

# Integrated Biological and Behavioral Surveillance (IBBS) Survey among Female Sex Workers in 22 Highway Districts of Nepal Round VI, 2016

## Brief Description of the Study

This Integrated Biological and Behavioral Surveillance (IBBS) survey was carried out by Intrepid Nepal (INPL) under the leadership of the National Center for AIDS and STD Control (NCASC) and in partnership with Save the Children-Nepal. The existing National HIV and AIDS Strategy (2011-2016) identifies Female Sex Workers (FSWs) as one of the key affected populations (KAPs) at a higher risk of spreading the HIV epidemic. This is the sixth round of the IBBS survey conducted among FSWs in 22 highway districts of Nepal. The survey is a part of the National HIV Surveillance Plan (2012) and National HIV and AIDS Strategy (2011-2016). In line with the objectives of the previous rounds of the IBBS surveys, the sixth round of the survey was undertaken to determine the trends of HIV and STIs prevalence, assess HIV and STI-related risk behaviors, explore the level of awareness and understanding of HIV/STIs, record STI symptoms, account incidence of violence, as well as assess exposure to HIV intervention programs and services among FSWs in 22 Terai highway districts of Nepal. Fieldwork for data collection was conducted from February to March 2016.

## Methods

This cross-sectional study was conducted among FSWs in 22 highway districts namely Jhapa, Morang, Sunsari, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi, Dhading, Makwanpur, Rautahat, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardiya, Kailali and Kanchanpur. For the purpose of this survey, FSWs were defined as 'women aged 16 years and above reporting to have been paid in cash or kind for sex with a male within the last six months.' Two-stage cluster sampling method was used to select the required FSWs. Altogether 70 clusters were selected from 22 highway districts, 30 were selected from the "6-district domain" and 40 clusters from the "16-district domain" to ensure proper representation of the survey population. From the selected clusters, 7 FSWs were selected from the "6-district domain" and 10 FSWs from the "16-district domain" using systematic random sampling method. This resulted in the selection of a total of 610 FSWs. FSWs were interviewed after obtaining witnessed oral informed consent followed by pre-test counseling and blood sample collection for HIV, Syphilis, Gonorrhea and Chlamydia. A structured questionnaire was used to collect background characteristics, knowledge on HIV and AIDS, sexual behavior, use of condom, violence, and access to HIV services. Rapid test kits: Determine HIV 1/2 test, Uni-Gold test, and Stat pack test kits were used to test the presence of antibodies against HIV in the serum. Syphilis was tested using Rapid Plasma Regain (RPR) and was confirmed by Treponema Pallidum Particle Agglutination (TPPA) tests. Gonorrhea and Chlamydia pathogens was determined by multiplex PCR-based pathogen detection assay (Seegene, Korea) on syndromic cases confirmed under clinical observation. Data were

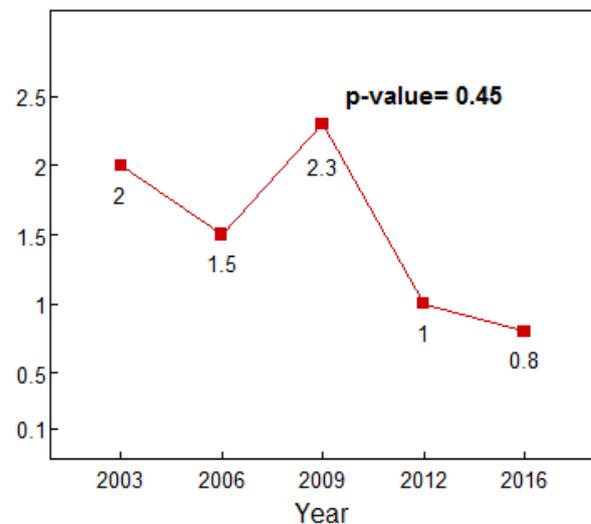
entered in SPSS and analyzed using SPSS and R-Program. Ethical approval for the survey was permitted from Nepal Health Research Council.

## Key Findings

### Prevalence of HIV

Prevalence HIV among FSWs was found to be 0.8 percent (0.3% to 2.0% at 95% CI). It has decreased over time from 2 percent in 2003 to 0.8 percent in 2016.

