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## HIV Prevalence, Risk Behavior, Knowledge and Beliefs among Women Seeking Care at a Sexually Transmitted Infection Clinic in Mumbai, India

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### Abstract

Three hundred women presenting to a sexually transmitted infection clinic in Mumbai, India were surveyed and HIV tested. Thirty-nine percent were HIV-infected; 80% were current sex workers, and HIV-infection was not significantly associated with past-year sex work. Only 44% always used condoms with their non-commercial sex partners. Most believed condom preparation is a male responsibility (58%), condom use is a sign that partner trust is lacking (84%), and, if a woman asks her partner to use a condom, he will lose respect for her (65%). All women at STI clinics in India need HIV testing and culturally sensitive risk intervention.

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In 2011, the General Assembly of the United Nations adopted a Political Declaration to intensify efforts to eliminate HIV worldwide (United Nations General Assembly, 2011). This declaration included a commitment to reducing HIV risk behavior (including increasing condom use), targeting prevention strategies to high risk populations, and ensuring that national responses to HIV address the unique needs of women. Further, south and south-east Asia come second to sub-Saharan Africa in number of people with HIV infection, with approximately 2.4 million individuals infected with HIV in India, specifically (UNAIDS, 2010a; Indian National AIDS Control Organization [NACO], 2010). Given the number of people infected with HIV in India, investigating and addressing HIV infection and risk behavior among at-risk Indian women could significantly curtail the HIV epidemic in this part of the world and provide information that can help national responses to HIV address the unique needs of women and improve intervention efforts. Therefore, we sought to determine the HIV infection rate, HIV risk behavior, gaps in HIV-related knowledge, and beliefs that could impact HIV prevention among at-risk women in Mumbai, India.

Approximately 1 million women in India are estimated to be HIV-infected (NACO, 2010), and women are the fastest growing segment of the Indian population to be diagnosed with

HIV, with heterosexual transmission the dominant mode of transmission (UNAIDS, 2010b). Although HIV infection is quickly spreading among women in India, social factors and cultural beliefs in some segments of Indian society are preventing many women from becoming educated about HIV, protecting themselves from infection, or, if infected with HIV, receiving needed medical care (Bhattacharya, 2004; Doshi & Gandhi, 2008). Patriarchal cultural norms, prevalent in some Indian social groups, may limit Indian women's ability to negotiate sexual encounters and become informed about risk reduction (Bhattacharya, 2004). In Indian circles where patriarchal cultural norms prevail, men control sexual decision making and women who are educated about sex may be considered “promiscuous”; women are expected to be sexually passive and naïve, and sexual matters are not to be discussed openly (Bhattacharya, 2004). Commercial sex workers in India are often uneducated and controlled by pimps or madams, leaving them unable to protect themselves and extremely vulnerable to HIV infection (Doshi & Gandhi, 2008). Stigma prevents many Indian women from acquiring knowledge about HIV/AIDS and condoms, being tested for HIV, and seeking treatment, if infected (Chakrapani, Newman, Shunmugam, Kurian, & Dubrow, 2009; Doshi & Gandhi, 2008). Due to the social and cultural circumstances experienced by some women in India, many women in India experience inequities in HIV prevention and healthcare, and these at-risk women are in need of focused attention. Further, the United Nations also pledged in 2011 to eliminate gender-based inequalities and abuse, worldwide, so that women will have equal ability protect themselves from HIV (United Nations General Assembly, 2011).

