekhi Kura Garaun	72.2	66.6 – 77.2
Maya Garaun Sadbhav Badaun	41.0	35.6 – 47.1
Manis Sanga Manis Mile Hara Jeeta Kasko Hunchha	26.5	21.7 – 31.9
Ek Apas ka kura	26.0	21.3 – 30.5
Des Pardes	18.7	14.1 – 23.6
Others	5.1	2.1 – 7.8

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

CHAPTER - 7.0: KNOWLEDGE OF STIs AND HIV/AIDS

HIV/AIDS awareness, along with knowledge about STIs, is crucial to reducing the risk of HIV transmission. This chapter deals with the level of knowledge about STIs and HIV/AIDS among IDUs in the Kathmandu Valley. IDUs' knowledge about the availability of HIV testing facilities and perceptions of HIV testing are also covered in this chapter.

7.1 Knowledge of STIs, Symptoms Experienced and Treatment

Almost all IDUs (97.6%) in Kathmandu had heard of STIs. There were however, nine IDUs who had never heard of STIs before.

Table 7.1: STI Awareness

Ever Heard of STIs	Estimated Population Proportions (%) (N=300)	95% CI
Yes	97.6	95.9 – 98.9
No	2.4	1.1 – 4.1

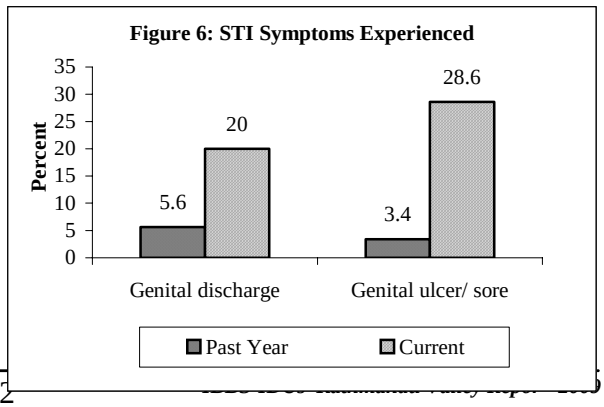
Those who had heard of STIs had a general understanding of male and female symptoms. They mentioned genital ulcers/sores blisters (61.1% in female and 68.7% in male) and genital discharge (51.3% in female and 53.1% in male) as important STI symptoms. Symptoms like foul smelling discharge (36.1%) and abdominal pain (7.2%) were specifically mentioned as female STI symptoms. Burning/pain during urination was mentioned as a male STI symptom by 41 percent of IDUs and as female STI symptoms by 36 percent of IDUs. Other symptoms cited by the respondents are shown in the following Table 7.2.

Table 7.2: Knowledge of STI Symptoms

Knowledge of Symptoms of STIs	Female STI Symptoms (n=291)		Male STI Symptoms (n=291)	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
Genital ulcer/sore blisters	61.1	54.5 – 66.5	68.7	62.6 – 74.0
Genital discharge	51.3	45.0 – 57.2	53.1	46.9 – 58.7
Foul-smelling discharge	36.1	29.6 – 41.8		
Burning/pain during urination	35.5	30.4 – 41.5	41.1	34.9 – 46.5
Itching	18.2	13.7 – 22.2	16.7	12.8 – 21.5
Swelling in groin area	8.0	5.1 – 11.9	10.6	7.3 – 14.3
Abdominal pain	7.2	4.2 – 10.3		
Others	9.9	6.5 – 14.1	6.8	4.2 – 9.6
Don't know	27.0	21.4 – 33.3	24.3	19.0 – 30.4

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

After assessing their awareness regarding STI symptoms, IDUs in Kathmandu were asked if they had ever experienced symptoms such as genital discharge, genital ulcers/sores in the past year or at the time of the survey. In response, six percent reported having genital discharge and three percent said that they had genital ulcers/sores/blisters in the past year. Likewise, out of those



who had STI symptoms in the past year, 20 percent had genital discharge and 29 percent had genital ulcers/sores during the survey (Figure 6).

Among those IDUs who had experienced at least one STI symptom in the past year, more than half (57.2%) had not sought any treatment, while about 23 percent had been treated at a hospital/health post and 14 percent had been to a private doctor (Table 7.3).

Table 7.3: STI Treatment Sought in the Past Year

STI Symptoms and Treatment	Estimated Population Proportions (%)	95% CI
STI treatment sought in the past year (n=21)		
Yes	42.8*	NC
No	57.2*	NC
Source of treatment (n=21)		
Hospital/Health Post	23.1	No Bound
Private Doctor	13.8	No Bound
Others	5.9	No Bound
Did not seek treatment	57.2	No Bound

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

7.2 Knowledge of HIV/AIDS

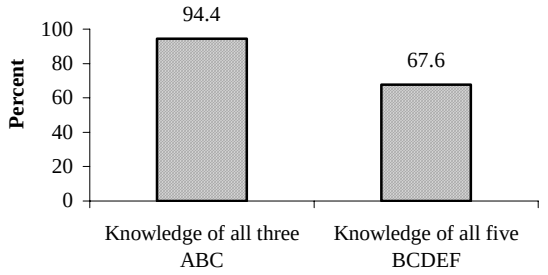
All the IDUs had heard about HIV/AIDS. The majority of them (74%) knew of people who had HIV/AIDS or who had died from it. When asked about the kind of relationship that the respondents shared with these people, 53 percent said that they were close friends and ten percent reported that they were relatives. Around six percent have both close friends and close relatives having HIV/AIDS or who had died from the disease. The remaining IDUs (32.1%) did not have any formal relationship with the people they knew who had HIV/AIDS or who had died of AIDS (Table 7.4).

Table 7.4: Awareness of HIV/AIDS

Knowledge about HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Know anyone who has HIV/AIDS/died due to AIDS		
Yes	74.0	68.5 – 79.0
No	26.0	21.0 – 31.5
Nature of relationship with the person living with HIV/AIDS /died due to AIDS (n=234)		
Close friend	52.6	44.2 – 59.1
Close relative	9.5	5.8 – 13.1
Both (Close friend and relative)	5.8	2.8 – 11.4
No relation	32.1	25.7 – 39.4

IDUs' knowledge about ways in which HIV is transmitted was further analyzed with the help of some questions about HIV/AIDS prevention. Their understanding of three major HIV/AIDS prevention measures was assessed. These are: abstinence from sex (A); being faithful to one sex partner (B); and regular condom use (C). The majority of

Figure 7: Knowledge of Major Indicators on HIV/AIDS Prevention



respondents (99.7%) were aware of 'C'. Ninety-nine percent of IDUs mentioned 'B' while only 96 percent said that 'A' was a way of avoiding AIDS (Table 7.5). In total, only 94 percent of IDUs were aware of all three 'ABC' (Figure 7).
Additionally, 96 percent were aware that a healthy-looking person can be infected with HIV (D) and a similar proportion (97.2%) also knew that sharing meal with an HIV-infected person did not put them at risk of contracting HIV (F). However, a relatively low proportion of IDUs (70.8%) agreed that a person cannot get HIV virus from a mosquito bite (E) (Table 7.5). In total, 68 percent IDUs were aware of all the five major indicators of 'BCDEF' (Figure 7).

Table 7.5: Knowledge of Major Ways of Avoiding HIV/AIDS

Knowledge of Six Major Indicators on HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
HIV transmission can be avoided through		
A Abstinence from sexual contact	95.6	92.9 – 97.7
B Being faithful to one partner	98.6	96.9 – 99.5
C Condom use during each sexual contact	99.7	99.2 – 99.8
Perception on HIV/AIDS transmission		
D A healthy-looking person can be infected with HIV	96.3	93.4 – 98.5
E A person can not get the HIV virus from mosquito bite	70.8	65.3 – 76.3
F Sharing a meal with an HIV infected person do not transmit HIV	97.2	95.0 – 99.0

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

The IDUs' understanding of HIV/AIDS and its different modes of transmission was further tested with the help of certain probing questions. More than nine in ten respondents said that a blood transfusion from an infected person can transmit HIV (100%), that a person can not get HIV by holding a HIV-infected person's hand (99.7), that a person can get HIV by using previously used needles/syringes (97.8%), and that people can protect themselves from HIV by switching to non-injectable drugs (97.2%). Around 89 percent of IDUs knew that a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child, while a relatively lower percentage of respondents (64.1%) believed that women with HIV could transmit the virus to their newborn child through breast-feeding (Table 7.6).

Those IDUs who said that that an HIV-infected pregnant woman can transmit the virus to her unborn child were asked if they were aware of any measure that could reduce the risk of HIV transmission. Among them, 59 percent said they were not aware of any measures to minimize such a risk. Some of them (35.7%) suggested that the expectant mother should take medicine or anti-retroviral treatment (Table 7.6).

Table 7.6: Knowledge about HIV/AIDS Transmission

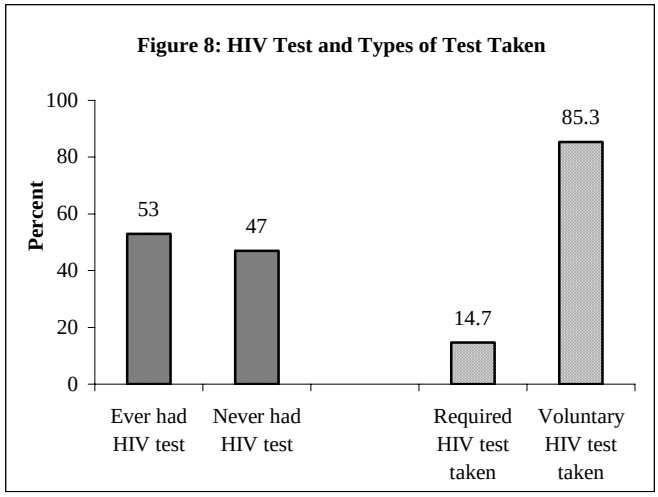
Statements Related to HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
A person can get HIV by using previously used needle by others	97.8	97.1 – 100.0
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	97.2	96.5 – 99.8
A woman with HIV/AIDS can transmit the virus to her new-born child through breast feeding	64.1	58.6 – 69.5
Blood transfusion from an infected person to the other transmit HIV	100.0*	NC
A person can not get HIV by holding an HIV infected person's hand	99.7	99.3 – 99.9
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	88.6	84.9 – 91.9
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child	**(n=258)**	
Take medicine (Anti retro viral)	35.7	30.2 – 43.3
Others	5.3	2.4 – 9.4

Don't know	59.0	51.2 – 64.4

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

7.3 Knowledge about HIV Testing Facilities

The availability of a confidential HIV testing facility and the awareness of such provision allow people to take up HIV test promptly and without the fear of being exposed. Regarding the question on the availability of HIV testing facilities in their communities, 96 percent of IDUs were aware of the existence of HIV testing facilities (Table 7.7). Half of the IDUs (53%) had tested for HIV before. Among those respondents who had taken up the test, the majority (85.3%) had done so voluntarily, while the remaining 15 percent had been required to test for HIV (Figure 8).



