

**Integrated Bio-behavioral Survey (IBBS)
among Injecting Drug Users in the
Kathmandu Valley - 2007**

Submitted to:

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

Submitted by:



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

In Collaboration with



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

January, 2008

ACKNOWLEDGEMENTS

We would like to express our sincere and heartfelt gratitude to Family Health International/Nepal (FHI/Nepal) for entrusting us the responsibility to conduct such an interesting and important study.

The study team would like to extend special thanks to Ms. Jacqueline McPherson, Country Director, FHI/Nepal and Dr. Dimitri Prybylski, Senior Technical Officers–ESR, FHI/Bangkok. Their inputs proved invaluable throughout the course of this study.

Dr. Laxmi Bilas Acharya, Team Leader - Surveillance and Research, Monitoring and Evaluation FHI/Nepal deserves special credit for his technical inputs and guidance throughout the whole process of the study.

Furthermore, the study team would like to thank Naulo Ghumti, Pokhara for providing counselor for post test counseling service and test result dissemination to the study participants.

Furthermore, the study team would like to thank Youth Vision Nepal for providing counselor for post test counseling service and test result dissemination to the study participants.

We are also indebted to various organizations such as Nawa Kiran Plus, LALS, The Recovering Nepal, Richmond Fellowship in Kathmandu and Siddhi Memorial Foundation in Bhaktapur for their cooperation. We would like to gratefully acknowledge National Center for AIDS and STD Control (NCASC) for providing necessary support during the study period.

The study team would also like to express heartfelt thanks to all the study participants who provided their valuable time for the interview and shared their personal experiences to make this study possible.

Last but not least, the strenuous effort put up by each and every member of the field team, coders members and data analysts have all contributed to the final shape to this report. We sincerely acknowledge their contribution.

Study Team
New ERA

STUDY TEAM MEMBERS

Key Team Members

1. Mr. Sidhartha Man Tuladhar	-	Project Director
2. Mr. Niranjan Dhungel	-	Project Coordinator
3. Ms. Pranita Thapa	-	Research Officer
4. Mr. Ramesh Dangi	-	Senior Research Assistant
5. Mr. Sachin Shrestha	-	Research Assistant
6. Ms. Sarmila Prasai	-	Senior Computer Programmer
7. Ms. Sarita Pradhan	-	Senior Computer Programmer

Field Study Team Members

1. Mr. Deepak Dhungel	-	Research Assistant
2. Mr. Sudeep Acharya	-	Research Assistant
3. Mr. Rabindra Udash	-	Field Supervisor
4. Mr. Manoj Bhattarai	-	Field Supervisor
5. Mr. Sabin Karki	-	Field Supervisor
6. Mr. Surendra Kumar Mahato	-	Field Supervisor
7. Mr. Durga Prasad Acharya	-	Field Supervisor
8. Mr. Ramji Prasad Devkota	-	Field Supervisor
9. Mr. Ishwor Acharya	-	Field Supervisor
10. Mr. Pankaj Sharma	-	Field Supervisor
11. Mr. Mukti Dahal	-	Health Assistant
12. Mr. Sushil Ghimire	-	Health Assistant
13. Mr. Sita Ram Rijal	-	Runner
14. Mr. Madhu Thapa	-	Runner

Data Entry/Tabulation /Coding

1. Mr. Babu Raja Maharjan	-	Coder
2. Ms. Deepa Shakya	-	Coder
3. Ms. Sharada Dangol	-	Coder
4. Ms. Sujaya Dhungel	-	Coder
5. Mr. Pradeep Dahal	-	Coder
6. Mr. Rajan Dangol	-	Data Entry Officer
7. Mr. Gehendra Pradhan	-	Data Entry Officer

Administration Support

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

Laboratory Team (SACTS)

1. Dr. Vijaya Lal Gurubacharya	-	Consultant Pathologist
2. Mr. Sambhu Shrestha	-	Project Officer
3. Mr. Janardan Kuinkel	-	Senior Lab Technician
4. Mr. Dinesh Bista	-	Lab Technician
5. Mr. Narahari Poudel	-	Lab Technician

CONTENTS

ACKNOWLEDGEMENTS.....	I
STUDY TEAM MEMBERS	II
CONTENTS	III
LIST OF TABLES.....	V
ABBREVIATIONS	VI
EXECUTIVE SUMMARY.....	VII
1. INTRODUCTION.....	1
1.1 BACKGROUND.....	1
2. DESIGN AND METHODOLOGY	2
2.1 OBJECTIVES OF THE STUDY	2
2.2 STUDY POPULATION	2
2.2.1 Sample Size and Sampling Design	2
2.2.2 Seeds and Recruitment.....	3
2.3 STUDY PROCESS.....	4
2.3.1 Ethical Review.....	4
2.3.2 Clinical and Laboratory Procedure	4
2.4 STUDY MANAGEMENT	5
2.5 POST-TEST COUNSELING AND TEST RESULT DISTRIBUTION	6
2.6 DATA MANAGEMENT AND ANALYSIS	6
3. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUS	7
3.1 DEMOGRAPHIC CHARACTERISTICS.....	7
3.2 SOCIAL CHARACTERISTICS.....	7
4. PREVALENCE OF HIV AND STI.....	9
4.1 HIV/STI PREVALENCE.....	9
4.2 RELATION BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS AND HIV INFECTION.....	9
4.3 RELATION BETWEEN DRUG INJECTION BEHAVIOR AND HIV	10
4.4 RELATION BETWEEN SEXUAL BEHAVIOR AND HIV	11
5. DRUG USE, NEEDLE SHARING AND TREATMENT	12
5.1 ALCOHOL CONSUMPTION AND ORAL DRUG USE AMONG IDUS.....	12
5.2 DRUG INJECTING PRACTICE OF IDUS.....	13
5.3 SYRINGE USE AND SHARING HABITS	14
5.4 DRUG-SHARING BEHAVIOR	15
5.5 NEEDLE/SYRINGE CLEANING PRACTICE	16
5.6 AVAILABILITY OF NEW SYRINGE	17
5.7 TREATMENT STATUS.....	17
6. SEXUAL BEHAVIOR AND CONDOM USE	18
6.1 SEXUAL BEHAVIOR OF IDUS.....	18
6.2 KNOWLEDGE ABOUT AND USE OF CONDOM	20
6.3 SOURCES OF CONDOMS	21
6.4 SOURCES OF INFORMATION ABOUT CONDOMS.....	21
7. KNOWLEDGE ABOUT STIS AND HIV/AIDS.....	23
7.1 KNOWLEDGE ABOUT STIS.....	23
7.2 KNOWLEDGE ABOUT HIV/AIDS	24
7.3 KNOWLEDGE ABOUT HIV TESTING FACILITIES.....	26
7.4 SOURCE OF KNOWLEDGE ABOUT HIV/AIDS	26
7.5 PERCEPTION ON HIV/AIDS	27
8. EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS	29
8.1 PEER/OUTREACH EDUCATION.....	29
8.2 DROP-IN-CENTER.....	30

8.3 STI CLINIC	30
8.4 VCT CENTERS	31
8.5 PARTICIPATION IN HIV/AIDS AWARENESS PROGRAM	32
9. COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS	33
9.1 SOCIO-DEMOGRAPHIC CHARACTERISTIC	33
9.2 DRUG INJECTING PRACTICES	33
9.3 NEEDLE/SYRINGE USING PRACTICE IN THE PAST WEEK	34
9.4 CONDOM USE WITH DIFFERENT PARTNERS.....	35
9.5 HIV PREVALENCE.....	35
10. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS	36
10.1 SUMMARY OF MAJOR FINDINGS	36
10.2 RECOMMENDATIONS.....	37
REFERENCES	39
ANNEXES	
ANNEX – 1 QUESTIONNAIRE	40
ANNEX – 2 FORMULA USED IN SAMPLE DESIGN.....	65
ANNEX – 3 RESPONDENT DRIVEN SAMPLE OF IDUS	66
ANNEX – 4 ORAL INFORMED CONSENT	68
ANNEX – 5 CLINICAL LAB CHECK LIST	71
ANNEX – 6 STUDY CENTERS.....	72
ANNEX – 7 PARTICIPATION IN POST TEST COUNSELING	73
ANNEX – 8 REASONS FOR NOT INJECTED DRUGS ON THE PREVIOUS DAY.....	74
ANNEX – 9 PART OF THE BODY WHERE IDUS INJECT DRUGS.....	75
ANNEX – 10 GATHERING PLACE OF IDUS FOR INJECTING DRUGS	76
ANNEX – 11 COMBINATION OF DIFFERENT DRUGS INJECTED BY IDUS.....	77
ANNEX – 12 DRUG SWITCHING PRACTICE OF IDUS AND REASONS FOR IT.....	78
ANNEX – 13 TYPES OF TREATMENT AND INSTITUTIONS FROM WHERE TREATMENT RECEIVED.....	79
ANNEX – 14 REASONS FOR NOT USING CONDOM IN THE LAST SEX WITH DIFFERENT SEX PARTNERS.....	80

LIST OF TABLES

TABLE 3.1:	DEMOGRAPHIC CHARACTERISTICS OF THE IDUS	7
TABLE 3.2:	SOCIAL CHARACTERISTICS OF THE IDUS	8
TABLE 4.1:	HIV AND STI PREVALENCE AMONG IDUS	9
TABLE 4.2:	RELATION BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS AND HIV INFECTION.....	10
TABLE 4.3:	RELATION BETWEEN DRUG INJECTING BEHAVIOR AND HIV INFECTION	10
TABLE 4.4:	RELATION BETWEEN SEXUAL BEHAVIOR AND HIV	11
TABLE 5.1:	ALCOHOL INTAKE AND ORAL DRUG USE AMONG IDUS	12
TABLE 5.2:	TYPES OF DRUGS USED ORALLY BY IDUS IN THE PAST WEEK	12
TABLE 5.3:	DRUG INJECTING PRACTICE OF IDUS.....	13
TABLE 5.4:	TYPES OF DRUGS INJECTED BY IDUS.....	14
TABLE 5.5:	SYRINGE USE AND SHARING BEHAVIOR AMONG IDUS DURING THE LAST THREE INJECTIONS	14
TABLE 5.6:	PAST WEEK’S SYRINGE USE AND SHARING BEHAVIOR AMONG IDUS	15
TABLE 5.7:	PAST WEEK’S DRUGS SHARING BEHAVIOR AMONG IDUS	16
TABLE 5.8:	INJECTING BEHAVIOR OF IDUS IN OTHER PARTS OF COUNTRY AND OUT OF COUNTRY	16
TABLE 5.9:	NEEDLE/SYRINGE CLEANING PRACTICE OF IDUS.....	16
TABLE 5.10:	KNOWLEDGE OF SOURCES OF NEW SYRINGES AMONG IDUS.....	17
TABLE 5.11:	TREATMENT RECEIVED BY IDUS	17
TABLE 6.1:	SEXUAL HISTORY OF IDUS	18
TABLE 6.2:	SEXUAL INTERCOURSE OF THE IDUS WITH REGULAR FEMALE SEX PARTNERS	18
TABLE 6.3:	SEXUAL INTERCOURSE OF IDUS WITH NON-REGULAR FEMALE SEX PARTNER	19
TABLE 6.4:	SEXUAL INTERCOURSE OF IDUS WITH FEMALE SEX WORKER.....	19
TABLE 6.5:	KNOWLEDGE ABOUT AND USE OF CONDOMS AMONG IDUS	20
TABLE 6.6:	CONSISTENT USE OF CONDOM BY IDUS WITH DIFFERENT FEMALE SEX PARTNERS IN THE PAST YEAR	21
TABLE 6.7:	SOURCES OF CONDOM FOR AMONG IDUS AND TIME NEEDED TO OBTAIN IT	21
TABLE 6.8:	SOURCES OF INFORMATION ABOUT CONDOMS AMONG IDUS	22
TABLE 6.9:	EXPOSURE OF IDUS TO SPECIFIC MESSAGES IN THE PAST YEAR	22
TABLE 7.1:	STI AWARENESS AMONG IDUS	23
TABLE 7.2:	KNOWLEDGE ABOUT STI SYMPTOM AMONG IDUS.....	23
TABLE 7.3:	STI SYMPTOM/S EXPERIENCED BY THE IDUS	23
TABLE 7.4:	STI SYMPTOM EXPERIENCED AND TREATMENT SOUGHT BY THE IDUS.....	24
TABLE 7.5:	AWARENESS ABOUT HIV/AIDS AMONG IDUS	24
TABLE 7.6:	KNOWLEDGE OF MAJOR WAYS OF AVOIDING HIV/AIDS AMONG IDUS	25
TABLE 7.7:	IDUS’ KNOWLEDGE ABOUT WAYS OF HIV/AIDS TRANSMISSION	25
TABLE 7.8:	KNOWLEDGE ABOUT HIV TESTING FACILITIES AND HISTORY OF HIV TEST AMONG IDUS.....	26
TABLE 7.9:	SOURCES OF KNOWLEDGE REGARDING HIV/AIDS AMONG IDUS.....	26
TABLE 7.10:	INFORMATION/MATERIALS RECEIVED BY THE IDUS DURING THE PAST YEAR	27
TABLE 7.11:	ATTITUDE OF IDUS TOWARDS HIV/AIDS	28
TABLE 8.1:	MEETING WITH PEER EDUCATORS AND OUTREACH EDUCATORS IN THE LAST 12 MONTHS	29
TABLE 8.2:	DIC VISITING PRACTICES OF IDUS.....	30
TABLE 8.3:	STI CLINIC VISITING PRACTICES OF IDUS.....	31
TABLE 8.4:	VCT CENTER VISITING PRACTICES OF IDUS.....	31
TABLE 8.5:	PARTICIPATION IN HIV/AIDS AWARENESS PROGRAMS	32
TABLE 9.1:	SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUS.....	33
TABLE 9.2:	DRUG INJECTING PRACTICES OF IDUS.....	34
TABLE 9.3:	PAST WEEK'S SYRINGE USE AND SHARING BEHAVIOR	34
TABLE 9.4:	CONSISTENT USE OF CONDOM WITH DIFFERENT SEX PARTNERS IN THE PAST YEAR.....	35
TABLE 9.5:	HIV PREVALENCE AMONG IDUS	35

ABBREVIATIONS

AIDS	-	Acquired Immuno-Deficiency Syndrome
DIC	-	Drop-in-Centre
ELISA	-	Enzyme Linked Immuno Assays
FHI	-	Family Health International
FSW	-	Female Sex Worker
HIV	-	Human Immuno-Deficiency Virus
IBBS	-	Integrated Bio-Behavioral Survey
ID	-	Identification Number
IDU	-	Injecting Drug User
IEC	-	Information, Education and Communication
LALS	-	Life Giving and Life Saving Society
MSM	-	Male who have Sex with Male
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
TPHA	-	Treponema Pallidum Hemagglutination Assay
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization
MARPs	-	Most At Risk Populations

EXECUTIVE SUMMARY

The National Center for AIDS and STD Control (NCASC), Nepal has developed a comprehensive National Surveillance Plan for HIV and AIDS that includes Integrated Biological and Behavioral Survey (IBBS) that is conducted at regular intervals among most at risk populations (MARPs). These surveillance studies are aimed at assessing health risk behaviors and measuring the prevalence of HIV and Sexually Transmitted Infections (STIs) among MARPs as well as monitoring trends in epidemic to inform the HIV response in Nepal.

The IBBS is conducted by NCASC with technical and financial support from Family Health International/Nepal and the United States Agency for International Development (USAID). The current MARPs included in this IBBS are injecting drug users (IDUs), female sex workers (FSWs) and men who have sex with men (MSM).

This report details the findings of the third round of the IBBS conducted among 300 male IDUs in the Kathmandu Valley. The primary objective of the study was to collect strategic information to analyze trend in risk behavior and HIV and STIs among IDUs.

It is a challenging task to collect information from high-risk population group such as IDUs, FSWs and MSM. These groups are highly stigmatized and potential respondents may be reluctant to come forward to participate in research studies. Innovative sampling methods are needed in order to reach these individuals. The most effective method developed to date is Respondent Driven Sampling (RDS). RDS methodology is a relatively new adaptation of chain referral sampling where subsequent respondents are recruited by previous respondents through their network of acquaintances.

RDS methodology was used in this study to recruit 300 male IDUs. In the first stage of RDS a list of locations where the IDUs inject drugs and gather frequently was prepared for the sampling design. In the second stage, a structured questionnaire was administered to the respondents at centrally located study clinics. The questionnaire collected information on sexual behavior and HIV/AIDS awareness as well as socio-demographics.

This was followed by clinical examination by a Health Assistant and collection of blood samples for biological testing of HIV and Syphilis. Study centers with laboratories/clinics were set up at Koteshwor and Sundhara in the Kathmandu Valley. Samples were collected only after pre-test counseling sessions were held. The participants were also provided syndromic treatment for STI symptoms if warranted. HIV and syphilis test results were provided later at Youth Vision VCT center where experienced counselors provided post test counseling.

Below are the Key Findings:

Socio Demographic Characteristics

IDUs were mostly young. Eight in ten (76.7%) were below the age of 30 years. Few IDUs were younger than 19 (8.4%).

Over two thirds of IDUs (67.3%) were single and 76.7 percent lived alone or without a co-habiting sex partner.

Three percent of IDUs were illiterate while, 42.3 percent had completed secondary education.

The IDUs represented diverse caste/ethnic groups residing in the valley. Nearly half (44.9%) belonged to Newar community.

The socio-demographic characteristics of IDUs in Kathmandu presented similar pattern in all of the three rounds. This is to a certain extent, a consequence of adopting the same sampling methodology for all three rounds. Notably there has been a significant decrease in the proportion of IDUs belonging to Chhetri/Thakuri caste (28.7% in 2002, 24% in 2005 and 16.2% in 2007) while the proportion of IDUs belonging to Gurung/Rai origin significantly increased since the first round in 2002 (5.9% in 2002, 8.3% in 2005 and 16.1% in 2007)

STI/HIV/AIDS Prevalence

HIV prevalence among the IDUs in the Kathmandu Valley is estimated to be 34.8 percent. Although this is a significant improvement from 2002 (68%) and 2005 (51.4%), the prevalence of HIV remains high among the IDUs in the Kathmandu Valley.

STIs, on the other hand, present only a minor problem for this group; syphilis history was detected among 1.7 percent IDUs while only one of 300 study participants (0.3%) was currently infected with syphilis

The prevalence rate of HIV significantly differed according to marital status. Married or divorced IDUs had prevalence rate of 54.7 percent compared to 26 percent among single respondents.

A significant relation was also noted between HIV prevalence and how long respondents have been injecting drugs. HIV prevalence was found among 52.8 percent of those IDUs who had been injecting drugs for more than five years, 18.6 percent among those who had been doing so in the last two to five years and 2.6 percent among those who had injected for less than two years.

The level of education is another important variable for HIV prevalence. Illiterate IDUs (62.5%) were twice more likely to be HIV-positive than the rest of respondents taking part in this survey (32.2%).

Alcohol Intake, Oral Drugs Use and Drug Injecting Practice

Alcohol consumption was common among the IDUs in the Kathmandu Valley. Around two thirds of IDUs (66.8%) had consumed alcohol at least once in the past month.

Notably oral drug use was more common than alcohol intake among IDUs in the Kathmandu Valley. All respondents reported using oral drugs. The majority of IDUs had been using oral drugs more than two years (99%), around 77 percent had been taking oral drugs for five years or more while a very small proportion (1%) had started using oral drugs less than two years ago.

Four in ten respondents (39.9%) had been injecting drugs for more than five years while a similar proportion (42.2%) reported injecting drugs for the past two to five years. A relatively lower proportion of IDUs (17.8%) had started injecting less than two years ago. It is important to note that respondents had been using oral drugs longer than they had been injecting. This finding chimes with the general knowledge “light” inhaling drugs leading to “hard” drugs after a certain period of time.

