Integrated Biological and Behavioral Surveillance (IBBS) Survey among Men who have Sex with Men (MSM) and Transgender (TG) in Terai Highway Districts of Nepal- 2016 (Round –I)- Factsheet

Brief Description of the Study

This is the first round of the IBBS survey conducted among men who have sex with men (MSM) and Transgender (TG) population in the selected eight districts of Terai Highway regions of Nepal. The objectives of the first round of the IBBS survey was to: a) determine the prevalence of HIV Syphilis, *Chlamydia Trachomatis* (CT) and *Neisseria Gonorrhea* (NG) and associated risk behaviors among MSM/ TG, b) Collect information related to socio-demographic characteristics, and c) Explore the association between the risk behaviors and HIV and other specific STIs among the MSM and TG population. Fieldwork for data collection was conducted from 5th June to 15th June 2016.

Methods

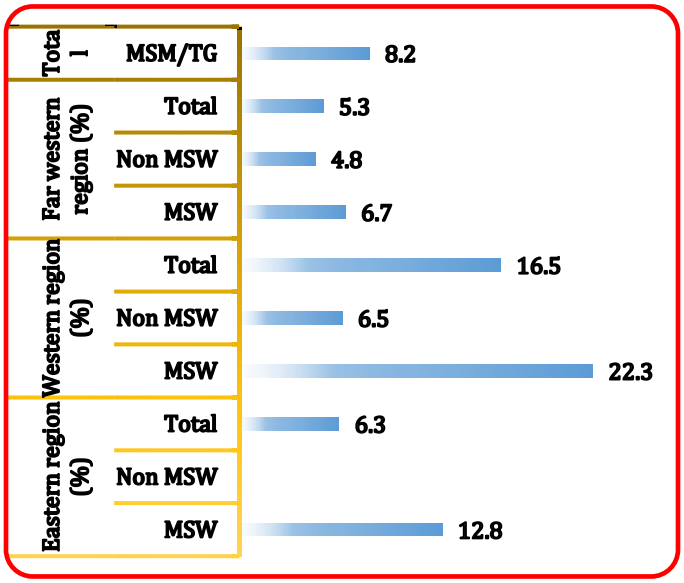
A cross-sectional research design and Respondent Driven Sampling (RDS) method was applied for sample selection. The total sample size was 340. The survey was started with nine seeds and went up to five waves. Respondents were interviewed after obtaining witnessed oral consent followed by pre-test counseling and blood, urine and anal swab sample collection. A structured questionnaire was used to collect background characteristics, knowledge on HIV and AIDS and STIs, sexual behavior, exposure and access to HIV services and stigma and discrimination.

Rapid test kits: Determine HIV ½ test, Uni-Gold ½ test and Stat pack ½ test kits were used for testing presence of antibodies against HIV in the serum. Syphilis was tested using Rapid Plasma Regain (RPR) and it was confirmed by Treponema Pallidum Particle Agglutination (TPPA) tests. Real time PCR, using Goffin Molecular Technologies Presto *Chlamydia trachomatis* (CT) and *Neisseria Gonorrhea* (NG) Assay kit was used for testing Gonorrhea and Chlamydia. Participants received test results, with post-test counseling and treatment, when required. The SPSS (23) and STATA software were used for data analysis. Ethical approval for this survey was obtained from Nepal Health Research Council.

For the purpose of this survey, survey population was further classified into sex workers (MSW) and non-sex workers (Non-MSW) and tried to identify whether the respondent belongs Transgender (TG) category or not (see the definition in the box).

