

# Integrated Biological and Behavioral Surveillance (IBBS) Survey among Female Sex Workers in Pokhara Valley Round V - 2016

## Background

Nepal is reported to have "concentrated epidemic," that means only a few "high-risk behavior groups" have HIV prevalence more than 5 %. In Nepal, the high-risk behavior groups are identified as Female Sex Workers (FSWs), people who inject drugs (PWID) and migrant population. This fifth round of Integrated Biological and Behavioural Surveillance (IBBS) survey in Pokhara valley was conducted with the purpose of exploring the prevalence of HIV and STIs (syphilis, gonorrhoea, and chlamydia) among the female sex workers (FSWs). Besides, it aims to monitor the trends of HIV and STIs prevalence and also the relevant risk behaviors among these group so that the findings from it could be importantly used for planning strategy for HIV/STIs prevention programs and reducing HIV/STIs transmission. The survey was carried out by SAIPAL under the leadership of the National Center for AIDS and STD control (NCASC) in collaboration with Save the Children – Nepal.

## Methods:

This descriptive serial cross-sectional survey was conducted between January and April 2016. The definition of the FSWs used in the survey was: "*Women aged 16 years and above reporting receipts of payment in cash or kind for sex with a male within the last six months*". A two-stage cluster sampling method was adopted to draw the samples. In the first stage, probability proportional to size (PPS) method was used to draw 30 clusters from the sampling frame. At the second stage, the number of FSWs were listed within the selected cluster. From this list, 12 respondents from each cluster were randomly selected. Though the sample size was 342, a total of 360 were listed to fulfill the probable refusal case. The survey team established two interview sites with a mobile clinic and laboratory for selected cluster at the hotel. Before the interview, an informed consent witnessed by motivator was taken to ensure that the respondents understood the consent well. Then after respondent were enrolled in the process of interview, testing of blood for HIV, clinical examination and the treatment of STIs. Face to face semi-structured interview was conducted to assess the risk behaviors of the FSWs. A set of semi-structured questionnaire was administered to the female sex worker to acquire information on their HIV/STIs related knowledge and behavior including socio-demographic information, sexual behavior and exposure to HIV/STIs awareness program. Simultaneously, biological sample test (blood and vaginal swab) was performed to determine the prevalence of HIV and STIs among surveyed female sex

workers. Seroprevalence of HIV infection was determined by using the standard diagnostic algorithms (rapid tests: Determine HIV ½, Uni-Gold, and Statpak) and syphilis was tested using the Rapid Plasma Regain (RPR) test card. Gonorrhoea and Chlamydia pathogens were determined by multiplex PCR-based pathogen detection assay on syndromic cases confirmed under clinical observation. The data collection completed between the 10<sup>th</sup> February and 8<sup>th</sup> March 2016. All completed questionnaires in tab were downloaded from the server then was manually edited and coded. A cleaned data set was transfer into SPSS database. Those data were then analyzed with SPSS 21.0. Results were obtained by the frequency distribution and cross-tabulation of the variables.

## Key findings:

### Socio-demographic characteristics

Among the total recruited 342 female sex workers (FSWs), 67.8% were establishment based and remaining 32.2% were street-based. The mean age of the respondents was 23.96, ranging from 16 to 48 years, with the majority of the sample clustered between 21-25 years old. The majority of those surveyed (34.5%) were relatively disadvantaged *janajati*. Almost 90% of respondents were literate of which 12.6% of them had never attended formal schooling. More than half of the respondents were unmarried, and 48% were ever married. The mean age of marriage for ever-married respondents was found to be 17.18 years with the range varying from 12 to 28 years. Almost 11% respondents were permanently separated from their marital partner. The mean age of the divorced respondents was 23.1 years with range differing from 16 to 33 years.

### History of Childbirth, miscarriage, and abortion

Nearly 19% respondents stated that they had ever had a miscarriage. Likewise, 31.1% (51 out of 164) respondents reported that they had aborted their pregnancy.

### Knowledge and practice of family planning method

Knowledge of at least one method of family planning is nearly universal among surveyed respondents. Most of the respondents had heard about the condom, i.e., 95.9%, followed by oral pill (76.6%). To delay or avoid pregnancy 58.5% respondents were practicing at least one method of family planning. Nearly 86% were using a condom as a means of family planning.

### Sexual behavior

The average age at first sexual intercourse was 17 years with the range varying from 12 to 30 years. More than one-fifth started sexual intercourse before the age of 15 years. One-fourth of the respondents (26.3%) stated that they were in this sex profession for about one year, 58% since five years and 14% for over five years or even longer. The longest duration practice reported by respondent was eight years. The mean number of clients served by FSWs was 2.2 clients per day with the range varying from 1 to 9.