Only a handful of respondents (2.4%) had not injected during the week preceding the survey. Thirteen percent had injected two to three times in the last week while 15 percent had injected four to six times during the same period of time. Overall seven in ten (69.5%) had injected everyday of the week or more often. A large proportion of IDUs (76.5%) injected combination of different drugs.

The average number of years respondents have been injecting drugs, have increased from five in 2002 to six in 2005 and to 6.2 in 2007 while the median age of the respondents at their first injection has come down from 21 in 2002 to 20 in 2005 and 2007. Notably In 2007, a statistically higher proportion of IDUs than in 2002 had injected for the first time before turning 20 (45.5% in 2002, 53% in 2005 and 56.2% in 2007).

Needle/Syringe Using Practice

There have been significant improvements in needle/syringe using practice since 2002. Data points out to a increased level of awareness about risky needle/syringe using practices. The proportion of IDUs who had avoided unsafe injecting practice in the week preceding the survey has increased significantly since the first round. High risk behavior like injecting with a previously used needle/syringe went down from 45.5 percent in 2002 to 20.3 percent in 2005 and finally to 11.9 percent in 2007 ($P<0.01$).

In the same way 31.7 percent IDUs had injected with syringes left in a public place in the week preceding the 2002 survey, this figure went down to 19.3 percent in second round while and to 6.7 percent in the third round (6.7%) which is statistically significant difference ($P<0.01$).

Moreover the proportion of IDUs reporting not sharing their needle/syringe with anyone in the past week increased from 41.3 percent in the first round to 73 percent in second and finally 85.4 percent in the third round ($P<0.01$).

Nevertheless relatively higher proportions of IDUs (39.5%) reported sharing injection tools and 57.4 percent had drawn drug solution from a common container used by others in the week preceding the survey.

Sexual Behavior

Among the respondents, 88.8 percent of IDUs had ever maintained sexual contact. Among them, 58.4 percent had been sexually active in the past year. Although 47.8 percent of them had one sex partner others had two or more.

In the past one year, 23.1 percent of IDUs have had sexual contact with their regular partners. Around 90 percent of them had sexual contact with their regular partners in the month preceding the survey.

Around 27 percent IDUs had sex with non-regular female sex partners in the past year and 53.6 percent of them had sexual contacts with non-regular partners in the month preceding the survey.

Over one fourth of IDUs in Kathmandu (27.3%) have had sexual contact with sex worker in the past one year while in the past month 42.8 percent had maintained sexual contact with them.

Condom use in last sex with sex worker was reported by 60.7 percent of IDUs. The figure was comparatively lower in last sex with regular partner (53.3%) and non-regular partner (41.3%).

In the past year 67.8 percent of IDUs had used condom consistently with female sex workers as compared to 43.1 percent with regular female sex partners and 33.5 with non-regular female sex partners.

A good proportion of the respondents were aware of messages like *Jhilke dai chha chhaina condom (91%)*, *Condom kinna ma bhaya hunna ra (87.8%)*, *HIV/AIDS bare aajai dekhi kura garau (85.6%)*, *Ramro sanga prayog gare jokhim huna dinna (85.2%)*, *Youn rog ra AIDS bata bhachnalai (84.1%)*, and *Condom bata surakchhya youn swastha ko rakchhya (79.2%)*. Around 59 percent of respondents had also heard message that said *Maya garaun sadbhav badaun*.

Nevertheless only partial improvement was observed in consistent condom use. The proportion of IDUs reported using condom consistently with their regular sex partners increased since the first round of the survey in 2002 while the proportion of respondents using condoms consistently with their non-regular partners has been going down since 2002. Meanwhile, a significantly higher number of IDUs had used condom consistently with female sex workers in 2007 than in 2002 and 2005.

STI and HIV/AIDS Awareness and Treatment Practices

Among the respondents, 8.6 percent IDUs had not heard about STIs before. Those who had heard about STIs, most commonly cited genital ulcer/sore blister (59.5% in female and 74.5% in male) and genital discharge (40% in female and 56.7% in male) as symptoms.

Around 14 percent of IDUs in Kathmandu have had genital discharge and 9.4 percent had genital ulcer/sore in the past year. Sixty percent of them reportedly had been experiencing genital discharges, while 33.3 percent have had genital ulcer/sore at the time of survey.

Sixty four percent of those IDUs who had ever experienced one or the other STI symptom had never sought any treatment. Twenty two percent had been to a private doctor while 10 percent had been to a hospital/health post to seek treatment.

While 61.7 percent of IDUs knew about all three major prevention measures, A- abstinence from sexual contact. B- being faithful to one partner and C- condom use during each sexual contact, there were 66.2 percent IDUs who were aware of other indicators BC, 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.

The majority of the IDUs in Kathmandu Valley (91.3%) knew that a confidential HIV testing facility was available in their communities.

Fifty three percent of those IDUs who had knowledge about existing HIV testing facility, had ever tested themselves for HIV. Around 94 percent of them had received test result.

Exposure to the HIV/AIDS Related Programs

Among the respondents, 79.9 percent of IDUs had met peer/outreach educators at least once in the past year. Around 73 percent had visited a DIC and 14.9 percent had visited a VCT center in the last 12 months. Only 0.7 percent had visited an STI clinic.

This survey revealed that just over a quarter of IDUs in the Kathmandu Valley had (26.1%) had participated in HIV/AIDS awareness raising programs or similar community event before. Among them, 53.7 percent had taken part in condom day celebration, 48.9 percent in different group discussions, 39.5 percent in AIDS day celebration, and 28.3 percent in HIV/AIDS related trainings.

The activities the respondents participated were conducted by LALS (39.8%), SMF (26.2%), Youth Vision (18.7%) and other organizations (Table 8.5). Nearly half (45.5%) had participated in one program only, one third (33.3%) had taken part of two or three programs while one in five (21.2%) had participated to HIV/AIDS awareness programs more than three times

1. INTRODUCTION

1.1 Background

The National Center for AIDS and STD Control (NCASC) has been compiling and publishing data on reported HIV cases in different population subgroups since 1991. As of December 2007 a cumulative total of 10,546 HIV infections, including 1,610 cases of AIDS, have been reported in Nepal (NCASC, December 2007). In 2007 the NCASC has also estimated about 70,000 people (including children and adults above the age of 49 years) to be infected by HIV in Nepal. There is a big gap between the estimated number of HIV infections and the number of people who have been tested and know their status.

The IBBS is conducted at regular intervals in Nepal. This is the third round of the study conducted among IDUs in Pokhara valley. IDUs function as a core HIV risk group because of their high risk behavior of sharing needles/syringes between different injecting partners and also re-using needles kept in public places. Moreover high-risk sexual behavior associated with drug use has also been found to be a major contributing factor in the spread of HIV among the non-injecting population (AIDS in Asia, MAP Report, 2004).

HIV prevalence among IDUs varies by location in Nepal. The first round of the IBBS conducted in 2002 indicated quite a high prevalence of HIV (68%) among IDUs in the Kathmandu Valley (New ERA/SACTS/FHI 2002). The second round of IBBS conducted in 2005, indicated 52 percent HIV prevalence rate among IDUs in Kathmandu. IDUs, who lived in the Kathmandu Valley had higher HIV prevalence compared to IDUs from other places. In Pokhara about 22 percent IDUs were found HIV positive both in 2003 and 2005 rounds of IBBS. Similarly, in three districts (Morang, Sunsari, and Jhapa) of Eastern Terai HIV among IDUs was 35 and 32 percent in 2003 and 2005 respectively (IBBS, New ERA/SACTS/FHI 2005). Although HIV prevalence among IDUs in Kathmandu had dropped in 2005 since 2003, it was still alarmingly high.

This third round of IBBS was conducted in the Kathmandu Valley, Pokhara, Eastern Terai and West to Far West Terai. This report deals with the findings in the Kathmandu Valley.

2. DESIGN AND METHODOLOGY

2.1 Objectives of the Study

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

This study also collected specific information on IDUs; their socio-demographic characteristics, level of awareness about HIV/STI and exposure to intervention programs in the three districts of Kathmandu, Lalitpur and Bhaktapur of the Kathmandu Valley.

2.2 Study Population

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

2.2.1 Sample Size and Sampling Design

The sample size was calculated to detect 15 percent differences in key indicators, such as needle/syringe sharing and consistent condom use in two successive IBBS among IDUs. The sample size was determined by using basic statistical formula (Annex 2). Based on the formula a total of 300 IDUs were included for this study.

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

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

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

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

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

Seeds were informed of the study protocol and procedures and were encouraged to recruit other eligible individuals from their social networks to participate in the study. The participants recruited by the seeds were then asked to recruit the next wave of participants, with the process continuing until the target sample size was achieved. Each participant who agreed to become a study recruiter was given three referral coupons to distribute to others. The referral coupon had a unique serial number that was used to link the recruiter to his recruit.

2.2.2 Seeds and Recruitment

Following RDS theory, research staff recruited the seeds (e.g., initial participants), who then began the chain referral by recruiting their peers into the study. It was decided that "seeds" selected to initiate the recruitment process needed to be as diverse as possible (heterogeneous in age, gender, ethnicity and for how long participants have been injecting drugs).

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

The recruitment process in this study started with eight "seeds". Each "seed" was given three coupons to pass on three peers they recruited for the study. These 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, "seed" and "recruiter" generated up to 13 waves. Of the total eight "seeds", one seed completed 13 waves, one seed generated 11 waves, and another seed completed seven. Two others completed six waves each (Annex 3). By 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 \$ 1.6) for the participation in the study and another Rs. 50 (equivalent to \$ 0.8) for each individual they recruited to the study. A participant could have received up to Rs. 250 for successfully participating and recruiting three peers in the study.

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 in the study. In total there were 26 refusals. Nineteen did not meet the study criteria, three said that they were too busy to be interviewed, two were afraid of drawing blood for the test and further two were not interested in taking part in the survey.

2.3 Study Process

A quantitative research approach was adopted in the study. Structured questionnaires were used to collect behavioral data relating to drug injection, syringe/needle sharing and sexual behavior among the IDUs. Additionally, some demographic and social characteristics were collected. In order to draw up a comparative analysis of the behavioral trends over the years questions asked during the first and the second round were repeated. A new section was also added to the questionnaire this year to derive information on issues like exposure of the IDUs to the ongoing HIV/AIDS awareness programs and their participation in such activities. The questionnaires were developed based on the "Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV" (FHI, 2000). The new section on program exposure was pre-tested before finalizing the questionnaire (Annex 1).

Before initiating the actual interview, all those coming with the referral cards were informally asked certain question in order to ensure that they met the inclusive criterion set for the study. Injecting marks were also observed for confirming their injecting behavior.

Strict confidentiality was maintained throughout the study process. The names of the study participants or their full addresses were not recorded anywhere. Instead, they were provided a unique ID number written on a plastic-coated card. Same number was marked on the questionnaire, medical records, and blood specimen of the particular 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 verbally with pre and post-test counseling.

The fieldwork started on 13 June and was completed on 20 July 2007.

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" approvals were obtained from Family Health International's ethical review body, Protection of Human Subject Committee (PHSC), and the Nepal Health Research Council (NHRC) prior to the commencement of the fieldwork. The study protocols were carefully reviewed and approved by these organizations. Moreover verbal informed consent was obtained from all the participants prior to the interview and collection of blood sample in the presence of a witness. The consent form was administered in a private setting. The verbal consent form used in the study is included in Annex 4. No personal identifiers were collected and the samples were labeled only with the ID number provided to the study participant.

2.3.2 Clinical and Laboratory Procedure

The study participants were clinically checked for any symptom of STIs by the health assistant who also filled in a checklist with the information provided by the respondents (Annex 5). They provided syndromic treatment to the respondents with STI symptoms in accordance with the "National STI Case Management Guidelines". Other over-the-counter medicines such as paracetamol, alkalysing agents and vitamins were given as necessary.

About 5 ml blood sample was collected from each study participant using a disposable syringe. The blood sample was placed in a centrifuge to separate the blood cells from the serum. Serum samples were stored in the refrigerator at the study site. Each sample was labeled with the ID number of the study participant. The specimens were transported by SACTS in Kathmandu in a cold box once in every 10 days. The serum samples were stored at a temperature of -12 to -20°C at SACTS laboratory.

Syphilis was tested using *Rapid Plasma Reagin* (RPR) test card manufactured by Omega Diagnostics Ltd UK and confirmed by means of *the Serodia Treponema Pallidum Hem Agglutination test* (TPHA; Omega Diagnostics Ltd. UK). TPHA positive and all samples with positive RPR were further tested for the titre up to 64 times dilution. On the basis of titre of RPR, all the specimens with RPR/TPHA positive results were divided into two categories.

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

For detection of HIV antibody *Enzyme Linked Immuno Sorbent Assay* (ELISAs) was used. If the ELISA test showed negative result then no further test was conducted and the test result was reported as non-reactive. But if the first test showed positive result then a second ELISA test was performed. If the second result too confirmed the first result then the test result was reported as reactive. But if the second result contradicted with the first then a third test was done. The final test results thus were declared positive if the test results showed “negative, negative, positive” and negative if it gave out “positive, negative, negative”. The proposed testing protocol is based on World Health Organization (WHO) guidelines (strategy 3) and the National VCT Guidelines of Nepal developed by the NCASC, 2004.

2.4 Study Management

The study was conducted by a team comprised of one study director, one research coordinator, one research officer, two research assistants and field teams. The field teams formed for the survey included one research assistant, five supervisors/interviewers, one health assistant, one lab technician, one runner and local motivator/s (as per need).

Before data collection started, a one-week intensive training was organized for the study team. The training session familiarized the team with the study objectives, characteristics of the target groups, rapport-building techniques, contents of the questionnaire and study process. The training session also included theory and practical classes on pre-test counseling and questionnaire administration. Experienced counselors from SACTS conducted a separate session on STI and HIV/AIDS and pre-test counseling. The study team was also made familiar with the general behavior of IDUs and skills required to deal with them by personnel from Recovering Nepal, an organization that works with IDUs. In addition to these, the training focused on providing a clear concept of informed consent to the research team.

Two centrally located study centers was established at Koteshwor and Sundhara for the study purpose (Annex 6). Individual interviews, clinical examination and blood collection process were carried out in separate rooms.

To ensure the quality of data, New ERA and FHI officials supervised the fieldwork regularly. Field supervisors reviewed all the completed questionnaires and any inconsistencies in the responses were clarified through discussions with the concerned interviewer later that day. Cross-checking questions were also asked to the study participants to avoid duplication.

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 HIV and Syphilis test results with post-test counseling by a trained counselor at Youth Vision VCT center. The study participants were informed about the location and operating hours of the VCT site right after the collection of their blood sample for the test.

Post-test counseling and individual report dissemination was completed between 29 June and 15 August 2007 at the Youth Vision VCT Centre. Out of the 300 IDUs tested for HIV, only 20 (6.7%) turned up for the test results (Annex 7). This might be because there was no provision for reimbursement of transportation cost which would have otherwise prompted the IDUs to visit the VCT center and collect the report. Secondly the gap between the actual interview and test result dissemination might have also diminished their concern for the test result. Trained counselors from the VCT of Youth Vision gave the test results to the participants in a private setting only after they had produced their ID cards. The counseling session was focused on high-risk behavior and other aspects of STI and HIV. Some participants were also referred to Teku Hospital for further services.

2.6 Data Management and Analysis

Data were entered using FoxPro Software. 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 included generating new variables and re-coding missing values. Datasets were then converted to Microsoft Excel files and then to RDS files (Tab Delimited Text). Frequency, cross-tabulation, and prevalence estimates of key-indicators were performed in RDSAT.

RDSAT the pull-in outliers option was used to eliminate extremely small and large outliers in network sizes. When the program encounters an individual whose network size is outside of the specified bounds, their network size is set to the value of the nearest lower or upper bound (percentage) with the help of pull in outliers option. The RDSAT analysis for this study used 5 percent pull-in outliers of 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 have been calculated using SPSS and have been marked with asterisk in the tables in this report. They represent unadjusted proportions.

3. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF IDUs

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

3.1 Demographic Characteristics

The demographic characteristics of IDUs are presented in Table 3.1. Age specific characteristics point out that a relatively high proportion of IDUs participating in this survey were quite young. Seventy seven percent (76.7%) of respondents were in their teens or twenties while 22.6 percent were aged between 30 and 45. Only very few were aged older than 45 (0.7%).

Table 3.1: Demographic Characteristics of the IDUs

Demographic characteristics	Estimated Population Proportions (%)	95% CI
Age (N=300)		
< =19 Yrs	8.4	4.7 – 11.6
20-24	41.2	33.6 – 48.6
25-29	27.1	22.0 – 33.9
30-34	13.4	9.4 – 17.8
35-45	9.2	5.8 – 12.4
45+	0.7	0.2 – 1.7
Marital status (N=300)		
Married	23.5	19.1 – 28.0
Divorced/Separated/Widower	9.2	5.5 – 13.3
Never married	67.3	60.8 – 73.1
Age at first marriage (n=109)		
< =19	29.9	15.5 – 48.7
20-24	46.1	22.6 – 60.7
= >25	24.0	11.9 – 45.3
Currently living with (N=300)		
Spouse	23.3	18.6 – 27.5
Alone/without a sexual partner	76.7	72.5 – 81.4

A little over two thirds of IDUs (67.3%) were unmarried, 9.2 percent were either divorced/separated from their wives or were widowers. Nearly all of those who were married (23.3%) reported living with their spouses while the rest (76.7%) live without a sexual partner. The majority of those who had ever married (76%) were at a relatively young age; before they were 25.

3.2 Social Characteristics

IDUs in the Kathmandu Valley were fairly educated with 74 percent of them having attended secondary school or higher education. One in five (18%) had attended primary school, 5.1 percent were literate but had no formal education and three percent of the IDUs were illiterate.

Nearly half of IDUs (45%) belonged to Newar community followed by 16.2 percent Chhetri/Thakuri, 16.1 percent Gurung/Rai and 14.4 percent belonging to Tamag/Lama/Magar ethnic groups. A small proportion (5%) was Brahmin.

Table 3.2: Social Characteristics of the IDUs

Social characteristics	Estimated Population Proportions (%) (N=300)	95% CI
Education		
Illiterate	3.0	1.2 – 5.1
Literate only	5.1	2.7 – 8.5
Primary	18.0	12.6 – 23.6
Secondary	42.3	35.3 – 48.9
SLC and above	31.7	24.6 – 39.2
Ethnicity		
Brahmin	5.0	2.6 – 7.2
Chhetri/Thakuri	16.2	11.9 – 20.2
Newar	44.9	38.6 – 54.2
Tamang/Lama/Magar	14.4	10.0 – 18.9
Gurung/Rai	16.1	9.1 – 22.2
Others	3.4	1.8 – 5.5
Duration of stay in Kathmandu Valley		
Since birth	77.9	72.1 – 83.3
<=5 years	4.8	1.6 – 7.3
More than 5 years	17.3	12.8 – 23.5

The majority of IDUs (77.9%) had been living in the valley since their birth. 17.3 percent had spent five or more years in the valley while the rest had lived in the Kathmadu Valley for less than five years (Table 3.2).

