

**Integrated Biological and Behavioral Surveillance (IBBS)  
Survey among Female Injecting Drug Users (FIDUs) in  
Pokhara Valley**

**Round I -2017**



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

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The IBBS Survey is part of the National HIV Surveillance Plan. The field work of this survey was carried out by School of Planning, Monitoring, Evaluation and Research and the quality assurance by National Public Health Laboratory with technical and financial assistance from the NCASC.

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This was the first round of Integrated Biological and Behavioral Surveillance Survey among FIDUs of Pokhara Valley, as part of the National HIV Surveillance Plan. The survey was conducted with the technical and financial support from National Centre for AIDS and STD Control (NCASC). It aimed at generating the baseline evidence about the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C among the FIDU; their high-risk behaviours; program exposures and exploring strategic information on HIV and STI needed to monitor and guide the National HIV and AIDS program.

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We believe that the findings of this survey will be valuable for the policy makers, program designers, planners and implementing agencies to plan the new programs and revise the strategies to address the HIV epidemic of Nepal.

**Dr Tarun Paudel**  
**Director, NCASC**

## ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
ART	Anti-Retroviral Therapy
CAC	Community Action Centre
CE	Community Educator
CM	Community Mobilizer
CHBC	Community Home Based Care
DIC	Drop-in-Centre
EQA	External Quality Assessment
EQAS	External Quality Assurance Scheme
FP	Family Planning
FSW	Female Sex Worker
GOs	Governmental Organizations
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counseling
IBBS	Integrated Biological and Behavioral Surveillance
ID	Identification Number
KAP	Key Affected Populations
MSM	Men who have Sex with Men
NCASC	National Centre for AIDS and STD Control
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
NPHL	National Public Health Laboratory
OE	Outreach Educator
PE	Peer Educator
PHC	Primary Health Care
PLHIV	People living with HIV
PMTCT	Prevention of Mother to Child Transmission
PWID	People Who Inject Drugs
RPR	Rapid Plasma Reagin
SD	Standard deviation
SITWG	Strategic Information Technical Working Group
SLC	School Leaving Certificate
SPMER	School of Planning Monitoring, Evaluation and Research
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
TPHA	Treponema Pallidum Hemagglutination Assay
TPPA	Treponema Pallidum Particle Agglutination

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## EXECUTIVE SUMMARY

This is the first round of the IBBS survey conducted among Female Injecting Drug Users (FIDUs) in Pokhara Valley. The females of 16 years and above who had been injecting drugs for at least three months preceding the survey were defined as FIDUs and enrolled in the survey. School of Planning Monitoring Evaluation and Research (SPMER) carried out this survey from December 2016 to May 2017 under the leadership of NCASC. The survey was undertaken primarily to determine the prevalence of HIV, Syphilis, Hepatitis B (HBV) and Hepatitis C (HCV) infection among FIDUs. Moreover, the survey also aimed to find out the comprehensive knowledge of HIV/AIDS, sexual risk behavior and injecting behaviors among FIDUs and their exposures to various HIV/AIDS intervention programs.

### Methods

This was a cross sectional survey conducted among 155 FIDUs. Take all approach using network sampling method was applied to recruit FIDUs. A structured questionnaire was used to collect behavioral data related to background information, sexual and injecting behaviors among the FIDUs. Blood samples were collected to test HIV, Syphilis, HBV and HCV. The rapid test kits recommended by National Centre for AIDS and STD Control were used to test HIV, Syphilis, HBV and HCV. The ethical approval for the survey was obtained from Nepal Health Research Council. FIDUs were interviewed after obtaining witnessed oral consent followed by pre-test counseling. FIDUs were provided with test results along with post-test counseling and syndromic treatment for STIs.

### Key Findings

#### **Prevalence of HIV, Active Syphilis, HBV and HCV among FIDUs:**

The prevalence of HIV among FIDUs was 1.9 percent (95% CI=0.5, 5.9) and prevalence of syphilis was 3.9 percent (95% CI=1.5, 8.6). The prevalence of HBV and HCV was 2.6 percent (95% CI=0.8, 6.9) and 1.3 percent (95% CI= 0.2, 5.1) respectively.

About two out of three FIDUs were identified with HIV during the survey and remaining were previously diagnosed. The newly positive were linked with the National program for treatment, care and support.

#### **Co-infection of HIV/Syphilis, HIV/HBV and HIV/HCV among FIDUs:**

The co-infection with HIV and Syphilis was 0.013 percent (n=2 FIDUs), HIV and Hepatitis C was 0.006 percent (n=1 FIDUs), and Hepatitis B and HIV was none. However, co-infections of all three and more STIs were not found among FIDUs.

#### **Comprehensive knowledge of HIV and AIDS among FIDUs:**

The proportion of FIDUs who knew all three ABC of HIV prevention indicators {A=Abstinence from sex (54%), B= Being faithful to a single partner (60%), C= Consistent condom use (82%)} was 34 percent.

The percentage of FIDUs who had knowledge of all five components of BCDEF {B= Being faithful to a single partner (60%), C= Consistent condom use (82%), D= Healthy looking person can be infected with HIV (80%), E= Person cannot get HIV from mosquito bite (37%), and F= Person cannot get HIV by sharing meal with infected person (73%)} was 19 percent.

**Majority of the FIDUs had knowledge of Hepatitis C:**

Nearly half of the FIDUs (44%) had ever heard of HCV infection. Among those who ever heard of HCV, nearly three-fifth (58%) knew HCV could be transmitted through sex. Majority of the FIDUs (77%) knew that sharing needles could transmit HCV and almost three fourths (74%) of the FIDUs knew that even people not infected with HIV could infect from HCV.

**Four fifths of the FIDUs were youth aged below 25 years:**

The highest proportions of the FIDUs were youths aged below 25 years (80%). Almost a half of the FIDUs each had completed secondary level education (48%) and lower secondary education (46%) respectively. More than three-fifth of the FIDUs were never married (63%) however over a third of them were ever married (36%).

**FIDU were practising sex in exchange for money and drugs:**

Nearly one quarter (23%) of the FIDUs were found to exchange sex for money and drugs.

**Majority of FIDU were engaged in first drug injection at an early age:**

More than two-third of the FIDUs (68%) reported that they had been engaged in first drug injection at an early age before 20 years. Majority of the FIDUs (80%) had been injecting for less than two years.

**Needle/Syringe sharing practices were prevalent among the noteworthy population of FIDUs:**

Almost one-sixth of FIDUs (16%) had shared needle/syringe with one or more people in the last injection. Nearly a tenth of them (7%) had used the syringe given by their friend or relative after their use in their last injection. It was also found that more than two-fifth (43%) FIDUs male regular sex partner also injected drugs. However, only a tenth of the FIDU (10%) reported of sharing needle/syringe with their regular sex partner.

**Majority of FIDUs had known how to obtain new/unused needles/syringe:**

An overwhelming majority of the FIDUs (94%) knew how to obtain a new, unused needles/syringe. The most common sources to obtain a new needle/syringe was a medical store (79%), friends (58%), hospital (37%) and from health workers (19%). About 3 percent of FIDUs reported that they collect new syringe from DIC (needle exchange program).

**Almost all FIDU have knowledge on condom and its accessibility:**

Almost all (96%) the FIDUs had knowledge of condom and its accessibility. However, only about 13 percent of them reported of usually carrying condoms with them.

**The condom use at last sex:**

More than a half (55%) of the FIDUs used condom at the last anal/vaginal/oral sex with a male partner. It was found that a half of them (50%) had used condom at the last anal/vaginal/oral sex with a male partner in exchange for money or drugs.

**FIDUs exposure to some programs was notably low:**

Over one-fourth of the FIDUs (27%) had met PE/OE in the last 12 months before the survey. Nearly 16 percent of FIDUs had visited Drop-in Centers in that period. However, only 12 percent of them had visited STI clinics, and around 16 percent had visited HTC centres in the last 12 months prior to the survey.

**Conclusion and recommendations:**

This survey provides an insight into the estimated prevalence of HIV, Syphilis, HCV and HCV infection among FIDUs as well as explores their injecting and risky sexual behaviors.

- Awareness of HIV was universal percent among the FIDUs. However, comprehensive knowledge on HIV (Knowledge of **ABC** and **BCDEF**) was found very low. *Thus, mass-medias and role of GOs/NGOs could play an important role to spread the comprehensive knowledge of HIV among them.*
- Nearly one-third of the FIDUs had their first sex at the very young age of 20 years and below. Similarly, almost three-fifth of them had started injecting drugs at very young age. *Therefore, specific program activities that target adolescents and youths should be designed to impart knowledge on sex education, drug prevention and HIV/AIDS awareness.*
- The prevalence of Hepatitis C, Syphilis and HIV among the FIDUs was found high; *so an immediate attention should be given to start various programs targeting FIDUs in the Pokhara Valley.*
- The large proportion of FIDUs are at risk of HIV as they have used needles that were already used by their friends, shared syringe with the usual sexual partner and were also found to have shared needle during the last injection. *Harm reduction programs including the risk of needle sharing behaviour and advocacy on practicing safer injecting behaviours should be launched.*
- As a notable percentage (43%) of FIDU's male regular partner also injected drugs, *the programme of harm reduction and safer sexual behaviours targeting both the partners need to be initiated.*
- FIDUs were found sexually active, have multiple sexual partners, involved in pre-marital sex and are more engaged in risky sexual behaviors. *Messages on delayed sexual debut should be promoted. Safer sex behaviors including being*

*faithful to their sexual partners, partner reduction, consistent and correct use of condom should be disseminated among FIDUs.*

- Nearly a quarter of FIDUs had sexual intercourse with men in exchange for money or drugs. However, among them, condom use was found low. *Hence, FIDUs should be reached by programs to raise awareness of safer sex.*
- Consistent condom use with male sex partners was found low. This may increase vulnerability for HIV and STI transmission. *The program should focus on the consistent condom use with all partners.*
- The practice of seeking STI treatment among FIDUs was lacking. *Treatment seeking behaviors should be promoted among those FIDUs who engaged in risky sexual behaviors.*
- FIDUs exposure to HIV outreach programs (peer education, DICs, HTC/STI clinics etc.) was found to be low. *Hence, targeted interventions among FIDUs with the provision of peer and outreach education, HTC/STI clinic including care and support would help increase the exposure to HIV and AIDs programs.*

- **CHAPTER I : INTRODUCTION**

## **1.1 Introduction**

In Nepalese context, HIV epidemic has been labelled as “concentrated epidemic” as there is the high prevalence of HIV infection among key populations (KP) (NCASC, 2013). The KPs are at higher risk of HIV in Nepal are people who inject drugs (PWID), female sex workers (FSW), men who have sex with men (MSM) and transgender (TG), and seasonal male labour migrants (MLM), particularly those migrating between Nepal and higher HIV prevalence areas in India. In 2012, the HIV prevalence among these KAP was very high: 6%, 4%, 2% and 1.3%, among PWID, MSM and transgender, FSW and MLM, respectively (NCASC, 2014).

Around 10 percent of HIV infections worldwide are attributable to injecting drug use, and in Nepal, HIV epidemics are confronting serious among PWID (Nelson et al., 2011; Silverman et al., 2008). IBBS surveys are regularly surveying to find out the HIV-related risk behaviors among PWID. Evidence (e.g. different rounds of Integrated Biological and Behavioral Surveillance (IBBS) surveys carried out in Nepal) suggest that HIV prevalence is still high among PWID. IBBS surveys had mainly documented the HIV prevalence among KAP.