The theory of gender and power has been applied to HIV risk among women and can help to explain the HIV prevention challenges facing many women in India (Wingood & DiClemente, 2000). According to the theory of gender and power, three structures, labor, power and cathexis, contribute to cultural gender roles and can impact women's health (Connell, 1987; Wingood & DiClemente, 2000). In the context of HIV risk among Indian women, the structure of labor refers to the economic disadvantage of many Indian women including low education, unemployment, working in high-demand/low control jobs, homelessness, lack of healthcare and other socioeconomic stressors carried disproportionately by women as compared to men. These disadvantages are related to some Indian women's need to participate in activities that put them at risk for HIV, such as sex work, in order to survive. Power differentials between Indian men and women can impact women's HIV risk through physical and sexual abuse, partner's disapproval of safe sex, partner's risky behavior, lack of access to HIV prevention resources, low self-efficacy and inadequate communication skills. Cathexis refers to societal norms and affective attachments. For example, family influence, desire to conceive, mistrust of medicine, religious practices, and societal and cultural norms that value purity and sexual naïveté all have an impact on women's ability to protect themselves from HIV. Affective attachments and societal norms also impact women's HIV risk by influencing HIV knowledge, beliefs about condom use, and perceived risks for HIV infection. Therefore, according to the theory of gender and power, evaluating how variables related to work, power in partnerships and cultural beliefs are related to HIV infection among Indian women can provide information for developing culturally tailored interventions.

To better understand how sex work, partnership types, knowledge and cultural beliefs impact HIV risk behavior and infection among at-risk women in India, we HIV-tested and examined HIV-related risk behavior, knowledge and beliefs among current sex workers and other women (i.e., not current sex workers) seeking care at a sexually transmitted infection (STI) clinic in Mumbai, India. The inclusion of both current sex workers and other women provided us with the unique opportunity to investigate women known to be at-risk for HIV (i.e., sex workers) and other women who currently may not be targets for HIV prevention and treatment efforts but may also be at-risk for HIV infection.

## Methods

### Setting

This study was conducted at the Women's Comprehensive Health Clinic in the Kamatipura and Khetwadi area of Mumbai. Approximately 70% of the women served in the clinic are commercial sex workers. Most sex workers are brought to the clinic by peer support workers employed by local non-governmental organizations.

### Procedures

In this cross-sectional study, 300 consecutive women presenting to the clinic and interested in participating in the study were enrolled. Participants completed a blood draw and face-to-face survey conducted by an Indian physician with previous training in research methods and interviewing. Research interviews were conducted in Hindi. All participants were tested for the presence of HIV antibody, and CD4 counts were determined. Participants returned to the clinic 14 days after the initial research visit to receive test results and counseling. Confidentiality regarding HIV status was assured by providing results in a closed room with only the counselor and participant present. All laboratory specimens, reports, and research records were identified only by a coded number to maintain participant confidentiality, and files linking the code and personal identifiers were kept locked in the research office, separate from study data and HIV testing results. HIV-infected women with CD4 counts <200 were referred to local hospitals for enrollment in a national program where free antiretroviral treatment is available. Since free antiretroviral treatment was not available to HIV-infected Indians unless they had CD4 <200 and the women in this study could not afford to buy antiretroviral medications on their own, those that were found to be HIV-infected and had CD4 counts >200 were given counseling to prevent infection transmission and advised to return regularly to the clinic for continued monitoring of CD4 counts and opportunistic infections. Study participants were reimbursed 100 Rupees (approximately 2.25 USD) at the initial research visit and a hygiene kit at the follow-up visit. Study procedures were approved by the Albert Einstein College of Medicine and Topiwala National Medical College ethics committees.

### Measures

The questionnaire was adapted from The Family Health International (FHI) HIV/AIDS/STI Behavioral Surveillance Surveys (FHI, 2000). The FHI Behavioral Surveillance Surveys include standardized indicators of HIV-related risk behaviors that were developed collaboratively among FHI, the United Nations Joint Program on HIV/AIDS (UNAIDS),

and the World Health Organization (WHO), that directly impact the spread of HIV and are relevant for prevention programs. These measures have been used in many behavioral surveillance studies conducted in various countries and cultures around the world, including among female sex workers in Mumbai, India (FHI, 2000; FHI, 2001). The original English questionnaire was translated into Hindi and then back translated into English to determine the accuracy of the translation and make corrections. The questionnaire was first piloted in 8 women and revised before being administered to the 300 women in this study.

**HIV infection**—HIV infection was determined with ELISA and Western Blot tests, conducted at the Topiwala National Medical College and Nair Hospital in Mumbai.