4. PREVALENCE OF HIV AND STI

4.1 HIV/STI Prevalence

Enzyme Linked Immuno Sorbent Assay (ELISA) was used to detect HIV antibody. Syphilis was tested using Rapid Plasma Reagin (RPR). All the specimens with RPR/TPHA positive results were divided into two categories on the basis of titre of RPR:

- TPHA positive with RPR-negative or RPR-positive with titre \leq 1:8 were classified as history of syphilis
- TPHA positive with RPR titre 1:8 or greater were classified as current syphilis requiring immediate treatment

In the Kathmandu Valley about 34.8 percent of IDUs are estimated to be HIV positive. Out of 300 IDUs in the sample only one respondent had current syphilis and five respondents had history of syphilis. Because of the small number of cases RDSAT could not estimate the syphilis prevalence applicable to IDUs in the Kathmandu Valley. This indicates that sexually transmitted infection is a relatively minor problem among IDUs in the valley.

Table 4.1: HIV and STI Prevalence among IDUs

HIV and STI Prevalence	Estimated population Proportion (%) (N=300)	95% CI
HIV	34.8	27.7-42.1
Active Syphilis	0.3*	NC
Syphilis History	1.7*	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)

4.2 Relation between Socio-Demographic Characteristics and HIV Infection

Table 4.2 shows the relation of HIV infection and selected socio-demographic characteristics. HIV prevalence is higher among IDUs aged above 20 years (35.3%) than their younger counterparts (22.5%). However, this difference is not statistically significant.

The prevalence of HIV on the other hand differs significantly according to marital status. Prevalence is more than double among IDUs who had ever married before (54.7%) than among single IDUs (26%).

The level of education is another important variable for HIV prevalence. Illiterate IDUs (62.5%) were twice more likely to be HIV-positive than the rest of respondents taking part in this survey (32.2%). However the RDSAT could not calculate a statistically significant relation due to the low number of cases.

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

Socio-demographic characteristics	Estimated Population Proportion (%) (N=300)	95 % CI
Age		
Below 20 years	22.5	4.3 – 44.9
20 years and above	35.3	27.8 – 42.5
Marital Status		
Ever married	54.7	43.9 – 65.3
Never married	26.0	18.7 – 34.0
Literacy		
Illiterate	62.5 *	NC
Literate/formal School	32.2 *	NC
Total	34.8	27.7 – 42.1

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

NC- Not calculated (RDSAT conditions were not met)

4.3 Relation between Drug Injection Behavior and HIV

Relationship between HIV prevalence and drug injection such as how long respondents have been injecting, frequency of injections during the past week, type of syringes they used have been reviewed in this section.

By and large injecting drugs and certain practices followed by respondents put them at the risk of HIV infection. A statistically significant relation was observed between how long respondents have been injecting drugs and HIV prevalence. In this survey, more than half of the participants (52.8%) who had been injecting drugs for five years or more were HIV-positive. Comparatively lower proportions of respondents carried HIV among those who have been injecting less than five years (21.2%). Notably the prevalence level was as low as 2.6 percent among those who had been injecting for less than two years (Table 4.3).

Table 4.3: Relation between Drug Injecting Behavior and HIV Infection

Drug injecting behavior	Estimated Population Proportion (%) (N=300)	95 % CI
Injecting Drugs Since	%	
Less than 2 years	2.6 *	NC
2-5 years	18.6 *	NC
More than 5 years	52.8*	NC
Frequency of Injecting Drugs in the Past Week		
Up to 6 times a week	28.9	16.1 – 39.7
Everyday	36.8	25.0 – 46.3
2 or more times a day	39.4	28.4 – 51.2
Used a previously-used needle/syringe during the past week		
Not injected/Never Used	33.1	25.7 – 40.8
Used	47.9	28.5 – 65.3
Used a needle/syringe kept in a public place during the past week		
Not injected/Never Used	34.4	27.1 – 41.4
Used	39.0	17.1 – 67.8
Total	34.8	27.7 – 42.1

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

NC- Not calculated (RDSAT conditions were not met)

There is a linear correlation – though not statistically significant- between the number of times respondents injected in the past week and HIV prevalence; those who injected more than twice a day (39.4%) were more likely to be HIV-positive than those who injected everyday (36.8%) or those who injected less often (28.9%).

HIV prevalence was higher among those who had injected with a previously used syringe at least once in the past week (47.9%) than the rest of IDUs (33.1%). Similarly, the IDUs who

had used a syringe that was kept in public places in the past week (39%) were found to be more at risk of contracting HIV than those who avoided this practice (34.4%) (Table 4.3). These differences are not statistically significant but reflect a trend observed in other IBBSs.

4.4 Relation between Sexual Behavior and HIV

This section examines sexual behavior and its relation to HIV among IDUs in the Kathmandu Valley. It is important to interpret the findings with caution in this section as some IDUs may have changed their past sexual behavior since being diagnosed with HIV.

The data indicates that respondents who had sex with their regular partners in the last 12 months (43.3%) were more likely to be HIV-positive than those who had sex with a non-regular partner (23.3%) or a FSW (32.6%). Similarly IDUs who had only one regular partner (43.5%) were more likely to carry HIV than those who had sex with more two or more non-regular partner (32%) or FSWs (34.3%). Since HIV is a sexually transmitted disease and the more partners one has the more exposed one becomes to HIV, this finding comes across as counterintuitive hence requires a careful interpretation. One of the possible explanation as to why having sex with one regular partner is associated with higher HIV prevalence is that IDUs who are diagnosed with HIV may be more likely to restrain from having casual sex with non-regular partners or FSWs.

Table 4.4: Relation between Sexual Behavior and HIV

Sex with different partners in the past 12 months	Estimated Population Proportion (%) (N=300)	95 % CI
With regular partner		
Yes	43.3	30.8 – 55.6
No	34.4	26.9 – 43.0
Never had sexual experience	15.3	2.0 – 34.3
With non-regular partner		
Yes	23.3	13.8 – 35.2
No	42.2	33.3 – 51.2
Never had sexual experience with sex worker	15.7	2.1 – 33.0
Yes	32.6	21.1 – 46.1
No	37.1	28.9 – 44.9
Never had sexual experience	15.0	2.4 – 33.0
Number of Regular partners in the past 12 months		
0 Partner	32.2	24.6 – 40.1
One Partner	43.5	31.1 – 55.8
Number of Non - Regular partners in the past 12 months		
0 Partner	39.0	30.3 – 46.9
One Partner	18.6	9.2 – 30.6
Two or more partners	32.0	11.6 – 51.4
Number of sex workers in the past 12 months		
0 Partner	34.2	26.6 – 41.5
One Partner	32.4	11.4 – 56.9
Two or more sex workers	34.3	20.1 – 50.0
Total	34.8	27.7 – 42.1

Notably those who did not have sex before were also at great risk of HIV transmission with around 15 carrying HIV.

5. DRUG USE, NEEDLE SHARING AND TREATMENT

IDUs are considered as one of the core groups of HIV transmission primarily because of their unsafe drug using and needle sharing habits. An understanding of current practices among IDUs helps designing effective intervention strategies. This chapter deals with alcohol intake, drug using and needle sharing habits as well as addiction treatment among IDUs in the Kathmandu Valley.

5.1 Alcohol Consumption and Oral Drug Use among IDUs

Alcohol consumption was common among the IDUs in the Kathmandu Valley. Around two thirds of IDUs (66.8%) had consumed alcohol at least once in the past month. About 22 percent consumed alcohol everyday in the past month while a little over a fourth (25.8%) had an alcoholic drink more than once a week during the past month.

Notably oral drug use was more common than alcohol intake among IDUs in the Kathmandu Valley. All respondents reported using oral drugs. The majority of IDUs had been using oral drugs more than two years (99%), around 77 percent had been taking oral drugs for five years or more while a very small proportion (1%) had started using oral drugs less than two years ago.

Table 5.1: Alcohol Intake and Oral Drug Use among IDUs

Alcohol and oral drug use	Estimated Population Proportions (%) (N=300)	95% CI
Alcohol intake during the past month		
Everyday	22.1	16.8 – 27.2
More than once a week	25.8	20.8 – 31.4
Once or less than once a week	18.9	13.0 – 25.3
Never	33.1	27.5 – 39.9
Duration of drug use		
Up to 23 months	1.0 *	NC
24 – 60 months	22.3 *	NC
More than 60 months	76.7 *	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)

IDUs preferred inhaling drugs such as marijuana locally known as *Ganja* with 78.3 percent having used it in the week preceding the survey. Other common drugs were Charas (50.4%) followed by Nitrovate (26.3%) and brown sugar (22.1%) (Table 5.2).

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

Types of drugs used orally	Estimated Population Proportions (%) (N=300)	95% CI
<i>Ganja</i>	78.3	72.9 – 83.7
Chares	50.4	44.6 – 58.0
Nitrovate	26.3	21.0 – 32.4
Brown sugar	22.1	16.0 – 29.2
Nitrosun	9.7	6.6 – 13.3
Proxygin	7.7	4.7 – 10.9
Codeine	2.2	1.1 – 3.5
Combination	1.5	0.7 – 2.4
Others	10.9	7.1 – 14.7

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

5.2 Drug Injecting Practice of IDUs

Four in ten respondents (39.9%) had been injecting drugs for more than five years while a similar proportion (42.2%) reported injecting drugs for the past two to five years. A relatively lower proportion of IDUs (17.8%) had started injecting less than two years ago. It is important to note that respondents had been using oral drugs longer than they had been injecting. This finding chimes with the general knowledge “light” inhaling drugs leading to “hard” drugs after a certain period of time.

IDUs in the Kathmandu Valley had mostly started injecting drugs at a quite young age. More than half of IDUs (56.2%) had their first shots when they were 21 or younger.

Table 5.3: Drug Injecting Practice of IDUs

Drug Injecting practice	Estimated Population Proportions (%) (N=300)	95% CI
Duration of drug injecting habit		
Up to 23 months	17.8	11.3 – 23.9
24 – 60 months	42.2	35.1 – 48.9
More than 60 months	39.9	33.8 – 47.8
Age at first drug injection		
Up to 20 years	56.2	49.2 – 63.8
21 + years	43.8	36.2 – 50.8
Frequency of drug injections within the past week		
Not injected	2.4	0.6 – 4.2
2-3 times a week	13.0	9.2 – 18.2
4-6 times a week	15.0	10.3 – 19.1
Once a day	35.4	28.4 – 41.2
2-3 times a day	32.3	26.0 – 41.3
4 or more times a day	1.8	0.6 – 3.0
Frequency of drug injection on the last day		
1 time	60.0	53.5 – 66.4
2 times	30.2	24.3 – 36.1
3 or more times	9.7	6.7 – 13.8

Only a handful of respondents (2.4%) had not injected during the week preceding the survey. Thirteen percent had injected two to three times in the last week while 15 percent had injected four to six times during the same period of time. Overall seven in ten (69.5%) had injected everyday of the week or more often. Around one third had one shot a day (35.4%), 32.3 percent had injected drugs two to three times a day and 1.8 percent had done so four or more times a day the week before the survey. .

Respondents were also asked about the frequency of shots on the last day they injected drugs, Sixty percent respondents had injected once while 30.2 percent had injected twice and 9.7 percent three or more times on the day they last injected drugs.

Overall, 15 percent of respondents reportedly had not injected drugs on the day before the interview. The main reason was being short of money (57.8%) followed by trying to quit the habit slowly (11.1%) unavailability of drugs in the market (11.1%) or not having enough time (11.1%) (Annex 8).

The respondents injected on different parts of the body according to the ease in locating veins. Forty two percent of them injected on arm, 16 percent on the joints between legs and hip and 14.7 percent on wrists (Annex 9).

Around two in five respondents (42.3%) injected drugs either in their own room or that of a friend. Other places where they gathered to inject drugs included forest/bush and riverbank/slum area (Annex 10).

As seen in Table 5.4 the IDUs in the Kathmandu Valley mostly used combinations of drugs. 76.5 percent of IDUs used combination of different drugs (for types of combinations see Annex 11) while some (14.6%) used brown sugar.

Table 5.4: Types of Drugs Injected by IDUs

Types of drugs	Estimated Population Proportions (%) (N=300)	95% CI
Brown sugar	14.6	9.9 – 19.8
Combination	76.5	72.7 – 90.7
Others	6.3	3.6 – 10.5

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

In the past month only two IDUs (0.7%) had switched from one drug to another. Both of them had switched from their previous practice of injecting combination of Norphin and Diazepam and brown sugar. While one IDU could not find the combination drugs in the market the other IDU had to switch to inhaling drugs due to problems he had in locating veins (Annex 12).

5.3 Syringe Use and Sharing Habits

Syringe use and needle sharing habits were assessed in terms of their last three injections. Respondents were specifically asked about the sources of needle/syringe used in the last three injections. Answers provided by the IDUs have been categorized as low risk (Low risk: Use of new needles and syringes obtained from different places) or high risk (High Risk: Use of own previously used syringe, use of needles and syringes given by friends or relatives, Use of needles and syringes kept in public places by himself or others) injecting behavior in the following table (Table 5.5).

Table 5.5: Syringe Use and Sharing Behavior among IDUs 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	96.9	94.7 – 98.9	93.4	90.3 – 96.1	94.1	90.5 – 96.9
High risk behavior	3.1	1.1 – 5.3	6.6	3.9 – 9.7	5.9	3.1 – 9.5
Persons in the group using the same needle/syringe						
2 – 3 persons	0.9	0.2 – 1.9	5.3	2.7 – 8.3	3.2	1.6 – 5.0
Injecting alone	99.1	98.1 – 99.8	94.7	91.7 – 97.3	96.8	95.1 – 98.4

As reflected in the above table most of the IDUs had consciously avoided high-risk behaviors like the use of pre-used needles and syringes in their last three injections. More than 90 percent of them had used a new needle either self-purchased or given by an NGO staff or friends for each of their last three injections.

Three percent of IDUs practiced high risk injecting behavior in their most recent injections, 6.6 percent had done so in their second most shots and 5.9 percent had taken high risks in their third most recent injections. Most of these IDUs had re-used needle/syringe that were used previously either by them selves or their friends/relatives.

The majority of IDUs had injected their last three injections alone. One in hundred had shared needle/syringe during the most recent injection. 5.3 percent and 3.2 percent had done so in the second most recent and the third most recent injections respectively (Table 5.5).

Data on needle/syringe using behavior in the last week as well as in the last three most recent injections, points towards an increasing consciousness among current IDUs regarding the risks associated with needle/syringe sharing. More than eight in ten IDUs had never injected with a used needle/syringe (88.1%) or with needle/syringe left in a public place (93.3%) in the week preceding the survey.

Table 5.6: Past Week’s Syringe Use and Sharing Behavior among IDUs

Needle/syringe use throughout the past week	Estimated Population Proportions (%) (N=300)	95% CI
Used a needle/syringe that had been used by others		
Not used	88.1	84.2 - 92.4
Used	11.9	7.6 - 15.8
Used a needle/syringe that had been kept in public place		
Not used	93.3	89.6 - 96.1
Used	6.7	3.9 - 10.4
Gave a needle/syringe to some one else		
Yes	10.0	6.5 - 13.9
No	90.0	86.1 - 93.5
Number of needle/syringe shared partners		
None	85.4	80.8 - 89.6
Two partners	12.2	8.3 - 16.7
Three or more partners	2.4	1.1 - 3.8
Shared needle/syringe with #		
Friend	8.8	5.4 - 12.1
Not shared	87.4	83.6 - 89.5
Others	3.8	1.2 - 6.8

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

On the other hand, there is still room for improvement as one in ten IDUs reported passing their used needle/syringe to others, 11.9 percent had used somebody else's syringe and 6.7 percent had used a syringe kept in a public place during the past week. The IDUs who shared their needle/syringe in the past week shared them mostly with their friends (8.8%) (Table 5.6).

5.4 Drug-Sharing Behavior

Some IDUs had followed some risky drug sharing practices in the past week; 8.2 percent had injected with a pre-filled syringe, 12.3 percent had injected with a syringe that was filled in with other syringe. Moreover, 39.5 percent of IDUs had shared one or more injecting equipments like bottle, spoon, cooker, vial/container, cotton/filter or water with others at least once in the last week. In the same way, the practice of sharing container for drawing solution was common among IDUs with as many as 57.4 percent having done so at least once in the previous week.

Table 5.7: Past Week's Drugs Sharing Behavior among IDUs

Drug sharing practice during past week	Estimated Population Proportions (%) (n=300)	95% CI
Injected with a pre-filled syringe		
Yes	8.2	5.3 – 11.5
No	91.8	88.5 – 94.7
Injected with a syringe after drugs were transferred into it from other's syringe		
Never injected	87.7	83.7 – 92.0
Injected	12.3	8.0 – 16.3
Shared a bottle, spoon, cooker, vial/container, cotton/filter and rinsing water		
Never shared	60.5	54.3 – 66.5
Shared	39.5	33.5 – 45.8
Drew drug solution from a common container used by others		
Never	42.6	36.3 – 50.2
Drew at least once	57.4	49.8 – 63.7

Information on the movement of the IDUs both within and outside the country and their injecting practices in the place/s they visited was also collected during this survey. About 18.8 percent had injected drugs in places (within or outside the country) that they had visited in the past year. Among these IDUs in the sample who had injected drugs outside the Kathmandu Valley, 8.5 percent had injected with somebody else's previously used syringe and four percent had passed their used needle/syringe to others.

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

Injecting practice in other parts of the country and out of the country	Estimated Population Proportions (%)	95% CI
Injected in other parts of country / out of country (N=300)		
Yes	18.8	14.2 – 24.1
No	81.2	75.9 – 85.8
Used a needle/syringe that had been used by others (n=71)		
Yes	8.5 *	NC
No	91.5 *	NC
Gave a needle/syringe to someone else after use (n=71)		
Sometimes – Always	4.0	No Bound
Never	96.0	No Bound

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

5.5 Needle/Syringe Cleaning Practice

Improper methods of cleaning not only reflect a lack of awareness but also put IDUs at higher risk of HIV transmission. In the Kathmandu Valley about a quarter (26.3%) IDUs had re-used needle/syringe in the past week. Among them, only 24.2 percent had cleaned the needle/syringe with bleach, others (75.8%) had cleaned them with substances like saliva, water, distilled water, paper or urine (Table 5.9).

Table 5.9: Needle/Syringe Cleaning Practice of IDUs

Needle/syringe cleaning behavior	Estimated Population Proportions (%)	95% CI
Re-used needle/syringe in the past week (N=300)		
Yes	26.3	20.5 – 31.9
No	73.7	68.1 – 79.5
Ways of cleaning needle/syringe# (n=83)		
Bleach	24.2	21.7 – 62.5
Without Bleach	75.8	37.5 – 78.4

5.6 Availability of New Syringe

A total of 95.4 percent of IDUs knew that they could obtain new needle/syringe from various sources. Among them nearly all stated they could get a new needle/syringe from a drugstore (99.1%). A good proportion of IDUs knew they could obtain new syringes from needle exchange program being run by LALS (79.8%) while three in ten (28.6%) mentioned hospitals which was followed by friends (13.8%) and drug sellers (10.8%) as sources of new needle/syringe.(Table 5.10).

Table 5.10: Knowledge of Sources of New Syringes among IDUs

Descriptions	Estimated Population Proportions (%)	95% CI
Can obtain new syringe (N=300)		
Yes	95.4	92.0 – 98.2
No	4.6	1.8 – 8.0
Can obtain syringe from# (n=293)		
Drugstore	99.1	97.6 -99.9
Friends	13.8	7.6 – 32.4
Hospital	28.6	21.8 – 35.6
Drug seller	10.8	7.2 – 18.1
LALS	79.8	72.6 – 86.8
SMF	4.6	0.8 – 7.8
Health worker	8.4	5.5 – 11.5
Drug whole seller/drug agency	3.6	1.3 – 6.6
Other shop	0.6	0.1 – 1.4
Others	2.9	1.1 – 5.2

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

5.7 Treatment Status

Table 5.11 shows the status of treatment received by IDUs in the Kathmandu Valley. The majority of the IDUs (63.9%) had not received any kind of treatment so far. Among those who had received some treatment, nearly one third (31.6%) had done so less than a year ago whereas the rest had been treated more than a year ago. Around four-fifth (81.7%) of IDUs had been treated under residential rehabilitation program by different NGOs (See Annex 13 for NGOs list and treatment provided).