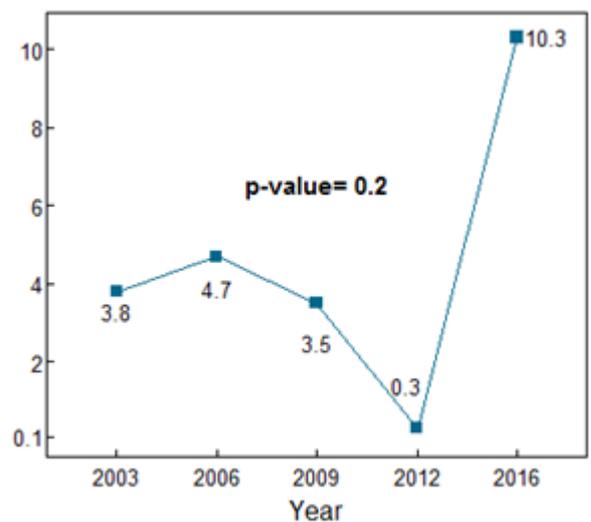
Figure 1: Trends in HIV prevalence



### Prevalence of syphilis increased over time

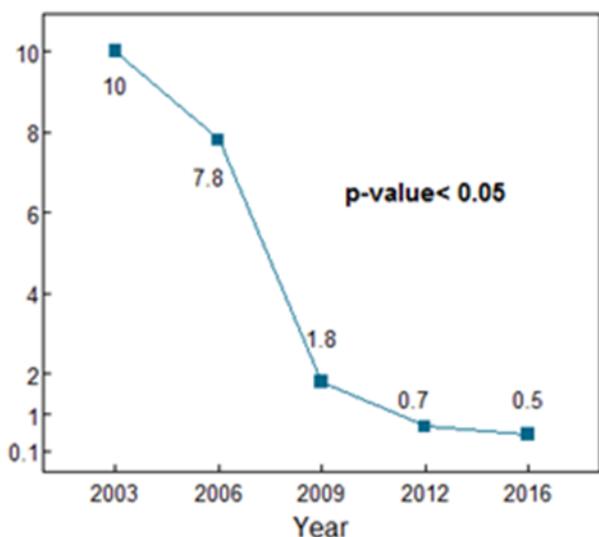
The trends of active syphilis increased sharply from 0.3 percent in 2012 to 10.3 percent in 2016.

Figure 2: Trends of Syphilis prevalence



**Trend of syphilis history has decreased significantly**

Syphilis history was detected among three FSWs. The prevalence of syphilis history among FSWs has considerably decreased from 10 percent in 2003 to 0.5 percent in 2016 (p-value <0.05).



**Figure 3: Trends of History of Syphilis**

**FSWs were younger, literate and married**

A majority of the FSWs (66%) were below 34 years old and literate (67%). The representation of economically disadvantaged *janajati* ethnic groups and upper caste groups was high (60%). The majority of the FSWs (74%) were married. Among them 89 percent had got married below they reached 20 years.

**Childbirth, miscarriage, and abortion were common among FSWs**

Among the FSWs who had ever got married, the majority (92%) had given birth to a child. Nearly one-fourth of them (24%) had experienced miscarriage, and 23 percent had terminated a pregnancy or pregnancies deliberately. Most of the FSWs (82%) had no desire for children in the future. About four percent FSWs had become pregnant in last 12 months and among them, 75 percent had experienced a spontaneous abortion.

**Knowledge and Use of Family Planning (FP) Methods**

Among the FSWs, the best-known FP method was the use of condoms (100%) followed by injectable (99%) and pills (97%). Most of the FSWs (85%) were currently using an FP method. Use of condom was the most common method (70%) followed by female sterilization (24%). As for the traditional methods, withdrawal method was found to be more common (35%) than the rhythm or calendar method (11%).

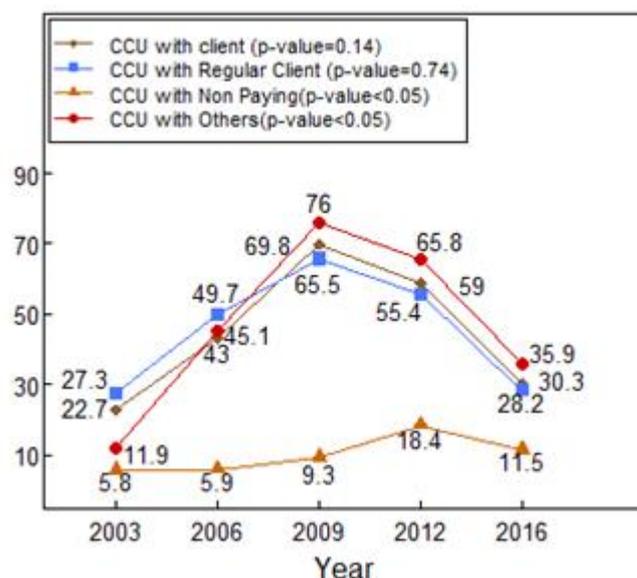
**Most of the FSWs were establishment based, longer duration of sex work; majority of clients were businessmen**

Most of the FSWs (79%) worked in a hotel or lodge followed by a house based establishment (54%). Most FSWs (82%) had been working as a sex worker for more

than one year. More than half of the clients (52%) of FSWs were businessmen followed by bus, truck or tanker workers (43%).

