

## **Dynamics of safe sex practice in Intimate Partner relationship among Female Sex Workers (FSWs) in Maharashtra**

### **Introduction**

The miles we need to go in 1000 days-----

A mere thousand days remain before the world has to achieve its 2015 global AIDS targets— reduce sexual transmission of HIV and new HIV infections among people who inject drugs by 50%, eliminate new HIV infections among children, provide antiretroviral treatment to 15 million people and reduce TB-related AIDS deaths by 50%. To enable this happen, nations committed to investing up to 24 billion US \$ annually by 2015(UN AIDS). HIV prevention programs in India as well as in other countries have implemented various strategies among female sex workers (FSWs) to improve their safe sex behavior. Promoting correct and consistent condom use in all sex acts has been the core of these strategies. However, a growing body of literature suggests that in addition to condom use, practices such as anal sex and alcohol consumption, and the nature of sexual partnerships (single, sequential, multiple or concurrent multiple relationships), are factors that also need attention (Mahapatra et.al 2013). India's epidemic is highly heterogeneous and is largely concentrated in a few states. The four high prevalence states of India (Andhra Pradesh – 500,000, Maharashtra – 420,000, Karnataka – 250,000, Tamil Nadu – 150,000) account for 55% of all HIV infections in the country(NACO 2008-2009). There exists a paucity of research in the transmission of HIV through the high risk groups. Especially female sex workers (FSWs) are at the core in transmitting the disease. Very less studies have been done on this ,also female sex workers are 14 times more vulnerable to other high risk groups .This study attempts to examine the correlates of safe sex practice with their intimate partners.Safe sex practice with different partners, consistent condom use, and exposure to number of clients. It also throws light on various other health related dimensions of sex work like condom use behavior, client load, sexually transmitted infection and HIV. The large number of female sex workers and their partners creates fertile grounds for HIV to spread. Although female sex workers report high level of condom use with commercial clients, but condom use is often low with non-commercial partners. There is limited understanding regarding the factors that influence condom use with non commercial partners, contextual and emotional factors play a major role in understanding the behavior of the study population. This study tries to portray the holistic picture of behavioral determinants of female sex worker with intimate

partners while following safe sex practice. The support required to be protected in the male dominating society, is one of the reason that many of these FSWs practice unsafe sex behavior with regular partner. Lack of authority or low negotiating power to use protection with intimate partner and in fear of losing the intimate bond ,emotional and interpersonal factors play major role making sex worker to behave in expected behavior without any apprehension for her own health and survival. All these social, emotional and psychological factors form a complicated nexus following unsafe sexual practice with intimate partners. Hence, there is a need to determine factors involved in safe sexual behavior as one of the greatest challenges for curbing STI and HIV/AIDS.

### **Objectives**

To identify the key determinants of safe sexual practices with intimate partners among female sex workers .

### **Data and Methods**

The first round of the Integrated Behavioral and Biological Assessment (IBBA) Round one was carried out in the year 2005-07 emerged as a nationally important source of data for the revision of persons living with HIV/AIDS (PLHIV) sample size was 3230.The second round of the survey was conducted in 2009-10 and provides information on important indicators such as types of sexual partners, condom use patterns with these sexual partners, knowledge, awareness and prevalence of HIV and STIs among the high-risk groups including female sex workers and their clients, men who have sex with men, injecting drug users, and long distance truck drivers sample size was 3283. It was conducted in six districts of Maharashtra.

Bivariate analysis was done to examine the association/relationship between two variables. Logistic regression was used to examine the determinants of condom use,safe sex practice and behavior with intimate partners dependent variable and metric or dichotomous independent variables.

### **Results**

#### ***Determinants of Condom Use with Regular Partner***

Table 1 presents the results of logistic regression FSWs who were married and living with husband 0.36 times less likely to use condom with respect to their counterparts. The FSWs whose duration in sex work was 4-6 years were 1.74 times more likely to use condom with regular partner as compared to those whose duration was less than four years. As the coital

frequency increases FSWs were 0.28 times less likely to use condom. FSWs whose coital frequency was more than 5 in last week they were 0.44 times less likely to use condom with their regular partner. Non brothel based FSW were 0.5 times less likely to use condom with respect to their counter parts.