IBBS surveys are the one key components of second generation HIV surveillance and had been used in many concentrated epidemic contexts. More recently, IBBS survey had also been recommended in generalized epidemic settings (NCASC, 2003). IBBS surveys collect two distinct types of data (HIV and STI biological data and behavioral data) from a single set of participants and help to understand the existing/emerging dynamics of HIV epidemic so that appropriate interventions can be designed to prevent and control the spread of the virus. By linking biological data with behavioral data, IBBS survey is very effective and helpful to understand the emerging trends of HIV and HIV-related risk behaviors among the KAP.

An article published in International Journal on Drug Policy in 2015 revealed that FIDUs who are among the hidden affected populations are more prone to HIV due to their risky injecting behaviors, unprotected sex and sex selling practices. The article also uncovered that the FIDUs are more stigmatized than the male injecting drug users (Azim T et al. 2015) The survey conducted by United Nations Office on Drugs and Crime found that FIDUs are increasingly vulnerable to HIV due to the position of female in Nepalese society. The survey also indicated that the prevention and care services are male-centric and females have limited access to these services (UNODC, 2016).

This study had attempted to assess the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C and also identified the sexual behavior and associated risk of HIV/AIDs infection among FIDUs in Pokhara Valley.

## **1.2 Objectives of the Survey**

This survey has been carried out to fulfil the following objectives:

### **1.2.1 Primary objectives:**

- To determine the baseline data of STI and HIV prevalence among FIDUs.
- To measure the prevalence of Hepatitis B and Hepatitis C among FIDUs.
- To estimate the prevalence of sexual behaviors and injection behaviors related to HIV among FIDUs.

### **1.2.2 Secondary objectives:**

- To estimate the knowledge of HIV/STI as well as sexual and injecting behaviors among FIDUs.
- To explore associations between risk behaviors and infections with HIV or STI among FIDUs.
- To estimate the prevalence of STI syndromes among FIDUs.
- To find out the exposure of FIDUs to the various HIV/AIDs and STI prevention and control programs.

## **1.3 Rationale of the survey**

IBBS surveys are considered as the powerful tools to generate evidence based data. Findings of these surveys are widely being used for designing HIV interventions, to monitor HIV programs, and for estimation and to project the epidemic of HIV in many countries including Nepal. Estimation and projection of HIV prevalence in the country are also based on IBBS survey data. Data on key National HIV Indicators are determined using IBBS survey results. Furthermore, results of these surveys have wider application as these are utilized by different communities, donors, policy makers, program designers and implementers, academicians, and civil society organizations to track the level of HIV epidemic and related risk behaviors in Nepal. Hence, the present survey will also serve as an important milestone to guide the national HIV prevention and control program.

IBBS surveys are taken as the effective second generation surveillance tools to generate evidence-based data. These surveys help in exploring both behavioral and biological data of FIDUs that will ultimately help in linking them to understand the emerging trends of HIV, risky sexual and injecting behaviors. The findings from these surveys are commonly used for planning HIV interventions, monitoring HIV programs, estimating and projecting the epidemic of HIV (NCASC, 2015).

In this context, National Centre for AIDS and STD Control with the support from Save the Children US/Global Fund intended to conduct the IBBS survey among FIDU in Pokhara Valley. This survey aimed to provide baseline data that can be used for an enhanced and timely intervention design to combat HIV, STIs, HCV and HBV prevalent among FIDUs.

## **CHAPTER II: METHODOLOGY**

### **2.1 Implementation of the Survey**

School of Planning, Monitoring, Evaluation and Research (SPMER) implemented this survey with the technical support from NCASC. SPMER was responsible for implementation and overall management of the survey including training of the survey team, management of field team and survey activities, laboratory testing of blood samples, clinical examination of the FIDUs and supervision of the activities of the survey team throughout the survey period. SPMER conducted a formative assessment of FIDUs throughout the Pokhara Valley and followed by data collection using tablet based structured questionnaire.

The survey was conducted in close collaboration with three networks widely working for the Injecting Drug Users; Community Support Group, Naulo Ghumti and Namuna in Pokhara Valley. Data analysis and report writing was done by the technical team of SPMER in close coordination with NCASC and Save the Children US/Global Fund.

### **2.2 Survey Design**

This was a descriptive cross-sectional survey. It was the first round of survey for FIDUs in Pokhara Valley.

### **2.3 Survey Population**

For the present survey, FIDUs are defined as “Female aged 16 years or above who had been injecting drugs for at least three months prior to the date of the survey” along the Pokhara Valley.

### **2.4 Survey District**

The survey was primarily conducted in Pokhara Valley; however, few FIDUs were recruited from Baglung, Syangja and Tanahu district to fulfill the required sample size.

The survey area is as given in map below:



Figure 1: Map of study Area

## 2.5 Survey Period

The survey was conducted from November 2017 to May 2017. The fieldwork for this survey was carried out from 19/3/2017 to 3/4/2017 from the survey site established at Newroad, Pokhara.

## 2.6 Sampling Design and Sample Size

Network Sampling method was used in this survey to recruit the 155 FIDU which was the required sample. This sampling method ensures unbiased approximations when the same-targeted population units are eligible to linked to multiple selection units. Two operators were selected from the networks who were involved in recruiting the FIDUs. The networks provided the list of FIDUs. The survey participants were also consulted to invite their friends (eligible) from their circle who were unknown to any operators or networks.

## 2.7 Data collection tools and techniques

A quantitative research approach was used to collect and analyze the data in this survey. A modified questionnaire was utilized that were used in previous rounds of the survey. However, survey tools finalization workshop was organized with the experts working on various rounds of IBBS surveys. Behavioral data and biological data were collected onto tablet computers and directly loaded into a master database using a



wireless internet connection in the field. The software was developed by PATHWAY. Separate tablets were provided to each of the interviewer and lab technicians for collecting the behavioral and biological data.

## **2.8 Survey team with their responsibility.**

Total thirteen team members were mobilized in the survey; they were one team leader, one research officer, one field-coordinator, two network operators, two counselors, one clinician, one lab personal, three interviewers and one runner. The responsibility of the team leader was an allocation of work load and activity to survey staff, ensuring their performance, monitoring and supervision, discussing and resolving problems, carrying out performance review and reporting. The responsibility of research officer was to supervise survey team and support to the team leader to ensure survey quality. The responsibility of the field coordinator was to ensure that the survey was running smoothly, efficiently, discussing and resolving problems, carrying out performance review and reporting. The work of network operator was to support to recruit the survey participants/FIDUs during the survey, and the role of the counselor was to counsel the FIDUs before and after the laboratory test. The role of clinician was to examine the FIDUs for any sign and symptoms of STI and other general health problems and provided essential medicines according to the national guidelines on case management of STIs. The role of lab personal was to briefly clarify the FIDUs about the testing process and take verbal consent to draw blood and test the blood sample for HIV, Syphilis, Hepatitis B and Hepatitis C. The role of the interviewer was to interview the FIDUs using the structured questionnaire in the tablet computers. The role of the runner was to bring the client to the survey site and support.

## **2.9 Training of field team and pre-testing**

Field survey team was recruited from the pool of researchers of SPMER. The researchers had similar experiences and university degree in the relevant discipline were recruited as supervisors and research assistants. Similarly, experienced lab technicians were hired for the testing of blood samples, and registered doctor were recruited for the symptomatic identification of STIs and their syndromic management.

A six-day intensive training program was organized by School of PMER from 21<sup>st</sup>-26<sup>th</sup> February 2017 to the field researchers at Martin Chautari, Thapathali. The training covered various topics such as introduction to the IBBS survey, FIDUs and their population characteristics, questionnaires and ways of administering them, methods of approaching the FIDUs, research ethics, research protocol, counseling, rapport-building techniques and sharing of experiences of similar surveys from the past. The objectives of the survey and the sampling methodologies being adopted for selection of the sample were also explained and discussed in the training.

A significant time was assigned to the lab technicians for being trained on HIV, syphilis, Hepatitis B and Hepatitis C testing and understanding sample selection techniques for

external quality assurance system (EQAS). In addition, the training session also included mock interviews, role-plays, and class lectures to help researchers understand the flow of questionnaire. Role-play practices were carried out assuming actual field situations. The concerned officials from NCASC, Save the Children US/Global Fund and other relevant agencies working for FIDUs and experts were invited to facilitate the training sessions.

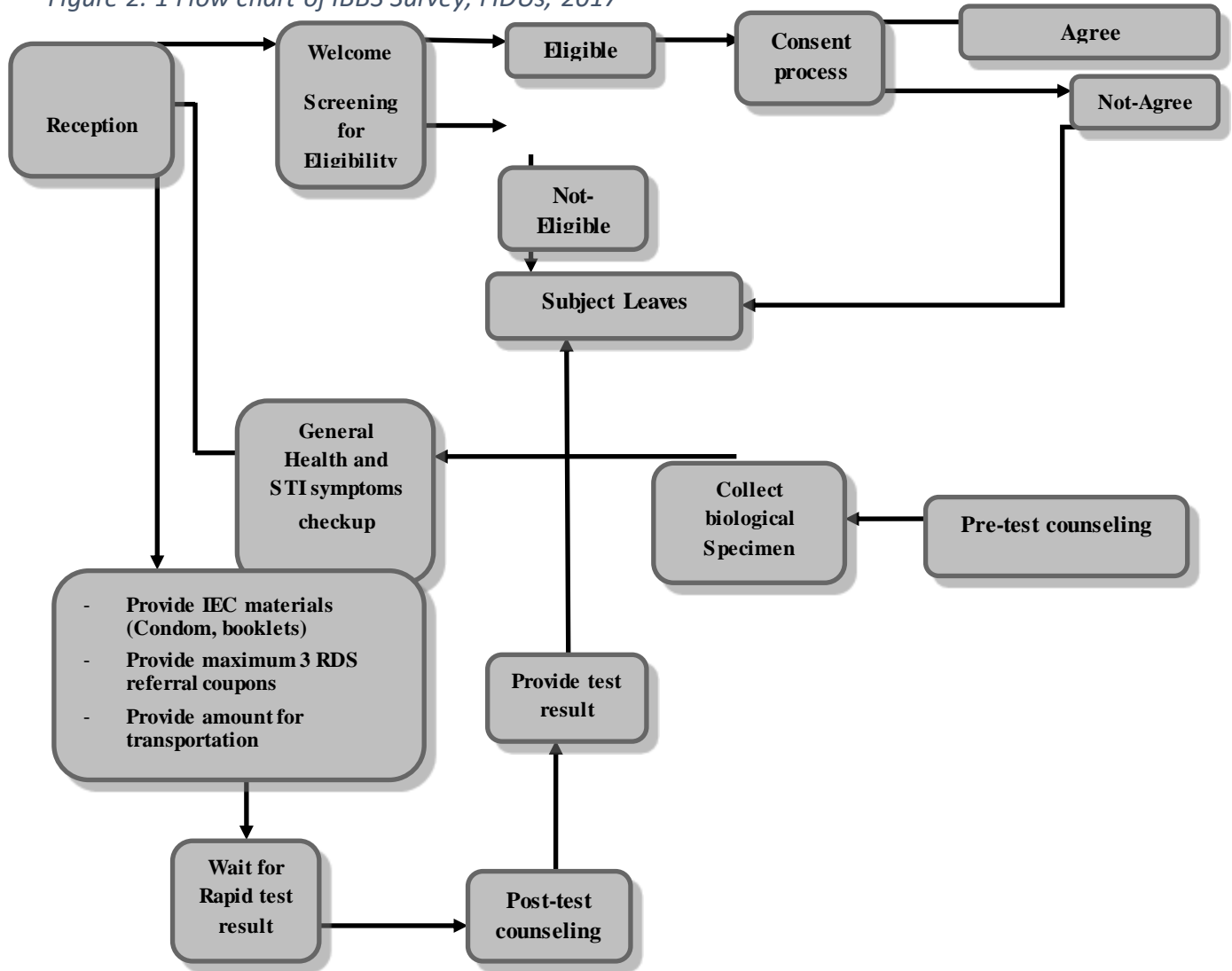
The researchers from SPMER conducted pretesting of the survey tools among the FIDUs population in service outlet of Network operators. Pretesting was conducted in Sitapaila, Ramkot, Kathmandu. Altogether, four FIDUs were interviewed using tablet-based questionnaires. The questionnaires were checked for flow, skip checks, and language modification and minor grammatical changes were made after the pretesting.