**HIV risk behavior**—We asked participants if they ever had sexual intercourse with a man, and, if yes, whether it occurred in the past 12 months. We also asked participants about the number of non-commercial, regular sex partners, commercial sex partners (partners with whom they had sex in exchange for money or goods), and non-commercial, non-regular sex partners they had in the previous 12 months. We summed the number of partners in each category to create a variable indicating total number of sexual partners in the past year. We also asked participants about how often they used condoms with each category of sexual partners on a scale from 0 (never) to 3 (every time). We created a dichotomous variable to indicate “always used condoms with all sexual partners” versus “did not always use condoms with all sexual partners.” We asked participants about their occupation during the past year and created a variable to identify those who reported sex work in the past year versus those who did not. Finally, we asked participants if they ever used intravenous drugs.

**HIV knowledge and beliefs**—We asked participants whether they ever heard of HIV and whether they ever heard of a condom or “a cover for the penis that is used during sexual activity.” We asked participants who replied “yes” factual questions or for their beliefs about HIV and condom use. We scored items as correct or endorsed if participants responded with an appropriate “yes” or “no” answer. We scored “maybe” or “don't know” as incorrect or not endorsed.

## Statistical Analyses

We calculated descriptive statistics with medians and percentages. We then determined the associations between HIV infection and demographic characteristics, HIV risk behavior, and HIV knowledge and beliefs, utilizing chi-square and Mann-Whitney U tests. Variables that were significantly ( $p < .05$ ) associated with HIV infection, in bivariate analyses, were then entered into a multivariate logistic regression model predicting HIV infection.

## Results

### Participant Characteristics (Table 1)

Participants' median age was 30. Sixty-four percent of participants spoke Hindi (25%), Bengali (25%), or Marathi (14%) as their primary language. Participants' education level was low, and the largest proportion was married (42%). Most lived in a 1–2 room rental home (91%), and most homes had electricity (96%); however, few had a telephone (15%),

refrigerator (4%), or mode of transportation (2%). Ninety-two percent of participants had a household income of less than 5000 Rupees per month (103.25 USD). Thirty-nine percent of participants were found to be HIV-infected, and 12% of those infected had a CD4 count that was <200.

### **HIV Risk Behavior (Table 2)**

Only one participant reported ever injecting drugs; however, almost all participants reported ever having sexual intercourse with a man. The median age at first intercourse was 15.5 years. Eighty percent reported working as a “sex worker” in the past year. The majority reported having greater than 20 partners in the past year (78%; median=721.0). However, 7% reported no sexual partners, and 13% reported only one sexual partner in the past year. Among the women who had sexual intercourse in the past year, 54% had sex with a spouse or non-commercial regular sex partner. A slightly higher percentage of women reported having a commercial sex partner (86%) than percentage of women who reported working as a “sex worker”. While almost all (97%) always used condoms with commercial sex partners, fewer always used condoms with their spouse or non-commercial, regular sex partners (44%), non-commercial, non-regular sex partners (8.7%), or all sex partners (61%).

### **HIV Knowledge and Beliefs (Table 3)**

Approximately 83% of the women heard of HIV or AIDS or received information or education about HIV or AIDS. The majority of those who heard of HIV or AIDS knew a married woman can get the HIV virus (83%) and that a healthy looking person can be infected with HIV (70%). However, only 39% knew that people can protect themselves from the HIV virus by having one uninfected, faithful sex partner. Thirty-three percent knew that HIV can be managed like a chronic disease. In the entire sample, only 35% knew that antiretroviral therapy is available through a national program and even fewer (25%) knew that antiretroviral therapy can be obtained free of cost.

Almost all participants heard of a condom (97%); however, among those who heard of a condom, fewer (82%) knew that a condom can be used to prevent diseases. Most knew of a place or a person from where or whom to obtain a condom (95%). The majority believed that condom preparation is a male responsibility (58%), that using a condom is a sign of not trusting your partner (84%), and that if a woman asks her male partner to use a condom he will lose respect for her (65%).