Table 5.11: Treatment Received by IDUs

Treatment practice	Estimated Population Proportions (%)	95% CI
Treatment status (N=300)		
Ever treated	36.1	2.9 – 42.8
Never treated	63.9	57.2 – 71.0
Last treatment received: (n=117)		
Less than 6 months before	5.2	1.2 – 12.6
6-11 months before	26.4	8.7 – 55.8
12-23 months before	24.2	8.6 – 34.2
24-35 months before	23.2	11.3 – 39.0
36-47 months before	11.0	0.8 – 19.2
48 or more months before	10.0	2.7 – 21.0
Types of treatment received # (n=117)		
Residential rehabilitation	81.7	69.0 – 93.2
Detoxification w/other drugs	14.7	4.6 – 28.3
Detoxification w/no drugs	9.0	2.7 – 18.6
Out patient counseling	3.3	1.7 – 15.7
Other treatment	8.1	1.9 – 24.8

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

6. SEXUAL BEHAVIOR AND CONDOM USE

HIV transmission among drug users is most often correlated with their needle/syringe-sharing behavior. This combined with 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 have been reviewed. This chapter also deals with sexual history, and condom use among IDUs.

6.1 Sexual Behavior of IDUs

The majority of IDUs in Kathmandu were sexually active; 88.8 percent had experienced sexual intercourse before and 58.4 percent had sex in the past 12 months. Among those who had ever had sex before, a high proportion (76.8%) was aged less than 20 at the time of their first sexual contact.

Table 6.1: Sexual History of IDUs

Sexual behavior	Estimated Population Proportions (%)	95% CI
Sexual Intercourse (N=300)		
Had sexual intercourse	88.8	8.5 – 93.1
Never had sexual intercourse	11.2	6.9 – 15.0
Age at first sexual intercourse (N=300)		
Below 20 years	76.8	69.6 – 82.9
20 years of age and above	23.2	17.1 – 30.4
Sexual intercourse in the past 12 months (n=274)		
Yes	58.4	52.5 – 67.4
No	41.6	32.6 – 47.5
Numbers of different sexual partners in the past 12 months (n=179)		
1 partner	47.8	37.7 – 55.4
2 – 3 partners	30.4	18.9 – 41.0
4 – 6 partners	12.3	6.6 – 19.2
7 or more partners	9.5	4.2 – 20.0

Among those respondents who had sex in the past 12 months, 47.8 percent had sex with one partner. One in ten (9.5%) reported having as many as seven or more partners in the course of the year preceding the survey.

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

Table 6.2: Sexual Intercourse of the IDUs with Regular Female Sex Partners

Sexual practice	Estimated Population Proportions (%)	95% CI
Sex with a regular partner during the past 12 months (n =274)		
Yes	23.1	18.2 – 29.0
No	76.9	71.0 – 81.8
Sex with regular partner during the last month (n=70)		
Yes	90.1	75.9 – 98.2
No	9.9	1.8 – 24.1
Frequency of sex during the last month with last regular partner (n=64)		
1- 4	40.8	12.4 – 60.3
5+	59.2	40.0 – 87.6

One in five IDUs (23.1%) reported having sex with a regular partner in the last 12 months. Among them, 90.1 percent had sex with their regular partner in the last month. Six in ten of those who had sex with their regular partners last month (59.2%), had sex more than once a week.

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

Table 6.3: Sexual Intercourse of IDUs 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=274)		
Yes	26.5	22.3 – 34.1
No	73.5	65.9 – 77.7
No. of Non-Regular female sex partner in the past 12 months (n=83)		
1 partner	69.4	43.5 – 88.7
2 or more partners	30.6	11.3 – 56.6
Sex with non-regular female sex partner during last one month (n=83)		
Yes	53.6	35.8 – 69.4
No	46.4	30.6 – 64.2
Frequency of sex during last one month with last non-regular female sex partners (n=48)		
1- 4	55.9	47.1 – 87.4
5+	44.1	12.6 – 52.9

More than a quarter of IDUs (26.5%) reported having non-regular female partners in the last year. Among them seven in ten had one partner while three in ten had two or more partners. Just over half percent (53.6%) of them had their sexual encounter in the month preceding the survey.

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

Table 6.4: Sexual Intercourse of IDUs with Female Sex Worker

Sexual Practice	Estimated Population Proportions (%)	95% CI
Sex with female sex worker in the past 12 months (n=274)		
Yes	27.3	21.3 – 34.0
No	72.7	66.0 – 78.7
Number of female sex workers in the past 12 months (n=77)		
1 partner	37.0	10.7 – 66.2
2 or more partners	63.0	33.9 – 89.5
Sex with female sex worker during last one month (n=77)		
Yes	42.8	19.7 – 69.6
No	57.2	30.5 – 80.3
Frequency of sex with last female sex worker during the last month (n=36)		
1- 4	88.9 *	NC
5+	11.1 *	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)

Overall, 27.3 percent of respondents had sex with an FSW during the past 12 months. Among them 63 percent had sex with two or more paid partners last year and four in ten (42.8%) had their experiences during the course of the month preceding the survey. The majority of IDUs

who had sex with an FSW (88.9%) in the last month had fewer than four encounters (Table 6.4).

6.2 Knowledge About and Use of Condom

Condom promotion has been one of the important components of HIV/AIDS awareness campaigns. All the IDUs had heard of condoms before. Nevertheless the consistent condom use was not common among participants. The rate of consistently using condoms was 53.3 percent with regular partners, 41.3 percent with non-regular partners and 60.7 percent with paid sex workers.

Table 6.5: Knowledge about and Use of Condoms among IDUs

Knowledge and use of condom in the last sex	Estimated Population Proportions (%)	95% CI
Condom use with regular partner during last sexual intercourse (n=70)		
Yes	53.3	20.4 – 75.7
No	46.7	24.3 – 79.6
Condom use with non-regular partner during last sexual intercourse (n=83)		
Yes	41.3	27.6 – 71.9
No	58.7	28.2 – 72.4
Condom use with sex worker during last sexual intercourse (n=77)		
Yes	60.7	20.5 – Nan
No	39.3	7.2 - Nan

Respondents who reported not using condom during their last sexual contact with different partners were asked their reasons for not using one. Data obtained from the study participants as shown in Annex 14 indicate that the IDUs in general did not consider it necessary to use condom with their regular partners (48.9%) or saw it only as a contraceptive method (48.9%) and some (28.9%) simply did not like to use condom with their regular partners.

One third of participants (30.6%) who had not used condoms during the last sexual intercourse with non-regular partners, said that condoms were not available at the time and the same proportion reported they did not consider it necessary to use condoms. 22.2 percent simply did not like using condom with their non-regular partners.

Reasons cited by IDUs for not using condom during the last sex with the female sex workers were that they did not have condoms with them at that moment (57.1%), they didn't like using them (28.6%) and that they could not think of using condom at the time of sexual encounter (21.4%) (Annex 14). In this group of respondents, only a small proportion of respondents (7.1%) said that they did not think it was necessary indicating that respondents were aware about the risk if HIV and other sexually transmitted diseases associated with FSWs.

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

In the past year too, 67.8 percent of IDUs had used condom consistently with female sex workers as compared to 43.1 percent with regular female sex partners and 33.5 with non-regular female sex partners.

Table 6.6: Consistent Use of Condom by IDUs with Different Female Sex Partners in the Past Year

Consistent use of condom	Estimated Population Proportions (%)	95% CI
Use of condom with regular female sex partners during past 12 months (n=70)		
Every time	43.1	7.6 – 72.4
Sometimes or Never	56.9	29.6 – 93.3
Use of condom with non-regular female sex partners during past 12 months (n=83)		
Every time	33.5	16.6 – 56.0
Sometimes or Never	66.5	44.2 – 83.4
Use of condom with female sex workers during past 12 months (n=77)		
Every time	67.8	26.6 – 94.4
Sometimes or Never	32.2	7.6 – 86.9

6.3 Sources of Condoms

IDUs were asked if they knew about the places from where they could obtain condoms. All IDUs cited at least one source. Among them, 97.9 percent said that they can obtain condoms from a pharmacy. Other common sources of condom were LALS (61.4%), shop (54.9%), hospital (41.8%), pan shop (40.2%) and peer/outreach educators (38.5%). Most of IDUs said that they could have them if necessary in less than 30 minutes (99%) indicating condoms are readily available at these sources (Table 6.7).

Table 6.7: Sources of Condom for among IDUs 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	97.9	96.2 – 99.2
Health worker/health post	5.4	2.9 – 8.4
Hospital	41.8	35.3 – 48.5
Shop	54.9	48.9 – 60.9
Clinic	17.4	13.2 – 22.2
Friends	5.5	3.0 – 8.6
Family planning center	6.3	3.0 – 10.1
Bar/Guest house/hotel	5.7	3.2 – 8.7
Pan shop	40.2	33.4 – 46.8
Peer educator/outreach worker	38.5	31.6 – 45.6
LALS	61.4	52.4 – 70.0
Naulo Ghunti	0.5	0.1 – 1.1
SMF	10.5	5.2 – 16.7
Others	5.4	2.8 – 8.4
Time taken to obtain condom		
Less than 30 minutes	99.0 *	NC
No response	1.0 *	NC

Note: #Because of multiple answers, percentages 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)

6.4 Sources of Information about Condoms

IDUs had heard about condoms from different sources. The most common sources of information, cited by more than nine in ten respondents were television (98.3%), radio (97.4%), billboards/signboards (94.8%), pharmacies (94.1%), friends/neighbors (92.6%), and newspapers/posters (91.1%). The list of other sources of information as mentioned by the respondents is shown in Table 6.8 below.

Table 6.8: Sources of Information about Condoms among IDUs

Sources of knowledge of condom	Estimated Population Proportions (%) (N=300)	95% CI
Radio	97.4	94.8 - 99.6
Television	98.3 *	NC
Friends/neighbors	92.6	88.8 - 95.9
Newspapers/posters	91.1	86.6 - 94.8
Bill board/sign board	94.8	91.6 - 97.8
Pharmacy	94.1	87.8 - 98.8
Hospital	81.2	74.4 - 87.8
NGO's peoples	88.8	82.1 - 94.5
Cinema hall	62.5	56.2 - 68.5
Health Post	68.5	61.3 - 75.1
Health Center	63.9	57.1 - 70.5
Health workers/volunteers	65.2	57.5 - 71.8
Community worker	32.3	26.5 - 38.5
Comic books	46.6	40.7 - 53.6
Street drama	43.9	37.9 - 50.8
Community event/training	36.9	30.7 - 43.7
Video van	22.6	17.7 - 28.4

Note: Because of multiple answers, percentages 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.

In order to further analyze the exposure of IDUs to the ongoing initiatives to educate the target groups about condoms, the IDUs were asked if they were aware of any of the messages being publicized with the help of IEC materials like posters, pamphlets, billboards or aired on radio or television. The survey asked the respondents about certain specific messages about condoms and HIV/STI prevention. A good proportion of the respondents were aware of messages like *Jhilke dai chha chhaina condom (91%)*, *Condom kinna ma bhaya hunna ra (87.8%)*, *HIV/AIDS bare aajai dekhi kura garau (85.6%)*, *Ramro sanga prayog gare jokhim hunna dinna (85.2%)*, *Youn rog ra AIDS bata bhachnalai (84.1%)*, and *Condom bata surakchhya youn swastha ko rakchhya (79.2%)*. Around 59 percent of respondents had also heard message that said *Maya garaun sadbhav badaun*.

Table 6.9: Exposure of IDUs to Specific Messages in the Past Year

Heard/seen/read messages/characters in past one year	Estimated Population Proportions (%) (N=300)	95% CI
Condom Bata Surakchhya Youn Swastha ko Rakchhya	79.2	72.4 - 85.5
HIV/AIDS Bare Aaji Dekhi Kura Garaun	85.6	81.1 - 89.8
Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	84.1	77.6 - 90.3
Ramro Sanga Prayog Gare Jokhim Hunna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	85.2	78.6 - 91.7
Condom Kina Ma Bhaya Hunna Ra	87.8	84.0 - 91.8
Jhilke Dai Chha Chhaina Condom	91.0	87.3 - 94.4
Ek Apas ka kura	37.9	31.6 - 44.5
Maya Garaun Sadbhav Badaun	59.1	52.8 - 65.4
Des Pardes	18.8	14.3 - 24.0
Manis Sanga Manis Mile Hara Jeeta Kasko Hunchha	12.2	8.9 - 16.3
Others	3.8	1.7 - 6.3

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

7. KNOWLEDGE ABOUT STIs AND HIV/AIDS

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

7.1 Knowledge about STIs

A relatively high proportion of the IDUs (91.4%) in the Kathmandu Valley had heard of STIs before. However, 8.6 percent had not heard about STIs before.

Table 7.1: STI Awareness among IDUs

Heard of STIs	Estimated Population Proportions (%) (N=300)	95% CI
Yes	91.4	88.1 – 99.4
No	8.6	5.6 – 11.9

IDUs who had heard about STI had general understanding of male and female STI symptoms. The most commonly cited symptoms were genital ulcer/sore blister (59.5% in female and 74.5% in male) and genital discharge (40% in female and 56.7% in male). Symptoms like foul smelling discharges (41.7%) and abdominal pain (17.2%) were specifically mentioned as female STI symptoms by some IDUs. In the same way, burning sensation while urinating was mentioned as male STI symptom by 50.6 percent of respondents.

Table 7.2: Knowledge about STI Symptom among IDUs

Knowledge of symptoms of STIs	STIs symptoms as mentioned by respondent			
	Female STI symptoms		Male STI symptoms	
	Estimated Population Proportions (%) (n=278)	95% CI	Estimated Population Proportions (%) (n=278)	95% CI
Genital ulcer/sore blisters	59.5	53.4 – 70.3	74.5	67.1 – 82.3
Foul-smelling discharge	41.7	35.9 – 49.7		
Itching	23.9	19.7 – 32.6	18.8	14.6 – 26.1
Genital discharge	40.0	34.9 – 48.4	56.7	50.2 – 65.6
Burning/pain during urination	21.6	16.4 – 28.2	50.6	44.3 – 58.8
Abdominal pain	17.2	12.9 – 23.0		
Swelling in groin area	10.6	6.2 – 15.6	17.2	12.2 – 23.1
Others	9.7	5.9 – 14.0	10.5	6.6 – 15.2

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

After assessing their awareness regarding STI symptoms the respondents were asked if they ever had experienced symptoms like genital discharges, genital ulcer/sore in the past year. Overall, 81.4 percent had never experienced any STI symptom so far, 13.8 percent of IDUs said that they have had genital discharges while 9.4 percent of them mentioned that they had genital ulcer/sore in the past year (Table 7.3).

Table 7.3: STI Symptom/s Experienced by the IDUs

Experienced of STI Symptoms	Estimated Population Proportions (%) (N=300)	95% CI
Had genital discharge in the past year		
Yes	13.8	9.0 – 19.9
No	86.2	80.1 – 91.0
Had genital ulcer/sore blister in the past year		
Yes	9.4	5.5 – 13.6
No	90.6	86.4 – 94.5

Among those IDUs who had reported of having had genital discharge in the past year, 60 percent said that they had been experiencing genital discharge at the time of the study. Similarly among those IDUs who have had genital ulcer/sore in the past year, 33.3 percent reportedly had the symptom at the time of survey.

Table 7.4: STI Symptom Experienced and Treatment Sought by the IDUs

STI Symptoms and Treatment	Estimated Population Proportions (%)	95% CI
Currently has genital discharge (n=30)		
Yes	60.0 *	NC
No	40.0 *	NC
Currently has genital ulcer/sore blister (n=18)		
Yes	33.3 *	NC
No	66.7 *	NC
STI Experience (N=300)		
Never had STI symptoms	81.4	75.4-86.6
Ever had some symptoms	16.7	13.5-24.6
Source of treatment (n=50)		
Private Doctor	22.0 *	NC
Hospital/Health Post	10.0 *	NC
Others	4.0 *	NC
Did not seek treatment	64.0 *	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)

Sixty four percent of those IDUs who had ever experienced one or the other STI symptom had never sought any treatment. Twenty two percent had been to a private doctor while 10 percent had been to a hospital/health post to seek treatment.

7.2 Knowledge about HIV/AIDS

All respondents had heard about HIV/AIDS before. A good proportion of them (84.8%) knew people who had either died due to AIDS or currently had HIV/AIDS. When asked about their relations to those who had HIV/AIDS or lost their lives to AIDS 46.7 percent said that they were their close friends and 4.8 percent said that they were their relatives.

Table 7.5: Awareness about HIV/AIDS among IDUs

Knowledge of HIV/AIDS	Estimated Population Proportions (%)	95% CI
Know anyone who has HIV/AIDS/died due to AIDS (N=300)		
Yes	84.8	79.5 – 88.8
No	15.2	11.2 – 20.5
Nature of relationship with person living with HIV/AIDS/died due to AIDS (n=260)		
Close friend	46.7	41.0 – 55.6
No relation	48.5	39.0 – 54.0
Close relative	4.8	2.9 – 8.3

IDUs' knowledge about ways in which HIV is transmitted was further analyzed with the help of some questions on HIV/AIDS prevention. In this regard their understanding of three major HIV/AIDS prevention measures including (A)abstinence from sex (B) being faithful to one sex partner (C) and regular condom use was assessed. In total 61.7 percent IDUs were aware of all three. Fewer respondents were aware that abstinence from sex (67.2%) would prevent HIV than those who were aware of being faithful (91.4%) and using condoms regularly (93.6%)

Additionally, 96.6 percent were aware that a healthy looking person can be infected with HIV (D) and a similar proportion (92.9%) also knew that sharing meal with an HIV infected person did not put them at risk of HIV (F). However a relatively low proportion of IDUs (75%) agreed that a person cannot get HIV virus from mosquito bite (E). In total 66.2 percent of IDUs were aware of all the five major indicators (BCDEF) - excluding abstinence (Table 7.6).

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

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	67.2	59.9 – 71.9
B Being faithful to one partner	91.4	87.3 – 95.3
C Condom use during each sexual contact	93.6	87.9 – 96.6
Perception on HIV/AIDS transmission:		
D A healthy-looking person can be infected with HIV	96.6	93.5 – 99.1
E A person can not get the HIV virus from mosquito bite	75.0	69.3 – 80.6
F Sharing a meal with an HIV infected person doe not transmit HIV virus	92.9	87.7 – 96.3
Knowledge of all ABC	61.7	54.8 – 67.0
Knowledge of all five major indicators – BCDEF of HIV/AIDS	66.2	60.0 – 71.9

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

IDUs' understanding of HIV/AIDS and its different modes of transmission were further assessed with the help of probing questions. More than nine in ten said that HIV can be transmitted through the transfusion of blood from an infected person to another (99.7%), a person can get HIV by using previously used needle/syringe (99.1%), a person can not get HIV by holding an HIV infected person's hand (97.6%), a pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child (90.8%). A considerable proportion of respondent also said that a drug user can protect himself from HIV by switching to non-injecting drugs (89.8%). A relatively lower percentage of respondents (46.9%) claimed that women with HIV could transmit the virus to their newborn child through breast-feeding.

Those IDUs who said that that a HIV infected pregnant woman can transmit the virus to her unborn child were asked if they were aware of any measure that could reduce such risk of HIV transmission. Among them, there were only 7.2 percent respondents who suggested that the expecting mother could take medicine or antiretroviral treatment. Others suggested different measures like consulting with the doctor or performing a cesarean delivery.