### ***Coital Frequency in Last Week***

Table 2 shows percentage distribution of female sex workers having intimate partner by their coital frequency in last 7 days .The result shows that 80 percent of FSWs who were below 25 years reported to have less than 3 coital frequency in the last seven days in round 1 whereas in round 2 , 82 percent of FSWs in the age group 36+ had reported to have less than 3 coital frequency. Those who were literate or had completed 1-5 years of education were having higher coital frequency as compared to other counterparts (81percent) in round 1 whereas for round 2 it declined to 66 percent. Ninety percent of unmarried without cohabitant and Divorced/Widowed living alone 90 percent reported coital frequency less than 3 in round 1 and it was more or less same for both the categories in round 2. When the age at sexual debut was below 18, almost 85 percent of FSWs were having less than 3 coital frequency in last seven days in round 1, in contrast to this it was found higher for the age 25+ (70 percent) in round 2. 83 percent of FSWs whose duration in sex work was 10+ had higher coital frequency in round 1 and 76 percent of FSWs who had 7-9 years of duration in sex work reported higher coital frequency. Eighty five percent of FSWs had consumed alcohol everyday for less than 3 coituses in round 1 and 71.6 percent in round 2 .Eighty four percent of FSWs who are home based were having less than or equal to three coituses in the last week round 1 and it was 80 percent in round 2 .

### ***Condom Use Dynamics with Regular Partner***

Table 3 is showing the condom use dynamics with regular partner by background characteristics .Forty percent of FSWs who are below 24 years had reported using condom often whereas consistent condom use was only 29 percent in round 1 ,further condom use in both the scenario has declined in round 2 (18 percent) for often using condom and consistent condom use in the older age group i.e.25-35.Among FSWs who had completed 1-5 years of education condom use was higher as compared to illiterate counter parts in often used condom (41 percent) and 31 reported to use condom consistently in round 1,whereas in round 2 it declined up to 21 percent .Often condom used was highest who were unmarried living without cohabiting partner was 48 percent were using condom consistently ,in contrast to round 1, 37 percent of FSWs were often

using condom with regular partner and 35 percent reported consistent condom use. When the coital frequency was less than 3 often condom use was 37 percent and 34 percent reported consistent condom use but these decline in round 2 it was only 17 percent. The brothel based FSW was found to use condom much frequently as compared to their counter parts, 44 percent reported often used condom and 38 percent consistent condom use, further it declined to 18 percent.

### **Discussions and conclusions**

FSWs that were married and living with husband, reported higher coital frequency were more likely to use condom with regular partner. Overall condom use in last sex with intimate partners was much lower in round 2 as compared to round 1. The level of condom use with regular partner was almost half as compared to condom use with occasional clients in both the rounds. The percentage of condom use with regular partner was high in brothel based as compared to home based and non-brothel based female sex workers. Increasing duration in sex work was showing a positive effect on the use of condom with regular partner.

### **References**

- Alary M, Mukenge-Tshibaka L, Bernier F, et al. 2002. "Decline in the Prevalence of HIV and sexually transmitted diseases among female sex workers in Cotonou, Benin, 1993–1999." *AIDS* 16(3):463–470.
- Bidhubhushan Mahapatra , et al. April 2013. "Factors Associated with Risky Sexual Practices among Female Sex Workers in Karnataka, India." *PLOS ONE* 8(4),1-8.
- Joint United Nations Programme on HIV/AIDS (UNAIDS) 2009-2012.
- NACO 2008-2009. " Annual Report Department of AIDS control Ministry of Health and Family Welfare Government of India , International Institute of Population of Sciences and Macro International ." *National Family Health Survey (2005-2006) (NFHS-3)*, vol. I. Mumbai: IIPS; 2007.
- Joint United Nations Programme on HIV/AIDS (UNAIDS) 2009-2012.