### **Factors Associated with HIV Infection**

In bivariate analyses, HIV infection had a significant positive relationship with speaking a language other than Hindi, Marathi, or Bengali, ever being hungry or not having enough food, being accompanied to the clinic by a peer support worker, and the belief that if a woman asks her male partner to use a condom he will lose respect for her (Tables 1 and 3). School attendance and physical health had significant negative relationships with HIV infection (Table 1). HIV-infection was not significantly associated with past-year sex work (Table 2.). A significantly smaller percentage of the HIV-infected women who had sex with a commercial sex partner always used condoms with their commercial sex partners as

compared to the percentage of women who were not infected with HIV and had sex with a commercial sex partner (Table 2).

#### **Multivariate Model Predicting HIV Infection (Table 4)**

The multivariate model revealed that, compared to the women who spoke Marathi (the local language) as a primary language, the women who spoke Kannada, Nepali, English, Gujarati, Telegu, Bhojpuri, Malayalam, Oriya, Urdu, or Tamil were more than twice as likely to be HIV-infected (OR=2.44). Also, physical health remained a significant negative predictor of HIV infection (OR=.60). Being accompanied by a peer support worker was not entered into the analysis due to intercorrelation with other predictor variables. Also, condom use with commercial sex partners was not included in the model because it was only measured in the 86% of the sample who had a commercial sex partner in the past year.

#### **Discussion**

Almost 40% of participants were HIV-infected. The percentage of women with HIV infection in this sample is much higher than the reported prevalence of HIV among STI clinic attendees (2.5%) and female sex workers (4.9%) in India, overall (NACO, 2010). However, the percent of women infected with HIV in our sample is consistent with previous reports of HIV infection among sex workers in Mumbai (NACO, 2010). Perhaps, the high rate of HIV in this seemingly diverse sample of women is a reflection of the prevalence of HIV among current sex workers and previous sex workers (i.e., women who did not report sex work in the past year but had a history of sex work prior to the previous 12 months) in Mumbai. Unfortunately, we do not have the data to assess whether those who did not report sex work in the past year ever participated in sex work. Alternatively, the high prevalence of HIV infection in this sample that was not significantly predicted by sex work in the past year could be a reflection of the increased spread of HIV to monogamous women by their husbands or steady partners that has occurred in India in recent years (NACO, 2010). Further research is necessary to determine the extent to which current sex work, history of sex work, or monogamous sex with a single partner is related to HIV infection among women seeking care at STI clinics in India.

A few demographic differences, some consistent with the Theory of Power and Gender structure of labor, existed between the HIV-infected women and those not infected with HIV. A significantly higher percentage of HIV-infected women spoke a primary language not local to Mumbai. This finding may be due to the trafficking of HIV-infected sex workers to Mumbai (Silverman et al., 2006). Alternatively, some of the women may have chosen to leave their local areas to seek care for stigmatized diseases such as HIV or other STIs (Bharat & Aggleton, 1999; Chakrapani, et al., 2009; Silverman et al., 2006). The HIV-infected women were significantly less likely to have ever attended school as compared to the women without HIV, and previous research has shown that low levels of education is related to HIV infection in India and could be related to poor access to HIV education, inability to understand HIV risk reduction messages and low levels of empowerment (Ghosh et al., 2011; Shahmanesh et al., 2009). The HIV-infected women were more likely than the women without HIV to have ever been hungry and without enough food. Perhaps lack of

food led to an increased need for participation in risky behavior to earn money to eat (Reed, Gupta, Biradavolu, Devireddy, & Blankenship, 2010). Finally, the HIV-infected women reported worse physical health and were more likely to have been accompanied to the clinic by a peer support worker as compared to the women without HIV. Those who were HIV-infected may have been experiencing physical symptoms of HIV or another STI. Further, those with HIV and physical symptoms may have been more likely to seek out peer support for help or to be identified by peer support workers as targets for treatment than those without HIV. Perhaps, currently existing peer support programs in Mumbai are having a positive impact on HIV-infected women's access to STI treatment.

