

**Integrated Biological and
Behavioral Surveillance Survey
(IBBS) among Men who have
Sex with Men (MSM &
Transgender (TG) People in
Kathmandu Valley, 2015**

Round 5

FINAL REPORT

December 2015



**Ministry of Health and Population
National Centre for AIDS and STD Control
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ABBREVIATIONS

ABC	Abstinence, Being Faithful, Condom Use
AIDS	Acquired Immune-Deficiency Syndrome
ART	Anti-Retroviral Therapy
BDS	Blue Diamond Society
BSS	Behavioral Surveillance Survey
CC	Community Center
CE	Community Educators
CI	Confidence Interval
CMs	Community Motivators/Mobilisers
CT	<i>Chlamydia Trachomati</i>
DIC	Drop-in-Centre
DoHS	Department of Health Service
EQA	External Quality Assessment
EQAS	External Quality Assurance Scheme
FSGMN	Federation of Sexual and Gender Minorities Nepal
FSWs	Female Sex Workers
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GOs	Governmental Organizations
HIV	Human Immuno-Deficiency Virus
HTC	HIV Testing and Counselling
IBBS	Integrated Biological and Behavioural Surveillance
IC	Information Center
ID	Identifier
KAP	Key Affected Population
MoHP	Ministry of Health and Population
MSM	Men who have Sex with Men
MSW	Male Sex Worker
NCASC	National Centre for AIDS and STD Control
NG	<i>Neisseria Gonorrhoea</i>
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
NIDR	Nepal Institute for Development and Research
NPHL	National Public Health Laboratory
NRs	Nepalese Rupees
OE	Outreach Educator
OST	Opioid Substitution Therapy
PE	Peer Educator
PLHIV	People Living with HIV
PMTCT	Prevention of Mother to Child Transmission of HIV
PWID	People Who Inject Drugs
RDS	Respondent Driven Sampling
RDSAT	Respondent Driven Sampling Analysis Tool

RDT	Rapid Diagnostic Test
RPR	Rapid Plasma Regain
SGS	Second Generation Surveillance
SITWG	Strategic Information Technical Working Group
SPSS	Statistical Package for the Social Sciences
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TG	Transgender
TPHA	Treponema Pallidum Hemagglutination Assay
TPPA	Treponema Pallidum Particle Agglutination
UNAIDS	United Nations Programmes on HIV and AIDS
UNGASS	United Nations General Assembly Special Session
US	United States
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Introduction

In consonance to the recommendations of World Health Organization (WHO) and United Nations Program on HIV/AIDS (UNAIDS) and National HIV/AIDS Strategy of Nepal, 2011-2016, NCASC has been repeatedly conducting Integrated Bio-behavioral Surveillance (IBBS) surveys among key affected population groups since 1999. IBBS has been used as one of the key methods of second-generation surveillance in understanding HIV epidemic and associated behavioral determinants, and to generate informed evidence for program planning, implementation and resource mobilization. Men who have sex with men (MSM) are one of the key affected populations (KAP) at higher risk of spreading the HIV epidemic. The recent estimates show that MSM contributes nine percent of the total HIV infections in Nepal.

As of 2015, five rounds of IBBS surveys (i.e. Round 1 in 2004, Round 2 in 2007, Round 3 in 2009, Round 4 in 2012, and Round 5 in 2015) have been conducted in Nepal. The main objectives of the IBBS survey were to: determine the prevalence and trend of HIV Syphilis, *Chlamydia Trachomatis*(CT) and *Neisseria Gonorrhoea*(NG) and associated risk behaviors among MSM/ Transgender (TG), collect information related to socio-demographic characteristics and explore the association between the risk behaviors and HIV and other specific STIs among the MSM/TG population.

Methodology:

The IBBS survey used descriptive cross-sectional research design. As in the previous rounds of the IBBS survey, a total of 400 MSM from Kathmandu, Lalitpur and Bhaktapur district were included in the survey. The sample comprised 174 Men who have Sex with Men (MSW), and 226 non-MSW. The total sample was further categorized as Transgender (TG) and Non-transgender (Non-TG). Out of total 400 sample, there were 215 TG and 185 Non-TG.

The sample for the study was recruited using respondent driven sampling (RDS) method. All the participants selected by RDS method were screened to ensure that they met the criteria for participating in the survey. The recruitment started with selection of six seeds representing the sexual identity of the MSM and making them as diverse as possible. The seeds were informed about the survey protocol and procedures and were encouraged to recruit other eligible peers from their social network randomly to participate in the study. Thus, the seeds had recruited the first wave of respondents. After their recruitment in the survey, each seed received three referral coupons, which they passed on to their peers, and a reward coupon to collect reward after successful participation of the referred persons. The referral coupons were uniquely coded in order to link recruiters and recruits. The coupon ID numbers were carefully recorded in each questionnaire. Out of six seeds, four seeds had completed six waves, and two seeds generated five waves. The recruitment process continued until 400 MSM/TGs were recruited. The survey respondents were provided with small amount of incentive-Rs 300(US\$ 3) for participation in the survey and additional Rs 200(US\$ 2) as reward for each participant they recruited.

The survey was conducted from 1 June to 15 September 2015. The study center or service site was established at Jamal of Kathamndu, with spacious 12 rooms needed for the recruitment process, interview, pre and post-test counseling and clinical/laboratory services. Experienced and trained field researchers/enumerators, lab technicians and counselors were involved for biological and behavioral data collection. The behavioral data collection tool was pre-tested and used for data collection. The entire survey was conducted in coordination with local NGOs, Community Based Organizations (CBOs), Government organizations and External Development Partners (EDPs). National Centre for AIDS and STD Control (NCASC) provided

overall supervision and quality control while Save the Children provided financial support on behalf of the Global Fund as well as monitored the data collection process. The Technical Working Group (SITWG) provided direct technical backstopping support for successful completion of the survey.

The IBBS survey was conducted in compliance with both ethical and human rights standards. Nepal Health Research Council (NHRC) had approved the survey protocol. An Informed consent was obtained from the study participants prior to participating in the survey. No personal identifiers were collected in the survey period. A unique identification (ID) number was used to track the respondent in each questionnaire, medical records, and all biological specimens collected.

The biological sample was collected to identify the distribution of HIV and STIs while the behavioral information covered socio-demographic characteristics, risk behaviors, awareness on HIV and STIs, exposure to HIV services and programs, stigma and discrimination, among others.

The completed questionnaires were thoroughly checked for any inconsistencies before entering the data into the database. The Epi Data software was used for initial entry. A double data entry system was applied to minimize errors during the data entry. As the sample was drawn using RDS method, data analysis was done using the RDSAT (5.6) and SPSS (18), where applicable.

Main Findings:

Socio-demographic characteristics

Nearly one-third (31.5%) of the respondents were from age group 20 to 24 years (29.3 % MSW and 33.2 % Non-MSW) followed by age group 25-29 years (23%). The median age was 27 years for MSW and 26 years for Non-MSW. Nearly one-third (31.5%) of the respondents were from age group 20-24 years (29.3 % MSW and 33.2 % Non-MSW) followed by age group 25-29 years (23%). One out of ten (11.5 %) of the respondents were teenagers (16-19 years) and adult/above 40 years (11.8%). Nearly half of the respondents (48.8%) were from upper caste groups followed by disadvantaged Janajatis (30.5%) and relatively advantaged Janajatis (14.5%). The proportion of dalit was 3.3% while disadvantaged non-dalit Terai caste group was 2.3%.

Over 90% of the respondents had some education-both formal and non-formal education, while seven percent participants were illiterate. More than two-third (68.3%) of the respondents were never married, of those who were married had mostly married with a woman (88.2%). Nearly a quarter of the respondents (23%) reported that they were currently living with a regular sex partner. Out of them majority (52.2%) were living with wives followed by Male/TG/Meti (46.7%).

HIV and STI Prevalence

The overall prevalence of HIV in MSM is 2.4%. It has decreased by a small proportion in comparison to the HIV prevalence in Round 4 (3.8 % in 2012). Overall, in 2015, the HIV prevalence among MSM has decreased to 2.4% while it is still high among MSW (5.6%). However, the HIV prevalence rate in MSW and TG seems still higher (5.6% in MSW). The prevalence of HIV has declined to 1.8% in Non-MSW.

On the contrary, to HIV prevalence, Syphilis history has increased in MSM by 2.3% (4.8% in 2015 vs 2.5% in 2012) while in MSW it has increased by 2.8 % (8.0 in 2015 vs 5.2% in 2012). In Non-MSW the Syphilis history has increased by 1.1% (from 1.1% in 2012 to 2.2% in 2015). Similarly, among Non-TG, the prevalence of Syphilis history is high (3.2%) in 2015. It means

that TG and Non-MSW seem vulnerable in terms of transmission of STIs. In comparison to the prevalence of Anal CT and Anal NG in MSM (i.e 3% and 2.8% respectively) in 2012, there has been an increase in their prevalence in 2015(i.e. Anal CT 3.3%, Anal NG 5.4%). These findings suggest that vulnerability of STI transmission is increasing among MSM.

HIV and STI service seeking behavior

Seven out of ten respondents reported that they knew about a service facility for confidential HIV testing. In total, only 16.8% of the MSM had visited HCT center in the past 12 months. The proportion of MSW who visited HCT in past 12 months was more than five times higher (48.9%) than the Non-MSW (8.7%). The findings from 2015 (Round 5) shows that overall, one-third (36.5 %) of the MSM ever had HIV test in the past 12 months. In 2015, the proportion of MSM who ever had HIV test has decreased by a small margin (3%) where as it has decreased by 3.8 % in MSW. Moreover, less than half(47.6%) of the MSM knew about an ART center for receiving HIV treatment service.

STI treatment seeking practice was extremely low as only 4.6 % MSM reported they visited a STI clinic in the past 12 months. Even after manifestation of STI symptoms last time, more than half (53.1%) MSM did wait from 8 to 30 days for seeking treatment.

Exposure to HIV programs

Participation of MSM/TG groups in HIV/AIDS programs tends to be low as only 27.6 % of the MSM had exposure to PE/OE/CM/CE. Nearly two-third (63.9%) of the MSW 43.1% TG had exposure to PE/OE/CM/CE . Similarly only 46% had visited DIC/IC/CC.

Knowledge of STIs and HIV prevention

In total, 71.3% MSM was aware of at least one major male STI symptoms. More than half of the MSM (56%, unadjusted) had knowledge of ABC of HIV prevention. The existing knowledge of ABC in MSW shows a declining trend (except in 2009). In 2004 it was 89%, which has decreased to 56 % in 2015 (Round 5). The knowledge of BCDEF of HIV prevention among MSM has also decreased from 64.3% in 2007 to 56.8% (unadjusted) in 2015. Among MSW, knowledge of BCDEF has declined from 80.7% (in 2009), to 64.9% (in 2015). Similarly, among Non-MSW, it has decreased to 50.4% in 2015, from 59.3% in 2012.

Sexual Behaviors, condom and lubricant use

The MSM/TG were exposed to sex at a young age. The median age at first sex was 16 years (age range 10-30 years). Slightly more than one-fifth (22.5%) reported that they ever had sex with a male partner in exchange for money. The median age having first sex with a male in exchange for money was 19 years (age range 12-36 years). In all, 100% MSM had anal /oral sex with a Male/Meti in the last 12 months. Four out of ten (43.8%) MSM each had sex with a Male/Meti in exchange for money.

Access to condom was almost universal (94%). More than half (54.1%) of the MSM received condom from an outreach service, DIC or sexual health clinic. This proportion was higher for MSW (85.4 %) and TG (72.7%).. Condom use rate in the first sex was 41% while 77.5 % used condom in last sex with a male sex partner. Eight out of ten (80.9%) of the MSM used condom in last anal sex with male sex partner. Overall, 83.9% MSM used condom with non-paying male sex partner while 57.1% used condom with non-paying female sex partner.

Consistent condom use in the past month with non-paying male, one time paid male sex partner, non-paying female sex partner and paid female sex worker was 76.4%, 88.9 %, 39% and 60% respectively. It indicates that still a significant proportion of MSM did not use condom

consistently. Only one-third (32.6 %) reported that they had ever used lubricant while having anal sex, and about two-third (64.7%) MSM used water-based lubricant in anal sex in the past month.

Alcohol and drug use

Only 0.3 % MSM (0.4% Non-MSW) reported they used injecting drug in the past year. In total, about 80.3 % used Ganja/Marijuana, 12.1% used Chares, 4.5 % used tablets and 3.0 % used glue/dendrite. Use of non-injecting drug was nearly three times higher in Non-TG (25.4%) than in TG (8.8%). Three-fourth (75.5%) of the respondents had ever consumed alcohol. Ever use of alcohol was little higher in Non-TG (81.6%) as compared to TG (70.2%). More than half of them (53.6%) used alcohol at least once a week followed by once in 3-4 days (16.6 %) and every day (14.9%). About one-fifth of the respondents (19.5 %) used some amount of alcohol and 17.2% used a little quantity only. On the whole, 5.6 % respondents (3.9% MSW and 6.9 % Non-MSW) used a lot of alcohol during last sex. As compared to Non-TG (2%) TG used a lot of alcohol (9.3%).

Stigma and discrimination

Stigma and discrimination towards MSM and TG is increasingly reported. One out of ten (12.3%) of the MSM were beaten because of their sexual orientation. About 11.5% MSM were forced to have sex in the past 12 months-the proportion was higher for MSW (20.7%) and TG (17.2%). They fell pray with client (34.8%), sex partner (28.3%), police (23.9%) and hooligans (19.6%). Violence from sex partner was higher in Non-MSW (50%) and Non-TG (44.4%). Two out of ten (19.%) respondents were blackmailed in the past 12 months, which was higher among MSW (37.9%) and TG (29.3%). Similarly, one in ten (9.3%) of the MSM reported discrimination at job or everyday life. Such discrimination was reported highly by the MSW (42.3%) and TG (26.5%).

Program Implications and Recommendations

- i. The MSM have their sexual debuts during adolescence period (15 to 17 years). Therefore, the HIV prevention intervention should be focused on the adolescent 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.
- ii. Targeted interventions are necessary for MSW, TG and Non-MSW as they tend to be engaged in risky sexual behaviors that lead to HIV transmission.
- iii. 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.
- iv. Information about available HIV and STI services, including condoms should be disseminated aggressively through mass media as well as interpersonal communication.
- v. Comprehensive knowledge of HIV prevention seems decreasing in the recent IBBS survey, a study should be conducted on why it is declining and its association with HIV and STI infections.
- vi. 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 enhance exposure of MSM/TG populations to the STI services and information in future HIV interventions.
- vii. Special advocacy and awareness programs should be implemented in order to reduce the existing stigma and discrimination faced by the MSM/TG populations.

- viii. In future IBBS surveys on MSM/TG, service centers should be established in Lalitpur and Bhaktapur as well so as to include more MSM/TG population from these cities.
- ix. Further analysis of IBBS data should be done to generate data required for designing the HIV and STI program intervention, in addition to examining association between exposure to HIV and STI services and programs, sexual behaviors of the MSM/TG and HIV/STI infection.

TABLE OF CONTENT

ACKNOWLEDGEMENTS	Error! Bookmark not defined.
TEAM MEMBERS	iii
ABBREVIATIONS	iv
EXECUTIVE SUMMARY	vi
Introduction.....	vi
TABLE OF CONTENTS.....	xi
LIST OF FIGURES	xv
CHAPTER ONE: INTRODUCTION	1
1.1 Context of IBBS Survey on MSM and TG in Nepal	1
1.2 Rationale of the study	1
1.3 Study Objectives	2
CHAPTER TWO: SURVEY DESIGN AND METHODOLOGY	3
2.1 Survey Design.....	3
2.2 Study Population.....	3
2.3 Sampling Design and Sample Size	3
2.4 Seeds and Recruitment.....	4
2.5 Study Process	5
2.6 Survey Duration	6
2.7 Recruitment and Training of Research Team	7
2.8 Ethical Review	7
2.9 Clinical and Laboratory Procedures.....	7
2.9.1 Clinical Procedures	7
2.9.2 Laboratory Methods.....	7
2.10 Collection, Storage and Transportation of Blood Samples	9
2.10.1 Blood Sample Collection	9
2.10.2 Urine and Swab Samples collection.....	9
2.11 Study Management	10
2.12 Quality Control	10
2.13 Pre and Post-Test Counseling and Test Results Distribution.....	10
2.14 Data Management and Analysis	11
2.15 Survey Constraints/Limitations.....	12
CHAPTER 3: RESULTS	13
3.0 Introduction.....	13
3.1 HIV/STI Prevalence.....	13

3.2 Association between Key Socio-demographic Variables and HIV/STIs.....	14
3.3 Relationship between Sexual behavior and HIV/STI Prevalence.....	14
3.4 Association between consistent condom use and HIV and STI Prevalence	15
3.5 Association between Accessibility of Condom / Lubricant and HIV/STI Prevalence.....	16
3.7 Association between Use of Alcohol/Drug and HIV/STI Prevalence	16
3.8 Association between Knowledge of HIV and HIV/STI Prevalence	17
3.9 Association between Participation in HIV/STI prevention program and HIV/STI Prevalence.....	17
3.10: Association between STI and HIV Prevalence	18
3.11: Background Characteristics of the Respondents.....	18
3.11.1 Sexual identity and orientation	18
3.11.1 Birthplace and Currently Living Districts.....	19
3.11.2 Demographic Characteristics	19
3.11.3 Living Conditions	21
3.11.4 Occupation and Income	21
3.11.5 Sources of Income and Number of Dependents.....	22
3.11.6 Use of Alcohol and Drugs.....	23
3.11.7 Drug Use	24
3.12. Sexual Behavior, Types of Sex Partners, Condom and Lubricant Use.....	24
3.12.1 Age at first sex	24
3.12.1 Sex Partners	26
3.13 Condom Use Behavior.....	30
3.13.1 Condom Use in First and Last Sex.....	30
3.13.2 Consistent Condom Use with Different Types of Sex Partners	31
3.13.3 Availability of Condom and Brand Names	32
3.13.4 Use of Lubricant:	34
3.13.5 Sources of Condoms and Lubricants.....	36
3.14 Knowledge of STIs and HIV/AIDS	36
3.14.1 Knowledge of STIs& Treatment Seeking	36
3.14.2 Visit to the HCT.....	39
3.14.3 Perception on HIV Testing:	41
3.14.4 Exposure to ART Services.....	42
3.14.5 Exposure to outreach/peer educators	43
3.14.6 Knowledge about HIV/AIDS:.....	44
3.14.7 Stigma and discrimination	45
CHAPTER FOUR: A COMPARATIVE ANALYSIS OF SELECTED VARIABLES	47

4.1 HIV Prevalence.....	47
4.2 STI Prevalence.....	48
4.2.1 Any STI.....	48
4.2.2 Active Syphilis.....	48
4.2.3 Ever had HIV Test.....	49
4.3 Sexual Behaviors.....	50
4.3.1 Mean age at First Sex.....	50
4.3.2 Ever had Sex with Male in Exchange for Money.....	50
4.4 Access and Use of Condoms.....	51
4.4.1 Access to condom.....	51
4.4.2 Condom use in last anal sex.....	52
4.5 Consistent Use of Lubricant.....	52
4.6 Use of Water-based Lubricant in Last Anal Sex.....	53
4.7 Comprehensive Knowledge on HIV Prevention.....	54
4.8 Injecting Drug Use in Past 12 Months.....	55
4.9 Use of Alcohol at Last Sex.....	56
4.9 Experience any form of discrimination in job or daily life.....	56
CHAPTER FIVE: SUMMARY OF FINDINGS AND IMPLICATIONS.....	58
5.1 Summary of Findings.....	58
5.2 Program Implications and Recommendations:.....	60
REFERENCES.....	61
ANNEXES.....	62
Annex 1: Survey Tools.....	62
Annex 2: Sample Size formula.....	92
Annex 3: Technical Monitoring (Clinic And Lab).....	93
Annex 4: National M&E Indicators.....	97
Annex 5: Recruitment Trees by Seeds.....	98
Annex 6: Recruitment net of participants by TG and Non TG.....	100
Annex 7: Recruitment net of participants by MSW and Non MSW.....	101
Annex 8: Recruitment net of participants by district.....	102
Annex 9: Distribution of HIV in network.....	103
Annex 10: Distribution of STI in network.....	104
Annex 11 : Knowledge about transmission of HIV.....	105
Annex 12: Comprehensive Knowledge about ABC and BCDEF of respondent who meet PE/OE/CE and visited DIC in past 12 month.....	106

Annex 13 : Consistent condom use with different sex partner in past month.....	106
--	-----

LIST OF TABLES

Table 1.1 : Total Number of Survey Participants	4
Table 1. 2 : Waves Maintained by Seeds	5
Table 3.2: HIV and STI Prevalence	13
Table 3.4: Association between Sexual Behavior and HIV/STI Prevalence	15
Table 3.5: Association between Consistent Condom Use and HIV/STI Prevalence in the Past Month.....	15
Table3.6: Association between Accessibility of Condom/Lubricant and HIV/STI Prevalence ...	16
Table 3.7: Association between use of Alcohol/Drug and HIV/STI	17
Table 3.8 : Association between Knowledge of HIV and HIV/STI Prevalence.....	17
Table 3.9: Association between HIV and STI prevention program and HIV/STI Prevalence ...	17
Table 3.10: Association between HIV and STI Prevalence.....	18
Table 3.11: Self-categorization of sexual orientation	19
Table 3.11.1 : Birthplace and Currently Living Districts	19
Table 3.11.2: Demographic Characteristics.....	20
Table 3.11.3: Living Situation of the Respondents.....	21
Table 3.11.4: Occupational Background and Income of the Respondents	21
Table 3.11.5: Sources of Income and Number of Dependents	22
Table 3.11.6: Alcohol Consumption.....	23
Table 3.11.7: Use of Illicit Drugs	24
Table 3.12: Age at First Sex	25
Table 3.12.1: Non-paying sex partners in the past month	26
Table 3.12.2: Types of Anal Sex Partners in the Past Month	27
Table 3.12.3: Oral Sex Partners in the Past Month.....	28
Table 3.12.4: Sex Roles among Surveyed MSM/TG	29
Table 3.12.5: First and Last Sex Partners	29
Table 3.13: Condom Use behaviors with First and Last Sex Partners.....	30
Table 3.13.2: Consistent Condom Use with Different Sex Partners in the Past Month	31
Table 3.13.3: Availability, Possession, and Brand Names of Condoms.....	33
Table 3.13.4: Use of Lubricant	34
Table 3.13.5: Problem Encountered in Using Lubricant with Condom	36
Table 3.14 Awareness of STI and reported STI symptoms in the past year.....	37
Table 3.14.1 : Reported STI Symptoms and Treatment Sought in the Past 12 Months	38
Table 3.14.2: Practice of STI Clinic Visit.....	39
Table 3.14.3: HCT Visit Practices	40
Table 3.14.4: Perception on HIV Testing	41
Table 3.14.5: Exposure to ART services	42
Table 3.14.6 : Awareness about Viral Load Testing	42
Table 3.14.7: Met/discussed/ interacted with peer/outreach educators/community mobilizer....	43
Table 3.14.8 : Comprehensive knowledge of ABC and BCDEF	44

Table 3.14.9: Personal Experience of Violence and Discrimination in the Past 12 Months	45
Table 4.: Trend of HIV Prevalence.....	47
Table 4.1: Trend of Prevalence of any STI(2004-2015).....	48
Table 4.2: Trend of Active Syphilis (2004-2015).....	49
Table 4.3: Trend of Ever had HIV Test (2004-2015)	49
Table 4. 4: Mean Age at First Sex (2004-2015)	50
Table 4.5: Trend of Ever had Sex with Male in Exchange for Money (2004-2015).....	51
Table 4. 6: Access to Condom by the MSM (2004-2015).....	51
Table 4. 7: Trend of Condom Use in Last Anal Sex with Paid Male Sex Partner (2004-2015)...	52
Table 4.8: Trend of Consistent Lubricant Use.....	53
Table 4.9: Use of Water-based Lubricant in Last Anal Sex	53
Table 4.10: Trend of Knowledge on ABC of HIV Prevention.....	54
Table 4.11: Trend of Increase in Knowledge on BCDEF of HIV Prevention (2004-2015).....	55
Table 4.12: Trend of Injecting Drug Use in Past 12 Months (2004-2015).....	55
Table 4.13: Trend of Use of Alcohol (2004-2015)	56
Table 4.14: Trend of Discrimination in Job or Daily Life (2004-2015).....	57

LIST OF FIGURES

Figure 1.1: Seed and waves created in the RDSAT/Net-draw.....	4
Figure 3.1: HIV Testing Strategy II Algorithm	8
Figure 4.1: Syphilis Testing Algorithm	9
Figure 5.1 Distribution of network before and after adjustment of network size.....	11
Figure 6.1: Comprehensive knowledge of ABC and BCDEF (Unadjusted)	45
Figure 7.1: Trend of HIV Prevalence over Time (2004-2015).....	47
Figure 8.1: Trend of any STI Prevalence in Different Rounds of IBBS (2004-2015).....	48
Figure 10.1: Trend of Ever had HIV Test (2004-2015).....	50
Figure 11.1: Trend of Mean Age at First Sex (2004-2015)	50
Figure 12.1: Trend of Ever had Sex with Male in Exchange for Money (2007-2015).....	51
Figure 13.1: Trend of Access to Condoms (2004-2015)	52
Figure 14.1: Trend of Condom Use in Last Anal Sex (2004-2015)	52
Figure 15.1: Use of Lubricant over Different Rounds of IBBS (2004-2015).....	53
Figure 16.1: Use of Water-based Lubricant in Last Anal Sex.....	54
Figure 17.1: Trend of Knowledge of HIV Prevention ABC (2004-2015).....	54
Figure 18.1: Trend of Knowledge of BCDEF (2004-2015)	55
Figure 19.1: Trend of Injecting Drug Use in Past 12 Months (2004-2015)	56
Figure 20.1: Trend of Alcohol Use.....	56
Figure 21.1: Trend of Discrimination in Jobs and Daily Lives (2004-2015)	57

CHAPTER ONE: INTRODUCTION

1.1 Context of IBBS Survey on MSM and TG in Nepal

Nepal is reeling under concentrated HIV epidemic. The National Centre for AIDS and STD Control (NCASC) estimates that there are 39,249 people living with HIV (PLHIV) in Nepal with 0.20 percent adult HIV prevalence rate (NCASC, 2014). Nepal's HIV epidemic is concentrated and has remained stable for the last couple of years. The existing National HIV and AIDS Strategy 2011-2016 (NCASC, 2011) identifies People with Injecting drugs (PWIDs), Female Sex Workers (FSWs) and their clients, migrant workers and their spouses and men who have sex with other men (MSM) as the key affected population (KAP) at higher risk of spreading the HIV epidemic (NCASC, 2012). According to the latest mapping and size estimation there are 65,864 to 82,330 MSM, TG and their clients in Nepal (31.5% coefficient of range) (HSCB/NCASC/MoHP, 2011).

The reported HIV prevalence among MSM has remained largely stable since the commencement of: Round 1 (2004) 3.9%; Round 2 (2007) 3.3%; Round 3 (2009) 3.8% and Round 4 (2012) 3.8%. However, some differences were observed in HIV prevalence among MSWs and non-MSW. In 2009, HIV prevalence among MSW was 5.2% compared with 3% among non-MSW. Nepal's National HIV/AIDS Strategy 2011–16 recognizes the disproportional impact borne by men who have sex with men (MSM) (HIVAIDS & Framework, 2010). Criminalization, cultural taboo, stigma, and discrimination have hindered MSM and TG populations from enjoying their human rights, and created obstacles for accessing health-care services and other interventions to protect themselves from HIV and STIs. Despite the ongoing high risk and vulnerability to HIV infection, access and use of HIV services seems limited among MSM and TG populations. As a result, improving the response to HIV interventions for MSM and TG populations remains as a challenge. This survey undertaken in 2015 as the fifth series of IBBS study among the MSM and TG populations in Nepal has made an effort to assess their biological and behavioral aspects in Kathmandu Valley.

1.2 Rationale of the study

The intervening goals of national HIV programmes are to reduce the transmission of HIV and to care for and mitigate the impact of HIV on those already infected. Achieving these goals requires an understanding of the extent of prevalence of HIV infection, where it is spreading. The interventions for HIV prevention, treatment, care and support and better understanding of the epidemic informed by quality data from biological and behavioural surveillance and study. These data are vital for having an understanding of the gaps in the interventions or services as well as strategic knowledge on the dynamics of the HIV epidemic. IBBS surveys generate pertinent data for HIV surveillance and help to monitor HIV and risk behavioural trends over time in populations and sub groups. IBBS surveys also provide information about the magnitude and dynamics of the current epidemic and the potential for its further spread in order to generate evidence for prioritizing interventions and evaluating their impact that influence the spread of HIV infection. IBBS survey provide the basis for understanding current HIV epidemics, their potential for spread across populations and geographic areas, and the implications for prioritization and implementation of prevention and care interventions that will best mitigate the impact of the epidemic. IBBS survey data are widely used for designing HIV response, monitoring HIV prevention, care and treatment programs and estimating and projecting HIV

infections and understanding of the underlying causes, dynamics and impacts of the epidemic. Sexual transmission is one of the principal modes of HIV transmission. Government of Nepal has recognized for a need to prevent sexual transmission of HIV and STIs among and between high and low risk population such as MSM/TG, migrant and their spouses, prison population, housewives and partners of people living with HIV and AIDS. The awareness and education programmes implemented by the government and NGOs focus on prevention of transmission of STIs and HIV for this use of condom, reduction of stigma and discrimination, and expansion of HCT, STI and treatment care and support services has been prioritized. In this context it is equally important to ensure whether these efforts actually contributing or not National HIV prevention programmes.

IBBS is a major source of information for understanding the HIV dynamics including behavior as well as HIV and STI prevalence among KAP groups. Data on key national HIV indicators are based on IBBS surveys. IBBS survey is a key component of the national HIV surveillance plan of Nepal and is collected in periodic intervals. Estimation and projection of HIV infections in the country are also heavily based on IBBS survey data. Data on key National HIV Indicators (outcome and impact) are calculated from IBBS survey findings. Indeed, IBBS survey has established its reputation of quality and is the major set of surveillance data in Nepal. In this view and importance, NCASC and Save the Children through the support of Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) conducted IBBS Survey in Kathmandu valley in 2015. It is anticipated that this survey will be utilized by all policy makers, program planners and implementers to plan the national HIV response and tailor the response to the HIV epidemic being faced by Nepal.

1.3 Study Objectives

In line with the objective of the previous round of the IBBS, the fifth round of the survey is also undertaken among MSM in Kathmandu valley primarily to determine the levels of HIV and STI prevalence and risk behavior and their links with general population. At the same time, the survey has sought to analyze trends of HIV and STIs comparing data on selected variables obtained from the first, second, third, fourth and fifth rounds of the IBBS.

The specific objectives of the IBBS among MSM include:

1. To determine the trends of HIV and STI in MSM/TG population of Kathmandu Valley.
2. To estimate the prevalence of HIV, syphilis, *Chlamydia Trachomati* (CT) and *Neisseria Gonorrhoea* (NG) and associated risk behaviors among MSM/TG in Nepal.
3. To collect information related to socio-demographic characteristics using sexual behavior including knowledge and use of condoms; knowledge of HIV/AIDS; knowledge and treatment of STIs; exposure of MSM/TG to available HIV/STI services in selected survey areas.
4. To explore the association between the risk behaviors, HIV, and other specified sexually transmitted infections among the MSM/TG population.

CHAPTER TWO: SURVEY DESIGN AND METHODOLOGY

2.1 Survey Design

The survey used descriptive cross-sectional design.

2.2 Study Population

The study was conducted among MSM/TGs who are considered one of the key affected populations (KAP) (NCASC, 2012) for the transmission of HIV and STI infection. MSM and TGs from the three districts Kathmandu, Lalitpur and Bhaktapur were eligible for inclusion in the study.

For the purposes of this study the participants were divided into two sub-groups, MSWs and non-MSWs.

- 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 Sex Worker (TGSW): Those aged 16 years and above reporting have been paid in cash or kind for sex with males within 12 months and who identified themselves in a different gender than that assigned to them at birth or identified themselves belonging to transgender community.*
- *Non-Transgender (Non-TG): Those aged 16 years and above reporting have had sex with males within 12 months and who identified themselves either MSW or non- MSW .*

All the participants selected by RDS method were screened to ensure that they meet the criteria for the study.

2.3 Sampling Design and Sample Size

The respondent-driven sampling (RDS), a form of chain-referral, methodology was utilized to recruit participants in the study. RDS process was initiated with the purposively selected set of six people representing MSM & TG population as ‘seeds’. Three recruitment coupons had been given to each seed for further recruitment of participants from their networks.

Functional Assumption of RDS

Three functional assumptions was considered before selecting participants in RDS

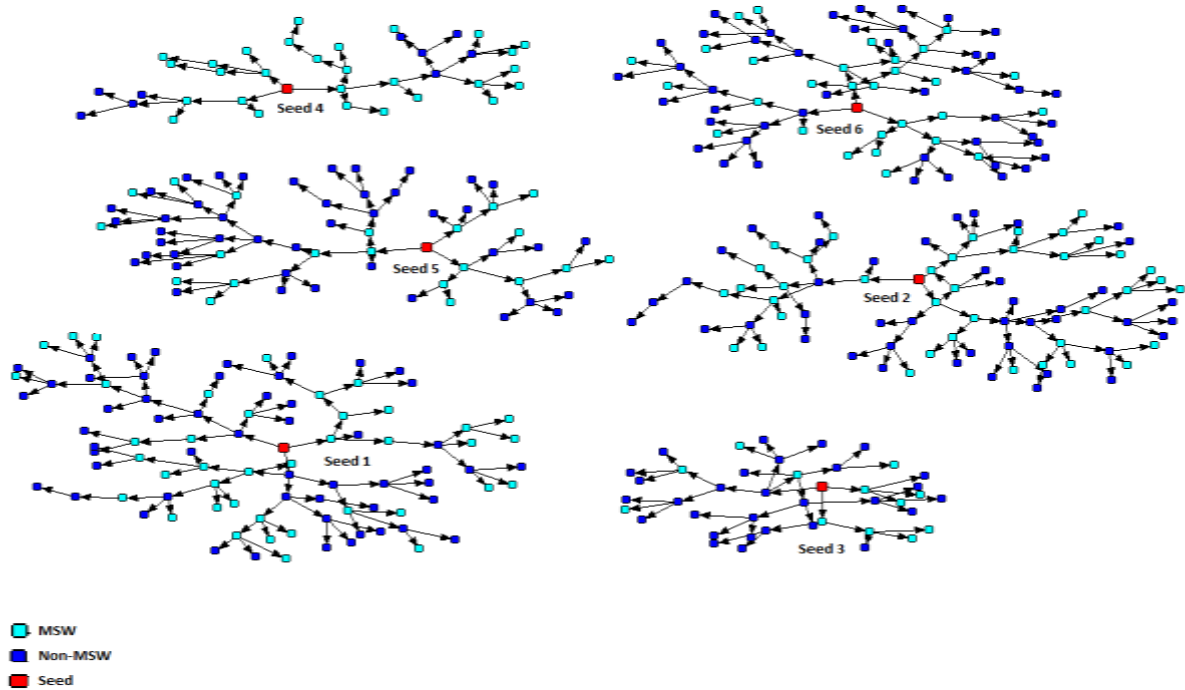
1. Respondents know one another as members of MSM community.
2. Respondents were linked with network size.
3. Sampling occurs with replacement.

Analytical Assumptions of RDS were:

1. Respondents accurately report their personal network size within the MSM population.
2. Peer recruitment was random selection from the recruiter’s network.
3. Each respondent recruited single peer.

The sample size was calculated to detect 15-percentagepoints difference in key indicators, such as type of sexual partners and consistency of condom use, with the help of a basic statistical formula (Annex 2). Based on the formula, a total of 400 MSM were included in this survey.

Figure 1.1: Seed and waves created in the RDSAT/Net-draw



As in the previous rounds, a total of 400 MSM from Kathmandu Valley comprising Kathmandu, Lalitpur and Bhaktapur district were included in the study.

Table 1.1 : Total Number of Survey Participants

MSW			Non- MSW			MSM (Total)		
TG	Non- TG	Total	TG	Non- TG	Total	TG	Non TG	Total
148	26	174	67	159	226	215	185	400

2.4 Seeds and Recruitment

The survey followed RDS method for sampling. At first, six participants from MSM/TG population were purposively recruited as ‘seeds’ in consultation with leading organizations working for MSM/TG community, Blue Diamond Society (BDS), Federation of Sexual and Gender Minorities Nepal (FSGMN), Paricyaya Samaj and Cruiseaids.

Seeds were informed about the survey procedures and benefits to encourage recruitment of other eligible peers from their social network. Three recruitment referral coupons had been given to each seed for further recruitment of participants from their networks as well as a reward coupon to the participant was also given for incentive in the case of the successful participation of referred peers in the survey. Among the peers, referred by previous participants, who were eligible for study were also given three referral coupons and a reward coupon. The coupon distribution process was continued upto required fulfillment for 400-sample size. Each coupon was uniquely coded in order to link recruiters and recruits. The coupon ID numbers were carefully recorded in each questionnaire.

Table 1. 2 : Waves Maintained by Seeds

Seeds	Wave 0	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Total
1	1	3	9	18	30	26	7	1	95
2	1	3	8	18	29	15	10	0	84
3	1	3	8	13	11	6	9	0	51
4	1	3	8	10	6	10	0	0	38
5	1	3	9	14	15	15	0	0	57
6	1	3	9	16	28	17	1	0	75
Total	6	18	51	89	119	89	27	1	400

Out of six seeds, one seed completed 7th waves ‘three seeds completed six and two seeds generated five waves. Since RDS allows a dual incentive system to induce recruitment, each participant received NRs. 300 (equivalent to US\$3) for the participation in the survey and another NRs. 200 (equivalent to US\$2) through the reward coupon for each individual they recruited. A participant could have received up to NRs. 900 (equivalent to US\$9) for successfully recruiting three peers into the study. Failure to meet the inclusion criteria resulted in 6 participants being turned down. Among them, four participants did not meet the study criteria due to lack of sexual activities with male counterpart with in past 12 months and two came with the card but said they were not MSM.

2.5 Study Process

A quantitative research approach was used for the study. Structured questionnaires were used to collect behavioral data relating to sexual behavior, sex partners, use of condoms and lubricants by the MSM as well as their demographic and social characteristics. In order to draw up a comparative analysis of behavioral changes over the years, the same questionnaire used in previous rounds were asked during this survey.

