Brief Description of Study
Under the leadership of the National Center for AIDS and STD Control (NCASC) according to the National HIV Surveillance Plan for generating the strategic information needed for guiding and monitoring the national response to HIV and AIDS, since 2003 Nepal has been successfully carrying out IBBS surveys among People Who Inject Drugs (PWIDs).

The latest round (round VI, 2015) of the IBBS survey was conducted among PWIDs within the Pokhara Valley with coverage of 345 sample size, funded by Global Fund, under the leadership of NCASC, Save the Children and in close collaboration with key stakeholders. The survey was carried out primarily to track the trends in the prevalence of HIV and syphilis infection among male PWIDs and to assess their sexual and injecting behaviors. The surveys also explored the respondents’ knowledge of HIV and sexually transmitted infections (STI), the presence of STI symptoms, sexual and injecting behaviors, and exposure to HIV programs. For the first time in IBBS history this round has introduced Hepatitis C (HCV) and Hepatitis B (HBV) test and its prevalence among PWIDs.

Methods
A cross-sectional survey was conducted among PWID who are considered to be one of the key populations at higher risk of transmitting HIV and STI infections in Nepal. For the purposes of this survey, the definition for PWIDs is “Current males who inject drugs aged 16 years or above who have been injecting drugs for at least three months prior to the date of survey”.

The respondent-driven sampling (RDS), a form of chain-referral sampling, specifically targeted for hard to reach populations was used to recruit survey participants.

Key Findings

HIV prevalence had decreased over years
HIV prevalence among PWIDs has decreased significantly since the first round in 2003 to 2015, 22 to 2.8 percent respectively (Figure-1).

Prevalence of Syphilis, HCV and HBV
Out of a sample size of 345 PWIDs, 1.1 percent had a history of Syphilis and the same proportion (CI = 0.1 – 2.3) had been diagnosed with a current active case of these morbidities. There was 1.8 percent of HBV prevalence (CI= 0.3 – 3.2) among the PWIDs while 13.1 percent, ranging from 9.6 to 18.2 at a 95 percent confidence interval, were found to be infected with HCV.

Turnover Rate
The PWIDs turnover rate found to be increased compared to the last round of IBBS in 2011. About 9 percent PWIDs reportedly started injecting drugs less than a year. However it was around 16 percent in the last round of IBBS in 2011. Figure-2 shows the trend in the turnover of PWIDs who started injecting less than two years. The trend is significantly increasing over the time.

Demographic Information
Many PWIDs are young, started injecting at a young age and are unmarried: More than half of them are less than 25 years of age. Almost half (48%) had started injecting drugs at or before the age of 20. The proportion of unmarried PWIDs was found to be 69 percent out of total sample 345(Figure 3).

Figure-1: Trend of HIV Prevalence (p-value <0.0001)

Figure-2: Trend in PWIDs turnover (less than two years) (p-value <0.0001)

Figure-3: Selected Characteristics of PWIDs 2015

1 The percentage of PWIDs who have started to inject drugs in less than a year can be considered as the annual turnover rate
Injecting Practice

The frequency of injecting drugs in the past week has decreased over time: The overall trend of PWIDs injecting drugs more than once a day has decreased significantly (Figure 4). The proportion decreased from 44 percent in the 2003 to 0.5 percent in 2015. In addition, over the time, average frequency of injecting drugs in the past week has found to be slightly inclined (4 in 2003 to 4.9 in 2015).

![Figure 4: Trend of PWIDs injecting drugs more than once in a day (p-value <0.0001)](image)

Changes in Injecting Behavior

Unsafe injecting behavior has decreased over time: A significant proportion of PWIDs had avoided unsafe injecting behavior in the week preceding the survey. High-risk behavior such as using or sharing previously used needles/syringes and used needle/syringe kept in a public place; both have found to be decreased than previous round, 2 percent in 2011 to 0.3 percent in 2015. Similarly, another risk behavior has found to be decreased on sharing needle/syringe with others (3% in 2011 and 1% in 2015) (Figure 5a, 5b and 5c).

![Figure 5a: Trends in needle/syringe sharing behaviors (p-value<0.0001)](image)

![Figure 5b: Trends in use of needle/syringe kept in public place (p-value<0.0001)](image)

![Figure 5c: Trends in use of previously used needle/syringe (p-value<0.0001)](image)

HIV testing facilities and HIV testing practice

The knowledge amongst the PWIDs on the availability of a confidential HIV testing facility in their community has been increasing in all rounds of IBBS. In addition, this knowledge has found to be 57 percent in 2003 then peaked in 2005 (98%) followed by 97 percent in this sixth round and almost similar in other rounds of IBBS. Although the awareness on the availability of confidential HIV testing facilities is higher, the practice of testing for HIV is relatively lower among the population. Furthermore, HIV testing among PWIDs has increased significantly from 27 percent in 2003 to 26 percent in 2015. However this proportion found to be decreased than last round (66%) of IBBS (Figure 6).