Nearly nine in ten IDUs (88.7%) who had the test had received the test result. Forty-two percent of the IDUs had tested for HIV within the last year, while 58 percent had been tested more than a year before the survey (Table 7.7).

Table 7.7: Knowledge about HIV Testing Facilities and History of HIV Test

Description of HIV Testing	Estimated Population Proportions (%)	95% CI
A confidential HIV testing facility available in the community	**(N=300)**	
Yes	95.9	93.8 – 98.2
No	3.2	1.5 – 5.2
Don't know	0.6	0.0 – 1.5
No response	0.3	0.0 – 0.6
Test result received	**(n=172)**	
Yes	88.7	81.5 – 96.1
No	11.3	3.9 – 18.5
Timing of last HIV test	**(n=172)**	
Within the past 12 months	42.1	31.3 – 52.9
Between 13-24 months	31.5	19.4 – 38.9
Between 25-48 months	15.2	7.7 – 25.6
More than 48 months	11.2	5.6 – 21.3

7.4 Source of Knowledge about HIV/AIDS

IDUs obtained their knowledge of HIV/AIDS from various sources. More than 90 percent of IDUs said that friends/relatives, television, billboards/signboards, radio, posters/pamphlets and NGO workers were the sources of information on HIV/AIDS. A considerably high proportion of respondents had also been made aware of HIV/AIDS through newspapers/magazines (84.9%), health workers/volunteers (74.7%) and schools/teachers (53%). Other sources of information mentioned by the IDUs have been listed in Table 7.8.

Table 7.8: Sources of Knowledge Regarding HIV/AIDS

Sources of Knowledge of HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Friends/Relatives	98.0	96.6 – 99.2
Television	97.0	95.2 – 98.6
Billboard/signboard	95.6	93.2 – 97.6
Radio	94.2	91.4 – 96.7
Pamphlets/posters	93.4	90.2 – 96.3
NGO workers	91.0	86.5 – 95.0
Newspapers/Magazines	84.9	80.8 – 88.8
Health workers/volunteers	74.7	68.6 – 80.1
School/teachers	53.0	47.4 – 59.1
Workplace	49.3	42.8 – 55.9
Cinema halls	46.9	39.7 – 53.6
Street drama	45.3	39.6 – 51.3
Community events or training	35.2	29.6 – 40.9
Community workers	23.7	19.0 – 29.1
Comic books	16.0	12.4 – 20.8
Video van	4.6	2.5 – 6.8

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

In the year preceding the survey, 90 percent of IDUs in the Kathmandu Valley had received HIV/AIDS-related information from different sources. When asked about the kind of information or material received, 62 percent said that they had received condoms/information on condoms, while 72 percent said that they received brochures/booklets/pamphlets on HIV/AIDS (Table 7.9).

Table 7.9: Information/Materials Received During the Past Year

Informative Materials Received	Estimated Population Proportions (%) (N=300)	95% CI
Received information on condom/Condom		
Yes	**61.5**	55.8 – 67.1
No	38.5	33.0 – 44.2
Received brochures/booklets/pamphlets on HIV/AIDS		
Yes	72.3	67.1 – 77.1
No	27.7	22.9 – 33.0
Received information on HIV/AIDS		
Yes	**90.3**	85.6 – 94.6
No	9.7	5.4 – 14.4
Received other IEC materials		
Yes	**1.9**	0.4 – 3.7
No	98.1	96.3 – 99.6

7.5 Perception about HIV/AIDS

The stigma associated with HIV/AIDS increases the impact of HIV on the patient as well as on the most at-risk population. The IDUs perception of HIV-positive persons and the stigma associated with the disease was examined with the help of a series of questions. The majority of respondents (98%) said that they would willingly take care of an HIV-positive male or female relative in their home if such need arose. Forty-six percent of the sample population, however, said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

The majority of respondents (96%) said that they would readily buy food from an HIV-infected vendor. Almost all IDUs (96.8%) agreed that unless very sick, people with HIV/AIDS should be allowed to continue with their jobs. When asked about the health care needs of HIV-infected persons, 60 percent IDUs mentioned that they should be provided with the same care and treatment necessary for patients with

other chronic disease, while 40 percent believed that the health care needs of an HIV-infected person were greater than people suffering from other chronic diseases.

Table 7.1 0: Attitude towards HIV/AIDS

Stigma and Discrimination	Estimated Population Proportions (%) (N=300)	95% CI
Willing to take care of HIV positive male relative in the household		
Yes	98.4	96.6 – 99.7
No	1.6	0.3 – 3.4
Willing to take care of HIV positive female relative in the household		
Yes	98.2	96.4 – 99.4
No	1.8	0.6 – 3.6
Willing to maintain confidentiality of a HIV positive family member		
Yes	46.3	41.0 – 51.7
No	53.7	48.3 – 59.0
Willing to buy food from HIV infected shopkeeper		
Yes	96.0	93.4 – 98.1
No	4.0	1.9 – 6.6
HIV infected person should get the same, more or less health care than someone with any other chronic disease		
Same	59.5	53.5 – 65.5
More	40.1	34.0 – 46.0
Less	0.4	0.2 – 1.0
HIV infected person should be allowed to continue working together		
Yes	96.8	95.2 – 98.8
No	2.5	0.8 – 4.2
Don't know	0.7	0.0 – 1.5

CHAPTER - 8.0: EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

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

8.1 Peer/Outreach Education

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

Three-fourths of IDUs (75%) in Kathmandu had ever met or interacted with PEs/OEs representing various organizations. The majority had discussed HIV/AIDS transmission methods (92.1%) and safe injecting behaviors (75.7%) while interacting with PEs/OEs. Eight in ten (81.5%) IDUs were also given a new syringe by PEs/OEs, while 29 percent of IDUs had also seen a demonstrated of the correct way of using the condom. PEs/OEs had also told the IDUs about how STIs are transmitted (29.6%). A detailed list of the activities carried out by IDUs with PEs/OEs is given in Table 8.1.

Table 8.1: Meeting with Peer Educators/Outreach Educators in the Last 12 months

Meeting with Peer Educators (PE) or Outreach Educators (OE) in the Last 12 Month	Estimated Population Proportions (%)	95% CI
Met or discussed or interacted with PE or OE in the last 12 months	**(N=300)**	
Yes	75.0	69.1 – 80.1
No	25.0	19.9 – 30.9
Activities carried out with OE/PE#	**(n=243)**	
Discussion on how HIV/AIDS is/isn't transmitted	92.1	88.4 – 95.5
Given syringe	81.5	73.8 – 87.6
Discussion on safe injecting behavior	75.7	68.8 – 83.6
Discussion on how STI is/isn't transmitted	29.6	22.2 – 34.6
Demonstration on using condom correctly	29.3	21.8 – 35.1
Given condom	17.2	12.0 – 22.6
Discussion on regular/non-regular use of condom	15.1	10.0 – 19.0
Discussion of giving up drugs	11.8	8.0 – 17.3
Others	23.1	17.0 – 28.8
Organizations represented by OE/PE	**(n=243)**	
LALS	91.2	86.8 – 97.3
RICHMOND	23.1	14.8 – 28.0
Youth Vision	11.0	5.7 – 14.4
Nawa Kiran	4.3	1.7 – 5.5
SMF	2.0	0.2 – 8.4
Others (Help, Wisdom and ARC)	15.5	9.8 – 22.0
Don't know	0.5	0.0 – 0.8
Number of meeting with PE or OE	**(n=243)**	
Once	5.2	1.5 – 9.6
2-3 times	14.0	9.6 – 20.1
4-6 times	14.8	9.7 – 20.4

7-12 times	8.7	5.2 – 13.3
More than 12 times	57.3	48.6 – 63.9

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

The majority of IDUs (91.2%) had met the PEs/OEs from LALS. Richmond and Youth Vision was also mentioned by some of the IDUs. It was clear that IDUs meet PEs/OEs fairly often as only five percent IDUs had met them just once in the past year, while the rest had met them quite frequently (Table 8.1).

8.2 Drop-in-Centers

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

Three-fourths of the IDUs (75.7%) in Kathmandu had visited a DIC during the last year (Table 8.2). Among them, the majority (97.6 %) had been to a DIC to get a new syringe. Some had also visited the centre to learn about safe injecting behavior (49.2%), to participate in discussion on HIV transmission (43.7%), and to collect condoms (32.9%).

DICs run by LALS were the most popular ones and were visited by high proportion of IDUs (86.7%). One percent of IDUs had been to a DIC just once; others had visited these centers quite frequently. Among them 74 percent had visited a DIC more than 12 times in the past year (Table 8.2).