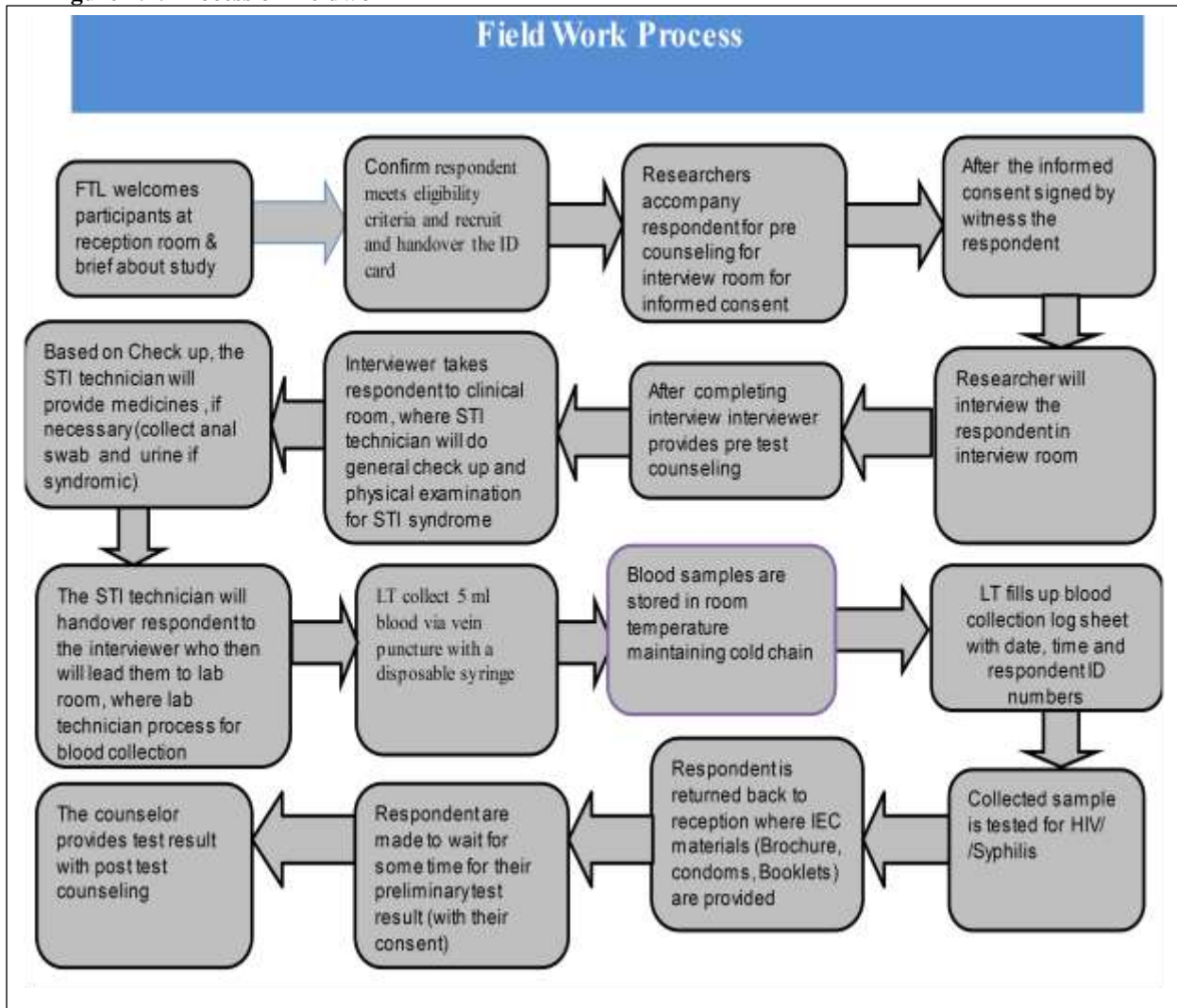
Before starting the interview, all those coming with the referral cards were informally asked certain screening questions relating to the general behavior of MSM/TGs, and their sexual partners to ensure that they meet the definitions of MSW or non-MSW. The rapport building process was adopted with the support from the runners who assisted the survey team in the screening process.

A centrally located study center was established at Jamal in Kathmandu. There were 12 separate rooms.

1. Reception room for the respondents: respondents get entry card to enter the welcome room after qualifying from screening.
2. Welcome room: the respondents were welcomed for the participation and provided a processing card with a unique Identity Number (ID No.). The processing card was circulated with respondent to each room, after completion, the research staff signed on the card, and finally returned to the welcome room. It was ensured that respondents completed all the steps and were eligible to get travel cost.
3. Interview room: six separate interview rooms were set up for the structured questionnaire survey where the witness (outreach staff or person who introduced the respondent to the survey team) signed the consent form prior to the interview process.
4. Counseling room: two separate counseling rooms were set up for the pre and post-test counseling. Pre-test counseling was carried out after interview, prior to referral for the lab test and post-test counseling was performed after the lab report got ready.
5. Laboratory room: HIV and Syphilis test was undertaken, taking out 5ml blood by lab technician.

- Clinical examination room: STI check-up, anal swab and urine sample collection of the respondent was performed.

Figure 2.1: Process of Fieldwork



Since the study was conducted at one center, there was hardly any possibility for duplication or repeated interviews of the same SM/TG participant. Nevertheless, the study team asked each participant several questions to make sure this was the first time they had participated in the study. Such questions included queries relating to their experience of having undergone any blood tests, the part of the body from where the blood was taken, their experience of HIV testing or testing for other diseases, meeting with NIDR staff and peer educators, and possession of an ID card with the study number.

2.6 Survey Duration

The IBBS survey among Men who have Sex with Men (MSM) and Transgender (TG) was started in June 2015 and completed in September, 2015, .

2.7 Recruitment and Training of Research Team

Survey team members, field researchers (data collectors), lab technicians, clinicians and counselors were recruited to carry out the survey in Kathmandu valley. A five days training package was carried out to train, especially field researchers, supervisors, lab technician, clinician and counselors by following National IBBS training manual in Kathmandu. The training session familiarized the team members with the study objectives, the characteristics of the target groups, rapport-building techniques, the contents of the questionnaire, consent form; oral informed, witness consent taking process, clinical and laboratory processes and procedures including universal precaution and waste management during survey period.

2.8 Ethical Review

The survey was conducted in compliance with both ethical and human rights standards. These standards included participants' anonymity as well as pre- and post-test counseling. As the study was done with individuals, who were often stigmatized, ethical as well as technical approval was obtained from Nepal Health Research Council (NHRC) prior to the fieldwork. The study protocols were carefully reviewed. Verbal consent was obtained from all the respondents in a private setting in the presence of witness before the interview and clinical test. No personal identifiers were collected. All the respondents were provided with a unique identification (ID) number written on a colored printed card. The same identifier was marked on the questionnaire, medical records, and all biological specimens collected from that particular respondent. This card was also used for the distribution of the test results. Trained counselors provided HIV and Syphilis test results during the post-test counseling to only those participants who produced the card. The survey team maintained confidentiality of the data collected throughout the survey. The interviewer regularly submitted the completed questionnaires to the field supervisor on the day of each interview. The supervisor kept these questionnaires in separate locked cabinets where no one except the supervisor had access to the information collected. The supervisor then transported the questionnaires to NIDR office at regular intervals. The questionnaires were kept in a locked coding room at NIDR office in Kathmandu where only authorized data coding and data entry staff had access to the individual questionnaires.

2.9 Clinical and Laboratory Procedures

2.9.1 Clinical Procedures

A static clinic was established at survey site to provide the clinical services to survey participants, especially for STI diagnosis and treatment. The participants were clinically examined for STI symptoms and basic health checkup (measuring blood pressure, body temperature, weight, and pulse) and provided symptomatic treatment to the respondents in accordance with the National STI Case Management Guidelines, when necessary by a trained clinician. Participants were treated with medicines such as Paracetamol, Tinidazol, Metron, CTZ, Ciprofloxacin, Doxycycline, Azithromycin, Albendazole, Diclofenale, Renitidine, Fluconazole, Acyclovin, Liquid Betadin, Cefixime, Alkalysingagents and Vitamins on the basis of syndromic diagnosis and complications. Clinicians collected anal swab and urine from the suspected syndromic STI cases for Chlamydia Trachomati (CT) and Neisseria Gonorrhoea (NG) test.

2.9.2 Laboratory Methods

Laboratory Service entailed on-site rapid screening of HIV1/2 and Syphilis followed by a confirmation test. About 5 ml of whole blood was drawn from each MSM/TG using disposable syringes. The blood sample was placed in a centrifuge to separate the blood cells from the serum.

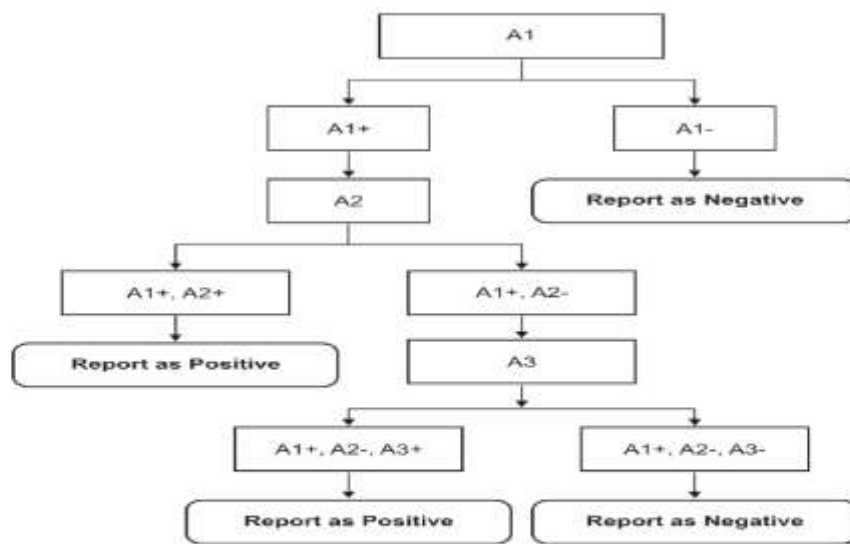
Each sample was labeled with the ID number of the respondent. Both HIV rapid tests and Syphilis RPR tests were performed using serum and blood by an experienced lab technician. Sagarmatha Polyclinic and Diagnostic Private Limited (Laboratory) had facilitated and maintained all the standards of laboratory. Universal precautions and stringent waste management protocol was followed. All positive and a random 10 percent of the negative samples of HIV and Syphilis were sent to National Public Health Laboratory (NPHL), Teku, Kathmandu for external Quality Assurance.

HIV1/2

The HIV screening of the serum sample was performed using rapid test kits following the HIV testing strategy II algorithm. Determine HIV 1/2 (Abbott, Japan), Uni-Gold HIV 1/2 (Trinity Biotech, Ireland), and Stat-pak HIV 1/2 (Chembio Diagnostic system, Inc. USA) were used as later flow (rapid immune chromatography) kits for testing for the presence of antibodies against HIV in the serum. Serum that tested positive with the initial kit was confirmed with the second kit. Samples that were found reactive on both tests were considered HIV antibody positive. Samples that were non-reactive on the first test were considered HIV antibody negative. Any sample that was reactive on the first test but nonreactive on the second test was retested with the third “tie breaker” kit. The quality of the assay was assured by the in-built control of each kit.

Figure 3.1: HIV Testing Strategy II Algorithm

Figure: Diagrammatic representation of rapid HIV testing algorithm.



NOTE:	
A1 (First test) :	Determine HIV 1/2
A2 (Second test) :	Uni-Gold HIV
A3 (Third test) :	SD Bioline HIV 1/2
"+" :	Reactive
"-" :	Non-reactive

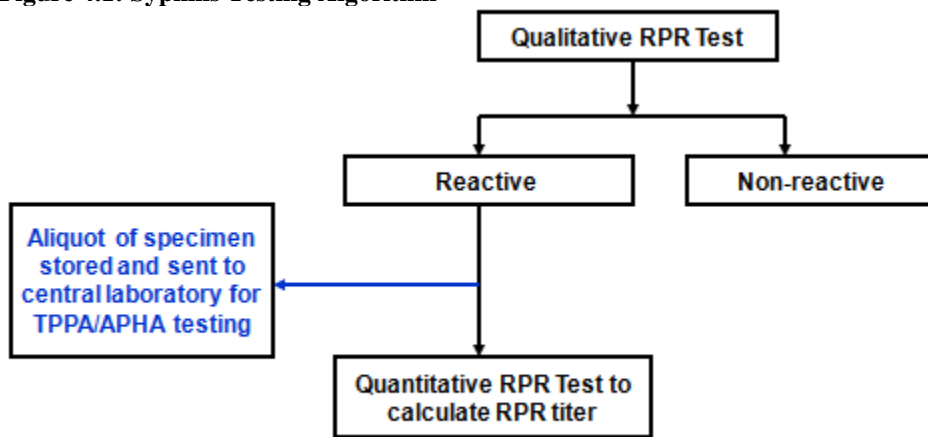
Syphilis

A syphilis test was performed following the national guideline (National guideline on case management of sexually transmitted disease, (NCASC, 2009). The serum was tested for nonspecific and specific treponemal agents. A non-treponemal test Rapid Plasma Regain (RPR) [Becton, Dickson, and company USA] was used for both qualitative screening and quantitative

titration. All RPR reactive serum was confirmed using the specific *Treponema Pallidum* Particle Agglutination (TPPA) test (Fujirebio Inc.). All the RPR positive serums were also tested by *Treponema Pallidum* Particle Agglutination (TPPA) test using Serodia TPPA as a confirmatory test. The Sagarmatha Polyclinic and Diagnostic Centre Private Limited (SPDC) carried TPPA for further confirmatory test of Syphilis at its laboratory. On the basis of titre of RPR, all the specimens with RPR/TPPA-positive results were divided into two categories.

- TPPA-positive with RPR-negative or RPR-positive with titre < 1:8 were classified as showing a history of syphilis
- TPPA-positive with RPR titre of 1:8 or greater were classified as showing a current syphilis requiring immediate treatment.

Figure 4.1: Syphilis Testing Algorithm



2.10 Collection, Storage and Transportation of Blood Samples

This section describes blood, urine, and anal swab samples collection, storage and transportation process applied during the survey period.

2.10.1 Blood Sample Collection

Before collecting blood sample from participant National HIV testing and counseling protocol was followed. Pre-test counseling was done by trained counselor and sought their consent to take blood for HIV and STI testing. Blood samples for testing HIV and Syphilis were taken from each participant using a 5ml disposable syringe. Each sample was labeled with the respondent's ID number. Collected sample was placed in a centrifuge to separate the blood cells from the serum. The specimens were placed in a cold box and sent to Sagarmatha Polyclinic and Diagnostic Center (SPDC, a laboratory partner of NIDR) by maintaining cold chain at the end of the day. At the study site separated serum samples were stored in deep fridger -8°C to -15°C. The lab technician as well as the field coordinator regularly monitored the temperature with digital thermometer inside the refrigerator and maintained the logbook of measured temperature. Respondents were tested for syphilis with the Rapid Plasma Reagin (RPR) test card. All samples with positive RPR were sent to Sagarmatha Polyclinic and Diagnostic Center (SPDC) for further diagnosis with *Serodia Treponema pallidum Hemagglutination* test.

2.10.2 Urine and Swab Samples collection

Real time PCR, using Goffin Molecular Technologies Presto Chlamydia trachomatis (CT)-*Neisseria gonorrhoea* (NG) Assay kit was used for testing gonorrhoea and Chlamydia. Twenty ml of first catch urine was taken at least two hours since the last void was collected. Urine was

collected in a sterile universal urine plastic container size of 20 ml screw cap tube. The urine container was stored at room temperature and sent to National Public Health Laboratory (NPHL) on the same day. Anal swab was collected by inserting the swab stick about 2.5 cm deep into the anal canal, stick was rotated and moved gently from side to side for 3-5 seconds before removing. Collected swab was placed in the Amplicor STM tube. Both urine and anal swab container immediately marked with ID number, collection date and time and sent to NPHL for PCR testing by maintaining cold chain.

How was the urine sample collected if any clients didn't have urge to urinate during the visit to clinic

2.11 Study Management

The survey was conducted under the leadership of NCASC, Ministry of Health and Population, Government of Nepal. NHRC reviewed the study protocol and provided ethical approval to conduct the survey. Save the Children has managed financial support and quality assurance of the survey. The UNAIDS and FHI 360 as well as SITWG team provided technical support and monitoring for quality assurance. Sagarmatha Polyclinic and Diagnostic Center (was responsible for storage of collected samples at required temperature, TPPA of syphilis positive samples and deliver sample to NPHL for EQA (External Quality Assessment).

2.12 Quality Control

Quality control was strictly maintained throughout the process of specimen collection, handling and testing. The Team Leader and National Project Coordinator were responsible for internal quality control. NIDR took immediate actions based on the feedback given by the external monitoring team (NCASC, Save the Children, FHI360 and NPHL). Similarly, field coordinator, field supervisor, and field researchers were responsible for ensuring the quality of behavioral data collection according to the protocol. Field supervisors reviewed all the completed questionnaires. Any inconsistencies in the responses were clarified through discussions with the concerned interviewer later on the same day. Regular meeting with survey team and BDS team regarding quality of information and recruitment of quality respondents ensured quality control. Similarly keeping systematic records of test results with ID numbers, storage and cold chain maintenance of blood samples were the steps taken for quality control. Regarding the rapid HIV testing, Lab Technician had done test in the field using recommended national algorithm.

Determine HIV-1/2 and Uni-Gold were used first while StatPak was used as a tiebreaker in case of discordant result from the two tests. Similarly, further confirmation test of Syphilis and TPPA was done at Sagarmatha Polyclinic and Diagnostic Center at Kalimati. Finally, all positive samples and randomly selected 10% of negative samples of both HIV and Syphilis were submitted to the NPHL for external quality assurance.

2.13 Pre and Post-Test Counseling and Test Results Distribution

Prior to the lab procedure, the respondents were invited for pre-test counseling, where they were informed about lab and clinical process, HIV and STI test, collection of blood, urine and swab sample. Information regarding symptoms and preventive measures of HIV and Sexually Transmitted Infections (STIs) and benefits of current tests were provided during the pre- test.

Post-test counseling was conducted after the preparation of lab report; the lab report was prepared within half an hour from the time of blood collection. Therefore, the respondents had to wait less than half an hour for the post counseling. The post counseling was provided to all respondents according to the VCT guidelines. The respondents having positive test result were

treated more carefully and provided available treatment or were referred to appropriate health service authorities.

2.14 Data Management and Analysis

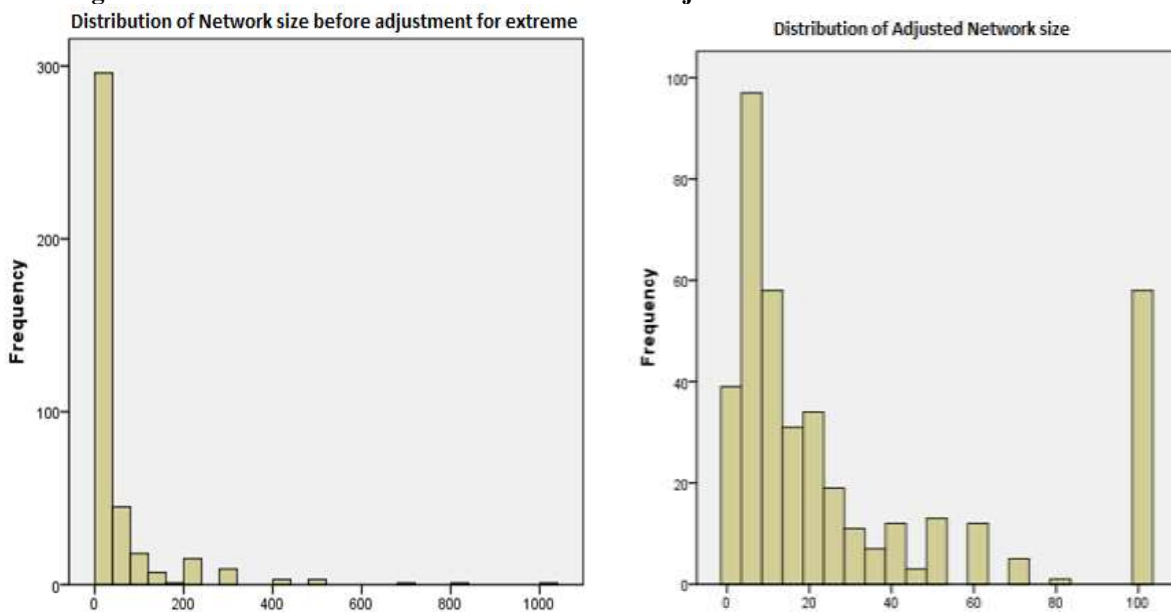
The survey questionnaire was pre-tested before starting fieldwork. The drafted survey tools were piloted among MSM and TG community at Parichaya Samaj. All together 30 respondents from MSM community were included in the pre- testing process of survey tools. Findings from pre-testing of survey tools were presented in SITWG meeting to incorporate the necessary changes in survey tools.

The surveyed questionnaires were thoroughly checked for any inconsistencies before entering the data into the database. The Epi Data software was used for initial entry. A double data entry system was applied to minimize errors during the data entry.

Before importing the dataset in RDSAT, extreme values in network size were adjusted to nearest most frequent network size by using SPSS. In RADSAT, network size was pull-in the top 5% to adjust the outliers in case of an individual whose network size was outside of the specified bounds to the value of the nearest lower or upper bound. Estimated population proportion of the key variables and 95% confidence interval were analyzed by using “Data Smoothing,” algorithm of the RDSAT in order to adjust recruitments by eliminating deviations in cross-group recruitments that occur due to chance and to obtain tighter Confidence Interval. The obtained values of estimations were justified with the equilibrium sample population proportions assuming that each group’s population size after the proportions have converged to their equilibrium value. Convergence radius of 0.02 was set to obtain the required number of waves at which estimate of variable was converged.

As the sample was drawn using RDS method, data analysis was done using the RDSAT (5.6) and SPSS (18) to estimate the population proportion and quantitative data analysis, Netdraw Software was applied for generating recruitment waves. The p-values for trend data was examined online epi-tools from <http://epitools.auvet.com.au/content.php?page=trend>.

Figure 5.1 Distribution of network before and after adjustment of network size



2.15 Survey Constraints/Limitations

Over 90% of the respondents were drawn from Kathmandu whereas less than five percent participants participated from Bhaktapur and Lalitpur cities because of weak and small network of the MSM/TG population in these cities. Therefore the findings may not truly represent the situation in these two sister cities. The survey was carried out in Kathmandu valley immediately after the massive earthquake, resulting to displacement of people including the MSM/TG populations. Those who remained in Kathmandu were also living in fragile and abnormal situation. As a consequence, it may have weakened and ruptured network of this hidden population, which may have affected the survey findings. Similarly, the survey findings might have been affected because of selection bias while selecting the seeds by the organizations for the MSM community, as they were responsible for recommending seeds and recruiting other participants for the survey. As the coupons were distributed through seeds and networks, bias might be occurred to include their own sub-groups, which might have left out other hidden sub-groups belonging to the MSM communities. Finally, as in other surveys with sensitive population, this survey also might have faced respondent biases articulating their personal sexual behaviors to the interviewers. The interviewers therefore used probes to overcome such biases.

CHAPTER 3: RESULTS

3.0 Introduction

This section presents data based on clinical test of HIV and STIs and interviews with the MSM/TG population. The chapter starts with number of respondents by category of MSM followed by sero-prevalence data on HIV and STIs, association between demographic and socio-economic data and HIV and STIs, and behavioral surveillance data.

A total of 400 respondents participated in the study (Table 3.0). It comprised 215 TG and 185 Non-TG. Out of 400 respondents, there were 174 MSW and 226 Non-MSW. Of the 174 MSW 148 belonged to TG and 26 were Non-TG. Similarly, out of 226 Non-MSW there were 67 TG and 159 Non-TG. The refusal rate was 1.5% (i.e 6 respondents were refused).

Figure 3.1: Total Number of Survey Participants

MSW			Non MSW			MSM (Total)		
TG	Non- TG	Total	TG	Non TG	Total	TG	Non TG	Total
148	26	174	67	159	226	215	185	400

3.1 HIV/STI Prevalence

Table 3.2 shows data on clinical test results. The data shows that overall 2.4 percent (CI 1-4.8) of the MSM was tested HIV positive. HIV prevalence seems highest among MSW TG(7.8%) followed by Non-MSW TG (4.3%). Out of total MSM, 6.4% TG and 0.5% Non-TG were tested HIV positive.

Similarly, of the MSM population tested 0.5% MSM and 1.4% MSW was identified with active syphilis whereas none of the Non-MSW had active syphilis. The overall active syphilis was 0.9 % among TG. In total, 4.8 % of the total respondents had syphilis history-8.0 % in MSW and 2.2 % in Non-MSW. Syphilis history was higher in TG (6.0 %) than in Non-TG (3.2 %).

Overall, 7.7 % MSM had any STI (4.8-11.2, CI at 95%). It was 18.2% in MSW but only 4.8 % in Non-MSW. Likewise, any one STI was found to be higher (12.6%) in TG as compared to Non-TG (4.9%). Out of the 92 syndromic cases reported, 3.3% was tested Anal CT, 5.4% Anal NG, and 1.1 % Urethral NG.

Table 3.2: HIV and STI Prevalence

Prevalence	MSW(%)			Non MSW(%)			MSM (%)		
	TG (%)	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
HIV (95% CI)	7.2(1.6-12)	NA	5.6(1.5-10)	4.0(3.1-16.6)	NA	1.8(0.2-6.4)	6.2(2.1-9.3)	NA	2.4 (1.1-4.5)
Active syphilis	1.4*	NA	1.1*	NA*	NA*	NA*	0.9*	NA*	0.5*
Syphilis history	8.1*	7.7*	8.0*	1.5*	2.5*	2.2*	6.0*	3.2*	4.8*
Any STI** (95% CI)	19(8.9 - 33.6)	17.9(C NC)	18.2(11.2- 32.3)	18.2(10.7- 32.1)	NA	4.8(1.5- 10.6)	12.6(5.6- 19.3)	4.9(0.8- 11.2)	7.7 (4.8- 11.2)
Gonorrhoea/Chlamydia	N=37	N=4	N=41	N=16	N=3	N=51	N=53	N=39	N=92

Anal-CT	5.4*	NA	4.9*	6.3*	NA	2.0*	5.7*	NA	3.3*
Anal-NG	5.4*	NA	4.9*	12.5*	2.9*	5.9*	7.5*	2.6*	5.4*
Urethral-CT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Urethral-NG	2.7*	NA	2.4*	NA	NA	NA	1.9*	NA	1.1*

Note: For HIV and Any one STI, estimated population Proportion (%) of the variables with asterisk (*) did not meet the required numerator to be calculated with RDSAT. The proportion represented is therefore unadjusted and no value is mentioned under CI.

** Note: Any One STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.2 Association between Key Socio-demographic Variables and HIV/STIs

Table 3.3 shows the data on relationship between main socio-demographic characteristics and HIV and STI prevalence among the MSM population. The data clearly shows that HIV and STI prevalence was significantly higher in the age group 25 years and above (7.5 HIV and 14.9 % STI) than in age group less than 25 years (2.3% HIV and 6.4% STI). Both HIV and STI prevalence rate was little higher among currently married respondents (5.5% HIV and 11.4% STI) as compared to currently not married (4.7% HIV and 11% STI).

By literacy status, HIV and STI prevalence were significantly higher among illiterate and literate but without schooling (15.7 % HIV and 23.5% STI).

Table 3.3: Association between Socio-Demographic Characteristics and HIV/STI Prevalence

Socio-demographic characteristics	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
Age						
Less than 25 years (N= 172)	4	2.3	0.023	11	6.4	0.008
25 years and above (N=228)	17	7.5		34	14.9	
Currently married						
Yes (N=127)	6	4.7	0.747	14	11.0	0.922
No (N=273)	15	5.5		31	11.4	
Literacy status						
Illiterate & literate but no schooling (N=51)	8	15.7	0.002*	12	23.5	0.007
Literate& formal schooling (N=349)	13	3.7		33	9.5	

* p value is obtained from Fisher's Exact Test for those variables, as in a cell expected count is less than 5.

Note: STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.3 Relationship between Sexual behavior and HIV/STI Prevalence

The link between current sexual behaviors of the respondents and HIV/STI prevalence should be understood with caution because the current sexual behavior may not have contributed to the HIV and STI infection. Table 3.3 shows data on whether there exist any association between sexual behavior and prevalence of HIV and STI.

HIV and STI prevalence tends to be higher among respondents who had their first sex between ages of 10-16 years (i.e. 6.8% and 12.2% respectively) 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 of money (9.1% HIV and 17.1% 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. 7.1% and 14.7% respectively where as it was 2.5% and 6.2% in those who reported this sexual behavior in the past year. HIV and STI prevalence was statistically higher in respondents who reported having oral sex with one time or regular client in the past month (i.e. 16% HIV and 24% STI respectively) than those who did not report this sexual behavior (4.5% HIV and 10.4% STI respectively).

On the other hand, no statistically significant difference was observed between buying sex from male in the past month, selling anal sex to male regular client in the past month, and having oral sex with regular male client in the past month, and HIV and STI prevalence (Table 3.3).

Table 3.4: Association between Sexual Behavior and HIV/STI Prevalence

Sexual Behavior	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
Age at first sex						
10 -16 (N=221)	15	6.8	0.26*	27	12.2	0.711*
17-29 (N=177)	6	3.4		18	10.2	
30+ (N=2)	0	0.0		0	0.0	
Ever had sex with a male in exchange for money						
Yes (N=175)	16	9.1	0.002	31	17.7	<0.001
No(N=225)	5	2.2		14	6.2	
Vaginal /anal/oral sex with women in the past year						
Yes (N=162)	4	2.5	0.04	10	6.2	0.008
No(N=238)	17	7.1		35	14.7	
Bought sex from male in the past month						
Yes (N=46)	0	0.0	0.151*	3	6.5	0.452*
No (N=354)	21	5.9		42	11.9	
Sold anal sex to regular male client in the past month						
Yes (N=119)	6	5.0	0.903	18	15.1	0.11
No (N=281)	15	5.3		27	9.6	
Oral sex with regular male client in the past month						
Yes (N=384)	20	5.2	0.585*	43	11.2	0.698*
No (N=16)	1	6.3		2	12.5	
Oral sex with one time or regular client in the past month						
Yes (N=375)	17	4.5	0.034*	39	10.4	0.049*
No (N=25)	4	16.0		6	24.0	

* P value is obtained from Fisher's Exact Test for those variables, which has a cell with expected count less than 5.

Note: STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.4 Association between consistent condom use and HIV and STI Prevalence

Table 3.5 displays data on relationship between consistent condom use and HIV and STI prevalence. The data shows that consistent condom use (self-reported) had mixed effect on reducing HIV and STI. Overall, the self-reported data shows that even if condom was used consistently with one-time male clients, it did not contribute to reduce prevalence of HIV and STI. It was similar in case of consistent condom use with regular male clients and HIV and STI prevalence. On contrary to this, STI prevalence was statistically significantly lower among those using condom consistently with onetime male clients and regular male clients (Table 3.4). This finding should be understood with caution as the consistent condom use behavior could have been different in the past but changed recently. Moreover, the self-reported behavior might be different than the actual behavior.

On the other hand, no statistically significant difference was observed between consistent condom use with non-paying male sex partner, non-paying female sex partner, regular male clients, paid male/Meti sex partner, and paid female sex partner in the past month and HIV prevalence. In the same way, there was no statistically significant reduction in HIV prevalence among those who reported consistent condom use with non-paying male sex partner, non-paying female sex partner and regular male clients and HIV and STI prevalence.

Table 3.5: Association between Consistent Condom Use and HIV/STI Prevalence in the Past Month

Consistent Condom Use	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
Consistent Condom use with Non-paying male sex partner past month						
Yes (N=213)	9	4.2	0.327	22	10.3	0.534

No(N=187)	12	6.4		23	12.3	
Consistent Condom use with Non-paying female sex partner						
Yes(N=44)	0	0.0		0	0.0	0.009*
No (N=356)	21	5.9	0.149*	45	12.6	
Consistent Condom use with One-time male clients						
Yes(N=128)	11	8.6	0.04	24	18.8	0.001
No (N=272)	10	3.7		21	7.7	
Consistent Condom use with regular male clients						
Yes(N=109)	6	5.5	0.889	18	16.5	0.041
No(N=291)	15	5.2		27	9.3	
Consistent Condom use with paid Male/Meti sex partner						
Yes (N=40)	0	0.0	0.250*	2	5.0	0.289*
No (N=360)	21	5.8		43	11.9	
Consistent Condom use with paid female sex partner						
Yes(N=12)	0	0.0	1.000*	0	0.0	0.376*
No(N=388)	21	5.4		45	11.6	

* p value is obtained from Fisher's Exact Test for those variables, as at least one cell has expected count less than 5.

Note: STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.5 Association between Accessibility of Condom / Lubricant and HIV/STI Prevalence

The data on association between access of condom and lubricant and STI/HIV prevalence (Table 3.6) shows that HIV and STI prevalence was higher in those MSM participants who reported higher access to condom from Outreach Center/DIC or sexual health clinic (5.9% HIV and 11.8% STI) as compared to those who did not have access to condom (3.6% HIV and 9.8% STI). However, the result was not statistically significant to show the difference in prevalence. Similarly ever use of lubricant had no significant role in reducing HIV and STI prevalence as the data shows that HIV and STI prevalence rate was higher in MSM who had ever used lubricant (7.5% HIV and 13.8% STI) that those who did not (1.9% HIV and 7.5% STI).

On the contrary to the above findings, HIV and STI prevalence was found to be higher in MSM who reported that they could not obtain a condom every time when needed (14.3% HIV and 28.6% STI) while the prevalence rate of HIV and STI was lower in those who had access to condom when needed (4.9% HIV and 10.6% STI).

Table3.6: Association between Accessibility of Condom/Lubricant and HIV/STI Prevalence

Accessibility of Condom / Lubricant	HIV			STI		
	Yes	Percent	P Value	Yes	Percent	P Value
Received condom from outreach service, drop-in center or sexual health clinic						
Yes (N=288)	17	5.9	0.348	34	11.8	0.573
No(N=112)	4	3.6		11	9.8	
Ever used lubricant when having anal sex						
Yes(N= 240)	18	7.5	0.013	33	13.8	0.053
No (N= 160)	3	1.9		12	7.5	
Can obtain a condom every time when needed						
Yes (N=386)	19	4.9	0.163*	41	10.6	0.060*
No (N= 14)	2	14.3		4	28.6	

* p value is obtained from Fisher's Exact Test for those variables, which has a cell with expected count less than 5.

Note: STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.7 Association between Use of Alcohol/Drug and HIV/STI Prevalence

Data shown in Table 3.7 indicates that HIV and STI prevalence was statistically significantly lower in MSM who ever had any drinks containing alcohol (i.e. HIV prevalence was 3% in ever user against 12.2% in non-user, and STI prevalence was 8.9% in ever user against 18.4% in non-user). Only one out of 400 MSM had reported injecting drug use in the past 12 months, and

he/she was free from HIV and STI. While out of the remaining non-users of injecting drug, HIV and STI prevalence was found to be 5.3% and 11.3% respectively.

Table 3.7: Association between use of Alcohol/Drug and HIV/STI

Use of Alcohol and Drug	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
Ever had any drinks containing alcohol						
Yes (N=302)	9	3.0	<0.001	27	8.9	0.01
No (N=98)	12	12.2		18	18.4	
Injecting drugs using a syringe in the last 12 months						
Yes (N=1)	0	0.0	1.000*	0	0.0	1.000*
No (N=399)	21	5.3		45	11.3	

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

3.8 Association between Knowledge of HIV and HIV/STI Prevalence

Table 3.8 examines data on relationship between knowledge of HIV and HIV/STI prevalence. The data shows that knowledge on ABC of HIV transmission was higher in HIV and STI infected persons (6.3% HIV and 12.5% STI) in comparison to those who did not have this knowledge (4% HIV and 9.7% STI). However, this difference is not statistically significant. Similarly, knowledge of BCDEF on HIV transmission was higher in MSM identified with HIV and STI (5.3% HIV and 12.3% STI) while the prevalence rates of HIV and STIs were lower in those who did not know BCDEF (5.2% HIV and 9.8% STI). However, these results were not statistically significant to show the association between the HIV and STI prevalence and knowledge of HIV.

Table 3.8 : Association between Knowledge of HIV and HIV/STI Prevalence

Comprehensive knowledge of HIV	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
ABC						
Yes (N=224)	14	6.3	0.312	28	12.5	0.372
No (N=176)	7	4.0		17	9.7	
BCDEF						
Yes (N=227)	12	5.3	0.97	28	12.3	0.432
No (N=173)	9	5.2		17	9.8	

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

3.9 Association between Participation in HIV/STI prevention program and HIV/STI Prevalence

Participation in HIV and STI prevention programs by the key affected population groups including MSM is crucial to get informed and prevent HIV and STI. However, data given in Table 3.8 indicate that participation in HIV and STI prevention program in the past 12 months was not statistically associated with HIV and STI prevalence. It indicates that participation in HIV and STI prevention programs by the MSM may have increased recently while they might have contracted HIV/STI before their participation. As for example, HIV and STI prevalence was higher in those who reported their participation and interaction with PE/OE/CM/CE, visited DIC/IC/CC, STI clinic (exception in case of HIV) and HTC centers in the past 12 months preceding the survey (Table 3.9).

Table 3.9: Association between Participation in HIV and STI prevention program and HIV/STI Prevalence

Participation in HIV/STI prevention program	HIV			STI		
	Yes	%	P Value	Yes	%	P Value
Interacted with PE/OE/CM/CE in the last 12 months						
Yes (N=209)	14	6.7	0.174	29	13.9	0.082

No (N=191)	7	3.7		16	8.4	
Visited DIC/IC/ CC in the last 12 months						
Yes (N=182)	15	8.2	0.014	31	17.0	0.001
No(N=218)	6	2.8		14	6.4	
Visited any STI clinic in the last 12 months						
Yes (N=53)	2	3.8	1.000*	6	11.3	0.986
No(N=347)	19	5.5		39	11.2	
Visited HTC centers in the last 12 months						
Yes(N=151)	9	6.0	0.62	22	14.6	0.102
No (N=249)	12	4.8		23	9.2	

* p value is obtained from Fisher's Exact Test for those variables, as one of the cells has expected count less than 5.
Note: STI includes HIV, Current Syphilis, Anal CT & NG, and Urethral CT & NG.

3.10: Association between STI and HIV Prevalence

Data on association between STI and HIV prevalence is shown in Table 3.10. The data shows no statistically significant association between active syphilis and HIV (none of the 2 STI cases had HIV infection). This trend was similar in case of association between any STI and HIV. Out of 26 any STI cases, only 2(7.7%) was tested HIV positive . However, the association between STI and HIV was not statistically significant (P=0.638). Likewise, three (15.8%) out of 19 cases with Syphilis history, were tested HIV positive. None of the cases with active syphilis, anal gonorrhea, anal chlamydia, and urethral gonorrhea was tested HIV positive.

Table 3.10: Association between HIV and STI Prevalence

Types of STI	HIV		P Value
	Yes(%)		
Any STI			
Yes (26)	2(7.7)		0.638*
No (374)	19(5.0)		
Active Syphilis			
Yes (2)	0		1.000*
No(398)	21(5.3)		
Syphilis History			
Yes(19)	3(15.8)		00.07*
No(381)	18(4.7)		
Anal Gonorrhea			
Yes(5)	0		1.000*
No(395)	21(5.3)		
Anal Chlamydia			
Yes(3)	0		1.000*
No(397)	21(5.2)		
Urethral Gonorrhea			
Yes(1)	0		1.000*
No(399)	21(5.2)		

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

3.11: Background Characteristics of the Respondents

This section presents data on background characteristics of the MSM/TG respondents.