Table 7.7: IDUs' Knowledge about Ways of HIV/AIDS Transmission

Statements Related to HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Statements Related to HIV/AIDS		
A person can get HIV by using previously used needle by others	99.1	98.3 – 99.8
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	89.8	86.1 – 93.6
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	46.9	40.9 – 54.9
A person can not get HIV by holding an HIV infected person's hand	97.6	96.2 – 98.8
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	90.8	87.1 – 94.3
Blood transfusion from an infected person to the other transmit HIV	99.7 *	NC
Ways by which a pregnant woman can reduce the risk of transmission of HIV to her unborn child (n=272)		
Take medicine (Antiretroviral)	7.2	4.2 – 10.3
Others	83.7	79.1 – 88.5

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)

7.3 Knowledge about HIV Testing Facilities

Availability of a confidential HIV testing facility and awareness of such provision allow people to take up HIV test promptly and without the fear of getting exposed. Although a good proportion of the IDUs (91.3%) were aware of the existence of such facility in their communities; forty seven percent of respondents had never tested themselves for HIV while the rest (53%) had HIV testing before. Among them, 72.7 percent had taken up the test voluntarily and the majority (93.8%) had received the test result. However, only 35.5 percent of IDUs had taken up the test in the last year. The rest of the IDUs had got themselves tested more than a year ago.

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

Description of HIV Testing	Estimated Population Proportions (%)	95% CI
A confidential HIV testing facility is available in the community (N=300)		
Yes	91.3	87.0 – 94.7
No	8.7	5.3 – 13.1
Ever had HIV test (N=300)		
Yes	53.0	45.8 – 60.2
No	47.0	39.8 – 54.2
Type of test taken (n=177)		
Required HIV test	27.3	21.1 – 41.5
Voluntary HIV test	72.7	58.6 – 78.9
Test result received (n=177)		
Yes	93.8	90.0 – 98.4
No	6.2	1.6 – 10.0
Timing of last HIV test (n=177)		
Within the past year 12 months	35.5	24.3 – 44.2
1-2 years ago (Between 13-24 months)	29.8	21.4 – 37.8
2-4 years ago (Between 25-48 months)	24.3	15.9 – 35.1
More than 4 years ago (49 or more than 49 months)	10.4	4.4 – 19.2

7.4 Source of Knowledge about HIV/AIDS

Radio and television were the two most cited sources of information regarding HIV/AIDS among the IDUs. These sources of information were mentioned by around 98 percent of the study population. A similar proportion of the respondents had been made aware of HIV/AIDS through friends/relatives (95.9%), pamphlets/posters (94.6%), billboard/signboard (93%), NGO workers (89.2%) and newspaper/magazines (83.2%). Other sources of information as mentioned by the IDUs are listed in the table below (Table 7.9).

Table 7.9: Sources of Knowledge Regarding HIV/AIDS among IDUs

Sources of Knowledge of HIV/AIDS	Estimated Population Proportions (%) (N=300)	95% CI
Radio	98.1	96.2 – 99.5
Television	98.7 *	NC
Friends/Relatives	95.9	93.6 – 98.0
Newspapers/Magazines	83.2	76.1 - 88.1
Billboard/signboard	93.0	86.8 – 97.8
Pamphlets/Posters	94.6	92.0 – 97.5
NGO workers	89.2	82.1 – 94.5
Cinema halls	69.2	63.8 – 74.7
Health workers/Volunteers	69.9	62.1 – 76.1
Workplace	54.1	47.0 – 61.0
School/Teachers	56.8	49.4 – 64.1
Community workers	34.7	28.6 – 41.1
Comic books	54.1	47.6 – 60.9
Street drama	48.8	42.4 – 56.2
Community events or training	40.0	34.0 – 46.6
Video van	23.1	18.6 – 29.7

Note: Because of multiple answers, percentages 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)

In the past year IDUs had also received HIV/AIDS related IEC materials from different sources. HIV related information had been disseminated to a fairly large proportion of the respondents (88.7%). IEC materials like brochures/booklet/pamphlets on HIV/AIDS had reached 81.8 percent of IDUs while 71.6 percent had received condoms/ information relating to condoms (Table 7.10).

Table 7.10: Information/Materials Received by the IDUs during the Past Year

Informative materials received	Estimated Population Proportions (%) (N=300)	95% CI
Condom/information on condom		
Yes	71.6	66.1 – 77.2
No	28.4	22.8 – 33.9
Brochures/booklets/pamphlets on HIV/AIDS		
Yes	81.8	76.1 – 87.2
No	18.2	28.0 – 23.9
Received information on HIV/AIDS		
Yes	88.7	83.1 – 93.4
No	11.3	6.6 – 17.0
Other information		
Yes	30.9	24.7 – 39.5
No	69.1	60.5 – 75.3

7.5 Perception on HIV/AIDS

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

The majority of respondents were prepared to take care of an HIV-positive male relative (96.7%) or an HIV-positive female relative (96%) at their homes if such need arose. More than half of the sample population (53.6%) 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 participants (98.1%) said that they would readily buy food from a HIV - positive vendor. Ninety four percent agreed unless very sick, people with HIV/AIDS should be allowed to continue their jobs.

When asked about the health care needs of HIV infected persons, 57 percent of IDUs maintained that they should be provided same care and treatment as necessary for chronic disease patients while 34.6 percent believed that the health care needs of a HIV infected person was more than those of people suffering from chronic diseases.

Table 7.11: Attitude of IDUs towards HIV/AIDS

Individual Perception	Estimated Population Proportions (%) (N=300)	95% CI
Would readily take care of HIV positive male relative in the household		
Yes	96.7 *	NC
No	3.0 *	NC
Don't know	0.3 *	NC
Would readily take care of HIV positive female relative in the household		
Yes	96.0 *	NC
No	3.7 *	NC
Don't know	0.3 *	NC
Would prefer not to talk about a family member being HIV positive		
Yes	53.6	48.1–60.5
No	43.7	37.2–49.4
Don't know	2.7	0.6–4.9
Would readily buy food from HIV infected shopkeeper		
Yes	98.1	95.5–98.5
No	0.6	0.3–1.5
Don't know	1.2	1.1–3.7
Believe that the health care needs of a HIV infected person is same, more or less than those required by someone with other chronic disease		
Same	57.0	50.1–63.9
More	34.6	28.1–41.0
Less	5.3	2.5–8.7
Don't know	3.1	0.8–6.5
Believe that HIV infected person should be allowed to continue working unless very sick		
Yes	94.0	90.6–97.0
No	6.0	3.0–9.4

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)

8. EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

This is a new section added to the survey in 2007. The exposure of the IDUs to the ongoing HIV/AIDS awareness programs and their participation in these activities has been examined in this round of survey. To this end respondents were asked several questions relating to different components of current HIV/AIDS related programs run by different organizations.

8.1 Peer/Outreach Education

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

The majority (79.9%) of participants had at least once met with one PE/OE before. During their meetings 96 percent had discussed safe injecting behavior while 75.9 percent had been told how HIV is transmitted. IDUs had also been informed about STIs, how to avoid them (33.5%) and condom use (22.1%). Some IDUs also said that they had been suggested by PE/OE to stay at a rehabilitation center.

The majority of meetings were held by LALS (79.7%) followed by Youth Vision (14.9%) and Richmond Fellowship (13.8%). It is further evident from the Table 8.1 that IDUs meet PE/OEs quite often as only one percent IDUs had met PE/OEs just once, others had met them quite frequently in the past one year (Table 8.1).

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

Meeting with Peer Educators (PE) or Outreach Educators (OE)	Estimated Population Proportions (%)	95% CI
Met or discussed or interacted with PE or OE in the last 12 months (N=300)		
Yes	79.9	72.2 – 85.9
No	20.1	14.1 – 27.8
Activities carried out with /by PE /OEs # (n=258)		
Discussion on how HIV/AIDS is/isn't transmitted	75.9	71.5 – 83.0
Demonstration on using condom correctly	18.3	11.4 – 22.4
Discussion on how STI is/isn't transmitted	33.5	26.3 – 40.3
Discussion on safe injecting behavior	96.0	92.9 – 98.5
Discussion on regular/non-regular use of condom	22.1	16.7 – 27.6
Others	9.2	5.7 – 13.8
Organizations Represented by OE/PE* (n=258)		
LALS	79.7	69.5 – 89.0
Youth Vision	14.9	11.3 – 22.4
SMF	8.2	1.5 – 15.5
RICHMOND	13.8	7.5 – 22.5
Nava Kiran	1.9	0.4 – 4.1
Others	6.4	3.3 – 10.7
Number of Meeting with PE or OE (n=258) in the last 12 months		
Once	1.0	0.2 – 2.1
2-3 times	17.3	12.2 – 22.8
4-6 times	22.5	15.1 – 30.5
7-12 times	16.5	11.1 – 22.2
More than 12 times	42.7	35.4 – 50.9

8.2 Drop-in-Center

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

A total of 72.4 percent had visited a DIC in the past year. Among them, the majority (92.9%) had been to a DIC to get a new syringe. A good proportion of them (67.3%) had been informed about safe injecting behavior at the DIC. Moreover IDUs had collected condoms from DICs (31.1%) participated in discussion on HIV transmission (20.7%), learnt how to use condom correctly (15.6%) and watched a film on HIV/AIDS (11%) (Table 8.2).

DICs run by LALS (83.3%) were the most frequented centers followed by those run by Siddhi Memorial Foundation (SMF) (11.3%) and Richmond (8.7%). The majority of IDUs (94.2%) have been to DICs more than once a year.

Table 8.2: DIC Visiting Practices of IDUs

DIC Visiting Practices	Estimated Population Proportions (%)	95%CI
Visited a DIC in the Last 12 months (N=300)		
Yes	72.4	66.6 - 79.5
No	27.6	20.5 - 33.4
Participated activities at DIC# (n=228)		
Collected condoms	31.1	23.2 - 38.0
Learnt correct ways of using condom	15.6	11.4 - 22.3
Learnt about safe injecting behavior	67.3	58.5 - 72.0
Watched film on HIV/AIDS	11.0	7.3 - 19.6
Participated in discussion on HIV transmission	20.7	14.3 - 29.6
Got new syringe	92.9	86.7 - 96.0
Others	14.0	8.4 - 19.0
Name of Organizations that Run the Visited DIC# (n=228)		
LALS	83.3	72.5 - 94.4
Youth Vision	3.3	0.8 - 7.9
SMF	11.3	2.2 - 19.3
RICHMOND	8.7	4.1 - 14.3
Others	1.0	0.4 - 2.9
Number of Visits to the DICs (n=228)		
Once	5.8	1.4 - 8.2
2-3 times	9.2	5.4 - 13.3
4-6 times	13.2	8.3 - 18.8
7-12 times	10.8	5.6 - 12.8
More than 12 times	61.0	56.9 - 71.3

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

8.3 STI Clinic

Timely detection of STIs may prevent serious health hazards. In Nepal, there are several clinics being run by different government as well as non-government organizations for providing STI testing and treatment facilities. In this survey, only two IDUs (0.7%) had visited an STI clinic in the past year. Both of them had participated in discussion on the ways in which STIs are transmitted while only one had given blood sample and had physical examination. One of them had visited an STI clinic run by LALS and the other had gone to a Richmond Fellowship DIC. One had paid just one visit while the other had been there two or three times in the past year.

Table 8.3: STI Clinic Visiting Practices of IDUs

STI Clinic Visiting Practices	% *
Visited any STI Clinic in the Last 12 Months (N=300)	
Yes	0.7
No	99.3
Participated activities at STI clinic# (n=2)	
Blood tested for STI detection	50.0
Underwent physical examination for STI identification	50.0
Participated in discussion on STI transmission modes	100.0
Participated in discussion on safe injecting behavior	50.0
Participated in discussion on regular/non-regular use of condom	50.0
Name of the Organization that Run the STI clinic# (n=2)	
LALS	50.0
RICHMOND	50.0
Number of Visits to STI Clinics (n=2)	
Once	50.0
2-3 times	50.0

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

* Estimated population Proportion was calculated with SPSS as the variables did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted.

8.4 VCT Centers

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

In this survey 15 percent of respondents had been to a VCT center in the past year. The majority of them (82.1%) visited the center to give their blood sample for HIV testing while only two thirds (65.5%) had received the results. Some respondents had received pre HIV test counseling (75.1%), information on safe injecting behavior (48.6%) or post HIV test counseling (47.1%) at these centers.

Table 8.4: VCT Center Visiting Practices of IDUs

VCT Center Visiting Practices	Estimated Population Proportions (%)	95%CI
Visited VCT center in the last 12 months (N=300)		
Yes	14.9	10.8 – 19.4
No	85.1	80.6 – 89.3
Participated activities at VCT center# (n=55)		
Received pre-HIV test counseling	75.1	59.9 – 96.1
Gave blood sample HIV test	82.1	56.3 – 91.4
Received post HIV test counseling	47.1	29.8 – 81.5
Received information on safe injecting behavior	48.6	21.9 – 77.9
Received counseling on consistent and correct use of	10.6	6.6 – 32.0
Got information on HIV/AIDS window period	26.9	8.0 – 41.2
Received HIV test result	65.5 *	NC
Went with a friend	5.5 *	NC
Others	1.8 *	NC
Name of the Organization that Run the visited VCT Centers # (n=55)		
Youth Vision	78.2 *	NC
SACTS	3.6 *	NC
CAC	3.6 *	NC
FPAN	1.8 *	NC
Others	16.4 *	NC
Number of Visits to VCT centers (n=55)		
Once	60.0 *	NC
2-3 times	29.1 *	NC
4-6 times	9.1 *	NC
7-12 times	1.8 *	NC

Note: #Because of multiple answers, percentages 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)

8.5 Participation in HIV/AIDS Awareness Program

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

This survey revealed that just over a quarter of IDUs in the Kathmandu Valley had (26.1%) had participated in HIV/AIDS awareness raising programs or similar community event before. Among them, 53.7 percent had taken part in condom day celebration, 48.9 percent in different group discussions, 39.5 percent in AIDS day celebration, and 28.3 percent in HIV/AIDS related trainings.

The activities the respondents participated were conducted by LALS (39.8%), SMF (26.2%), Youth Vision (18.7%) and other organizations (Table 8.5). Nearly half (45.5%) had participated in one program only, one third (33.3%) had taken part of two or three programs while one in five (21.2%) had participated to HIV/AIDS awareness programs more than three times.

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	26.1	20.5 – 31.7
No	73.9	68.3 – 79.5
Participated activities # (n=99)		
Street drama	16.4	4.1 – 29.0
AIDS Day celebration	39.5	23.6 – 53.9
Condom Day celebration	53.7	33.8 – 63.6
Group discussions	48.9	31.3 – 66.9
HIV/AIDS related training	28.3	14.9 – 50.5
HIV/AIDS related Workshops	18.6	6.3 – 39.2
Condom use demonstrations	25.2	10.4 – 35.9
Video Shows	1.0 *	NC
Talk programs	1.0 *	NC
Name of the Organizations that Organized Such Activities# (n=99)		
Youth Vision	18.7	9.0 – 24.7
LALS	39.8	24.9 – 52.6
SMF	26.2	4.6 – 43.0
NRCS	3.0 *	NC
Recovery Nepal	2.0 *	NC
Nav Kiran Plus	4.0 *	NC
Richmond	5.1 *	NC
Others	30.6	18.0 – 47.9
Don't Know	2.0 *	NC
Frequency of Such Participation in past 12 months (n=99)		
Once	45.5 *	NC
2-3 times	33.3 *	NC
4-6 times	11.1 *	NC
7-12 times	1.0 *	NC
More than 12 times	4.0 *	NC
No participation in past Year	5.1 *	NC

Note: #Because of multiple answers, percentages 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)

9. COMPARATIVE ANALYSIS OF SELECTED CHARACTERISTICS

This chapter seeks to analyze the trend between the first, the second and the third round of studies through comparing the data obtained from all three rounds. It specifically tackles socio-demographic characteristics, drug injecting habits, needle/syringe using practices, and condom use among IDUs. It should be noted here these comparisons are only possible because the same sampling design and procedures were used in all of the three rounds.

9.1 Socio-Demographic Characteristic

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

The median age of IDUs was 25 years in first and the third rounds and 26 in the second round. In all three rounds, similar proportions of respondents were aged 25 or less (43.9% in 2002, 42.3% in 2005 and 49.8% in 2007).

Literacy status of the respondents was also similar in all of the three rounds with the majority of IDUs educated at the secondary school level or above (79.5% in 2002, 74.6% in 2005 and 74% in 2007).

IDUs in all three rounds represented the major caste/ethnic groups residing in the valley. Around two fifth of respondents belonged to Newar community (43.6%, 40% and 44.9%) in all three surveys. On the other hand there has been a significant decrease in the proportion of IDUs belonging to Chhetri/Thakuri caste (28.7% in 2002, 24% in 2005 and 16.2% in 2007) while the proportion of IDUs belonging to Gurung/Rai origin significantly increased since the first round in 2002 (5.9% in 2002, 8.3% in 2005 and 16.1% in 2007)

Table 9.1: Socio-Demographic Characteristics of IDUs

Socio-Demographic Characteristics	First round (2002) (%) N=303*	Second round (2005) (%) N=300*	Third Round (2007) EPP (%) N=300
Age			
< 25 Yrs	43.9	42.3	49.8
> =25 Yrs	56.1	57.7	50.2
Median age	25	26	25
Education			
Illiterate	3.0	8.0	3.0
Literate only	1.7	2.3	5.1
Primary	15.8	24.0	18.0
Secondary	47.2	36.3	42.3
SLC and above	32.3	29.3	31.7
Ethnicity			
Brahmin	6.6	5.3	5.0
Chhetri/Thakuri	28.7	24.0	16.2
Newar	43.6	40.0	44.9
Tamang/Lama/Magar	11.2	16.3	14.4
Gurung/Rai	5.9	8.3	16.1
Others	4.0	7.0	3.4

*Unadjusted

9.2 Drug Injecting Practices

The average number of years respondents have been injecting drugs, have increased from five in 2002 to six in 2005 and to 6.2 in 2007. In all three rounds, a large majority of respondents

reported injecting drugs for more than two years (82.2% in 2002, 86.3% in 2005 and 82.1% in 2007).

The median age of the respondents at their first injection has come down from 21 in 2002 to 20 in 2005 and 2007. In 2007, a statistically higher proportion of IDUs than in 2002 had injected for the first time before turning 20 (45.5 percent in 2002, 53 percent in 2005 and 56.2 percent in 2007).

Table 9.2: Drug Injecting Practices of IDUs

Drug Injecting practice	First round (2002)	Second round (2005)	Third round (2007)
	(%) N=303*	(%) N=300*	EPP (%) N=300
Duration of drug injection habit			
Up to 11 months	7.3	5.3	4.7
12-23 months	10.6	8.3	13.1
24-59 months	33.7	32.0	36.3
60 and above	48.5	54.3	45.8
Average duration years	5	6	6.2
Age at first drug injection			
Up to 20 years	45.5	53.0	56.2
21 + years	54.5	47.0	43.8
Median age	21	20	20

*Unadjusted

9.3 Needle/Syringe Using Practice in the Past Week

Data points out to a increased level of awareness about risky needle/syringe using practices. The proportion of IDUs who had avoided unsafe injecting practice in the week preceding the survey has increased significantly since the first round. High risk behavior like injecting with a previously used needle/syringe went down from 45.5 percent in 2002 to 20.3 percent in 2005 and finally to 11.9 percent in 2007 (P<0.01).

In the same way 31.7 percent IDUs had injected with syringes left in a public place in the week preceding the 2002 survey, this figure went down to 19.3 percent in second round while and to 6.7 percent in the third round (6.7%) which is statistically significant difference (P<0.01).

