

**Integrated Biological and Behavioral Surveillance
among Female Sex Workers (FSWs) in
22 Terai Highway Districts
2009 Round IV**

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

Brief Description of the Study

The fourth round of Integrated Biological and Behavioral Surveillance (IBBS) Survey among female sex workers (FSWs) was conducted in 2009. A total of 600 FSWs were recruited for the study, out of them 400 were recruited from six study sites representing 16 districts between Jhapa district in the Eastern region and Rupandehi district in the Western region along the highway in the Terai. Another 200 were recruited from three sites representing six districts between Kapilvastu in the Western region and Kanchanpur in the Far Western region. Data for the study were collected from February 28, 2009 to April 25, 2009. The survey measured the prevalence of HIV and sexually transmitted infections (STIs) among the FSWs as well as variables which are associated with the risk of HIV infection, such as condom use, sexual behaviors, knowledge of HIV/AIDS, reported cases of STIs, STI treatment behaviors, exposure to HIV/AIDS messages, and alcohol and drug use habits. A section on family planning (FP) and the female condom, which was not part of the earlier rounds of the IBBS, was one of the additional components of the 2009 round.

Methods

The eligibility criteria for recruiting FSWs in the study was: "women reporting having been paid in cash or kind for sex within the last six months". The number of clusters (sites where FSWs solicit or practice sex) was included in the sampling frame along with the measure of size for each of the clusters. Separate sampling frames were prepared for the '16-district domain' (between Jhapa in the Eastern region and Rupandehi in the Western region) and 'six-district domain' (between Kapilvastu in the Western and Kanchanpur in the Far Western region). A two-stage cluster sampling was followed in the sampling design; in the first stage clusters were selected and in the second stage respondents were selected.

A mapping of the study area was done prior to the survey by a team of qualified and trained research staff of ACNielsen. The main purpose of the mapping was to visit the study sites, and in consultation with local key informants - NGOs running HIV programs targeting FSWs and their clients, local authorities directly or indirectly involved with HIV programs and the local police - develop a list of locations where FSWs gather and solicit clients. Moreover, estimate of the tentative size of the FSWs in these locations was done. Later, this information was used for defining the clusters and drawing a two-stage cluster sampling.

Methods

A structured questionnaire was used to collect behavioral data relating to background information and sexual behavior among the respondents. HIV and syphilis testing was done from the blood samples and Chlamydia trachomatis (CT) and Neisseria gonorrhoea (NG) was tested from the urine sample. The study was conducted in compliance with both ethical and human rights standards and ethical approvals were obtained from Nepal Health Research Council (NHRC) and the Protection of Human Subject Committee (PHSC), Family Health International (FHI)'s ethical review board.

Key Findings

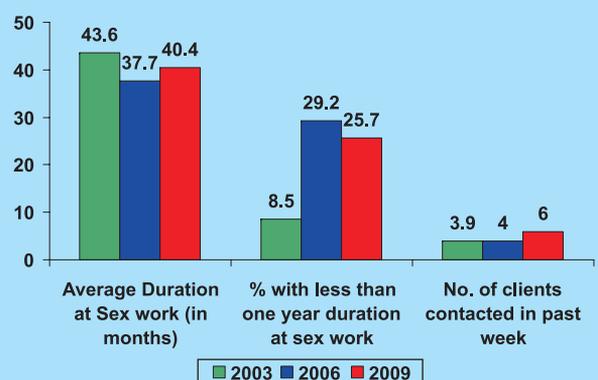
Percentage of currently married FSWs is stable:

More than half of the total FSWs surveyed (56.7%) were married. The difference in percentage married in Eastern vs Western sample is not significant. The percentage married has remained quite stable as compared to the previous rounds of IBBS conducted, where total percentage of married FSWs in 22 districts was 53.0 in 2003 and 55.7 in 2006.

Mean duration at sex work has remained stable in the recent years:

About a quarter of the FSWs have reported that they joined the sex work within a year and this percentage has not changed since 2006. In 2003 only about nine percent FSWs had reported a duration of less than one year. However, mean number of months for which FSWs were exchanging sex for money was 40.4. The mean number of months for which study population had been engaged in sexual intercourse for money in 2003 and 2006 also has more or less same as in 2009 (Fig. 1).