**Consistent use of condom with different partners was considerably low**

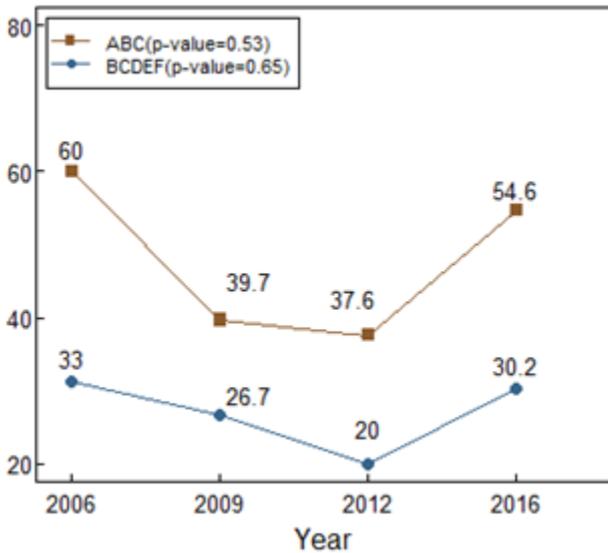
Thirty percent FSWs used a condom consistently with their clients in the past year. About 28 percent FSWs consistently used a condom with regular clients in the past year. More than one-third of the FSWs (36%) had consistently used a condom during sexual intercourse with other clients in the past year. The lowest percent of consistent condom use was reported to be between FSWs and their non-paying partners (p-value <0.05) in all rounds of IBBS surveys. However, consistent use of a condom with non-paying partners increased from 5.8 percent in 2003 to 11.5 percent in 2016. Consistent use of a condom with clients, regular clients and others has decreased from 59 percent, 55.4 percent, and 65.8 percent in 2012 to 30.3 percent, 28.2 percent, and 35.9 percent in 2016 respectively.



**Figure 4: Trends in consistent condom use**

**Comprehensive knowledge of HIV is considerably moderate**

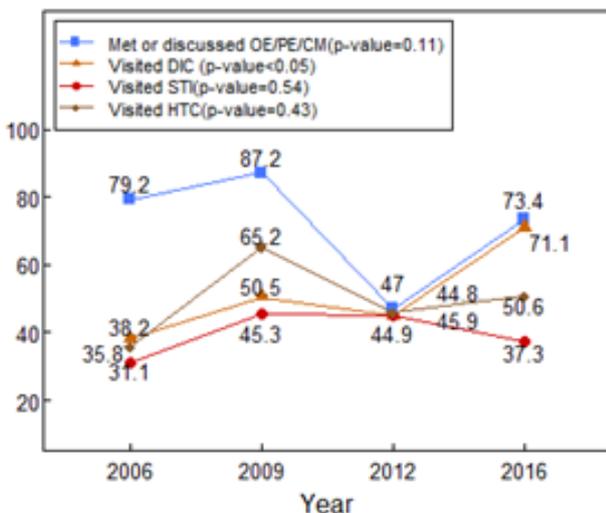
Overall, 55 percent of the FSWs correctly identified all three of the major knowledge indicators (i.e. ABC) as HIV-preventative measures. Also, 30 percent of FSWs were aware of all of the five major indicators (i.e. BCDEF). The percent of FSWs who were aware of all three ABCs increased from 37.6 percent in 2012 to 54.6 percent in 2016. Similarly, comprehensive knowledge about HIV and AIDS (BCDEF) also increased from 20 percent in 2012 to 30.2 percent in 2016.



**Figure 5: Trends of Knowledge on HIV**

**Exposure to ongoing HIV Awareness Programs was considerably moderate**

About 73 percent of the FSWs had met a PE/OE in the last 12 months. The majority of them (71%) had visited a DIC in the past year and among them, most (92%) had visited more than once. About 37 percent of the FSWs had visited an STI clinic in the past year. More than half of the FSWs (51%) visited HTC centers in the last year. The study shows that FSWs who interacted with an outreach educator (OE), peer educator (PE) or community motivators (CM) increased from 47% in 2012 to 73.4% in 2016. FSWs visiting drop-in-centers (DICs) has significantly increased from 44.8% in 2012 to 71.1% in 2016 (p-value <0.05). Moreover, PWID visiting HTC centers increased from 45.9% in 2012 to 50.6% in 2016. FSWs visiting STI clinics remained very low in all rounds of IBBS surveys (31.1% in 2006, 45.3% in 2009, 44.9% in 2012 and 37.3% in 2016).