### HIV and STIs prevalence

Overall 0.3% (one out of 342) respondent was confirmed HIV positive, and no one had active syphilis (RPR -ve or RPR titre<1:2). It was found that the HIV-infected one was street-based FSW. While accessing the syphilis history, no one was found to be infected at past (3.2% in 2004 to 0 in 2016). It was observed that the prevalence of HIV and active syphilis was relatively low in 2016 than in previous rounds of IBBS survey. HIV prevalence was found 2% in 2004 to 0.3% in 2016. Similarly, the active syphilis is also in decreasing trend from 2008 to 2016. Moreover, one respondent (0.3%) was found positive for Chlamydia Trachomatis, and no one was found positive for Neisseria Gonorrhoea. It was found that both the HIV and Chlamydia Trachomatis infected one was street-based FSW.

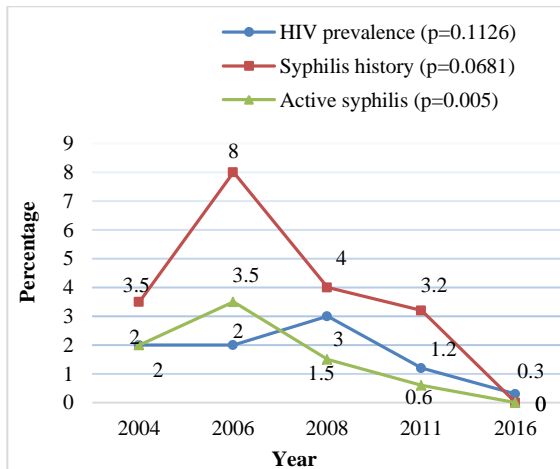


Figure 1: Trend of HIV and Syphilis prevalence among female sex workers

### Comprehensive knowledge on HIV

The average HIV/AIDS knowledge of risk factors answering correctly to all the three ABC was 48.2 %, and that of comprehensive knowledge of HIV/AIDS to all the five BCDEF was found 30.7%. The percentage of FSWs who had knowledge on all the three ABC and all the five BCDEF has decreased by 6.3% from 2011 to 2016. This decreasing trends in a comprehensive knowledge of HIV/AIDS indicate that there needs much

more to do to increase the knowledge of HIV/AIDS among female sex workers.

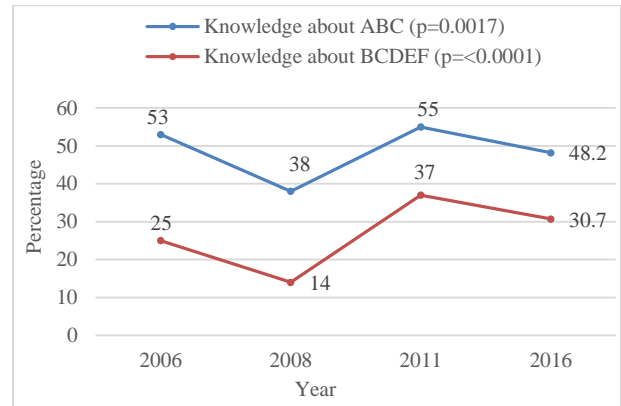


Figure 2: Trend on comprehensive knowledge of HIV/AIDS

### Use of condom

The proportion of respondents who use a condom with the **last client** significantly inclined from 64% in 2004 to 75% in 2006 followed by a drop to 64% in 2008. Currently, there is an increase in condom use by 17.9 % in 2016 (64% in 2008 to 81.9% in 2016). Over the past 12 months, the proportion of condom use with **regular clients** increased from 48% in 2004 to 72% in 2008 followed by a gradual drop to 68% in 2011 and 52.9% in 2016. It was observed that increase in condom use with **clients** was continued over time, i.e., 35% in 2004 to 67% in 2016. Similarly, consistent condom use with **regular non-paying partners** over the last 12 months was observed in increasing trend from 7% in 2004 to 41.8% in 2016. It was noted that the proportion of condom use with **other clients** had increased by 39.9% (39% in 2006 to 78.9% in 2016).

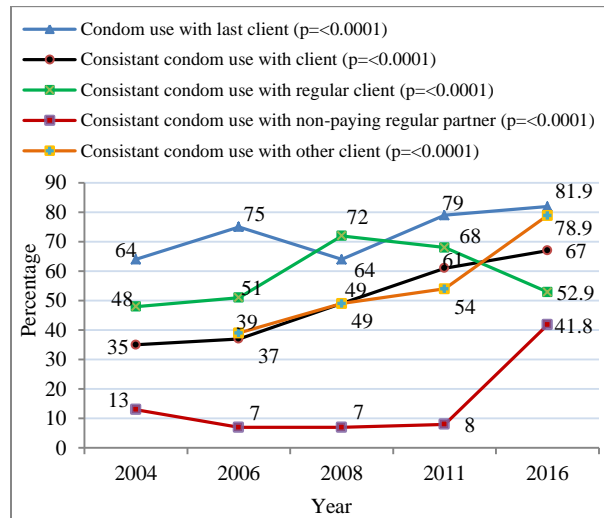


Figure 3: Trend of condom use with different types of clients/sex partners

**Condom carrying practice**

Only 26.3% of respondents told that they carry condoms with them all the time. However, when checked only 80% (72 out of 90) of them had it on hand. The trend of condom carrying practice gradually increased from 5% in 2004 to 34% in 2006. There is a noticeable decrease in condom taking practice by 8.7% in 2016 (35% in 2011 to 26.3% in 2016).