## **2.10 Fieldwork**

The clinic was established in a hotel at Pokhara valley. The clinic comprised of one welcome room, three interview rooms, one counseling room, one STI clinician room, one laboratory room and one waiting room. The flow chart for the survey procedure was developed and displayed in all necessary rooms. The counselor greeted the selected FIDUs in the welcome room where they were briefed about the overall survey process. Consent was taken in the presence of operator/local mobilizers and assigned a unique code for the enrollment in the survey. Then they were interviewed using the structured questionnaire in the tablets in the interview room. After completion of the interview they were guided to pre-test counseling room. After the pre-test counseling, they were directed to the laboratory room. In the laboratory, blood was drawn, centrifuged for separating the serum and undergone all the tests designated for the survey. After the blood was drawn in the lab, the participants were sent to the STI clinician room where necessary syndromic treatment of STIs, which was provided as per National Guidelines on Case Management of STI (2015). They were sent to the waiting room until the test was performed. The test result was provided to them with post-test counseling based on the findings in the counseling room. The refrigerators/cold chain box was used to maintain the cold chain for the collected samples and test kits. The back-up power facility was ensured in survey site in case of power cut. The waste produced from the survey site was properly managed and disposed of systematically with the help of Life Care Diagnostic and Research Center situated nearby the survey site. The hygiene and sanitation of the clinic were appropriately maintained throughout the survey in the survey site.

Pre test and post test counseling were done by the trained counselors of SPMER. The FIDUs were counseled before undergoing the laboratory test. The major part of pre test counseling session was to prepare the FIDUs for the blood test and the probable test result. The post test counseling was done after the confirmation of the test result from the laboratory. The post test counseling session concentrated on the test result, safe injecting behavior, treatment, care and support services available. The FIDUs with positive test result were counseled confidentially were referred to Gandaki hospital and to other services where ART service was available.

Figure 2. 1 Flow chart of IBBS Survey, FIDUs, 2017



### **2.11 Sample Recruitment process**

Field researchers including operators from all the networks were trained about the survey area and methods of identification of the participants. Map of the survey site was developed and provided to the researchers to facilitate them for field work. A coordination meeting was organized with the most of the organizations working for FIDUs. Trained field mobilisers of networks were mobilized for the recruitment of samples with the guidance of operators. Survey team established the clinic after discussion with different stakeholder at Pokhara valley. The selected FIDUs identified by the operators in the field through screening questions. The selected FIDUs who came in contact with mobilizers/operators were screened in the survey site once again. Those who satisfactorily answered all the screening questions were briefed about purpose, objectives and methodology of the survey. Once the selected sample is given their consent on the presence of operators/mobilizers to participate in the survey, the counselor assigned the unique code and recruited them in the survey.

### **2.12 Refusal**

One FIDU refused to take part in the survey because she already knew she was HIV positive and refused for blood test.

### **2.13 Clinical and Laboratory Procedure**

The registered clinician examined the FIDUs for any signs and symptoms of STI and other general health problems after completion of the interview, pre test counseling and lab test. The syndromic management of such symptoms and problems were done providing some essential medicines according to the National Guidelines for Case Management of Sexually Transmitted Infections, 2016. The Clinicians made appropriate referrals of the identified cases that required additional treatment to concerned government hospitals or health centers.

After pre-test counseling, the lab technicians briefly clarified the FIDUs about the HIV testing process and took verbal consent to draw blood. Blood samples were drawn in 3-milliliter tubes using disposable syringes. The samples were tested for HIV, Syphilis, Hepatitis B and C in the laboratory set up established on the survey site.

### **2.14 Precautions, Disposal Mechanism and Post-Exposure Management**

The universal precautions were followed in the laboratory and STI clinic. Gloves and mask were used by laboratory technician and STI clinician. Waste produced in the lab was collected in different color-coded dustbins and labeled containers. Needles were destroyed using needle destroyer. Waste products formed as a result of laboratory and clinical procedure was managed in accordance with the standard disposal procedures in collaboration with Lifecare Diagnostic and Research center. Also, the post exposure management mechanism was established for the management of possible exposures in collaboration with Gandaki Hospital.

## **2.15 Fieldwork Supervision and Monitoring**

The team of NCASC, Save the Children US/Global Fund and SPMER conducted the overall monitoring and supervision of the survey. The Team Leader and Research Officer of survey conducted various rounds of participatory internal monitoring and supervision visits to the survey site. The survey team implemented all the feedbacks and suggestions and followed the protocol of the survey throughout the survey process through direct supervision of Survey Coordinator. Team meetings were held every week to plan for the actions and solve any problems encountered at the field-level. The Survey Coordinator in the field reported the SPMER and the Survey team frequently update the field operations.

## **2.16 Quality Control and External Quality Assurance Scheme**

External Quality Assurance Scheme (EQAS) is the evaluation of the performance of a testing laboratory by an external agency. An EQAS is very essential in such studies to determine the quality of testing. All the HIV positive samples and 10 percent of all the HIV negative samples were sent to retest at NPHL in this survey as an EQA of HIV testing.

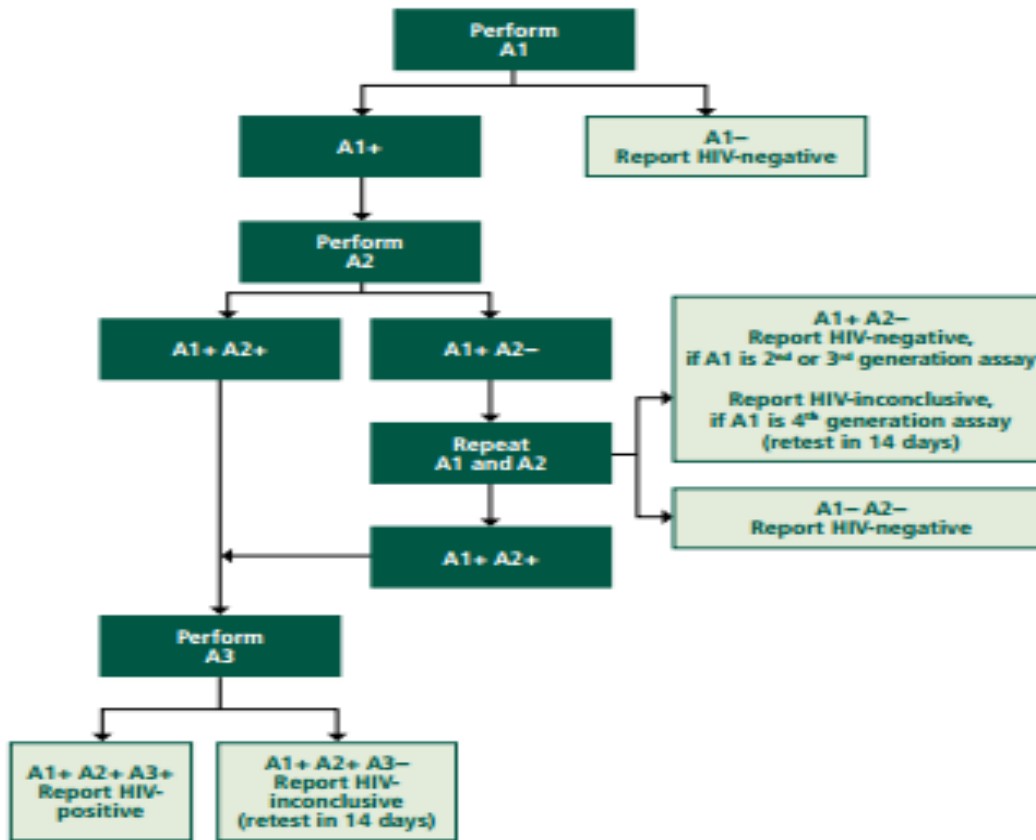
### **HIV Rapid Testing**

HIV rapid testing method was conducted at the survey site after completion of pre-test counseling by certified laboratory technicians. Rapid testing was conducted by using a serial testing scheme based on the NCASC national guideline algorithm and approved commercial test kits. Blood serum which was diagnosed reactive on test with the first kit (Determine HIV ½) was confirmed with a second kit (Uni-Gold HIV) and then by a third Kit (Stat Pak). Samples that were found reactive on all three tests were considered HIV positive. Samples that were non-reactive on the first test were considered HIV negative. Any sample that was reactive on the first, second test and nonreactive on the third test was then repeated with all three test (with same individual sample) and if the result was still same on the retest was then considered HIV inconclusive. In that condition that individual (sample) was suggested to repeat the test after 14 days.

### **Interpretation of the Test Results**

- All samples negative by the first test were reported as negatives.
- All samples positive by the first test were subjected to the second and the third test.
- All samples that were positive for all three tests were reported positive.
- Any sample that was positive on the 1<sup>st</sup> and 2<sup>nd</sup> test and negative on the 3<sup>rd</sup> test was then repeated with all three tests, and if gives the same result was reported inconclusive. Such sample was suggested to repeat the test after 14 days.

## HIV Test Algorithm



### Note:

A1 (First test):	Determine HIV ½
A2 (Second test):	Uni-Gold HIV
A3(Third test):	Stat Pak
"+"	Reactive
"_"	Non-reactive

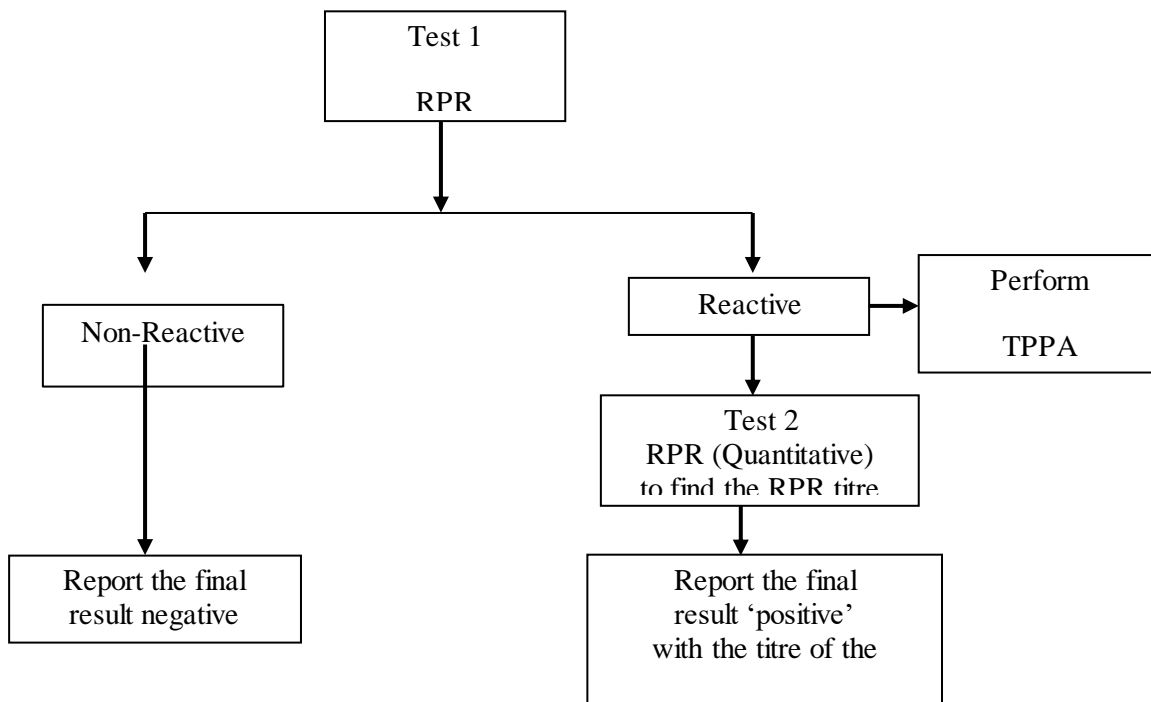
### Sensitivity and Specificity of HIV1/2Kits