The majority of participants had multiple sex partners related to sex work. Although almost all of the sex workers reported always using condoms with their commercial sex partners, most participants did not always use condoms with their non-commercial sex partners. These results are consistent with prior research in India. For example, a study of 350 married women in Mumbai found that only 7.2% were acting to avoid HIV infection (Chatterjee & Hosain, 2006). Among 139 sexually active women attending primary health centers, one study found that 68% rarely or never used condoms during intercourse (Ananth & Koopman, 2003). Since most participants did not use condoms with non commercial sex partners, more interventions are needed in India to increase condom use among couples not in a commercial relationship. Further, interventions aimed at increasing condom use in non-commercial intimate relationships need to consider gender based power differentials between partners (Wingood & DiClemente, 2000). For example, Verma et al. (2006) investigated a pilot intervention to promote gender equity among young men in Mumbai and found that after the intervention, the men's attitudes regarding gender and sexuality as well as their behavior with women had changed. Interventions such as this could be helpful for enabling women to better protect themselves.

Few differences in sexual risk behavior existed between those who were HIV-infected and those who were not. Only condom use with commercial sex partners, among the sex workers, was significantly associated with HIV infection. Unprotected sex with multiple partners provides the most opportunity for HIV exposure and thus the most likely sexual risk behavior to be related to the spread of HIV infection (DiClemente et al., 2005). More interventions that address barriers to condom use among sex workers in Mumbai are needed, not only to prevent sex workers from becoming infected themselves but to also protect their non-commercial partners and their clientele who could become infected and spread the disease to their wives and other sex partners.

According to the Theory of Gender and Power, affective attachments and cultural norms can impact knowledge and beliefs and may be influencing knowledge acquisition and beliefs among the women in this study. Knowledge about HIV/AIDS was inconsistent among the women sampled. While the majority ever heard of HIV or AIDS, almost 20% never heard of or received any information about the disease. Further, among those who had heard of HIV or AIDS, many had gaps in knowledge or misconceptions. Although educational efforts have made progress in raising awareness about HIV among women in Mumbai, there is a need for greater outreach and education about HIV prevention and treatment to fill the gaps in knowledge demonstrated by the women in this sample. Although over 90% of the women

ever heard of a condom, the majority reported beliefs that likely have an impact on condom use and could be barriers for interventions aimed at increasing condom use. The endorsed beliefs are consistent with the patriarchal cultural norms known to limit some Indian women's ability to negotiate sexual encounters and become informed about risk reduction (Doshi & Gandhi, 2008). HIV risk interventions for Indian women need to address these cultural norms to be effective.

This study has a few limitations. First, we only surveyed women who were seeking care at a women's sexually transmitted infection clinic in Mumbai, India. Therefore, the findings from this study cannot be generalized to Indian women (sex workers or non-sex workers) who are not seeking care at a sexually transmitted infection clinic in Mumbai. Second, the majority of participants were brought to the clinic by peer support workers, which could have biased the sample. Third, this study was cross-sectional; therefore, causal or temporal relationships could not be determined. A prospective cohort study could help us clarify the relationships between HIV risk behavior, knowledge and beliefs and HIV infection. Fourth, translation and adaptation of the questionnaire could have impacted reliability and validity of the originally designed FHI behavioral surveillance instruments. Finally, since the data was self-report and collected face-to-face, participants' desire to appear socially acceptable could have influenced the results (Jaya, Hindin, & Ahmed, 2008).

Through this study, we gained important information that can be useful for designing HIV risk reduction interventions and future studies with sex workers and other at-risk women in India. Given the high prevalence of HIV infection found in this study, HIV testing is needed for all Indian women seeking treatment at an STI clinic, including current sex workers and other women not known to be at-risk for HIV. Sex workers in India need more education about HIV risk prevention and treatment to help protect themselves from HIV as well as prevent the spread of the disease to their non-commercial partners and clients, who could be infecting their other sexual partners. In the short-term, we need to consider cultural norms and gender based power differentials when developing HIV related outreach and education for at-risk Indian women. However, we also need to develop and implement long-term interventions, at a societal level, that work towards changing the disadvantaged position of many at-risk Indian women.

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**Table 1**

Participant Characteristics and HIV Infection.

