

# Integrated Biological and Behavioral Surveillance (IBBS) Survey among Female Sex Workers (FSWs) in Kathmandu Valley Round V –2015

## Brief description of the study

This was the fifth round of Integrated Biological and Behavioral Surveillance survey conducted among Female Sex Workers (FSWs) of Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur districts).

This survey was aimed to determine the trend in the prevalence of HIV and syphilis infection among female sex workers of Kathmandu Valley and to assess and explore the high-risk sexual behaviors related to HIV and Sexually Transmitted Infections (STI), practices of condom use and use of family planning, experiences of symptoms and treatment of STI, knowledge of HIV and STI, sexual violence against FSWs and exposures to programs.

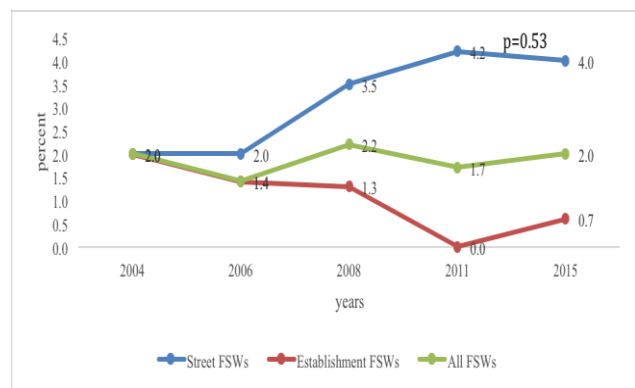
## Methods

This was a cross sectional survey conducted among 500 FSWs comprising 300 Establishment-based and 200 Street-based FSWs. The women aged 16 years and above reporting having been paid in cash or kind for sex with a male within the last 6 months were recruited as eligible respondents. The FSWs soliciting their clients from the street, roads, squatter settlements, premises of garment factories, small liquor stalls/Bhatti Pasals were defined as street-based FSWs and those who are based in establishments and soliciting their client from hotels, lodges, restaurants, massage parlors, discotheques, guest houses were defined as establishment-based FSWs. A two-stage cluster sampling procedure was used to select samples. Two separate sampling frames were prepared for street-based and establishment-based FSWs based on the preliminary mapping exercises. The probability proportionate to size (PPS) method was used in the first stage to select clusters. The sites with at least 30 FSWs were defined as a cluster and later 10 FSWs were selected randomly from each cluster.

A structured questionnaire was used to collect behavioral data linked with background information and sexual behaviors among the respondents. Blood samples were collected to test HIV and syphilis infection. The rapid test kits based on the NCASC national guideline algorithm (Determine followed by Uni-Gold followed by STAT PAK) were used to test HIV. The syphilis test was performed using RPR (Rapid Plasma Reagin) method and was confirmed by using Treponema Pallidum Particle Agglutination (TPPA) test. The survey participants were taken oral consent for the survey and pre-test counseling was done prior to administer the questionnaire. The respondents were provided with test results along with post-test counseling and syndromic treatment for STIs.

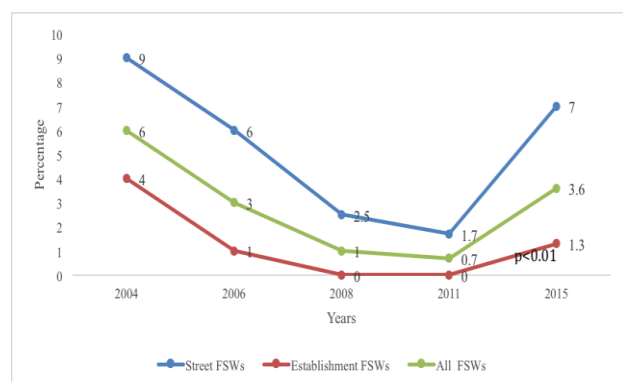
## Key Findings

**The overall HIV Prevalence among FSWs and prevalence among establishment based FSWs has increased:** The HIV prevalence among FSWs has remained stable over the years except among street based FSWs. HIV prevalence increased over the time.