Test Kits	Company	Initial	Confirm	Tie Break	Antigen Type	Spec.	Sens.
Determine	Allere	X			Recom HIV-1 and HIV-2	99.4%	100.0%
Uni-Gold	Trinity Biotech		X		HIV-1 and HIV-2	100.0%	100.0%
STAT PAK	CHEM BIO			X	HIV-1 (gp41; p24) -2 (gp36)	99.3%	100.0%

## Syphilis Testing

Rapid Plasma Regain (RPR), a blood-screening test was conducted to detect the presence of antibodies for syphilis among FIDUs. A reactive syphilis result denotes that the FIDUs has been exposed to T. palladium at some point in her life. However, this testing may remain reactive for life in the majority of people who have had syphilis, even if they have been treated properly. Therefore, a positive result does not indicate that the FIDUs currently has untreated syphilis thus it was further confirmed with a non-treponemal test, RPR to assess disease activity. The standard Algorithm followed for Syphilis Testing is shown below:-

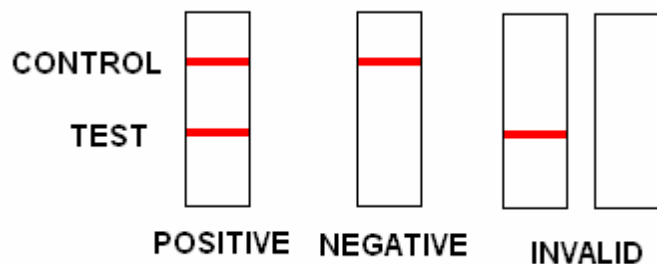
### Syphilis Test Algorithm



## Hepatitis B and Hepatitis C Rapid Testing

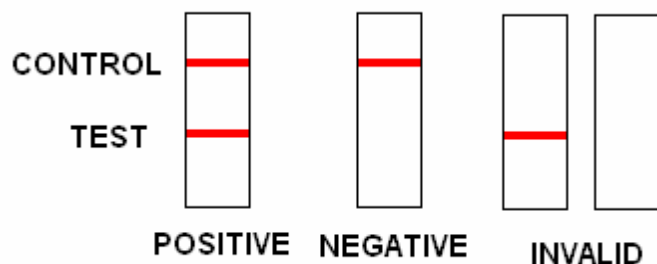
### Hepatitis B

The serum samples were tested for hepatitis B surface antigen (HBsAg) by Rapid test kit HEPACARD Serum/Plasma Kit (J. Mitra and Company, India). The presence of HBsAg in serum was an indication of an active Hepatitis B infection. The presence of the colored line in the test region suggested a positive result, while its absence denoted a negative result. The absence of the control band indicated that the test was invalid.



**Hepatitis C**

HCV Tri-dot (J.Mitra and Company, India) test kit was used to diagnosis the infection of Hepatitis C. The two red lines in the control and test region suggested the result was positive. The test having red lines in the control region and no lines in test region was considered as negative result. A colored control band in the control region appears at the end of the test procedure regardless of the test result. The absence of the control band indicated that the test was invalid.



**2.17 External Quality Assurance Scheme (EQAS)**

Serum samples were created for the external quality assurance of the tests. The samples were collected in crayon vials and cold chain was maintained during storage and transportation throughout the survey period. All Positive and randomly selected 10% of the negative samples of HIV, RPR, Hepatitis B and Hepatitis C were handed over to National Public Health Laboratory (NPHL), Kathmandu for external quality control.

**2.18 Data Management and Data Analysis**

The behavioral and biological data collected through the tablets were uploaded to a server after completion of each questionnaire every day. The uploaded data were downloaded by an authorized person of SPMER (Research Officer for the survey) and were saved in password-protected computers every day. The inconsistencies identified in the data collection procedures were noted on a daily basis and finally were rechecked and verified in consultation with survey consultant, application and data management team and other experts. These data were further transferred to the Excel sheets and coded. Then, the data were exported to the SPSS-20 version for the final data analysis. Descriptive statistics such as percentage, mean, median, standard deviation and inferential statistics like chi-square test were used to establish an association to infer findings. The associations are having a p-value less than 0.05 were taken as a significant association.



## **2.19 Ethical Considerations**

The survey protocol was approved by Nepal Health Research Council (NHRC). The FIDUs involved in the surveys were properly informed about the nature of the survey. They were informed that their participation was voluntary and was free to refuse to answer any question or to withdraw from the interview at any stage. They were also informed that such withdrawal would not affect the services they receive. The consent describing the objectives of the survey, the nature of survey population, benefits, risks and confidentiality issues were clearly delivered to them in presence of network operators and mobilisers. A specific number ID card was provided to each of the FIDUs. HIV test results along with post-test counseling were provided to each of them in a confidential manner. A travel allowance of NRs 350, a pack of fruit juice was offered to each of the FIDUs as incentive. Only the core team of the research had access to the submitted data. The research ethics were strictly followed throughout the survey process.

## **2.20 Limitation of the survey**

- IBBS survey among FIDUs is conducted in Pokhara Valley only. Hence this survey could not generalized FIDUs of Nepal.
- Due to the cross sectional survey, this survey could not examine the casual relationship between variables of interest.

## CHAPTER III: RESULTS

### 3.1 Prevalence

The prevalence of HIV among FIDUs was 1.9 percent (95% CI=0.5, 5.9) and prevalence of syphilis was 3.9 percent (95% CI=1.5, 8.6). The prevalence of HBV and HCV was 2.6 percent (95% CI=0.8, 6.9) and 1.3 percent (95% CI= 0.2, 5.1) respectively (Figure 1). Among the 3 FIDUs having HIV; one FIDU was identified before the survey, and 2 of them were newly recognized HIV prevalence.

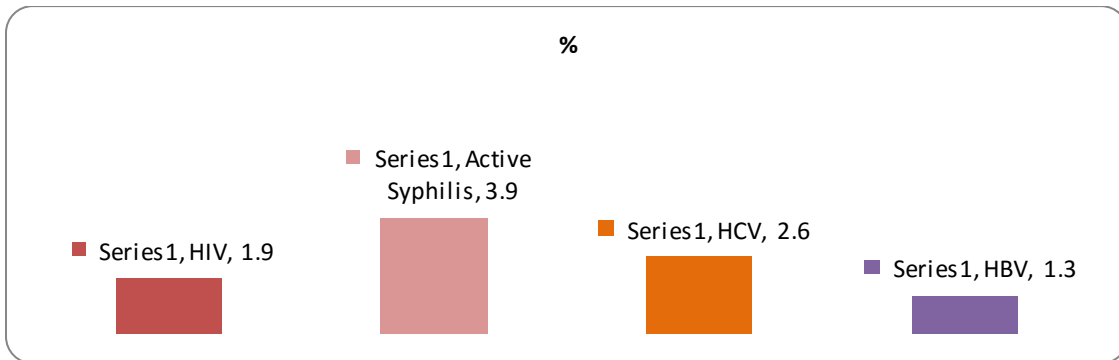


Figure 3. 1 Prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C

The co-infection between HIV and syphilis was 0.013 percent (2 FIDU), HIV and Hepatitis C was 0.006 percent (1 FIDU), and Hepatitis B and HIV was none. However, co-infections of all three and more STIs were not found among FIDUs (Figure 2).

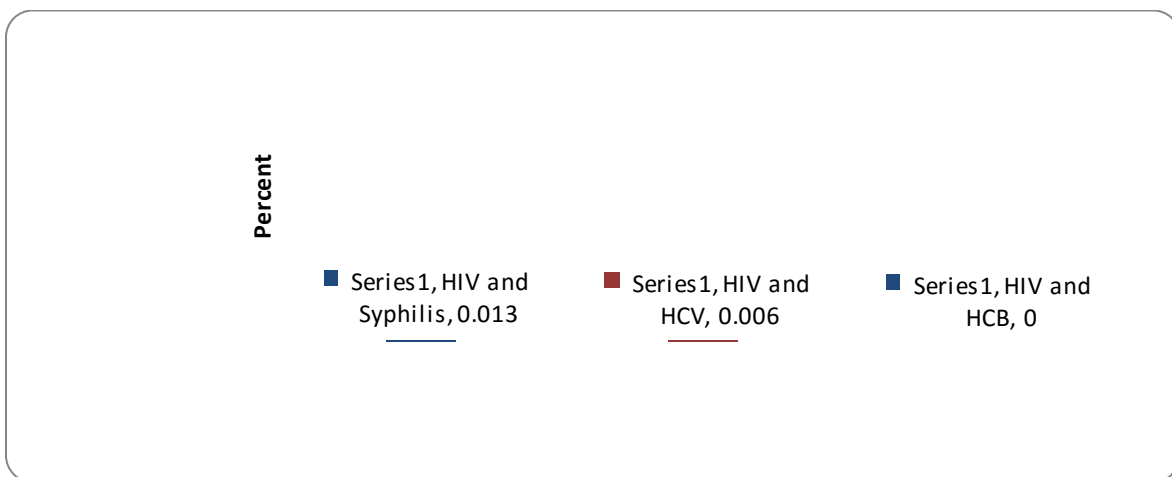


Figure 3. 2 Co-infection of HIV/Syphilis, HIV/HCV

### 3.2 Demographic Characteristics of the survey participants

Table 3.1 represents the demographic characteristics of FIDUs. The majority (84%) of the FIDUs were from Kaski district. Four-fifth of the FIDUs (80%) were youths aged below 25 years. Almost 19 percent of them were 25 to 34 years of age and remaining less than 2 percent were of 35 to 39 years age group. Nearly half of the FIDUs each had completed secondary level education (48%) lower secondary education (46%) respectively. Four percent of the FIDUs were found to be illiterate.

More than half (57%) of FIDUs belonged to Janjati followed by a quarter (25%) of Dalit and 17 percent belonging to Brahmin. Over three-fifth, (62%) of FIDU were never married while more than a third of them (35%) were married. More than half (53%) of FIDUs were currently living in a rented room, and over two fifths (44%) were living in their own home.