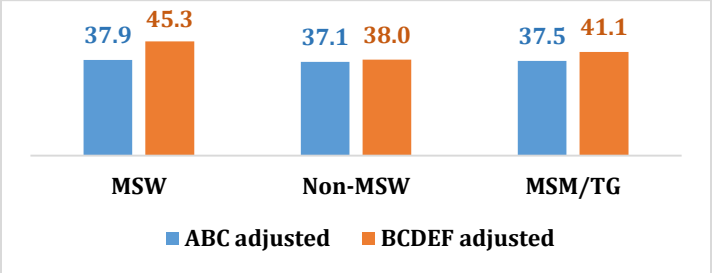
Key Findings

Figure 1: HIV prevalence (RDS Adjusted)



RDS-adjusted data shows that prevalence of HIV within MSM/TG is 8.2 percent (CI 5.7-11.7). The prevalence of HIV within MSW is higher than Non-MSW. The data also indicates that the prevalence of HIV within surveyed group among sex worker is higher in the western region (16.5%) followed by Eastern region (6.3%), and Far-western region (5.3 %). Moreover, among Non-MSW no any cases of HIV was reported in Eastern region. In this group HIV infection was higher in the western region (8.8%), and Far-western region (5.7%).

Figure 2: Comprehensive Knowledge of ABC and BCDEF (N= 340)



Note: A= Abstinence, B= Being faithful, C= Consistent condom use, D= Diaphragm for HIV Prevention, E= Exposure Prophylaxis and F= Female-Controlled Micro-biocides

Figure 2 shows data on comprehensive knowledge of ABC and BCDEF (adjusted). In total, 37.5% MSM/TG had knowledge of ABC while 41.1% of them had knowledge of BCDEF.

Table 1: STI Prevalence

Prevalence	Eastern region (%)			Western region (%)			Far western region (%)			Total MSM/TG (%)
	MSW	Non MSW	Total	MSW	Non MSW	Total	MSW	Non MSW	Total	
	N=62	N=58	N=120	N=86	N=34	N=120	N=30	N=70	N=100	N=340
Active Syphilis	20.97*	10.3*	15.8*	2.3*	5.8*	3.3*	13.0*	7.14*	9.0*	9.4*
Syphilis History	1.6*	NA	0.8*	NA	NA	NA	NA	1.4*	1.0*	0.6*
Any STI (95 % CI)	17.3 (8.1-33.1)	5.2(1.9-13.3)	11.1 (5.9-19.7)	1.6 (0.2-11.1)	6.3 (1.3-25.0)	3.2 (0.8-8.1)	12.2 (3.2.-36.8)	3.0 (1.1-8.1)	5.1 (2.1-11.6)	6.9(4.3-10.9)*

Note: For HIV and any STI, estimated population proportion (%) of the variables with an asterisk (*) are unadjusted and besides the asterisk (*) values are RDS-adjusted.

Within MSM/TG, 6.9% have any STIs and 9.4% of them have active syphilis. Prevalence of any STIs was highest in the eastern region (11.1%). Similarly, the prevalence of active syphilis was also highest in MSM/TG from eastern region (15.8 %). Prevalence of active syphilis was also highest in MSW group from eastern region (20.97%). The infection of gonorrhea within MSM/TG was low in comparison to the prevalence of syphilis. There are no any reported cases of gonorrhea in the eastern and western region but it was 0.3% in the far western region.

Table 2: Association between Sexual Behavior and HIV/STI Prevalence

Sexual Behavior	HIV			STI		
	Yes	%	P value	Yes	%	P value
Age at first sex						
Below 10 years (N=5)	0	0.0	0.524*	1	20.0	0.747*
10-16 (N=215)	17	7.9		24	11.2	
17-20 (N=102)	8	7.8		9	8.8	
21-30 (N=16)	3	18.8		1	6.3	
Ever had sex with a male in exchange for money						
Yes (N=161)	17	10.6	0.139	25	15.5	0.004*
No (N=179)	11	6.2		10	5.6	
Vaginal/anal/oral sex with women in the past year						
Yes (N=145)	11	7.6	0.707	8	5.5	0.012*
No (N=195)	17	8.7		27	13.9	

Note: STI includes current Syphilis, Anal CT & NG, and Urethral CT & NG. * p value is obtained from Fisher's Exact Test for those variables, as in a cell expected count is less than 5.