**Figure 1: HIV Prevalence Trend**

**Active syphilis among FSWs has increased:** The declining trend of active syphilis over the years (2004-2011) among FSWs has reverted and has increased in 2015. The prevalence of active syphilis among street based FSWs was 1.7 percent 2011 and sharply increased to 7 percent in 2015. Similarly, there was no prevalence of active syphilis among establishment based FSWs in 2011 but has increased to 1.3 percent. These trends of active syphilis prevalence was statistically significant ( $p < 0.01$ )



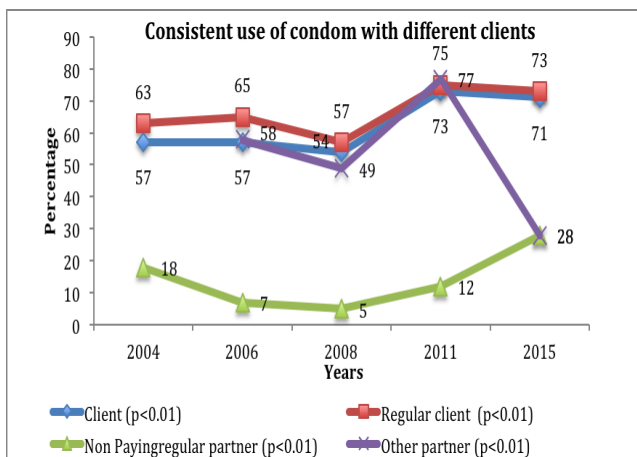
**Figure 2: Active Syphilis Prevalence Trend**

**The average numbers of clients served by FSWs per day has been increased:** The mean numbers of clients served by FSWs per day in 2015 (mean 2) has been the highest of all rounds of IBBS (mean around 1.6). The mean number of clients served by both street based and establishment based FSWs was same i.e. 2.

**The condom carrying practice has been reported a record low since the start of IBBS in 2004:** The respondents carrying condom usually has followed the decreasing trend (32.6% in 2006, 27.4% in 2008, 21.2% in 2011 to 12.8 in 2015). This fifth round of IBBS reported that FSWs carrying condom usually was 12.8% which is even lower than that of 14.8 percent in 2004.

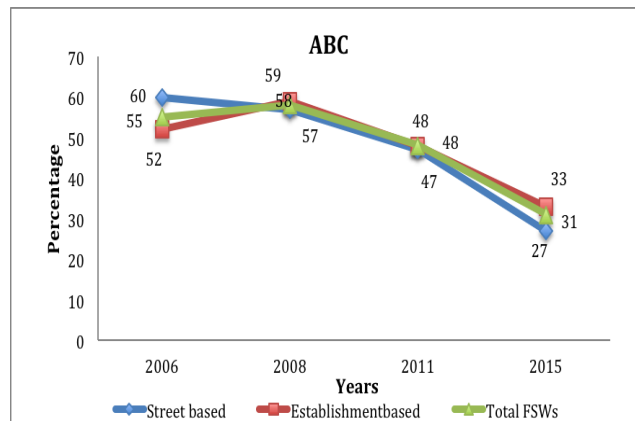
**More than two-thirds of FSWs ever had tested for HIV:** About 69 percent of FSWs reported having ever tested for HIV. The percentage of FSWs who had ever tested for HIV has increased from 64.4 percent in 2011 to 69.5 percent in 2015 following the increasing trend over the years.

**Most of the FSWs used condom with recent client and two thirds of FSWs had used condom consistently with their client:** The use of condom with most recent client has been slightly improved among street based FSWs (83.6% in 2011 to 85.5% in 2015), whereas, slight decrease has been observed among establishment based FSWs (82% to 81.3%). However, consistent use of condom with the client in the last 12 months prior to the survey has decreased among both street and establishment based FSWs ((74.4% in 2011 to 73% in 2015 among street based FSWs and 71.8% in 2011 to 67% among establishment based FSWs).

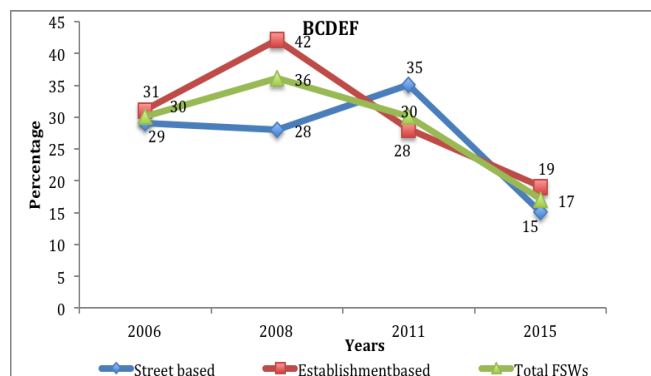


**Figure 3: Consistent use of condom with different clients**

**The comprehensive knowledge of HIV and AIDS among FSWs has declined further:** The proportion of FSWs who knew all three (ABC) HIV prevention indicators (A=Abstinence, B= Being faithful, C= Consistent condom use) has been sharply decreased (47.6% in 2011 to 30.6%) due to the decrease in knowledge of B and C. Similarly, the percentage of FSWs who had knowledge of BCDEF (D= Healthy looking person can be infected to HIV, E= person cannot get HIV virus from mosquito bite and F= Person cannot get HIV by sharing meal with infected person) has also been decreased intensely (30.4% in 2011 to 17.3% in 2015)..