Moreover the proportion of IDUs reporting not sharing their needle/syringe with anyone in the past week increased from 41.3 percent in the first round to 73 percent in second and finally 85.4 percent in the third round (P<0.01).

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

Needle/syringe use throughout the past week	First round (2002)	Second round (2005)	Third round (2007)
	(%) N=303*	(%) N=300*	EPP (%) N=300
Used a needle/syringe that had been used by other			
Never Used	54.5	79.7	88.1
Ever Used	45.5	20.3	11.9
Used a needle/syringe that had been kept in public place			
Never Used	68.3	80.7	93.3
Ever Used	31.7	19.3	6.7
Number of needle/syringe shared Partners			
None	41.3	73.0	85.4
Two partners	20.5	17.3	12.2
Three or more partners	38.3	9.7	2.4

* Unadjusted

9.4 Condom Use with Different Partners

Larger proportion of IDUs reported using condom consistently with their regular sex partners since the first round of the survey in 2002 while the proportion of respondents using condoms consistently with their non-regular partners has been going down since 2002. Meanwhile, a significantly higher number of IDUs had used condom consistently with female sex workers in 2007 than in 2002 and 2005.

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

Consistent use of condom	First round (2002)	Second round (2005)	Third round (2007)
	*	*	RDS EPP (%)
Use of condom with regular female sex partners during past 12 months	N=97	N=77	N=70
Every time	18.5	13.0	43.1
Sometime – Never	81.0	87.0	56.9
Use of condom with non-regular female sex partners during past 12 months	N=50	N=51	N=83
Every time	48.0	35.3	33.5
Sometime – Never	52.0	64.7	66.5
Use of condom with female sex workers during past 12 months	N=35	N=56	N=77
Every time	54.3	33.9	67.8
Sometime – Never	45.7	66.1	32.2

*Unadjusted

9.5 HIV Prevalence

HIV prevalence among the IDUs has been gradually decreasing since the first round in 2002. As seen in Table 9.5 the first round of IBBS found an alarming rate of 68 percent HIV prevalence among IDUs in the Kathmandu Valley.

Table 9.5: HIV Prevalence among IDUs

HIV Prevalence	First round (2002)		Second round (2005)		Third round (2007)	
	N=303	%	N=300	%	Estimated population Proportion (%) (n=300)	95% CI
HIV	206	68.0	155	51.7	34.8	27.7-42.1

From other findings of the study, it is evident that the IDUs in the valley are becoming increasingly conscious of HIV/AIDS risk factors with regards to injecting and sexual behavior. Around 55 percent of IDUs had avoided injecting with a previously used needle in the first round, this figure reached 88.1 percent in 2007. Likewise, practices like injecting with a syringe that had been kept in the public place decreased from 32 percent in 2002 to seven percent in 2007.

10. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

10.1 Summary of Major Findings

- The prevalence rate of HIV among IDUs in the Kathmandu Valley remains high with 34.8 percent which ranges between, 27.7-42.1 percent at 95 percent confidence interval. This, on the other hand, represents a significant reduction from 68 percent in 2002 and 51.7 percent in 2005 surveys.
- Compared with HIV, STIs are relatively minor problem among IDUs; syphilis history was detected among 1.7 percent IDUs while only one respondent (0.3%) currently had current syphilis (TPHA positive and RPR Positive in 1:8 titre) at the time of this survey.
- The prevalence of HIV significantly differed according to marital status, education level and how long respondents have been injecting drugs for. Married IDUs, illiterate respondents and those who had been injecting more than five years were significantly more likely to be HIV-positive than others.
- The IDUs consisted predominantly of young people; 76.7 percent were below the age of 30 years.
- Alcohol and oral drugs were common among IDUs; all of the respondents had inhaled oral drugs while nearly seven in ten had alcoholic drinks in the week preceding the survey. The majority of the sample had been using oral drugs for more than five years.
- About 18 percent IDUs had started injecting drugs in the last two years while the majority had been injecting for more than two years. .
- Past week injecting practice of the respondents indicated that 11.9 percent had injected with a syringe used by others and 6.7 percent had used a syringe left at a public place.
- Among those IDUs who had gone out of the Kathmandu Valley, 8.5 percent had injected with a previously used needle/syringe and four percent had given a needle/syringe to someone else after use at the place/s visited by them.
- Around 89 percent IDUs reported having experienced sexual intercourse before. Among them 58.4 percent reported being sexually active the past year. Similar proportions had sex with female regular partners (21.3%), female non-regular partners (26.5%) and FSWs (27.3%).
- Consistent condom use was reported highest with sex workers (67.8%) followed by with regular sex partners (43.1%) and with non-regular female sex partners (33.5%) in the past year.
- There were 8.6 percent of IDUs had not heard about STIs before.

- Overall 13.8 percent complained about symptoms of genital discharge and 9.4 have had genital ulcer/sore in the past year. Among them sixty percent of them had been experiencing genital discharge and 33.3 percent have had genital ulcer/sore at the time of survey.
- In total 61.7 percent IDUs were aware of all three main prevention measures namely (A) abstinence from sex (B) being faithful to one sex partner (C) and regular condom use was assessed .
- Fifty three percent IDUs had ever taken up HIV testing. Most of them (93.8%) had received their test result.
- Overall, 79.9 percent IDUs had met with PE/OEs before, 72.4 percent had at least once visited a DIC and 14.9 percent had visited a VCT center in the past year. However, very few IDUs (0.7%) had visited an STI clinic.
- Only 26.1 percent of respondents had ever participated in at least one HIV/AIDS awareness program/activities before.

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 youth and adolescents fall into injecting habit (49.6% respondents were younger than 25 years while 56.2% had their first injection before turning 21). Specific program activities that target school children, college students, youth, and adolescents should be designed to impart HIV/AIDS awareness and sex education.
- A significant relation was noticed between HIV prevalence and drug injecting duration. HIV prevalence was significantly high among IDUs who injected frequently. Ongoing HIV/AIDS awareness activities should continue and be expanded geographically to cover more IDUs. Advocacy, behavioral change activities, health promotion intervention should be further scaled up.
- Around 52 percent IDUs had maintained sexual contact with more than two partners in the past year. While 23.1 percent had sex with regular sex partners, 26.5 percent and 27.3 percent had sexual contact with non-regular partners and female sex workers respectively during the period. Among them, 56.9 percent IDUs had not used condom consistently with regular female sex partners, 66.5 percent with non regular female sex partners and 32.2 percent with female sex workers in the past year. Barriers to inconsistent condom use should be explored and intervention targeting not just IDUs but also female sex workers and general population should be stressed.
- Past week's injecting practice of the respondents revealed that 11.9 percent IDUs had injected with a previously used syringe, 6.7 percent had used a syringe left at public place. Harm reduction initiatives like wider dissemination of information on safe injecting behavior and needle exchange program should be continued and expanded further.

- Over one-third IUDs (36.1%) had at least once received de-addiction treatment while 63.9 percent had never received any such treatment. Rehabilitation and detoxification centers should be supported for providing necessary services to the IDUs especially to those belonging to economically deprived families. Rehabilitation program should also incorporate family counseling services.
- Sixty four percent of those IDUs who had ever experienced one or the other 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 forward for such services.
- PE/OEs are good contact points to disseminate necessary information and IEC materials to the target population. Around 80 percent respondents had met them at least once in the past year. One to one education for behavioral change and safe injecting and sexual practices through wider mobilization of PE/OEs could yield positive results.
- A good number of IDUs visit DICs, 72.4 percent respondents had visited a DIC in the past year. More DICs with expanded activities at central locations could cover more of the target groups.
- Around 74 percent respondents had never participated in any HIV/AIDS related program. Ongoing programs should be expanded geographically and capacity building of local NGOs should be focused on to increase access to more of target population.
- Monitoring and evaluation of HIV prevalence and risk behaviors of IDUs to design and implement timely intervention strategies are needed at regular time intervals.

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"**. Arlington, VA Family Health International.
- FHI/New ERA/SACTS 2002. **"Behavioral and Sero Prevalence Survey among IDUs in Kathmandu Valley"**.
- FHI/New ERA/SACTS 2005. **"Integrated Bio-Behavioral Survey among IDUs in Pokhara Valley and Eastern Nepal"**.
- Heckathorn D.D., 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.
- 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.
- Heckathorn, D.D., Updated July 2003. **"Snowball and Respondent-Driven- Sampling An Overview"**.
- Map Report, 2004. **"AIDS in Asia"**.
- National Center for AIDS and STD Control. 2007. **"Cumulative HIV/AIDS Situation of Nepal"** As of November 16, 2007.
- November 2006/ Supplement. **"Journal of Urban Health - Bulletin of the New York Academy of Medicine"**. Volume 83 Number 6.
- Ramirez- Valles J, Heckathorn DD, Vasquez R, Diaz RM, Campbell RT. 2005. **"The Fit between Theory and Data in Respondent-driven Sampling: Response to Heimer"** AIDS behav. 9(4): 409-414.
- Ramirez- Valles J, Heckathorn DD, Vasquez R, Diaz RM, Campbell RT. 2005. **"From Networks to Populations: The Development and Application of Respondent-driven Sampling among IDUs and Latino Gay Men"**. AIDS behav. 9(4): 387-402.
- RDS Incorporated; December 2006. **"RDS Analysis Tool V 5.6 – User Manual"**.
- Salganik MJ, Heckathorn DD, 2004. **"Sampling and Estimation in Hidden Populations Using Respondent-driven Sampling"**. Social Method. 34:193-239.

ANNEXES

ANNEX – 1 Questionnaire

Confidential

Integrated Bio-Behavioral Survey (IBBS) among Injecting Drug Users (IDUs) in Selected Sites of Nepal FHI/New ERA/SACTS – 2007

Namaste! My name is..... I am here from New ERA to collect data for a research. During this data collection, I will ask you some personal questions that will be about drugs, use of needle/syringe when injecting drugs, sexual behavior, use of condoms and knowledge about STI/HIV/AIDS. You may feel uneasy responding to some personal questions. But it is important that you answer truthfully. We will also take your blood sample for laboratory testing for syphilis and HIV. 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 research purpose. This survey will take about 40 to 60 minutes.

It depends on your wish to participate in this survey or not. You do not have to answer 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: _____/_____/2064

Operational definition of respondent:

Male Injecting Drug User (IDU): Person who injects various drugs in muscles or in veins for intoxication purposes. Please note that people who inject drugs as part of medical treatment are not included in IDUs. The respondent must be a current injecting drug user who has started injecting at least *three months before the interview date*. Those who have started injection within last three months are not eligible for interview.

Male IDUs under the age of 16 will be excluded.

Code Respondents:

- Seed: 1. Yes 2. No

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

Coupon number given: 1) _____ 2) _____
3) _____

Did the interviewee abandon the interview?

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

Interviewer Name: _____ Code Interviewer: _____

Date Interview: ____ / ____ / 2064

Checked by the supervisor: Signature: _____ Date: ____ / ____ / 2064

Data Entry # 1: Clerk's name: _____ Date ____ / ____ / 2064

Data Entry # 2: Clerk's name: _____ Date ____ / ____ / 2064

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. _____

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

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

1. Yes
2. No

002.4 How long you have been injecting drugs?

Years

--	--

 Months

--	--

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

003. Interview Location
(to be filled by interviewer)

003.1 Name of location _____

003.2 Ward No.

003.3 VDC/Municipality: _____

003.4 District: _____

1.0 BACKGROUND OF RESPONDENT

Q. N.	Questions	Coding Categories	Skip to Q.N.
101	Where are you living now? (Write current place of residence: Ward No. Tole, Lane etc.)	Ward..... <input type="text"/> <input type="text"/> VDC/Municipality _____ District _____	
101.1	How long have you been living continuously at this location?	Month..... <input type="text"/> <input type="text"/> <input type="text"/> 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 <input type="text"/> <input type="text"/> (write the completed years)	
104	What is your educational status?	Illiterate 0 Literate 19 Grade..... <input type="text"/> <input type="text"/> (write the completed grade)	
105	What is your caste? (Specify Ethnic Group/Caste)	Ethnicity/Caste _____	
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 married?	Age <input type="text"/> <input type="text"/> (write the completed years)	
108	With whom you are living now?	Living with wife..... 1 Living with female sexual partner 2 Living without sexual partner 3 Others (Specify)..... 96 No response 99	110 110 110
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	110 110 110

Q. N.	Questions	Coding Categories	Skip to Q.N.
109.1	If yes, what is the sex of the 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) _____ 96 No response..... 99	

2.0 DRUG USE

Q. N.	Questions	Coding Categories	Skip to Q.N.
201.	How long have you been using drugs? (Drug means medicine not used for treatment purpose rather used for Intoxication)	Years <input type="text"/> <input type="text"/> Months <input type="text"/> <input type="text"/> No response 99	
202.	How old were you when you first injected drugs? (Include self-injection or injection by another)	Years <input type="text"/> <input type="text"/> <i>(write the completed years)</i>	
203	How long have you been injecting drugs? (Include self-injection or injection by another)	Years <input type="text"/> <input type="text"/> Months <input type="text"/> <input type="text"/> 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 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)		
		Used in Last-Week	Injected in Last-Week
	Description	YES NO DK NR	YES NO DK NR
	1. Tidigesic	1 2 98 99	1 2 98 99
	2. Brown Sugar	1 2 98 99	1 2 98 99
	3. Nitrosun	1 2 98 99	1 2 98 99
	4. Ganja	1 2 98 99	1 2 98 99
	5. Chares	1 2 98 99	1 2 98 99
	6. White Sugar	1 2 98 99	1 2 98 99
	7. Phensydyl	1 2 98 99	1 2 98 99
	8. Calmpose	1 2 98 99	1 2 98 99
	9. Diazepam	1 2 98 99	1 2 98 99
	10. Codeine	1 2 98 99	1 2 98 99
	11. Phenergan	1 2 98 99	1 2 98 99
	12. Cocaine	1 2 98 99	1 2 98 99
	13. Proxygin	1 2 98 99	1 2 98 99
	14. Effidin	1 2 98 99	1 2 98 99
	15. Velium 10	1 2 98 99	1 2 98 99
	16. Lysergic Acid Dithylamide(LSD)	1 2 98 99	1 2 98 99
	17. Nitrovate	1 2 98 99	1 2 98 99
	18. Combination (Specify) ____	1 2 98 99	1 2 98 99
	96. Others (Specify) _____	1 2 98 99	1 2 98 99

Q. N.	Questions	Coding Categories	Skip to Q.N.
204.1	Did you switch in the last month from one drug to another?	Yes 1 No..... 2	205
204.1.1	If yes	From _____ drug To _____ drug	
204.1.2	What is the reason for switching?	_____ _____	
205.	How many times would you say you injected drugs yesterday?	Times <input type="checkbox"/> 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 <input type="checkbox"/> <input type="checkbox"/>	
208.	How many times would you say you injected drugs on the last day?	Times <input type="checkbox"/> <input type="checkbox"/>	
209.	During the past one-week how often would you say you injected drugs?	Once a week 1 2-3 times a week 2 4-6 times a week 3 Once a day 4 2-3 times a day 5 4 or more times a day 6 Not injected in the last week 7 Don't know 98 No response..... 99	

3.0 NEEDLE SHARING BEHAVIORS

Q. N.	Questions	Coding Categories	Skip to Q.N.
301.	Think about the times, you have injected drugs yesterday/last day. How many times did you inject drugs that day? (Fill the number from answer to Q. 205 or 208 and verify by asking the respondent)	Times <input type="checkbox"/> <input type="checkbox"/>	
302.	The last time you injected, how did you get that syringe/needle? (Public place means places other than the IDU's home that are used to hide syringe/needle)	My friend/relative gave it to me after his use 1 Unknown person gave it to me..... 2 I picked it up from a public place which was left there by others ⁺ .. 3 I picked it up from a public place which was left there by myself ⁺ 4 I used a new needle/syringe given by NGO staff/volunteer..... 5 I used a needle/syringe which I purchased 6 I reused my own needle/syringe..... 7 Others (Specify) _____ 96 Don't know 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
302.1	If you were in a group the last time that you injected, how many different people in the group do you think used the same needle?	Nos. <input type="text"/> <input type="text"/> Injected alone 96	
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 . 2 I picked it up from a public place which was left there by others ⁺ 3 I picked it up from a public place which was left there by myself 4 I used a new needle/syringe given by NGO staff/ volunteer 5 I used a needle/syringe which I purchased 6 I reused my own needle/syringe 7 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 used the same needle?	Nos..... <input type="text"/> <input type="text"/> Injected alone 96	
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 2 I picked it up from a public place which was left there by others ⁺ 3 I picked it up from a public place which was left there by myself ⁺ 4 I used a new needle/syringe given by NGO staff/ volunteer 5 I used a needle/syringe which I purchased 6 I reused my own needle/sy..... 7 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 used the same needle?	Nos..... <input type="text"/> <input type="text"/> Injected alone 96	
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 to Q.N.
305.1	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? (Public place means 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	
	1. Your usual sexual partner	1 2 98 99	
	2. A sexual partner who you did not know	1 2 98 99	
	3. A friend	1 2 98 99	
	4. A drugs seller	1 2 98 99	
	5. Unknown Person	1 2 98 99	
96. Other (Specify) _____	1 2 98 99		
307.	With how many different injecting partners did you share needles or syringes in the past one-week? (Count everyone who injected from the same syringe)	Number of partners <input type="text"/> <input type="text"/> Don't know 98 No response 99	
308.	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times 1 Almost every-times 2 Sometimes 3 Never 4 Don't know 98 No response 99	
309.	In the past-week, did you ever inject with a pre-filled syringe? (By that I mean a syringe that was filled without you witnessing it)	Yes 1 No 2 Don't know 98 No response 99	
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 to Q.N.
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	314 314 314 314 314
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	316 316 316
315.	Where can you obtain new unused needles and syringes? (Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?"	Drugstore 1 Other shop..... 2 Health worker..... 3 Hospital 4 Drug wholesaler/drug agency 5 Family/relatives..... 6 Sexual partner 7 Friends 8 Other drugs users 9 Drugs seller 10 Needle exchange program of_____ 11 Theft from legitimate source 12 Buy on streets..... 13 Other (Specify) _____ 96	
316.	In the past one-year, did you ever inject drug in another city/district?	Yes 1 No..... 2 Don't' remember 98 No response..... 99	317 317 317
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 to Q.N.
316.3	When you injected drugs in another city, how often did you gave a syringe/needle to some one else?	Every times 1 Almost every-times..... 2 Sometimes..... 3 Never..... 4 Don't know 98 No response..... 99	
317.	Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?	Currently under treatment 1 Was in treatment but not now... 2 Have never received treatment 3 No response..... 99	401 401
318.	How many months ago did you last receive treatment or help for your drug use?	Months <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
319.	What kind of treatment or help have you received? (Do not read out the responses, probe asking, "Are there any other kinds of treatment that you've received?" Multiple Answers Possible.) Types of Treatments	Name of Institutions	
	1. Outpatient counseling		
	2. Self-help groups		
	3. Detoxification w/methadone		
	4. Maintenance w/methadone		
	5. Detoxification w/other drugs		
	6. Detoxification with no drug		
	7. Residential rehabilitation		
	8. Helped for <i>cold turkey</i>		
	9. Forced for <i>cold turkey</i>		
	96. Other (Specify) _____		
	99. No response		