**Exposure to HIV/STI awareness program**

Nearly 39% respondents have had contact with a peer educator or outreach educator in the last one year. A small number of those surveyed (16%) had visited drop-in- center and only 7.6% respondent had visited STI clinic in the past year. The exposure of the respondents to HIV/AIDS/STI related program decreases distraughtly in 2016 from the preceding year. There is a vast decrease in trend in visiting HTC Center by 45%, DIC by 40%, STI clinic by 35% and meeting with OE/PE by 40% in 2016.

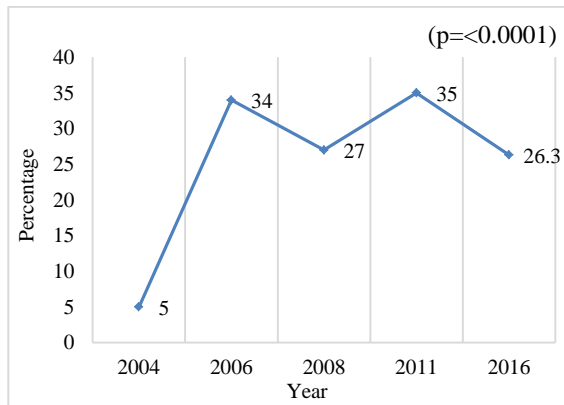


Figure 4: Trend of FSWs who usually carry condoms

**Key Indicators**

Key Indicators	N= 342	
	Frequency	Percentage
HIV	1	0.3
Active Syphilis	0	0.0
Syphilis History	0	0.0
Median age	23	
Literate	308	90.1
Ever Married	164	48.0
Ever used Family Planning	200	58.5
History of miscarriage (N=164)	31	18.9
History of pregnancies terminated (N=164)	51	31.1
First sex below 20 years	301	88
Median number of client per day	2	

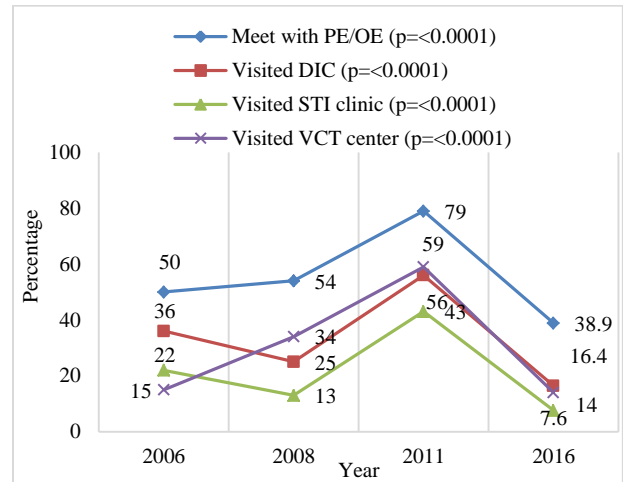


Figure 5: Trend of exposure to HIV/AIDS-related program over the past 12 months

**Conclusion and Recommendation**

The limited knowledge of risk factors and exposure to HIV/STIs related awareness program indicate the need of much more awareness efforts among female sex workers in Pokhara. As these risk groups are more likely to engage in sexual activities with multiple partners, awareness program should also focus on the correct and consistent use of a condom. Since FSWS has had minimal exposure to HIV awareness and other prevention activities including visiting PEs/OEs, DIC, STI clinic, and HTC. These services should be made user-friendliness and significance of knowing one's HIV status should be intensified.

Duration of Sex works more than one year	252	73.7
Consistent condom use with clients in the past year	229	67.0
Consistent condom use with regular clients in the past year (N=189)	100	52.9
Consistent condom use with non-paying partner in past year	143	41.8
Consistent condom use with another client in past year (N=213)	168	78.9
Knowledge of all three indicators: ABC	165	48.2
Knowledge of all five indicators: BCDEF	105	30.7
Ever had HIV test	145	42.4
Met/Interacted with peer educator (PE) / outreach educator (OE)	133	38.9
Visited Drop in Center (DIC)	56	16.4
Visited Sexually Transmitted Infection (STI) Center	26	7.6
Visited HIV Testing and Counseling (HTC) Center	48	14.0
Consumption of alcohol in the past month	120	35.1
Ever injected drugs	8	2.3
Knowledge of sex partners being IDUs	31	9.1
Experience of Psychological violence (Insulted, humiliated or threatened )	51	14.9
Experience of Physical violence (slapped, pushed, hit, kicked, choked etc)	22	6.4
Experience of Sexual violence	21	6.1

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