	All N=300	HIV-Infected n=118	Not HIV-Infected n=182	p
	Percentage, Median (IQR)	Percentage, Median (IQR)	Percentage or Median (IQR)	
Age	30.0 (26.0–38.0)	30.0-(30.0–35.0)	30.0 (25.0–40.0)	.419
Primary Language				
Hindi	25.2	28.0	23.3	.367
Bengali	25.0	20.3	28.0	.133
Marathi	14.1	8.5	17.8	.024
Other <sup>a</sup>	35.7	43.2	31.1	.033
Ever attended school	29.2	22.0	33.9	.028
Number of years of schooling <sup>b</sup>	5.0 (4.0–8.0)	5.0 (3.5–8.0)	5.0 (4.0–8.0)	.691
Marital status				
Married	41.9	37.3	45.0	.187
Single (never married)	20.1	17.8	21.7	.415
Married, but separated	13.1	16.1	11.1	.212
Divorced	10.1	11.0	9.4	.659
Widowed	14.8	17.8	12.8	.232
Housing				
Owned home	4.7	2.5	6.1	.154
Rental home (1–2 rooms)	90.6	91.5	90.0	.659
Non-permanent or transient housing, street dwelling	4.7	5.9	3.9	.415
Household has electricity	95.6	94.9	96.1	.621
Household has telephone	15.1	13.6	16.1	.547
Household has refrigerator	4.4	4.2	4.4	.932
Household has car, bicycle, or scooter	2.0	1.7	2.2	.751
Monthly household income <5000 Rupees <sup>c</sup>	91.8	92.9	91.2	.614
Ever hungry or not enough food	31.2	37.9	26.8	.044
Physical health <sup>d</sup>	2.0 (1.0–2.0)	2.0 (1.0–2.0)	2.0 (1.0–2.0)	.004
Had contact with outreach or non-governmental organizations	28.2	30.5	26.7	.471
Accompanied to clinic by peer support worker	85.0	90.7	81.3	.027
Currently a peer support worker	15.5	13.6	16.8	.456
CD4 count <200 <sup>e</sup>	11.9	11.9	---	---

<sup>a</sup>Including Kannada, Nepali, English, Gujarati, Telegu, Bhojpuri, Malayalam, Oriya, Urdu, and Tamil.

<sup>b</sup>Among those who attended school.

<sup>c</sup>Equivalent to < approximately 103.25 USD.

<sup>d</sup>On a scale from 1 (poor) to 4 (excellent).

<sup>e</sup>Among those who were HIV-infected.

Table 2

## HIV Risk Behavior and HIV Infection

	All N=300	HIV-Infected n=118	Not HIV-Infected n=182	p
	Percentage or Median (IQR)	Percentage or Median (IQR)	Percentage or Median (IQR)	
Ever injection drug use	0.3	0.0	0.6	.417
Ever sexual intercourse with a man	99.0	99.1	99.4	.753
Age at first intercourse <sup>a</sup>	15.5 (13.0–19.0)	15.0 (13.0–18.0)	16.0 (13.0–19.0)	.625
Sexual intercourse with a man in last 12 months <sup>a</sup>	91.9	90.4	93.9	.277
Worked as “Sex Worker” in the past 12 months	80.0	82.2	78.6	.442
# sexual partners in the last 12 months <sup>a</sup>				
Median # partners	721.0 (345.3–1081.0)	721.0 (360.0–1081.0)	721.0 (192.0–1081.0)	.975
No partners	7.2	8.0	5.7	.445
One partner	13.0	8.8	15.9	.083
2–20 partners	2.1	1.8	2.3	.770
>20 partners	77.7	81.4	76.1	.289
Types of sexual partners in past 12 months <sup>b</sup>				
Sex with spouse or non-commercial, regular partner	54.3	48.0	58.3	.103
# spouse or non-commercial, regular partners	1.0 (0.0–1.0)	0.0 (0.0–1.0)	1.0 (0.0–1.0)	.230
Sex with commercial sex Partners	85.6	90.2	82.7	.092
# commercial sex partners	720.0 (585.0–1080.0)	720.0 (720.0–1080.0)	720.0 (360.0–1440.0)	.912
Sex with non-commercial, non-regular sex partners	8.0	8.8	7.5	.763
# non-commercial, non-regular sex partners	0.0 (0.0–0.0)	0.0 (0.0–0.0)	0.0 (0.0–0.0)	.758
Condom use in past 12 months				
Always used condoms with spouse or non-commercial, regular sex partners <sup>c</sup>	44.2	47.9	42.2	.521
Always used condoms with commercial sex partners <sup>d</sup>	96.8	93.3	99.2	.015
Always used condoms with non-commercial, non-regular sex partners <sup>e</sup>	8.7	20.0	28.6	.941
Always used condoms with all sex partners <sup>b</sup>	61.2	59.1	61.5	.691