3.11.1 Sexual identity and orientation

The self-reported sexual behavior data (Table 3.11) shows that nearly one-fourth (23.5%) of the MSM identified themselves as Men/Mard followed by Meta/Meti (15.4%), Ta (13.8%), TG(13.5%) and Dohori(11%). In total 8.8% participants informed that they were gay. Similarly, the self-reported sexual orientation indicates that 215 out of 400 (i.e. 53.8%) were *tesrolingi* (third gender) and remaining 46.3% self-reported as being Man/Mard.

Table 3.11: Self-categorization of sexual orientation

Self-categorization of sexual orientation	MSW (%)			Non MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Self-reported identity	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Dohori	8.1	19.2	9.8	14.9	10.7	11.9	10.2	11.9	11.0
Ta	1.4	3.8	1.7	19.4	24.5	23.0	7.0	21.6	13.8
Pinky ta	1.4	3.8	1.7	NA	NA	NA	0.0	0.5	0.0
Men/mard	0.0	30.8	4.6	0.0	50.9	36.7	2.3	48.1	23.5
Homosexual	4.1	3.8	4.0	7.5	5.0	5.8	5.1	4.9	5.0
Gay	3.4	23.1	6.3	14.9	8.8	10.6	7.0	10.8	8.8
Meta/Meti	32.4	15.4	29.9	17.9	NA	5.3	26.5	2.2	15.4
Pinky meta	24.3	NA	20.7	NA	NA	NA	16.7	NA	9.0
Trans gender	25.0	NA	21.3	25.4	NA	7.5	25.1	NA	13.5
Self-categorized sexual orientation	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
TesroLingi	100.0	NA	85.1	100.0	NA	29.6	100.0	NA	53.8
Men	NA	100.0	14.9	NA	100.0	70.4	NA	100.0	46.3

3.11.1 Birthplace and Currently Living Districts

By place of birth, majority of the respondents (61.8%) were born in Central Region followed by Eastern Region (15.5%), Western Region (12.3%), Far-western Region (5.3%) and Mid-western Region(4.3%). The trend was almost similar to TG and Non-TG, MSW, and Non-MSW (Table 3.11.1). Out of the 400 respondents, the vast majority (91.5%) was currently living in Kathmandu district followed by Bhaktapur (4.5%) and Lalitpur (4%). About 42.2% of the respondents were living in the current place for less than five years while 37.2% of them were living at the current place for over last five years. One-fifth (20.6%) of the respondents were living at the current place since birth

Table 3.11.1 : Birthplace and Currently Living Districts

Birth Place	MSW (%)			Non-MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Region	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Central	60.1	73.1	62.1	64.2	60.4	61.5	61.4	62.2	61.8
Eastern	16.9	7.7	15.5	16.4	15.1	15.5	16.7	14.1	15.5
Far West	3.4	3.8	3.4		9.4	6.6	2.3	8.6	5.3
Mid West	4.1	3.8	4.0	6.0	3.8	4.4	4.7	3.8	4.3
Western	12.8	11.5	12.6	13.4	11.3	11.9	13.0	11.4	12.3
Out of Country	2.7	NA	2.3	NA	NA	NA	1.9	NA	1.0
Currently living district	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Bhaktapur	2.0	15.4	4.0	6.0	4.4	4.9	3.3	5.9	4.5
Kathmandu	95.3	80.8	93.1	89.6	90.6	90.3	93.5	89.2	91.5
Lalitpur	2.7	3.8	2.9	4.5	5.0	4.9	3.3	4.9	4.0
Duration of living in present location	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Since birth	15.5	23.1	16.7	30.3	20.9	23.7	20.1	21.2	20.6
Less than 5 year	40.5	38.5	40.2	51.5	40.5	43.8	43.9	40.2	42.2
More than 5 year	43.9	38.5	43.1	18.2	38.6	32.6	36.0	38.6	37.2

3.11.2 Demographic Characteristics

Table 3.11.2 shows data on demographic characteristics of the respondents. The mean age of the respondents was 28 years for both MSW and Non-MSW while the minimum age was 17 years for both the categories. Similarly, the median age was 27 years for MSW and 26 years for Non-MSW. Nearly one-third (31.5%) of the respondents were from age group 20-24 years (29.3 % MSW and 33.2 % Non-MSW) followed by age group 25-29 years (23%). One out of ten (11.5

(%) of the respondents was a teenager (16-19 years) and adult/above 40 years (11.8%). The proportion of older Non-MSW respondents was a little higher (12.8%) than with MSW (10.3%).

Nearly half of the respondents (48.8%) was from upper caste groups (39.5% TG and 59.5% Non-TG) followed by disadvantaged Janajatis(30.5%) and relatively advantaged Janajatis(14.5%). The proportion of dalit was 3.3% while disadvantaged non-dalitTerai caste groups was 2.3%.

An overwhelming proportion (98.8%) of respondents presented themselves as following a religion. The majority (82.8%) was Hindu followed by Buddhist (11.6%), Christian (3.8%) and Kirat (1%). Only 0.8% of the respondents followed Muslim religion.

By education, 30% respondents had lower secondary and SLC and above education. Seven percent participants were illiterate while only 5.5% respondent was simply literate. In total, 12.3 % respondents (14.9% MSW and 10.2 % Non-MSW) had obtained primary education.

Overall, more than two-third (68.3%) of the respondents were unmarried. One-third (31.8%) of the MSW were married-the proportion was higher for non-MSW (i.e. 24.1% in MSW and 37.6% in Non-MSW respectively). Similarly, the proportion of married respondents was relatively higher in Non-TG (34.6%) as compared to TG (29.3%).

Table 3.11.2: Demographic Characteristics

Background characteristics	MSW (%)			Non-MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Age category (in yrs.)	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
16-19	7.4	19.2	9.2	10.4	14.5	13.3	8.4	15.1	11.5
20-24	27.0	42.3	29.3	29.9	34.6	33.2	27.9	35.7	31.5
25-29	26.4	23.1	25.9	25.4	18.9	20.8	26.0	19.5	23.0
30-34	16.9	3.8	14.9	13.4	12.6	12.8	15.8	11.4	13.8
35-39	10.1	11.5	10.3	9.0	6.3	7.1	9.8	7.0	8.5
40+	12.2	NA	10.3	11.9	13.2	12.8	12.1	11.4	11.8
Mean/SD of Age	29/8	25/6	28/8	28/8	27/9	28/9	29/8	27/9	28/8
Median Age	28	24	27	27	25	26	27	24	26
(Range)	(17-57)	(18-37)	(17-57)	(17-53)	(17-56)	(17-56)	(17-57)	(17-56)	(17-57)
Caste/Ethnicity	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Dalit	2.7	3.8	2.9	4.5	3.1	3.5	3.3	3.2	3.3
Disadvantaged Janjatis	43.9	11.5	39.1	23.9	23.9	23.9	37.7	22.2	30.5
Disadvantaged non- dalitTerai caste groups	3.4	NA	2.9	3.0	1.3	1.8	3.3	1.1	2.3
Religious Minorities(Muslims, Churoute)	1.4	NA	1.1	NA	0.6	0.4	0.9	0.5	0.8
Relatively advantaged Janjatis	11.5	7.7	10.9	23.9	14.5	17.3	15.3	13.5	14.5
Upper caste groups	37.2	76.9	43.1	44.8	56.6	53.1	39.5	59.5	48.8
Religion	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Hindu	79.6	92.0	81.4	84.8	83.4	83.9	81.3	84.6	82.8
Buddhist	15.6	NA	13.4	12.1	9.6	10.3	14.6	8.2	11.6
Muslim	1.4	NA	1.2	NA	0.6	0.4	0.9	0.5	0.8
Christian	3.4	8.0	4.1	NA	5.1	3.6	2.3	5.5	3.8
Kirat	NA	NA	NA	3.0	1.3	1.8	0.9	1.1	1.0
Not Following any religion	0.7	3.8	1.1	1.5	1.3	1.3	.9	1.6	1.3
Education	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Illiterate	10.8	NA	9.2	6.0	5.7	5.8	9.3	4.9	7.3
Primary	16.2	7.7	14.9	9.0	10.7	10.2	14.0	10.3	12.3
Lower Secondary	12.2	26.9	14.4	16.4	16.4	16.4	13.5	17.8	15.5
Secondary	27.0	26.9	27.0	34.3	31.4	32.3	29.3	30.8	30.0
SLC Above	27.7	38.5	29.3	28.4	30.2	29.6	27.9	31.4	29.5
Literate	6.1	NA	5.2	6.0	5.7	5.8	6.0	4.9	5.5

Marital Status	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Married	24.3	23.1	24.1	40.3	36.5	37.6	29.3	34.6	31.8
Unmarried	75.7	76.9	75.9	59.7	63.5	62.4	70.7	65.4	68.3
Sex of married partner	N=36	N=6	N=42	N=27	N=58	N=85	N=63	N=64	N=127
Male/Meti	33.3	NA	28.6	11.1	NA	3.5	23.8	NA	11.8
Women	66.7	100.0	71.4	88.9	100.0	96.5	76.2	100.0	88.2
Currently living with a regular sexual partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	20.3	34.6	22.4	26.9	22.0	23.5	22.3	23.8	23.0
No	79.7	65.4	77.6	73.1	78.0	76.5	77.7	76.2	77.0
Currently living with	N=30	N=9	N=39	N=18	N=35	N=53	N=48	N=44	N=92
Male/TG/Meti	80.0	55.6	74.4	50.0	14.3	26.4	68.8	22.7	46.7
Wife	20.0	44.4	25.6	50.0	82.9	71.7	31.3	75.0	52.2
Other female	NA	NA	NA	NA	2.9	1.9	NA	2.3	1.1

An overwhelming percentage of MSW (71.4%) and Non-MSW (96.5 %) (Overall, 88.2%) were married to women while 28.6 % MSW and 3.5 % Non-MSW (overall 11.8 % MSM) were married with Male/Meti.

Nearly a quarter of the respondents (23%) reported that they were currently living with a regular sex partner. Out of them majority (52.2%) were living with wives followed by Male/TG/Meti (46.7%). About three-fourth of the MSW (74.4%) and more than two-third (68.8%) of the TG were currently living with Male/TG/Meti.

3.11.3 Living Conditions

As shown in Table 3.11.3, more than three quarters (77.3%) of the respondents (77.7% TG and 76.8% Non-TG; 82.2% MSW and 73.5% Non-MSW) were living in a rented apartment/room. Only 18.5% were living in own house, which was even less in case of MSW (13.8%). Overall, a little more than half of them (51%) had lived away from home in the past 12 months. The trend was similar for MSW and TG.

Table 3.11.3: Living Situation of the Respondents

Living Situation	MSW (%)			Non-MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Current living situation	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Homeless on the street	0.7	NA	.6	1.5	1.9	1.8	.9	1.6	1.3
Living in own home	13.5	15.4	13.8	28.4	19.5	22.1	18.1	18.9	18.5
Living in a residential hotel	2.7	NA	2.3	1.5	2.5	2.2	2.3	2.2	2.3
Rented apartment/room	81.8	84.6	82.2	68.7	75.5	73.5	77.7	76.8	77.3
Other	1.4	NA	1.1	NA	0.6	0.4	0.9	0.5	0.8
Lived away from home in past 12 months	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	52.0	38.5	50.0	53.7	50.9	51.8	52.6	49.2	51.0
No	48.0	61.5	50.0	46.3	49.1	48.2	47.4	50.8	49.0

3.11.4 Occupation and Income

Table 3.11.4 shows self-reported occupation and income of the respondents. The data shows that one-fifths (20%) of the respondents was laborer, followed by private company employee (17%), students (14.3%) and businesspersons (9%). Driving was reported by 2 % of the respondents (.9% MSW and 1.8 % non-MSW). Overall, 6% respondents were unemployed. Rest 0.5 percent was from military service and one percent from other civil service background. Twenty nine percent of the respondents categorized their occupation as others.

Table 3.11.4: Occupational Background and Income of the Respondents

Occupational Background	MSW(%)			Non-MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Occupational Background	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400

Student	7.4	7.7	7.5	14.9	21.4	19.5	9.8	19.5	14.3
Driver	1.4	11.5	2.9	3.0	1.3	1.8	1.9	2.7	2.3
Police	NA	NA	NA	NA	0.6	0.4	NA	0.5	0.3
Military	NA	NA	NA	NA	1.3	0.9	NA	1.1	0.5
Other civil servant	1.4	NA	1.1	1.5	.6	.9	1.4	0.5	1.0
Businessman	5.4	11.5	6.3	9.0	11.9	11.1	6.5	11.9	9.0
Private company staff	12.8	11.5	12.6	25.4	18.2	20.4	16.7	17.3	17.0
Unemployed	4.1	3.8	4.0	10.4	6.3	7.5	6.0	5.9	6.0
Laborer/wage labor	12.2	15.4	12.6	16.4	29.6	25.7	13.5	27.6	20.0
Others	55.4	38.5	52.9	19.4	8.8	11.9	44.2	13.0	29.8
Last month's income in NRs	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
None	4.1	3.8	4.0	26.9	23.9	24.8	11.2	21.1	15.8
Below 3000	4.7		4.0	1.5	4.4	3.5	3.7	3.8	3.8
3001-6000	7.4	7.7	7.5	9.0	8.2	8.4	7.9	8.1	8.0
6001-10000	18.9	38.5	21.8	25.4	22.6	23.5	20.9	24.9	22.8
Above 10000	64.9	50.0	62.6	37.3	40.9	39.8	56.3	42.2	49.8
Descriptive Statistics of monthly income	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Mean	17751	13808	17161	12045	10434	10912	15973	10908	13630
Median	15000	11000	15000	10000	10000	10000	12000	10000	10000
MAXIMUM	80000	40000	80000	200000	80000	200000	200000	80000	200000

On the whole, 15.8% respondents reported that they had no income in the last month preceding the survey. Similarly, a quarter of Non-MSW (24.8%) had no income. The reported monthly income based on the last one month indicates that the average income was Rs.13, 630, little more among MSWs (Rs 17,161) compared to the Non-MSW (Rs. 10,434). The monthly income was higher in TG (Rs 15,937) than in Non-TG (Rs 10,908). About half (49.8%) of them had income above Rs 10,000 per month (62.6% among MSW and 39.8% among Non-MSW) while rest 50% relied on income less than Rs 10,000 per month.

3.11.5 Sources of Income and Number of Dependents

The reported sources of income of the respondents (Table 3.11.5) indicate that salaried job (35.6%), sex work (29.8%), wage labor (21.3%), own business (13.3%), and other works (2.8%) were the main sources of income. For more than two-third (68.4%) MSW and half of the TG (49.3%) sex work was the main source of income.

None of the Non-MSW had paid sex in the last sex. The self-reported amount earned by the MSW from the last sex shows that majority (51.3%) of them earned Rs 401-1000, followed by Rs 1001-9000(35.3%), and Rs 101-400(10.9%). On the average, the MSW earned Rs 1,779 in the last sex –more by Non-TG (Rs 2,661) than by TG (Rs 1,661). The respondents earned Rs 150 at the minimum in the last sex.

Concerning total number of dependents, 29.4% of the respondents (28.8% TG and 30.1% Non-TG) had no dependent, 24% had one or two dependents, and 33.2% had 3-4 dependents. About 11% had 5-6 dependents while rest 2% had seven or more dependents.

Table 3.11.5: Sources of Income and Number of Dependents

Sources of Income and Number of Dependents	MSW(%)			Non-MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Income source *	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Sex work	71.6	50.0	68.4	NA	NA	NA	49.3	7.0	29.8
Money from family	2.7	7.7	3.4	1.5	5.0	4.0	2.3	5.4	3.8
Salaried job	27.0	38.5	28.7	38.8	29.6	32.3	30.7	30.8	30.8

Own business	10.8	11.5	10.9	14.9	15.1	15.0	12.1	14.6	13.3
Wage labor	12.8	19.2	13.8	19.4	30.2	27.0	14.9	28.6	21.3
Other work	4.7	19.2	4.8	1.5	1.9	1.8	3.7	1.6	2.8
Earning from last sex	N=105	N=14	N=119	NA	NA	NA	N=105	N=14	N=119
101-400	9.5	21.4	10.9	NA	NA	NA	9.5	21.4	10.9
401-1000	51.4	50.0	51.3	NA	NA	NA	51.4	50.0	51.3
1001-9000	37.1	21.4	35.3	NA	NA	NA	37.1	21.4	35.3
9001+	1.9	7.1	2.5	NA	NA	NA	1.9	7.1	2.5
Descriptive Statistics of earning last sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Mean	1661	2661	1779	NA	NA	NA	1661	2661	1779
Median	1000	850	1000	NA	NA	NA	1000	850	1000
STDDEV	2356	5212	2826	NA	NA	NA	2356	5212	2826
MINIMUM	150	150	150	NA	NA	NA	150	150	150
MAXIMUM	20000	20000	20000	NA	NA	NA	20000	20000	20000
Total no of dependents	N=142	N=25	N=167	N=49	N=121	N=170	N=191	N=146	N=337
None	33.1	32.0	32.9	16.3	29.8	25.9	28.8	30.1	29.4
1-2	23.9	24.0	24.0	40.8	17.4	24.1	28.3	18.5	24.0
3-4	31.7	28.0	31.1	28.6	38.0	35.3	30.9	36.3	33.2
5-6	9.9	8.0	9.6	12.2	12.4	12.4	10.5	11.6	11.0
7+	1.4	8.0	2.4	2.0	2.5	2.4	1.6	3.4	2.4

*Percentages total may exceed 100 due to multiple responses

3.11.6 Use of Alcohol and Drugs

Table 3.11.6 presents data on use of alcohol and drugs. Three-fourth (75.5%) of the respondents had ever consumed alcohol. Ever use of alcohol was little higher in Non-TG(81.6%) as compared to TG(70.2%). More than half of them (53.6%) used alcohol at least once a week followed by once in 3-4 days (16.6 %) and every day (14.9%). Remaining 14.9% did not consume alcohol in the last month. Local/crude alcohol (Raksi) was the most used alcohol (37.1%) followed by beer (30.5%) and whiskey (19.5%).

About one-fifth of the respondents (19.5 %) used some amount of alcohol and 17.2% used a little quantity only. On the whole, 5.6 % MSM (3.9% MSW and 6.9 % Non-MSW) used a lot of alcohol during last sex. As compared to Non-TG (2%) TG used a lot of alcohol (9.3%).

Table 3.11.6: Alcohol Consumption

Alcohol Consumption	MSW(%)			Non- MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Ever consumed alcohol	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	70.3	88.5	73	70.1	80.5	77.4	70.2	81.6	75.5
No	29.7	11.5	27	29.9	19.5	22.6	29.8	18.4	24.5
Consumption of alcohol in last month	N=104	N=23	N=127	N=47	N=128	N=175	N=151	N=151	N=302
Every day	14.4	17.4	15	17	14.1	14.9	15.2	14.6	14.9
3-4 days a week	13.5	13	13.4	19.1	18.8	18.9	15.2	17.9	16.6
At least once a week	57.7	60.9	58.3	51.1	50	50.3	55.6	51.7	53.6
Did not drink alcohol in the last month	14.4	8.7	13.4	12.8	17.2	16	13.9	15.9	14.9
Type of alcohol consumed	N=104	N=23	N=127	N=47	N=128	N=175	N=151	N=151	N=302
Local Raksi	31.7	21.7	29.9	40.4	43	42.3	34.4	39.7	37.1
Beer	41.3	21.7	37.8	31.9	22.7	25.1	38.4	22.5	30.5
Jand	3.8	4.3	3.9	2.1	3.1	2.9	3.3	3.3	3.3
Whisky	11.5	43.5	17.3	14.9	23.4	21.1	12.6	26.5	19.5
Other	11.5	8.7	11	10.6	7.8	8.6	11.3	7.9	9.6
Amount of consumption of alcohol during last sex	N=104	N=23	N=127	N=47	N=128	N=175	N=151	N=151	N=302
A lot	4.8	NA	3.9	19.1	2.3	6.9	9.3	2	5.6
Some	16.3	34.8	19.7	14.9	21.1	19.4	15.9	23.2	19.5

A little	26.9	8.7	23.6	12.8	12.5	12.6	22.5	11.9	17.2
No alcohol	51.9	56.5	52.8	53.2	64.1	61.1	52.3	62.9	57.6

3.11.7 Drug Use

Table 3.11.7 displays data on use of illicit drugs by the respondents in the past year. Only 0.4% Non-MSW reported they used injecting drug in the past year. In total, about 80.3 % used *Ganja/Marijuana*, 12.1% used *Chares*, 4.5 % used tablets and 3.0 % used glue/dendrite. None of the respondents used Heroin. Only 0.3 % respondents reported use of injecting drug in the past year. Use of non-injecting drug was nearly three times higher in Non-TG (25.4%) than in TG(8.8%).

Table 3.11.7: Use of Illicit Drugs

Use of Illicit Drugs in the past year	MSW(%)			Non-MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Used Illicit drugs	N=13	N=8	N=21	N=6	N=39	N=45	N=19	N=47	N=66
Yes	8.7	30.7	12.1	8.9	24.5	19.9	8.8	25.4	16.5
No	91.3	69.3	87.9	91.1	75.5	80.1	91.2	74.6	83.5
Ganja	N=11	N=7	N=18	N=6	N=29	N=35	N=17	N=36	N=53
Yes	84.6	87.5	85.7	100.0	74.4	77.8	89.5	76.6	80.3
No	15.4	12.5	14.3	0.0	25.6	22.2	10.5	23.4	19.7
Chares	N=2	N=0	N=2	N=0	N=6	N=6	N=2	N=6	N=8
Yes	15.4	0.0	9.5	0.0	15.4	13.3	10.5	12.8	12.1
No	84.6	100.0	90.5	100.0	84.6	86.7	89.5	87.2	87.9
Tablets	N=0	N=1	N=1	N=0	N=2	N=2	N=0	N=3	N=3
Yes	0.0	12.5	4.8	0.0	5.1	4.4	0.0	6.4	4.5
No	100.0	87.5	95.2	100.0	94.9	95.6	100.0	93.6	95.5
Glue/Dendrite	N=0	N=0	N=0	N=0	N=2	N=2	N=0	N=2	N=2
Yes	0.0	0.0	0.0	0.0	5.1	4.4	0.0	4.3	3.0
No	100.0	100.0	100.0	100.0	94.9	95.6	100.0	95.7	97.0
None	N=7	N=2	N=9	N=1	N=13	N=14	N=8	N=15	N=23
Yes	63.6	28.6	81.8	16.7	44.8	40.0	47.1	41.7	43.4
No	36.4	71.4	18.2	83.3	55.2	60.0	52.9	58.3	56.6
Injected drugs in the past year	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	NA	NA	NA	NA	0.6	0.4	NA	0.5	0.3
No	100	100	100	100	99.4	99.6	100	99.5	99.8

3.12. Sexual Behavior, Types of Sex Partners, Condom and Lubricant Use

This section presents data on sexual behaviors including the type and number of sex partners and use of condoms and lubricants while having sexual acts.

3.12.1 Age at first sex

Table 3.12. shows data on sexual behavior of the respondents. The data indicates that majority of the MSM (55.3%) had initiated sex at a young age between 10 to 16 years. The proportion of sexual initiation at young age was higher in MSW (67.8 %) as compared to Non-MSW(45.6 %). Similarly, nearly two-third of the TG (62.8%) had their sexual debut between the age of 10 to 16 years while only 46.5% Non-TG had sexual debut at this age (10-16 yrs). More than one-third (36.8%) of the respondents had sex debut at age between 17 and 20 years. Rest eight percent had their first sex between 21-30 years. The overall mean age of sexual debut was 16 years (15 years for MSW and 17 years for Non-MSW). Moreover, the mean age of sex debut was 16 years for TG and 17 years for Non-TG.

For more than two third (68%) of the respondents the first sex partner was Male/Meti/TG which was reported by 92.5 % of the MSW and 49.1% Non-MSW. About 91.2% TG had first sex with Male/Meti/TG as against 41.1 % Non-TG. On the other hand, 7.5% MSW and 50.9 % Non-MSW (32% in total) had first sex with female sex partner.

About 22.5 % respondents, on the whole, ever had sex with a male in exchange of money. Only 5.3 % Non-TG reported this behavior against 55.9 % TG. Majority (48.6%) of the respondents had their first sex with a male in exchange for money when they were 17-20 years. The percentage was still higher for Non-TG (55.6%) and Non-TG MSW (57.7%). Moreover, one-third (32.6%) of the total respondents (N=175), had first sex with male in exchange for money in the age bracket 21-30 years.

The mean age while having first sex with a male in exchange for money was 20 years each for MSW and TG and 19 years for Non-TG. The age at first sex with a male in exchange for money varied from 12-36 years. The median age while having first sex with a male in exchange for money was 19 years for all groups.

Majority (60.3%) of the MSW had their last sex with male in exchange for money within the last seven days while none of the Non-MSW reported this. Remaining 16.1% reported that they had their last sex with male in exchange for money, followed by 16-30 days (10.9%). A small proportion had reported this behavior before one year (2.3%)(Table 3.12).The median time of last sex was four days, which was 13 days each for Non-TG and MSW Non-TG.

Table 3.12: Age at First Sex

Sexual behavior	MSW(%)			Non MSW(%)			MSM(Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Age at first sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
10-16	67.6	69.2	67.8	52.2	42.8	45.6	62.8	46.5	55.3
17-20	26.4	30.8	27.0	37.3	47.2	44.2	29.8	44.9	36.8
21-30	6.1	NA	5.2	10.4	10.1	10.2	7.4	8.6	8.0
Descriptive Statistics for age at first sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Mean/SD	15/3	16/2	15/3	17/3	17/3	17/3	16/3	17/3	16/3
Median	15	16	15	16	17	17	16	17	16
(Range)	(10-20)	(12-20)	(10-24)	(10-30)	(10-30)	(10-30)	(10-30)	(10-30)	(10-30)
First sex partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Male/Meti/TG	93.9	84.6	92.5	85.1	34.0	49.1	91.2	41.1	68.0
Female	6.1	15.4	7.5	14.9	66.0	50.9	8.8	58.9	32.0
Ever had sex with a male in exchange for money	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	100.0	100.	100.0	NA	0.6	0.4	55.9* (46.4-69.6)	5.3* (2-16.5)	22.5* (18-28.4)
No	NA	NA	NA	100.0	99.4	99.6	44.1* (30.4-53.6)	94.7* (83.5-98)	77.5* (71.6-82)
Age at first sex with a male in exchange for money	N=148	N=26	N=174	NA	N=1	N=1	N=148	N=27	N=175
10-16	16.2	11.5	15.5	NA	NA	NA	16.2	11.1	15.4
17-20	47.3	57.7	48.9	NA	NA	NA	47.3	55.6	48.6
21-30	33.1	30.8	32.8	NA	NA	NA	33.1	29.6	32.6
31+	3.4	NA	2.9	NA	100.0	100.0	3.4	3.7	3.4
Descriptive Statistics for age at first sex with a male in exchange for money	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Mean/SD	20/5	19/3	20/4	NA	NA	NA	20/5	19/3	20/4
Median	19	19	19	NA	NA	NA	19	19	19
(Range)	(12-36)	(14-24)	(12-36)	NA	NA	NA	(12-36)	(14-24)	(12-36)
Time of last sex with male/in exchange for	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400

money									
Within last 7 days	63.5	42.3	60.3	NA	NA	NA	63.5	42.3	60.3
8-15 days	15.5	19.2	16.1	NA	NA	NA	15.5	19.2	16.1
16-30 days	11.5	7.7	10.9	NA	NA	NA	11.5	7.7	10.9
30-60	6.8	7.7	6.9	NA	NA	NA	6.8	7.7	6.9
60 days-365 days	1.4	15.4	3.4	NA	NA	NA	1.4	15.4	3.4
Before 365 days	1.4	7.7	2.3	NA	NA	NA	1.4	7.7	2.3
Descriptive statistics for time of last sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Median Days	4	13	4	NA	NA	NA	4	13	4
(Range)	(1-450)	(1-840)	(1-840)	NA	NA	NA	(1-450)	(1-840)	(1-840)

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

The time of last sex with male in exchange for money was within last seven days for 60.3% MSW whereas none of the Non-MSW reported this behavior. About 16,11,7, and 3 percent of the MSW reported having last sex within past 8-15 days, 16-30 days, 30-60 days, and 60 days to one year respectively. The mean days of last sex with male in exchange for money were 26 days; 17 days for TG and 78 days for Non-TG.

3.12.1 Sex Partners

Non-paying Sex Partner

Table 3.12.1 presents data on number and types of sex partners of the respondents. The data indicates that a little more than one-third (36.5%) (33% TG and 40.5% Non-TG) did not have non-paying male sex partner in the past month. On average, the respondents reported two non-paying male sex partners in the past month prior to the survey. About 35% respondents (30.5% MSW and 38.5% Non-MSW) had 2-5 non-paying male sex partners in the past month. Only 9.3% reported having more than five non-paying male sex partners in the same period.

Similarly, three-quarters (74.5%) of the respondents, in overall, did not have non-paying female sex partner in the past month. Out of them, 17.5% had only one non-paying female sex partner-it was reported by 6.9% MSW and 25.9 % Non-MSW. Two to five non-paying female sex partners was reported by 2.9 % MSW and 11.1% Non-MSW. Only 0.5% respondents, TG and Non-TG alike, had more than five non-paying female sex partners. None of the MSW had more than five non-paying female sex partners in the past month.

Table 3.12.1: Non-paying sex partners in the past month

Non-paying sex partner	MSW(%)			Non MSW(%)			MSM(Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Number of non-paying male sex partner in past month	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
None	40.5	30.8	39.1	16.4	42.1	34.5	33.0	40.5	36.5
One	20.3	19.2	20.1	25.4	15.7	18.6	21.9	16.2	19.3
Two-Five	28.4	42.3	30.5	44.8	35.8	38.5	33.5	36.8	35.0
>Five	10.8	7.7	10.3	13.4	6.3	8.4	11.6	6.5	9.3
Descriptive statistics of non-paying male sex partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Mean/SD	2/5	2/2	2/4	4/7	2/3	3/5	3/6	2/3	2/5
Median	1	2	1	2	1	1	1	1	1
(Range)	(0-40)	(0-7)	(0-40)	(0-50)	(0-25)	(0-50)	(0-50)	(0-25)	(0-50)
Number of non-paying female sex partner in past month	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
None	92.6	76.9	90.2	79.1	55.3	62.4	88.4	58.4	74.5
One	7.4	3.8	6.9	16.4	29.6	25.7	10.2	25.9	17.5

Two-Five	NA	19.2	2.9	3.0	14.5	11.1	0.9	15.1	7.5
>Five	NA	NA	NA	1.5	0.6	0.9	0.5	0.5	0.5
Range of non- paying female sex partner in past month	(0-1)	(0-3)	(0-3)	(0-15)	(0-6)	(0-15)	(0-15)	(0-6)	(0-15)

The data shows that the trend of having non-paying female sex partners is higher among non-MSW.

Anal Sex

Table 3.12.2 shows that overwhelming number of (97%) MSW reported having non- paying male anal sex partner in the past month preceding the survey. Out of the remaining respondents, nearly two-third (62.6%) had more than one anal sex partner. One third of them (34.3%) had only one non-paying male anal sex partner.

One time paying male anal sex partner was reported by MSW only. About 2% did not have such a partner whereas nearly three-quarters (73.9%) reported having more than one such partner. About a quarter (23.9%) had one-time paying male anal sex partner. (Table3.11.3)

None of the Non-MSW had regular paying, one time paying male anal sex partner, which was 3.4% and 2.2 % respectively in case of MSW. More than one regular paying male anal sex partner was reported by 81.5% MSW and having one such partner was reported by 15.1% MSW.

A quarter (25%) of MSW and 31.6 % Non-MSW reported that they had one paid male anal sex partner in the past month while 75% MSW and 68.4 % Non-MSW reported having such a partner. Overall, 72.7% TG and 68.6% Non-TG reported that they had more than one paid male anal sex partner. On average, they had three paid male anal sex partner (Table 3.11.3).

Table 3.12.2: Types of Anal Sex Partners in the Past Month

Different Types of Anal Sex Partners in the Past Month	MSW(%)			Non-MSW(%)			MSM(Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Number of non-paying male anal sex partner	N=88	N=18	N=106	N=56	N=92	N=148	N=144	N=110	N=254
None	4.5	NA	3.8	1.8	3.3	2.7	3.5	2.7	3.1
One	38.6	44.4	39.6	33.9	28.3	30.4	36.8	30.9	34.3
More than one	56.8	55.6	56.6	64.3	68.5	66.9	59.7	66.4	62.6
Descriptive statistics of non-paying male anal sex partner	N=88	N=18	N=106	N=56	N=92	N=148	N=144	N=110	N=254
Mean	¾	3/2	3/4	4/7	3/3	3/5	4/5	3/3	3/5
Median	2	3	2	2	2	2	2	2	2
Range	0-30	1-7	0-30	0-50	0-15	0-50	0-50	0-15	0-50
Number of one-time paying male anal sex partner	N=122	N=16	N=138	NA	NA	NA	N=122	N=16	N=138
None	2.5	NA	2.2	NA	NA	NA	2.5	NA	2.2
One	23.8	25.0	23.9	NA	NA	NA	23.8	25.0	23.9
More than one	73.8	75.0	73.9	NA	NA	NA	73.8	75.0	73.9
Descriptive statistics of one-time paying male anal sex partner	N=122	N=16	N=138	NA	NA	NA	N=122	N=16	N=138
Mean	7/8	4/4	7/8	NA	NA	NA	7/8	4/4	7/8
Median	4	4	4	NA	NA	NA	4	4	4
Range	0-40	1-15	0-40	NA	NA	NA	0-40	1-15	0-40
Number of regular paying male anal sex partner	N=105	N=14	N=119	NA	NA	NA	N=105	N=14	N=119
None	3.8	0.0	3.4	NA	NA	NA	3.8	0.0	3.4
One	13.3	28.6	15.1	NA	NA	NA	13.3	28.6	15.1

More than one	82.9	71.4	81.5	NA	NA	NA	82.9	71.4	81.5
Descriptive statistics of regular paying male anal sex partner	N=105	N=14	N=119	NA	NA	NA	N=105	N=14	N=119
Mean	6/8	3/2	6/8	NA	NA	NA	6/8	3/2	6/8
Median	4	2	3	NA	NA	NA	4	2	3
Range	0-70	1-8	0-70	NA	NA	NA	0-70	1-8	0-70
Number of paid male anal sex partner	N=7	N=1	N=8	N=4	N=34	N=38	N=11	N=35	N=46
One	14.3	100.0	25.0	50.0	29.4	31.6	27.3	31.4	30.4
More than one	85.7	0.0	75.0	50.0	70.6	68.4	72.7	68.6	69.6
Descriptive statistics of paid male anal sex partner	N=7	N=1	N=8	N=4	N=34	N=38	N=11	N=35	N=46
Mean	4/3	NA	3/3	2/2	3/2	3/2	3/3	3/2	3/2
Median	2	NA	2	2	2	2	2	2	2
Range	1-8	NA	1-8	1-5	1-7	1-7	1-8	1-7	1-8

Oral Sex

Data on oral sex with different paying partners in the past month is given in Table 3.12.3 All the Non-MSW and 18.1% MSW reported not having one time paying male oral sex partner in the past month. Nearly two-third (63%) of the MSW had more than one such partner and rest 18.8 % had only one such partner.

Only the MSW reported having regular paying male oral sex partner. Out of total 119 MSW respondents, 13.4% did not have paying regular male oral sex partner. In total 19.3% and 67.2 %, MSW reported having one partner and more than one partner respectively. As reported, 61.3 % MSW had brought one time or regular paying male sex partner to get orgasm without penetration. The proportion was almost similar for MSW and TG.

Table 3.12.3: Oral Sex Partners in the Past Month

Oral Sex with Different Paying Partners in the Past Month	MSW(%)			Non-MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Number of one time paying male oral sex partner	N=122	N=16	N=138	NA	NA	NA	N=122	N=16	N=138
None	18.0	18.8	18.1	NA	NA	NA	18.0	18.8	18.1
One	16.4	37.5	18.8	NA	NA	NA	16.4	37.5	18.8
More than one	65.6	43.8	63.0	NA	NA	NA	65.6	43.8	63.0
Number of paying regular male oral sex partner	N=105	N=14	N=119	NA	NA	NA	N=105	N=14	N=119
None	12.4	21.4	13.4	NA	NA	NA	12.4	21.4	13.4
One	18.1	28.6	19.3	NA	NA	NA	18.1	28.6	19.3
More than one	69.5	50.0	67.2	NA	NA	NA	69.5	50.0	67.2
Brought one time or regular paying male sex partner to orgasm without penetration	N=105	N=14	N=119	NA	NA	NA	N=105	N=14	N=119
Yes	62.9	50.0	61.3	NA	NA	NA	62.9	50.0	61.3
No	37.1	50.0	38.7	NA	NA	NA	37.1	50.0	38.7

Table 3.12.4 shows data on sex roles of the MSM/TG. Out of the total respondents, 15.8% (5.2 % MSW and 23.9 % Non-MSW) did not report having performed anal sex in the past month. Of the respondents who had performed anal sex in the past month, 22.5 % was all-receptive, followed by 29.3% all insertive, 2.5 % mostly receptive and 7 % mostly insertive. Rest 10.3% was equally receptive and insertive. The proportion of all receptive was higher (45.1%) in Non-MSW than in MSW (5.7%) while all insertive was higher in MSW (54.6%) compared to the

Non-MSW (9.7%). More than one-third (38.9%) of the Non-TG was all receptive against 8.4 % TG. In contrary to this, 52.1% TG was all insertive and only 2.7 % Non-TG was all receptive.

A little more than a quarter (28.5%) of the respondents did not report oral sex. About 18.4% MSW and 36.3% Non-MSW, and 16.7% TG and 42.2% Non-TG did not have oral sex in the past month. About 22.5% was all-receptive and 29.3% was all insertive.