4.0 SEXUAL HISTORY

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

Q. N.	Questions	Coding Categories	Skip to Q.N.
403.2	How many were female "sex worker"? (Partners to whom you bought or sold sex in exchange for money or drug)	Number <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
403.3	How many were female "non-regular partners"? (Sexual partners, you are not married to and have never lived with and did not have sex in exchange for money)	Number <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
404.	We have just talked about your female sexual partners? Have you ever had any male sexual partners also?	Yes 1 No 2 No response..... 99	501 501
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	501 501
404.2	With how many different male partners have you had anal sex in the last 12 months?	Number <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
404.3	The last time you had anal sex with a male sex partner did you and your partner use a condom?	Yes 1 No..... 2 Don't Know 98 No response 99	
404.4	How often have you used a condom in an anal sex with male sex partner in the past 12 months	Every Times 1 Almost Every Times 2 Some Times 3 Never Used 4 Don't Know 98 No response 99	

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

Q. N.	Questions	Coding Categories	Skip to Q.N.
501.	Did you have sex with female regular partner during last 12 months?	Yes 1 No..... 2	502
501.1	Think about your most recent female regular sexual partner. How many times did you have sex with her during last one-month?	Times <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
501.2	The last time you had sex with a female regular partner did you and your partner use a condom?	Yes 1 No..... 2 Don't know 98 No response..... 99	501.4 501.4 501.4
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 to Q.N.
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 had ever-anal sex with your female regular partners?	Yes 1 No..... 2 Don't know 98 No response..... 99	502 502 502
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? <i>(Check 403.2 and circle the response of Q. 502)</i>	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 to many female sex workers you sold sex in exchange for money or drugs?	No..... <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
502.1.1	With how many sex workers you had sex in last month by paying them money or drugs?	No..... <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
502.2	Think about your most recent female sex worker. How many times did you have sexual intercourse with her in the past one-month?	Times <input type="text"/> <input type="text"/> Don't know 98 No response..... 99	
502.3	The last time you had sex with a female sex worker did you and your partner use a condom?	Yes 1 No..... 2 Don't know 98 No response..... 99	502.5 502.5 502.5
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 to Q.N.
502.5	How often have you used a condom with female sex workers in the past year?	Every times 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99	
502.6	Do you know whether female sex worker with whom you had sex also inject 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	503 503 503
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 <input type="text"/> <input type="text"/> Don't know 98 No response 99	
503.2	The last time you had a sex with a female non-regular partner did you and your partner use a condom?	Yes 1 No 2 Don't know 98 No response 99	503.4 503.4 503.4
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-times 2 Sometimes 3 Never used 4 Don't know 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
503.5	Did you know whether your female non-regular partners also inject drugs?	Yes 1 No..... 2 Don't know 98 No response..... 99	
503.6	Have you ever had anal sex with your female non-regular partners?	Yes 1 No..... 2 Don't know 98 No response..... 99	504 504 504
503.7	The last time you had an anal sex with a female non-regular partner, did you and your partner use a condom?	Yes 1 No..... 2 Don't know 98 No response..... 99	
503.8	How often have you used a condom in an anal-sex with female non-regular partners in the past year?	Every times 1 Almost every-times 2 Sometimes 3 Never used 4 Don't know 98 No response..... 99	
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 <input type="text"/> <input type="text"/> 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	504.4 504.4 504.4
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 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	
504.4	How often have you used a condom in an anal sex with a male partner in 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 injects 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	507

Q. N.	Questions	Coding Categories	Skip to Q.N.
506.	If yes, did you or your partner use a condom when you had sex last month?	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 4 Male friend..... 5 Don't Know 98 No response 99	
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, 502.3, 501.7, 501.8, 502.5, 502.8, 502.9, 503.2, 503.4, 503.7, 503.8, 504.4, 506, 508 and circle responses Q. 601 & 602)

Q. N.	Questions	Coding Categories	Skip to Q.N.
601.	Have you ever heard of a male condom? (Show picture or sample of condom)	Yes 1 No..... 2 Don't know 98 No response..... 99	701 701 701
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 Don't know 98 No response..... 99	701 701
604.	From which place or people, you can obtain condoms? (Multiple answer possible. Don't read the list but should probe)	Shop 1 Pharmacy 2 Clinic 3 Hospital 4 Family planning center 5 Bar/Guest house/Hotel 6 Health worker 7 Peer Educator/outreach educator 8 Friend 9 <i>Pan Pasa</i> 10 Others (Specify) _____ 96 No response 99	
605.	How long would it take (<i>from your house or the place where you work</i>) to obtain a condom?	Less than 30 minutes..... 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 to Q.N.
701.	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes 1 No..... 2 No response..... 99	704 704
702.	Can you describe any symptoms of STIs in women? (Do not read possible answers, multiple answers possible.)	Abdominal pain..... 1 Genital discharge 2 Foul smelling 3 Burning pain on urination 4 Genital ulcers/sore 5 Swelling in groin area 6 Itching 7 Other (Specify) 96 Don't know 98 No response..... 99	
703.	Can you describe any symptoms of STIs in men? (Do not read possible answers, multiple answer possible)	Genital discharge 1 Burning pain on urination 2 Genital ulcers/sore blister 3 Swellings in groin area..... 4 Others (Specify) 96 Don't know 98 No response..... 99	
704.	Have you had a genital discharge/burning urination during the last 12 months?	Yes 1 No..... 2 Don't know 98 No response..... 99	705 705 705
704.1	Currently, do you have a genital discharge/burning urination problem?	Yes 1 No..... 2 Don't know 98 No response..... 99	
705	Have you had a genital ulcer/sore blister during the last 12 months?	Yes 1 No..... 2 Don't know 98 No response..... 99	706 706 706
705.1	Currently, do you have a genital ulcer/sore blister problem?	Yes 1 No..... 2 Don't know 98 No response..... 99	
706.	Last time you had a genital discharge/ burning urination or a genital ulcer/sore blister, where did you go for treatment?	Did not seek treatment 1 With private doctor 2 In hospital 3 No Symptoms 4 Others (Specify) 96	

8.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV/AIDS

Q. N.	Questions	Coding Categories	Skip to Q.N.
801.	Have you ever heard of HIV or the disease called AIDS?	Yes 1 No..... 2 No response..... 99	804 804
802.	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes 1 No..... 2 No response..... 99	804
803.	Do you have close relative or close friend who is infected with HIV or has died of AIDS?	Yes, a close relative 1 Yes, a close friend 2 No..... 3 No response..... 99	
804.	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly every time they have sex?	Yes 1 No..... 2 Don't know 98 No response..... 99	
805.	Can a person get HIV, from mosquito bites?	Yes 1 No..... 2 Don't know 98 No response..... 99	
806.	Can a person protect himself/herself from HIV, by having one uninfected faithful sex partner?	Yes 1 No..... 2 Don't know 98 No response..... 99	
807.	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse?	Yes 1 No..... 2 Don't know 98 No response..... 99	
808.	Can a person get HIV, by sharing a meal with someone who is infected?	Yes 1 No..... 2 Don't know 98 No response..... 99	
809.	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes 1 No..... 2 Don't know 98 No response..... 99	
810.	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? (Oral or inhaling drugs)	Yes 1 No..... 2 Don't know 98 No response..... 99	
811.	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes 1 No..... 2 Don't know 98 No response..... 99	813 813 813
812.	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? (Do not read the possible answers, multiple answer possible)	Take medication (Antiretrovirals) 1 Others (Specify) 96 Don't know 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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?	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 get a confidential test to find out if they are infected with HIV? (By confidential, I mean that no one will know the result if you don't want him or her to know it.)	Yes 1 No..... 2 Don't know 98 No response..... 99	
815	I don't want to know the result, but have you ever had an HIV test?	Yes 1 No..... 2 No response..... 99	901 901
816.	Did you voluntarily undergo the HIV test, or were you required to have the test?	Voluntary 1 Required..... 2 No response..... 99	
817.	Please do not tell me the result, but did you find out the result of your HIV test?	Yes 1 No..... 2 No response..... 9	818 818
817.1	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	
818.	When did you have your most recent HIV test?	Within the past 12 months 1 Between 13-24 months 2 Between 25-48 months 3 More than 49 months 4 Don't know 98 No response..... 99	

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

Q. N.	Questions	Coding Categories		Skip to Q.N.																																																						
901.	Of the following sources of information, from which sources have you learned about HIV/AIDS? <i>(Read the following list, multiple answers possible)</i>	<table border="1"> <thead> <tr> <th data-bbox="842 461 1059 501">Source of Information</th> <th data-bbox="1059 461 1139 501">Yes</th> <th data-bbox="1139 461 1275 501">No</th> </tr> </thead> <tbody> <tr><td data-bbox="842 501 1059 539">1. Radio</td><td data-bbox="1059 501 1139 539">1</td><td data-bbox="1139 501 1275 539">2</td></tr> <tr><td data-bbox="842 539 1059 577">2. Television</td><td data-bbox="1059 539 1139 577">1</td><td data-bbox="1139 539 1275 577">2</td></tr> <tr><td data-bbox="842 577 1059 616">3. Newspapers/Magazines</td><td data-bbox="1059 577 1139 616">1</td><td data-bbox="1139 577 1275 616">2</td></tr> <tr><td data-bbox="842 616 1059 654">4. Pamphlets/Posters</td><td data-bbox="1059 616 1139 654">1</td><td data-bbox="1139 616 1275 654">2</td></tr> <tr><td data-bbox="842 654 1059 692">5. School/Teachers</td><td data-bbox="1059 654 1139 692">1</td><td data-bbox="1139 654 1275 692">2</td></tr> <tr><td data-bbox="842 692 1059 730">6. Health Worker/Volunteer</td><td data-bbox="1059 692 1139 730">1</td><td data-bbox="1139 692 1275 730">2</td></tr> <tr><td data-bbox="842 730 1059 768">7. Friends/Relatives</td><td data-bbox="1059 730 1139 768">1</td><td data-bbox="1139 730 1275 768">2</td></tr> <tr><td data-bbox="842 768 1059 806">8. Work Place</td><td data-bbox="1059 768 1139 806">1</td><td data-bbox="1139 768 1275 806">2</td></tr> <tr><td data-bbox="842 806 1059 844">9. People from NGO</td><td data-bbox="1059 806 1139 844">1</td><td data-bbox="1139 806 1275 844">2</td></tr> <tr><td data-bbox="842 844 1059 882">10. Video Van</td><td data-bbox="1059 844 1139 882">1</td><td data-bbox="1139 844 1275 882">2</td></tr> <tr><td data-bbox="842 882 1059 920">11. Street Drama</td><td data-bbox="1059 882 1139 920">1</td><td data-bbox="1139 882 1275 920">2</td></tr> <tr><td data-bbox="842 920 1059 958">12. Cinema Hall</td><td data-bbox="1059 920 1139 958">1</td><td data-bbox="1139 920 1275 958">2</td></tr> <tr><td data-bbox="842 958 1059 996">13. Community Event/Training</td><td data-bbox="1059 958 1139 996">1</td><td data-bbox="1139 958 1275 996">2</td></tr> <tr><td data-bbox="842 996 1059 1034">14. Bill Board/Sign Board</td><td data-bbox="1059 996 1139 1034">1</td><td data-bbox="1139 996 1275 1034">2</td></tr> <tr><td data-bbox="842 1034 1059 1072">15. Comic Book</td><td data-bbox="1059 1034 1139 1072">1</td><td data-bbox="1139 1034 1275 1072">2</td></tr> <tr><td data-bbox="842 1072 1059 1111">16. Community Workers</td><td data-bbox="1059 1072 1139 1111">1</td><td data-bbox="1139 1072 1275 1111">2</td></tr> <tr><td data-bbox="842 1111 1059 1133">96. Others (Specify) _____</td><td data-bbox="1059 1111 1139 1133">1</td><td data-bbox="1139 1111 1275 1133">2</td></tr> </tbody> </table>		Source of Information	Yes	No	1. Radio	1	2	2. Television	1	2	3. Newspapers/Magazines	1	2	4. Pamphlets/Posters	1	2	5. School/Teachers	1	2	6. Health Worker/Volunteer	1	2	7. Friends/Relatives	1	2	8. Work Place	1	2	9. People from NGO	1	2	10. Video Van	1	2	11. Street Drama	1	2	12. Cinema Hall	1	2	13. Community Event/Training	1	2	14. Bill Board/Sign Board	1	2	15. Comic Book	1	2	16. Community Workers	1	2	96. Others (Specify) _____	1	2	
Source of Information	Yes	No																																																								
1. Radio	1	2																																																								
2. Television	1	2																																																								
3. Newspapers/Magazines	1	2																																																								
4. Pamphlets/Posters	1	2																																																								
5. School/Teachers	1	2																																																								
6. Health Worker/Volunteer	1	2																																																								
7. Friends/Relatives	1	2																																																								
8. Work Place	1	2																																																								
9. People from NGO	1	2																																																								
10. Video Van	1	2																																																								
11. Street Drama	1	2																																																								
12. Cinema Hall	1	2																																																								
13. Community Event/Training	1	2																																																								
14. Bill Board/Sign Board	1	2																																																								
15. Comic Book	1	2																																																								
16. Community Workers	1	2																																																								
96. Others (Specify) _____	1	2																																																								
902.	Has anyone give you following information or items in the past year? <i>(Multiple answer possible, read the list)</i>	<table border="1"> <thead> <tr> <th data-bbox="842 1205 1059 1245">Items</th> <th data-bbox="1059 1205 1139 1245">Yes</th> <th data-bbox="1139 1205 1275 1245">No</th> </tr> </thead> <tbody> <tr><td data-bbox="842 1245 1059 1283">1. Condom</td><td data-bbox="1059 1245 1139 1283">1</td><td data-bbox="1139 1245 1275 1283">2</td></tr> <tr><td data-bbox="842 1283 1059 1344">2. Brochure/Booklets/Pamphlets about HIV/AIDS</td><td data-bbox="1059 1283 1139 1344">1</td><td data-bbox="1139 1283 1275 1344">2</td></tr> <tr><td data-bbox="842 1344 1059 1382">3. Information about HIV/AIDS</td><td data-bbox="1059 1344 1139 1382">1</td><td data-bbox="1139 1344 1275 1382">2</td></tr> <tr><td data-bbox="842 1382 1059 1408">96. Others (Specify) _____</td><td data-bbox="1059 1382 1139 1408">1</td><td data-bbox="1139 1382 1275 1408">2</td></tr> </tbody> </table>		Items	Yes	No	1. Condom	1	2	2. Brochure/Booklets/Pamphlets about HIV/AIDS	1	2	3. Information about HIV/AIDS	1	2	96. Others (Specify) _____	1	2																																								
Items	Yes	No																																																								
1. Condom	1	2																																																								
2. Brochure/Booklets/Pamphlets about HIV/AIDS	1	2																																																								
3. Information about HIV/AIDS	1	2																																																								
96. Others (Specify) _____	1	2																																																								

10.0 PROMOTION OF CONDOM

(If answer to Q. 601 "No" Go to Q. 1004)

Q. N.	Questions	Coding Categories		Skip to Q.N.
1001.	In the past one-year have you seen, read or heard any advertisements about condoms from the following sources? (<i>Read the following list, multiple answer possible</i>)			
	Sources	Yes	No	
	1. Radio	1	2	
	2. Television	1	2	
	3. Pharmacy	1	2	
	4. Health Post	1	2	
	5. Health Center	1	2	
	6. Hospital	1	2	
	7. Health Workers/Volunteers	1	2	
	8. Friends/Neighbors	1	2	
	9. NGOs	1	2	
	10. Newspapers/Posters	1	2	
	11. Video Van	1	2	
	12. Street Drama	1	2	
	13. Cinema Hall	1	2	
	14. Community Event/Training	1	2	
	15. Bill Board/Sign Board	1	2	
	16. Comic Book	1	2	
17. Community Workers	1	2		
96. Others (Specify) _____	1	2		
1002.	Have you ever seen, heard or read following messages/characters during past one year? (<i>Multiple answer possible</i>)			
	Message/characters	Yes	No	
	1. Jhilke Dai Chha Chhaina Condom	1	2	
	2. Condom Kina Ma Bhaya Hunna Ra	1	2	
	3. Youn Rog Ra AIDS Bata Bachnalai Rakhnu Parchha Sarbatra Paine Condom Lai	1	2	
	4 Ramro Sanga Prayog Gare Jokhim Huna Dinna Bharpardo Chhu Santosh Dinchhu Jhanjhat Manna Hunna	1	2	
	5. Condom Bata Surakchhya, Youn Swasthya Ko Rakchhya AIDS Ra Younrog Bata Bachna Sadhai Condom Ko Prayog Garau	1	2	
	6. HIV/AIDS Bare Aajai Dekhee Kura Garau	1	2	
	7. Ek Apas Ka Kura	1	2	
	8. Maya Garaun Sadbhav Badaun	1	2	
	9. Des Pardes	1	2	
	10. Manis Sanga Manis Mile hara Jeeta Kasko Hunchha	1	2	
	96. Others (Specify) _____	1	2	
1003.	Have you ever heard/seen or read messages or materials other than mentioned above?	Yes 1 No..... 2		1004

Q. N.	Questions	Coding Categories	Skip to Q.N.
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? Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months – knowing each other	Total _____ Don't know 98 No response 99	1008 1008
1005.1	Among them persons 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 [____] Don't know 98 No response 99 Not applicable 97	
1007	Again, among those guys, please try to estimate the number of people by religion:	Hindu [____] Buddhist [____] Muslim [____] Christian [____] Others (Specify) _____ [____] Don't know 98 No response 99 Not applicable 97	
1008	How is the person who gave you the coupon related to you ?	A close friend..... 1 A friend 2 Your sexual partner 3 A relative..... 4 A stranger..... 5 Others (Specify)..... 6 Don't know 98 No response 99	

11.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

Q. N.	Questions	Coding Categories	Skip to Q.N.
1101	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizers (CM) or Community Educators (CE) in the last 12 months?	Yes 1 No..... 2 No response..... 99	1105
1102	When you met/discussed/interacted with PE or OE in what kind of activities were you involved? (Multiple answers. DO NOT READ the possible answers)	Discussion on how HIV/AIDS is/isn't transmitted..... 1 Discussion on how STI is/isn't transmitted..... 2 Discussion on safe injecting behavior 3 Regular/non-regular use of condom..... 4 Demonstration on using condom correctly..... 5 Others (Specify)..... 96	
1103	Do you know from which organization were they? (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 you been visited by PE, OE, CM and/or CE 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

Q. N.	Questions	Coding Categories	Skip to Q.N.
1106	When you went to the out reach center (DIC, IC or CC), in which activities did you take part? (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	
1109	Have you visited any STI clinic in the last 12 months?	Yes 1 No..... 2	1113
1110	When you visited such STI clinic in what activities were you involved? (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	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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	When you visited such VCT center in what activities were you involved? (Multiple answers. DO NOT READ the possible answers)	Received pre-HIV/AIDS test counseling 1 Blood sample taken for HIV/AIDS test 2 Received post HIV/AIDS test counseling 3 Received information on safe injecting behavior..... 4 Received HIV/AIDS test result..... 5 Received counseling on using condom correctly in each sexual intercourse..... 6 Received information on HIV/AIDS window period 7 Took a friend with me 8 Other (Specify)_____ 96	
1115	Do you know which organizations run those VCT centers? (Multiple answers. DO NOT READ the possible answers)	AMDA 1 Youth Vision..... 2 SACTS 3 NFCC 4 CAC 5 Naulo Ghumti 6 NSARC 7 NRCS 8 FPAN 9 WATCH 10 Namuna 11 Others (Specify) _____ 96 Don't know 98	
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	