Table 8.2: DIC Visiting Practices

DIC Visiting Practices	Estimated Population Proportions (%)	95% CI
Visited DIC/IC/CC in the last 12 months	**(N=300)**	
Yes	75.7	69.6 – 81.6
No	24.3	18.4 – 30.5
Participated activities at DIC/IC/CC #	**(n=254)**	
Got new syringe	97.6	95.9 – 99.2
Learnt about safe injecting behavior	49.2	41.2 – 55.2
Participated in discussion on HIV transmission	43.7	36.1 – 48.1
Collected condoms	32.9	27.4 – 39.8
Collect alcohol pad/swab	31.6	26.1 – 38.8
Had treatment/medicine	18.6	13.4 – 25.0
Learnt the correct way of using condom	17.4	11.4 – 22.4
Got distilled water	13.0	8.3 – 17.5
Got bleach	8.6	5.4 – 13.6
Had wound dressing	7.1	3.4 – 11.0
Watched TV/film	7.1	4.1 – 11.0
Others (discussion on drug reduction, play games and read paper/magazine)	4.9	2.7 – 8.2
Name of organizations that run DIC/IC/CC visited by them#	**(n=254)**	
LALS	86.7	78.9 – 94.3
RICHMOND	13.1	7.3 – 18.4
SMF	6.0	0.8 – 15.6
Youth Vision	1.9	0.6 – 3.8
Others	**9.5**	4.8 – 14.5
Number of visits to the DIC/IC/CC s	**(n=254)**	

Once	1.0	0.0 – 2.9
2-3 times	4.6	1.8 – 7.7
4-6 times	9.6	5.2 – 14.0
7-12 times	10.0	6.5 – 14.3
More than 12 times	74.0	67.6 – 80.3
No response	0.8	0.0 – 2.1

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

8.3 STI Clinic

The IDUs who engage in unsafe sexual encounters are at the risk of contracting certain STIs. Timely detection of STIs may prevent them from becoming serious health problems. There are several clinics run by the government as well as non-government organizations to provide STI testing and treatment facilities.

Despite the availability of testing and treatment facilities, the majority of IDUs (98%) had not visited an STI clinic in the last year. Only seven IDUs among the 300 had been to an STI clinic for different reasons in the past year. Among those IDUs who had been to a clinic, most (58.8%) had given their blood sample for STI testing and had participated in discussion on STI transmission method (58.5%). Additionally, 52 percent had participated in discussions on consistent condom use. Those IDUs who had been to an STI clinic had been to private clinics and hospitals. Eighty-six percent of IDUs had been to an STI clinic more than once in the past year (Table 8.3).

Table 8.3: STI Clinic Visiting Practices

STI Clinic Visiting Practices	Estimated Population Proportions (%)	95% CI
Visited any STI clinic in the last 12 months	**(N=300)**	
Yes	2.0	0.6 – 3.9
No	98.0	96.1 – 99.4
Participated activities at STI clinic#	**(n=7)**	
Blood tested for STI detection	58.8	No Bound
Participated in discussion STI transmission modes	58.5	No Bound
Participated in discussion on regular/non-regular use of condom	52.3	50.3 – 67.6
Others (Took a friend with me)	42.9*	NC
Name of organizations that run STI clinic visited#	**(n=7)**	
Private Clinic	34.7	No Bound
Hospital	28.6*	NC
Others	73.4	No Bound
Number of visits to STI clinics	**(n=7)**	
Once	14.3*	NC
2-3 times	71.4*	NC
4-6 times	14.3*	NC

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

8.4 VCT Centers

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

Eighty percent of IDUs in Kathmandu had not visited any of the VCT centers in the last year. Ninety-six percent of IDUs who had gone to a VCT center had given their

blood for HIV testing. About nine in ten had received pre-HIV test counseling (95.4%), post-HIV test counseling (90.8%) and had received their HIV test result (89.6%). Some of them said that they had received information on safe injecting behavior (54.3%) and had received information on the window period of HIV (47.8%). Among the IDUs who had visited VCT centers, 55 percent had visited a center just once while the rest had been there more than once. The VCT center run by Youth Vision was the most popular among the IDUs, with almost half (47.9%) of them having visited it (Table 8.4).

Table 8.4: VCT Center Visiting Practices

VCT Center Visiting Practices	Estimated Population Proportions (%)	95% CI
Visited VCT center in the last 12 months (N=300)		
Yes	19.7	14.8 – 24.6
No	80.3	75.4 – 85.2
Participated activities at VCT center # (n=78)		
Gave blood sample for HIV test	95.8	95.7 – 98.9
Received pre-HIV test counseling	95.4	No Bound
Received post HIV test counseling	90.8	No Bound
Received HIV test result	89.6	No Bound
Received information on safe injecting behavior	54.3	37.1 – 82.3
Got information on HIV/AIDS window period	47.8	30.6 – 69.6
Received counseling on using condom correctly in each sexual intercourse	21.7	9.8 – 30.5
Took a friend with me	4.2	1.1 – 4.4
Name of the organization that run the VCT centers visited# (n=78)		
Youth Vision	47.9	31.5 – 76.7
Hospital (Bheri/Seti/Koshi/teku)	25.7*	NC
SACTS	9.3	0.0 – 11.0
CAC	5.1*	NC
Others	18.5	3.0 – 28.4
Number of visits to VCT centers (n=78)		
Once	55.1*	NC
2-3 times	38.5*	NC
4-6 times	3.8*	NC
More than 6 times	2.6*	NC

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

8.5 Participation in HIV/AIDS Awareness Program

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

Nearly half of respondents (46.2%) had never participated in any HIV/AIDS awareness programs or community events, while a little over a half (53.8%) had participated at least once in these kinds of activities. In the past year, 62 percent had participated in awareness programs. The events they had participated in were street drama (80.4%), AIDS Day celebrations (45.5%), Condom Day celebrations (31.9%) and group discussions (24.4%). A few had also participated in HIV/AIDS-related training programs and workshops (Table 8.5). As for the frequency of participation in

awareness-raising activities in the past year, 29 percent had participated once. The IDUs had mostly participated in programs conducted by LALS (31.1%).

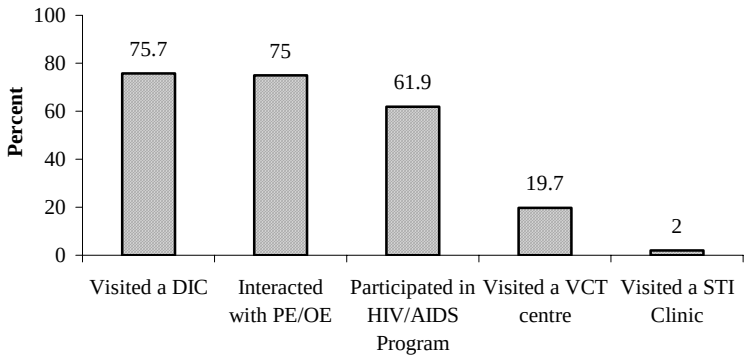
Table 8.5: Participation in HIV/AIDS Awareness Programs

Participations in HIV/AIDS Awareness Programs	Estimated Population Proportions (%)	95% CI
Ever participated in HIV/AIDS awareness raising program or community events)	**(N=300**	
Yes	53.8	48.2 – 59.5
No	46.2	40.5 – 51.9
Participated in HIV/AIDS awareness raising program or community events in the Past Year	**(N=157)**	
Yes	61.9	51.9 – 76.4
No	38.1	23.6 – 48.1
Activities participated in#	**(n=157)**	
Street drama	80.4	71.8 – 89.5
AIDS Day celebration	45.5	31.5 – 54.6
Condom Day celebration	31.9	20.3 – 36.7
Group discussions	24.4	10.3 – 31.5
HIV/AIDS related training	8.1	3.2 – 14.5
Video Shows	5.7	1.5 – 9.3
HIV/AIDS related Workshops	4.2	0.0 – 5.3
Condom use demonstrations	0.9	No Bound
Others (Talk program)	3.2	0.0 – 3.6
Name of the organizations that organized such activities#	**(n=157)**	
LALS	31.1	23.1 – 44.4
Youth Vision	6.0	1.2 – 10.7
SMF	4.9	1.6 – 28.7
Recovery Nepal	3.5	1.0 – 8.3
RICHMOND	3.2	0.7 – 5.0
Nawa Kiran Plus	3.0	0.8 – 6.3
Others (Naulo Ghumti, Sahara, KCC, BDS, Samudayeek)	39.0	24.0 – 48.7
Don't Know	28.2	18.3 – 36.9
Frequency of such participation in past 12 months	**(n=157)**	
Once	28.5	20.4 – 46.2
2-3 times	28.1	17.2 – 37.1
4-6 times	6.5	2.4 – 10.8
More than 6 times	1.2	0.0 – 3.0
Not Participated During the Past Year	35.7	19.9 – 46.2

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

As seen in Figure 9, a higher proportion of IDUs had visited a DIC in the past year. A considerable number of IDUs had interaction with PEs/OEs. Participating in HIV/AIDS-related programs and visiting VCT centres was not so common. The practice of visiting an STI clinic was the lowest.

Figure 9: Exposure to HIV/AIDS Related Programs/Activities in the Past Year



CHAPTER - 9.0: COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter analyzes the trend in the selected indicators in the last four rounds of IBBS among IDUs conducted in Kathmandu Valley. Specifically trends on indicators for the socio-demographic characteristics, drug injecting habits, needle/ syringe using practices, and condom use among IDUs are compared.

9.1 Socio-Demographic Characteristic

The socio-demographic characteristics of IDUs in Kathmandu presented a similar pattern in all four rounds. This is to a certain extent, a consequence of adopting the same sampling methodology for all rounds.

The IDUs were young, with nearly half of them aged 25 or less (43.9% in 2003, 42.3% in 2005, 49.8% in 2007 and 47% in 2009). The median age of the respondents in 2009 (24 yrs) has decreased from the previous years (25 years in 2003 and 2007, 26 years in 2005).

The majority of respondents in all four rounds had completed secondary level education (79.5% in 2003, 65.6% in 2005, 74% in 2007 and 69.5% in 2009).