<sup>a</sup> Among those who ever had sexual intercourse with a man.

<sup>b</sup> Among those who had sexual intercourse in the past 12 months.

<sup>c</sup> Among those who had sex with a spouse or non-commercial, regular sex partner in past 12 months.

<sup>d</sup> Among those who had sex with a commercial sex partner in past 12 months.

<sup>e</sup> Among those who had sex with non-commercial, non-regular sex partners in past 12 months.

**Table 3**

## HIV Knowledge and Beliefs and HIV Infection

	All N=300	HIV-Infected n=118	Not HIV-Infected n=182	<i>p</i>
	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>
HIV/AIDS				
Ever heard of HIV or AIDS	83.2	86.0	86.1	.969
Ever received information or education about HIV or AIDS <sup>a</sup>	82.9	96.9	98.0	.598
Know that people can protect themselves from the HIV virus by having one uninfected, faithful sex partner <sup>a</sup>	39.2	43.9	36.9	.470
Knows a married woman can get the HIV virus <sup>a</sup>	82.7	83.7	84.6	.851
Know that a healthy looking person can be infected with HIV <sup>a</sup>	70.1	75.5	67.1	.157
Treatment				
Know HIV can be managed like a chronic disease <sup>a</sup>	33.0	37.1	39.2	.749
Know antiretroviral therapy is available through a national program	35.4	33.3	36.8	.546
Know antiretroviral therapy is available free of cost	25.5	26.7	24.7	.700
Condoms				
Ever heard of a condom	96.6	97.5	96.1	.665
Knows a condom can be used to prevent diseases <sup>b</sup>	82.3	82.6	82.1	.909
Knows of a place or a person from which to obtain a condom <sup>b</sup>	95.1	95.7	94.8	.741
Believes condom preparation should be a male responsibility <sup>b</sup>	57.6	57.4	57.8	.945
Believes that if a woman asks her male partner to use a condom, he will lose respect for her <sup>b</sup>	65.3	73.0	60.1	.024
Believes using a condom is a sign of not trusting your partner <sup>b</sup>	83.7	87.0	81.5	.220

<sup>a</sup> Among those who ever heard of HIV or AIDS.

<sup>b</sup> Among those who ever heard of a condom.

**Table 4**Multivariate Logistic Regression Model Predicting HIV Infection (n=294<sup>a</sup>)

Variable	<i>B</i>	<i>SE</i>	<i>Odds Ratio</i>	<i>95% Confidence Interval</i>	<i>p</i>
Marathi <sup>b</sup>					.032
Hindi	.90	.45	2.19	.90–5.31	.083
Bengali	.25	.47	1.10	.44–2.75	.835
Other <sup>c</sup>	.99	.43	2.44	1.05–5.67	.038
Ever attended school	-.49	.30	.61	.34–1.11	.104
Ever hungry or not enough food	.48	.27	1.61	.95–2.73	.078
Physical health	-.52	.23	.60	.38–.94	.026
Belief that if a woman asks her male partner to use a condom, he will lose respect for her	.26	.14	1.30	.99–1.11	.059

<sup>a</sup>Sample only includes the 97% of participants who ever heard of a condom.

<sup>b</sup>Reference group.

<sup>c</sup>Including Kannada, Nepali, English, Gujarati, Telegu, Bhojpuri, Malayalam, Oriya, Urdu, and Tamil