Q. N.	Questions	Coding Categories	Skip to Q.N.
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	When you participated in such events in what activities were you involved? (Multiple answers. DO NOT READ the possible answers)	Street drama 1 AIDS Day 2 Condom Day 3 Video Shows 4 Group discussions 5 Talk programs 6 HIV/AIDS related training 7 HIV/AIDS related Workshops.. 8 Condom use demonstrations 9 Others (Specify) 96	
1119	Do you know which organizations organized those activities? (Multiple answers. DO NOT READ the possible answers given below)	AMDA 1 HELP 2 KYC 3 Youth Vision 4 NFCC 5 LALS 6 Naulo Ghumti 7 WATCH 8 GWP..... 9 NRCS 10 NSARC 11 AHH 12 Recovery Nepal..... 13 SAHARA 14 CSG 15 Others (Specify) 96 Don't know 98	
1120	How many times have you participated in such activities in the last 12 months?	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 program 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 to Q.N.
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 it to remain 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 them?	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 a colleague who is working with you has HIV but he is not sick, should he be allowed to continue working?	Yes 1 No..... 2 Don't know 98 No response..... 99	

☞ Thank You. ☞

ANNEX – 2 Formula Used in Sample Design

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

n = required minimum sample size per survey round or comparison groups

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

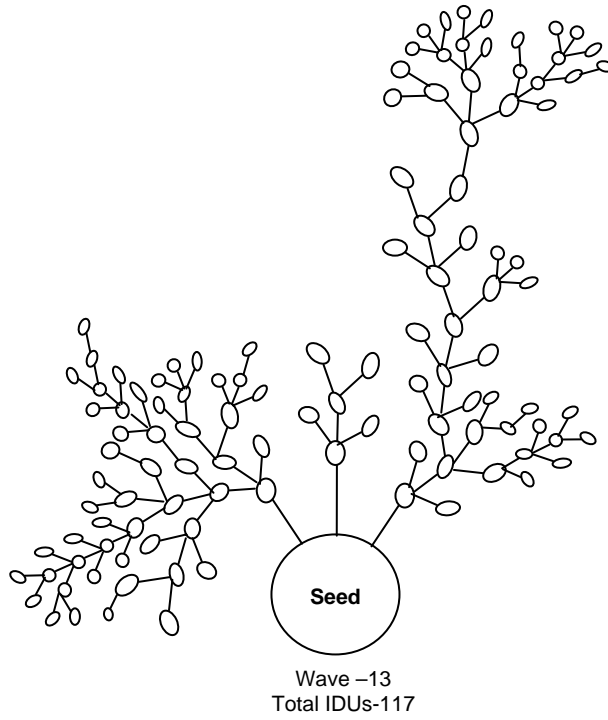
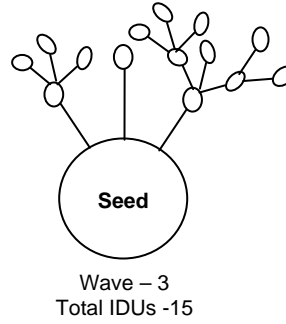
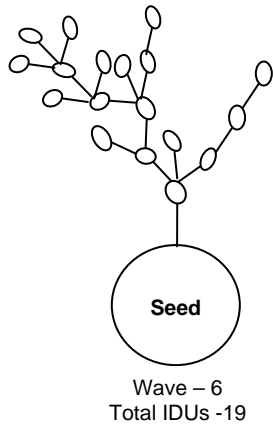
P₁ = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

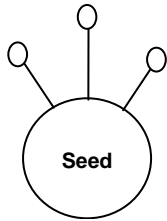
P₂ = the expected level of the indicator either at some future date or for the project area such that the quantity (P₂-P₁) is the size of the magnitude of change it is desired to be able to detect

Z_α = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P₂-P₁) would not have occurred by chance (α – the level of statistical significance), and

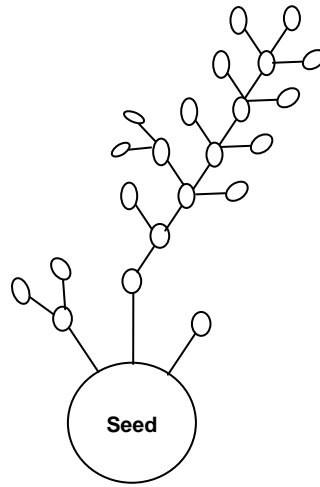
Z_β = the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P₁-P₂) if one actually occurred (β – statistical power)

ANNEX – 3 - Respondent Driven Sample of IDUs

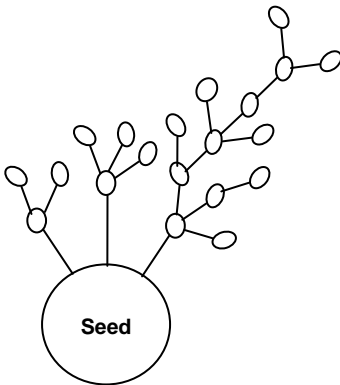




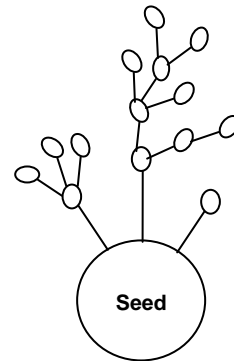
Wave - 1
Total IDUs - 4



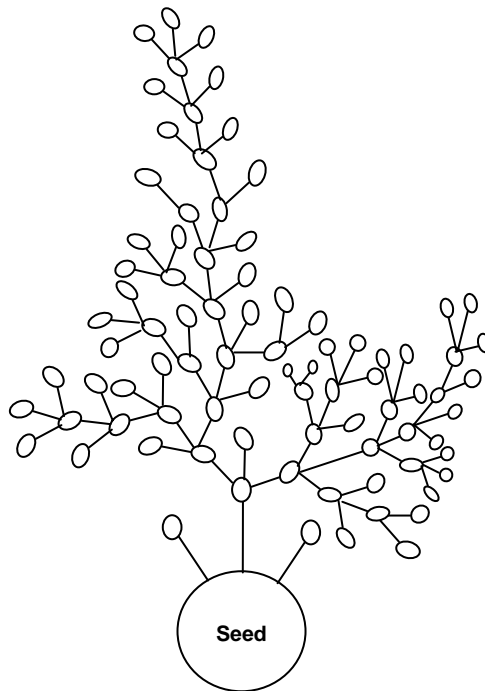
Wave - 7
Total IDUs - 23



Wave - 6
Total IDUs-21



Wave - 4
Total IDUs-15



Wave - 11
Total IDUs-86

ANNEX – 4 Oral Informed Consent

Title: Integrated Bio-behavioral Survey among Injecting Drug Users in Kathmandu Valley, Pokhara Valley, Eastern *terai* Highway Districts, and Western to Far Western *terai* Highway Districts.

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

Principal Investigator/s: Jacqueline McPherson, FHI/Nepal
Dr. 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 HIV/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.

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. 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.

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 due to bleeding bruising during blood drawing. Providing blood sample does not put you at any risk. Some of the questions we ask might put you in trouble or make you feel uncomfortable to answer them. You are free not to answer such questions and also to withdraw yourself from participating in the research process at any time you like to do so. You might feel some mental stress after getting your test results. But you will get proper pre and posttest counseling on HIV and STI through a qualified counselor.

There may be some risk that people may see you associated with the study, either now or when you return for your test results.

Possible Benefits

You will be provided with free treatment, if currently you have any STI symptoms. You will be given lab test results 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 are not treated for this, you will be offered free treatment. You will also be provided with information on safe sex. The information we obtain from this research will help to plan and formulate strategies to control and prevent further spread of HIV/AIDS and other sexually transmitted diseases.

At the time of sample collection the study team members will give you the detail 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. Someone from FHI might want to ask you questions about being in the research, but you do not have to answer them. A court of law could order medical records shown to other people, but that is unlikely.

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 and an additional NRs. 50.0 (US\$ 0.70) for each successful referral of peers for the study. 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, call:

Jacqueline McPherson, 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

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 **Jacqueline McPherson, 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 Check List

CONFIDENTIAL

INTEGRATED BIO- BEHAVIORAL SURVEY (IBSS) AMONG INJECTING DRUG USERS IN SELECTED SITES OF NEPAL FHI/NEW ERA/SACTS – 2007

Clinical/Lab Checklist

Respondent

Date: 2064/___/___

Name of Clinician : _____

Name of Lab Technician : _____

			<u>Yes</u>	<u>No</u>
(A) Clinical TEST	(B) Specimen collection			
Weight : _____ Kg	Pre-test counseled		1	2
B.P. : _____ mm of Hg	Blood Collected for HIV & Syphilis		1	2
Pulse : _____	Date & place for post-test results given		1	2
Temperature : _____ ° F	Condom given		1	2
	IEC materials given		1	2

1.0 Syndromic Treatment Information

101. Have you experienced genital discharge/burning urination/swelling and tenderness of testis or epididymis in the past one month?

1. Yes 2. No

[If yes, give urethral discharge/scrotal swelling syndrome treatment]

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

1. Yes 2. No

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

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

1. Yes 2. No

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

ANNEX – 6 Study Centers

District	Lab Centers	No. of Centers	Sample Covered	Total
Kathmandu Valley	Koteshwor	2	151	300
	Sundhara		149	

ANNEX – 7 Participation in Post Test Counseling

Date	Counseling Center	Expected Client	Client Counseled		Client with HIV+	Client with HIV-
			N	%		
June 29 – August 15,2007	Youth Vision	300	20	6.7	3	17

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

Injecting practice	First round (2002)		Second round (2005)		Third round (2007)	
	N	%	N	%	N	%
Reasons for not injecting yesterday						
To quit slowly	9	36.0	12	29.3	5	11.1
Lack of money	7	28.0	15	36.6	26	57.8
Unavailability/Scarcity of drugs	3	12.0	3	7.3	5	11.1
Busy in house work/lack of time	2	8.0	3	7.3	5	11.1
Taking other medicine	1	4.0	4	9.8	1	2.2
Illness	1	4.0	2	4.9	4	8.9
Attending treatment center	1	4.0	0	0.0	0	0.0
Others	1	4.0	3	7.3	4	8.9
Total	25	*	41	*	45	*

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

ANNEX – 9 Part of the Body where IDUs Inject Drugs

Typical injection points	First round (2002)		Second round (2005)		Third round (2007)	
	N=303	%	N=300	%	N=300	%
Arm	215	71.0	52	17.3	126	42.0
Wrist	62	20.5	111	37.0	44	14.7
Forearm	8	2.6	73	24.3	0	0.0
Calf	6	2.0	12	4.0	0	0.0
Thigh	5	1.6	27	9.0	5	1.7
Vein of neck	3	1.0	3	1.0	0	0.0
Back of palm	0	0.0	15	5.0	1	0.3
Arch	0	0.0	3	1.0	0	0.0
Finger	0	0.0	3	1.0	0	0.0
Armpit	0	0.0	1	0.3	22	7.3
Elbow	0	0.0	0	0.0	8	2.7
Joint of leg & hip	0	0.0	0	0.0	48	16.0
Others	4	1.3	0	0.0	46	15.3

ANNEX – 10 Gathering Place of IDUs for Injecting Drugs

S.N.	Gathering places of IDUs	First round (2002)		Second round (2005)		Third round (2007)	
		N	%	N	%	N	%
1.	Own room/friends room	117	38.6	112	37.3	127	42.3
2.	Chowk/tole/galli/road	54	17.8	29	9.7	4	1.3
3.	Open ground/Town planning area	41	13.5	0	0.0	0	0.0
4.	Forest/Bushes	24	7.9	84	28.0	73	24.3
5.	Toilet/Public toilet	16	5.3	7	2.3	20	6.7
6.	Area surrounding Bridges	16	5.3	0	0.0	0	0.0
7.	Temple area	11	3.6	7	2.3	15	5.0
8.	River Bank/Slum area	11	3.6	58	19.3	46	15.3
9.	Around Cinema hall	3	0.9	0	0.0	0	0.0
10.	Hospital area	2	0.7	0	0.0	0	0.0
11.	Vacant house	2	0.7	0	0.0	6	2.0
12.	Campus/School	0	0.0	0	0.0	2	0.7
13.	Hotel/lodge/restaurant	0	0.0	0	0.0	2	0.7
14.	Others	6	2.0	3	1.0	5	1.7
	Total	303	100.0	300	100.0	300	100.0

ANNEX – 11 Combination of Different Drugs Injected by IDUs

S.N.	Drugs combination	Third Round (2007)
		N=276
1	Norphin + Diazepam	117
2	Norphin + Diazepam + Phenargan	39
3	Norphin + Diazepam + Phenargan + Algic	20
4	Norphin +Avil+ Diazepam + Phenargan + Algic	13
5	Norphin + Avil + Diazepam + Phenargan	12
6	Norphin + Calmpose	9
7	Norphin +Avil+ Diazepam + Algic	6
8	Norphin + Phenaromain + Diazepam	5
9	Norphin + Diazepam + Algic	5
10	Norphin + Avil+Algic+ Phenargan	4
11	Norphin + Phenargan	3
12	Norphin + Avil	3
13	Norphin + Algic+ Phenargan	3
14	Norphin + Avil + Diazepam	3
15	Norphin + Diazepam + Phenargan + Calmpose	3
16	Norphin + Diazepam +Algic+Phenargan + Calmpose	3
17	Norphin + Phenaromain +Diazepam +Algic+Phenargan +	3
18	Norphin + Diazepam + Calmpose	2
19	Norphin + Algic+Phenargan + Calmpose	2
20	Norphin +Avil+ Phenaromain + Diazepam	2
21	Norphin + Avil + Diazepam + Phenargan + Calmpose	2
22	Diazepam +Nytrosan	1
23	Diazepam + Phenargan	1
24	Norphin+Phenaromain	1
25	Phenargan + Nitrovate	1
26	Norphin + Diazepam +Brown sugar	1
27	Norphin + Phenargan + Dygine	1
28	Norphin +Algic + Calmpose	1
29	Norphin + Phenargan + Calmpose	1
30	Phenargan + Diazepam + algic	1
31	Avil+Algic+ Phenargan	1
32	Algic+ Phenargan+Buskiman	1
33	Norphin + Diazepam +Phenargan + White sugar	1
34	Norphin + Diazepam + Phenargan + Avilvet	1
35	Norphin + Avil + Phenargan + Calmpose	1
36	Norphin + Avil+Algic+ Saipam+Min	1
37	Norphin + Phenaromain + Diazepam + Phenargan	1
38	Norphin +Avil +Phenaromain +Diazepam +Phenargan	1

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

ANNEX – 12 Drug Switching Practice of IDUs and Reasons for it

Drug switching behavior of IDUs	First Round (2002)		Second Round (2005)		Third Round (2007)	
	N	%	N	%	N	%
Switched from one drugs to another drugs in the past month						
Yes	5	1.7	8	2.7	2	0.7
No	298	98.3	292	97.3	298	99.3
Total	303	100.0	300	100.0	300	100.0
Switched from						
Tidigesic to Brown Sugar	2	40.0	2	25.0	0	0.0
Brown Sugar to Tidigesic	2	40.0	0	0.0	0	0.0
Tidigesic to Nitrovate + Nitrosun	1	20.0	0	0.0	0	0.0
Norphin to Talgesic	0	0.0	2	25.0	0	0.0
Tidigesic to Proxyvon	0	0.0	1	12.5	0	0.0
Tidigesic to Tylegenic	0	0.0	1	12.5	0	0.0
Norphin to Brown Sugar	0	0.0	1	12.5	0	0.0
Norphin to Tylegenic	0	0.0	1	12.5	0	0.0
Norphin+ Diazepam to Brown Sugar	0	0.0	0	0.0	2	100.0
Total	5	100.0	8	100.0	2	100.0
Reasons for switching *						
Low Tips in Tidigesic	2	40.0	0	0.0	0	0.0
Unavailability/scarcity of drugs	1	20.0	7	87.5	1	50.0
To reduce Tidigesic	1	20.0	0	0.0	0	0.0
High price of Brown Sugar	1	20.0	0	0.0	0	0.0
Heavy tips in Brown Sugar	1	20.0	0	0.0	0	0.0
Easy to by Brown Sugar	1	20.0	0	0.0	0	0.0
Enough money to buy Brown Sugar	1	20.0	0	0.0	0	0.0
Lack of money	0	0.0	1	12.5	0	0.0
Nerve Problem	0	0.0	0	0.0	1	50.0
Others	0	0.0	1	12.5	0	0.0
Total	5	*	8	*	2	*

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

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

Types of treatments	Residential rehabilitation	Helped for cold turkey	Without drug	Maintenance with methadone	With other drug	Detoxification with methadone	Other treatment/help	Outpatient counseling
Types of institutions								
n=117	%	%	%		%	%		%
Youth Vision	14.5	-	0.9	-	2.6	0.9	0.9	3.4
Nav Jiwan Punarsthapana Kendra	0.9	-	-	-	-	-		-
Ashara Sudhar Kendra	3.4	-	-	-	-	-		-
Richmond Fellowship Center	6.8	-	-	-	1.7	-		0.9
LALS	3.4	-	-	-	-	-		-
Mukti Kendra	0.9	-	-	-	-	-		-
Sangati	2.6	-	-	-	-	-	0.9	-
Own Home	-	0.9	0.9	-	-	-	-	-
Pratigya drop in center	1.7	-	-	-	0.9	-	0.9	0.9
Freedom Rehabilitation center	0.9	-	-	-	-	-		0.9
Aasha		-	-	-	-	-	0.9	0.9
Nav Kiran Ashram/Rehabilitation center/Nav Kiran Sansthan	13.7	-	-	-	1.7	-		-
The Recovery Group	2.6	-	-	-	-	-		-
Teaching Hospital	-	-	-	-	-	-	0.9	
Others	20.5	2.6	6.0	-	6.0	-	0.9	-
Don't Know	-	-	-	0.9	-	-	-	-
Total	71.8	3.4	7.7	0.9	16.2	0.9	5.1	6.8

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 for not using condom	First Round (2002)		Second Round (2005)		Third Round (2007)	
	N = 303	%	N = 300	%	N=300	%
Reasons for not using condom with regular partner in the last sexual intercourse						
Not available	2	3.1	0	0.0	1	2.2
Partner objected	4	6.2	3	6.5	1	2.2
Don't like them	16	25.0	8	17.4	13	28.9
Used other contraceptive	21	32.8	15	32.6	22	48.9
Didn't think it was necessary	43	67.2	27	58.7	22	48.9
Didn't think of it	2	3.1	2	4.3	1	2.2
Wish to have child	0	0.0	1	2.2	1	2.2
Trust partner	0	0.0	0	0.0	4	8.9
Wife is pregnant	0	0.0	0	0.0	2	4.4
Others	1	1.6	0	0.0	0	0.0
Total	64	*	46	*	45	*
Reasons for not using condom with sex worker in the last sexual intercourse						
Not available	8	57.1	5	35.7	8	57.1
Partner objected	0	0.0	4	28.6	1	7.1
Don't like them	5	35.7	2	14.3	4	28.6
Didn't think it was necessary	0	0.0	2	14.3	1	7.1
Didn't think of it	2	14.3	1	7.1	3	21.4
Trust partner	0	0.0	0	0.0	1	7.1
Others	2	14.3	0	0.0	1	7.1
Total	18	*	14	*	14	*
Reasons of not using condom with non-regular partner in the last sexual intercourse						
Not available	7	35.0	7	38.9	11	30.6
Partner objected	1	5.0	1	5.6	4	11.1
Don't like them	2	10.0	2	11.1	8	22.2
Used other contraceptive	1	5.0	0	0.0	5	13.9
Didn't think it was necessary	10	50.0	7	38.9	11	30.6
Didn't think of it	4	20.0	4	22.2	5	13.9
Trust partner	0	0.0	0	0.0	5	13.9
Sexual satisfaction	0	0.0	0	0.0	1	2.8
Others	4	20.0	0	0.0	1	2.8
Total	20	*	18	*	36	*

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