Table 9.1: Socio-Demographic Characteristics

Socio-Demographic Characteristics	First Round - 2002 (N=300)	Second Round – 2005 (N=300)	Third Round – 2007 (N=300)	Fourth Round – 2009 (N=300)
	SPSS %	SPSS %	RDS Estimated Population Proportion (EPP) %	RDS Estimated Population Proportion (EPP) %
Age				
< 25 Years	43.9	42.3	49.8	47.0
≥25 Years	56.1	57.7	50.2	53.0
≤19 Years	7.3	6.0	8.4	10.6
20-24	36.6	36.3	41.2	37.3
25-29	27.7	25.0	27.1	35.4
30-34	17.8	19.7	13.4	9.7
35 and above	10.6	13.0	9.9	7.0
Median age	**25**	**26**	**25**	**24**
Education				
Illiterate	3.0	8.0	3.0	3.9
Literate only	1.7	2.3	5.1	4.8
Primary	15.8	24.0	18.0	21.9
Secondary	47.2	36.3	42.3	44.0
SLC & above	32.3	29.3	31.7	25.5
Ethnicity				
Brahmin	6.6	5.3	5.0	6.0
Chhetri/Thakuri	28.7	24.0	16.2	25.7
Newar	43.6	40.0	44.9	28.7
Tamang/Lama/Magar	11.2	16.3	14.4	19.9
Gurung/Rai/Thakali/Sherpa	5.9	8.3	16.1	9.9
Others (Musalman, Terai caste, Sanyashi, occupational caste etc.)	4.0	7.0	3.4	9.8

IDUs in all four rounds represented the majority caste/ethnic groups residing in the valley. The ethnic/caste composition of IDUs has remained unchanged since the first

round in 2003. The majority of the IDUs were from the Newar caste group in all four rounds of the survey. One-fifth of the IDUs were from the Chherti/Thakuri caste while less than seven percent in all the rounds were from the Brahmin community. The proportion of Tamang/Lama/Magar ethnic groups has been gradually increasing since the first round of the survey (Table 9.1).

9.2 Drug Injecting Practices

The average duration of injecting drugs (6 years in 2005 and 2009; and 6.2 years in 2007) remained almost the same since the second round of the IBBS study. More than nine in ten respondents had been injecting drugs for more than a year (92.7% in 2002, 94.7% in 2005, 95.3% in 2007 and 89.4 in 2009). On the other hand, the proportion of IDUs who had been injecting drugs for less than a year has increased by almost double in this round compared to the last round of the survey (Table 9.2).

The median age of the respondents when they injected drugs for the first time has decreased by one year from the previous studies and is now 19 years. In 2009, a higher proportion of IDUs than the previous round (45.5% in 2002, 53% in 2005, 56.2% in 2007 and 67.9% in 2009) replied that they were less than 20 when they first injected drugs.

Table 9.2: Drug Injecting Practice

Drug Injecting Practice	First Round – 2002 (N=300)	Second Round – 2005 (N=300)	Third Round – 2007 (N=300)	Fourth Round – 2009 (N=300)
	SPSS %	SPSS %	RDS EPP %	RDS EPP %
Duration of drug injecting habit				
Up to 11 months	7.3	5.3	4.7	10.6
12 – 23 months	10.6	8.3	13.1	10.8
24 – 59 months	33.7	32.0	36.3	28.1
60 months and above	48.5	54.3	45.8	50.5
Average duration years	**5**	**6**	**6.2**	**6**
Age at first drug injection				
≤20 years	45.5	53.0	56.2	67.9
21 years and above	54.5	47.0	43.8	32.1
Median age	**21**	**20**	**20**	**19**

9.3 Needle/Syringe Using Practice in the Past Week

Data in 2009 showed that a considerable proportion of IDUs had avoided unsafe injecting behavior in the past week. The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has been steadily increasing since the first round. High-risk behavior such as injecting with previously used needles/syringes significantly decreased from 46 percent in 2002, to 20 percent in 2005, to 12 percent in 2007 and finally to 7 percent in 2009. An additional finding is that since the first round a significantly higher proportion of IDUs in Kathmandu have been injecting alone. The proportion of IDUs who had not shared their needles/syringes with anyone in the past week increased from 41 percent in the first round, to 73 percent in the second round, to 85 percent in the third round, then to 93 percent in current fourth round. This behavior of not sharing needles with other IDUs has increased significantly (Table 9.3).

A similar improvement is observed with regards to using syringes left in a public places. The proportion of IDUs not using the syringes/needles left in public places has significantly increased since the first round of the study (68.3% in 2002, 80.7% in 2005, 93.3% in 2007 and 92.3% in 2009)

Table 9.3: Past Week's Syringe Use and Sharing Behavior

Needle/Syringe use throughout the Past Week	First Round – 2002 (N=300)	Second Round – 2005 (N=300)	Third Round – 2007 (N=300)	Fourth Round – 2009 (N=300)
	SPSS %	SPSS %	RDS EPP %	RDS EPP %
Used a needle/syringe that had been used by another				
Never Used	54.5	79.7	88.1	93.1
Ever Used	45.5	20.3	11.9	6.9
Used a needle/syringe kept in public place				
Never Used	68.3	80.7	93.3	92.3
Ever Used	31.7	19.3	6.7	7.7
Number of partners sharing needle/syringe				
None	41.3	73.0	85.4	93.1
Two	20.5	17.3	12.2	5.6
Three or more partners	38.3	9.7	2.4	1.3

9.4 Consistent Use of Condom with Different Partners

Responses regarding condom use with different partners indicate that the consistent use of condom with sexual partners had increased sharply to the third round of the survey before decreasing again in the current fourth round of the survey.

Consistent use of condoms with regular sex partners within the past year has decreased sharply in the current round of the study compared to the previous rounds (18.5% in 2002, 13% in 2005, 43.1 % in 2007 and 5.6% in 2009). However, this decline is not statistically significant. The consistent use of condoms with female sex workers in the past year has decreased by almost 20 percent from the 2007 study and this decrease is significant. The consistent use of condoms with non-regular sex partners is almost steady in all rounds.

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

Consistent Use of Condom	First Round – 2002 (N=300)	Second Round – 2005 (N=300)	Third Round – 2007 (N=300)	Fourth Round – 2009 (N=300)
	SPSS %	SPSS %	RDS EPP %	RDS EPP %
Use of condom with regular female sex partners during past 12 months				
Every time	18.5	13.0	43.1	5.6
Some time or Never	81.0	87.0	56.9	94.4
Total	**(97)**	**(77)**	**(70)**	**(79)**
Use of condom with non-regular female sex partners during past 12 months				
Every time	48.0	35.3	33.5	**33.4**
Some time or Never	52.0	64.7	66.5	66.6
Total	**(50)**	**(51)**	**(83)**	**(81)**
Use of condom with female sex workers during past 12 months				
Every time	54.3	33.9	67.8	**49.4**
Some time or Never	45.7	66.1	32.2	50.6
Total	**(35)**	**(56)**	**(77)**	**(87)**

9.5 HIV Prevalence

HIV prevalence among the IDUs has significantly decreased from 68 percent in the first round, to 51.7 percent in the second round, to 34.8 percent in the third round, and then to 20.7 percent in the current fourth round. This could be explained from the evidence that the IDUs in Kathmandu have been becoming increasingly conscious of HIV/AIDS risk factors. Their behavioral trend also points towards a significant improvement with regards to injecting habits.

Table 9.5: HIV Prevalence

HIV Prevalence	First Round – 2002 (N=300)	Second Round – 2005 (N=300)	Third Round – 2007 (N=300)		Fourth Round – 2009 (N=300)	
	SPSS %	SPSS %	RDS EPP %	95% CI	RDS EPP %	95% CI
HIV positive	68 (206)	51.7 (155)	34.8	27.7-42.1	20.7	14.9 – 26.2

CHAPER - 10.0: SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

10.1 Summary of Major Findings

The HIV prevalence rate among IDUs in the Kathmandu Valley still remains high, with 20.7 percent of IDUs being HIV positive. However, on the other hand, this represents a significant decrease from the previous round of the study.

Compared with HIV, STIs are relatively minor problem among IDUs: a history of syphilis was detected among 4.1 percent of IDUs, while only 1.5 percent had current syphilis.

HIV prevalence differed significantly according to age, literacy status and duration of drug injection. Those IDUs who were older than 20 years were more likely to be HIV-positive (23%) than younger IDUs (5.4%). HIV prevalence among literate IDUs was 19.3 percent, while among illiterate IDUs it was 70.5 percent. Likewise, HIV prevalence was significantly higher among those who had been injecting drugs for more than five years (38.4%) than those who have been injecting drugs for less than five years (12.3%).

The IDUs were predominantly young, including 83 percent below 30 years of age, with nearly half of them (47%) being younger than 25 years. Many IDUs (67.1%) were unmarried.

The majority of the IDUs (38.4%) had been using drugs for more than five years while less than one percent had been injecting drugs for less than two years. Most of them (67.9%) had started injecting drugs at a young age i.e., in their teens up to 20 years.

Overall, 19 percent of the respondents were consuming alcohol everyday. However, 30 percent had never consumed alcohol. Use of oral/inhaled drugs was common practice among IDUs. *Ganja* was the most popular drug, taken by 80 percent of IDUs in the week preceding the survey followed by Nitrovate, brown sugar, and Proxygin.

The proportion of IDUs who had avoided unsafe injecting practices in the week preceding the survey has been increasing steadily since the first round. High-risk behavior such as injecting with previously used needles/syringes decreased significantly from 45 percent in the first round to seven percent in this current fourth round. Additionally, the proportion of IDUs who had not shared their needle/syringe with anyone in the past week increased from 41 percent in 2002 to 93 percent in 2009.

Overall, 95 percent IDUs in Kathmandu had had sex before. Seven in ten were sexually active in the past year. In the year preceding the survey, 29 percent each had sex with a regular partner and with FSWs, while 27 percent had non-regular sex partners.

Condom use in the last time the IDUs had sex with a FSW was reported by 67 percent of respondents. The proportion of those who used condoms in last sex with regular partner was 54 percent and with non-regular partner was 39 percent. A similar pattern was observed in consistent condom use in the past year. It was highest with FSWs (49.4%) followed by non-regular partners (33.4%). Consistent use of condoms with regular sex partners was lowest, with only about six percent of IDUs using condom consistently in the past year.