**Figure 4: Comprehensive Knowledge of ABC**



**Figure 5: Comprehensive Knowledge of BCDEF**

**More than one-third of FSWs were the newcomers in the sex trade within one year prior to the survey:** Around 36 percent of FSWs were the newcomers in the sex trade within one year prior to the survey. The proportion of street based and establishment based FSWs was almost the same (35.5% among street based and 36% among establishment based).

**Majority of FSWs were married and engaged in first sexual contact at early age:** Around 78 percent of FSWs were married at less than 20 years of age and 80.2 percent of FSWs reported to have been engaged in first sexual contact before the age of 20 years. Eighty six percent of FSWs were ever married and around 61 percent of total FSWs were currently married.

**The proportion of FSWs less than 20 years of age has declined:** The percentage of FSWs less than 20 years has declined from the previous rounds of IBBS (28% in 2011 to 12.6%) but still notable. There was higher proportion of establishment based FSWs of less than 20 years of age than that of street based FSWs (13.3% vs 11.5%).

**About one third of FSWs are illiterate:** About one third (29.2%) of FSWs were illiterate in this round of survey. The proportion of illiterate was higher among street based FSWs (38%) in comparison to establishment based FSWs (23.3%).

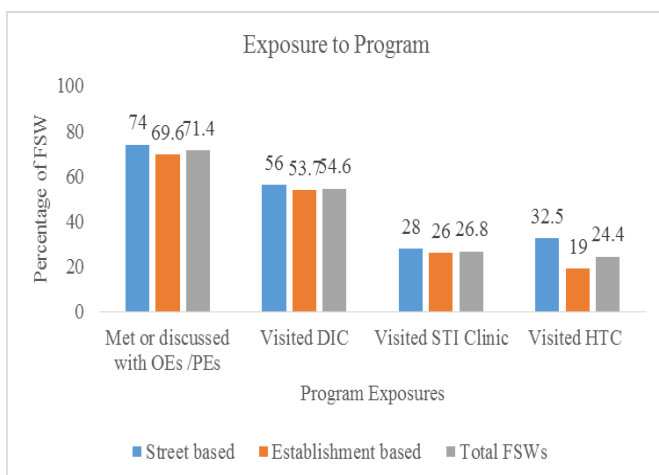
**The majority of the ever married FSWs has been using family planning methods and most of them using condoms:** The percentage of ever married FSWs who were using any form of family planning methods to avoid or delay pregnancy was 87.4 percent. Around 85 percent of them use condoms for family planning as well as HIV prevention and 16 percent of them use injectable.

**Use of female condoms is still low:** Although 52.6 percent of FSWs has heard about female condoms, only 6.5 percent of them had ever used female condoms.

**Most of the FSWs have easy access to condoms:** About 63 percent of FSWs have access to condoms within five minutes whereas around 79 percent of them have access to condoms within 10 minutes from their place. Around 56 percent of FSWs always obtain condoms free of cost and higher proportion of establishment based FSWs (58%) obtain condoms free of cost than that of street based FSWs (52.5%).

**More than half of the FSWs had experienced at least one of the symptoms of STI within one year:** Around 53.4 percent of FSWs had experienced at least one of the symptoms of STI within one year prior to the survey. However, only 33.8 percent of them had sought treatment of STI within one year.

**Exposures to programs vary differentially:** More than two thirds (71.4%) of FSWs had met or discussed with outreach educators (OEs)/peer educators (PEs) in the last 12 months prior to the survey. About 55 percent of FSWs had visited Drop-In Center (DIC), 26.8 percent of them had visited STI clinic and 24.4 percent of them had visited HIV Testing and Counseling (HTC) center. The higher percentage of street based FSWs than that of establishment based FSWs has met or discussed with OEs/PEs (74% vs 69.6%), visited DIC (56% vs 53.7%), STI clinic (28% vs 26%) and HTC centre (32.5% vs 19%) in the last one year preceding the survey.



**Figure 6: Exposure to Program**

**Program Implications and Recommendations**

**Implication 1:** The exposure to program was found to be

low among FSWs and even lower among establishment-based FSWs.

**Recommendation:** The program coverage should be increased to every corners of Kathmandu Valley as new hotspots have been established there. The program should reach to the unreached FSWs working in those areas through rigorous community outreach activities and informing them about the risks of HIV and STI; locations of HIV related service sites and the importance of consistent condom use with special focus on establishment-based FSWs.