**Table 3.1 Demographic Characteristics of the FIDU**

Description	N	%
<b>District</b>		
Baglung	7	4.5
Kaski	131	84.5
Syangja	6	3.9
Tanahun	11	7.1
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Age group</b>		
Below 20 yrs	86	55.5
20 to 24 yrs	38	24.5
25 to 29 yrs	16	10.3
30 to 34 yrs	13	8.4
35 and more yrs	2	1.3
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Level of education</b>		
Illiterate	7	4.5
Lower secondary	72	46.5
Secondary	74	47.7
Informal education	2	1.3
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Cast/Ethnicity</b>		
Brahman/	26	16.8
Dalit	39	25.2

Description	N	%
Janjati	89	57.4
Muslim	1	0.6
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Current marital status</b>		
Never married	97	62.6
Married	55	35.5
Divorced/Permanently separated	2	1.3
Widow	1	0.6
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Current living situation</b>		
Own home	69	44.5
Hotel	3	1.9
Rented	83	53.5
<b>Total</b>	<b>155</b>	<b>100.0</b>

### 3.3 Injecting behavior and syringe sharing

#### 3.3.1 Injecting behavior

Table 3.2 represents the injecting behavior of FIDUs. It was found that two-third (66%) of the FIDUs had started injecting drugs below 19 years followed by one-fifth (20%) by the age of 20-24 years. More than half (56%) of the FIDUs had been injecting drugs from 3 to 12 months. Almost a quarter (24%) of the FIDUs had been injecting drugs for 1 to 2 years. Among the 155 FIDUs, three out of four (75%) reported that they had injected drugs in the last month. Among them who had injected drug in the last month, over two-third (69%) mentioned of not using previously used non-sterile syringe/needles in the last month. Majority of the FIDUs (83%) used drugs in combination. More than half (52%) of the FIDUs reported that in the past one week they had injected 2-3 times followed by more than a quarter (28%) of them injecting once a week. However, 8% of FIDUs reported that they had not injected in the last week.

**Table 3. 2 Injecting Behavior**

Description	N	%
<b>Age of drug initiation</b>		
Before 15 years	3	1.9
15 to 19 years	102	65.8
20 to 24 years	31	20.0
After 25 years	19	12.3
<i>Mean ±SD</i>	19±3.5	

<b>Description</b>	<b>N</b>	<b>%</b>
<i>Median</i>	18	
<b>Total</b>	155	100.0
<b>Duration of injecting drugs</b>		
3 to 12 months	87	56.1
1 to 2 years	37	23.9
2 to 3 years	17	11.0
3 to 4 years	4	2.6
More than 4 years	10	6.5
<i>Mean ±SD</i>	22±22	
<i>Median</i>	12	
<b>Total</b>	155	100.0
<b>Drugs injected in the last month</b>		
Yes	116	74.8
No	39	25.2
<b>Total</b>	155	100.0
<b>Used previously used syringe /non-sterile syringe/needle in the last month</b>		
Yes	36	31.0
No	80	69.0
<b>Total</b>	116	100.0
<b>Drugs used in combination form</b>		
Yes	128	82.6
No	26	16.8
No response	1	0.6
<b>Total</b>	155	100.0
<b>Frequency of drug injected during the past one-week</b>		
Once a week	43	27.7
2-3 times a week	80	51.6
4-6 times a week	17	11.0
2-3 times a day	2	1.3
4 or more times a day	1	0.6
Not injected in the last week	12	7.7
<b>Total</b>	155	100.0

### 3.3.2 Syringe sharing behavior

Nearly three-fourth (72%) of the FIDUs injected drugs once a day whereas over a quarter of them (28%) injected twice or more in a day. The majority (76%) of them had used a new needles/syringe given to them by a friend, and 12 percent of FIDUs reused the same needles/syringe used by themselves previously. Majority (84%) of them did not share the syringe/needles with other people whereas one in ten (10%) of them shared needles/syringe with two partners. Majority of FIDUs (81%) reported that they never used a needles/syringe that had been used by other in the past one week. Less than one percent of FIDUs used the needles/syringe used by someone else every time they injected drugs. Over one-sixth, (17%) of the FIDUs used the previously used needle or syringe some time. It is encouraging to note that large majority of FIDUs (92%) had never used a syringe/needles that had been kept in public place. Very few (7%) of the FIDUs had used a needles/syringe that had been kept in public place sometime. Less than one percent of FIDUs (0.7%) used the needle /syringe kept in public place every-time. Three-fifth of FIDUs (60%) reported they have not share needles/syringe with anyone in the past one week. One in ten (10%) reported that they had shared needles/syringe twice in the last one week. Very few (2%) reported they had shared needles/syringe three times in the past one week. Almost two-third of FIDUs (65%) had not injected with a prefilled syringe in past week whereas over one third (34%) of them had used the prefilled syringe in past week.

**Table 3. 3 Syringe using behavior**

	N	%
<b>Frequency of injected drugs yesterday</b>		
Single	111	71.6
Two and more	44	28.4
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Way of getting syringe/needle in the last injection</b>		
My friend/relatives gave it to me after his use	11	7.1
I picked it up from a public place which was left there by myself	1	0.6
I used a new needles/syringe given by NGO staff/Volunteer	1	0.6
I used a needle/syringe which I purchased	6	3.9
I reused my own needles/syringe	18	11.6
My friend gave new needle/syringe	118	76.1
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Number of different people in the group you used the same syringe/needle in the last time you injected</b>		
One	6	3.9

	N	%
Two	16	10.3
Three	3	1.9
Injected alone	130	83.9
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Frequency of drug injected with a needle or syringe that had previously been used by someone else during the past one-week</b>		
Every time	1	0.6
Sometime	27	17.4
Never used	125	80.6
Not injected in the last week	2	1.3
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Times you have used syringe/needle that had been left in public place when you injected drugs in the past week</b>		
Every time	1	0.7
Sometime	10	6.5
Never used	141	92.2
Don't know	1	.7
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Number of different injecting partners you shared needles or syringes in the past one week</b>		
None	91	59.5
Once	10	6.5
Twice	16	10.5
Three	3	2.0
Don't know	27	17.6
No response	6	3.9
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Ever inject with a pre- filled syringe In the past-week</b>		
Yes	52	34.0
No	99	64.7
Don't know	2	1.3
<b>Total</b>	<b>153</b>	<b>100.0</b>

### 3.3.3 Syringe sharing behavior

Table 3.4 represents the needle sharing behavior of FIDUs. It was found that more than a tenth (11%) shared needle/syringe with their regular sex partner and very few of them (3%) shared needle/syringe with a sex partner they did not know. Similarly nearly a sixth of the FIDUs (14%) shared syringe/needle with their friend. None of the FIDUs shared needle/syringe with drug seller or unknown person.

**Table 3. 4 Needle sharing**

	N	%
<b>Syringe sharing with</b>		
<b>Regular sex partner</b>		
Yes	16	10.5
No	136	88.9
Don't know	1	0.7
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Unknown sex partner</b>		
Yes	4	2.6
No	148	96.7
Don't know	1	0.7
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Friend</b>		
Yes	22	14.4
No	130	85.0
Don't know	1	0.7
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Drugs seller</b>		
No	152	99.3
Don't know	1	0.7
<b>Total</b>	<b>153</b>	<b>100.0</b>
<b>Unknown person</b>		
No	152	99.3
Don't know	1	0.7
<b>Total</b>	<b>153</b>	<b>100.0</b>

### 3.3.4 Use of new needle and treatment

An overwhelming majority of the FIDUs (94%) knew how to obtain a new unused needle/syringe. Among them the common sources of obtaining a new needle/syringe was Medical store (79%), Friend (58%), Hospital (37%), Health worker (19%). Almost



two-fifth (36%) of FIDUs reported that they were completely satisfied with the newer available syringe and one-fifth (21%) reported that they were satisfied. Nearly half of the FIDUs (40%) reported that they were not at all satisfied with the newer available syringe/needles. Almost a half (46%) of the FIDUs reported of throwing needles/syringes anywhere after use while two-fifth (40%) of them disposed it safely. Majority of the FIDUs (83%) had never received treatment to overcome drug use. Among the FIDUs who were currently under treatment for drug use (1%) and who were on treatment in past (16%), half of them (50%) had received treatment 6 months before. Over one-third (35%) had received treatment before 6 to 23 months. However, almost one-sixth (15%) had received treatment before 2 years.

**Table 3. 5 Using new needle and treatment**

	N	%
<b>Access to new unused needles and syringes whenever needed</b>		
Yes	146	94.2
No	8	5.2
Don't know	1	0.6
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Needle available places*</b>		
Medical store	123	79.4
Other shop	20	12.9
Health worker	29	18.7
Hospital	57	36.8
Drugs/wholeseller/drugs agency	3	1.9
Family/relatives	5	3.2
Sex partner	5	3.2
Friends	90	58.1
Others drugs users	4	2.6
Drugs seller	7	4.5
Needle exchange program	5	3.2
<b>Total</b>	<b>155</b>	<b>*</b>
<b>Satisfaction with the newer available syringes</b>		
Completely satisfied	55	35.5
Satisfied	32	20.6
Somewhat satisfied	62	40.0

	N	%
Dissatisfied	2	1.3
Completely dissatisfied	4	2.6
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Practice of needle disposal*</b>		
Disposed	61	39.4
Gave to friend	19	12.3
Kept/carry safely for another use	2	1.3
Hide in public places	1	0.6
Threw anywhere	71	45.8
Don't know	1	.6
<b>Total</b>	<b>155</b>	<b>*</b>
<b>Currently under treatment because of drug use</b>		
Currently under treatment	2	1.3
Was in treatment but not now	24	15.5
Have never received treatment	129	83.2
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Duration of receiving service</b>		
Before 6 months	13	50.0
6 to 23 months	9	34.6
Before 2 years	4	15.4
<b>Total</b>	<b>26</b>	<b>100.0</b>

\* Percents total may exceed 100 due to multiple responses

### 3.5 Sexual behaviors and condom use with different partners

Over two-third (67%) of the FIDUs had had sexual intercourse in the last 12 months. Among the FIDUs who had sexual intercourse in last 12 months, over two-third (68%) had single sex partner and almost one-fourth (26%) of them had 2 to 4 sex partners. Almost four-fifth (79%) of them had single regular sex partner. Nearly three-fourth (70%) of the FIDUs had sex with single non-regular sex partner. Majority (77%) of the FIDU did not have sexual intercourse with men in exchange for money or drug in last 12 months. On the contrary, almost one-fourth of them (24%) had had sexual intercourse with men in exchange for money or drugs in last month. (table 3.6)

**Table 3. 6 Sexual behavior**

	N	%
<b>Ever had sexual intercourse in the last 12 months</b>		
Yes	102	65.8
No	53	34.2

Total	155	100.0
<b>Number of sex partners</b>		
Single	68	66.7
Two to Four	26	25.5
Five and more	8	7.8
Total	102	100.0
<b>Number of regular sex partners</b>		
Single	80	78.4
Two and more	22	21.6
Total	102	100.0
<b>Number of non-regular sex partners</b>		
None	14	13.7
Single	60	58.8
Two and more	28	27.5
Total	102	100.0
<b>Had sexual intercourse with men in exchange for money or drugs in last 12 months</b>		
Yes	24	23.5
No	78	76.5
Total	102	100.0
<b>Number of male partners you had sex in last month by paying them money or drugs</b>		
None in the last month	5	20.8
Single	8	33.3
Two and more	11	45.8
Total	24	100.0

### 3.6 Condom availability and use

FIDUs who had ever had sexual experience were examined for their knowledge about condom availability and its use. It is notable that almost all of them (96%) knew about the place or person from whom to obtain a condom. Nearly two-third of FIDUs (63%) reported that they did not get condom from any organization in the last months. Majority of the FIDUs (87%) were not found to be usually carrying condoms along with them. More than half (57%) of the FIDUs had ever used a condom. More than half (55%) of them had used condom during the last anal/vaginal/oral sex with a male sex partner. It was found that half (50%) of FIDUs had used condom during the last anal/vaginal/oral sex with the male partner in exchange for money or drugs.