Six percent of IDUs had genital discharge and three percent had genital ulcers/sores in the past year. Out of those who had STIs before, 20 percent and 29 percent reported having genital discharge and genital ulcers/sores respectively during the survey. More than half (57.2%) of those IDUs who had experienced at least one STI symptom in the past year had not sought any treatment.

More than nine in ten IDUs (94.4%) were aware of the three major HIV prevention measures (abstinence-A, being faithful to single partner-B, and consistent condom use-C)', while only two-thirds (67.6%) had comprehensive knowledge on HIV i.e., knowledge of B, C, and DEF (three major misconception about HIV transmission). In addition, almost all IDUs (97.8%) knew that a person can get HIV by using other people's previously used needles.

The majority of respondents (95.9%) knew that a confidential HIV testing facility was available in their communities. Only half of the IDUs (53%) had ever tested themselves for HIV. The majority (85.3%) had tested voluntarily and others had done so as per requirement. Most of the IDUs (88.7%) who have had tested for HIV had received the test result.

During the preceding year three-fourths (75%) had interacted with a peer educator/outreach educator and a similar proportion (75.7%) had visited a drop-in-centre. Only 20 percent of IDUs had visited a VCT centre at least once. Very few IDUs (2%) had visited an STI clinic. Half of the IDUs (61.9%) had participated in Various HIV/AIDS awareness raising programs.

10.2 Recommendations

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

- Data from the study indicate that basically youths and adolescents are injecting drugs. Specific program activities that target school children, college students, youths, and adolescents should be designed to impart HIV/AIDS awareness and sex education.

- HIV prevalence was significantly related to drug injecting behavior. Ongoing HIV/AIDS awareness activities should continue and be expanded geographically to cover more IDUs – especially illiterate ones. Advocacy, behavioral change activities, and health promotion interventions should be further scaled up.

- The injecting practices of the respondents revealed that a considerable percent (around eight percent) of IDUs still engage in high-risk injecting behavior, including injecting with a previously used syringe or with a syringe left at public place, using a pre-filled syringe, injecting with a syringe after drugs were transferred into it from another syringe and sharing injecting equipment. Therefore comprehensive drug prevention and treatment interventions should be promoted. Harm reduction initiatives like wider dissemination of information on safe injecting behavior, and needle exchange programs should be continued and expanded further.

- The majority of the IDUs had never received any de-addiction treatment. Rehabilitation and detoxification centers should be hence supported so they can provide the necessary services to the IDUs, especially to those belonging to economically deprived families. Rehabilitation programs should also incorporate family counseling services.

- Very few IDUs had used condom consistently with their sex partners. Barriers to inconsistent condom use should be explored and interventions targeting not just IDUs but also their partners (including FSWs) and the general population should be initiated and expanded.

- Over two-thirds (64.8%) of those IDUs who had ever experienced one or more STI symptom had never sought any treatment. HIV/AIDS awareness campaigns should also focus on STI education. Client-friendly STI testing and treatment facilities VCT centers should be made available to encourage more IDUs to voluntarily come forwards for such services.

- The study shows that 75 percent of IDUs had interacted/discussed with PEs/OEs, who can therefore be considered as good contact points to disseminate the necessary information and IEC materials to the target population. One-to-one education for behavioral change and safe injecting and sexual practices through wider mobilization of PEs/OEs could yield positive results.

- Outreach and other intervention efforts should be expanded further to include comprehensive, complimentary programs and to increase coverage to all high-risk populations. The quality of these programs should be evaluated, and where necessary, should be strengthened.

REFERENCES

FHI. 2000. *Behavioral Surveillance Surveys: Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV.* FHI Implementing AIDS Prevention and Care Project. USA.

FHI. 2000*. Behavioral Surveillance Surveys: Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV.* Atlington, VA Family Health International;

Heckathorn DD. 1997. *Respondent Driven Sampling: A New Approach to the Study of Hidden Populations.* Social problem 44(2): 174-199

Heckathorn DD. 2002a. *Respondent Driven Sampling II: Deriving Valid Population Estimates from Chain-referral Samples of Hidden Populations***.** Social Problem 49 (1): 11-34.

Heckathron, D.D. Updated July 2003. *Snowball and Respondent-Driven- Sampling An Overview.*

Heckathorn DD, Semaan S, Broadhead RS, Hughes JJ. 2002. *Extensions of Respondent-Driven Sampling: A New Approach to the Study of Injection Drug Users Aged 18-25.* AIDS behav. 6(1): 55-67.

National Center for AIDS and STD Control. 2009. *Cumulative HIV/AIDS Situation of Nepal.*May, 2009.

New ERA/SACTS/FHI. 2003. *Behavioral and Sero Prevalence Survey among IDUs in Eastern Terai***.**

New ERA/SACTS/FHI. 2002. *Behavioral and Sero Prevalence Survey among IDUs in Kathmandu Valley.*

New ERA/SACTS/FHI. 2003. *Behavioral and Sero Prevalence Survey among IDUs in Pokhara.*

New ERA/SACTS/FHI. 2005. *Behavioral and Sero Prevalence Survey among IDUs in Eastern Terai***.**

New ERA/SACTS/FHI. 2005. *Integrated Bio-Behavioral Survey among IDUs in Kathmandu Valley.*

New ERA/SACTS/FHI. 2005. *Integrated Bio-Behavioral Survey among IDUs in Pokhara Valley.*

New ERA/SACTS/FHI. 2005. *Integrated Bio-Behavioral Survey among IDUs in Western to Far-Western Terai.*

New ERA/SACTS/FHI. 2007. *Integrated Bio-Behavioral Survey among IDUs in Eastern Terai.*

New ERA/SACTS/FHI. 2007. *Integrated Bio-Behavioral Survey among IDUs in Kathmandu Valley.*

New ERA/SACTS/FHI. 2007. *Integrated Bio-Behavioral Survey among IDUs in Pokhara Valley.*

New ERA/SACTS/FHI. 2007. *Integrated Bio-Behavioral Survey among IDUs in Wesernt to Far-Western Terai.*

RDS Incorporated; December 2006. *RDS Analysis Tool V 5.6 – User Manual*

ANNEXES

ANNEX – 1: Indicators for Monitoring and Evaluation of HIV

Prevention 1: HIV related risk and transmission among IDUs	**Results (%)**	**CI**	
Impact/Outcome indicators			
Percentage of IDUs who are HIV infected	20.7	14.9 - 26.2	PMP/ASHA/ National/UNGASS
Percentage of IDUs who had adopted behavior that reduce transmission of HIV i.e. who both avoided using non sterile injecting equipment and used condom in the last sex in last month	30.8	16.4 – 46.0	National
Percentage of IDUs reporting the use of sterile injecting equipment in the last time they injected	99.1	97.2 – 99.1	UNGASS
Percentage of IDUs who avoided sharing injecting equipment in the last month	56.2	50.0 – 60.3	ASHA
Percentage of IDUs who used condom at last sex with female sex worker in the past year	66.8	37.7 - 85.6	PMP/ASHA
Percentage of IDUs who say they consistently use a condom when they have sex with a female sex worker in the past year	49.4	26.5 - 64.4	PMP/ASHA
Percentage of IDUs who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	67.6	61.8 - 72.9	PMP/ASHA/National/ UNGASS
Output/Coverage Indicators			
Percentage of IDUs reached with targeted HIV prevention service programs (BCC with OE/PE or DIC or STI Clinics or VCT or community events / trainings or drug treatment or rehabilitation)	92.9	89.6 – 95.5	ASHA/National
Percentage of IDUs reached with HIV prevention programs (Knows where to receive HIV test and received condoms)	56.9	51.2 – 63.0	UNGASS
Percentage of IDUs who received an HIV test in the last 12 months and who know their results	21.5	16.8 – 26.5	UNGASS

ANNEX – 2: Sample Size Estimation

Basic Equation in calculating the sample size

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

n = required minimum sample size per survey round

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

P_1 = the estimated proportion at the time of the first survey.

P_2 = the target population at some future date, so that (P_2-P_1) is the magnitude of change of change you want to be able to detect.

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

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

$Z_{1-\beta}$ = the Z-score corresponding to the level of power

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

ANNEX – 3: Questionnaire

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

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

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

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

Would you be willing to participate?

1. Yes 2. No

Signature of the interviewer: _____ Date:_____/_____/2065

IDENTIFICATION NUMBER (Coupon Number): ☐☐☐☐☐ *(Write '0' for seed)*
Coupon number given: (For only Pokhara and Kathmandu sites)

☐☐☐☐☐

☐☐☐☐☐

☐☐☐☐☐

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: _____ / _____ / 2065
Checked by the supervisor: Signature: _____ Date: ____/ ____ / 2065

Data Entry # 1: Clerk's name: _____ Date _____/_____/2065
Data Entry # 2: Clerk's name: _____ Date _____/_____/2065

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

1. Yes 2. No (continue interview)

↓

When?
_____Days ago (make sure that it was interviewed by New ERA and close the interview)

002. Respondent's ID #: ☐☐☐☐☐☐

002.1 Respondent referred by coupon no. ☐☐☐☐☐ (Only for Kathmandu and Pokhara IBBS study)

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

002.3 Did you share needle/syringe with the friend who brought you here? (Don't ask with seed, only for Kathmandu and Pokhara IBBS study)

1. 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
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?	Month .....☐☐☐ Always (since birth)..... 0 Others (Specify)_____ 96	
102	In the last 12 months have you been away from your home for more than one-month altogether? **(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?	Illiterate..... 0 Literate ..... 19 Grade .....☐☐ **(write the completed grade)**	
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	→ 108
107	How old were you when you first got married?	Age .....☐☐ **(write the completed years)**	
108	With whom you are living now?	Living with wife ..... 1 Living with female sexual partner. 2 Living without sexual partner..... 3 Others (Specify)_____..... 96 No response 99	110
109	Do you think your wife/female sexual partner has any other sexual partners?	Yes ..... 1 No..... 2 Don't' know..... 98 No response 99	110
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? **(Such as beer, local beer etc.)**	Every day ..... 1 More than once a week..... 2 Less than once a week ..... 3 Never drink..... 4 Others (Specify)_____	