**Table 1:Odds ratio of condom use with regular partner**

	Round 1		Round 2	
	Model 1 Exp (β)	Model 2 Exp (β)	Model 1 Exp (β)	Model 2 Exp (β)
<b>Background Characteristics</b>				
<b>Age in years</b>				
<25®				
25-35	1.065	0.922	1.145	1.372
36+	0.860	0.825	0.837	1.090
<b>Educational Status</b>				
Illiterate®				
1-5 years	1.148	1.132	1.200	1.335
More than 5	1.216	1.324	1.162	1.314
<b>Engaged in occupation besides sex work</b>				
No ®				
Yes	1.012	0.706	1.233	1.622 ***
<b>Living Status or Marital and living status</b>				
Unmarried without cohabitant®				
Unmarried with cohabitant	0.633	0.363**	0.776	0.499
Married living with husband	0.363***	0.335***	0.390***	0.211***
Married but not living with husband	0.692	0.789	0.958	0.607
Married living alone	0.517***	0.728	0.604	0.406
Divorced/Widowed living alone	1.004	1.185	0.634	0.496
Widowed/Divorced-living with partner	0.596*	0.519	0.846	0.441
<b>Age at which started sex work(yr)</b>				
Below18®				
18-24		0.918		1.031
More than 25		1.079		0.923
<b>Duration in Sex work (years)</b>				
<4®				
4-6		1.743***		1.045
7-9		1.762**		1.226
10+		1.191		0.852
<b>Coital frequency</b>				
Less than equal to three®				
3-5		0.283***		0.763
More than 5		0.248***		0.447***
<b>Typology (BB,SB,BG and HB etc)</b>				
Home Based®				
Brothel Based		1.015		0.638
Non Brothel Based		0.722		0.520**
Constant	1.126	1.821	0.443	1.043

® represents reference category, \* Significance at level of 10%, \*\* significance at level of 5% and \*\*\* significance at level of 1%.

**Table2:Percentage distribution of FSWs' by their coital frequency in last week.**

Background Characteristics	Coital frequency (Round1)				Coital frequency (Round2)			
	< or =3	3-5	>5	N *	< or =3	3-5	>5	N *
<b>Age in years</b>								
<25	79.5	12.1	8.4	270	57.3	19.3	23.4	300
25-35	76.1	13.9	10.0	679	66.5	23.4	10.1	843
36+	77.7	14.6	7.7	153	82.0	10.5	7.5	237
<b>Educational Status</b>								
Illiterate	76.2	12.6	11.2	719	67.8	20.0	12.2	937
1-5	81.5	13.2	5.4	134	66.1	20.9	13.0	192
More than 5	76.8	16.5	6.7	249	64.7	21.1	14.2	251
<b>Living Status or Marital and living status</b>								
Unmarried without cohabitant	90.7	7.0	2.3	84	79.5	9.3	11.2	45
Unmarried with cohabitant	81.1	7.8	11.1	53	76.1	16.9	7.0	68
Married living with husband	76.7	14.7	8.6	537	62.1	23.2	14.7	827
Married but not living with husband	67.5	16.4	15.7	199	76.9	15.4	7.6	161
Married living alone	77.1	8.3	14.5	111	66.7	29.1	4.2	79
Divorced/Widowed living alone	90.0	10.0	0.0	57	74.2	15.7	10.1	42
Widowed/Divorced-living with partner	74.1	20.4	5.5	60	74.0	11.6	14.4	156
<b>Engaged in occupation besides sex work</b>								
No	75.9	14.2	9.9	983	65.7	20.1	14.2	936
Yes	86.1	8.9	5.0	119	69.8	20.8	9.4	444
<b>Age at which started sex work</b>								
Below 18	84.6	7.3	8.2	132	65.4	21.4	13.2	141
18-24	77.4	14.7	7.9	440	59.2	24.6	16.1	503
More than 25	76.8	11.9	11.4	335	69.6	20.0	10.3	507
<b>Duration in sex work (yr)</b>								
<4	72.4	17.6	10.1	354	57.9	27.3	14.8	472
4-6	82.1	12.5	5.4	282	72.0	19.3	8.8	335
7-9	81.1	11.6	7.3	114	76.0	15.1	8.9	162
10+	83.1	8.6	8.3	211	75.5	15.3	9.2	287
<b>Client Volume last week</b>								
0-4	90.0	6.8	3.2	154	70.0	18.7	11.2	527
5-10	74.4	16.9	8.7	424	59.3	25.5	15.1	622
More than 10	75.4	13.1	9.4	524	79.9	10.4	9.6	227
<b>Alcohol Consumption</b>								
Everyday	84.7	11.2	4.1	119	71.6	11.0	17.4	163
Atleast once a week	75.4	11.9	12.7	153	66.2	22.9	11.0	192
Less than once a week	63.8	17.5	18.7	141	63.6	31.0	5.4	147
Not in past month	72.8	16.9	10.4	194	80.3	10.5	9.2	133
Never Consumed alcohol	81.3	12.0	6.7	494	64.6	21.0	14.5	741
<b>Type of clients</b>								
Occasional	78.1	12.4	9.6	874	65.4	21.5	13.1	1137
Regular Partner	77.1	13.6	9.4	1102	67.0	20.3	12.7	1380
<b>Place of Solicitation</b>								
Home Based	84.0	10.4	5.7	105	76.9	10.5	12.7	314
Brothel Based	82.8	9.4	7.8	367	69.4	19.1	11.6	449
Non Brothel Based	72.6	16.6	10.8	630	60.4	26.1	13.5	617
<b>Total</b>	77.1	13.6	9.4	1102	67.0	20.3	12.7	1380