Table 3.12.4: Sex Roles among Surveyed MSM/TG

Sex Role among surveyed MSM	MSW(%)			Non MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Role performed in anal sex in past month	N=148	N=26	N=174	N=6	N=159	N=22	N=215	N=185	N=400
All receptive	2.7	23.1	5.7	23.9	54.1	45.1	9.3	49.7	28.0
All insertive	67.6	19.2	60.3	31.3	1.3	10.2	56.3	3.8	32.0
Mostly receptive	3.4	3.8	3.4	1.5	5.0	4.0	2.8	4.9	3.8
Mostly insertive	12.8	19.2	13.8	7.5	NA	2.2	11.2	2.7	7.3
Equally receptive and insertive	8.8	26.9	11.5	20.9	11.9	14.6	12.6	14.1	13.3
Didn't have anal sex in the past month	4.7	7.7	5.2	14.9	27.7	23.9	7.9	24.9	15.8
Role performed in oral sex in past month	N=148	N=26	N=174	N=6	N=159	N=22	N=215	N=185	N=400
All receptive	1.4	3.8	1.7	23.9	44.7	38.5	8.4	38.9	22.5
All insertive	62.2	11.5	54.6	29.9	1.3	9.7	52.1	2.7	29.3
Mostly receptive	2.0	3.8	2.3	1.5	3.1	2.7	1.9	3.2	2.5
Mostly insertive	11.5	23.1	13.2	7.5	NA	2.2	10.2	3.2	7.0
Equally receptive and insertive	8.1	19.2	9.8	16.4	8.2	10.6	10.7	9.7	10.3
Didn't have oral sex in the last	14.9	38.5	18.4	20.9	42.8	36.3	16.7	42.2	28.5

First and Last Sex Partners

Table 3.12.5 shows data on first and last sex partners of the respondents. The data suggests that higher proportion of MSW (81%) had non-paying first male sex partner against 46% Non-MSW while 7.5 % MSW and 48.7 % Non-MSW had non-paying first female sex partner. Male client was first sex partner for 9.8% MSW. Similarly, paid male sex worker was first sex partner for 1.7% MSW and 1.4 % Non-MSW. Concerning the last sex partner of the respondents, 33% had male client, 44% had non-paying male partner, 11.8% had non-paying female partner and 9.8% had paid male sex worker as the last sex partner. For Non-MSW, 63.7% had non-paying male partner, 2.9% had non-paying female partner and 2.9 % had paid male sex worker as their last sex partner. Paid female sex worker as the last sex partner was reported by 1.5% MSW and 3.8% Non-MSW.

Table 3.12.5: First and Last Sex Partners

First and Last Sex Partners	MSW (%)			Non- MSW (%)			Both (Total%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
First sex partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Non-paying male partner	80.4	84.6	81.0	85.1	29.6	46.0	81.9	37.3	61.3
Non paying female partner	6.1	15.4	7.5	14.9	62.9	48.7	8.8	56.2	30.8
Male client	11.5	NA	9.8	NA	NA	NA	7.9	NA	4.3
Paid male sex worker	2.0	NA	1.7	4.4	3.1	1.4	NA	3.8	2.5
Paid female sex worker	NA	NA	NA	NA	2.5	1.8	NA	2.2	1.0
No response	NA	NA	NA	NA	0.6	0.4	NA	0.5	0.3
Last sex partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Non-paying male partner	16.9	26.9	18.4	91.0	52.2	63.7	40.0	48.6	44.0
Non paying female partner	2.0	7.7	2.9	6.0	23.9	18.6	3.3	21.6	11.8
Male client	77.7	65.4	75.9	NA	NA	NA	53.5	9.2	33.0
Paid male sex worker	3.4	NA	2.9	3.0	20.1	15.0	3.3	17.3	9.8
Paid female sex worker (FSW)	NA	NA	NA	NA	3.8	2.7	NA	3.2	1.5

Last anal sex male partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Non-paying male partner	17.6	30.8	19.5	95.5	74.2	80.5	41.9	68.1	54.0
Male client	78.4	65.4	76.4	NA	0.6	0.4	54.0	9.7	33.5
Paid male sex worker	4.1	3.8	4.0	4.5	25.2	19.0	4.2	22.2	12.5

3.13 Condom Use Behavior

3.13.1 Condom Use in First and Last Sex

Data on respondents' condom use behavior is shown in Table 3.13. The data shows that out of the total respondents, 40.5% used condom in the first sex-the proportion was little less (35.1%) for MSW but relatively higher (44.7%) for Non-MSW. For TG and Non-TG condom use with first sex partner were 36.3% and 45.4% respectively. Overall, condom use in the last sex was 77.5 %-higher in MSW (91.3%) as compared to Non-MSW (76.5%). It was little higher in TG (84.8%), as compared to Non-TG (75.2%).

Similarly, eight out of ten (80.9%) of the MSM in total used condom in last anal sex with male sex partner. The proportion was 93.7% for MSW and 83.1% for TG while 81.1% Non-MSW and 78.3% Non-TG reported this behavior.

Table 3.13: Condom Use behaviors with First and Last Sex Partners

Condom Use behaviors	MSW(%)			Non- MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Used Condom in first Sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	33.1	46.2	35.1	43.3	45.3	44.7	36.3	45.4	40.5
No	66.2	53.8	64.4	56.7	54.7	55.3	63.3	54.6	59.3
Don't remember/know	0.7	NA	0.6	NA	NA	NA	.5	NA	0.3
Used condom in last Sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	90.8*	92.3	91.3*	89.3*	78.2*	76.5*	84.8*	75.2*	77.5*
	(78.8-97.5)		(82-96.8)	(52.4-91.6)	(74.2-92.6)	(68.4-87.8)	(75.6-92.4)	(72.5-89.3)	(71.3-83.1)
No	9.2*	7.7	8.7*	10.7*	21.8*	23.5*	15.2*	24.8*	22.5*
	(2.5-21.2)		(3.2-18)	(8.4-47.6)	(7.4-25.8)	(12.2-31.6)	(7.6-24.4)	(10.7-27.5)	(16.9-28.7)
Used condom in last anal sex with male sex partner	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	90.0*	100.0	93.7*	88.4*	80.9*	81.1*	83.1*	78.3*	80.9*
	(78.9-97.1)		(84.2-97.8)	(53.1-91.4)	(76.3-94.1)	(71.4-90.1)	(73.8-92)-	(75-91.3)	(75-86.1)
No	10.0*	NA	6.3*	11.6*	19.1*	18.9*	16.9*	21.7*	19.1*
	(2.9-21.1)		(2.2-15.8)	(8.6-46.9)	(5.9-23.7)	(9.9-28.6)	(8-26.2)	(8.7-25)	(13.9-25)

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

Table 3.13.1 displays data on condom use with different sex partners in the last sex. The data shows that 87.7% MSW and 81.1 % Non-MSW used condom in the last anal sex with non-paying male sex partner. The proportion was similar in TG and Non-TG groups (i.e. 84.7% and 82.7% respectively). On the other hand, more than half (57.1%) of the respondents reported use of condom in the last anal sex with non- paying female partner.

In total, 94.8% MSW reported condom use in the last anal sex with paid male sex partner while none of the Non-MSW reported this behavior. The behavior was little higher in TG (95.8%) than in Non-TG (87.5%) respectively.

Almost all (94.8%) respondents (100% Non-TG and 94.1% TG; 94.1% MSW and 100% Non-MSW) reported they used condom in the last anal sex with regular paying male sex partner. Similarly, eight out of ten respondents (80%) reported that they used condom in the last sex with paying female sex worker. This behavior was reported by 100 % MSW and 77.8% Non-MSW.

Table 3.13.1: Use of Condom in the Last Sex with Different Sex Partners

Use of Condom in the Last Sex	MSW(%)			Non- MSW(%)			MSM (Total %)		
	TG N=88	Non TG N=18	Total N=106	TG N=56	Non TG N=92	Total N=148	TG N=144	Non TG N=110	Total N=254
With non-paying male sex partner									
Yes	85.2	100.0	87.7	83.9	79.3	81.1	84.7	82.7	83.9
No	14.8	NA	12.3	16.1	20.7	18.9	15.3	17.3	16.1
With Non paying female partner	NA	N=6	N=6	NA	N=71	N=71	NA	N=77	N=77
Yes	NA	100.0	100.0	NA	53.5	53.5	NA	57.1	57.1
No	NA	NA	NA	NA	46.5	46.5	NA	42.9	42.9
With One- Time paid male sex partner	N=119	N=16	N=135	NA	NA	NA	N=119	N=16	N=135
Yes	95.8	87.5	94.8	NA	NA	NA	95.8	87.5	94.8
No	4.2	12.5	5.2	NA	NA	NA	4.2	12.5	5.2
With regular paying male sex partner	N=101	N=14	N=115	NA	NA	NA	N=101	N=14	N=115
Yes	94.1	100.0	94.8	NA	NA	NA	94.1	100.0	94.8
No	5.0	NA	4.3	NA	NA	NA	5.0	NA	4.3
Don't remember	1.0	NA	.9	NA	NA	NA	1.0	NA	0.9
With paying female sex worker	NA	N=2	N=2	NA	N=18	N=18	NA	N=20	N=20
Yes	NA	100.0	100.0	NA	77.8	77.8	NA	80.0	80.0
No	NA	NA	NA	NA	22.2	22.2	NA	20.0	20.0

3.13.2 Consistent Condom Use with Different Types of Sex Partners

The respondents who had sexual intercourse in the past month (N=254) were asked questions on consistent condom use. Overall, 76.4% respondents reported that they used condoms always in the past month with non-paying male anal sex partner in the past month. It was 80.2% in MSW and 73.6% in Non-MSW.

Concerning the use of condoms with one time paid male anal sex partners always in the past month, nine out of ten (88.9%) MSW reported it. It was 89.9% in TG and 81.3% in Non-TG.

Similarly, in total, 39% respondents reported use of condom always with non-paying female sex worker in past month. This was reported by two –thirds (66.7%) of the MSW and a little more than one-third (36.6%) of the Non-MSW.

Three –fourths (76.1%) of the MSM in total (62.5% MSW and 78.9% Non-MSW) reported they used condom with paid male sex partner always. This behavior was slightly higher in Non-TG (77.1%) than in TG(72.7%). Six out of ten (60%) MSM (100% MSW and 55.6% Non-MSW) reported use of condom always in the past month.

Table 3.13.2: Consistent Condom Use with Different Sex Partners in the Past Month

Consistent Condom Use	MSW (%)			Non-MSW (%)			MSM Total (%)		
	TG N=88	Non TG N=18	Total N=106	TG N=56	Non TG N=92	Total N=148	TG N=144	Non TG N=110	Total N=254
Used condom with non-paying male anal sex partner in past									

month									
Always	80.7	77.8	80.2	75.0	72.8	73.6	78.5	73.6	76.4
Not always	19.3	22.2	19.8	25.0	27.2	26.4	21.5	26.4	23.6
Used condom with one-time paid male anal sex worker	N=101	N=14	N=115	NA	NA	NA	N=119	N=16	N=135
Always	89.9	81.3	88.9	NA	NA	NA	89.9	81.3	88.9
Not always	10.1	18.8	11.1	NA	NA	NA	10.1	18.8	11.1
Used condom with non paying female sex worker in past month	NA	N=6	N=6	NA	N=71	N=71	NA	N=77	N=77
Always	NA	66.7	66.7	NA	36.6	36.6	NA	39.0	39.0
Not always	NA	33.3	33.3	NA	63.4	63.4	NA	61.0	61.0
Used condom with paid male sex partner past month	N=7	N=1	N=8	4	34	38	N=11	N=35	N=46
Always	57.1	100.0	62.5	100.0	76.5	78.9	72.7	77.1	76.1
Not always	42.9	NA	37.5	NA	23.5	21.1	27.3	22.9	23.9
Condom use with paying female sex worker in past month	NA	N=2	N=2	NA	N=18	N=18	NA	N=20	N=20
Always	NA	100.0	100.0	NA	55.6	55.6	NA	60.0	60.0
Not always	NA	NA	NA	NA	44.4	44.4	NA	40.0	40.0

3.13.3 Availability of Condom and Brand Names

All the respondents could identify a male condom. Almost all of them (94 %) opined that condoms could be obtained whenever needed. The proportion of MSW and TG who reported condom could be available when needed was even higher (99.1%) and 95.4% respectively. Only six percent of the respondents in total reported that condom could not be obtained whenever needed. The reasons behind the unavailability included; shop/pharmacy was too far (36.4%) and shop/pharmacy was closed (36.4%), shyness to buy condom (27.3%) and reluctance to carry condoms (18.2%).

It total, more than half (54.1%) of the MSM were able to receive condom from an outreach service, DIC or sexual health clinic. This proportion was still higher for MSW (85.4 %) and TG (72.7%).

As reported about the sources of condoms, more than a quarter (29.8%) obtain it from pharmacy, 29.3% collect it from BDS's DIC and 7.5% collect it from BDS field workers. About 11% MSM receive condoms from other NGO partners (Parichaya Samaj, Cruise Aids, Pink Trungal Nepal and SLP, Bhaktapur). Only 3.5 % MSM obtain condoms from health facilities, and friends were the 11.3% MSM obtain it condoms from friends. Overall, 2.3% MSM never received condoms.

Two-third (67%) of the respondents received condoms free of cost; 83.9% MSW and 82.2% TG reported this. The proportions of Non-MSW and Non-TG who received condoms free of cost were even less (53.5% and 48.9% respectively). More than a quarter (28.8%) paid Rs 11-100 while buying condoms last time. Price paid from Rs 2-5, 6-10 and more than Rs.101 were reported by 1, 1.5, and 1.5 percent respectively. The median price for last condom was Rs 35. For TG it was Rs 30 for MSW it was Rs 35. The range of price of last condom varied from Rs 5 to Rs 300. The most preferred brands of condoms were: Dhal (20.5%), Panther (17%), Number One (12.8%) and Jodi(10.5%).

Table 3.13.3: Availability, Possession, and Brand Names of Condoms

Availability of Condom and Brand Names	MSW (%)			Non- MSW(%)			MSM Total (%)		
	TG	Non T G	Total	TG	Non TG	Total	TG	Non TG	Total
Can identify male condom	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Can have condom whenever needed	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	98.6	100.0	99.1* (96.9-99.9)	92.5	95.6	95.4* (94.1-99.7)	95.4* (93.9-99.6)	96.2	94* (90.4-97.2)
No	1.4	NA	0.9* (0.1-3.1)	7.5	4.4	4.6* (0.3-5.9)	4.6* (0.4-6.1)	3.8	6* (2.7-9.8)
Reason for not being able to have condom when needed*	N=2	N=2	N=5	N=4	N=9	N=7	N=4	N=11	N=11
Shop/pharmacy too far	NA	50.0	50.0	NA	75.0	33.3	14.3	75.0	36.4
Shops/pharm closed	NA	NA	NA	40.0	50.0	44.4	28.6	50.0	36.4
Shy to buy condom	NA	50.0	50.0	40.0	NA	22.2	42.9	NA	27.3
Don't want to carry	NA	NA	NA	40.0	NA	22.2	28.6	NA	18.2
Other	NA	NA	NA	NA	25.0	11.1	NA	25.0	9.1
Received condom from an outreach service, DIC or sexual health clinic	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	84* (65.1-92.9)	80.8	85.4* (70.8-93.5)	75* (35.5-90.9)	40.1* (33.7-65)	48.2* (41.2-64.3)	72.7* (62.2-84.9)	37.4* (32.6-58.3)	54.1* (48.5-62.1)
No	16* (7.1-34.9)	19.2	14.6* (6.5-29.2)	25* (9.1-64.5)	59.9* (35-66.3)	51.8* (35.7-58.8)	27.3* (15.1-37.8)	62.6* (41.7-67.4)	45.9* (37.9-51.5)
Source of last condom	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Shop	1.4	NA	1.1	6.0	0.6	2.2	2.8	0.5	1.8
Pharmacy	10.1	38.5	14.4	26.9	47.8	41.6	15.3	46.5	29.8
Health facility	2.0	3.8	2.3	4.5	4.4	4.4	2.8	4.3	3.5
Bar//Hotel	NA	NA	NA	NA	0.6	0.4	NA	0.5	0.3
Friends	9.5	3.8	8.6	9.0	15.1	13.3	9.3	13.5	11.3
Clients	2.7	NA	2.3	NA	NA	NA	1.9	NA	1.0
BDS drop-in center	46.6	30.8	44.3	28.4	13.2	17.7	40.9	15.7	29.3
BDS field workers	9.5	7.7	9.2	7.5	5.7	6.2	8.8	5.9	7.5
ParchayaSamaj	6.1	3.8	5.7	6.0	1.9	3.1	6.0	2.2	4.3
Cruiseaids	8.8	3.8	8.0	6.0	2.5	3.5	7.9	2.7	5.5
Pink Trungal Nepal	1.4	3.8	1.7	NA	0.6	0.4	0.9	1.1	1.0
SLP, BKT	0.7	NA	0.6	NA	NA	NA	0.5	NA	0.3
Never received	NA	NA	NA	1.5	5.0	4.0	0.5	4.3	2.3
Other	1.4	3.8	1.7	3.0	1.9	2.2	1.9	2.2	2.0
Don't know	NA	NA	NA	1.5	0.6	0.9	0.5	0.5	0.5
Price paid for last condom (in NRs.)	N=148	N=26	N=174	N=65	N=150	N=215	N=213	N=176	N=389
Free	88.5	57.7	83.9	67.7	47.3	53.5	82.2	48.9	67.1
2-5	0.7	NA	0.6	1.5	1.3	1.4	0.9	1.1	1.0
6-10	NA	7.7	1.1	NA	2.7	1.9	NA	3.4	1.5
11-100	9.5	34.6	13.2	30.8	46.0	41.4	16.0	44.3	28.8
101 +	1.4	NA	1.1	NA	2.7	1.9	0.9	2.3	1.5
Descriptive statistics of price of last condom	N=148	N=26	N=174	N=65	N=150	N=215	N=213	N=176	N=389
Median	35	35	35	25	35	35	30	35	35
Range	5-300	10-60	5-300	5-80	5-300	5-300	5-300	5-300	5-300
Most preferred brand	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Dhal	21.6	7.7	19.5	19.4	22.0	21.2	20.9	20.0	20.5
Panther	17.6	15.4	17.2	16.4	17.0	16.8	17.2	16.8	17.0
Number one	13.5	11.5	13.2	20.9	8.8	12.4	15.8	9.2	12.8
Jodi	12.2	15.4	12.6	4.5	10.7	8.8	9.8	11.4	10.5
Kamasutra	5.4	NA	4.6	9.0	1.3	3.5	6.5	1.1	4.0
Cobra	5.4	11.5	6.3	1.5	3.1	2.7	4.2	4.3	4.3

Other	18.2	34.6	20.7	19.4	28.9	26.1	18.6	29.7	23.8
Don't know	6.1	3.8	5.7	9.0	6.3	7.1	7.0	5.9	6.5
No response	NA	NA	NA	NA	1.9	1.3	NA	1.6	0.8

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

3.13.4 Use of Lubricant:

Table 3.13.4 below shows data on use of lubricant by the respondents. The data shows that one third (32.6%) MSM had ever used lubricant while having anal sex. Ever use of lubricant was nearly higher in MSW (59.1%) as compared to Non-MSW (23.5%). Similarly, 56.5% TG ever used lubricant against 15.8 % Non-TG.

Two-thirds of the respondents (64.7%) used water-based lubricant followed by other lubricants (35.3%) such as antiseptics, jel and cream /lotion. Out of those who used other lubricants, 4.25 used saliva.

Use of water-based lube in last anal sex was almost similar among MSW and Non-MSW (i.e 68.1 % and 70.9%) where as it was little higher among the Non-TG(76.3 %) as compared to the TG(65.8 %). Use of antiseptic/antibiotic cream tended to be higher in TG (15.9%) as against Non-TG (3.9%).

Almost all the respondents (96.7%) reported use of lubricant with condom in the last anal sex-the trend was little higher in MSW (97.9%) and TG (97.6%).

Overall, 82.9% respondents had heard of a lubricant that is specially used with condom. The percentage of this response was higher among MSW (84.7%) and TG (86.6%) as compared to Non-MSW (80.2%) and Non-TG (75%).

Only 12.6% respondents, TG and Non-TG alike, informed that they knew the brand name of the lubricant. More than one-third (36%) mentioned jelly, followed by 20% lubricant, 16 % Silicon, 12% crystal, 8% durex gel and 4% KY lubricant and ID glide each.

Seven out of ten respondents (70.4%) reported use of special lubricant with condom in anal sex every time in the past month. Higher percentages of MSW and TG reported this (77.1% MSW and 79.3% TG) in comparison to Non-MSW and Non-TG (60.4% and 51.3% respectively). In total, 7.9% respondents had never used special lubricant with condom in anal sex in the past month. The proportion was little higher in Non-MSW (15.6%) and Non-TG (19.7%). The reasons for non-use were reported as not perceiving need (47.1%) followed by not knowing the place to obtain it (7.1%), cost being expensive (4.3%) and shyness to buy(4.3%). About 1.4% respondent was not aware on such products.

The reported purpose for using lubricant was to reduce pain/inflammation (90%), decrease risk of breakage of condom (52.9%), enhance sensation/feeling (12.9%) and prevent HIV infection (9.2%). More MSW and TG were concerned with reducing pain and inflammation (94.5% MSW and 94.5% TG) whiles more Non-MSW and Non-TG were attracted for sensation/feeling (15.6% and 21.1% respectively).

Table 3.13.4: Use of Lubricant

Use of lubricant	MSW(%)			Non-MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Ever used lube in anal sex	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	56.2* (23.7-70.9)	69.2	59.1* (31.6-78.4)	67* (26.7-88.8)	12.8* (5.2-32.5)	23.5* (13.2-34.4)	56.5* (44.3-71.4)	15.8* (6.6-29.1)	32.6* (25.9-40.1)
No	43.8* (29.1-	30.8	40.9* (21.6-	33* (11.2-	87.2* (67.5-	76.5* (65.6-	43.5* (28.6-	84.2* (70.9-	67.4* (59.9-

	76.3)		68.4)	73.3)	94.8)	86.8)	55.7)	93.4)	74.1)
Use of water-based lubricant	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Waterbased lubricant	60.8*	88.9	63.8*	69.8*	69.2*	73*	62.5*	74.7*	64.7*
	(41.6-73.4)		(52.6-76.5)	(35.1-97.5)	(58.1-97.6)	(57.7-92.5)	(45.6-73.7)	(61.9-89.3)	(56.2-74.9)
Other lubricants	39.2*	11.1	36.2*	30.2*	20.8*	27*	37.5*	25.3*	35.3*
	(26.6-58.4)		(23.5-47.4)	(2.5-64.9)	(2.4-41.9)	(7.5-42.3)	(26.3-54.4)	(10.7-38.1)	(25.1-43.8)
Types of lubricant used in the last anal sex	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Oil	NA	NA	NA	NA	1.7	1.0	NA	1.3	0.4
Water based lube	65.1	88.9	68.1	68.4	72.4	70.964	65.8	76.3	69.2
						.6			
Antiseptic/antibiotic cream	15.1	NA	13.2	18.4	5.2	10.4	15.9	3.9	12.1
Cream/lotion	14.3	NA	12.5	7.9	12.1	10.4	12.8	9.2	11.7
Other	5.6	11.1	6.3	5.3	8.6	7.3	5.5	9.2	6.7
Used condom with lubricant in the last anal sex	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Yes	98.4	94.4	97.9	94.7	94.8	94.8	97.6	94.7	96.7
No	1.6	5.6	2.1	5.3	5.2	5.2	2.4	5.3	3.3
Heard of lubricant that is specially used with condom	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Yes	87.3	66.7	84.7	84.2	77.6	80.2	86.6	75.0	82.9
No	12.7	33.3	15.3	15.8	22.4	19.8	13.4	25.0	17.1
Know brand name of lubricant	N=110	N=12	N=122	N=32	N=45	N=77	N=142	N=57	N=199
Yes	14.5	16.7	14.8	6.3	11.1	9.1	12.7	12.3	12.6
No	40.0	8.3	36.9	37.5	46.7	42.9	39.4	38.6	39.2
Don't know	45.5	75.0	48.4	56.3	42.2	48.1	47.9	49.1	48.2
Brand Name of Lubricant	N=16	N=2	N=18	N=2	N=5	N=7	N=18	N=7	N=25
Durex gel	6.3	NA	5.6	50.0	NA	14.3	11.1	NA	8.0
Jelly	37.5	100.0	44.4	NA	20.0	14.3	33.3	42.9	36.0
ID GLIDE	6.3	NA	5.6	NA	NA	NA	5.6	NA	4.0
KY lubricant	NA	NA	NA	50.0	NA	14.3	5.6	NA	4.0
Crystal	6.3	NA	5.6	NA	40.0	28.6	5.6	28.6	12.0
Lubricant	18.8	NA	16.7	NA	40.0	28.6	16.7	28.6	20.0
Silicon	25.0	NA	22.2	NA	NA	NA	22.2	NA	16.0
Use of special lubricant with condom in anal sex in the past month	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Every time	81.7	44.4	77.1	71.1	53.4	60.4	79.3	51.3	70.4
Almost every-times	11.9	22.2	13.2	21.1	8.6	13.5	14.0	11.8	13.3
Sometimes	3.2	27.8	6.3	2.6	13.8	9.4	3.0	17.1	7.5
Never used	2.4	5.6	2.8	2.6	24.1	15.6	2.4	19.7	7.9
Don't know	0.8	NA	0.7	NA	NA	NA	0.6	NA	0.4
No response	NA	NA	NA	2.6	NA	1.0	0.6	NA	0.4
Reason for occasional or non use of lubricant	N=23	N=9	N=32	N=11	N=27	N=38	N=34	N=36	N=70
Cost too much	8.7	NA	6.3	9.1	NA	2.6	8.8	NA	4.3
Shy to buy lubricant	8.7	NA	6.3	NA	3.7	2.6	5.9	2.8	4.3
Don't know where to obtain	4.3	NA	3.1	18.2	7.4	10.5	8.8	5.6	7.1
I do not need to use	43.5	66.7	50.0	36.4	48.1	44.7	41.2	52.8	47.1
I use other cream	NA	NA	NA	9.1	3.7	5.3	2.9	2.8	2.9
Not aware of such products	4.3	NA	3.1	NA	NA	NA	2.9	NA	1.4
Other	26.1	33.3	28.1	36.4	37.0	36.8	29.4	36.1	32.9
Don't remember	8.7	NA	6.3	NA	NA	NA	5.9	NA	2.9
Purpose of using lubricant	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Decrease pain/inflammation	95.2	88.9	94.4	92.1	77.6	83.3	94.5	80.3	90.0
Increase feeling/stamina	8.7	27.8	11.1	10.5	19.0	15.6	9.1	21.1	12.9
Decrease risk of breakage	54.8	66.7	56.3	36.8	55.2	47.9	50.6	57.9	52.9
Prevent HIV infection	9.5	11.1	9.7	15.8	3.4	8.3	11.0	5.3	9.2
Other (Specify)	NA	NA	NA	2.6	NA	1.0	0.6	NA	0.4
Don't know	NA	NA	NA	NA	1.7	1.0	NA	1.3	0.4

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

On the whole, 86.7% respondents did not face any problem in using lubricant. One in ten (10%) reported irritation/burning sensation followed by condom breakage (0.8%) and slippage (0.8%) and allergy (0.4%) (Table 3.13.5).

Table 3.13.5: Problem Encountered in Using Lubricant with Condom

Problem Encountered in Using Lubricant with Condom	MSW(%)			Non MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Types of problem encountered in using lubricant	N=126	N=18	N=144	N=38	N=58	N=96	N=164	N=76	N=240
Condom slippage	NA	NA	NA	5.3	NA	2.1	1.2	NA	0.8
Irritation or burning sensation	13.5	22.2	14.6	5.3	1.7	3.1	11.6	6.6	10.0
Condom breakage	1.6	NA	1.4	NA	NA	NA	1.2	NA	0.8
Allergy	0.8	NA	0.7	NA	NA	NA	0.6	NA	0.4
Other	0.8	5.6	1.4	2.6	NA	1.0	1.2	1.3	1.3
No problem	83.3	72.2	81.9	86.8	98.3	93.8	84.1	92.1	86.7
Condom break during sex in the past month	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	20.3	34.6	22.4	11.9	5.7	7.5	17.7	9.7	14.0
No	74.3	61.5	72.4	76.1	71.7	73.0	74.9	70.3	72.8
Didn't use	5.4	3.8	5.2	11.9	22.6	19.5	7.4	20.0	13.3
Perceived reason for condom breakage	N=30	N=9	N=39	N=8	N=9	N=17	N=38	N=18	N=56
Use of oil based lubricant	3.3	NA	2.6	NA	NA	NA	2.6	NA	1.8
Improper use of condom	70.0	66.7	69.2	62.5	44.4	52.9	68.4	55.6	64.3
Other	23.3	33.3	25.6	25.0	33.3	29.4	23.7	33.3	26.8
Don't know	3.3		2.6	12.5	22.2	17.6	5.3	11.1	7.1
Sources of Condoms and Lubricants	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Shop	2.0	3.8	2.3	1.5	3.8	3.1	1.9	3.8	2.8
Pharmacy/Medical hall	25.7	50.0	29.3	41.8	70.4	61.9	30.7	67.6	47.8
Bar/Guest House/Hotel	NA	NA	NA	NA	0.6	0.4		0.5	0.3
BDS drop-in center	54.7	34.6	51.7	34.3	13.8	19.9	48.4	16.8	33.8
BDS field workers	16.2	11.5	15.5	7.5	6.9	7.1	13.5	7.6	10.8
Parichaya Samaj	8.1	3.8	7.5	6.0	2.5	3.5	7.4	2.7	5.3
Cruise Aids	10.8	3.8	9.8	9.0	2.5	4.4	10.2	2.7	6.8
Other	4.1	7.7	4.6	7.5	16.4	13.7	5.1	15.1	9.8
Don't know	NA	NA	NA	4.5	0.6	1.8	1.4	0.5	1.0

Overall, 14% of the respondents reported condom break during last sex in the past month. The proportion was higher among MSW (22.4%) and TG (17.7%). MSW (69.2%) and TG (68.4%) were concerned with breakage of condom due to improper use. The main perceived reasons for breakage of condom were reported as improper use of condom (64.3%) followed by use of oil-based lubricant (1.8%).

3.13.5 Sources of Condoms and Lubricants

For about half of the respondents (47.8%), pharmacy/medical hall was the main source of condoms and lubricants, followed by BDS Drop-in-Center (33.8%), BDS field workers(10.8%), Cruise Aids(6.8%), Parichaya Samaj(5.3%) and shops(2.8%).Only 0.3% obtained lubricants and condom(0.3%) from Bar/Guest House/Hotel (Table 3.13.5).

3.14 Knowledge of STIs and HIV/AIDS

This chapter examines data regarding awareness of MSM/TG on STIs, reported STI symptoms and knowledge of HIV/AIDS.

3.14.1 Knowledge of STIs& Treatment Seeking

Table 3.14 shows respondents' awareness on STI and reported STI symptoms in the past year. The data indicates that nearly three- quarters (71.3%) of the respondents (79.3% MSW and

81.9% TG) were aware of at least one major male STI symptoms. Their multiple responses further show that penial discharge (77.9%), genital ulcers/sores (77.2%), burning pain during urination (62.2%), swelling in the groin area(45.2%) and anal discharge(43.2%) were the perceived symptoms of male STI. In comparison to Non-MSW and Non-TG, MSW and TG were more knowledgeable to the male STI symptoms.

Overall, 28.8 % respondents did not know any male STI symptom. The respondents who knew one, two, three, four, five and six male STI symptoms were 8.3, 15.5,13, 14.3,4 and 16.3 percent respectively.

Table 3.14 Awareness of STI and reported STI symptoms in the past year

Awareness of STI and reported STI symptoms in the past year	MSW(%)			Non-MSW (%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Aware of at least one major male STI symptoms	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	80.4	73.1	79.3	85.1	56.6	65.0	81.9	58.9	71.3
No	19.6	26.9	20.7	14.9	43.4	35.0	18.1	41.1	28.8
Perceived symptoms of male STI(Multiple response)	N=122	N=20	N=142	N=58	N=94	N=152	N= 180	N=114	N=294
Penis discharge	76.2	70.0	75.4	86.2	76.6	80.3	79.4	75.4	77.9
Burning pain during urination	60.7	70.0	62.0	56.9	66.0	62.5	59.4	66.7	62.2
Genital ulcers/sores	85.2	60.0	81.7	75.9	71.3	73.0	82.2	69.3	77.2
Swellings in groin area	48.4	25.0	45.1	58.6	37.2	45.4	51.7	35.1	45.2
Anal discharge	50.8	15.0	45.8	50.0	35.1	40.8	50.6	31.6	43.2
Anal ulcer/sores	45.1	20.0	41.5	50.0	25.5	34.9	46.7	24.6	38.1
Other	9.0	35.0	12.7	12.1	18.1	15.8	10.0	21.1	14.3
Number of major male STI symptoms known	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
None	19.6	26.9	20.7	14.9	43.4	35.0	18.1	41.1	28.8
One symptom	8.8	19.2	10.3	1.5	8.8	6.6	6.5	10.3	8.3
Two symptoms	17.6	3.8	15.5	17.9	14.5	15.5	17.7	13.0	15.5
Three symptoms	11.5	26.9	13.8	19.4	9.4	12.4	14.0	11.9	13.0
Four symptoms	12.8	23.1	14.4	20.9	11.3	14.2	15.3	13.0	14.3
Five symptoms	6.1	NA	5.2	4.5	2.5	3.1	5.6	2.2	4.0
Six symptoms	23.6	NA	20.1	20.9	10.1	13.3	22.8	8.6	16.3

About 13.3% MSM reported having genital ulcer/discharge /sore in penis or anus, 10.8% genital ulcer/sore, 5% urethral discharge and 2.3% anal discharge (Table 3.14.1). After appearance of reported male STI symptoms, about one-third (32.1%) did nothing (41.7% MSW and 40% TG reported it) against one-quarter of Non-MSW (24.1%) and one-fifth of Non-TG (21.7%). Of the total respondents who had any symptom of male STI, more than a quarter (28.3%) sought treatment from chemist followed by hospital (13.2%), private clinic (9.5%), BDS clinic (7.5%) and CruiseAid clinic (1.9%). More Non-MSW and Non-TGs turned to chemist than the MSW and TG. About 3.8 % Non-MSW took medicine available at home.

More than a quarter (28.1%) of the respondents (41.7% MSW and 41.2% TG used any medicine to cure STI before approaching to a doctor or a pharmacy. More than half (53.1%) of the respondents did wait 8 to 30 days for seeking treatment after manifestation of STI symptoms last time. MSW and TG comparatively waited for longer time (i. e. by 66.7% MSW and 64.7% TG) compared to Non-MSW (45%) and Non-TG (40%). About 40.6% respondents (33.3% MSW and 45% Non-MSW) did wait for 2-7 days for treatment of STI while 3.1% of them waited for 31-90 days.

Data on the amount spent for the treatment of last STI symptom (including doctor fee

and other medical expenses) shows that majority(59.4%) paid Rs 201 to 5500 followed by Rs 91to 200 (15.6%) and Rs 5 to 90(6.3%). In total, 18.8% of the respondents had treated STI free of cost. On the average, the respondents spent Rs 901 for treatment of STI last time. The average expense was higher in Non-MSW (Rs 1091 vs Rs 522) and TG (Rs 1339 vs Rs 464).

Table 3.14.1 : Reported STI Symptoms and Treatment Sought in the Past 12 Months

Reported STI symptoms and treatment sought in the past 12 Months	MSW(%)			Non-MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
STI Symptoms reported	N= 148	N=26	N= 174	N= 67	N=159	N=226	N=215	N= 185	N=400
Genital ulcer / discharge / sore (penis and or anal)	14.2	11.5	13.8	13.4	12.6	12.8	14.0	12.4	13.3
Urethral discharge	6.1	7.7	6.3	1.5	5.0	4.0	4.7	5.4	5.0
Anal discharge	3.4	NA	2.9	3.0	1.3	1.8	3.3	1.1	2.3
Genital ulcer/sore	11.5	7.7	10.9	11.9	10.1	10.6	11.6	9.7	10.8
Anal ulcer/sore	5.4	3.8	5.2	6.0	1.9	3.1	5.6	2.2	4.0
First step taken after experiencing STI	N= 21	N=3	N=24	N=9	N=20	N=29	N= 30	N=23	N=53
Sought treatment from hospital	19.0	NA	16.7	11.1	10.0	10.3	16.7	8.7	13.2
Sought treatment from chemist	23.8	NA	20.8	33.3	35.0	34.5	26.7	30.4	28.3
Sought treatment from private clinic	4.8	NA	4.2	NA	20.0	13.8	3.3	17.4	9.4
Sought treatment from BDS clinic	4.8		4.2	22.2	5.0	10.3	10.0	4.3	7.5
Sought treatment from Cruse Aids	NA	33.3	4.2	NA	NA	NA	NA	4.3	1.9
Took medicine available at Home	NA	NA	NA	NA	10.0	6.9	NA	8.7	3.8
Did nothing	42.9	33.3	41.7	33.3	20.0	24.1	40.0	21.7	32.1
Other	4.8	33.3	8.3	NA	NA	NA	3.3	4.3	3.8
Used any medicine to cure STI before approaching a doctor or a pharmacy	N= 11	N=1	N=12	N=6	N=14	N=20	N=17	N=15	N=32
Yes	36.4	100.0	41.7	50.0	7.1	20.0	41.2	13.3	28.1
No	63.6	0.0	58.3	50.0	92.9	80.0	58.8	86.7	71.9
Days waited for seeking treatment for last STI symptom	N= 11	N=1	N=12	N=6	N=14	N=20	N=17	N=15	N=32
1 day	NA	NA	NA	16.7	NA	5.0	5.9	NA	3.1
2-7 days	27.3	100.0	33.3	16.7	57.1	45.0	23.5	60.0	40.6
8-30 days	72.7	NA	66.7	50.0	42.9	45.0	64.7	40.0	53.1
31-90 days	NA	NA	NA	16.7	NA	5.0	5.9	NA	3.1
Amount spent for the treatment of last STI symptom	N=11	N=1	N=12	N=6	N=14	N=20	N=17	N=15	N=32
Free of cost	9.1	100.0	16.7	50.0	7.1	20.0	23.5	13.3	18.8
5-90	9.1	NA	8.3	16.7	NA	5.0	11.8	NA	6.3
91-200	27.3	NA	25.0	NA	14.3	10.0	17.6	13.3	15.6
201-5500	54.5	NA	50.0	33.3	78.6	65.0	47.1	73.3	59.4
Mean amount spent for treatment	579	NA	522	292	1434	1091	464	1339	901

Out of total 400 respondents, 13.3% had visited any STI clinic in the past 12 months. This proportion was slightly higher for MSW (17.8%) and TG (15.3%). Majorities of the participants (81.1%) were presented for blood test to diagnose STI, followed by physical examination (56.6%), discussion on mode of STI transmission (32.1%) and discussion on use of condom (17%) (Table 3.13.3).

One-third (34%) of the respondents had visited STI clinic managed by BDS, followed by SACTS clinic (16%), Parichaya Samaj (8%), Sahid Memorial(4%), Teku Hospital(4%) and Bir Hospital(4%). Small proportions of the respondents had also visited clinics run by other Hospitals and NGO partners.

Overall, only 4.6% MSM reported that they had visited STI clinic in the past 12 months. Of those who had visited STI clinics in the past 12 months, majority (52.8%) had visited STI clinics 2 to 3 times, followed by one time only (28.3%), 4 to 6 times (11.3%) and 7 to 12 times (1.9%). In total, 4.6 % of the MSM had visited STI clinic for more than 12 times.