Fig 1: Average duration at sex work



Key Findings

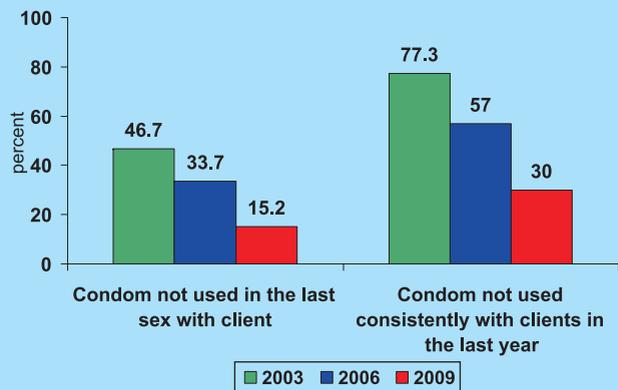
Number of clients served by FSWs has not dropped over time:

The mean number of clients served by FSWs on the day of last sexual contact was 1.5. There were no significant differences in 2003, 2006 and 2009 in this regard. However, the mean number of clients contacted by FSWs in a week was six in 2009. Figures were lower in the last two rounds, 3.9 in 2003 and four in 2006 (Fig. 1).

Percentage reporting unprotected sex with clients in the last sex has dropped significantly:

A majority of the FSWs had used condom in their last sexual encounter with a client. Only 15.2 percent of the respondents had unprotected sex, that is sex without condom with clients. This figure was remarkably low as compared to the previous rounds, 46.7 percent in 2003 and 33.7 percent in 2006. Similar declining trend is observed in the percentage of FSWs not using condom consistently with clients in the past year (Fig. 2). However a huge majority of FSWs still do not use condom consistently while having sex with their non-paying partners such as husbands and boyfriends. This percentage has remained above 90 percent since 2006.

Fig. 2: Percentage of FSWs reporting unprotected sex

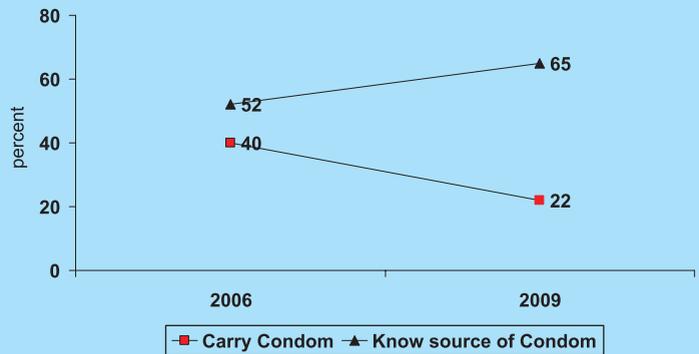


Percentage of FSWs who know the source of condom vs usually carry condoms:

Altogether 65.3 percent FSWs reported that they know where condoms can be purchased / obtained in 2009. This was an increase from 52 percent reported in the year 2006. Despite this increase in the knowledge altogether 47 percent of the FSWs in six districts reported that they usually carry a condom with them, whereas only 9.5 percent of the FSWs in 16 districts reported that they usually carry condom with them. Overall, 22 percent of the FSWs were reported to be a regular condom carrier in 2009. But almost 40 percent of the FSWs were regular condom carriers in 2006 which indicates a sharp decline in the condom carrying habit among FSWs (Fig. 3).

Key Findings

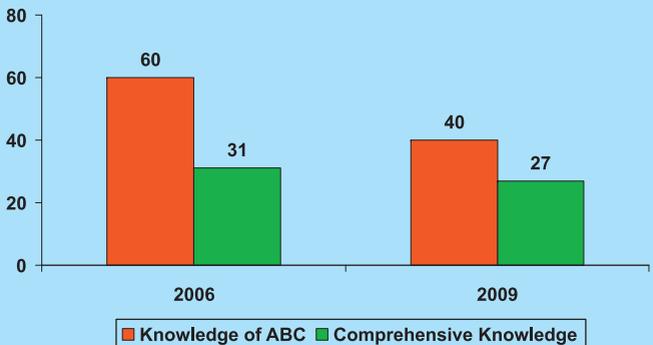
Fig. 3: Percentage of FSWs who know the source of condom and carry condom



Comprehensive knowledge on HIV has not increased as anticipated:

Almost all of the FSWs had heard about HIV. About 40 percent of the respondents correctly identified all A (abstinence from sex), B (being faithful to one partner or avoiding multiple sex partners) and C (consistent and correct condom use) as HIV preventive measures for avoiding HIV in 2009. However, comprehensive knowledge on HIV that is correct knowledge on being faithful and condom use with no misconceptions on HIV in healthy looking person, HIV transmission by mosquito bite and sharing food was low among FSWs in 2009 (26.7%). A higher percentage of FSWs had reported knowledge on ABC (60%) and comprehensive knowledge (31%) in 2006 (Fig. 4).