Q.N.	Questions	Coding Categories	Skip
		..... 96 No response..... 99	

2.0 DRUG USE

Q.N.	Questions	Coding Categories	Skip
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
Tidigesic	1	2	98	99	1	2	98	99
Brown Sugar	1	2	98	99	1	2	98	99
Nitrosun	1	2	98	99	1	2	98	99
Ganja	1	2	98	99	1	2	98	99
Chares	1	2	98	99	1	2	98	99
White Sugar	1	2	98	99	1	2	98	99
Phensydyl	1	2	98	99	1	2	98	99
Calmpose	1	2	98	99	1	2	98	99
Diazepam	1	2	98	99	1	2	98	99
Codeine	1	2	98	99	1	2	98	99
Phenergan	1	2	98	99	1	2	98	99
Cocaine	1	2	98	99	1	2	98	99
Proxygin	1	2	98	99	1	2	98	99
Effidin	1	2	98	99	1	2	98	99
Velium 10	1	2	98	99	1	2	98	99
Lysergic Acid Dithylamide(LSD)	1	2	98	99	1	2	98	99
Nitrovate	1	2	98	99	1	2	98	99
Combination (Specify) ___	1	2	98	99	1	2	98	99
96. Others (Specify)_____	1	2	98	99	1	2	98	99

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

Q.N.	Questions	Coding Categories	Skip
	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	

3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Questions	Coding Categories	Skip
301	Think about the times, you have injected drugs yesterday/last day. How many times did you inject drugs on that day? **(Fill the number from answer to Q. 205 or 208 and verify by asking the respondent)**	Times ..... ☐☐	
302	The lat time you injected, how did you get that syringe/needle? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 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/syringe7 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	

Q.N.	Questions	Coding Categories	Skip
303	Think about the time before the last time you injected, how did you get that syringe/needle? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me after he use ..... 2 I picked it up from a public place which was left there by others+ 3 I picked it up from a public place which was left there by myself+4 I used a new needle/syringe given by NGO staff/ volunteer ..... 5 **(write the name of Organization)** I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe7 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 IDU's home that are used to hide syringe/needle)**	My friend/relative gave it to me after his use ..... 1 Unknown person gave it to me after he use ..... 2 I picked it up from a public place which was left there by others+ 3 I picked it up from a public place which was left there by myself+4 I used a new needle/syringe given by NGO staff/ volunteer ..... 5 **(write the name of Organization)** I used a needle/syringe which I purchased ..... 6 I reused my own needle/syringe7 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 Don't know ..... 98 No response..... 99	→ 314

Q.N.	Questions	Coding Categories				Skip
305.1	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? **(Public place means places other than the IDU's home that are used to hide syringe/needle)**	Every times .....1 Almost every-times .....2 Sometimes .....3 Never .....4 Don't know .....98 No response.....99				
306	In the past one-week, did you ever share needles and syringes with any of the following?					
	Read out list. Multiple answers possible	**Yes**	**No**	**DK**	**NR**	
	Your usual sexual partner	1	2	98	99	
	A sexual partner who you did not know	1	2	98	99	
	A friend	1	2	98	99	
	A drugs seller	1	2	98	99	
	Unknown Person	1	2	98	99	
	96. Other (Specify) _____	1	2	98	99	
307	With how many different injecting partners did you share needles or syringes in the past one-week? **(Count everyone who injected from the same syringe)**	Number of partners.....☐☐ Don't know ..... 98 No response.....99				
308	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response..... 99				
309	In the past-week, did you ever inject with a pre-filled syringe? **(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				

Q.N.	Questions	Coding Categories	Skip
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 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 _____	
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	

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

Q.N.	Questions	Coding Categories	Skip
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)

Q. N.	Questions	Coding Categories	Skip
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	

Q. N.	Questions	Coding Categories	Skip
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)**	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	
502.2	Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month?	Times.....[ ][ ] Don't know.....98 No response.....99	
502.3	The last time you had sex with a female sex worker did you and your partner use a condom?	Yes .....1 No.....2 Don't know.....98 No response.....99	→ 502.5 502.5
502.4	Why did not you and your partner use a condom that time? **(Do not read the possible answers, multiple answer possible)**	Not available.....1 Too expensive.....2 Partner objected.....3 Don't like them.....4 Used other contraceptive .....5 Didn't think it was necessary… .6 Didn't think of it.....7 Other (Specify) _____ 96 Don't know.....98 No response.....99	

Q. N.	Questions	Coding Categories	Skip
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)**	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	503.4 503.4
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	

Q. N.	Questions	Coding Categories	Skip
		No response 99	
503.6	Have you ever had anal sex with your female non-regular partners?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 504
503.7	The last time you had anal sex with a female non-regular partner, did you and your partner use a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
503.8	How often have you used a condom in an anal-sex with female non-regular partners in the past year?	Every times ..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never used ..... 4 Don't know ..... 98 No response 99	
504	Have you had anal sex with a male partner in the past one year? **(See the response in Q. 404.1 and circle Q. 504 response)**	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	
504.2	The last time you had anal sex with him; did you use condom?	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?	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	
505	Have you had sexual intercourse in the last month?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	 507

Q. N.	Questions	Coding Categories	Skip
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 & 602)

Q. N.	Questions	Coding Categories	Skip
601	Have you ever heard of a condom? **(Show picture or sample of condom)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	701
602	Have you ever used a condom?	Yes ..... 1 No 2	
603	Do you know of any place or person from which you can obtain condom?	Yes ..... 1 No ..... 2 No response 99	701
604	From which place or people, you can obtain condoms? **(Multiple answer possible. Don't read the list but probe)**	Shop ..... 1 Pharmacy ..... 2 Clinic ..... 3 Hospital ..... 4 Family planning center ..... 5 Bar/Guest house/Hotel ..... 6 Health worker ..... 7 Peer Educator/Outreach doctor 8 Friend ..... 9 *Pan Pasal* ..... 10 Others (Specify) _____ ..... 96 No response 99	
604.1	Did any organization give you condom in the last 12 months?	Yes, free of cost.....1 Yes, by taking money ..... 2 No 3	
605	How long would it take **(from your house or the place where you work)** to obtain a condom?	Less than 30 minutes ..... 1 More than 30 minutes ..... 2 Don't know ..... 98 No response 99	

7.0 KNOWLEDGE AND TREATMENT OF STIs

Q. N.	Questions	Coding Categories	Skip
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**	Genital discharge ..... 1 Burning pain on urination ..... 2 Genital ulcers/sore blister..... 3 Swellings in groin area 4	

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

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

Q. N.	Questions	Coding Categories	Skip
801	Have you ever heard of HIV or the disease called AIDS?	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	

Q. N.	Questions	Coding Categories	Skip
808	Can a person get HIV, by sharing a meal with someone who is infected?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
809	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
810	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? **(Oral or inhaling drugs)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
811	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	813
812	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? **(Do not read the possible answers, multiple answer possible)**	Take medication (Antiretroviral) 1 Others (Specify) _____ 96 Don't know ..... 98 No response 99	
813	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
813.1	Do you think a healthy-looking person can be infected with HIV?	Yes ..... 1 No ..... 2 Don't know 98	
813.2	Can a person get HIV by shaking hand with an infected person?	Yes ..... 1 No ..... 2 Don't know 98	
813.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes ..... 1 No ..... 2 Don't know 98	
814	Is it possible in your community for someone to have a confidential HIV test? **(By confidential, I mean that no one will know the result if you don't want him or her to know it.)**	Yes ..... 1 No ..... 2 Don't know ..... 98 No response 99	
814.1	Do you know where to go for HIV test?	Yes ..... 1 No 2	
815	I don't want to know the result, but have you ever had an HIV test?	Yes ..... 1 No ..... 2 No response 99	901
816	Did you voluntarily take up the HIV test, or were you required to have the test?	Voluntary ..... 1 Required ..... 2 No response 99	
817			
817.1			
818	When did you have your most recent HIV test?	Within the past 12 months..... 1 Between 13-24 months ..... 2 Between 25-48 months ..... 3 More than 48 months ..... 4 Don't know ..... 98 No response 99	
819	Please do not tell me the result, but did you find out the result of your HIV test?	Yes ..... 1 No 2	→ 901

Q. N.	Questions	Coding Categories	Skip
		No response 9	→ 901
819.1	Why did you not receive the test result?	Sure of not being infected ..... 1 Afraid of result ..... 2 Felt unnecessary ..... 3 Forgot it ..... 4 Others (Specify) _____ ..... 96 No response..... 99	

9.0 AWARENESS OF HIV/AIDS

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

Q. N.	Questions	Coding Categories		Skip
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**	
	Radio	1	2	
	Television	1	2	
	Newspapers/Magazines	1	2	
	Pamphlets/Posters	1	2	
	School/Teachers	1	2	
	Health Worker/Volunteer	1	2	
	Friends/Relatives	1	2	
	Work Place	1	2	
	People from NGO	1	2	
	Video Van	1	2	
	Street Drama	1	2	
	Cinema Hall	1	2	
	Community Event/Training	1	2	
	Bill Board/Sign Board	1	2	
	Comic Book	1	2	
	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**	
	Condom	1	2	
	Brochure/Booklets/Pamphlets about HIV/AIDS	1	2	
	Information about HIV/AIDS	1	2	
	96. Others (Specify) _____	1	2	

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

Q. N.	Questions	Coding Categories		Skip
1001	In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? ***(Read the following list, multiple answer possible)***			
	Sources	**Yes**	**No**	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	

