Integrated Biological and Behavioral Surveillance among Injecting Drug Users (IDUs) in Kathmandu, Pokhara, Eastern Terai and Western to Far Western Terai 2009 Round IV

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

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

IBBS
2009 Round IV

Integrated Biological & Behavioral Surveillance

Injecting Drug Users [IDUs]

Kathmandu, Pokhara, Eastern Terai, Western to Far Western Terai

Fact Sheet

Brief Description of the Study

One of the driving forces of Nepal's HIV epidemic is injecting drug user. Because of unsafe injecting behavior, IDUs have higher risk of HIV infection and prevalence is highest in this sub-group of population in the country. Moreover, IDUs have sexual networking with female sex workers (FSWs).

This fact sheet summarizes the findings of the Integrated Biological and Behavioral Surveillance (IBBS) Survey conducted among IDUs in the Kathmandu Valley, Pokhara Valley, Eastern Terai and Western to Far Western Terai. Except in the Western to Far Western Terai fourth round of IBBS was conducted among IDUs in 2009. In Western to Far Western Terai third round of IBBS was conducted in 2009. A total of 1,245 (300 each in Western to Far Western Terai, Kathmandu and Pokhara Valley, and 345 in Eastern Terai) current male IDUs (those injecting drugs for at least three months prior to the date of survey) aged 16 years and above were included in the study.

Methods

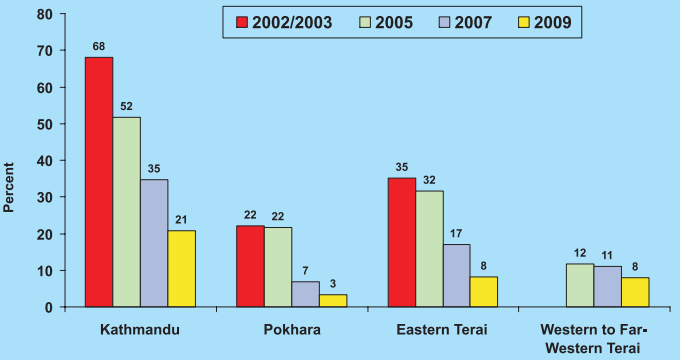
Different sampling methods were used in different study sites. Two stage cluster-sampling was used in Eastern and Western to Far Western Terai, while respondent driven sampling (RDS) method was used in Kathmandu and Pokhara Valley to collect both behavioral and biological data. Blood samples were collected from all the study participants and were tested for HIV and syphilis. HIV was detected using a serial testing protocol. Determine HIV 1/2 test was the first test used. If the result in the first test was positive, a second test was done using Uni-Gold. In case of discordant results in the first two tests, SD Bioline HIV 1/2 test was used as tie breaker. Syphilis was detected by RPR and TPPA tests. National guidelines were followed in performing these tests in STD/AIDS Counseling and Training Services (SACTS) laboratory in Kathmandu.

Demographic and behavioral data were collected through a structured questionnaire. Study participants were interviewed after giving oral consent and blood samples were collected with pre-test counseling. Ethical approval was obtained from Nepal Health Research Council (NHRC) and Protection of Human Subject Committee (PHSC), USA. The study participants who were willing to know the test results were provided with post-test counseling. To analyze the data of Kathmandu and Pokhara Valley, RDS software was used and SPSS package was used for analyzing Eastern Terai and Western to Far Western Terai data collected using cluster sampling.

Key Findings

HIV prevalence among IDUs is highest in Kathmandu Valley: The HIV prevalence in Kathmandu was 20.7 percent compared to only 3.4 percent in the Pokhara Valley. In Eastern and Western to Far Western Terai, HIV prevalence was the same (about 8%) in this 2009 round of IBBS. In all sites HIV prevalence has gradually decreased over the years. Except in Western to Far Western Terai HIV has decreased significantly from 2003-2009 **(Fig. 1)**.