**Table 3. 7 Condom availability and use**

	N	%
<b>Knowledge about place or person for obtain condoms</b>		
Yes	148	95.5
No	7	4.5
Total	155	100.0
<b>Organization give you condom in the last 12 months</b>		
Yes, free of cost	47	31.8
Yes, by paying money	8	5.4
No	93	62.8
Total	148	100.0
<b>Usual condom carrying practice</b>		
Yes	19	12.8
No	129	87.2
Total	148	100.0
<b>Ever used a condom</b>		
Yes	88	56.8
No	67	43.2
Total	155	100.0
<b>Use of condom at the last anal/vaginal/oral sex with a male sex partner</b>		
Yes	56	54.9
No	46	45.1
Total	102	100.0
<b>Use of condom at the last anal/vaginal/oral sex with a male partner in exchange for money or drugs</b>		
Yes	12	50.0
No	12	50.0
Total	24	100.0

### 3.7 Comprehensive Knowledge of HIV

FIDUs were assessed to know their perception about HIV transmission. Majority (82%) of them knew “condom used during each sexual contact does not transmit HIV virus (C)”. Four-fifth of them (80%) knew “A healthy looking person can be infected with HIV (D)”. Almost three-fourth (73%) of them knew “Sharing a meal with HIV infected person does not transmit HIV (F)”. Three-fifth (60%) of them knew “People can protect transmission of HIV by being faithful to a single partner (B)”. More than a half (54%) of them knew “Abstinence from sexual contact as a means to avoid themselves from HIV (A)”. Over one-third of them (37%) knew “A person cannot get the HIV virus from

mosquito bite (E)". Overall only over one-third (36%) of FIDUs correctly identified all three A, B and C as HIV preventive measures. Overall less than one-fifth (19%) were aware of all the five major indicators i e B, C, D, E and F.

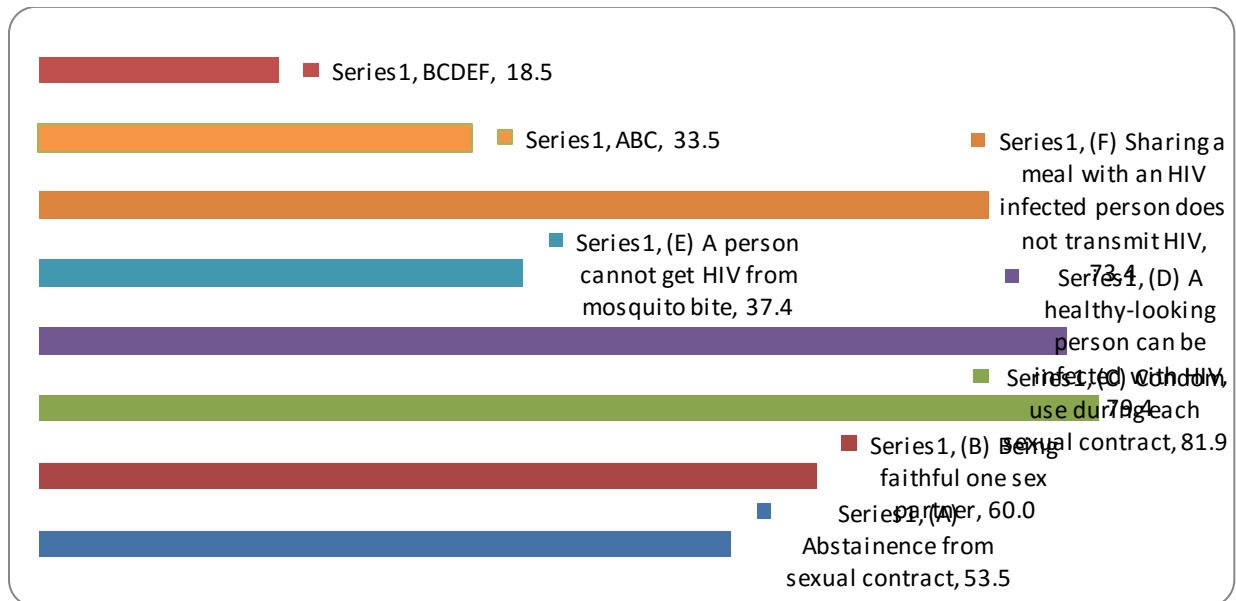


Figure 3.1 Comprehensive Knowledge of HIV and Modes of HIV Transmission

### 3.8 Awareness and Availability of HIV Testing Facility and HIV Testing

The knowledge of FIDUs regarding the availability of HIV testing facility and their practice of HIV testing was assessed in the survey. Majority of the FIDUs (81%) knew about the place where HIV testing could be done. Over a quarter of them (29%) had been ever tested for HIV. Out of the ones who were ever tested for HIV, majority (76%) had undergone the test voluntarily. Among the FIDUs who had ever had an HIV test, majority (82%) had undergone the test within last 12 months and out of them nearly two-third (64%) had tested once. However, over a quarter of them (27%) had undergone the test for twice. All FIDUs who underwent HIV testing knew their HIV status and almost all of them (98%) had test result as HIV negative. On the other hand, two percent of them were uncertain about their results. (table 3.8)

Table 3. 8 Awareness and Availability of HIV Testing Facility and HIV Testing

	N	%
<b>Knowledge of place where HIV test can be done</b>		
Yes	126	81.3
No	29	18.7
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Ever had an HIV test</b>		

	N	%
Yes	45	29.0
No	110	71.0
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Done HIV test Voluntarily</b>		
Voluntary	34	75.6
As required	11	24.4
<b>Total</b>	<b>45</b>	<b>100.0</b>
<b>Time of most recent HIV test</b>		
within the past 12 months	37	82.2
Between 13-24 months	5	11.1
Between 25-48months	1	2.2
More than 48 months	2	4.4
<b>Total</b>	<b>45</b>	<b>100.0</b>
<b>Frequency of undergoing for HIV test within the last 12 months</b>		
One	29	64.4
Two	12	26.7
Three	4	8.9
<b>Total</b>	<b>45</b>	<b>100.0</b>
<b>HIV test result received</b>		
Yes	45	100.0
<b>Total</b>	<b>45</b>	<b>100.0</b>
<b>Result of last HIV test</b>		
Negative	44	97.8
Uncertain	1	2.2
<b>Total</b>	<b>45</b>	<b>100.0</b>

### 3.9 Knowledge of STIs, Experienced Symptoms, and Treatment in the Past Year

An over whelming majority (84%) of the FIDUs had heard of STIs. The FIDUs who had heard of STIs were further assessed about their knowledge of STI symptoms. The common symptoms they knew about were, burning micturition (84%), foul smelling (81%), itching (78%), lower abdomen pain (71%), genital discharge (53%), genital ulcer/sore (49%) and swelling in groin area (42%). More than a quarter of the FIDUs (29%) had experienced genital discharge/burning micturition during the last 12 months. Over two-fifth of them (42%) had experienced genital discharge/burning micturition problem and 14 percent of them had genital ulcer/sore/blister in the last 12 months. Among those who had experienced genital discharge/burning micturition (n=22) during

the last 12 months more than a quarter (27%) were currently experiencing the symptoms during the time of survey. Similarly, among the FIDUs who had/have STI symptoms a quarter of them (25%) did not seek treatment.(table 3.9)

**Table 3. 9 Knowledge of STIs, Experienced Symptoms, and Treatment in the Past Year**

	N	%
<b>Ever heard of diseases that can be transmitted through sexual intercourse</b>		
Yes	130	83.9
No	25	16.1
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Sign and symptoms of STIs*</b>		
Lower abdomen pain	92	70.8
Genital discharge	69	53.1
Foul smelling	105	80.8
Burning micturition	109	83.8
Genital ulcers/sore	64	49.2
Swelling in groin area	54	41.5
Itching	101	77.7
Don't know	5	3.8
<b>Total</b>	<b>130</b>	<b>*</b>
<b>Genital discharge/burning urination during the last 12 months</b>		
Yes	45	29.0
No	110	71.0
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Currently have genital discharge/burning urination problem</b>		
Yes	19	42.2
No	26	57.8
<b>Total</b>	<b>45</b>	<b>100.0</b>
<b>Have genital ulcer/sore blister during the last 12 months</b>		
Yes	22	14.2
No	132	85.2
Don't know	1	0.6
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Currently have genital ulcer/sore blister</b>		
Yes	6	27.3
No	16	72.7
<b>Total</b>	<b>22</b>	<b>100.0</b>



	N	%
<b>Place for treatment while having genital discharge/ burning urination or a genital ulcer/sore blister in the last time</b>		
Did not seek treatment	38	24.5
Private hospital	12	7.7
Public hospital	5	3.2
Never had such symptoms	100	64.5
<b>Total</b>	<b>155</b>	<b>100.0</b>

\* Percents total may exceed 100 due to multiple responses

### 3.10 Exposure to HIV Programs (PE, DIC, HTC)

More than a quarter (27%) of the FIDUs had met PE/OE/CM/CE in the last 12 months. Almost one-sixth (16%) had visited outreach center (DIC, IC, CC) in the last 12 months. More than a tenth of them (12%) had visited STI clinic in the last 12 months. Likewise, 16 percent of the FIDUs had visited HTC (HIV testing and counseling center). Overall six percent of FIDUs were enrolled into opioid substitution therapy (OST): methadone and buprenorphine.

**Table 3. 10 Exposure to HIV Programs (PE, DIC, HTC)**

	N	%
<b>Ever met or discussed or interacted with PE/ OE/ CM/CE in the last 12 months</b>		
Yes	41	26.5
No	114	73.5
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Ever visited DIC/IC/CC in the last 12 months</b>		
Yes	25	16.1
No	130	83.9
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Ever visited any STI clinic in the last 12 Months</b>		
Yes	19	12.3
No	136	87.7
<b>Total</b>	<b>155</b>	<b>100.0</b>
<b>Ever visited any HTC in last 12 months</b>		
Yes	25	16.1
No	130	83.9
<b>Total</b>	<b>155</b>	<b>100.0</b>

	N	%
<b>Ever enrolled into any Opioid substitution Therapy (OST): Methadone and Buprenorphine</b>		
Yes	9	5.8
No	145	93.5
Don't know	1	0.6
<b>Total</b>	<b>155</b>	<b>100.0</b>

### 3.11 Stigma and Discrimination

This IBBS survey assessed stigma and discrimination among the HIV infected people. In this regards, more than two-third (68%) of the FIDUs shared that they were willing to buy stuff from HIV infected shopkeeper. Majority of the FIDUs (72%) replied that children living with HIV should be able to attend school with those children who have HIV negative status (Table 3.11).

**Table 3. 11 Stigma and discrimination**

	N	%
<b>Willing to buy stuff from HIV infected shopkeeper</b>		
Yes	106	68.4
No	45	29
Don't Know	4	2.6
<b>Total</b>	<b>155</b>	<b>100</b>
<b>HIV infected children allowed to study with other children</b>		
Yes	112	72.3
No	43	27.7
<b>Total</b>	<b>155</b>	<b>100.0</b>

## CHAPTER IV: CONSLUSION AND RECOMMENDATIONS

IBBS survey conducted among FIDUs is the first round survey in Pokhara Valley. Females, who had been injecting drugs for at least three months preceding the survey age of 16 years and above were defined as FIDUs and enrolled in the survey. The survey was conducted from December 2016 to May 2017. The survey was undertaken primarily to determine the prevalence of HIV, syphilis, Hepatitis B (HBV) and Hepatitis C (HCV) infection among FIDUs. Moreover, the survey also finds out the baseline data of comprehensive knowledge of HIV/AIDS, sexual risk behavior and injecting behaviors among FIDUs, their exposures to various HIV/AIDS prevention, treatment, care and support programs. Based on the findings of this study, the following are the recommendations.