Q. N.	Questions	Coding Categories		Skip
	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 Chha Chhaina Condom	1	2	
	2. Condom Kina Ma Bhaya Hunna Ra	1	2	
	3. Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	1	2	
	4 Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	1	2	
	5. Condom Bata Surakchhya, Youn Swasthya Ko Rakchhya AIDS Ra Younrog Bata Bachna Sadhai Condom Ko Prayog Garau	1	2	
	6. HIV/AIDS Bare Aajai Dekhee Kura Garau	1	2	
	7. Ek Apas Ka Kura	1	2	
	8. Maya Garaun Sadbhav Badaun	1	2	
	9. Des Pardes	1	2	
	10. Manis Sanga Manis Mile hara Jeeta Kasko Hunchha	1	2	
	96. Others (Specify)_____	1	2	
1003	Have you ever heard/seen or read messages or materials other than mentioned above?	Yes ..... 1 No..... 2 →		1004
1003.1	What? Have you seen, read or heard of ?	_____ _____		
1004	Generally, where do you gather to inject drug?	_____ _____		
1005	How many IDUs do you know who also know you well? Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months	Total _____ ☐☐☐ Don't know..... 98 No response 99		1008

Q. N.	Questions	Coding Categories	Skip
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? **(For Pokhara and Kathmandu only)**	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	

11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

Q. N.	Questions	Coding Categories	Skip
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 months?	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	

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

Q. N.	Questions	Coding Categories	Skip
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 NRCS ..... 7 NSARC..... 8 FPAN..... 9 Others (Specify)_____ ..... 96 Don't know 98	
1112	How many times have you visited STI clinic in the last 12 months?	Once..... 1 2-3 times..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times 5	
1113	Have you visited any Voluntary Counseling and Testing (VCT) centers in the last 12 months?	Yes ..... 1 No..... 2	→ 1117
1114	What did you do when you visited such VCT center/s? **(Multiple answers. DO NOT READ the possible answers)**	Received pre-HIV/AIDS test counseling ..... 1 Blood sample taken for HIV/AIDS test ..... 2 Received post HIV/AIDS test counseling ..... 3 Received information on safe injecting behavior ..... 4 Received HIV/AIDS test result.... 5 Received counseling on using condom correctly in each sexual intercourse ..... 6 Received information on HIV/AIDS window period..... 7 Took a friend with me..... 8 Other (Specify)_____96	
1115	Do you know which organizations run those VCT centers? **(Multiple answers. DO NOT READ the possible answers)**	AMDA..... 1 Youth Vision ..... 2 SACTS ..... 3 NFCC ..... 4 CAC..... 5 Naulo Ghumti ..... 6 NSARC ..... 7 NRCS 8	

Q. N.	Questions	Coding Categories	Skip
		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	

Q. N.	Questions	Coding Categories	Skip
1119	Do you know which organizations organized those activities? **(Multiple answers. DO NOT READ the possible answers given below)**	AMDA ..... 1 HELP ..... 2 KYC ..... 3 Youth Vision ..... 4 NFCC ..... 5 LALS..... 6 Naulo Ghumti ..... 7 WATCH ..... 8 GWP..... 9 NRCS ..... 10 NSARC ..... 11 AHH ..... 12 Recovery Nepal..... 13 SAHARA ..... 14 CSG ..... 15 Others (Specify) _____ 96 Don't know 98	
1120	How many times have you participated in such activities in the last 12 months?	Not participated within last year.....0 Once..... 1 2-3 times..... 2 4-6 times ..... 3 7-12 times..... 4 More than 12 times 5	
1121	Have you heard of any Community Home Based Care (CHBC) services that are provided for HIV positive people?	Yes ..... 1 No..... 2	
1122	Have you heard of care and support programs that provide information regarding ART and ART services necessary for HIV infected people?	Yes ..... 1 No..... 2	

12.0 STIGMA AND DISCRIMINATION

Q. N.	Questions	Coding Categories	Skip
1201	If a male relative of yours gets HIV, would you be willing to take care of him in your household?	Yes ..... 1 No..... 2 Don't know..... 98	
1202	If a female relative of yours gets HIV, would you be willing to take care of her in your household?	Yes ..... 1 No..... 2 Don't know..... 98	
1203	If a member of your family gets HIV, would you want to keep it a secret?	Yes ..... 1 No..... 2 Don't know..... 98	
1204	If you knew a shopkeeper or food seller had HIV, would you buy food from him/her?	Yes ..... 1 No..... 2 Don't know..... 98 No response..... 99	
1205	Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?	Same ..... 1 More ..... 2 Less ..... 3 Don't know..... 98 No response..... 99	
1206	If one of your colleagues has HIV but he/she is not very sick, Do you think he/she should be allowed to continue working?	Yes ..... 1 No..... 2 Don't know..... 98 No response..... 99	

ANNEX – 4: Oral Informed Consent

Title: Integrated Biological and Behavioral Surveillance Survey among Injecting Drug Users in Kathmandu Valley, Pokhara Valley, Eastern *terai* Highway Districts, and Western to Far Western *terai* Districts

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

Principal Investigator/s: Satish Raj Pandey, FHI/Nepal
Laxmi Bilas Acharya, FHI/Nepal

Address: GPO Box 8803
Gopal Bhawan, Anamika Galli, Ward No4,
Baluwatar, Kathmandu, Nepal
Phone: +977 1 443 7173
FAX: +977 1 441 7475

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

Information about the Research
In total 1245 male injecting drug users (IDUs) will be selected for interview from Kathmandu Valley, Pokhara Valley, Eastern *terai* highway districts and Western to Far Western *terai* highway districts. You are in the pool of possible candidates, but the final selection would be based on your choice.

Study participants in the Kathmandu Valley and the Pokhara Valley will be selected by a process in which individuals who have participated in the study invite others they know to participate. In the Eastern *terai* highway districts and western to far western *terai* highway districts two stage cluster sampling method will be used to select study participants. We will ask you some questions and then ask you to provide blood sample for HIV and syphilis test. We will draw 5-6 ml blood by 10 ml disposable syringe from your vein in your arm.

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

Possible Risks
The risk of participating in this study is the minor discomfort during blood drawing. Providing blood sample does not put you at any other risk. Some of the questions we ask make you feel uncomfortable to answer them. You are free not to answer such questions and also to stop participating in the research at any time you want to do so. You might feel some mental

stress after getting your test results. But at such time you will get counseling on HIV and STI through a qualified counselor. They will provide information about STIs and counseling for any mental stress you have.

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

Possible Benefits

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

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

If You Decide Not to Be in the Research

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

Confidentiality

We will protect information collected about you and your taking part in this study to the best of our ability. We will not use your name in any reports. A court of law could order medical records shown to other people, but that is unlikely. We will not ask you to put your name on this form, but only ask you to agree verbally (with spoken words).

Payment

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

Leaving the Research

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

If you have a questions about the study

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

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

Your Rights as a Participant

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

VOLUNTEER AGREEMENT

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

_____

_____

Signature of witness Date

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

_____

_____

Signature of Person Who Obtained Consent Date

ANNEX – 5: Clinical/Lab Checklist

CONFIDENTIAL

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

Clinical/Lab Checklist

Respondent ID | | | | | | | Number: Date: 2065/____ /____

Name of Clinician: _____

Name of Lab Technician: _____

(A) Clinical TEST

Weight : _____Kg

B.P. : _____mm of Hg

Pulse : _____

Temperature : _____° F

(B) Specimen collection

	Yes	No
Pre-test counseled	1	2
Blood Collected for HIV & Syphilis	1	2
Date & place for post-test results given	1	2
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

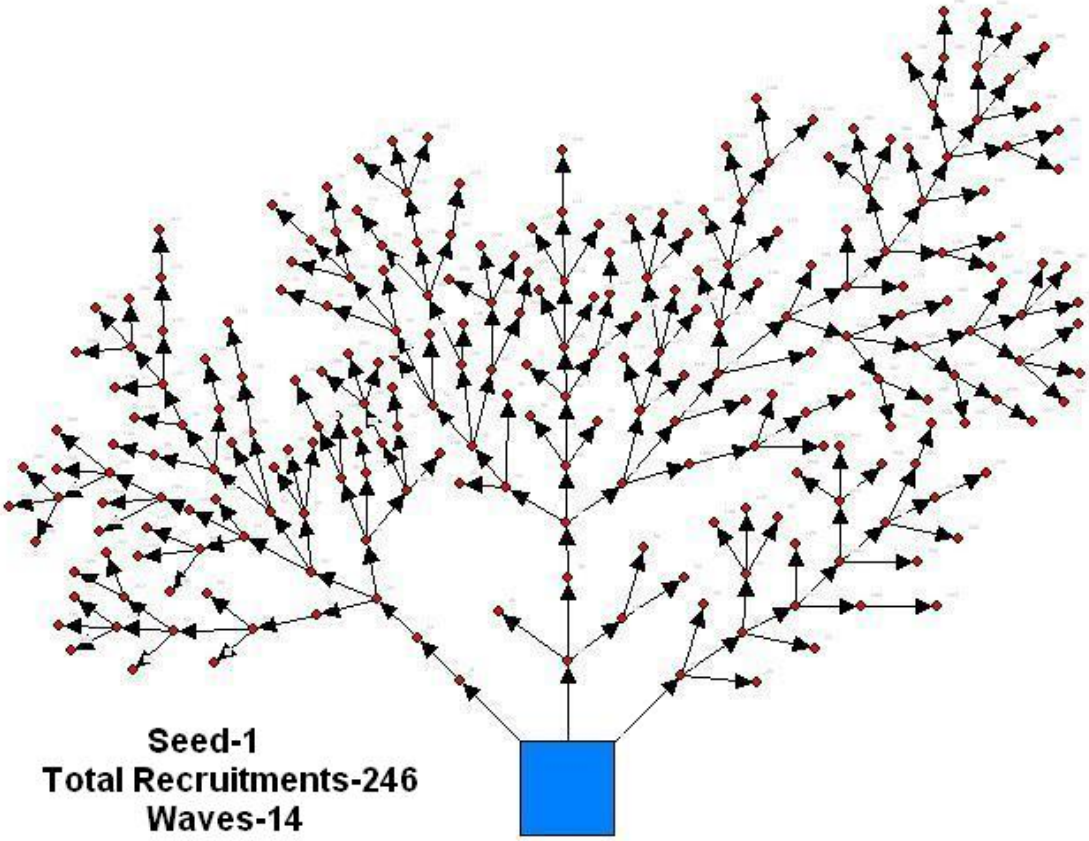
[If yes, give genital ulcer syndrome treatment and time for follow-up]

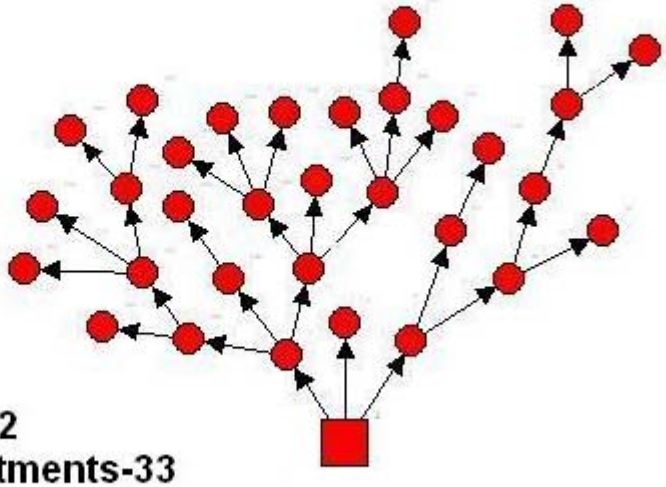
103. Have you had a tender or non-tender/solid or fluctuant swelling in the groin area in the past one month?