Fig. 1: HIV Prevalence among injecting drug users



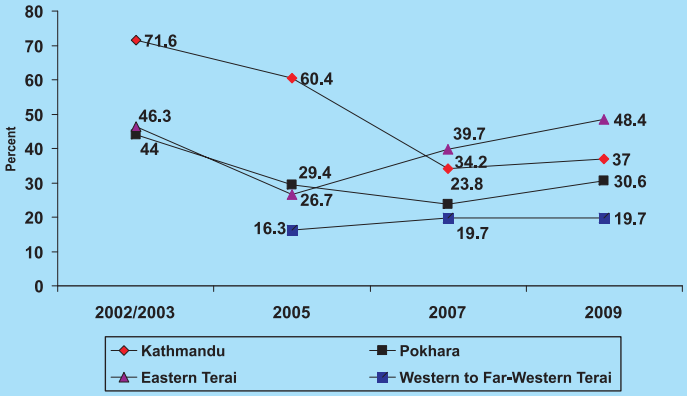
Turnover rate among IDUs is very high: The percentage of IDUs who have started to inject drugs in the last 12 months can be considered as the turnover rate of IDUs. About 22 percent, 34 precent, 27 precent and 21 precent IDUs from Kathmandu, Pokhara, Eastern Terai and Western to Far Western Terai respectively have reported to start injecting within last two years. This indicates that in about 10 years, in all study sites, IDUs will be totally replaced by new IDUs. This is one of the factors playing a role in the rapid decline in HIV prevalence among IDUs along with changes in other behavioral factors.

Many IDUs are young and unmarried: A large proportion of IDUs in all the sites were less than 25 years of age. The IDUs in Pokhara were relatively younger than the other sites with 62 percent less than 25 years of age compared to 48 percent in Kathmandu, 51 percent in Eastern Terai and 36 percent in Western to Far Western Terai. More than half of the IDUs had started injecting by the time they were 19 years. Majority of the IDUs had stared injecting more than five years ago. More than half of the IDUs in all the four sites were unmarried. Compared to other sites a large proportion of IDUs in Kathmandu were unmarried (67%).

Key Findings

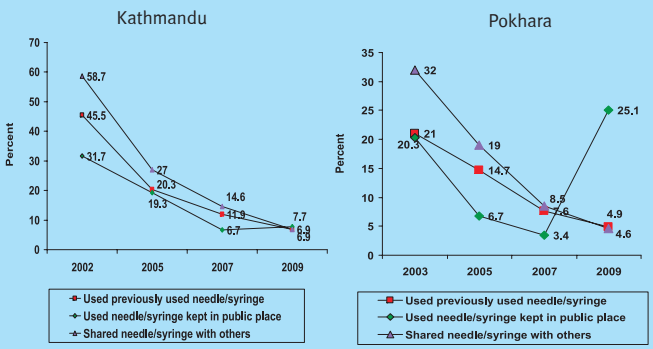
The frequency of injecting drugs has dropped over time:
The percentage of IDUs injecting drugs more than once in a day was 37 percent, 31 percent, 48 percent and 20 percent in Kathmandu, Pokhara, Eastern Terai and Western to Far Western Terai respectively in 2009. These percentages are relatively high and differences by study sites are statistically significant. However, the percentage is decreasing over time in all the four study sites despite slight increase in 2009 in three sites **(Fig. 2)**. In case of Western to Far Western Terai this proportion was relatively stable since the first round.

Fig. 2: Percentage of IDUs injecting drug more than once in a day



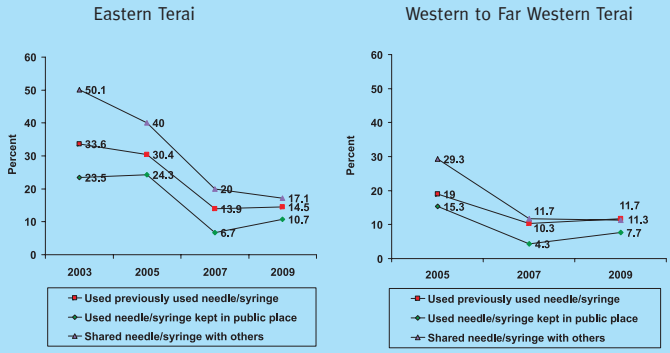
Unsafe injecting behavior has decreased over time:
In 2009, a considerable proportion of IDUs had avoided unsafe injecting behavior in the past week. The proportion of IDUs who had avoided unsafe injecting practice in the week preceding the survey has increased steadily since the first round. High risk behavior such as injecting with previously used needles/syringes significantly decreased from 46 percent to seven percent in Kathmandu, from 21 percent to five percent in Pokhara, from 34 percent to 15 percent in Eastern Terai and from 19 percent to 12 percent in Western Terai **(Fig. 3)**. In addition, since the first round, a significantly higher proportion of IDUs in all study sites had been injecting alone. A similar improvement was observed with regard to using syringes left in public places up to the third round. However, in the 2009 survey, the behavior of using needles/syringes kept in a public place increased sharply to 25 percent in Pokhara.