**Implication 2:** The HIV and active syphilis prevalence have been increased from the previous round of survey among FSWs and prevalence rate is higher among street based FSWs in comparison to the establishment based.

**Recommendation:** The greater focus and efforts must be given on behavior change of FSWs and increasing access and utilization of STI services in the upcoming days giving more emphasis on street based FSWs.

**Implication 3:** Nearly eighty percent of the FSWs in Kathmandu were currently married, and HIV prevalence was found among them; means their husbands are also at risk of HIV infection. More than 86 percent of the respondents who were married had pregnancy experience and given child birth. The knowledge about prevention of mother-to-child transmission (PMTCT) of HIV service among FSWs is only 13 percent.

**Recommendation:** The programs should focus on providing education and awareness creating activities on safer sex practices, correct and consistent use of condom. Further, knowledge about services and sites for prevention of mother-to-child transmission (PMTCT) of HIV should be focused during awareness activities.

**Implication 4:** The proportion of FSWs who had recently entered in the sex trade i.e. for less than one year preceding the survey; is higher than ever. This proportion is even higher among street based FSWs.

**Recommendation:** The programs should identify and reach the newcomers of sex trade as they might be in risk of HIV and STI due to the lack of information on HIV and STI; consistent use of condom, locations of HIV and STI related services and sites.

**Implication 5:** The condom carrying practice was very low and it is in declining trend. Also, the overall consistency in using condom with different partners has been dropped in the recent years.

**Recommendation:** It should be addressed with proper behavior change communication practices on condom use and risk of STI and adequate condom distribution by adding the number of institutions/stakeholders having diverse coverage throughout Kathmandu Valley. The

behavior change communication should focus more on consistent condom use practices and skills on negotiating condoms by targeted programs.

**Implication 6:** Street-based FSWs are more vulnerable to various forms of violence compared to establishment-based FSWs. The street based FSWs ever experiencing such violence by their clients (37%) were twice as much as than that of their counterpart's establishment based FSWs (18%).

**Recommendation:** Legal service support along with prevention, treatment and care programs need to be designed with particular focus on street based FSWs along with establishment based FSWs. The awareness and educational activities should be done to empower them on rights to live a life free from any kind of violence and sexual exploitation, coping strategies and seeking legal assistance.

#### IBBS Key Indicators among FSWs

Selected Key Indicators	Street-based FSWs (n=200)	Establishment-based FSWs (n=300)	Total FSWs (N=500)
HIV prevalence	4	0.7	2
Active syphilis prevalence	7	1.3	3.6
History of syphilis prevalence	1.5	1.3	1.4
HIV among FSWs whose duration of work as a sex worker less than a year	0 (n=71)	0 (n=108)	0 (n=179)
FSWs less than 20 years of age (%)	11.5	13.3	12.6
Currently married FSWs (%)	64	61.7	62.6
Median age at first sexual intercourse	16	17	16
Mean duration of FSWs involved in sex work (months)	52	38	44
Average number of clients per day	2	2	2
Average number of clients in the past week	4.8	3.7	4.1
Average weekly income from sex work	4892	5517	5267
Have other jobs besides sex work (%)	56	49.7	52.2
Usually carry condoms	15.5	11	12.8
Always obtain condom free of cost	52.5	58	55.8
Condom use with most recent client	85.5	81.3	83
FSWs reached with at least one prevention program	81.5	67	68.8
Know that an HIV positive pregnant woman can transmit the virus to her unborn child	81.5	82.8	82.3

Selected Key Indicators	Street-based FSWs (n=200)	Establishment-based FSWs (n=300)	Total FSWs (N=500)
Know that an HIV positive woman can transmit the virus to her new-born child through breastfeeding	55	57.1	56.3
Know people living with HIV and AIDS or died	43.9	41.9	42.7
FSWs that have received an HIV test in the last 12 months and who know their results	84.2	83.8	84
FSWs who were physically assaulted in the past month	12.5	3	6.8
FSWs who were forced to have sex in the past month	19.5	6.3	11.6
FSWs using any method of family planning	92.3	83.9	87.4
FSWs who ever used female condoms	9.2	4.8	6.5
FSWs who reported ever injected drugs	0.5	0.3	0.4
Consumption of alcohol every day during the past month.	14.5	11.3	12.6
Knowledge of sex partners being IDUs	1.5	1	1.2

**For more information, please contact:**  
**National Center for AIDS and STD Control**  
 Teku, Kathmandu  
 Tel: +977 1 4258219, 4261653  
 Fax: +977 1 4215149  
 url: [www.ncasc.gov.np](http://www.ncasc.gov.np)