Prevalence of Syphilis (3.9%), Hepatitis C (2.6%) and HIV (1.9%) was found among the FIDUs. *Hence BCC and IEC programs should be implemented targeting the FIDUs in Pokhara Valley.*

Although awareness of HIV was almost cent percent among the FIDUs, comprehensive knowledge on HIV was found very low. Only a third of the FIDUs (33.5%) correctly identified all three **A, B** and **C** as HIV preventive measures whereas less than one-fifth of the FIDU (18.5%) were aware of all the five major indicators, i.e., **BCDEF**. *Therefore, misconceptions of the target population on the mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs could play an important role to spread the correct knowledge of HIV among them.*

More than two-thirds of the FIDUs (73%) had injected drugs in a very young age of below 20 years. Therefore, specific program activities that target *adolescents and youths should be designed to impart knowledge on sex education, drug prevention and HIV/AIDs awareness through Behaviour Change Communication (BCC) interventions.*

Considerable proportions of FIDUs are at risk of HIV as they have used needles that were already used by their friends (14.4%). Likewise, the practice of syringe sharing with the usual sex partner in the past week was also prevalent among the FIDUs (10.5%). Similarly, the practice of sharing needle during the last injection was prevalent among 16 percent of the FIDU. *Hence, harm reduction programs including the risk of needle sharing behaviour and advocacy on using new syringes should be launched.*

As notable percent (43%) of FIDUs male regular partner also injected drugs, *the programme of harm reduction and safer sexual behaviour targeting both the partners need to be initiated.*

FIDUs were found sexually active, have multiple sexual partners are more engaged in risky sexual behaviors. The pre-marital sexual relationship was common among them. *Messages on delayed sexual debut should be promoted. Safer sex behaviors including being faithful to their sexual partners, partner reduction, consistent and correct use of condom should be disseminated among FIDUs.*

Nearly a quarter of FIDUs had sexual intercourse with men in exchange for money or drugs. However, among them, condom use was found low. These groups of FIDUs had overlapping risks. *Hence, FIDUs should be reached by programs to raise awareness of safer sex.*

Consistent condom use with male sex partners was found low. This may increase vulnerability for HIV and STI transmission. *The program should focus on the consistent condom use with all partners.*

The practice of seeking STI treatment among FIDUs was lacking. *Treatment seeking behaviors should be promoted among those FIDUs who engaged in risky sexual behaviors.*

Ongoing structured HIV program (peer education, DICs, HTC/STI clinics etc.) was found to be low among FIDUs. *Hence, targeted interventions among FIDUs with the provision of peer and outreach education, HTC/STI clinic including care and support would help increase the exposure to HIV and AIDs programs.*

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**ANNEX 1:**  
**Integrated Biological and Behavioral Surveillance Survey**  
**among FIDUFIDU (FIDU) in Pokhara Valley**

**Questionnaire**

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

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

Would you be willing to participate?

1. Yes                      2.  
No

Signature of the interviewer:

Date: \_\_\_\_\_/

\_\_\_\_\_/2073

**Operational definition of  
FIDU:**

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

survey”

Interviewer Name: \_\_\_\_\_ Code Interviewer: \_\_\_\_\_  
 Date Interview: \_\_\_/\_\_\_/ 2073  
 Checked by the supervisor: Signature: \_\_\_\_\_ Date: \_\_\_/\_\_\_/ 2073

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

1. Yes                                      2. No (continue interview)



When?  
 \_\_\_\_\_ Days ago (make sure that it was interviewed by SPMER and close the interview)

002. FIDU's ID #:

002.1 How long have you been injecting drugs?

Years  Months

**(NOTE: AFORMENTIONED QUESTIONS ARE THE SCREENING QUESTIONS. 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 District: \_\_\_\_\_  
 003.2 VDC/Municipality: \_\_\_\_\_

1.0 FIDU Information

Q.N.	Question	Coding Categories	Skip
101	Where are you living now?  <b>(Write current place of residence)</b>	003.1 District: _____ 003.2 VDC/Municipality: _____	
101.1	How long have you been living continuously at the same address?	Month ..... <input type="text"/> <input type="text"/> <input type="text"/> Always (since birth) ..... 0	
102	How old are you?	Age ..... <input type="text"/> <input type="text"/>  <b>(write the completed years)</b>	

103	What is your educational status? <b>(Circle '0' if illiterate, '19' for the literate without attending the school, and write exact number of the passed grade)</b>	Illiterate.....0 Literate without formal education 19 Literate Grade .....	
104	What is your caste? <b>(Specify Caste)</b>	Caste _____ Code No.....	
105	What is your current marital status?	Never married.....→ Married .....2 Divorced/Permanently separated. 3 Widow.....4 Living together.....5 Others.....96	106
105.1	How old were you when you first got married?	Age ..... <b>(write the completed years)</b>	
105.2	Have you ever given birth to any live child?	Yes.....1 No.....2 →	105.4
105.3	If yes, how many live children have you given birth to?	Son..... Daughter.....	
105.4	Have you ever terminated any of your pregnancy or have you ever gone through	Terminated pregnancy.....1 Experienced miscarriage.....2	
106	Which of the following best describes your current living situation? <b>(Select only one option)</b>	Homeless on the street.....1 Living in own home.....2 Living in a residential hotel.....3 Rented apartment.....4 Rented room.....5 Other(specify) .....96	
107	With whom you are living now?	Living with husband ..... 1 Living with male sexual partner.. 2 Living without sexual partner ..... 3 Others (Specify).....96 No response ..... 99	
108	During the past one-month how often have you had drinks containing alcohol? <b>(Such as beer, local beer etc.)</b>	Every day ..... 1 More than once a week ..... 2 Less than once a week ..... 3 Never drink ..... 4 Others (Specify).....96 No response ..... 99	
109	Have you ever heard about the methods of family planning?	Yes.....1 No.....2 →	111
110	If yes, which methods do you know?	.....	



111	Are you currently using any family planning methods?	Yes.....1 No.....2	→ 201
112	If yes, which method are you using currently?	.....	

**2.0 DRUG USE**

Q.N.	Questions	Coding Categories	Skip to																																																																																																																																																								
201	How long have you been using drugs?  <b>(Drug means medicine not used for treatment purpose rather used for</b>	Year..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/>																																																																																																																																																									
202	How old were you when you first injected drugs? <b>(Include self-injection or injection by another)</b>	Years ..... <input type="text"/> <input type="text"/> <b>(write the completed years)</b>																																																																																																																																																									
203	How long have you been injecting drugs?  <b>(Include self-injection or injection by others)</b>	Years..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/> No response																																																																																																																																																									
203.1	Have you injected drugs in the last month?	Yes .....1 No .....2	204 →																																																																																																																																																								
203.2	If Yes, have you used previously used syringe /non-sterile syringe/needle 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?																																																																																																																																																										
		<table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th colspan="4">Used in Last-Week</th> <th colspan="4">Injected in Last-Week</th> </tr> <tr> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>1. <del>.....</del></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>2. Brown Sugar/White Sugar</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>3. Nitrosun/ Nitrovate</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>4. Ganja/Chares</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5. PhensydyI+Corex</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6. Calmpose/Diazepam/Velium 10</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>7. Codeine</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>8. Phenergan/Stagon</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>9. Cocaine/Cracks</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10. Proxygin/Proxyvon</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>11. Effidin</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>12. Lysergic Acid/ Dithylamide(LSD)</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>13. Avil/Algic</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>14. Amphetamine/Yava/Ice</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>96. Others (Specify)_</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> </tbody> </table>	Description	Used in Last-Week				Injected in Last-Week				YES	NO	DK	NR	YES	NO	DK	NR	1. <del>.....</del>					1	2	98	99	2. Brown Sugar/White Sugar	1	2	98	99	1	2	98	99	3. Nitrosun/ Nitrovate	1	2	98	99	1	2	98	99	4. Ganja/Chares	1	2	98	99					5. PhensydyI+Corex	1	2	98	99					6. Calmpose/Diazepam/Velium 10	1	2	98	99	1	2	98	99	7. Codeine	1	2	98	99	1	2	98	99	8. Phenergan/Stagon	1	2	98	99	1	2	98	99	9. Cocaine/Cracks	1	2	98	99					10. Proxygin/Proxyvon	1	2	98	99	1	2	98	99	11. Effidin	1	2	98	99	1	2	98	99	12. Lysergic Acid/ Dithylamide(LSD)	1	2	98	99					13. Avil/Algic	1	2	98	99	1	2	98	99	14. Amphetamine/Yava/Ice	1	2	98	99	1	2	98	99	96. Others (Specify)_	1	2	98	99	1	2	98	99	
Description	Used in Last-Week				Injected in Last-Week																																																																																																																																																						
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14. Amphetamine/Yava/Ice	1	2	98	99	1	2	98	99																																																																																																																																																			
96. Others (Specify)_	1	2	98	99	1	2	98	99																																																																																																																																																			
204.0.1	Have you used these drugs in combination form?	Yes .....1 No .....2 No response .....99	<del>204.1</del>																																																																																																																																																								
204.0.2	If yes, how many drugs has been used?	<input type="text"/> numbers)																																																																																																																																																									

204.0.3	What are the most frequently combination that is used?	.....(Specify)	
204.1	In the last month, did you switch from one drug to another?	Yes.....1 No----- 2	→205

Q.N.	Question	Coding Categories	Skip to
204.1.1	If yes, which drug?	From _____ drug To _____ drug	
204.1.2	What is the reason for switching?	To decrease <b>Tidigesic</b> .....1 Costly.....2 Difficult to find drugs.....3 Others.....96	
205	How many times did you inject drugs yesterday?	Times..... <input type="text"/> <input type="text"/> Not injected .....0	→ 207
206	Would you like to tell me why you did not inject yesterday?	Due to lack of Money.....1 Want to quit slowly.....2 Had taken Ganja.....3 Had taken Brown Sugar.....4 Had injected previous day.....5 Had taken alcohol.....6 Did not find Drugs.....7 Was under police custody.....8 Had taken Nitrosun.....9 Was Sick.....10 Had taken other drugs.....11 Was busy in household activity12 Others (Specify).....96	
207	How many days ago did you inject?	Days ago ..... <input type="text"/> <input type="text"/>	
208	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	
209	(Ask whether the FIDU was ever arrested or not then ask the following questions) Have you ever been imprisoned or detained for any reason?	Yes .....1 No .....2 No response .....99	→ 210

209.1	In the past year, how many times have you been imprisoned for drug-related reason?	Times ..... <input type="text"/> <input type="text"/> No response	
209.2	Have you ever-injected drugs while in prison?	Yes .....1 No .....2 No response	
210	How often you cross the border (Indo-Nepal) to buy and use the illicit drugs in the past 12 months?	..... .....	

### 3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Question	Coding Categories	Skip to
301	Think about the times, you have injected drugs Yesterday/last day. How many times did you inject drugs on that day? <b>(Fill the number from answer to Q. 205 and verify by asking the FIDU)</b>	Times..... <input type="text"/> <input type="text"/>	
302	The last time you injected, how did you get that syringe/needle?	My friend/relative gave it to me after his use .....1 Unknown person gave it to me after he use .....2 I picked it up from a public place which was left there by others ..3 I picked it up from a public place which was left there by myself .....4 I used a new needle/syringe given by NGO staff/volunteer.....5 I used a needle/syringe which I purchased.....6 I reused my own needle/syringe ..7 My friend gave new	
303	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 syringe/needle?	No of person: ..... <input type="text"/> <input type="text"/> Injected alone .....95	

Q.N.	Question	Coding Categories	Skip to
304	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	→ 311

305	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? <b>(Public place means places other than the PWIDs home that are used to hide)</b>	Every times.....1 Almost every-times .....2 Sometimes.....3 Never .....4 Don't know .....98 No response .....99	
306	With how many different injecting partners did you share needles or syringes in the past one week?  <b>(Count everyone who injected from the</b>	No. of partners..... <input type="text"/> <input type="text"/> Don't know.....98	
307	In the past one-week, did you ever share needles and syringes with any of the		
	<b>Read out list. Multiple answers possible</b>	<b>Yes</b>	<b>No</b>
	1.Your usual sexual partner	1	2
	2.A sexual partner who you did not know	1	2
	3.A friend	1	2
	4.A drugseller	1	2
	5.Unknown Person	1	2
96. Other (Specify) _____	1	2	
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? <b>(By that I mean a syringe that was filled without you witnessing it)</b>	Yes ..... 1 No ..... 2 Don't know ..... 98 No response.....	