Table 3.14.2: Practice of STI Clinic Visit

STI Clinic Visiting Practices	MSW(%)			Non MSW(%)			MSM (Total%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Visited any STI clinic in the past 12 months	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	9.4* (4-17.4)	23.1	8* (3.5-13.2)	16.4* (0.9-18.7)	1.5* (0.2-1.6)	2.6* (0.2-6.4)	7.3* (2.3-8)	10.8	4.6* (2.5-6.7)
No	90.6* (82.3-86)	76.9	92* (86.8-96.5)	83.6* (82.2-99.2)	98.5* (98.4-99.8)	97.4* (93.6-99.8)	92.7* (92-97.7)	89.2	95.4* (93.3-97.5)
Participated activities at STI Clinic	N=25	N=6	N=31	N=8	N=14	N=22	N=33	N=20	N=53
Blood tested for STI	80	83.3	80.6	75	85.7	81.8	78.8	85	81.1
Physical examination conducted	52	50	51.6	62.5	64.3	63.6	54.5	60	56.6
Discussed on how STI is/isn't transferred	20	50	25.8	62.5	28.6	40.9	30.3	35	32.1
Discussed on use of condom	8	16.7	9.7	37.5	21.4	27.3	15.2	20	17
Took a friend with me	NA	NA	NA	12.5	7.1	9.1	3	5	3.8
Name of the organization that run the visited STI clinic	N=25	N=6	N=31	N=8	N=14	N=22	N=33	N=20	N=53
Blue Dimond Society	40.0	33.3	38.7	37.5	14.3	22.7	39.4	20.0	32.1
SACTS Nepal	16.0	NA	12.9	12.5	14.3	13.6	15.2	10.0	13.2
Parichaya Samaj	8.0	NA	6.5	12.5	14.3	13.6	9.1	10.0	9.4
Teku Hospital	NA	16.7	3.2	12.5	NA	4.5	3.0	5.0	3.8
Bir Hospital	NA	NA	NA	NA	14.3	9.1		10.0	3.8
TUTH	4.0	NA	3.2	NA	NA	NA	3.0	NA	1.9
Civil Hospital	NA	NA	NA	NA	7.1	4.5		5.0	1.9
Biswas Nepal	4.0	NA	3.2	NA	NA	NA	3.0	NA	1.9
SIRPK	4.0	NA	3.2	NA	NA	NA	3.0	NA	1.9
Sahid Memorial Hospital	NA	33.3	6.5	NA	NA	NA	NA	10.0	3.8
Hamro Saman Pahuch	NA	NA	NA	NA	7.1	4.5	NA	5.0	1.9
Others	16.0	16.7	16.1	NA	14.3	9.1	12.1	15.0	13.2
Don't know	8.0	NA	6.5	25.0	14.3	18.2	12.1	10.0	11.3
Number of visits to STI clinics in the past 12 months	N=25	N=6	N=31	N=8	N=14	N=22	N=33	N=20	N=53
1 time	28	NA	22.6	25	42.9	36.4	27.3	30	28.3
2-3 times	56	66.7	58.1	37.5	50	45.5	51.5	55	52.8
4-6 times	8	33.3	12.9	12.5	7.1	9.1	9.1	15	11.3
7-12 times	4	NA	3.2	NA	NA	NA	3	NA	1.9
More than 12 times	4	NA	3.2	25	NA	9.1	9.1	NA	5.7

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

3.14.2 Visit to the HCT

Over all, slightly more than one-third (37.5%) of the MSM had visited HCT center in the past 12 months. The proportion of MSW who visited HCT in past 12 months was three times higher

(59.8%) than the Non-MSW (20.4%) . Similarly, only 20.5% Non-TG visited to the VCT center while 52.1% TG had visited to the VCT center. The respondents reported that they received services such as pre-test counseling (90%), blood test (92%), post-test counseling (82.7%) and counseling on condom use (44%) and information about window period (17.3%) from the VCT center.

Two third of the respondents (61.6%) mentioned BDS as the organization that run the VCT visited last time (64.4 % MSW and 64.3 % TG reported it). It was followed by Parichaya Samaj (17.2%), SACTS Nepal(5.3%), Nepal Red Cross Society (1.3%) and Bishwas Nepal (1.3%). Seven percent did not know the name of the organization that had run the VCT center.

More than two third of the respondents (68.2%)reported that they visited to the VCT for one time only in the past 12 months. In total, 73.1% MSW and 71.4 % TG reported this- higher than by Non-MSW (57.4%) and Non-TG (59%). Only 17.9% reported VCT visits for 2 to 3 times in the past 12 months while 7.3 % reported visit to the VCT center for 7 to 12 times in the past 12 months. Overall, 4.6 % respondents made more than 12 visits to the VCT center in the past 12 months.

Table 3.14.3: HCT Visit Practices

VCT/HTC Visit Practices	MSW(%)			Non- MSW(%)			MSM (Total %)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Visited HTC center in the past 12 months	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	55.4* (32.7-71.1)	53.8	48.9* (33.7-64.4)	43* (8.7-57.6)	2.6* (0.6-7.1)	8.7* (3.2-13.2)	38.6* (24.9-49)	3.2* (0.5-6.1)	16.8* (11.9-21.2)
No	44.6* (28.9-67.3)	46.2	51.1* (35.6-66.3)	57* (42.4-91.3)	97.4* (93-99.4)	91.3* (86.8-96.8)	61.4* (51-75.1)	96.8* (94-99.5)	83.2* (78.8-88.1)
Activities participated in at HCT Center	N=90	N=14	N=104	N=22	N=25	N=47	N=112	N=39	N=151
Received pretest counseling	85.6	100.0	87.5	95.5	96.0	95.7	87.5	97.4	90.1
Blood taken for HIV test	93.3	92.9	93.3	86.4	88.0	87.2	92.0	89.7	91.4
Received post test counseling	78.9	78.6	78.8	90.9	92.0	91.5	81.3	87.2	82.8
Received test result	77.8	78.6	77.9	90.9	92.0	91.5	80.4	87.2	82.1
Received counseling on using condom	41.1	14.3	37.5	59.1	60.0	59.6	44.6	43.6	44.4
Received information on window period	20.0	7.1	18.3	13.6	12.0	12.8	18.8	10.3	16.6
Other	1.1	NA	1.0	NA	NA	NA	0.9	NA	0.7
Name of the organization that run VCT	N=90	N=14	N=104	N=22	N=25	N=47	N=112	N=39	N=151
Blue Diamond Society	65.6	57.1	64.4	59.1	52.0	55.3	64.3	53.8	61.6
Parichaya Samaj	12.2	35.7	15.4	22.7	20.0	21.3	14.3	25.6	17.2
SACTS Nepal	4.4	NA	3.8	NA	16.0	8.5	3.6	10.3	5.3
Hospital*	2.2	NA	2	9.1	8	8.1	3.6	5.2	3
Other Institutions*	5.5	NA	4.9	4.5	5	4.2	5.4	2.6	4.7
Don't know	10.0	7.1	9.6	4.5	NA	2.1	8.9	2.6	7.3
Number of visits to VCT in the past 12 months	N=90	N=14	N=104	N=22	N=25	N=47	N=112	N=39	N=151
One time	74.4	64.3	73.1	59.1	56.0	57.4	71.4	59.0	68.2
2-3 times	13.3	35.7	16.3	22.7	20.0	21.3	15.2	25.6	17.9
4-6 times	2.2	NA	1.9	NA	4.0	2.1	1.8	2.6	2.0
7-12 times	4.4	NA	3.8	9.1	20.0	14.9	5.4	12.8	7.3
More than 12 times	5.6	NA	4.8	9.1	NA	4.3	6.3	NA	4.6

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI. * Hospitals(TUTH, Teku, Bir) and *other institutions(Redcross, Pink Tangal, Bishwash Nepal and Parikshan Kendra)

3.14.3 Perception on HIV Testing:

The availability of and awareness about confidential HIV testing allows people to undertake HIV tests promptly and without fear of exposure. A little more than half (52.3%) MSM reported availability of confidential HIV testing facility in their community. MSW and TG were more aware on availability of HIV testing facility (i.e. MSW 74.3 % and TG 78.3%) while Non-TG and Non-MSW were relatively less aware (38.8 % and 47.6 % respectively) on it.

Only a little more than one third (36.5%) of the MSM ever had an HIV test. Higher percentages of TGs (59.2%) and MSW (69 %) ever had an HIV test than Non TGs (24.5%) and Non-MSW(28.6 %). While the reported decision making for HIV test voluntarily was found almost similar among all categories of MSM with the highest in TG 85.6 % in TG, 78.5% among Non-TG, 82.7% among MSW and 84% in Non-MSW.

Overall, 16.7% MSM made the decision to go for an HIV test after someone asked for it. Almost all (99.2%) of the MSM received the HIV test result. Similarly, 96.6% of the respondents received the HIV counseling during before the HIV test.

Three quarters (74.1%) of the MSM had their most recent HIV test within past 12 months. It was reported by 85.6% MSW and 80.6% TG. In total, a quarter of the MSM (25.9%) had had their most recent HIV test before 12 months.

Table 3.14.4: Perception on HIV Testing

Perception on HIV Testing	MSW (%)			Non-MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Availability of confidential HIV testing facility in community	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	71.8* (56.8-84.3)	76.9	74.3* (65.5-87.5)	82.1	43.6* (29.1-62.8)	47.6* (37.2-62.6)	78.3* (68-87.8)	38.8* (29.2-53.7)	52.3* (45.2-59.6)
No	28.2* (15.7-43.5)	23.1	25.7* (12.5-34.5)	18.9	56.4* (37.2-70.9)	52.4* (37.4-62.8)	21.7* (12.2-32)	61.2* (46.3-70.8)	47.7* (40.4-54.8)
Ever had an HIV test	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	71.2* (53.1-85.8)	69.2	69* (53.6-85.7)	55.1* (9.3-90.3)	21.9* (12.4-41.4)	28.6* (18.2-40.3)	59.2* (43.5-71.3)	24.5* (18.5-44.4)	36.5* (29.2-43.5)
No	28.8* (14.5-46.9)	30.8	31* (14.3-46.4)	44.9 (11-91.9)	78.1* (58.6-87.6)	71.4* (59.7-81.8)	40.8* (28.7-56.5)	75.5* (55.6-81.5)	63.5* (56.5-70.8)
Decision making on HIV test	N=121	N=18	N=139	N=39	N=61	N=100	N=160	N=79	N=239
Voluntarily	83.5	77.8	82.7	92.3	78.7	84.0	85.6	78.5	83.3
I was asked	16.5	22.2	17.3	7.7	21.3	16.0	14.4	21.5	16.7
Received HIV test result	N=121	N=18	N=139	N=39	N=61	N=100	N=160	N=79	N=239
Yes	99.2	100.0	99.3	100.0	98.4	99.0	99.4	98.7	99.2
No	0.8	NA	0.7	NA	1.6	1.0	0.6	1.3	0.8
Received counseling at the time of HIV	N=121	N=18	N=139	N=39	N=61	N=100	N=160	N=79	N=239
Yes	98.3	100.0	98.6	97.4	91.8	94.0	98.1	93.7	96.7
No	1.7	NA	1.4	2.6	8.2	6.0	1.9	6.3	3.3
Time of most recent HIV test	N=121	N=18	N=139	N=39	N=61	N=100	N=160	N=79	N=239
Within past 12 months	85.1	88.9	85.6	66.7	52.5	58.0	80.6	60.8	74.1
Before 12 months	14.9	11.1	14.4	33.3	47.5	42.0	19.4	39.2	25.9

Estimated Population Proportion (%) of the variables with asterisk (*) are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.

3.14.4 Exposure to ART Services

Table 3.14.5 describes data regarding exposure of MSM towards ART services. Out of total 400 MSM, more than half (56.3%) had heard about ART services. Proportion of respondents ever heard about ART services was higher in MSW (73.6%) and TG (66.5%) as compared to Non-MSW (42.9%) and Non-TG(44.3%). Similarly, nearly half of the respondents (47.6%) was known about ART center from where HIV infected persons could receive services. Non-MSW and Non-TG were less aware on ART Center that provided ART services (Table 6.6).

In case of name of organization that provided ART service, most of the MSM (72.2%) reported name of Teku Hospital while 14.8 % mentioned Blue Diamond Society. Bir Hospital and TUTH were mentioned by 7.4% and 4.6% MSM respectively.

Table 3.14.5: Exposure to ART services

Exposure to ART services	MSW (%)			Non- MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Heard about ART service	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	73	76.9	73.6	52.2	39	42.9	66.5	44.3	56.3
No	27	23.1	26.4	47.8	61	57.1	33.5	55.7	43.8
Know about ART centers from where HIV infected persons receive service	N=108	N=20	N=128	N=35	N=62	N=97	N=143	N=82	N=225
Yes	52.8	50	52.3	57.1	32.3	41.2	53.8	36.6	47.6
No	47.2	50	47.7	40	67.7	57.7	45.5	63.4	52
Don't know	NA	NA	NA	2.9	NA	1	0.7	NA	0.4
Reported organization that provides ART Service	N=57	N=10	N=67	N=20	N=21	N=41	N=77	N=31	N=108
Blue Diamond Society	7.0	20.0	9.0	25.0	23.8	24.4	11.7	22.6	14.8
Parichaya Samaj	1.8	NA	1.5	NA	NA	NA	1.3	NA	0.9
Teku Hospital	80.7	50.0	76.1	55.0	76.2	65.9	74.0	67.7	72.2
Bir Hospital	5.3	20.0	7.5	15.0	NA	7.3	7.8	6.5	7.4
TUTH	5.3	10.0	6.0	5.0	NA	2.4	5.2	3.2	4.6

Table 3.14.6 reveals data on awareness of MSM about the Viral Load Testing service. Out of 400 MSM, one-fifth (21%) had heard about the viral loading testing service. The proportion was a little higher for MSW (29.9%) and TG (28.4%). Non-MSW and Non-TG had heard about the Viral Load Testing at the least (14.2% and 12.4% respectively).

Only four out of ten (42.9%) respondents knew about the place to obtain Viral Load Testing service. Of those who knew about it, majority (88.9%) reported Teku Hospital followed by Bir Hospital (2.8%). Eight percent did not know anything.

Table 3.14.6 : Awareness about Viral Load Testing

Awareness about Viral Load Testing	MSW (%)			Non- MSW (%)			MSM (Total)(%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Heard about Viral Load Testing Service	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	30.4	26.9	29.9	23.9	10.1	14.2	28.4	12.4	21
No	69.6	73.1	70.1	76.1	89.9	85.8	71.6	87.6	79
Know, from where Viral Load Testing service is available	N=45	N=7	N=52	N=16	N=16	N=32	N=61	N=23	N=84
Yes	37.8	71.4	42.3	50	37.5	43.8	41	47.8	42.9

No	60	28.6	55.8	50	62.5	56.3	57.4	52.2	56
Don't know	2.2	NA	1.9	NA	NA	NA	1.6	NA	1.2
Name of the organization that provide viral load testing service	N=17	N=5	N=22	N=8	N=6	N=14	N=25	N=11	N=36
Teku Hospital	88.2	80.0	86.4	87.5	100.0	92.9	88.0	90.9	88.9
Bir Hospital	5.9	NA	4.5	NA	NA	NA	4.0	NA	2.8
Don't know	5.9	20.0	9.1	12.5	NA	7.1	8.0	9.1	8.3

3.14.5 Exposure to outreach/peer educators

Table 3.14.7 shows that a quarter of the respondents (27.6 %) had met or interacted with peer/outreach educator or community mobilizer. MSW and TG were more exposed (63.9% and 43.1 % respectively) than Non-MSW (18.1%) and Non-TG (15.2%). The main issues discussed included: modes of transmission/non-transmission of HIV (94.3%), modes of transmission/non-transmission of STI (53.6%), regular/non-regular condom use (56.9%) and condom demonstration (44.5%).

Seven out of ten respondents (70.8%) reported that they had opportunity to contact with peer/outreach educators and community mobilizers from BDS. MSW and TG were even more exposed to BDS peer educators (76.5% and 77.2 % respectively). Remaining 14.8 % respondents had exposure to peer educators from World Vision (9.1%), Parichaya Samaj and 1.4% SACTS Nepal. Very small percentages of the respondents mentioned clinics run by other organizations and Government Hospitals.

Forty percent of the MSM reported that they had more than 12 meetings with PE or OE or CM or CE in the past 12 months while 20.1% reported it 4 to 6 times, 19.6% 2 to 3 times and 10% one time only.

Table 3.14.7: Met/discussed/ interacted with peer/outreach educators/community mobilizer

Exposure to PE/OE/CM/CE	MSW(%)			Non- MSW(%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
Met/discussed/interacted with PE/OE/CM/CE	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	53.2* (35.7-66.5)	73.1	63.9* (51.5-77.8)	56.1* (17.4-68.4)	17.1* (12.3-35.3)	18.1* (12.8-29.9)	43.1* (30.1-52)	15.2* (12.1-30.4)	27.6* (24.4-35.4)
No	46.8* (33.6-64.3)	26.9	36.1* (22.2-48.5)	43.9* (32.1-82.8)	82.9* (64.7-87.7)	81.9 (70.1-87.2)	56.9* (48-69.9)	84.8* (69.6-88)	72.4* (64.4-756)
Activities carried out with/by PE/OE/CM/CEs	N=113	N=19	N=132	N=32	N=45	N=77	N=145	N=64	N=209
Discussion on how HIV is/is not transferred	95.6	94.7	95.5	100.0	86.7	92.2	96.6	89.1	94.3
Discussion on how STI is/isn't transferred	56.6	52.6	56.1	40.6	55.6	49.4	53.1	54.7	53.6
Regular/non-regular use of Condom	62.8	47.4	60.6	59.4	44.4	50.6	62.1	45.3	56.9
Demonstration on using Condom	48.7	36.8	47.0	37.5	42.2	40.3	46.2	40.6	44.5
Others	3.5	10.5	4.5	12.5	6.7	9.1	5.5	7.8	6.2
Organizations represented by PW/OE/CM/CEs	N=113	N=19	N=132	N=32	N=45	N=77	N=145	N=64	N=209
Blue Diamond Society	79.6	57.9	76.5	68.8	55.6	61.0	77.2	56.3	70.8
ParichayaSamaj	12.4	26.3	14.4	15.6	15.6	15.6	13.1	18.8	14.8
Cruise Aids	2.7	NA	2.3	NA	NA	NA	2.1	NA	1.4
Teku Hospital	NA	NA	NA	NA	2.2	1.3	NA	1.6	0.5

SACTS Nepal	NA	NA	NA	3.1	NA	1.3	0.7	NA	0.5
Other Institution*	5.4	15.9	6.9	12.5	26.6	20.8	6.9	23.5	12.1
Don't know	12.4	26.3	14.4	15.6	15.6	15.6	13.1	18.8	14.8
Number of meetings with PE or OE or CM or CEs	N=113	N=19	N=132	N=32	N=45	N=77	N=145	N=64	N=209
1 time	2.7	21.1	5.3	9.4	24.4	18.2	4.1	23.4	10.0
2-3 times	15.0	15.8	15.2	12.5	37.8	27.3	14.5	31.3	19.6
4-6 times	20.4	21.1	20.5	25.0	15.6	19.5	21.4	17.2	20.1
7-12 times	13.3	NA	11.4	6.3	6.7	6.5	11.7	4.7	9.6
More than 12 times	48.7	42.1	47.7	46.9	15.6	28.6	48.3	23.4	40.7

Estimated Population Proportion (%) of the variables with asterisk () are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI. *Other Institutions (Rakhshya Nepal, Chetana Nari Samaj, Maiti Nepal, Pink tangal, World Vision)*

3.14.6 Knowledge about HIV/AIDS:

The respondents were posed questions to measure their understanding about measures to prevent HIV. Their understanding of preventive measures against HIV were grouped into two categories; ABC and BCDEF, and presented accordingly (Table 3.14.8).

Table 3.14.8 : Comprehensive knowledge of ABC and BCDEF

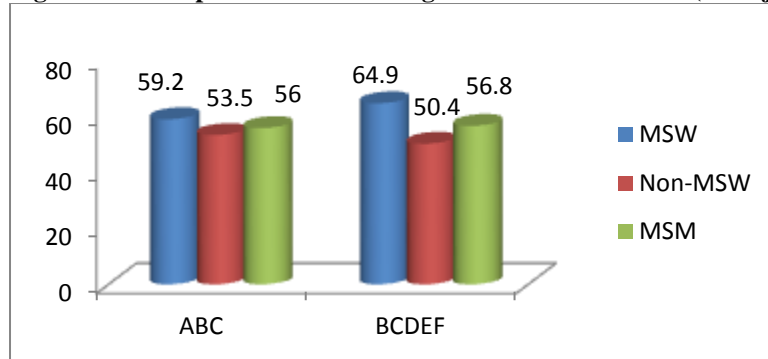
Comprehensive knowledge of ABC and BCDEF	MSW (%)			Non MSW (%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
A= Abstinence from sexual contact	64.9	46.2	62.1	64.2	57	59.1	64.7	55.4	60.4
B= Monogamous sexual contact	92.6	84.6	91.4	82.1	88	86.2	89.3	87.5	88.5
C= Consistent condom use during each sex	95.9	100	96.6	95.5	99.4	98.2	95.8	99.5	97.5
D= A healthy-looking person can be infected with HIV	89.9	84.6	89.1	85.1	83.5	84	88.4	83.7	86.2
E=A person cannot get HIV virus from mosquito bite	77.7	61.5	75.3	77.6	63.3	67.6	77.7	63	70.9
F= HIV is not transmitted while sharing a meal with an HIV infected person	93.2	88.5	92.5	88.1	87.3	87.6	91.6	87.5	89.7
ABC unadjusted	62.8	38.5	59.2	56.7	52.2	53.5	60.9	50.3	56.0
ABC adjusted	55.6* (39.1-70.3)	38.5	48.6* (36.8-64.30)	55.5* (36.3-91.6)	50* (34.2-63)	51.1* (39.3-60.9)	58.6* (46.5-70)	44.4* (29.6-53.7)	50.9* (44.2-57.8)
BCDEF unadjusted	66.2	57.7	64.9	52.2	49.7	50.4	61.9	50.8	56.8
BCDEF adjusted	65* (54.1-80.8)		60.7* (55.2-77.8)	55.6* (36.4-97.3)	39* (21.6-53.4)	44.8* (33.3-58.1)	59.9* (51.5-74.5)	37.4* (23.3-49.7)	50.5* (44-57.3)

Estimated population Proportion (%) of the variables with asterisk () are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.*

Data from Table 3.14.8 indicates that 60.4% respondents had knowledge of A (abstinence from sexual contract), 88.5% had knowledge of B (monogamous sexual contact) and 97.5% respondents had knowledge for C (consistent condom use in each sexual act). Knowledge of A and B was higher in MSW and TG but knowledge of C was higher in Non-MSW and Non-TG. Similarly knowledge of D, E and F was 86.2%, 70.9% and 89.7% respectively. Knowledge of all DEF components was higher in MSW and TG than the Non-MSW.

Figure 6 shows data on knowledge of respondents on ABC (A=Abstinence, B=Be faithful and C= Condom use) of HIV prevention. The unadjusted data indicates that more than half (56 %) of the respondents had comprehensive knowledge of ABC. MSW and TG tended to be more knowledgeable (59.2% and 60.9% respectively) than the Non-MSW and Non-TG(53.5% and 50.3% respectively). The adjusted data on comprehensive knowledge on ABC of HIV prevention shows that only 50.9% MSM had knowledge of ABC.

Figure 1.1: Comprehensive knowledge of ABC and BCDEF (Unadjusted)



Similarly, respondents’ knowledge on BCDEF (B= monogamy or being faithful to one partner or avoiding multiple sex partners, C =consistent and correct condom use or use of a condom during every sex act, D=a healthy-looking person can be infected with HIV, E=a person cannot get HIV from a mosquito bite, F= a person cannot get HIV by sharing meal with an HIV infected person) was assessed during the interview. The comprehensive knowledge that combines all five preventive measures shows that 56.8% MSM had knowledge of BCDEF. The comprehensive knowledge of BCDEF was also high in MSW (64.9%) and TG (61.9%). Non- MSW and Non-TG were less aware (50.4% and 50.8% respectively) on BCDEF.

3.14.7 Stigma and discrimination

One in ten (9.3%) MSM reported that they were beaten because of their sexual behavior and identity. The figure was highest for MSW (42.3%) followed by TG(26.5%). Out of the total respondents who reported personal experience of violence and discrimination in the past 12 months (n=49), nearly half (44.9%) were reportedly beaten by the police. The figures were higher for MSW (46.5%) and TG(46.5%).In all, 6.1% and 28.6% respondents reported military and client violence. About 12.2% reported violence from sexual partner while 2% had faced violence from regular partner. A quarter of them (24.5%) experienced threat from hooligan group (33.3% Non-TG and 25.6% MSW reported it).

About 11.5% respondents were forced to have sex in the past 12 months-the proportion was still higher for MSW (20.7%) and TG (17.2%). They fell pray mainly with client (34.8%), sex partner (28.3%), police (23.9%) and hooligan groups (19.6%). Violence from sex partner was higher in Non-MSW (50%) and Non-TG (44.4%). Two out of ten(19.8%) respondents were blackmailed in the past 12 months, which was again higher among MSW(37.9%) and TG(29.3%). Similarly, one in five (22.8%) of the respondents reported discrimination at job or everyday life. Such discrimination was even higher for MSW (43.7%) and TG (34.9%).

Four out of ten respondents (41.4%) reported that they had ever experienced any kind of problem due to sexual orientation-the figures were still higher for MSW (53%) and TG 46.7 %).

Table 3.14.9: Personal Experience of Violence and Discrimination in the Past 12 Months

Subjected to Violence/Discrimination	MSW (%)			Non-MSW(%)			MSM (%)		
	TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total

In the past 12 months, were you ever beaten because of your sexual behavior	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	27	11.5	24.7	4.5	1.9	2.7	20	3.2	12.3
No	73	88.5	75.3	95.5	98.1	97.3	80	96.8	87.8
Was beaten up by	N=40	N=3	N=43	N=3	N=3	N=6	N=43	N=6	N=49
Police	47.5	33.3	46.5	33.3	33.3	33.3	46.5	33.3	44.9
Military	7.5	NA	7	NA	NA	NA	7	NA	6.1
Client	32.5	33.3	32.6	NA	NA	NA	30.2	16.7	28.6
Regular Partner	2.5	NA	2.3	NA	NA	NA	2.3	NA	2.0
Sexual Partner	10	NA	9.3	NA	66.7	33.3	9.3	33.3	12.2
Hooligans group	22.5	66.7	25.6	33.3	NA	16.7	23.3	33.3	24.5
Others	2.5	NA	2.3	33.3	NA	16.7	4.7	NA	4.1
Was forced to have sex in the past 12 months	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	22.3	11.5	20.7	6	3.8	4.4	17.2	4.9	11.5
No	77.7	88.5	79.3	94	96.2	95.6	82.8	95.1	88.5
People who forcefully had sex	N=33	N=3	N=36	N=4	N=6	N=10	N=37	N=9	N=46
Police	21.2	66.7	25.0	25.0	16.7	20.0	21.6	33.3	23.9
Military	NA	33.3	2.8	NA	NA	NA	NA	11.1	2.2
Client	45.5	33.3	44.4	NA	NA	NA	40.5	11.1	34.8
Sexual Partner	24.2	NA	22.2	25.0	66.7	50.0	24.3	44.4	28.3
Hooligans group	21.2	33.3	22.2	NA	16.7	10.0	18.9	22.2	19.6
Others	3.0	NA	2.8	50.0	NA	20.0	8.1	NA	6.5
Was blackmailed in the past 12 months	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	39.2	30.8	37.9	7.5	5.0	5.8	29.3	8.6	19.8
No	60.8	69.2	62.1	92.5	95.0	94.2	70.7	91.4	80.3
Faced discrimination at job or everyday life	N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Yes	48.4* (27.1-58.9)	34.6	42.3* (28.9-56.6)	10.1* (0.9-32.1)	1.8* (0.5-8.1)	3.4* (1.2-8.4)	26.5* (15-34)	1.3* (0,4-6.4)	9.3* (6.1-12.8)
No	51.6* (41.1-72.6)	65.4	57.7* (43.4-71.1)	89.9* (70.6-99.2)	98.2* (92.1-99.5)	96.6* (91.6-98.8)	73.5* (66-85)	98.7* (93.7-99.6)	90.7* (87.2-93.9)
Ever experienced any kind of problems due to sexual orientation (this question was only asked for METI)	N=96	N=4	N=100	N=24	N=16	N=40	N=120	N=20	N=140
Yes	53.1	50	53	20.8	0.0	12.5	46.7	10.0	41.4
No	46.9	50	47	79.2	100.0	87.5	53.3	90.0	58.6

Estimated Population Proportion (%) of the variables with asterisk () are calculated with RDSAT, the proportion represented is therefore adjusted and mentioned under CI.*

CHAPTER FOUR: A COMPARATIVE ANALYSIS OF SELECTED VARIABLES

This chapter highlights findings of the IBBS Round V on MSM in Kaythmandu Vally. The analysis trend of major demographic variables, sexual behaviors and condom use, and prevalence of HIV and STIs over the five consecutive Rounds of the IBBS Surveys on MSM conducted in 2004(Round 1), 2007 (Round 2), 2009 (Round 3),2012 (Round 4) and 2015(Round 5).The chapter follows on with other key indicators related to knowledge of HIV transmission and discrimination towards MSM/TG.

4.1 HIV Prevalence

Table 4 presents data on trend of HIV prevalence. The HIV prevalence rate in 2015 has declined to 2.4% from 3.8% points in 2009 and 2012 while it was 3.3% in 2007, a small decline in comparison to 2004 (3.9%).

The prevalence of HIV in MSW shows that it was 4.8% in 2004, which declined to 2.9% in 2007 and increased again steadily in 2007(5.2%) and further in 2012(6.8%). In 2015 it has decreased to 5.6%. Thus the trend of HIV prevalence among MSW fluctuated statistically significantly over time($P=0.02$).

With regards to HIV prevalence among Non-MSW, it has declined to 1.8% in 2015, which was highest in 2001(3.6%).

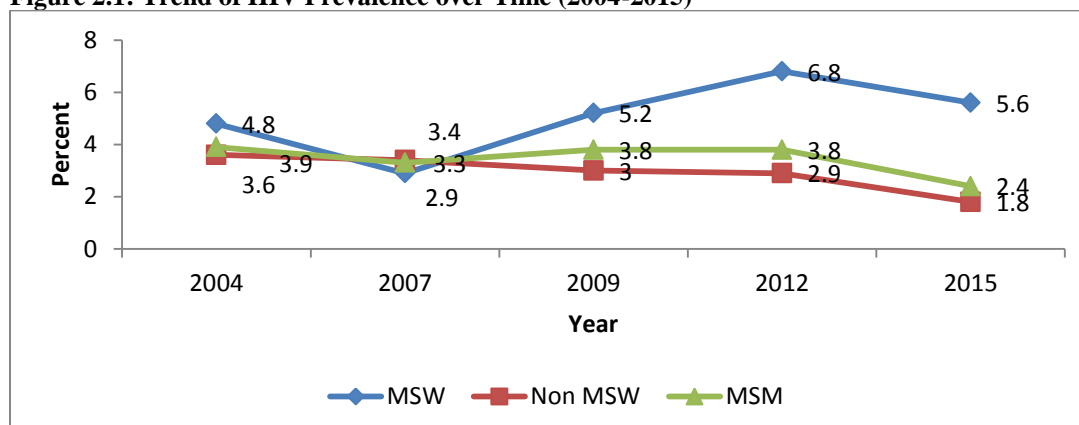
Table 4.: Trend of HIV Prevalence

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	4	79	4.8		275	10	265	3.6		358	14	344	3.9	
2007	135	4	131	2.9*		265	9	256	3.4*		400	13	387	3.3*	
2009	135	7	128	5.2	0.0253	265	8	257	3.0	0.9128	400	15	385	3.8	0.2383
2012	145	16	129	6.8*		265	9	256	2.9*		400	25	375	3.8*	
2015	148	16	132	5.6*		226	5	221	1.8*		400	21	389	2.4*	

*Estimated Population Proportion (EPP) may not represent the sample proportion.

The trend of HIV prevalence in Non-MSW shows that it did not change much until 2009 (3%), which declined to 2.4% in 2015. Overall, the trend of HIV prevalence in MSM remained almost stable until 2012, it has decreased to 2.4% in 2015(Round 5).

Figure 2.1: Trend of HIV Prevalence over Time (2004-2015)



4.2 STI Prevalence

This section describes the trend of different STI over the five rounds of the IBBS survey, starting from 2004 until 2015.

4.2.1 Any STI

There was statistically significant changes in prevalence of any STI among MSW, Non-MSW and MSM in the past five rounds of the IBBS (Table 4.1, Fig.7.1). In MSM, the present survey (2015) shows lowest prevalence of any STI (7.7%) in comparison to previous round of the IBBS.

The prevalence data shows that prevalence of any STI among MSW declined sharply in 2007 to 19.4%, from 54.2% in 2004. It increased again to 31.9% in 2009 and decreased to 18.5% in 2012. It is further decreased to 15.5% in the last round (2015) (The figure is unadjusted, the EPP value was not generated by the RDSAT).

Similarly, the prevalence of any STI among Non-MSW did not change much in the first three rounds of the IBBS (2004, 2007 and 2009) while it was clamped down to 6.8% in 2012 and 4.8% (adjusted) in 2015. It shows a declining trend of any STI infection among Non-MSW.

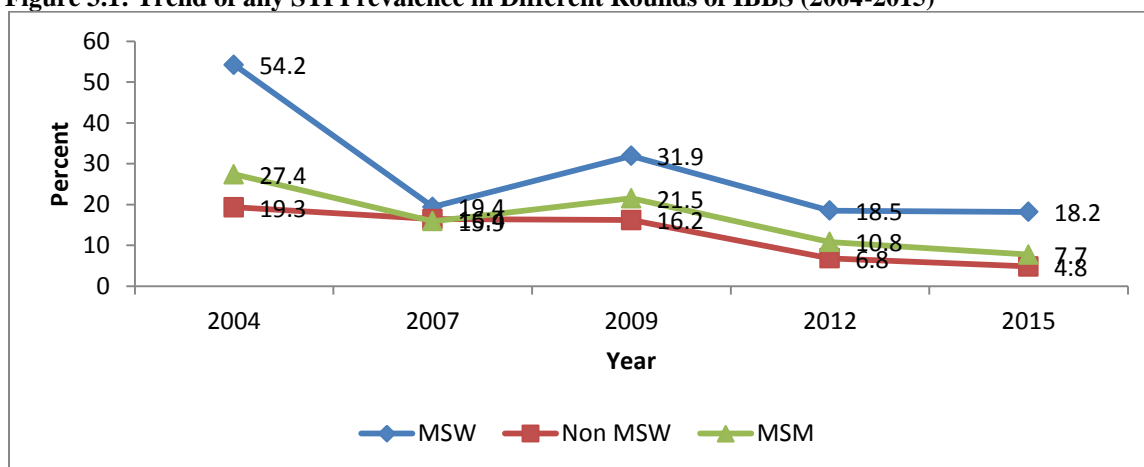
The overall trend of any STI infection among MSM shows a continuous trend of decline at varying proportions from the first round of IBBS (27.4% in 2004) to the present round/Round 5 (7.7%).

Table 4.1: Trend of Prevalence of any STI (2004-2015)

Year	MSW					Non-MSW					MSM Total				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	45	38	54.2		275	53	222	19.3		358	98	260	27.4	
2007	135	26	109	19.4*		265	43	222	16.4*		400	64	336	15.9*	
2009	135	43	92	31.9	0.0001	265	43	222	16.2	0.0001	400	86	314	21.5	0.000
2012	135	25	110	18.5		265	18	247	6.8		400	43	357	10.8	1
2015	174	31	143	18.2(*)		226	14	212	4.8*		400	45	355	7.7*	

*Estimated Population proportion (EPP) may not represent the sample proportion.

Figure 3.1: Trend of any STI Prevalence in Different Rounds of IBBS (2004-2015)



4.2.2 Active Syphilis

The prevalence of Active Syphilis given in Table 4.2 (Fig.9.1) shows that its prevalence decreased from 2.4% of 2004 to 1.5% in 2007, it increased and remained stable in 2009 and 2012 (i.e. 3% each) while it has decreased to 0.5% in 2015. Similarly, in Non-MSW as well, the trend

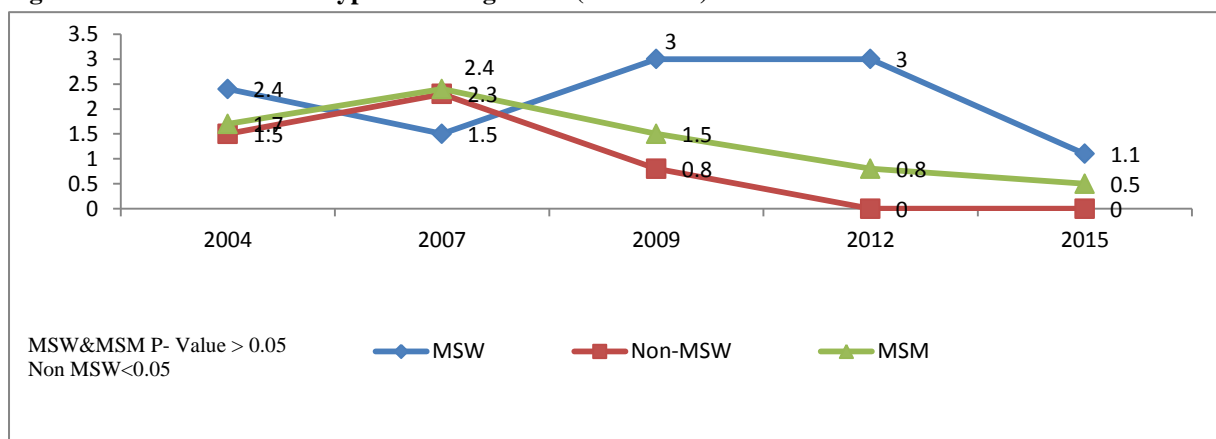
does not seem uniform. It increased in 2007 to 2.3% from 1.5% in 2004 and it was down to 0.8% in 2009. No any Active syphilis case was identified in 2012 and in 2015. However, these changes are statistically not significant among MSW and MSM.

Table 4.2: Trend of Active Syphilis (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	2	81	2.4		275	4	271	1.5		358	6	352	1.7	
2007	135	2	133	1.5*		265	6	259	2.3*		400	8	392	2.4*	
2009	135	4	131	3	0.8234	265	2	263	0.8	0.0303	400	6	394	1.5	0.1833
2012	135	3	132	3		0	0	265	0.0		400	3	397	0.8	
2015	174	2	167	1.1		226	0	224	0.0		400	2	391	0.5	

*Estimated population proportion (EPP) may not represent the sample proportion.

Figure 9.1: Trend of Active Syphilis among MSM (2004-2015)



4.2.3 Ever had HIV Test

The trend of ever had HIV test among MSW, Non-MSW and MSM tends to be fluctuating statistically significantly over the past five round of the IBBS. The proportion of MSM who ever had HIV test increased from 8.8% in 2004 to 26.2% in 2007. It jumped to 62.8% in 2009 and remained same until 2012. In 2015, it has decreased by 26% (36.6%).