HIV prevalence tends to be higher among respondents who had their first sex between age 21to 30 years (18.8%) while STI was highest among sex below 10 years of age (20%) as compared to older age groups. However, the difference was statistically not significant.

On the other hand, HIV and STI prevalence was statistically higher among respondents who reported ever had sex with a male in exchange for money (10.6% HIV and 15.5% STI) as compared to those who never had sex with a male in exchange for money. Similarly, a significantly higher proportion of respondents who did not have vaginal /anal/oral sex with women in the past year were tested HIV and STI, i.e. 8.7% and 21% respectively.

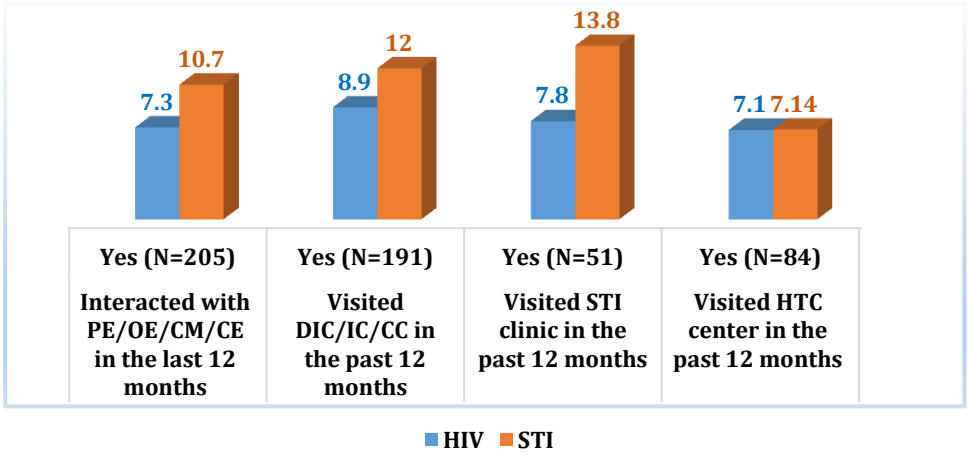
Table 1: Association between STI and HIV status

STI and HIV status		HIV		
		Yes	%	P value
Any STI	**Yes (N=35)**	4	11.4	0.511*
	No (N=305)	24	7.9	
Active Syphilis	**Yes (N=32)**	3	9.4	0.737*
	No (N=308)	25	8.1	
Syphilis History	**Yes (N=2)**	1	50.0	0.158*
	No (N=338)	27	7.8	
Urethral Chlamydia	**Yes (N=1)**	0	0.0	1.00*
	No (N=339)	28	8.3	

Note: Any STI includes current Syphilis, Anal CT & NG, and Urethral CT & NG. * p value is obtained from Fisher's Exact Test for those variables, as in a cell expected count is less than 5.

The data shown in Table 3 suggests that there is no statistically significant association between active syphilis and HIV (9.4% of the total active syphilis cases were tested HIV positive). This trend tends to follow by the prevalence of any STI and HIV (11.4% cases were tested HIV positive). Similarly, the association between STI and HIV was not statistically significant. Only one case of syphilis history was tested HIV positive.

Figure 3: HIV/STI infection among participation in HIV/STI prevention program



The data indicates that among those who interacted with PE/OE/CM/CE in past 12 months 7.3% had HIV and 10.7% had STI, similarly, HIV (8.9%) and STI (12%) was found among those who visited DIC/IC/CC in the past 12 months. In the case of those who visited STI clinic and HTC center in the past 12 months STI cases (13.8% and 7.14%) in comparison to HIV (7.8% and 7.1%).