Q.N.	Question	Coding Categories	Skip to
310	In the past one-week, how often did you inject drugs using a syringe after someone else had squirted drugs into it from his/her used syringe?	Every times..... 1 Almost every-times ..... 2 Sometimes..... 3 Never .....4 Don't know .....98 No response ..... 99	
311	Can you obtain new, unused needles and syringes when you need them?	Yes ..... 1 No ..... 2 Don't know .....98 No response ..... 99	} 316

312	<p>Where can you obtain new unused needles and syringes?</p> <p><b>(Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?" )</b></p>	<p>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  <b>(write the name of Organization)</b>  Steal from legitimate source (hospital./pharmacy)..... 12  Buy on streets .....13  Other (Specify) ..... 96</p>	
313	<p>What do you usually do with your used needle/syringe?</p>	<p>Disposed .....1  Gave to friend.....2  Kept/carry safely for another use3  Hide in public places .....4  Threw anywhere.....5  Others (specify).....96  Don't know .....98</p>	

Q.N.	Question	Coding Categories	Skip to
314	<p>In the past one-year, did you ever inject drug in another city/district (or another country)?</p>	<p>Yes ..... 1  No ..... 2  Don't' remember.....98  No response ..... 99</p>	
315	<p>Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?</p>	<p>Currently under treatment .....1  Was in treatment but not now..... 2  Have never received treatment.3  No response .....99</p>	401
316	<p>How many months ago did you last receive treatment or help for your drug use?</p>	<p>Months ..... <input type="text"/> <input type="text"/>  Don't know ..... 98  No response ..... 99</p>	

**4.0 SEXUAL HISTORY**

Q.N.	Question	Coding Categories	Skip to
401	How old were you at your first sexual Intercourse?	Years old ..... <input type="text"/> <input type="text"/> <i>(Write completed years)</i> Never had sexual intercourse → 0	601
402	Have you had sexual intercourse in the last 12 months?	Yes ..... 1 No..... 2 No response ..... 99	
403	In total, how many different male sexual partners have you had sex in the last 12 months?	Number..... <input type="text"/> <input type="text"/>	
403.1	How many were male "regular partners"?  <b>(Your husband or live-in sexual partners)</b>	Number..... <input type="text"/> <input type="text"/> Don't know.....98 No response.....99	
403.2	Did your male regular partner also inject drugs?	Yes ..... 1 No ..... 2 Don't know.....98 No response..... 99	
404	How many were male "non-regular partners"? <b>(Sexual partners, you are not married to and have never lived with and did not have sex in exchange for money)</b>	Number ..... <input type="text"/> <input type="text"/> Don't know .....98 No response .....99	
404.1	Did your casual male partner also inject drugs?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
405	The last time you had anal/vaginal/oral 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	
406	Did you have a sexual intercourse with men in exchange for money or drugs in last 12 months?	Yes .....1 No .....2 Don't know.....98 No Response.....99	} 501
406.1	With how many male partners you had sex in last month by paying them money or drugs	Number .. <input type="text"/> <input type="text"/> Don't know ..... 98 No response..... 99	

406.2	The last time you had anal/vaginal/oral sex with a male partner in exchange for money or drugs; did you or your partner use a condom?	Yes .....1 No .....2 Don't know.....98 No response .....99	
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**5.0 USES AND AVAILABILITY OF CONDOM**

501	Have you ever used a condom?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
502	Do you know of any place or person from which you can obtain condom?	Yes ..... 1 No ..... 2 No response..... 99	} 601
503	From which place or people, can you obtain condoms?  <b>(Multiple answer possible. Don't read the list but probe)</b>	Shop ..... 1 Pharmacy ..... 2 Clinic ..... 3 Hospital .....4 Family planning center ..... 5 Bar/Guest house/Hotel .....6 Health worker ..... 7 Peer Educator/Outreach doctor ... 8 Friend ..... 9 <i>Pan Pasa</i> ..... 10 Others (Specify).....96	
503.1	Did any organization give you condom in the last 12 months?	Yes, free of cost..... .1 Yes, by taking money..... 2 No ..... 3	
504	Do you usually carry condom with you?	Yes ..... 1 No ..... 2	
505	At this moment how many condoms do you have at-hand with you? <b>(Observe and write)</b>	Numbers..... <input type="text"/> <input type="text"/>	



## 6.0 KNOWLEDGE AND TREATMENT OF STIs

Q. N.	Que	Coding Categories	Skip to
601	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes ..... 1 No ..... 2 No response .....99	} 603
602	Can you describe any symptoms of STIs in women?  <b>(Do not read possible answers, multiple answers possible.)</b>	Lower abdominal pain ..... 1 Genital discharge ..... 2 Foul smelling ..... 3 Burning pain on urination ..... 4 Genital ulcers/sore..... 5 Swelling in groin area ..... 6 Itching..... 7 Other (Specify) ..... 96 Don't know ..... 98	
603	Have you had genital discharge/burning urination during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	} 604
603.1	Currently, do you have genital discharge/burning urination problem?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
604	Have you had a genital ulcer/sore blister during the last 12 months?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	} 605
604.1	Currently, do you have genital ulcer/sore blister?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
605	Last time you had a genital discharge/ burning urination or a genital ulcer/sore blister, where did you go for treatment?	Did not seek treatment ..... 1 With private doctor ..... 2 In hospital ..... 3 Never had such symptoms ..... 4 Others (Specify) .....96	

## 7.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV

Q. N.	Que	Coding Categories	Skip to
701	Have you ever heard of HIV or the disease called AIDS? <b>(Probe if the response if No)</b>	Yes .....1 No .....2 No response .....99	

702	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes .....1 No .....2 No response .....99	} 704
703	Do you have close relative or close friend who is infected with HIV or has died of AIDS?	Yes, a close relative.....1 Yes, a close friend .....2 No .....3 No response .....99	

Q. N.	Qu	Coding Categories	Skip to
704	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly during	Yes .....1 No .....2 Don't know .....98 No response .....99	
705	Can a person get HIV, from mosquito bites?	Yes .....1 No .....2 Don't know .....98 No response .....99	
706	Can a person protect himself/herself from HIV, by having only one uninfected faithful sex partner?	Yes .....1 No .....2 Don't know .....98 No response .....99	
707	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse?	Yes .....1 No .....2 Don't know .....98 No response .....99	
708	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	
709	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	
710	Can a person who inject drug protect himself/herself from HIV, the virus that causes	Yes .....1 No .....2 Don't know .....98 No response .....99	
711	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	} 713

712	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? <b>(Do not read the possible answers, multiple answer</b>	Take medication (Antiretroviral) ..1 Others (Specify) _____96 Don't know .....98 No response .....99	
713	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	
713.1	Do you think a healthy-looking person can be infected with HIV?	Yes .....1 No .....2 Don't know .....98	
713.2	Can a person get HIV by shaking hand with an infected person?	Yes .....1 No .....2 Don't know .....98	
713.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes .....1 No .....2 Don't know .....98	
714	Is it possible in your community for someone to have a confidential HIV test? <b>(By confidential, I mean that no</b>	Yes .....1 No .....2 Don't know .....98 No response .....99	
714.1	Do you know where to go for HIV test?	Yes .....1 No .....2	

Q. N.	Q	Coding Categories	Skip to
715	Have you ever had an HIV test?	Yes .....1 No .....2 No response .....99	
716	Did you voluntarily take up the HIV test, or were you required to have the test?	Voluntary .....1 Required .....2 No response .....99	
717	When did you have your most recent HIV test?	Within the past 12 months .....1 Between 13-24 months.....2 Between 25-48 months.....3 More than 48 months .....4 Don't know .....98	
717.1	How many times have you undergone for HIV test within the last 12 months?	..... Times	
718	Did you find out the result of your HIV test?	Yes .....1 No .....2 → No response .....99 →	801 801

718.1	What was the result of your last test?	Positive.....1 Negative.....2 Uncertain.....3 Result not received.....4 Don't know.....98 No response.....99	801 719 801
718.2	Did you go to HTC for HIV care once you knew you were HIV positive?	Went.....1 Did not go.....2 Don't know.....98 No response.....99	801
718.3	Why didn't you go to HTC for HIV care even after knowing you were HIV positive?	Felt I was healthy.....1 Others might know.....2 Had to pay.....3 Bad attitude of healthcare provider..4 Long waiting time/Could not manage with Clinic opening time.....5 Others (Specify).....96 Don't know.....98 No response.....99	801
719	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	

## 8.0 KNOWLEDGE OF HEPATITIS C

I am going to ask you to answer some questions about your general knowledge of Hepatitis C.

Q. N.	Questions	Response categories	Skip to
801	Can Hepatitis C be transmitted through sex?	Yes .....1 No .....2	
802	Can Condoms protect you against hepatitis C?	Yes .....1 No .....2	
803	Can Hepatitis C only occur if you have HIV?	Yes .....1 No .....2	
804	Can sharing needles transmit Hepatitis C?	Yes .....1 No .....2	
805	Can Hepatitis C be transmitted through tattooing?	Yes .....1 No .....2	
806	Is there a medical treatment for hepatitis C?	Yes .....1 No .....2	
807	Can herbal remedies cure hepatitis C?	Yes .....1 No .....2	

### 9. KNOWLEDGE AND PARTICIPATION IN STI AND HIV PROGRAMS

Q. N.	Q	Coding Categories	Skip to
901	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizers (CM)	Yes .....1 No .....→2 No response .....99	904
902	What activities did these PE or OEs involve you in when you met them?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	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	

903	How many times have these PE, OE, CM and/or CE met you in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times .....3 7-12 times ..... 4 More than 12 times..... 5	
904	Have you visited or been to any outreach center (DIC, IC or CC) in the last 12 months?	Yes .....1 No .....→2	907
905	What did you do when you went to the out reach center (DIC, IC or CC) in the 12 last months?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	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 Others (Specify)..... 96	
906	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	
907	Have you visited any STI clinic in the last 12 months?	Yes .....1 No .....→2	910

908	What did you do when you visited such STI clinic?  <b>(Multiple answers. DO NOT READ the possible answers given below)</b>	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	
909	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	
910	Have you visited any HTC (HIV testing and counseling center) ?	Yes .....1 No ..... →2	913
911	What did you do when you visited such HTCs ?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	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	

Q. N.	Q	Coding Categories	Skip to
912	For how many times have you visited HTC 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	

913	Have you ever enrolled into any Opioid substitution Therapy (OST): Methadone and Buprenorphine?	Yes .....1 No .....2 Don't Know.....98 } No response .....99	End the Interview
913.1	Have you received any Opioid substitution Therapy (OST) in the past 12 months?	Yes .....1 No .....2 Don't Know.....98 } No response .....99	End the Interview
913.2	Which service have you received?	Methadone .....1 Buprenorphine.....2 Others (Specify)..... 96	
913.3	Are you still in therapy?	Yes .....1 No .....2 } Don't know.....98 No response .....99	End the Interview
913.4	What amount have you been receiving per day?	Methadone.....ml Buprenorphine..... mg.	
913.5	How long have you been in this therapy?	..... Years ..... Months	

**Thank You!!**