The proportion of MSW who ever had HIV test was 16% in 2007, it increased to 83.7% in 2009, which remained constant till 2012 and it decreased slightly in 2015 (79.9%).

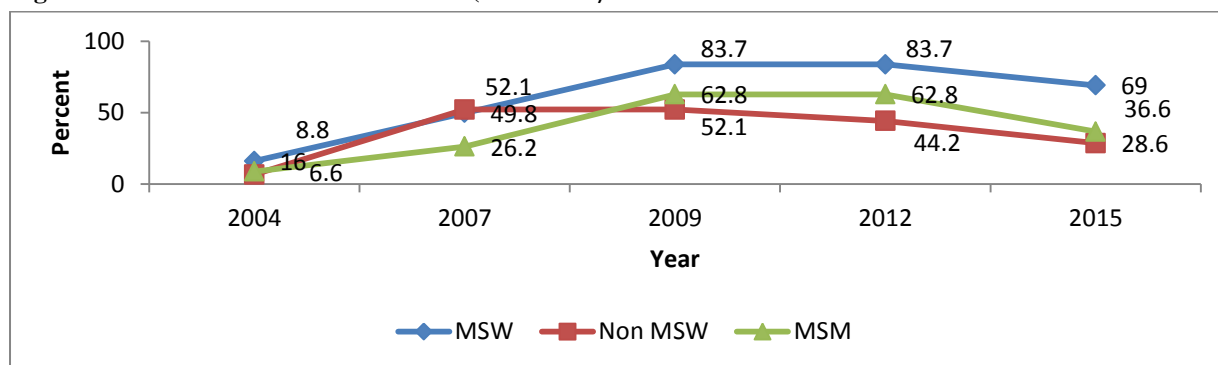
Among Non-MSW, the proportion of respondents who ever had HIV test increased from 6.6 in 2004 to 52.1% in 2007 and 2009 each, which has slightly decreased to 44.2% in 2012 and remained same until 2015.

In 2015, proportion of respondents who ever had HIV test decreased slightly among MSW and MSM (total) but remained same among Non-MSW. These changes are statistically significant.

Table 4.3: Trend of Ever had HIV Test (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	81	13	68	16.0		273	18	255	6.6		358	31	327	8.8	
2007	135	67	68	49.8		265	77	188	52.1		400	144	256	26.2	
2009	135	113	22	83.7	0.0001	265	138	127	52.1	0.0001	400	222	178	62.8	0.0001
2012	135	113	22	83.7		265	117	148	44.2		400	251	149	62.8	
2015	174	139	35	79.0		226	100	126	44.2		400	239	161	36.6	

Figure 4.1: Trend of Ever had HIV Test (2004-2015)



4.3 Sexual Behaviors

For trend analysis, mean age of first sex, ever had sex with male in exchange for money is presented in this section.

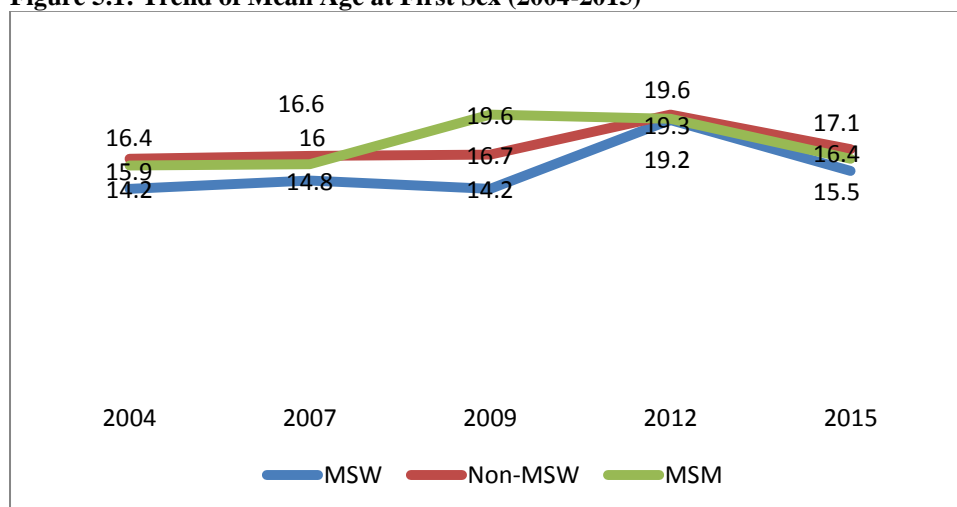
4.3.1 Mean age at First Sex

The mean age at first sex among MSM is 16 years, almost same throughout all IBBS surveys while for Non-MSW it has increased by nearly one year-from 16 to 17 years. Similarly, mean age at first sex for MSW has also increased from 14 years to 15 years.

Table 4. 4: Mean Age at First Sex (2004-2015)

Year	MSW	Non-MSW	MSM
	Mean age	Mean age	Mean age
2004	14.2	16.4	15.9
2007	14.8	16.6	16
2009	14.2	16.7	15.9
2012	19.2	19.6	19.3
2015	15.5	17.1	16.4

Figure 5.1: Trend of Mean Age at First Sex (2004-2015)



4.3.2 Ever had Sex with Male in Exchange for Money

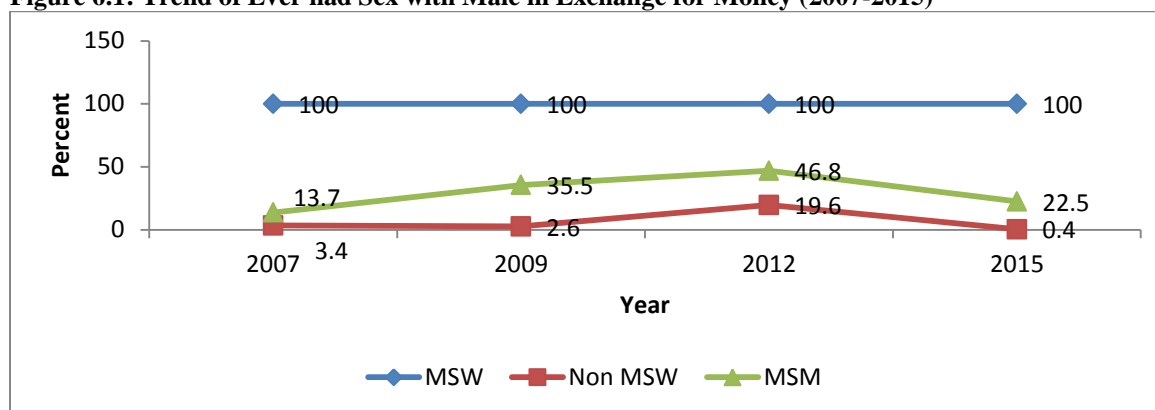
The trend of ever had sex with male in exchange for money increased statistically significantly among MSM from 13.1% in 2004 to 22.5 % in 2015. Similarly among MSW also it increased from 14.5% in 2004 to 100% in the following IBBS surveys (statistically significantly). On the

contrary, the percentage of Non-MSW who had ever had sex with male in exchange for money has decreased from 12.7% in 2004 to 0.4% in 2015(Statistically significant).

Table 4.5: Trend of Ever had Sex with Male in Exchange for Money (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	12	71	14.5		275	35	240	12.7		358	47	311	13.1	
2007	135	135	0	100		265	9	256	3.4		400	55	345	13.7	
2009	135	135	0	100	0.0001	265	7	258	2.6	0.0001	400	142	258	35.5	0.0001
2012	135	135	0	100		265	52	213	19.6		400	187	213	46.8	
2015	174	174	0	100		226	1	225	0.4		400	175	225	22.5*	

Figure 6.1: Trend of Ever had Sex with Male in Exchange for Money (2007-2015)



4.4 Access and Use of Condoms

This section presents data on access to condom, use of condom in last anal sex and consistent use of condom.

4.4.1 Access to condom

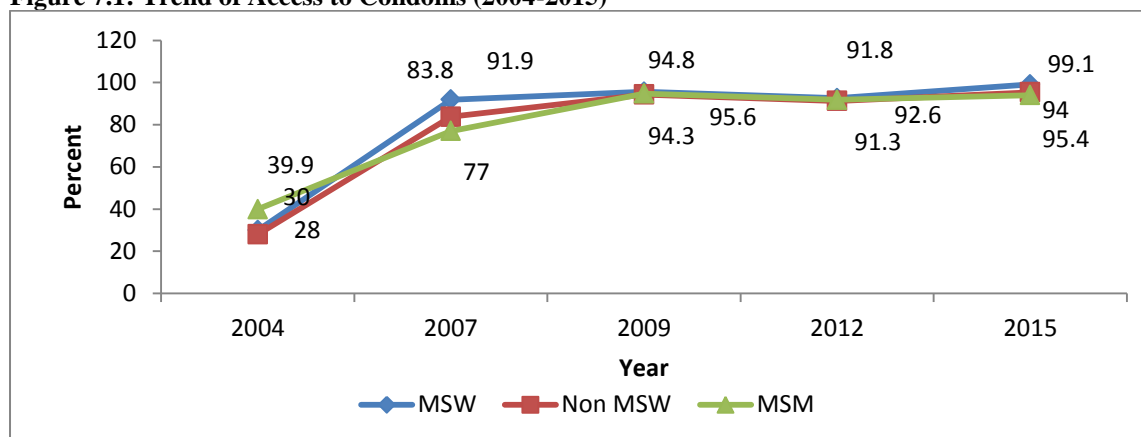
The reported access to condom by the MSM was lowest in 2004 for MSW, Non-MSW and MSM (30%, 28% and 39.9% respectively). It was highest for all groups in 2009 (95.6% for MSW, 94.3% for Non-MSW and 94.8% for MSM). It continued to decline after 2009(Round 3) until 2012. However, access to condom by the MSW, Non-MSW and MSM has increased by small percentages (i.e. 99.1% in MSW, 95.4% in Non-MSW and 94% in MSM).

Table 4. 6: Access to Condom by the MSM (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	81	24	57	30		259	73	186	28		340	97	243	39.9	
2007	135	124	11	91.9		265	222	43	83.8		400	308	92	77	
2009	135	129	6	95.6	0.0001	264	250	14	94.3	0.0001	399	379	20	94.8	0.0001
2012	133	125	8	92.6		262	242	20	91.3		395	367	28	91.8	
2015	174	172	2	99.1*		226	214	12	95.4*		400	386	14	94*	

*Estimated population proportion (EPP) based on RDSAT value

Figure 7.1: Trend of Access to Condoms (2004-2015)



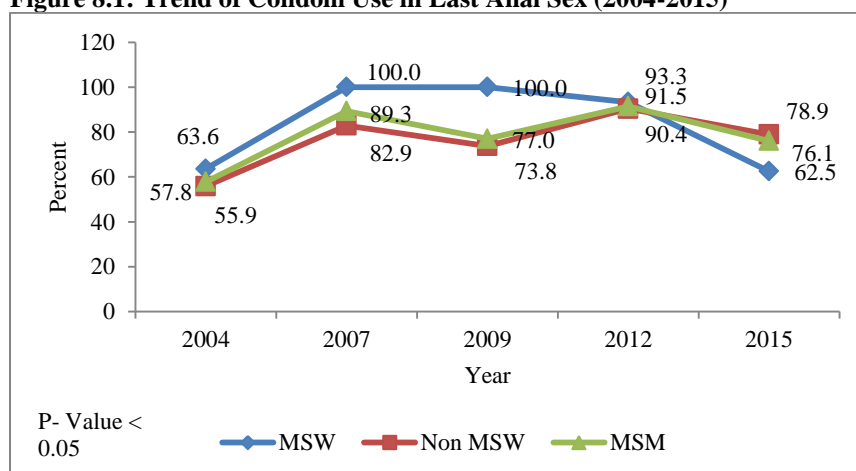
4.4.2 Condom use in last anal sex

Condom use among MSW in last anal sex shows a steady decline after second and third Round of IBBS (from 100% each) to 93.3% in 2012 and 62.5% in 2015. The decline is statistically significant. Similarly, among Non-MSW and total MSM, there was an increase in condom use in the last anal sex from 2004 to 2007, while in 2009 it decreased (73.8% for Non-MSW and 77% for MSM). In Round 4(2012), more than 90% had used condom during last anal sex. However, it shows a decline in 2015 in both the groups-78.9% in Non-MSW and 76.1% in MSM. These changes are statistically significant.

Table 4. 7: Trend of Condom Use in Last Anal Sex with Paid Male Sex Partner (2004-2015)

Year	MSW					Non-MSW					MSM(Total)				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	12	8	4	63.6		34	19	15	55.9		46	27	19	57.8	
2007	21	21	0	100		35	29	6	82.9		56	50	6	89.3	
2009	9	9	0	100	0.0033	65	48	17	73.8	0.0046	74	57	17	77	0.0001
2012	30	28	2	93.3		52	47	5	90.4		82	75	7	91.5	
2015	8	5	3	62.5		38	30	8	78.9		46	35	11	76.1	

Figure 8.1: Trend of Condom Use in Last Anal Sex (2004-2015)



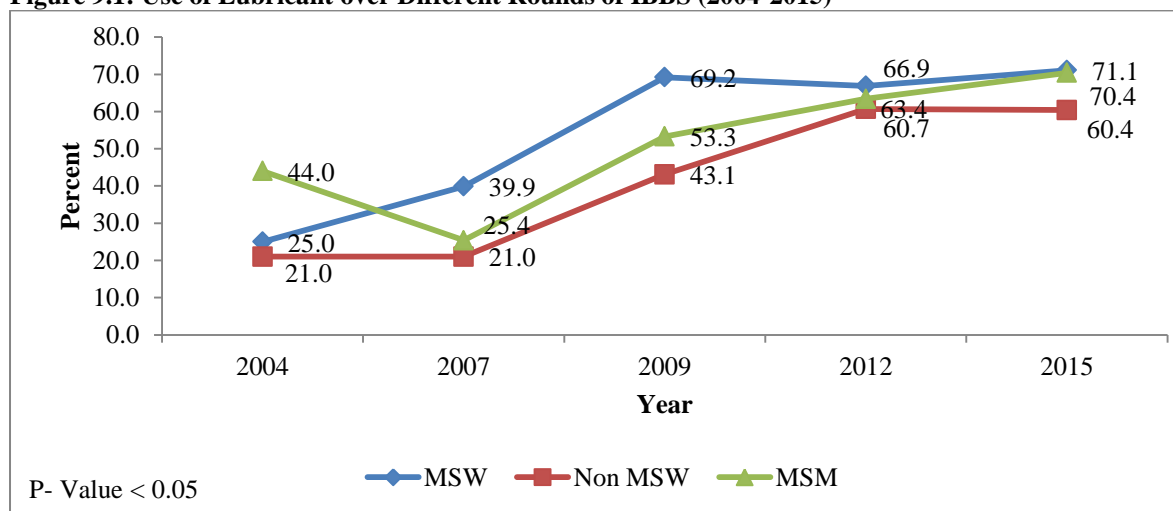
4.5 Consistent Use of Lubricant

Table 4.8 presents data on trend of lubricant use by the MSM/TG. The trend of use of lubricant in the last anal sex by the MSM, MSW and Non-MSW indicate that the proportion is increasing over the past many rounds of the IBBS (Statistically significant).

Table 4.8: Trend of Consistent Lubricant Use

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	21	62	25		275	58	217	21		358	158	200	44	
2007	106	42	64	39.9		140	29	111	21		246	62	184	25.4	
2009	130	90	40	69.2	0.0001	202	87	115	43.1	0.0001	332	177	155	53.3	0.0001
2012	118	79	39	66.9		159	91	68	60.7		268	170	98	63.4	
2015	144	111	33	71.1		96	58	38	60.4		240	169	71	70.4	

Figure 9.1: Use of Lubricant over Different Rounds of IBBS (2004-2015)



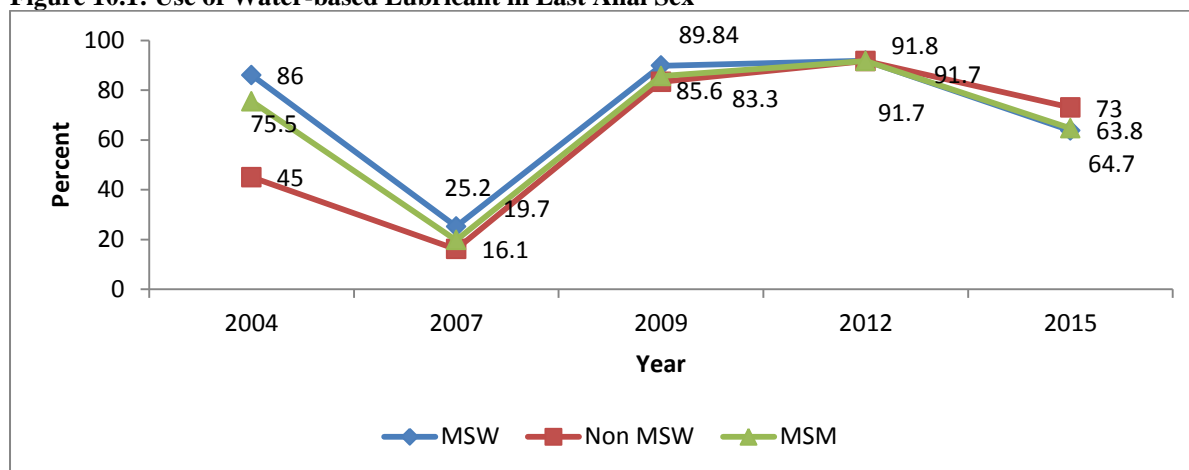
4.6 Use of Water-based Lubricant in Last Anal Sex

Data on use of water-based lubricant in last anal sex indicate that it increased to the maximum in 2012 (over 90% for MSM, MSW and Non-MSW). The increment was very big in Non-MSW (from 45% in 2004 to 73% in 2015). In 2015, the use of water-based lubricant has reduced to 63.8% in MSW and 64.75% in MSM. These changes are statistically significant to show the differences.

Table 4.9: Use of Water-based Lubricant in Last Anal Sex

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	71	12	86		275	124	151	45		275	124	151	75.5	
2007	111	28	83	25.2		168	27	141	16.1		279	55	224	19.7	
2009	132	118	14	89.84	0.0001	215	179	36	83.3	0.0001	347	297	50	85.6	0.0001
2012	122	112	10	91.8		193	172	21	91.7		305	289	16	91.7	
2015	144	94	50	63.8*		96	62	34	73*		240	156	84	64.7*	

Figure 10.1: Use of Water-based Lubricant in Last Anal Sex



4.7 Comprehensive Knowledge on HIV Prevention

This section compares the trend of improvement in knowledge of HIV prevention (ABC) among respondents over different rounds of the IBBS.

Knowledge of ABC among MSW indicates that it is in declining trend. In 2004 it was 89%, which has decreased to 48.6% in 2015 (Round 5).

Table 4.10: Trend of Knowledge on ABC of HIV Prevention

Year	MSW					Non-MSW					MSM					
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	
2004	72	64	8	89		220	200	20	91		292	264	28	90.4		
2007	135	104	31	76.7		265	211	54	79.6		400	319	81	79.8		
2009	135	114	21	84.4	0.0001	265	219	46	82.7	0.0001	400	333	67	83.3	0.0001	
2012	135	84	51	62.2		265	156	109	59		51.1*	400	240	160		60
2015	174	103	71	48.6		226	121	105	51.1*		400	224	176	50.9		

In case of Non-MSW and MSM as well, the decline in knowledge of ABC of HIV followed similar trend (Table 4.11, Fig. 17).

Figure 11.1: Trend of Knowledge of HIV Prevention ABC (2004-2015)

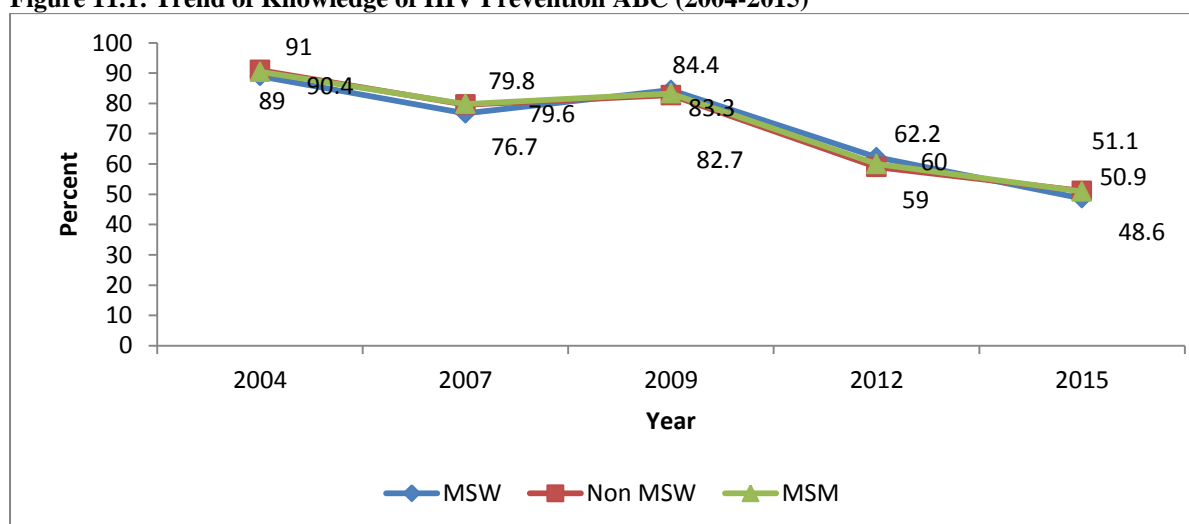


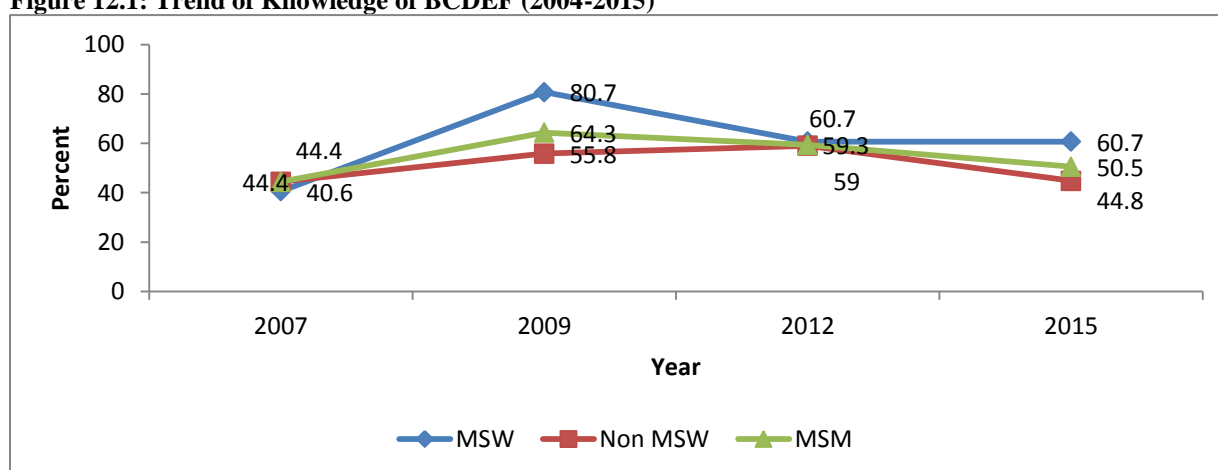
Table 4.12 and Fig. 4.18 show the trend of knowledge of BCDEF on HIV prevention. The findings show that knowledge of MSM on BCDEF was highest in 2007 (64.3%), it started to

decline from 2012 and has come down to 50.5% in 2015. In case of MSW, the knowledge of BCDEF was in peak (80.7%) in 2009, which has decreased to 60.7% in 2015. For Non-MSW also, it decreased from 2012 until 2015 (from 59% to 44.8%). The trends of changes regarding knowledge of BCDEF in MSW, Non-MSW and MSM are statistically significant.

Table 4.11: Trend of Increase in Knowledge on BCDEF of HIV Prevention (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2007	135	55	80	40.6		265	118	147	44.4		400	178	222	44.4	
2009	135	109	26	80.7	0.000	265	148	117	55.8	0.006	400	257	143	64.3	0.000
2012	135	82	53	60.7	1	265	155	110	59	9	400	237	163	59.3	1
2015	174	113	61	60.7*		226	114	112	44.8*		400	227	173	50.5*	

Figure 12.1: Trend of Knowledge of BCDEF (2004-2015)



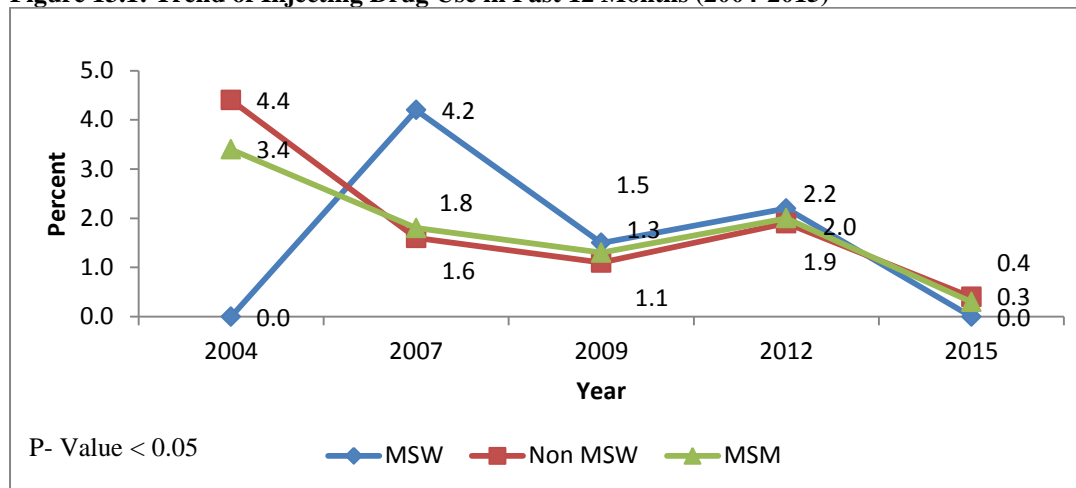
4.8 Injecting Drug Use in Past 12 Months

Overall, the practice of injecting drug use among MSW seems on the declining trend right from the Round 1(3.4%) to Round 3(1.3%). It increased by a small proportion in 2012(2% in total) and again decreased to 0.3% in 2015. For MSW the proportion of injecting drug use was maximum in 2007(4.2%), which is still decreasing with small fluctuations. No one reported such practice in 2015. Moreover, practice of injecting drug use among Non-MSW is also on the decline—from 4.4% in 2004 to 0.4% in 2015. The improvements in injecting drug use behavior for MSM, MSW and Non-MSW are statistically significant.

Table 4.12: Trend of Injecting Drug Use in Past 12 Months (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	77	0	77	0		275	12	263	4.4		358	12	346	3.4	
2007	135	6	129	4.2		265	4	261	1.6		400	7	393	1.8	
2009	135	1	134	1.5	0.0137	265	3	262	1.1	0.0146	400	5	395	1.3	0.0199
2012	135	3	132	2.2		265	5	260	1.9		400	8	392	2.0	
2015	174	0	174	0		226	1	225	0.4		400	1	399	0.3	

Figure 13.1: Trend of Injecting Drug Use in Past 12 Months (2004-2015)



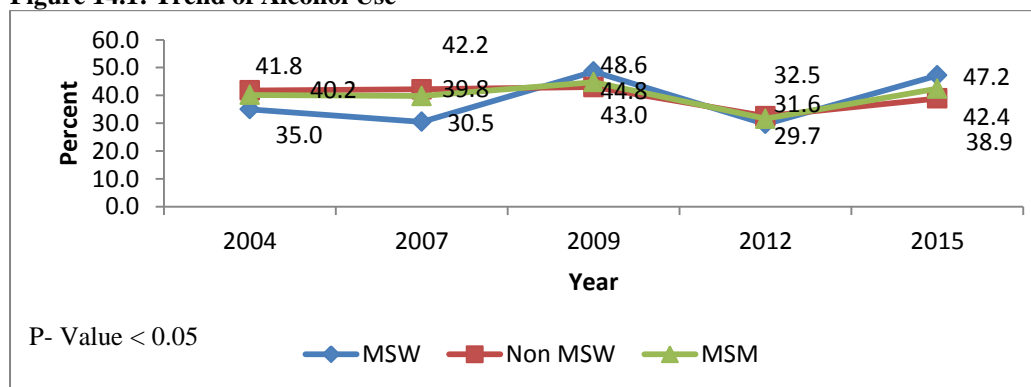
4.9 Use of Alcohol at Last Sex

Data on use of alcohol by the MSM and MSW in different Rounds of IBBS shows a small increase in 2015 as compared to 2004 (For MSM 40.2% in 2004 to 42.4% in 2015 and for MSW 35% in 2004 to 47.2% in 2015). However there are fluctuations in different other Rounds. The changes are statistically significant. In case of Non-MSW it has decreased by small percentage (41.8% in 2004 and 38.9% in 2015).

Table 4.13: Trend of Use of Alcohol (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	83	29	54	35		275	115	160	41.8		358	144	214	40.2	
2007	99	30	69	30.5		228	98	130	42.2		327	130	197	39.8	
2009	105	51	54	48.6	0.0039	230	99	131	43	0.1305	335	150	185	44.8	0.0093
2012	111	33	78	29.7		212	69	143	32.5		323	102	221	31.6	
2015	127	60	67	47.2		175	68	107	38.9		302	128	174	42.4	

Figure 14.1: Trend of Alcohol Use



4.9 Experience any form of discrimination in job or daily life

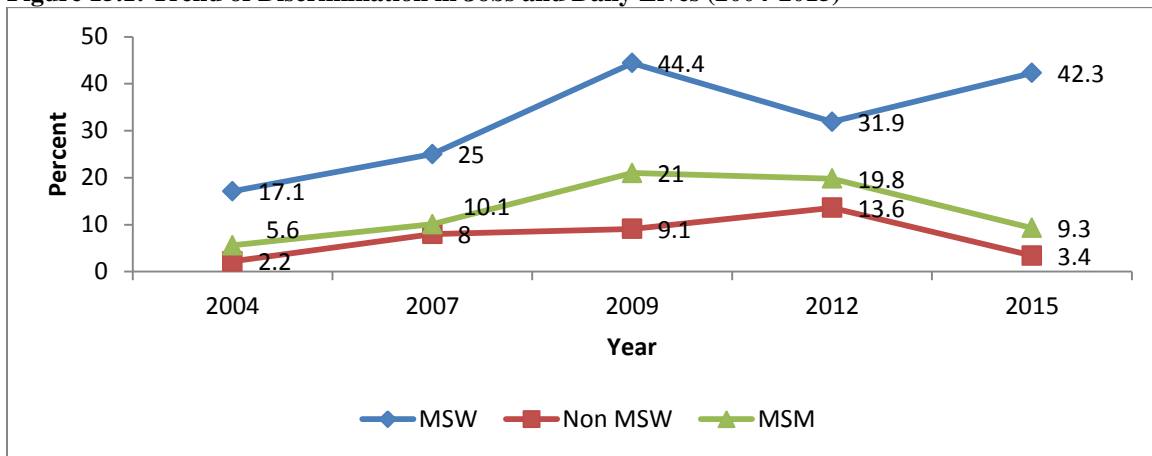
Data from all five rounds of IBBS was analyzed to examine whether there was a decrease in discrimination in jobs or daily lives of the MSM.

Table 4.14: Trend of Discrimination in Job or Daily Life (2004-2015)

Year	MSW					Non-MSW					MSM				
	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value	Total	Yes	No	Yes (%)	P-value
2004	82	14	68	17.1		275	6	269	2.2		357	20	337	5.6	
2007	135	34	101	25		265	21	244	8		400	40	360	10.1	
2009	136	60	76	44.4	0.0001	265	24	241	9.1	0.0001	400	84	316	21	0.0001
2012	135	43	92	31.9		265	36	229	13.6		400	79	321	19.8	
2015	127	60	67	42.3*		175	68	107	3.4*		302	128	174	9.3*	

The data shows that as compared to the level of reported discrimination in jobs and daily lives in 2004 by MSW there has been an increase in such discrimination over the years- from 17.1% in 2004 to 42.3% in 2015. In case of Non-MSW it declined from 13.6% of 2012 to 3.4% in 2015. On the whole, among the MSM, it declined from 19.8% in 2012 to 9.3% in 2015. The differences in discrimination in various rounds of IBBS are statistically significant.

Figure 15.1: Trend of Discrimination in Jobs and Daily Lives (2004-2015)



CHAPTER FIVE: SUMMARY OF FINDINGS AND IMPLICATIONS

This chapter draws on summary of key findings of the IBBS surveys among MSM/TG in Kathmandu Valley. The summary covers sero-surveillance as well as behavioral surveillance data on HIV and STIs among the MSM/TG populations. This chapter briefly highlights the key findings of the survey including the gaps and programmatic implications of the findings.

5.1 Summary of Findings

MSM/TG are from diverse backgrounds, young, unmarried, literate, and living with wives

An overwhelming majority (91.5%) of the sample respondents were from Kathmandu, 4.5% was from Bhaktapur district and rest 4% was from Lalitpur district. Their median age was 26 years (range 17-57 years). Majority of the MSM (49%) was from the so-called upper caste groups (49%) followed by disadvantaged Janajatis (30%). Eight out of ten (77%) were living in rented apartment (77%) and 18.5 % were living at home. One third of them (32%) was married and out of them 52% were living with wives. Almost all (97%) of the MSM were literate, particularly formal education (92%).

Prevalence of HIV shows a declining trend in MSM by a small proportion but it is still high among MSW and TG

The overall prevalence of HIV in MSM is 2.4%. It has decreased by a small proportion in comparison to Round 4 (3.8 % in 2012). Overall, the HIV prevalence has decreased by 1.4% among MSM, 1.2% among MSW and 1.1% among Non-MSW. However, the HIV prevalence rate in MSW and TG seems still higher (5.6% in MSW and 6.4% in TG) in comparison to the MSM (2.4%).

STI prevalence is still high among MSM and higher among Non-MSM and TG

Overall, the trend of prevalence of Active Syphilis among MSM has increased by 1.5% . It has increased by 1% in MSW and 0.9% in Non-MSW. However, these increases are not statistically significant. Similarly, Syphilis history has increased (4.8% in 2015 vs 2.5% in 2012) while in MSW it has decreased by a small proportion (1.8% in MSW). In Non-MSM the Syphilis history has increased by 1.1% (from 1.1% in 2012 to 2.2% in 2015). Similarly, among Non-TG, the prevalence of Syphilis history is 3.2% in 2015. It means that TG and Non-MSW seem vulnerable in terms of transmission of STIs.

In comparison to prevalence of Anal CT and Anal NG in MSM (i.e 3% and 2.8% respectively) in 2012, there has been an increase in their prevalences in 2015 (i.e. Anal CT 3.3%, Anal NG 5.4%). These findings suggest that vulnerability of STI transmission is increasing among MSM. However, the prevalence of any STI in MSM has declined significantly by 3.1%; from 10.8% of Round 4 (2012) to 7.7 % in Round 5 (2015). There has been 3% decline in any STI prevalence in MSW and 1.5% decline in Non-MSW. The reduction in any STI prevalence is statistically significant.

HIV and STI service seeking by the MSM/TG is low

Seven out of ten respondents reported that they knew about a service facility for confidential HIV testing. The findings from 2015 (Round 5) shows that overall, only one third (36.6%) of the MSM ever had HIV test. In 2015, the proportion of MSM and MSW who ever had HIV test decreased by a small percentage . It has remained stable in case of Non-MSW (44.2%) in Round 5 as compared to Round 4.

HIV service seeking behavior seems considerably low as only one-third (36.6%) of the MSM had undergone HIV test in past 12 months. Higher percentages of TGs (74.4%) and MSW (79.9%) ever had an HIV test in comparison to Non TGs (42.7%) and Non-MSW(28.6%).

STI treatment seeking practice was extremely low as only 4.6 % MSM reported that they had visited a STI clinic in the past 12 months. Even after manifestation of STI symptoms last time, more than half (53.1%) of the respondents had waited 8 to 30 days for seeking treatment. MSW and TG relatively waited for longer time (66.7% MSW and 64.7% TG) compared to Non-MSW (45%) and Non-TG (40%).

Exposure to HIV programs is considerably low

Exposure of MSM/TG to the HIV programs tends to be low. Only 16.8% MSM visited HTC in the past 12 months. Only a quarter (27.6%) of the MSM had exposure to PE/OE/CM/CE. Similarly only 45.5% had visited DIC/IC/CC.

HIV and STI prevalence tends to be higher in MSM/TG who reported that they had interacted with PE/OE/CM/CE, visited DIC/IC/CC, STI clinic (exception in case of HIV) and HTC centers in the past 12 months. It indicates that participation in HIV/STI prevention programs by the MSM may have increased recently while they might have contracted HIV/STI before their participation in the HIV prevention programs. However, it will have positive impact in prevention of HIV transmission in the future. Similarly, only half (56.3%) MSM have heard about ART services while only 47.6% knew about ART center.

Access to condom is almost universal but consistent condom use is decreasing

As reported, access to condom was almost universal (94%). About three-quarters (72%) of the MSM reported that from the out reach service or DIC. Condom use among MSM in the first sex was 41% while 62.5 % used condom in anal sex with a male sex partner in the last sex. Only four out of ten (40.5%) MSM reported that they used condom during anal sex with a male in last six months.

Consistent condom use (always) in the past month with non-paying male, one time paid male sex partner, non-paying female sex partner and female sex partner was 76%, 89%, 39% and 60% respectively. It indicates that a significant proportion of MSM did not use condom consistently.

Moreover, only six out of ten (60%) reported that they had ever used lubricant, and seven out of ten(70%) MSM used special lubricant in anal sex in the past month.

MSM/TG were sexually active, had multiple sex partners and had sex with MSW and FSW

The MSM/TG were exposed to sex at a young age. The median age at first sex was 16 years (age range 10-30 years). Four out of ten (43.8%) MSM ever had sex in exchange for money. The median age having first sex with a male in exchange for money was 19 years(age range 12-36 years). The MSM reported having maximum of eight paid male anal sex partners (median no. was 2) and 40 one-time paying male anal sex partner (median number was 4). In all, 100% MSM had anal /oral sex with a Male/Meti in the last 12 months. Four out of ten MSM each had sex with a male/Meti in exchange for money (43.8%), and anal sex in last six months with a male(42.8%).In total, 1 % MSM had their first sex with paid FSW and 1.5% MSM had their last sex with a paid FSW.

Comprehensive knowledge of HIV prevention is moderate

Knowledge of ABC among MSW indicates that it is in declining trend (except in 2009). In 2004 it was 89%, which has decreased to 48.6 % in 2015.

The knowledge of BCDEF on HIV prevention among MSM has declined from 64.3% in 2007 to 56.8% in 2015. Among MSW, the knowledge of BCDEF has declined from 80.7% in 2009, to 60.7% in 2015. For Non-MSW also, it decreased to 44.8% in 2015, from 59 % in 2012. The trend in changes regarding knowledge of BCDEF in MSW, Non-MSW and MSM are statistically significant.