Fig. 3: Unsafe injecting behavior of IDUs



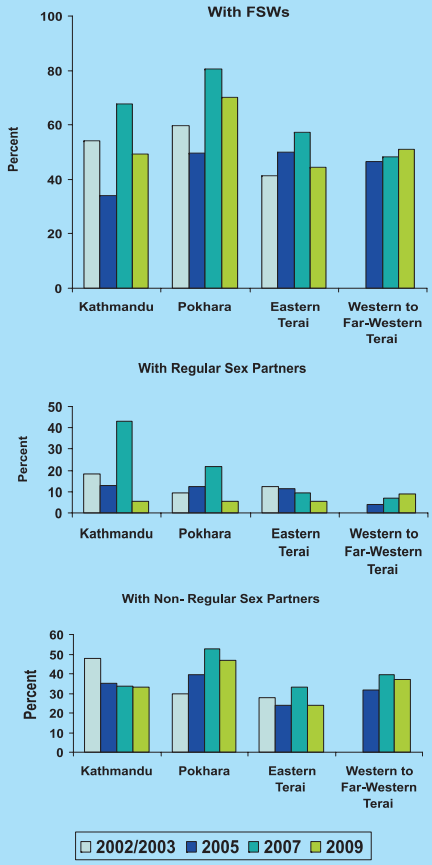
Key Findings

Fig. 3: Unsafe injecting behavior of IDUs



Consistent condom use has decreased:
Very high percentages of IDUs in all sites are reported to have sexually active (more than 90% in all sites). Mainly IDUs sex partners can be classified as regular, non-regular and FSWs. A large proportion of IDUs in all the four sites report inconsistent use of condom with different sex partners. The lowest use of consistent condom use was reported with regular sex partners which include married wives. More importantly consistent use of condom with FSWs has gone down in the last round in all sites except in the Western to Far Western site **(Fig. 4)**. This has greater program implication.

Fig. 4: Consistent condom use with various sex partners reported by IDUs



Key Findings

Comprehensive knowledge on HIV is high:
More than half of the IDUs in all the sites had comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is measured by proper knowledge on abstinence, being faithful and consistent and correct condom use for infection prevention and on three misconceptions related to food sharing, mosquito bite and infection on healthy looking person. Compared to other study sites (Pokhara, 62%; Eastern Terai, 63%; and Western to Far Western Terai, 56%), such knowledge was slightly higher among IDUs in Kathmandu valley (68%). The knowledge of HIV/AIDS among IDUs however has remained stable over years.

Coverage of various HIV programs has increased over time:
Among the various prevention programs, a large proportion of IDUs in all the sites had visited Drop-in-Centers (DICs) (76% in Kathmandu, 91% in Pokhara, 88% in Eastern Terai and 77% in Western to Far Western Terai) and had interacted with peer and outreach educators (PEs/OEs) (75% in Kathmandu, 79% in Pokhara, 91% in Eastern Terai and 82% in Western to Far Western Terai) in the preceding year. Visiting VCT centres and STI clinics remained still low. However, there is an increase in the percentage of visiting VCT and STI clinics than in 2007 study. Percentage of IDUs visiting the VCT centres has increased from 15 percent in 2007 to 20 percent in 2009 in Kathmandu while it has increased from 37 percent to 43 percent in Pokhara. Similarly, it has increased from 23 percent to 34 percent in Eastern Terai and increased from 14 percent to 28 percent in Western to Far Western Terai. Percentage of IDUs visiting STI clinics was low (2% in Kathmandu, 7% in Pokhara, 6% in Eastern and Western to Far Western Terai) in 2009 also.

Program Implications

- The study findings revealed that basically the IDUs had started injecting drugs in their youth and adolescence. A large proportion of IDUs in all the sites were less than 25 years of age when they first injected drugs. This indicates that young groups should be reached with HIV and STI programs and education.
- Although there has been improvement in the injecting behavior over the years, there are still some IDUs who inject with unsafe needle. Therefore, comprehensive drug prevention and treatment intervention should be promoted.
- A large proportion of IDUs are also involved in unsafe sex with different sex partners. These findings indicate the high vulnerability of these population sub-groups to HIV infection. HIV/AIDS programs targeted to IDUs should have effective program components on safe sex as well as safe injecting practices.