**Figure 6: Trends of Exposure to HIV programs**

**Program Implications and Recommendations**

Based on the findings from this study, the following implications and recommendation are discussed below.

- Although the prevalence of HIV has been decreasing in recent rounds of IBBS surveys, there are still some FSWs suffering from HIV. *Targeted outreach programs are needed to reach FSWs and bring them for treatment to prevent HIV transmission.*
- Prevalence of syphilis has increased significantly from 0.3 percent in 2012 to 10.3 percent in 2016 suggesting an emerging public health concern. *Intensified and focused programs on STI awareness, incorporating GOs and I/NGOs, is needed to reduce the prevalence of syphilis in the study districts. Further research is also needed to explore the factors for the sudden rise in prevalence of syphilis.*
- Consistent use of a condom with different partners is considerably low. Consistent use of condoms with clients, regular clients and other partners has declined from previous rounds of IBBS surveys. Although consistent condom use with non-paying partners has increased, use of a condom with non-paying partners remains relatively low. *The low incidence of use of condom among FSWs and different partners may increase vulnerability for HIV and STI transmission. Programs should focus on the promotion of the consistent use of a condom with all types of partners.*
- The major reasons for not using condoms as reported by FSWs were the objection of the partner and/or offer for more money. It was found that clients paid more money to persuade the FSWs to allow them to have sex without using a condom. This suggests the economic vulnerability of FSWs. Moreover, *FSWs still lack skills to negotiate use of a condom. Programs should focus on building capacity and self-efficacy among FSWs for skills to negotiate use of a condom.*
- NGO/health workers, health post, and other public health service centers were reported as the most convenient places/person(s) for obtaining free condoms. *Free condom distribution through these sites should be continued and promoted.*
- Behaviors to seek health services such as treatment of STI among FSWs are not common. Behaviors seeking treatment

should be promoted among those FSWs who are engaged in risky sexual behaviors. Similarly, treatment of STI and HIV test and counseling should be encouraged through interpersonal, intrapersonal, and mass communication mediums. Further information on health facilities provided by government and NGO providing STI treatment services should increase public visibility.

- Comprehensive knowledge (ABC) and comprehensive knowledge and misconceptions (BCDEF) of the FSWs has increased in 2016 compared to the data from 2012. Therefore, comprehensive knowledge, education, and awareness regarding HIV should be promoted through multiple channels.
- Exposure to structured HIV programs and services (peer education, DICs, HTC/STI clinics, etc.) was found to be declining in contrast to previous rounds of IBBS surveys. Targeted intervention among FSWs with the provisions of peer and outreach education, partnerships with HTC/STI clinics, and the inclusion of care and support are necessary for increasing exposure of FSWs to HIV and AIDS programs and services.
- Knowledge regarding ART services, PMTCT services, and CHBC services was found to be considerably low among FSWs. Scaling up HIV and AIDS education and awareness programs, which incorporate material on these services, is essential for increasing comprehensive knowledge of HIV/AIDs among FSWs.

## Key Indicators

Selected Key Indicators	6 Districts (n=210)	16 Districts (n=400)	Total (22 Districts) (N=610)
HIV	1.4%	0.5%	0.8%
Active Syphilis	5.7%	12.8%	10.3%
Syphilis History		0.85	0.5%
Median age	28%	31%	30%
Literate	78%	61%	67%
Ever Married	86%	94%	91%
Ever used FP	90%	83%	85%
First sex below 20 years	90%	92%	91%
Duration of Sex works more than one year	76%	85%	82%
Consistent condom use with clients in the past year (n=444)	43%	24%	30%
Consistent condom use with regular clients in the past year (n=464)	44%	22%	28%
Consistent condom use with non-paying partner in past year (n=462)	16%	9%	11%
Consistent condom use with other partner in past year (n=243)	44%	26%	36%
Knowledge of all three indicators: ABC	42%	61%	55%
Knowledge of all five indicators: BCDEF	19%	36%	30%
Ever had HIV test (n=476)	89%	83%	88%
Met/Interacted with PE/OE/CM	58%	81%	73%
Visited DIC	40%	77%	71%
Visited STI Center	14%	49%	37%
Visited HTC Center	41%	55%	51%

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