Program Implications and Recommendations:

- The majority of MSM/TG have their sexual debuts during the teenage period (10 to 16 years). Therefore, the HIV prevention intervention should be focused on the teenage groups. Targeted interventions for students, out of school adolescents and youth should be implemented focusing on delayed sex, consistent and correct condom use and partner reduction, among others.
- Communication interventions on MSM/TG should focus on safe sexual behaviors as they tend to be engaged in risky sexual behaviors that lead to HIV and STI transmission.
- It is necessary to spread the message of consistent condom use with regular, non-paying and paid sex partners while having sex, whether oral or anal sex.
- Information about available HIV and STI services, including condoms should be disseminated widely through mass media as well as interpersonal communication.
- It is necessary to improve access and exposure of the MSM/TG population to structured HIV programs (Peer education, DIC, HCT/STI clinics). Given the low exposure to STI services and information and higher prevalence of STIs, special attention should be given to enhancing exposure of MSM/TG populations to the STI services and information in future HIV interventions.

Definitions

- Male sex workers (MSWs): '*Those males aged 16 years or above who have had sexual relations, (either oral or anal) with another male in the 12 months preceding the survey in exchange for money or other commodities.'*
- Non-MSWs: '*Those males aged 16 years or above who have had sexual relations (either oral or anal) with another male in the 12 months preceding the survey without receiving cash payment or other commodities.'*
- *Transgender (TG): Those males aged 16 years and above who identified themselves in a different gender than that assigned to them at birth or identified themselves belonging to transgender community.*

Table 4: Key National M & E Indicators

S.N.	Key Indicators (N=340)	Calculation	MSW	Non-MSW	TG	MSM	<25 yrs	25+ yrs
1	Percentage of men who have sex with men and transgender who are HIV-infected	Unadjusted	11.8	4.3	8.1	8.2	3.6	11.3
		Adjusted with CI	14.8 (6.6-30.3)	3.4 (1.2-9.5)	12.7 (4.7-30.4)	8.2 (4.1-15.7)	3.0 (0.5-14.2)	12.9 (6.1-25.4)
2	Percentage of men reporting the use of condom the last time they had anal sex with male partner	Unadjusted	62.4	59.3	61.3	60.9	62.0	60.1
		Adjusted with CI	51.8 (39.8-63.5)	56.4 (43.6-68.3)	51.6 (39.6-63.6)	(45.5-63.1)	54.4 (40.6-67.6)	54.4 (42.9-65.5)
3	Number (and Percentage) of men who have sex with men and (MSM) and transgender people who received and HIV test in the past 12 months and know their results	Unadjusted	75	75.0	76.6	75	78.9	72.5
		Adjusted with CI	63.6 (45.8-78.3)	63.5 (44.1-79.3)	68.0 (49.4-82.2)	63.5 (50.5-74.8)	75.2 (58.2-86.9)	55.3 (38.1-71.3)
4	Percentage of key population MSM reached with HIV prevention programs	Unadjusted	9.6	2.5	7.5	6.2	8	4.9
		Adjusted with CI	11.7 (6.0-21.4)	1.1 (0.4-3.1)	10.3 (4.8-20.7)	5.5 (3.0-5.10.0)	8.0 (3.5-17.2)	3.3 (1.5-6.9)
5	Percentage of men having sex with men who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission and transgender who are HIV-infected	Unadjusted	62.4	67.3	65.3	64.7	62	66.5
		Adjusted with CI	56.9 (44.9-68.2)	61.7 (48.8-73.2)	59.8 (47.8-70.7)	59.7 (50.7-68.1)	57.0 (43.0-70.0)	62.2 (50.9-72.2)
6	Percentage of MSM who reported that a condom was used the last time they had anal sex in the last six month	Unadjusted	74.4	68.8	70.9	72.5	73.3	72.0
6.1	Number of MSM who reported that a condom was used the last time they had anal sex in the last six month	Unadjusted	67	33	61	100	33	67
6.2	Number of MSM who reported having had anal sex with a male partner in the last six months	Unadjusted	**90**	**48**	**86**	**138**	**45**	**93**

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