Key Indicators

Indicators	Site 1 (East) SPSS	Site 2 (West) SPSS	Site 3 (Pokhara) RDS	Site 4 (KTM) RDS
Prevalence				
HIV	8.1	8.0	3.4	20.7
Syphilis history (RPR negative or positive at < 1:8 titer & TPPA+)	2.9	3.0	1.1	4.1
Active syphilis (RPR>= 1:8 & TPPA +)	1.7	1.7	0.5	1.5
HIV among those injecting for less than a year	0 (n=40)	0 (n=27)	0 (n=51)	3.7 (n=27)
Duration of injection and injecting behavior				
Turnover: median duration of injecting drugs	3.9 yrs	5.2 yrs	3.5 yrs	5 yrs
% aged < 25	51	36.3	60.7	47.0
% people injecting every day (in the past week)	70.1	30.33	63.4	67.4
% people injecting more than once every day (in the past week)	48.4	19.7	30.6	37.0
% shared needle in past week	17.71	12.3	5.1	9.3
% shared injecting equipment in past week	45.2	10.3	26.6	43.2
Sexual behavior				
% married	32.5	42.0	29.8	26.7
STI symptom now as reported by IDUs	3.8	6.3	3.7	1.8
% unprotected sex with FSWs past year	55.5	48.9	30.0	50.6
% unprotected sex with casual partner past year	76.3	62.7	53.4	66.6
% unprotected sex with regular partner past year	94.4	91.3	94.6	94.4
Knowledge of HIV and STI				
Ever heard of HIV	100.0	100.0	100.0	100.0
Comprehensive knowledge *	63.2	56.0	62.2	67.6
Know that HIV is transmitted through stained needles	98.8	98.3	97.7	97.8
Know person living with HIV/AIDS/or died	77.4	75.7	67.8	74.0
Uptake of HIV and STI services				
% of needles obtained from needle exchange program in the last injection	44.3	27.3	52.9	39.6
% received HIV test in the past 12 months and received results	33.3	23.3	39.9	21.5
% received at least 3 outreach prevention services past year	34.5	28.0	41.0	19.6

** knowledge on abstinence, being faithful, condom use and with no misconceptions on HIV in healthy looking person, HIV transmission by mosquito bite and sharing food utensils*

Program Implications

- Awareness about safer sex behavior has increased among the IDUs since the first round of IBBS. Such awareness, however, has not resulted in increased level of safer sex behavior. The results of IBBS shows that still a large number of IDUs do not use condom consistently with their partners. This behavior puts them and their partners at risk.
- The study shows that a high number of IDUs had interacted/discussed with PEs/OEs and thus can be considered good contact points to disseminate the necessary information and IEC materials to the target population. One-to-one education in behavioral change and safer injecting and sexual practices through wider mobilization of PEs/OEs could yield positive results.

Recommendations

- Specific program activities that target school and college students, youths and adolescents should be designed to impart HIV/AIDS awareness and sex education.
- Comprehensive drug prevention and treatment interventions should be promoted. Harm reduction initiatives like wider dissemination of information on safer injecting behavior, and needle exchange programs should be continued and expanded further.
- Barriers to inconsistent condom use should be explored and intervention targeting not just IDUs, but also to FSWs, spouses and other sex partners of IDUs should be initiated and expanded.

  HIV/AIDS awareness campaigns should also focus on STI education. Client-friendly STI diagnosis and treatment facilities, and VCT centers should be made available to encourage more IDUs to come forward voluntarily for such services.
- Outreach and other intervention efforts should be expanded further to include comprehensive, complimentary programs and to increase coverage to all high risk populations. The quality of these programs should be evaluated and where necessary, should be strengthened.

The IBBS Surveys are part of the National HIV Surveillance Plan, led by National Center for AIDS and STD Control (NCASC) and conducted by New Era and SACTS, with technical assistance from Family Health International (FHI) Nepal and financial support from United States Agency for International Development (USAID), Cooperative Agreement 367-A-00-06-00067-00"

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