![Figure 6: Trend on Knowledge of HTC and HIV testing practices among PWIDs](image)
Consistent condom use with different partners
Consistent condom use with female sex workers (FSWs) increased over time. However, this behavior has found to be decreased in this round, lowest proportion (40%) compared to all other rounds of IBBS. Further, consistent condom use with non-regular female sex partner has found to be in decreasing trend from round fourth of IBBS in 2009. In addition, consistent condom use with regular female sex partners is lower than with non-regular female sex partners and shows no clear trends over the time (Figure-7).

Participation in HIV related program
The proportion of survey participants who interacted with an outreach educator (OE) or peer educator (PE) has significantly decreased from 87 percent in 2003 to 22 percent in 2015. PWID visiting drop-in-centers (DICs) has decreased over the time (67% in 2003 and 21% in 2015). Furthermore, the proportion of the respondents visiting HIV Testing and Counseling (HTC) centers has found to be decreased from 38 percent in 2003 to 17 percent in 2015. (Figure-8).

Exposure to HIV programs in the past year
Among those who had met and discussed with OE, nearly 90 percent claimed that they had discussed/interacted about HIV and AIDS. Furthermore, in this round of IBBS 22 percent of the study participants claimed to be visited in DIC, while 17 in HTC. Likewise, 4 percent of the respondents claimed to be visited in STI clinic in the past 12 months prior to the survey (Figure-9).
Program Implications and Recommendations

Recommendation 1:
Specific program activities that target youths and adolescents should be designed to provide information, awareness, education and services with behavior and lifestyle change communication related to Drug use, Sexual reproductive health and HIV/AIDS interventions in a mutually reinforcing manner through contemporary electronic and social media coupled with peer based community.

Recommendation 2:
Increase the access to and availability of clean and sterile needle and syringe program exchange programs by incorporating low dead space needle and syringes.

Recommendation 3:
Interventions of behavioral change activities should be continued and scaled up to cover more PWIDs. Harm reduction initiatives should also be continued and expanded further to promote the transition from drug injecting practices to clinically supervised Opioid/ Oral substitution therapies with a balanced mix of both Methadone and Buprenorphine and drug treatment programs to provide a comprehensive range of choices for service recipients.

Recommendation 4:
It is recommended that implementation of “combined” prevention programming, including condom social marketing to significantly increase consistent condom use for primary sexual partners and for casual partners. Cumulative implementation of combined prevention programming for PWID has been associated with substantial decreases in sexual risk behavior among HIV sero-positives.

Recommendation 5:
It is recommended that Increasing awareness about confidential HIV testing facilities in the community Provision of client-friendly service during HIV-test and STI treatment should be strengthened to increase HIV and STI test intake. Bearing in mind that testing is the entry point to treatment, Peer/outreach educators are good contact points to disseminate necessary information to expand coverage HTC.

Recommendation 6:
Increase the geographical and demographical coverage of hard to reach groups through innovative approaches by the insertion of program activities into mainstream health services with a strong accompanied referral and follow-up mechanism to address the compartmentalization of HIV related services within the public health sector. In order to achieve this it is also recommended to increase the human resource allocation component for OE/PE to increase the overall awareness about the availability and access service even remotely linked with HIV services. Further it is recommended to integrate a number of services to create a “one stop shop” solution.

Recommendation 7:
Since drug injecting behavior has been linked with HCV infection in Nepal and elsewhere, the current finding shows that interventions are urgently required. More awareness programs should be conducted among PWIDs focusing on improving their knowledge on Hepatitis B as well as Hepatitis C.

Recommendation 8:
The non-medical use of prescription drugs is an increasing problem in Nepal and includes a wide range of substances: tranquilizers (e.g. benzodiazepines such as diazepam), analgesics/ pain killers (e.g. Opioids such as Ethyl-Morphine, Dextropropoxyphene and Codeine), sedatives (e.g. Nitrazepam, diazepam), antihistamines (e.g. Promethazine), stimulants (e.g. Ephedrine). The non-medical use of prescription drugs can lead to dependence, including all its health and social consequences, especially when starting at a very young age. An effective response therefore requires a multi-pronged, targeted, and sustained approach that can only be achieved through a coordinated effort among public health, service providers, and other stakeholders. Government authorities, parents, medical doctors, pharmacists, pharmaceutical companies have all important roles to play in the dissemination drug treatment literacy among targeted drug user populations and is highly recommended.

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