The gradual decrease in the awareness level on HIV prevention indicates likelihood of increase in HIV prevalence in the future again.

Stigma and discrimination in employment and daily lives is considerably high

Despite the decade long awareness and advocacy to ensure the rights of the MSM and TG, stigma and discrimination towards MSM and TG is increasingly reported. About 9.5% MSM were beaten and another 11.5% of the MSM were forced to have sex in the past 12 months-the proportion was higher for MSW (20.7%) and TG (17.2%). They fell pray with client (34.8%), sex partner (28.3%), police (23.9%) and hooligan groups (19.6%). Violence from sex partner was higher in Non-MSW (50%) and Non-TG (44.4%). Two out of ten (19.8%) respondents were blackmailed in the past 12 months, which was again higher among MSW (37.9%) and TG (29.3%). Similarly, one in ten (9.3 %) of the MSM reported discrimination at job or everyday life. Such a discrimination was faced by 42.3% MSW and 26.5% of the TG.

5.2 Program Implications and Recommendations:

Following program implications and recommendations are made on the basis of the survey findings:

- i. The MSM have their sexual debuts in quite a young age (15 to 17 years). Therefore reach of HIV prevention intervention should be focused on the adolescent groups. Targeted interventions for students, out of school adolescents and youth should be implemented focusing on delayed sex, consistent and correct use of condom and partner reduction, among others.
- ii. Targeted interventions are necessary for MSW, TG and Non-MSW as they tend to be engaged in risky sexual behaviors that lead to HIV transmission.
- iii. 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.
- iv. Information about available HIV and STI services, including condoms should be disseminated widely through mass media as well as interpersonal communication.
- v. Comprehensive knowledge of HIV prevention seems decreasing in the recent IBBS surveys, a study should be conducted on why it is declining and its association with HIV and STI infections.
- vi. Access to structured HIV programs (Peer education, DIC, HCT/STI clinics) should be improved.
- vii. Special advocacy and awareness programs should be implemented in order to reduce the existing stigma and discrimination faced by the MSM/TG populations.
- viii. In future IBBS surveys on MSM/TG, service centers should be established in Lalitpur and Bhaktapur as well so as to include more MSM/TG population from these cities.
- ix. Further analysis of IBBS data should be done to generate data required for designing the HIV and STI program intervention, in addition to examine association between exposure to HIV and STI services and programs, sexual behaviors of the MSM/TG and HIV/STI infection.

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ANNEXES

Annex 1: Survey Tools

Government of Nepal

Ministry of Health and Population (MoHP)

National Center for AIDS and STD Control (NCASC)

Integrated Biological and Behavioral Surveillance Survey (IBBS) among Men who have Sex with Men/Transgender people in Kathmandu Valley - 2015

(MSM Questionnaire)

Namaste! My name is..... I am here from to collect data for a research study being conducted under the leadership of **National Centre for AIDS and STD Control (NCASC), Ministry of Health and Population, Government of Nepal**. During this data collection, I will ask you some personal questions that will be about sexual behavior, use and promotion of condoms, STI/HIV/AIDS and drugs. We will also take your blood, anal swab and urine sample for testing HIV, syphilis, *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (GC). If it is determined that you have any STI symptoms, we will provide treatment free of charge. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk about because your name will not be mentioned on this form and collected samples. All the mentioned information will be used only for the study purpose. This survey will take about 40 to 60 minutes.

It depends on your wish to participate in this survey or not. You do not have to answer those questions that you do not want to answer, and you may end this interview at any time you want to. But I hope you will participate in this survey and make it a success by providing correct answers to all the questions.

Would you be willing to participate?

1. Yes 2. No

Signature of the interviewer: _____ Date: _____/_____/2015

Operational definition of respondent:

Inclusion definition for MSM: ***biological males who have engaged in sexual relationship (oral and/or anal sex) with another biological male at least once within the past 12 months prior to the date of survey***

Male Sex Workers (MSWs)/ TG who involved in sex work: “regardless of their identity or label if one male has had sold anal and/or oral sex to another male in exchange for money or any other commodities in the 12 months preceding the study”.

Code Respondent: (circle)	
1) MSW: 1	Non-MSW : 2
2) Trans Gender 1	Non-Trans Gender 2
Seed: 1. Yes	2. No

IDENTIFICATION NUMBER: (Write "0" for seed)

Coupon number of Respondent (If respondent is seed write "0")

Coupon number given: 1) 2) 3)

Ask the respondent to mention number of MSM/metis who is/are in his/her contact or are known to him in the past one year

Did the interviewee abandon the interview?

1. Yes (**Precise the number of the last question completed: Q ____**) 2. No

Name of Interviewer: _____ Code No. of Interviewer:

Date of Interview: ____/____/2072

Checked by the supervisor: Signature: _____ Date: ____/____/2072

001. Has someone interviewed you from Intrepid Nepal PVT Ltd with a questionnaire in last few weeks?

1. Yes 2. No (**Continue Interview**)



When?

_____ Days ago (**End Interview**)

Respondents ID No.

Respondent referred by coupon no.

Interviews Starting Time: _____ hrs. _____ min.

Interviews Completion Time: _____ hrs. _____ min.

1.0 PERSONAL INFORMATION

Q. N.	Questions	Coding Categories	Skip to
101	How old are you?	Age <input type="text"/> <input type="text"/> (Write the completed years)	
102	What is your caste?	Ethnicity/Caste _____ (Specify) Code No. <input type="text"/> <input type="text"/>	
103	Do you follow any religion?	Yes 1 No 2	→ 104
103.1	What is your religion? (Only one response)	Hindu 1 Buddhist 2 Muslim 3 Christian 4 Others (Specify) 96 Don't remember/know 98 No Response 99	
104	What is your educational status? (Circle '0' if illiterate, '19' for the literate without attending the school, and write exact number of the passed grade)	Illiterate 0 Literate 19 Grade <input type="text"/> <input type="text"/> (Write the grade completed)	
105	What kind of person do you get attracted to? (Multiple answer possible)	Gay 1 Ta 2 Panthi 3 Kothi 4 Meti 5 TG 6 Woman 7 Hijara 8 Others (specify) 96 No Response 99	
106	How would you identify yourself on the basis of your sexual orientation/behavior ? (Only one answer)	Dohori 1 Ta 2 Pinky ta 3 Man/mard 4 homosexual 5 Gay 6 Meta/meti 7 Pinky meta 8 Woman 9 Hijara 10	

Q. N.	Questions	Coding Categories	Skip to
		Trans gender11 Others (Specify) 96 Don't remember/know98 No Response99	
106.1	How do you identify yourself on the basis of gender (Only one answer)	<i>TesroLingi</i> 1 Man2 Woman3 Don't Know.....98 No Response.....99	
106.2	Which of the following best describes your current living situation? (Select only one option)	Homeless on the street.....1 Living in own home.....2 Living in a residential hotel.....3 Rented apartment/room.....4 Other (specify).....96	107
106.3	How often your landlord or male partner forced you to vacate the rented room or apartment in the last 5 years?	Never.....1 Once/twice.....2 Three to five times.....3 More than five times.....4 Do not remember98	
107	Are you currently married?	Yes.....1 No2 No response99	107.2
107.1	Who is your married sex partner? (Multiple answer possible)	Male.....1 Female2 TG.....3 Others (Specify) 96	108
107.2	Does your family force you for marriage with female?	Yes.....1 No.....2	
107.3	How old were you when you were first married?	Age:	
108	Are you currently living with a regular sexual partner?	Yes.....1 No2 No response99	110
109	Is your regular sexual partner who you live with male or female? (If female, confirm if she is wife or other female partner)	Male.....1 Wife2 Other female3 No response99	
110	In the last 12 months, have you been away from your home for more than one-month altogether?	Yes.....1 No2 Don't remember/know98 No response99	

Q. N.	Questions	Coding Categories	Skip to
111	What is your main profession? (Only one response)	Student..... 1 Driver2 Police.....3 Military.....4 Other civil servant5 Businessman.....6 Private company staff.....7 Unemployed8 Laborer/wage labor9 Sex worker10 Others (Specify) _____ 96 Don't know98 No response99	
112	What was your total income in last month? (Write total income from one or more than one professions)	NRs _____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> If response is "00" go to Q.201 Don't remember/don't know 98 No response 99	115
113	How did you earn that money? (Record all. If the respondents says "work" or "my job" probe for whether formal salaried job or informal sector) (Multiple answer possible)	Sex work..... 1 Money from family2 Salaried job.....3 Own business4 Wage labor5 Other work (Specify) _____ 96 Don't remember/know98 No response99	115
114	How many people are you supporting with your income now?	Number of people..... <input type="text"/> <input type="text"/> Don't remember/don't know98 No response Own business.....99	
115	Does your family force you to live outside of home because of your sexual orientation/ behaviours?	Yes.....1 No.....2 No response99	
116	Is there at least someone in your immediate family that you can talk openly with about your homosexual/bisexual behaviour?	Yes.....1 No.....2 No response99	

2.0 INFORMATION ON SEXUAL BEHAVIOR

Q. N.	Questions	Coding Categories	Skip to
201	At what age did you first have sexual intercourse? (I mean any type of anal and or vaginal sex even if you were forced to have it)	Age in years <input type="text"/> <input type="text"/> (Completed years) Never had oral, vaginal or anal sex 1 Don't know/Can't recall 98 No response 99	→ Stop interview
202	Was your first sexual partner male or female?	Male/meti 1 Female 2 Don't know 98 No response 99	
203	Have you had vaginal, anal or oral sex with a female in the last 12 months? (Check with answer in Q No. 109)	Yes 1 No 2 Don't remember 98 No response 99	
204	Have you had anal/oral sex with a male/meti in the last 12 months?	Yes 1 No 2 Don't remember 98 No response 99	→ Stop interview
205	Have you ever had sex with a male/meti in exchange for money or any other commodities?	Yes 1 No 2 Don't remember 98 No response 99	→ 301
206	In the last 12 months have had sex with a male/meti for money?	Yes 1 No 2 Don't remember 98 No response 99	
207	How old were you when you had sex with a male/meti for money for the first time? (In Completed years)	Year's old <input type="text"/> <input type="text"/> Don't remember 98 No response 99	
208	When did you last have sex with a male/meti for money? (I mean any kind of sex, including oral sex, etc.)	Days <input type="text"/> <input type="text"/> Weeks <input type="text"/> <input type="text"/> Months <input type="text"/> <input type="text"/> Don't remember 98 No response 99	
209	Have you had anal (receptive, insertive or both) sexual intercourse in the last six months with a male partner?	Yes 1 No 2 Don't remember 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to
210	If yes in Q209 Did you or your partner use a condom the last time you had anal sex (in the last six months)?	Yes..... 1 No 2 Don't remember..... 98 No response 99	

3.0 USE OF CONDOM WITH SEX PARTNERS

CONDOM USE WITH NON-PAYING MALE SEX PARTNER

Non-paying male sex partner: Male partners with whom you may have had sex without paying any cash or without exchanging gifts. When answering these questions please think about your “meti” or “ta” as well as other male partners.

Q. N.	Questions	Coding Categories	Skip to
301	In the past one month, how many male sex partners have you had sex with where no payment was involved?	Number <input type="text"/> <input type="text"/> No one 0 Don't remember 98 No response 99	} 306
302	With how many of those partners did you have anal sex?	Number <input type="text"/> <input type="text"/> No one 0 Don't remember 98 No response 99	→ 304
303	How often did you use condom while you had anal sex with non-paying male sex partner in the last month?	Always 1 Most of the time 2 Sometimes 3 Never..... 4 Don't remember98 No response99	
304	The last time you had anal sex with a non-paying male sex partner, did you use a condom?	Yes..... 1 No 2 Don't remember..... 98 No response 99	
305	Where did you meet your last non-paying male sex partner?	Park..... 1 Discothèque 2 Restaurant 3 Dance Restaurant..... 4 Massage Parlor 5 Street..... 5 Pub/Café 7 Temple..... 8 Bus Station..... 9 Public Toilets..... 10 Cinema Hall..... 11	

Q. N.	Questions	Coding Categories	Skip to
		Near Army barracks..... 12 Internet café..... 13 Sauna/Steam Bath..... 14 Swimming Pools/sports center 15 Home 16 <i>BhattiPasal</i> 17 Forest 18 Saloon 19 Shopping center 20 Others (Specify) _____ 96 Don't remember 98	

CONDOM USE WITH NON-PAYING FEMALE SEX PARTNER

Non-paying female sex partner: Female partners with whom you may have had sex without paying in cash or without exchanging any gifts. If no in Q. 203 go to Q.N. 309

Q. N.	Questions	Coding Categories	Skip to
306	In the past one month, how many female sex partners have you had vaginal, anal or oral sex with where no payment was involved? (Including your wife if married as well as other women)	Number <input type="text"/> <input type="text"/> No one 0 Don't remember 98 No response 99	} 309
307	How often did you use condom while you had vaginal, oral or anal sex with non-paying female sex partner in the last month?	Always 1 Most of the time 2 Sometimes 3 Never..... 4 Don't remember 98 No response 99	
308	The last time you had vaginal, anal or oral sex with a non-paying female sex partner, did you use a condom?	Yes..... 1 No 2 Don't remember..... 98 No response 99	

CONDOM USE WITH ONE-TIME MALE CLIENT

One-time male clients: Men who paid or gave other commodities to you for sex as client and you have never had sex with him before

Q. N.	Questions	Coding Categories	Skip to
309	In the past one month, how many one-time male clients have you had sex with you? (Include oral, anal sex partner)	Number <input type="text"/> <input type="text"/> No one 0 Don't remember 98 No response 99	} 315

Q. N.	Questions	Coding Categories	Skip to
310	How many one-time male clients did you have anal sex with in the last month?	Number <input type="checkbox"/> <input type="checkbox"/> No-one0 Don't remember98 No response99	→ 314
311	Did you ask them to use condoms?	All of them.....1 Some of them.....2 None of them3 Don't remember98 No response99	
312	How often did you use condom while you have had anal sex with a one-time male client in the last month?	Always1 Most of the time2 Sometimes.....3 Never.....4 Don't remember98 No response99	
313	The last time you had anal sex with a one-time male client, did he use a condom?	Yes.....1 No2 Don't remember.....98 No response99	
314	How many one-time male clients did you have oral sex with in the last month?	Number <input type="checkbox"/> <input type="checkbox"/> No-one0 Don't remember98 No response99	

CONDOM USE WITH REGULAR MALE CLIENTS

Regular male clients: Men who paid or gave other commodities to you for sex as client and you have had sex with him more than once

Q. N.	Questions	Coding Categories	Skip to
315	In the past one month, how many regular male/meti clients have you had sex with you?	Number <input type="checkbox"/> <input type="checkbox"/> No one0 Don't remember98 No response99	} 324
316	How many regular male/meti clients did you have anal sex with in the last month?	Number <input type="checkbox"/> <input type="checkbox"/> No on0 Don't remember98 No response99	→ 319
317	How often did you use condom while you have had anal sex with regular male/meti client in the last month?	Always1 Most of the time2 Sometimes3 Never.....4 Don't remember98 No response99	

Q. N.	Questions	Coding Categories	Skip to
318	The last time you had anal sex with a regular male/meti client, did you use a condom?	Yes..... 1 No2 Don't remember.....98 No response99	
319	How many regular male/meti clients did you have oral sex with in the last month?	Number <input type="text"/> <input type="text"/> No-one0 Don't remember98 No response99	
320	In the past month, have you brought any male/meti client to orgasm without penetration? (Any male client: Regular or one-time)	Yes..... 1 No2 Don't remember.....98 No response99	
321	How much did your last male/meti client pay you? (Regular or one time client)	Rs. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't remember 98 No response 99	
322	Where did you meet your last male/meti client? (Regular or one time client)	Park..... 1 Discotheque2 Restaurant3 Dance Restaurant.....4 Massage Parlor5 Street.....5 Pub/Café7 Temple.....8 Bus Station.....9 Public Toilets..... 10 Cinema Hall..... 11 Near Army barracks..... 12 Internet /café 13 Sauna/Steam Bath..... 14 Swimming Pools..... 15 Home 16 BhattiPasal..... 17 Forest 18 Saloon 19 Shopping center20 Others (Specify) _____96 Don't remember98 No response99	

Q. N.	Questions	Coding Categories	Skip to
323	What are the most common occupations among your clients? (Do not read options. Probe for up to three)	Student..... 1 Police/Military.....2 Civil servant.....3 Businessman.....4 Laborer.....5 Unemployed.....6 Driver.....7 Private office staff.....8 Others (Specify).....96 Don't know.....98 No response.....99	

CONDOM USE WITH FEMALE CLIENTS

Female clients: women who paid you for sexual services

Q. N.	Questions	Coding Categories	Skip to
324	In the past one-month, how many women have paid or gave other commodities to you for sexual services?	Number..... <input type="text"/> <input type="text"/> No one..... 0 Don't remember..... 98 No response..... 99	} 327
325	How often did you use condom while you have had vaginal or anal sex with female clients in the last month?	Always..... 1 Most of the time.....2 Sometimes.....3 Never.....4 Don't remember..... 98 No response.....99	
326	The last time you had vaginal or anal sex with a female client, did you use a condom?	Yes..... 1 No.....2 Don't remember.....98 No response.....99	

CONDOM USE WITH PAID MALE/ METI SEX PARTNER

Paying male sex partner: Men to whom you have paid in cash or gave some commodities for sex

Q. N.	Questions	Coding Categories	Skip to
327	In the past one month, how many different men/meti did you give money or any other commodities so that they would have sex with you?	Number..... <input type="text"/> <input type="text"/> No one..... 0 Don't remember..... 98 No response..... 99	} 331
328	How many male/meti partners did you pay to have anal sex with in the last month?	Number..... <input type="text"/> <input type="text"/> Not paid.....0 Don't remember.....98 No response.....99	

Q. N.	Questions	Coding Categories	Skip to
329	How often did you use condom while you have had anal sex with paying male sex partners in the last month?	Always 1 Most of the time 2 Sometimes 3 Never..... 4 Don't remember 98 No response 99	
330	The last time you had anal sex with a paid male sex partner, did you use a condom?	Yes 1 No 2 Don't remember 98 No response 99	
330.1	If a client (regular or casual) refuses to use a condom, what do you usually do?	Refuses to have sex with the client..... 1 Forces the client to use a condom..... 2 Explains the advantages of condoms..... 3 Still has sex with the client..... 4 Only takes medication/treatment after sex..... 5 Other (Specify) 96 Don't know..... 98	
330.2	How often do you have sex with regular and casual clients without condoms to make more money within 6 months?	Always..... 1 Most of the time..... 2 Sometimes..... 3 Never..... 4 Don't know..... 98 No response..... 99	

CONDOM USE WITH PAID FEMALE SEX PARTNER (FEMALE SEX WORKERS)

Paid female sex partner: Women to whom you have paid in cash or gave some gifts for sex

Q. N.	Questions	Coding Categories	Skip to
331	In the past one-month, how many female sex workers did you pay or give other commodities to for sexual contact?	Number <input type="text"/> <input type="text"/> No one 0 Don't remember 98 No response 99	} 334
332	The last time you had vaginal or anal sex with a paid female sex partner, did you use a condom?	Yes 1 No 2 Don't remember 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to
333	How often did you use condom while you have had vaginal or anal sex with paying female sex partners in the last month?	Always 1 Most of the time2 Sometimes3 Never.....4 Don't remember..... 98 No response 99	
334.	With whom did you have the first sexual intercourse (vaginal or anal)? (Check with answer in Q 202)	Non-paying male partner 1 Non paying female partner2 Male client3 Female client4 Paid male sex worker.....5 Paid female sex worker (FSW).....6 Don't Know..... 98 No response 99	
335.	Did you use a condom in the first sexual intercourse?	Yes 1 No2 Don't remember/don't know 98 No response 99	
336	With whom did you have the last sexual intercourse (anal or vaginal)?	Non-paying male partner 1 Non paying female partner2 Male client3 Female client4 Paid male sex worker.....5 Paid female sex worker (FSW).....6 Don't Know..... 98 No response 99	
337	Did you use a condom in the last sexual intercourse (anal or vaginal)?	Yes 1 No2 Don't remember/don't know 98 No response 99	
338	Who was your last male anal sexual partner? (Check the answer given in Q 336)	Non-paying male partner 1 Male client2 Paid male sex worker.....3 No anal sexual intercourse in Last 12 months4 Don't Know..... 98 No response 99	→ 401
339	Did you use a condom in the last anal sexual intercourse with male sex partner?	Yes 1 No2 Don't remember/don't know 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to
340	How many different sex partners you had in the last six months (count all types of partners: paid, not-paid, regular, one time among all male, female and <i>tesrolingis</i> also)	Number <input type="text"/> <input type="text"/> <input type="text"/> No-one0 Don't remember98 No response99	

4.0 SEXUAL PRACTICES AND VIOLENCE

Q. N.	Questions	Coding Categories	Skip to
401	Among all your male sexual partners with whom you had oral sex last month, <u>were your partners (not you):</u>	All receptive1 All insertive2 Mostly receptive3 Mostly insertive4 Equally receptive andinsertive5 Didn't have oral sex in the last month6 Don't remember98 No response99	
402	I am still talking about oral sex. Did you use a condom with your last male partner with whom you had oral sex ?	Yes1 No2 Don't remember/don't know98 No response99	
403	Among all your male sexual partners with whom you had also anal sex last month, <u>were your partners (not you):</u>	All receptive1 All insertive2 Mostly receptive3 Mostly insertive4 Equally receptive andinsertive5 Didn't have anal sex in the last month6 Don't remember98 No response99	
404	In the past 12 months, were you ever beaten because of your sexual behavior?	Yes1 No2 Don't remember/don't know98 No response99	} 406
405	Who was/were the people who beat you? (Multiple answers possible don't read possible answer)	Police1 Military2 Client3 Regular Partner4 Sexual Partner5 Hooligans group6 Others (Specify)96 Don't remember98 No response99	

QN 410.2. If yes, How many times did this happen?	Never 0	Never 0	Never ..0	Never ..0	Never . 0	Never 0	Never 0	Never ... 0
	Once1	Once 1	Once ...1	Once ...1	Once ...1	Once1	Once1	Once1
	2 / 3 times2	2 / 3 times 2	2 / 3 times ...2	2 / 3 times ...2	2 / 3 times ...2	2 / 3 times2	2 / 3 times 2	2 / 3 times2
	4≥ times 3	4≥ times 3	4≥ times3	4≥ times3	4≥ times3	4≥ times 3	4≥ times3	4≥ times 3

QN 410.3	When you are treated unfairly because of your sexual orientation, what is your reaction?	Accept it/keep to self0 Do something/keep to self..... 1 Do something/talk to others2
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Q. N.	Questions	Coding Categories	Skip to
411	Did you ever feel so low you thought a lot about committing suicide?	Yes.....1 No2 No response.....99	→ 501
412	How often did you have any thoughts about ending your own life in last 12 months?	Many times.....1 A few times.....2 Once or twice.....3 No response.....99	
412.1	Have you ever made a plan to commit suicide?	Yes.....1 No2 No response.....99	
413	Did you ever attempt suicide?	Yes.....1 No2 No response.....99	

5.0 ACCESSIBILITY OF CONDOM AND LUBRICANT

Q. N.	Questions	Coding Categories	Skip to
501	SHOW CONDOM Can you tell me what this is?	Can identify as condom 1 Cannot identify as condom 2 No response..... 99	
502	Do you have condoms with you at this moment? Please show me	Can show condoms 1 Cannot show a condom..... 2 No response..... 99	
502.1	In the last 12 months have you been given condoms? (e.g. through an outreach service, drop-in centre or sexual health clinic)	Yes 1 No.....2 Don't remember..... 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to
503	Last time, from where did you get condom? (Multiple answers. DO NOT READ the possible answers)	Shop 1 Pharmacy 2 Health facility 3 Bar/Guest House/Hotel 4 Friends 5 Clients 6 BDS drop-in center 7 BDS field workers 8 ParchayaSamaj 9 Cruiseaids 10 Never received condom 11 Other (Specify) 96 Don't know 98 No response 99	505 → 505

Q. N.	Questions	Coding Categories	Skip to
504	How much did you pay for one piece of condom the last time you got one?	NRS <input type="checkbox"/> <input type="checkbox"/> Free 1 Don't know 98 No response 99	
505	Can you obtain a condom every time you need it ?	Yes 1 No 2 Don't need one 3 Don't remember 98 No response 99	→ 507 } 507
506	Why can't you get a condom every time you need it? (Multiple answers. DO NOT READ the possible answers)	Cost too much 1 Shop/pharmacy too far away 2 Shops/pharmacies closed 3 Shy to buy condom 4 Don't know where to obtain 5 Don't want to carry condom 6 Other (Specify) 96 Don't know 98 No response 99	
507	Which is your most preferred condom brand?	Dhal 1 Panther 2 Number one 3 Jodi 4 Kamasutra 5 Other (Specify) 96 Don't know 98	

		No response.....99	
508	Have you ever used lubricant when having anal sex? (Lubricants: Something to make your or your partner's penis slippery so it is easier to insert without pain)	Yes.....1 No2 Don't remember98 No response99	→ 517
509	What types of lubricant did you used during last anal sex?	Saliva1 Oil2 Water based lube3 Antiseptic/antibiotic cream4 Ghee.....5 Cream/lotion.....6 Other (Specify)96 Don't know98 No response.....99	
510	Were you using a condom that time?	Yes.....1 No2 Don't know.....98 No response99	
511	Some people use a lubricant product made especially for using with condom. Have you heard of such a product?	Yes.....1 No2 Don't remember98 No response99	} 513
512	Could you tell me the brand name of such a product?	Yes, (Name).....1 No2 Don't remember.....98 No response.....99	
513	In the past 30 days, how often have you used a special lubricant for condoms together with a condom during anal sex?	Always1 Most of the time2 Sometimes3 Never.....4	→ 515
514	Why do you sometimes not use special condom lubricant, or never use it?	Cost too much.....1 Shy to buy lubricant.....2 Don't know where to obtain3 I do not need to use.....4 I use other cream5 Not aware of such products.....6 Other (Specify)96 Don't remember98 No response99	
515	If the respondent is 4 in Q.N. 510 go to Q.N. 513 For you, what are the purposes of using special lubricant with condoms during sex?	Decrease pain/inflammation1 Increase feeling/stamina.....2 Decrease risk of condom breakage 3 Prevent HIV/AIDS infection.....4 Other (Specify)96	

	(Multiple answers. DO NOT READ the possible answers)	Don't know98 No response99	
516	Have you faced any problems while using lubricants?	Condom slippage1 Irritation or burning sensation2 Condom breakage3 No problem4 Other (Specify)96 Don't know98 No response99	
517	What is your convenient/preferred place to buy condoms and lubricants? (Multiple answers. DO NOT READ the possible answers)	Shop1 Pharmacy/Medical hall2 Bar/Guest House/Hotel3 BDS drop-in center4 BDS field workers5 ParichayaSamaj6 CruiseAids7 Other (Specify)96 Don't know98 No response99	
518	In the last month, was there such instance when your condom broke while you were using it?	Yes1 No2 Condom never used/didn't use last month3 Don't know98 No response99	} 601
519	If you have experienced condom breakage, what do you think caused such breakage?	Use of oil based lubricant1 Improper use of condom2 Other (Specify)96 Don't know98 No response99	

6.0 USE OF ALCOHOL AND DRUGS

Q. N.	Questions	Coding Categories	Skip to
601	Have you ever had any drinks containing alcohol?	Yes1 No2 No response99	→ 604

Q. N.	Questions	Coding Categories	Skip to
601.1	During the last 4 weeks how often have you had drinks containing alcohol?	Every day 1 3-4 days a week..... 2 At least once a week 3 Did not drink alcohol in the last week 4 Don't know / remember 98 No response..... 99	
602	Normally what type of drinks do you take?	Local <i>raksi</i> 1 Beer 2 <i>Jand</i> 3 Whisky 4 Other (Specify) 96 Don't know / remember 98 No response..... 99	
603	Last time you had sex, how much alcohol did you drink? (Only one response)	A lot (more than 6 small beers or 3 glass of local raw whisky)1 Some (3-4 small beers or 1-3 glasses of wine) 2 A little (1-3 small beers or 1 glass of wine) 3 No alcohol..... 4 Don't know / remember 98 No response..... 99	
604	Some people have tried different types of drugs. Which of the following have you ever tried in the last 12 months? READ OUT ANSWERS	YesNo Ganja..... 1 2 Chares 1 2 Tablets..... 1 2 Glue/dendrite 1 2 Heroin..... 1 2 Other (Specify)..... 96	
605	Some people try injecting drugs using a syringe. Have you injected such drugs in the last 12 months DO NOT COUNT DRUGS INJECTED FOR MEDICAL PURPOSES OR TREATMENT OF AN ILLNESS	Yes 1 No..... 2 Don't remember/don't know 98 No response..... 99	

7.0 SEXUALLY TRANSMITTED INFECTIONS (STI)

Q.N.	Questions	Coding Categories	Skip to
701	<p>Could you tell me about any symptoms of STIs in men?</p> <p>DO NOT READ OUT (Multiple responses possible)</p>	Penis discharge 1 Burning pain during urination..... 2 Genital ulcers/sores..... 3 Swellings in groin area..... 4 Anal discharge 5 Anal ulcer/sores 6 Other (Specify)_____..... 96 Don't know 98 No response..... 99	
702	<p>Have you had a urethral discharge during the past 12 months?</p>	Yes 1 No..... 2 Don't know 98 No response..... 99	
703	<p>Have you had anal discharge during the last 12 months?</p>	Yes 1 No..... 2 Don't know 98 No response..... 99	
704	<p>Have you had a genital ulcer / sore during the past 12 months?</p>	Yes 1 No..... 2 Don't know 98 No response..... 99	
705	<p>Have you had an anal ulcer / sore during the past 12 months?</p>	Yes 1 No..... 2 Don't know 98 No response..... 99	
706	<p>Have you had genital ulcer / discharge / sore (penis and or anal) during the past 12 months</p> <p>(Check consistency with previous questions 702, 703, 704, 705 and 706)</p>	Yes 1 No..... 2 Don't know 98 No response..... 99	→ 801
707	<p>What was the first thing you did when you had those symptoms?</p> <p>DO NOT READ OUT</p>	Sought treatment from hospital.... 1 Sought treatment from chemist 2 Sought treatment from private doctor/ clinician 3 Sought treatment from BDS clinic 4 Sought treatment from ParichayaSamaj..... 5 Sought treatment from Cruseaids. 6 Received treatment from friend ...7 Took medicine available at Home 8 Nothing 9	} 801

Q.N.	Questions	Coding Categories	Skip to
		Other (Specify) _____ 96 Don't remember/know 98 No response..... 99	
708	Before going to see the doctor or the drug seller, did you take any drugs that you thought would treat your STI?	Yes 1 No..... 2 Don't know 98 No response..... 99	
709	Last time you had one of those symptoms that you just told me about, how many days did you wait between discovering symptoms and going for treatment (If the same day, code 1)	Number of days..... <input type="text"/> <input type="text"/> No treatment at all..... 0 Don't remember/ know 98 No response 99	801
710	Last time you sought treatment for those symptoms, how much did the treatment cost you, including the medicine and the fees for the service?	Rs. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't remember / know 98 No response..... 99	

8.0 HIV/AIDS KNOWLEDGE AND ATTITUDES

Q. N.	Questions	Coding Categories	Skip to
801	Have you ever heard of HIV or AIDS?	Yes 1 No..... 2 No response..... 99 Don't know 98	901
802	Do you know anyone who is infected with HIV or has died of AIDS?	Yes 1 No..... 2 No response..... 99	804
803	Do you have a close relative or close friend who is infected with HIV or has died of AIDS?	Yes, a close relative..... 1 Yes, a close friend 2 No..... 3 No response..... 99	
804	Can people reduce their risk of HIV by using a condom correctly every time they have sex?	Yes 1 No..... 2 Don't know 98 No response..... 99	
805	Can people reduce their risk of HIV by using a condom correctly every time they have anal sex?	Yes 1 No..... 2 Don't know 98 No response..... 99	
806	Can a person get the HIV virus from mosquito bites?	Yes 1 No..... 2 Don't know 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to
807	Can people protect themselves from HIV by having one uninfected faithful sex partner?	Yes 1 No..... 2 Don't know 98 No response..... 99	
808	Can people protect themselves from HIV by abstaining from sexual intercourse? (This means abstaining from anal as well as oral sex)	Yes 1 No..... 2 Don't know 98 No response..... 99	
809	Can a person get the HIV virus by sharing meal with someone who is infected?	Yes 1 No..... 2 Don't know 98 No response..... 99	
810	Can a person get the HIV virus by using a needle that is used by someone else?	Yes 1 No..... 2 Don't know 98 No response..... 99	
811	Do you think that a healthy-looking person can be infected with HIV, the virus that causes AIDS?	Yes 1 No..... 2 Don't know 98 No response..... 99	
812	Can a person get HIV by shaking hand with an HIV infected person?	Yes 1 No..... 2 Don't know 98 No response..... 99	
813	Can blood transfusion from an infected person to the other transmit HIV?	Yes 1 No..... 2 Don't know 98 No response..... 99	
814	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes 1 No..... 2 Don't know 98 No response..... 99	816
815	What can a pregnant woman do to protect her unborn child against the risk of HIV transmission?	Take medication 1 Others (Specify) 96 Don't know 98	
816	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes 1 No..... 2 Don't know 98 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to
817	What have you done for yourself to avoid getting HIV? (Multiple response possible)	Take medicine 1 Nothing..... 2 Always use condoms..... 3 Others (Specify) _____ 96 Don't know..... 98 No response..... 99	819
818	What medicine have you taken?	Name _____ 1 Don't know..... 98 No response..... 99	
819	To what extent do you think that you are at risk of HIV infection?	High risk..... 1 Some risk..... 2 Little or no risk..... 3 Don't know..... 98 No response..... 99	821 822
820	Why do you think you are at risk of getting HIV? Multiple answers possible (DO NOT READ OUT)	High risk job..... 1 Multiple sex partners..... 2 Frequent and regular anal sex..... 3 Don't use condoms..... 4 Irregular condom use..... 5 Needles sharing 6 Other (Specify) _____ 96 Don't know..... 98 No response..... 99	822
821	Why do you think you are at little or no risk of HIV? Multiple answers possible (DO NOT READ OUT)	Always use condoms..... 1 Only one sex partner 2 Partners are clean 3 Partners are healthy 4 Never share injections 5 Share injections sometime only 6 Other (Specify) _____ 96 Don't know..... 98 No response..... 99	
822	Apart from this study center, do you know any such place in Kathmandu valley where you could have a confidential HIV test? By confidential, I mean that no one will know the result if you don't want them to know it.	Yes 1 No..... 2 Don't know 98 No response..... 99	
822.1	Do you know where you can go for HIV test?	Yes 1 No..... 2	

Q. N.	Questions	Coding Categories	Skip to
823	I don't want to know the result, but have you ever had an HIV test?	Yes 1 No 2 Don't know 98 No response 99	→ 901
824	Did you yourself take the test or did someone else ask you to have the test?	Voluntarily 1 I was asked 2 Don't know / remember 98 No response 99	
825	When you were tested for HIV, did you received counseling? (I mean proper information about HIV infection and prevention, the reason for taking HIV test and post test counseling)	Yes 1 No 2 Don't know 98 No response 99	
826	When did you have your HIV test?	Within past one year 1 One year before 2 Don't know 98 No response 99	
827	Please do not tell me the result, but did you yourself find out the result of your test?	Yes 1 No 2 Don't know 98 No response 99	
828	How many times have you undergone for HIV test within the last 12 months? times	

9.0 STIGMAS AND DISCRIMINATION

Q. N.	Questions	Coding Categories	Skip to
901	If a male relative of yours gets HIV, would you be willing to take care of him?	Yes 1 No 2 Don't know 98 No response 99	
902	If a female relative of yours gets HIV, would you be willing to take care of her?	Yes 1 No 2 Don't know 98 No response 99	
903	If a member of your family gets HIV, would you want it to remain a secret?	Yes 1 No 2 Don't know 98	
904	If you knew a shopkeeper or food seller had HIV, would you buy food from them?	Yes 1 No 2 Don't know 98 No response 99	

Q. N.	Questions	Coding Categories	Skip to
905	In your opinion, a person with HIV should get the same, more or less health care than someone suffering from some other chronic disease?	Same 1 More 2 Less 3 Don't know 98 No response 99	
906	If a colleague who is working with you has HIV but he is not very sick, should he/she be allowed to continue working?	Yes 1 No 2 Don't know 98 No response 99	

10.0 KNOWLEDGE AND PARTICIPATION IN STI AND HIV/AIDS PROGRAMS

Q. N.	Questions	Coding Categories	Skip to
1001	Have you met or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilisers (CM) or Community Educators (CE) in the last 12 months?	Yes 1 No 2 No response 99	→ 1005
1002	What kind of activities did you participate in with such PE /OE/CE/CM? (Multiple answers. DO NOT READ the possible answers)	Discussion on how HIV/AIDS is/isn't transmitted..... 1 Discussion on how STI is/isn't Transmitted... 2 Regular/non-regular use of Condom..... 3 Demonstration on using Condom correctly 4 Others (Specify)..... 96	
1003	Do you know which organization were they from? (Multiple answers possible)	NGOs (Specify)..... Others (Specify) 96 Don't know 98	
1004	How many times have you been visited by PE, OE, CM and/or CE in the last 12 months?	Once 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times 5	
1005	Have you visited or been to any out reach center (DIC, IC or CC) in the last 12 months? Drop-In Center (DIC), Information Center (IC), Counseling Center (CC)	Yes 1 No 2	→ 1009
1006	When you went to the out reach center (DIC,IC or CC), which activities did you take part in? (Multiple answers. DO NOT READ the possible	Went to collect condoms..... 1 Went to learn the correct way of using condom..... 2 Went to watch film on HIV/AIDS.3	

Q. N.	Questions	Coding Categories	Skip to
	answers)	Participated in discussion on HIV transmission... 4 Other (Specify)_____96	
1007	Do you know which organizations run those out reach center (DIC,IC or CC)? (Multiple answers possible)	NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	
1008	How many times have you visited out reach centers (DIC, IC or CC) in the last 12 months?	Once 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times 5	
1009	Have you visited any STI clinic in the last 12 months?	Yes1 No2 →	1013
1010	When you visited such STI clinic in what activities were you involved? (Multiple answers. DO NOT READ the possible answers given below)	Blood tested for STI..... 1 Physical examination conducted for STI identification. 2 Discussed on how STI is/isn't transmitted 3 Discussed on regular/non-regular use of condom 4 Took a friend with me..... 5 Other (Specify)_____96	
1011	Do you know which organizations run those STI clinics? (Multiple answers possible)	Government sector (specify)..... Private sector (specify NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	
1012	How many times have you visited STI clinic in the last 12 months?	Once 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times 5	
1013	Have you visited any Voluntary Counseling and Testing (VCT) centers in the last 12 months?	Yes1 No2 →	1017
1014	When you visited such VCT center in what activities were you involved? (Multiple answers. DO NOT READ the possible answers)	Received pre-HIV/AIDS test counseling 1 Blood sample taken for HIV/AIDS test 2 Received post HIV/AIDS test counseling 3 Received HIV/AIDS test result 4	

Q. N.	Questions	Coding Categories	Skip to
		Received counseling on using condom correctly in each sexual intercourse..... 5 Took a friend with me..... 6 Received information on HIV/AIDS window period 7 Other (Specify)_____96	
1015	Do you know which organizations run those VCT centers? (Multiple answers possible)	Government sector (specify)..... Private sector (specify NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	
1016	For how many times have you visited VCT center in the last 12 months?	Once 1 2-3 times 2 4-6 times 3 7-12 times 4 More than 12 times 5	
1017	Have you ever heard about prevention of mother to child transmission services (PMTCT) for pregnant women?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1018
1017.1	Do you know from where pregnant women can get PMTCT services?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1018
1017.2	If Yes, please specify	Government sector (specify)..... Private sector (specify NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	
1018	Have you ever heard about anti-retroviral therapy (ART) services for HIV positive individuals?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1019
1018.1	Do you know from where HIV positive individuals can get ART services?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1019
1018.2	If Yes, please specify	Government sector (specify)..... Private sector (specify NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	

Q. N.	Questions	Coding Categories	Skip to
1019	Have you heard of viral load testing services for HIV positive individuals ?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1020
1019.1	Do you know from where HIV positive individuals can get viral load testing services?	Yes.....1 No.....2 Don't Know.....98 No response99	} 1020
1019.2	If Yes, please specify	Government sector (specify)..... Private sector (specify NGOs (Specify)..... Others (Specify) _____ 96 Don't know 98	
1020	Have you heard about Community Home Based Care (CHBC) services that are provided to people with HIV?	Yes1 No2	

11.0 GENERAL INFORMATION

Q. N.	Questions	Coding Categories	Skip to
1101	Where were you born?	District _____ VDC/Municipality _____	
1102	Where do you live now? (Do not ask the exact address)	Districts: _____ VDC/Municipality: _____ Don't remember/know 98 No response 99	
1103	For how long have you been living in this district?	Number of Months <input type="text"/> <input type="text"/> (Record "00" if less than 1Month) Since Birth 95 Don't remember/know 98 No response 99	} 1201
1104	Before you moved here, where did you live?	Districts: _____ VDC/Municipality: _____ Don't remember/know 98 No response 99	

12.0 INFORMATION MSM NETWORK

Q. N.	Questions	Coding Categories	Skip to
1201	Do you have friends who have also sexual relationship with males from other district or cities than Kathmandu Valley?	Yes.....1 No2 No response99	} 1203

Q. N.	Questions	Coding Categories	Skip to
1202	Which districts /cities ? (Multiple answer possible)	<u>DistrictCity</u> 1. _____	
1203	How many other MSM do you know (who also knows you well)? (Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months)	Number: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Don't know 98 No response 99	
1204	Among those people, please try to estimate their number by their age group:	Less than 15 years old <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 15-20 years old <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 21-30 years old <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 31-40 years old <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> > 41 years old <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Don't know 98 No response 99	
1205	Again, among those guys, please try to estimate their number by religion:	Hindu <input type="checkbox"/> <input type="checkbox"/> Buddhist <input type="checkbox"/> <input type="checkbox"/> Muslim <input type="checkbox"/> <input type="checkbox"/> Christian <input type="checkbox"/> <input type="checkbox"/> Others (Specify) _____ <input type="checkbox"/> <input type="checkbox"/> Don't know 98 No response 99	
1206	How are you related with the person who gave you the coupon for taking part in the study? (Do not ask this to the seed)	A close friend 1 A friend 2 You sex partner 3 A relative 4 A stranger 5 Other (Specify) _____ 96 Don't know 98 No response 99	

Q. N.	Questions	Coding Categories			Skip to	
		Very Often	Often	Some-time		
1207	In the past 6 months, how often have you been to the following locations to meet male sexual partners: (Ask for all the items proposed and probe for other locations, as well)	Park	1	2	3	4
		Discotheque	1	2	3	4
		Dance Restaurant	1	2	3	4
		Massage parlor	1	2	3	4
		Street	1	2	3	4
		Pub/Cafe	1	2	3	4
		Temple	1	2	3	4
		Bus Station	1	2	3	4
		Public Toilets	1	2	3	4
		Cinema Hall	1	2	3	4
		Near Army barracks	1	2	3	4
		Internet (chat room)	1	2	3	4
		Personal Add (web site)	1	2	3	4
		Personal Add (magazine or other)	1	2	3	4
		Sauna/Steam bath	1	2	3	4
		Swimming Pools	1	2	3	4
		Home	1	2	3	4
Telephone	1	2	3	4		
Other (Specify) _____	1	2	3	4		

Annex 2: Sample Size formula

$$n = D \frac{\left[Z_{1-\alpha} \sqrt{2P(1-P)} + Z_{1-\beta} \sqrt{P_1(1-P_1) + P_2(1-P_2)} \right]^2}{(P_2 - P_1)^2}$$

n = required minimum sample size

D = design effect (assumed in the following equations to be the default value of 2)

P1 = the estimated proportion at the time of the first survey.