1. Yes 2. No

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

ANNEX – 6: Respondent Driven Sample of IDUs





Seed-2
Total Recruitments-33
Waves-5

ANNEX – 7: Participation in Post Test Counseling

Post Test Counseling Date	Counseling Center	Expected Client	Client Counseled		Client with HIV+	Client with HIV-	RPR+
			N	%	N	N	N
22 Mar. - 08 May, 2009	Youth Vision Kathmandu	300	21	7.0	1	20	0

ANNEX – 8: Reasons for Not Injected Drugs on the Previous Day

Injecting Practice	Estimated Population Proportions (%)	95% CI
Reasons for not injecting yesterday n=64		
To quit slowly	34.0	29.0 – 60.6
Lack of money	18.6	2.0 – 50.4
Scarcity of drugs	17.6	1.9 – 50.1
Busy in work/Out of home for work	17.3	8.0 – 43.4
Taking other medicines	12.1	10.8 – 39.0
Fear of being arrested by police	3.1*	NC
Due to illness	1.6*	NC

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

ANNEX – 9: Part of the Body for Injecting Drugs

Typical Injection Points	Estimated Population Proportions (%) (N=300)	95% CI
Joint of leg and hip	39.0	33.3 – 45.7
Arm	34.0	28.9 – 39.7
Wrist	21.9	16.3 – 27.1
Elbow	1.0	0.4 – 2.0
Calf	1.0	0.2 – 1.8
Thigh	0.7	0.1 – 1.4
Armpit	0.6	0.2 – 1.1
Palm	0.5	0.0 – 1.4
Arch	0.2	0.0 – 0.5
Neck	1.1	0.0 – 2.7

ANNEX – 10: Gathering Place to Inject Drugs

Gathering Places to Inject Drugs	Estimated Population Proportions (%) (N=300)	95% CI
Own/friends/Drug-user's room/House	43.2	37.9 – 49.3
Forest/Bushes/lawn/Farmland/chaur/Bansghari	23.4	17.9 – 29.0
Toilet	10.3	5.5 – 15.5
River bank	10.0	7.1 – 14.1
Constructing house	5.7	3.0 – 8.7
Temple Area	3.0	1.4 – 4.5
Road	1.5	0.4 – 2.6
Hotel/Lodge/Restaurant	1.3	0.2 – 2.5
Around school/Campus	0.8	0.0 – 1.8
Bus/taxi garage	0.8	0.0 – 1.8

ANNEX – 11: Combination of Different Drugs Injected

S.N.	Drugs Combination	Fourth Round - 2009
		n=272
1	Norphin + Avil + Diazepam + Phenergan	86
2	Norphin + Diazepam + Phenergan	44
3	Norphin + Diazepam	21
4	Norphin + Diazepam + Algic + Phenergan	14
5	Norphin + Avil + Diazepam	14
6	Norphin + Avil + Phenergan	11
7	Norphin + Diazepam + Phenergan + Stargun	10
8	Norphin + Avil + Diazepam + Phenergan + Stargun	9
9	Norphin + Avil + Diazepam + Stargun	7
10	Norphin + Algic + Phenergan	5
11	Norphin + Phenergan	4
12	Norphin + Avil + Phenergan + Calmpose	4
13	Norphin + Avil + Phenermine + Diazepam + Phenergan	4
14	Norphin + Avil + Diazepam + Algic + Phenergan	3
15	Norphin + Phenermine + Diazepam + Phenergan	3
16	Norphin + Avil + Diazepam + Algic	2
17	Norphin + Avil + Algic + Phenergan	2
18	Avil + Diazepam + Nerjesic	2
19	Norphin + Diazepam + Phenergan + Calmpose	1
20	Diazepam + Phenergan	1
21	Diazepam + Algic + Phenergan	1
22	Norphin + Avil + Phenergan + Calmpose	1
23	Avil + Diazepam + Phenergan	1
24	Norphin + Diazepam + Stargun	1
25	Norphin + Avil + Phenergan + Stargun	1
26	Avil + Diazepam + Phenergan + Stargun	1
27	Algic + Phenergan + Stargun	1
28	Norphin + Phenergan + Stargun	1
29	Norphin + Phenermine + Diazepam + Stargun	1
30	Avil + Diazepam + Lubrigesic	1
31	Norphin + Diazepam + Nerjesic	1
32	Norphin + Phenergan + Calmpose + Stargun	1
33	Avil + Phenergan + Stargun	1
34	Elgicl + Phenergan + Nerjesic	1
35	Norphin + Calmpose + Stargun	1
36	Avil + Elgic + Phenergan + Stargun	1
37	Avil + Phenermine + Diazepam + Elgicl + Phenergan	1
38	Norphin + Phenermine + Phenergan + Spasmindan	1
39	Avil + Phenermine + Elgicl + Phenergan	1
40	Avil + Phenergan + Calmpose	1
41	Elgic + Phenergan	1
42	Avil + Phenermine + Diazepam + Phenergan	1
43	Norphin + Avil + Phenermine + Elgicl + Phenergan	1
44	Norphin + Phenermine + Phenergan + Calmpose + Stargun	1
45	Norphin + Avil + Phenermine + Diazepam + Stargun	1

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

ANNEX – 12: Drug Switching Practice and Reasons for it

Drug Switching Behavior	Estimated Population Proportions (%)	95% CI
Switched from one drugs to another drugs in past month (N=300)		
Yes	1.7*	NC
No	98.3*	NC
Switched from (n=5)		
Brown sugar to Norphin + Diazepam + Avil + Phenergan	20.0*	NC
Norphin + Diazepam + Avil to Brown sugar + Marijuana + Nytrosan + White sugar	20.0*	NC
Norphin + Diazepam + Avil + Phenergan to Diazepam + Marijuana + Nytrosan + Codeine + Chares	20.0*	NC
Brown sugar + Tidigesic to Proxyvon + Nitrovate + Ephidin	20.0*	NC
Norphin + Phenergan + Talgesic to Brown sugar + Proxyvon + Marijuana	20.0*	NC
Reasons for switching one drug to another # (n=5)		
Unavailability/scarcity of drugs	20.0*	NC
Leave slowly	80.0*	NC

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

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

Types of Institutions	Types of Treatments (n=150)							
	Residential rehabilitation %	Out patient counseling %	Helped for cold turkey %	Forced for cold turkey %	With out drug %	With other drug %	Detoxification with methadone %	Other treatment/ help %
Richmond Fellowship	14.5	-	-	-	-	-	-	-
Youth vision	13.4	-	-	-	-	-	0.7	-
Nawa Kiran Asharam	12.0	-	-	-	-	-	-	-
LALS	8.7	-	-	-	-	-	-	-
Sparsha Nepal	8.7	-	-	-	-	-	-	-
Sangati	6.7	-	-	-	-	-	-	-
The Recovery Group	1.3	-	-	-	-	-	-	-
Punar Jeevan Kendra	1.3	-	-	-	-	-	-	-
Wisdom Happy Nepal	0.7	-	-	-	-	-	-	-
Aashra Sudhar Kendra	0.7	-	-	-	-	-	-	-
Adiction Ricovery Center	0.7	-	-	-	-	-	-	-
Nawa Jeevan Punarsthan Kendra	0.7	-	-	-	-	-	-	-
Aasha	0.7	-	-	-	-	-	-	-
Care Foundation	0.7	-	-	-	-	-	-	-
Manasik Hospital	-	-	-	-	-	-	0.7	0.7
Teaching Hospital	-	-	-	-	-	-	0.7	-
Own Home	-	-	0.7	-	0.7	2.7	-	-
My Home	-	-	0.7	-	-	-	-	-
Others	15.3	0.7	0.7	2.7	-	3.3	-	0.7
Total	**85.3**	0.7	**2.0**	**2.7**	**0.7**	**6.0**	**2.0**	**1.3**

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

ANNEX – 14: Reasons for Not Using Condom in the Last Sex with Different Sex Partners

Reasons of Not Using Condom	Estimated Population Proportions (%)	95% CI
Reasons of not using condom with regular partner in the last sex (n=53)		
Don't like them	47.2*	NC
Didn't think it was necessary	35.8*	NC
Used other contraceptive	32.1*	NC
Partner objected	24.5*	NC
Willing to have baby	20.8*	NC
Didn't think of it	3.8*	NC
Not available	3.8*	NC
Reasons of not using condom with sex worker in the last sex (n=21)		
Not available	66.7*	NC
Don't like them	57.2*	NC
Didn't think of it	28.6*	NC
Partner objected	9.5*	NC
Reasons of not using condom with non- regular partner in the last sex (n=42)		
Don't like them	45.2*	NC
Not available	38.1*	NC
Didn't think of it	28.6*	NC
Partner objected	23.8*	NC
Didn't think it was necessary	14.3*	NC
Trust on partner	7.1*	NC

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