Fig. 4: Percentage of FSWs reporting comprehensive knowledge on HIV protection



Fairly large percentage of FSWs had heard about female condom but not used:

In 2009 IBBS FSWs were asked about female condoms. About half of the FSWs have reported that they had heard about female condoms but only about five percent of those who had heard about it had used it before.

Use of family planning methods is high among FSWs:

In this survey about 90 percent FSWs reported that they do not want to have children in the next two years. Out of them, about 81 percent FSWs have used FP methods to avoid pregnancy. Percentage of FSWs using FP methods is much higher (93%) in the six Western to Far Western districts compared to 16 Eastern to Western districts (74%).

Key Findings

The most commonly used method of FP is condom (51%) followed by female sterilization and injectables (22% each).

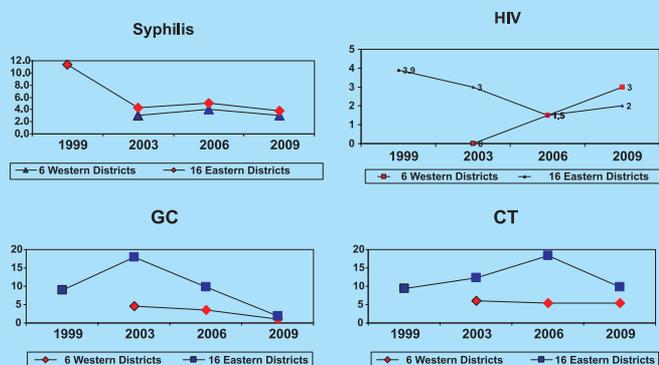
Percentage of FSWs who have used at least three outreach services in the last 12 months is encouraging:

About 87 percent FSWs were reached by outreach educators (OEs) and community mobilizers (CMs). Similarly, 50 percent visited Drop-in-Center (DIC), 45 percent STI clinic, 65 percent VCT centers, and 34 percent had participated in HIV/AIDS awareness programs. Over all 63 percent of the FSWs had used at least three outreach prevention services (peer and outreach education, DIC, STI Clinics, VCT Centers and HIV/AIDS awareness raising programs) in the last 12 months.

HIV prevalence among FSWs in the west has increasing trend:

Among 600 FSWs who participated in the study, 2.3 percent (14/600) were found to be HIV positive. This comprised of three percent (6/400) of respondents from six districts and two percent (8/400) from 16 districts. In the Western six districts HIV prevalence has increased from zero percent in 2003 to three percent in 2009. Whereas in the 16 Eastern districts, HIV prevalence has decreased from 3.9 percent in 1999 to two percent in 2009. Syphilis, NG and CT prevalence among FSWs is lower in the six Western districts compared to 16 Eastern districts (Fig. 5).

Fig. 5: HIV and STI prevalence among FSWs



FSWs know the injecting drug users:

A total of 31.2 percent of FSWs reported that they knew someone who injected drugs. The proportion of FSWs who reported to know injecting drug users (IDUs) in 2006 was 16.5 percent. The IDUs were reported to be their neighbors by 22 percent, friends by seven percent, clients by 3.5 percent, and family/relatives by 2.5 percent of the total FSWs knowing IDUs.

Some FSWs inject drugs:

Among FSWs who consume alcohol, 22.5 percent admitted that they consume alcohol on a daily basis. The figure for this was more than double in the 16 districts (27.3% vs. 13%). Altogether three percent of FSWs also admitted of ever having sex in exchange for drugs while 12 percent had at least once been engaged in sexual contact for money to buy drugs.