Total figure may not add up to N because of missing cases and don't know responses.

\*Unweighted cases.

**Table 3: Percentage distribution of FSWs consistently using condom with their regular partner by their background characteristics.**

Background characteristics	Often used condom with regular partner		Consistent Condom use past three months		Often used condom with regular partner		Consistent Condom use past three months	
	Percent	N *	Percent	N *	Percent	N *	Percent	N *
	Round 1				Round 2			
<b>Age</b>								
<24	40.2	271	28.8	350	15.3	386	15.0	382
25-35	30.0	682	26.4	833	18.0	1050	18.3	1044
36+	28.9	153	26.6	206	14.3	318	13.0	317
<b>Educational Status</b>								
Illiterate	29.7	723	25.5	922	15.0	1172	14.8	1164
1-5	41.4	134	30.8	167	21.5	257	20.8	255
More than 5	33.9	249	29.0	300	19.2	325	19.8	324
<b>Living Status or Marital and living status</b>								
Unmarried without cohabitant	61.4	84	47.7	122	25.4	65	24.7	63
Unmarried with cohabitant	45.0	54	37.2	76	24.9	91	24.7	91
Married living with husband	21.0	539	15.4	655	10.4	1018	10.7	1012
Married but not living with husband	39.3	198	38.3	228	23.9	191	24.6	191
Married living alone	38.0	112	31.3	165	21.4	122	21.6	121
Divorced/Widowed living alone	50.0	58	46.6	67	37.0	67	35.5	67
Widowed/Divorced-living with partner	36.4	60	32.1	75	25.1	192	22.7	190
<b>Engaged in occupation besides sex work</b>								
No	32.9	987	26.9	1217	16.1	1175	16.1	1169
Yes	27.4	119	27.4	172	17.9	579	17.5	574
<b>Age at which started sex work(yr)</b>								
Below18	52.2	134	41.9	169	13.5	186	13.5	186
18-24	33.1	441	26.3	553	17.5	633	18.0	628
More than 25	31.2	337	27.7	414	17.7	632	17.1	631
<b>Duration in sex work (yr)</b>								
<4	26.6	354	21.4	449	16.4	589	15.7	586
4-6	37.5	283	32.6	337	16.2	419	17.3	413
7-9	36.8	114	35.1	133	17.6	213	18.1	213
10+	29.5	213	27.7	288	18.4	371	17.4	369
<b>No of clients last week</b>								
0-4	37.3	154	31.7	222	16.1	677	15.6	674
5-10	34.7	426	29.3	506	18.1	770	18.4	767
More than 10	29.1	526	23.9	661	14.5	303	14.4	298
<b>Coital frequency</b>								
Less than equal to three	37.3	826	33.7	827	16.6	940	17.2	935
3-5	16.8	158	16.0	158	14.5	250	14.2	249
More than 5	13.9	117	13.9	117	8.4	190	8.5	189
<b>Place of solicitation</b>								
Home Based	36.9	106	32.7	139	17.9	408	17.4	403
Brothel Based	44.3	368	37.7	475	18.5	606	18.7	602
Non Brothel Based	24.0	632	19.4	775	14.6	740	14.4	738
<b>Total</b>	32.2	1106	27.0	1389	16.7	1755	16.6	1743

Total figures may not add up to N because of missing cases and don't know responses.

\*Unweighted cases.