Key Indicators

Indicators	Total N=600	6 Districts N=200	16 Districts N=400
% married	56.7	54.5	57.8
Mean age at first sex	15.5	15.3	15.6
Mean duration of sexual exchange for money	40.4	48.5	36.3
Number of clients on the day of last sexual contact	1.5	1.6	1.41
Mean number of clients contacted for sex in a week	6	6	6
% reporting unprotected sex with clients in the last sex	15.2	19.5	13.0
% reporting unprotected sex with regular clients in the last sex	16.3	18.5	15.3
% reporting unprotected sex with non-paying sex partners in the last sex	74.2	77.5	72.7
% reporting unprotected sex with partners other than client, husband and male friend	9.6	12.8	9.2
% who usually carry condoms	22.0	47.0	9.5
% who usually know where condoms can be purchased/obtained	65.3	67.0	64.5
Comprehensive knowledge on HIV *	26.8	27.3	26.5
% of FSWs who know a pregnant woman infected with HIV can transmit the virus to her unborn child	84.2	83.5	84.5
% of FSWs who know a woman with HIV can transmit the virus to her new born child through breastfeeding	77.0	76.5	77.3
% of FSWs who know have tested for HIV in last 12 months and have received test results	61.2	62.5	60.5
% who have used at least three outreach prevention services in the last 12 months	63.0	64.0	62.5
FSWs willing to maintain confidentiality of a HIV positive family member	47.7	43.5	49.8
% of FSWs who are infected with HIV	2.3	3	2
% with Active syphilis (RPR>= 1:8 & TPPA +)	3.5	3.0	3.8
% with Gonorrhoea infection	1.5	1	1.8
% with Chlamydia infection	8.3	5.5	9.8
% of FSWs who know at least one STI symptom at the time of survey	51.2	39.5	57
FSWs know the IDUs	31.2	29.5	32
% FSW reporting IDUs as clients	3.5	4.5	3.0
Consumption of alcohol every day during the past one month	22.5	13	27.3

* 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

- About 52 percent of the FSWs were illiterate or had no formal schooling. This is a huge challenge to the ongoing prevention programs whose focus is to educate, aware and encourage them to practice safer sexual and injecting behavior. In this context, HIV prevention programs should be designed keeping in mind on the larger proportion of FSWs who can not read and write properly and so need special ways of communication.
- More than half (57.8%) of the FSWs were married, 23.8 percent were never married, 12.8 percent were separated and 6.2 percent were widowed. Currently married FSWs are to be informed by prevention programs about their spouses and children's health as well and how can they help them to keep safe.
- It was reported that 33.5 percent of the FSWs in the 6 districts and 19.5 percent in the 16 districts had been subjected to forced sex by their clients in the past year. Such environment increases the risk of HIV infection. So HIV programs can be linked with the women empowerment programs as well so that such incidence can be minimized.
- An overriding majority (84.8%) of the respondents said condoms were used in their last sexual encounter with a client. Three-quarters (77.8%) of them had themselves suggested the use of condoms during sex. This positive achievement should be sustained and further improved through a dedicated activity on the ongoing prevention programs.
- Majority (67.3%) of the respondents mentioned that they could get condoms within five minutes from their place of work. However, only about a quarter of the FSWs have reported that they always carry condom with them. Prevention programs should focus more on encouraging FSWs on carrying condoms.

Program Implications

- The survey results revealed that almost half (49.8%) of the FSWs had heard about the female condom. Among the FSWs who had heard about the female condom, only 4.1 percent in the six districts and 5.5 percent in the 16 districts had ever used one. Access to female condoms should be increased.
- In total, only 26.7 percent of the respondents had comprehensive knowledge about HIV. Programs can focus more on providing complete information regarding ways of avoiding HIV infection and about major misconceptions related to HIV.

Recommendations

- Many young girls are entering the sex work every year. So the HIV/AIDS awareness campaigns should target the youth and adolescent groups.
- Prevention programs should focus more on the need for consistent condom use with all kinds of partners to prevent HIV/STI infection.
- Free condom distribution programs including female condoms through NGOs/health workers/volunteers should be expanded to cover a larger group of the target population.
- The mobilization of peer and outreach educators, and community mobilizers should be continued on a larger scale to cover more FSWs.
- Facilities such as DICs, STI clinics and VCT centers should be extended to facilitate convenient access to the FSWs.

The IBBS Surveys are part of the National HIV Surveillance Plan, led by National Center for AIDS and STD Control (NCASC) and conducted by ACNielsen, STD/AIDS Counseling and Training Services (SACTS) and National Reference Laboratory (NRL), 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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