P2 = the desired proportion at some future date.

(P2-P1) is the magnitude of change of change you want to be able to detect.

P = (P1 + P2)/2

Z1-α = the Z-score corresponding to the level of significance

Z1-β = the Z-score corresponding to the level of power

Annex 3: Technical Monitoring (Clinic And Lab)

S.No.	Activity	Method	Observation and comments
	STI clinic monitoring		
1	STI treatment guidelines (IBBS) available at the site?	O	
2	The clinic staff has read the STI treatment guidelines (IBBS)?	SI	
3	Is there a flow chart displayed in the medical examination room?	O	
4	Check the medicines for Syndromic treatment and the expiration date chart:	O	
	Azithromycine 500 mg		
	Acyclovir 200 mg		
	Cefixime 400 mg		
	Tinidazole 500 mg		
	Fluconazole 150 mg		
	Doxycycline 100 mg		
	Metronidazole 400 mg		
	Other Medicine		
	Scareb Ointment		
	Vitamin B Complex (Nepali) For FSWs		
	Paracetamol Tablet		
	Tab. Decold		
	Poviclone Iodine solution 450ml		
	Poviclone Iodine ointment		
	Sarcobex lotion (for scabies)		
	Iron tablets for FSWs		
	Equipment and materials		
	Weighing Machine		
	B.P. Instruments		
	Stethoscope		
	Thermometer		
	Chital Forceps		
	Steel Kidney tray		
	Steel tray with cover		
	Mask		
	Pressure cooker		
	Stove		
	Disposable gloves		
	Torch light		
	Bandage		
	Virex		
	Red Gloves		
	Waste buckets with cover		
	Soap and case		
	Towel		

	Bed Cover plastic		
	Jug/Mug		
	Curtain		
	Dettol liquid		
	Cotton		
	Scissor		
	Pen holder		
	Clip File		
	Register		
5	Correct diagnosis and treatment was given by the Staff Nurse based on the STI case management guidelines (observe and check randomly selected records)	R	
	Lab Monitoring (HIV and Syphilis testing)		
6	Guidelines for following activities available at the site. a. Specimen collection b. HIV and RPR testing c. selection, collection, storage and transportation of EQAS samples d. universal precaution e. waste management f. Post exposure prophylaxis	O	
7	Are following laboratory equipments and consumables available at the site? a. Centrifuge b. RPR Rotator c. Needle Destroyer d. Micropipette e. Refrigerator or Cold Box f. Ice packs g. Test tubes h. Cryo box and cryo vials i. Gloves j. Pipette tips k. Timer l. Disposable syringes m. Band aids n. Ethanol o. Cotton balls p. Tourniquet q. Supportive cushion r. Sodium Hypochlorite Solution	O	
8	All the three types of rapid HIV test kits and RPR test kit with required reagents are available at the site and stored at temperatures as recommended by manufacturers.	O	

9	All kits and reagents used are not expired.	O	
10	Laboratory staff follows the HIV testing and Syphilis testing algorithm as recommended by study protocol.	O/SI	
11	Laboratory staff wears lab coats and gloves during specimen collection, processing and testing.	O	
12	Venipuncture site was cleaned with alcohol swab and the arm was placed on fixed surface for the procedure (table or arm rest of phlebotomy chair).	O	
13	After completion of venipuncture, band aid/tape was used to stop bleeding.	O	
14	The primary sample, subsequent testing device (centrifuge tube, slides, RPR card) and sample aliquots are labeled with the proper ID No.	O	
15	Tests are performed as per the guidelines and using appropriate internal controls as recommended in the guidelines.	O/SI	
16	Kits are taken out of the refrigerator or ice box and brought to room temperature before use	O/SI	
17	Measures for preventing needle stick injuries are followed. Needles of syringes are destroyed using needle destroyer.	O	
18	Tests are performed correctly using appropriate amount of reagents as recommended in the guidelines.	O/SI	
19	All biological specimens remaining after the test are disposed as per the guidelines.	O	
20	Laboratory register book containing the daily test results with remarks, if necessary, is available.	O/R	
21	Laboratory staff select specimen for EQAS as recommended in the guidelines.	O/SI	
22	Laboratory staff follows procedures as recommended in guidelines for collection, storage and transportation of EQAS specimens.	O/SI	
23	EQAS form is available at the site and is filled properly. (make sure the test result is not mentioned in	O/R	

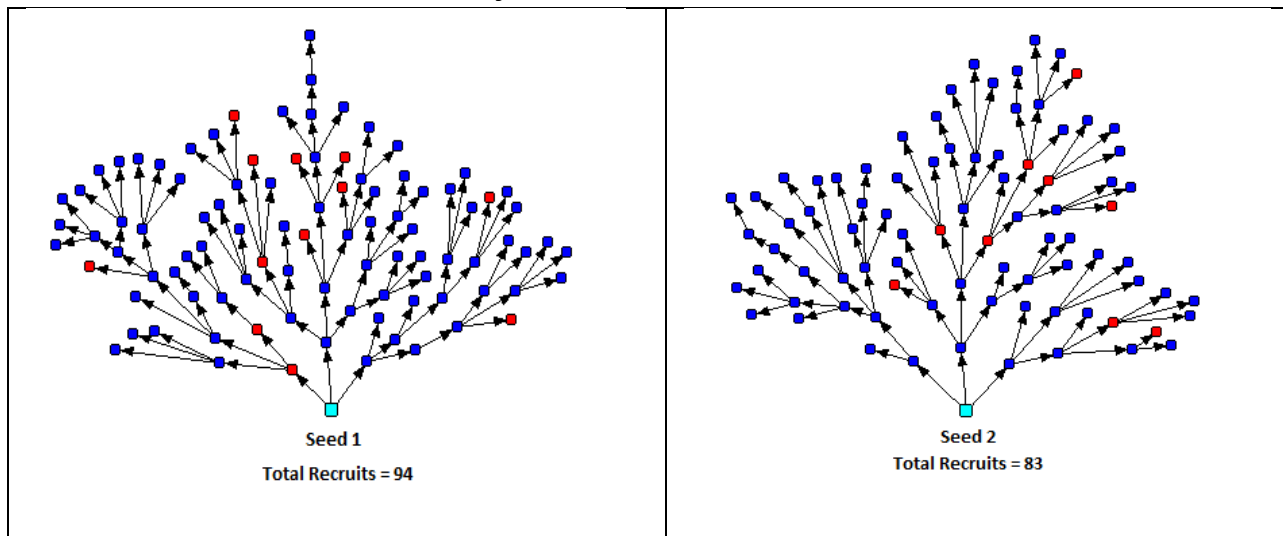
	EQAS form)		
24	Waste bins for biodegradable, infectious and non-infectious materials and a sharp collection container are available. Wastes are collected properly in the allocated containers.	O	
25	Blood specimens remaining after the test are disposed of after decontamination in sufficient amount of 0.5% sodium hypochlorite solution.	O/SI	
26	Working surface is wiped with sodium hypochlorite solution after completion of the work.	O/SI	
27	<i>PEP drugs (starter pack) and flow chart are available at the site.</i> Name and contact information of the PEP focal person (i.e. Lab tech) written on the flow chart	O	
	<i>Note: After completion of PART B, please follow the instruction in No. 13 in Part A</i>		

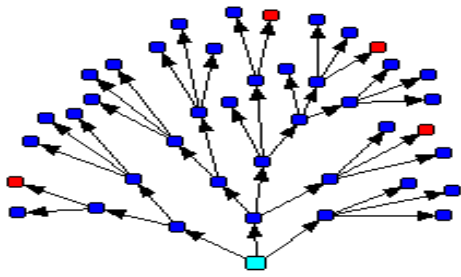
Annex 4: National M&E Indicators

S.N	Indicators	Calculati on	MS W	Non- MS W	TG	MS M	<25 yrs	25 + yrs
1	Percentage of men who have sex with men who are HIV-infected	Unadjuste d	9.2	2.2	9.3	5.2	2.3	7.4
		Adjusted with CI	5.6 (1.5- 10)	1.8 (0.2- 6.4)	NA	2.4 (1.1- 4.5)	1.0 (0.7- 3.9)	3.7 (0.7- 9.2)
2	Percentage of men reporting the use of condom the last time they had anal sex with a male partner	Unadjuste d	93.1	80.5	88.4	86.0	84.8	86.8
		Adjusted with CI	93.7 (84- 97.9)	81.1 (72.1 - 90.5)	83.1 (74.6- 91.9)	80.9 (75.2- 86.4)	81.1 (71.8- 90.3)	81.2 (72- 89.6)
3	Number (and Percentage) of men who have sex with men (MSM) and transgender people who received an HIV test in the past 12 months and know their results	Unadjuste d	67.8	25.2	59.5	43.8	37.7	48.2
		Adjusted with CI	55.1 (46.1- 73.7)	14.0 (6.9- 22.4)	43.1 (31.5- 55)	23.2 (17.8- 29)	19.6 (11.7- 32.9)	23.1 (14.3- 33.6)
4	Percentage of key populations MSM reached with HIV prevention programs	Unadjuste d	78.2	42.9	74.4	58.3	48.8	65.3
		Adjusted with CI	67.1 (54.8- 80.6)	27.5 (18.8 - 40.4)	62.5 (50.7- 75.8)	35.5 (29.3- 42.8)	27.6 (17.7- 43)	36.4 (28.4- 52.2)
5	Percentage of men having sex with men who both correctly identify ways of preventing the sexual	Unadjuste d	64.9	50.4	61.9	43.3	52.9	59.6

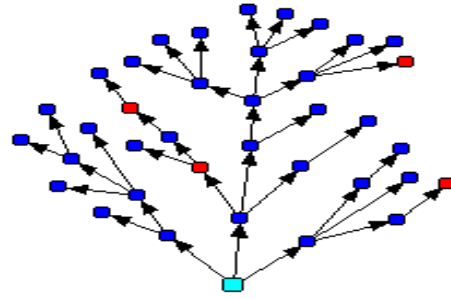
	transmission of HIV and who reject major misconceptions about HIV transmission	Adjusted with CI	60.7 (54.8-77.3)	44.8 (33.8 - 58.8)	59.9 (52.7-74.5)	50.5 (44-57)	54.9 (38.8-66.6)	47.5 (34.3-56.7)
6	Percentage of MSM who reported that a condom was used the last time they had anal sex in the last six month	Unadjusted	94.6	100	93.8	94.7	93.8	95.2
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	160	2	138	162	61	101
6.2	Number of MSM who reported having had anal sex with a male partner in the last six months	Unadjusted	169	2	147	171	65	106

Annex 5: Recruitment Trees by Seeds

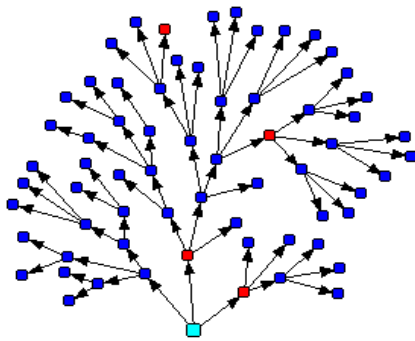




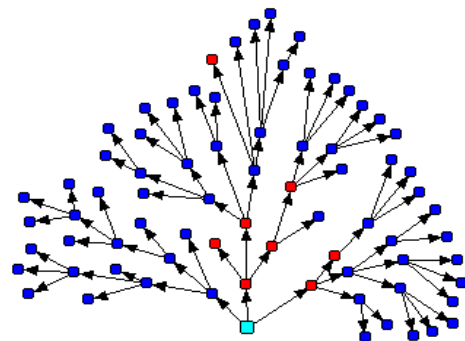
Seed 3
Total Recruits = 50



Seed 4
Total Recruits = 37

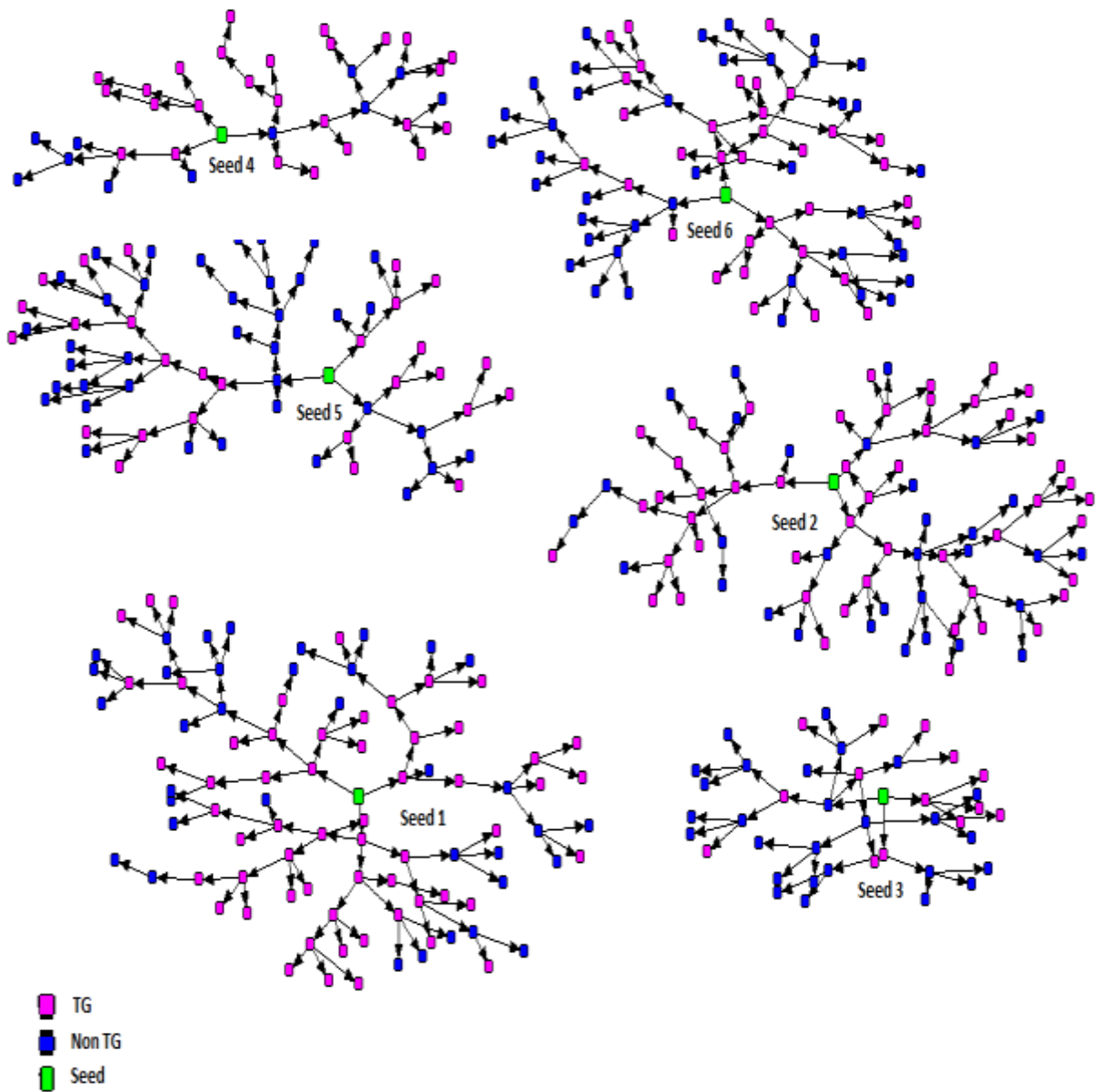


Seed 5
Total Recruits = 56

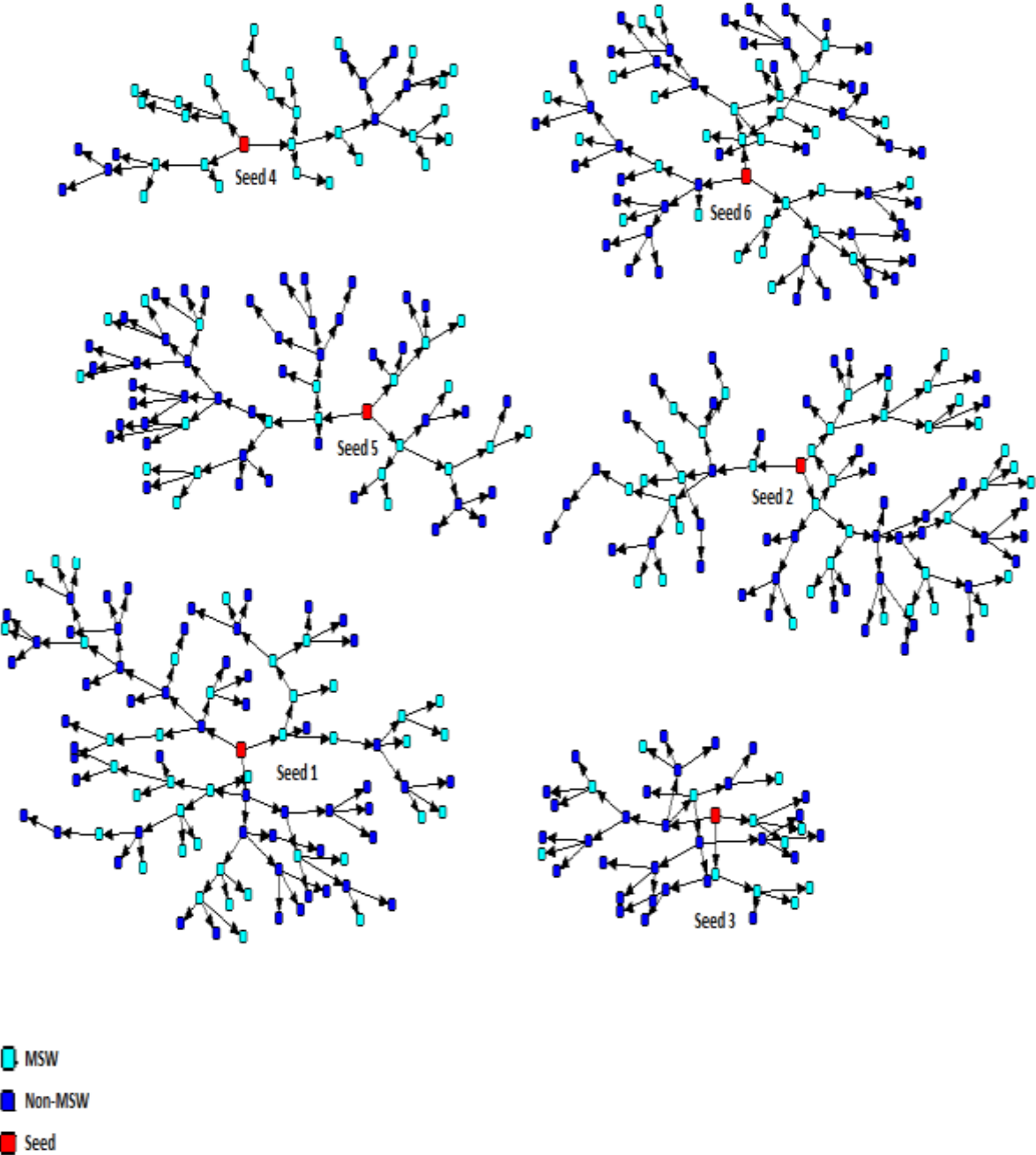


Seed 6
Total recruits = 74

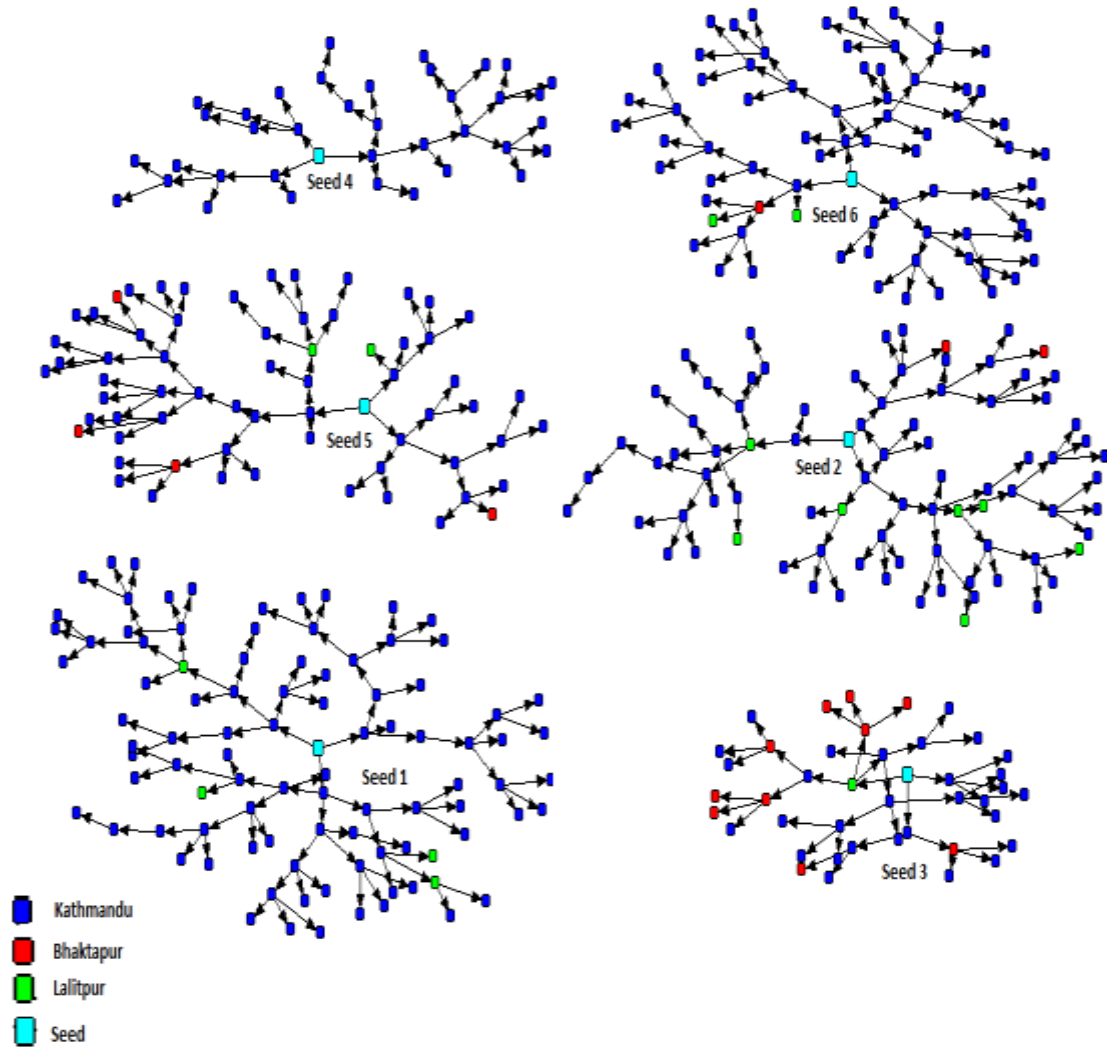
Annex 6: Recruitment net of participants by TG and Non TG



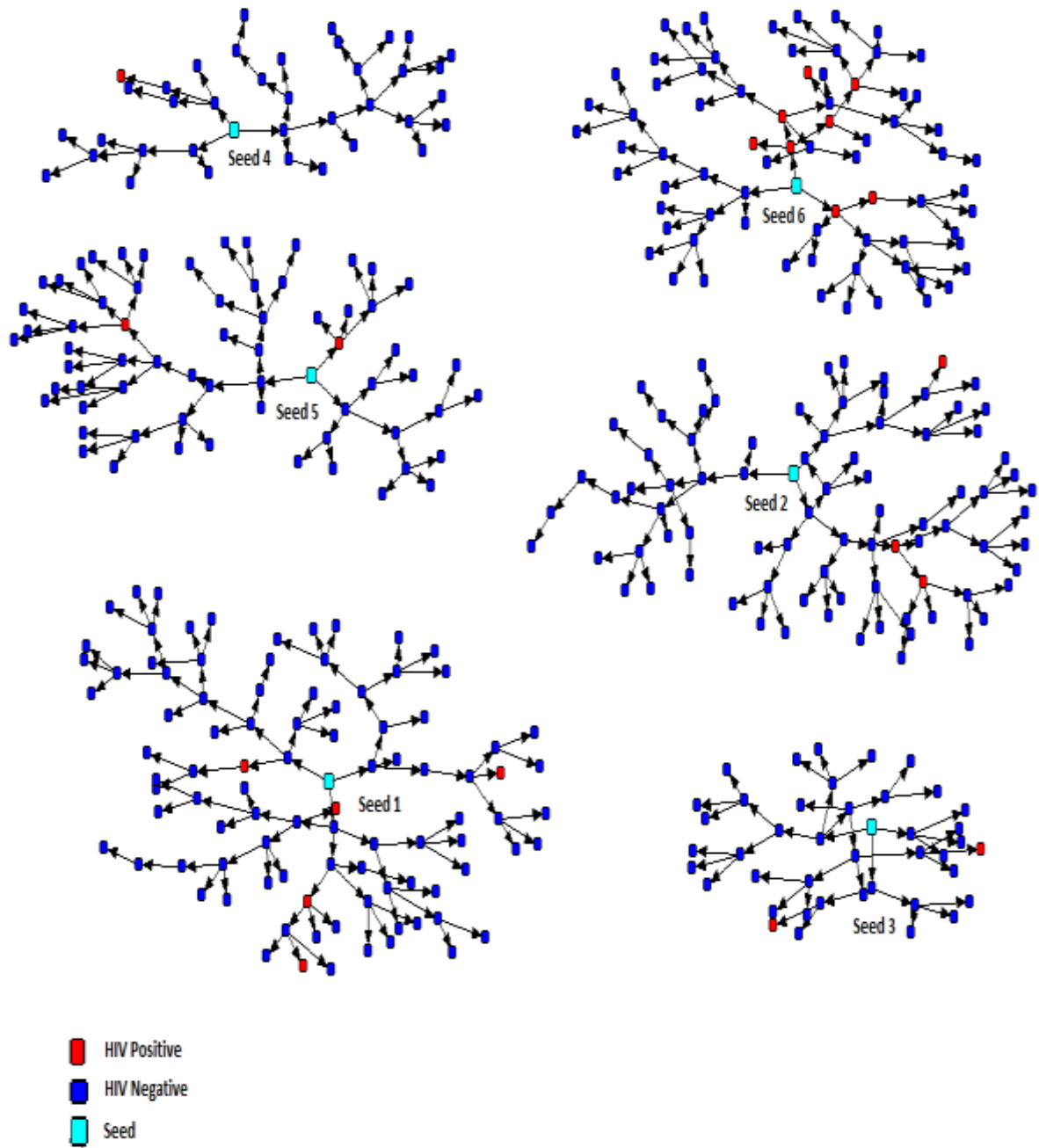
Annex 7: Recruitment net of participants by MSW and Non MSW



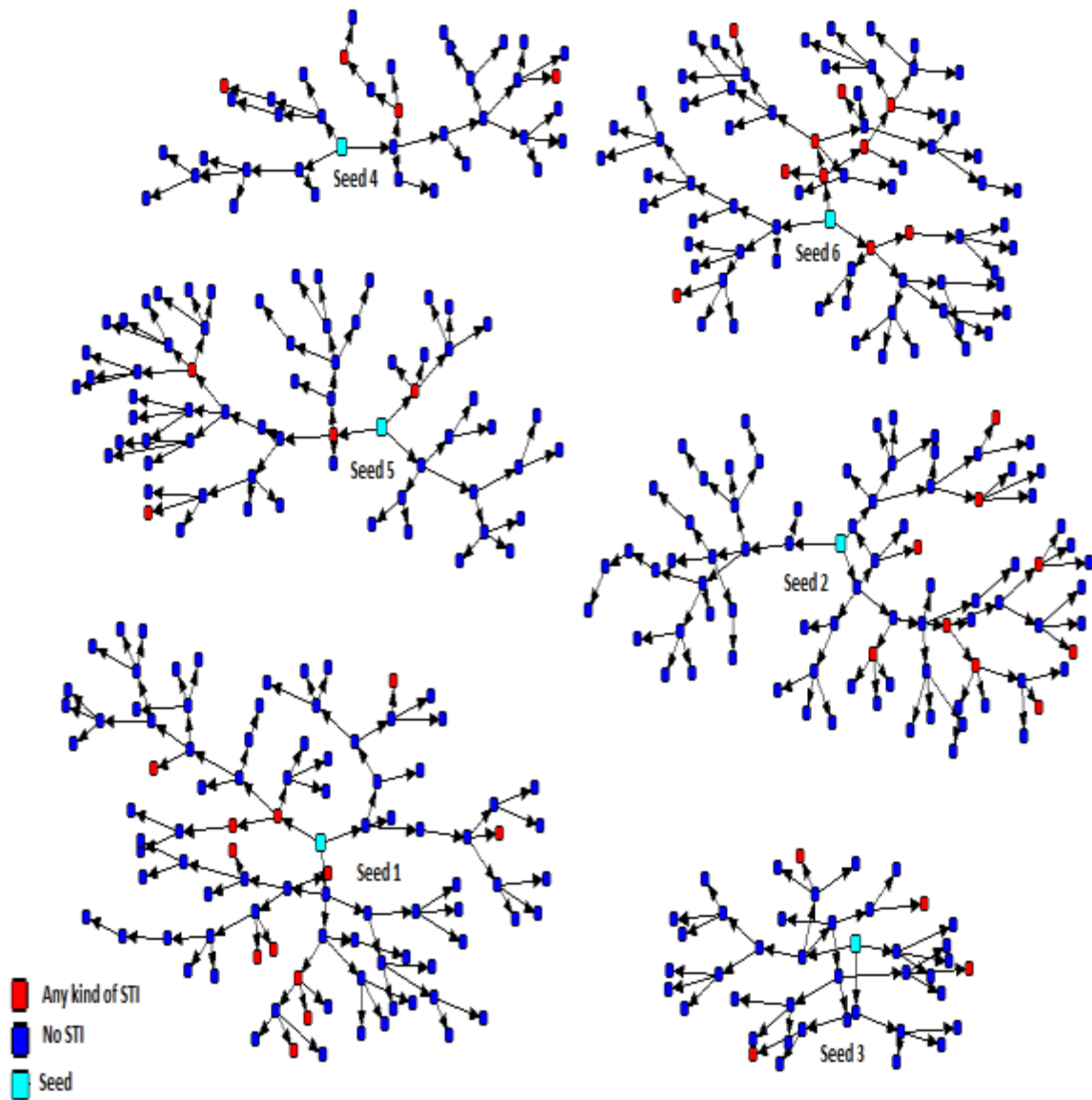
Annex 8: Recruitment net of participants by district



Annex 9: Distribution of HIV in network



Annex 10: Distribution of STI in network



Annex 11 : Knowledge about transmission of HIV

Knowledge about transmission of HIV		MSW			Non MSW			Both (Total)		
		TG	Non TG	Total	TG	Non TG	Total	TG	Non TG	Total
		N=148	N=26	N=174	N=67	N=159	N=226	N=215	N=185	N=400
Can people reduce their risk of HIV by using a condom correctly every time they have sex?	yes	95.9	100.0	96.6	95.5	99.4	98.2	95.8	99.5	97.5
	No	4.1	.0	3.4	4.5	.6	1.8	4.2	.5	2.5
Can people reduce their risk of HIV by using a condom correctly every time they have anal sex?	yes	93.9	96.2	94.3	94.0	97.5	96.5	94.0	97.3	95.5
	No	6.1	3.8	5.7	6.0	2.5	3.5	6.0	2.7	4.5
Can a person get the HIV virus from mosquito bites?	yes	21.6	34.6	23.6	20.9	32.7	29.2	21.4	33.0	26.8
	No	78.4	65.4	76.4	79.1	67.3	70.8	78.6	67.0	73.3
Can people protect themselves from HIV by having one uninfected faithful sex partner?	yes	92.6	84.6	91.4	82.1	88.1	86.3	89.3	87.6	88.5
	No	7.4	15.4	8.6	17.9	11.9	13.7	10.7	12.4	11.5
Can people protect themselves from HIV by abstaining from sexual intercourse	yes	64.9	46.2	62.1	64.2	57.2	59.3	64.7	55.7	60.5
	No	35.1	53.8	37.9	35.8	42.8	40.7	35.3	44.3	39.5
Can a person get the HIV virus by sharing meal with someone who is infected?	yes	6.1	7.7	6.3	10.4	11.9	11.5	7.4	11.4	9.3
	No	93.9	92.3	93.7	89.6	88.1	88.5	92.6	88.6	90.8
Can a person get the HIV virus by using a needle that is used by someone else?	yes	99.3	100.0	99.4	100.0	98.7	99.1	99.5	98.9	99.3
	No	.7	0	.6	0	1.3	.9	.5	1.1	.8
Do you think that a healthy-looking person can be infected with HIV, the virus that causes AIDS?	yes	89.9	84.6	89.1	85.1	83.0	83.6	88.4	83.2	86.0
	No	10.1	15.4	10.9	14.9	17.0	16.4	11.6	16.8	14.0
Can a person get HIV by shaking hand with an HIV infected person?	yes	5.4	11.5	6.3	9.0	6.9	7.5	6.5	7.6	7.0
	No	94.6	88.5	93.7	91.0	93.1	92.5	93.5	92.4	93.0
Can blood transfusion from an infected person to the other transmit HIV?	yes	100.0	100.0	100.0	98.5	98.7	98.7	99.5	98.9	99.3
	No	0	0	0	1.5	1.3	1.3	.5	1.1	.8
Can blood transfusion from an infected person to the other transmit HIV?	yes	87.8	96.2	89.1	86.6	74.2	77.9	87.4	77.3	82.8
	No	12.2	3.8	10.9	13.4	25.8	22.1	12.6	22.7	17.3
Can women with HIV transmit the virus to her newborn child through breast-f	yes	64.2	80.8	66.7	62.7	57.2	58.8	63.7	60.5	62.3
	No	23.6	7.7	21.3	13.4	26.4	22.6	20.5	23.8	22.0
	Dont know	12.2	11.5	12.1	23.9	16.4	18.6	15.8	15.7	15.8

Annex 12: Comprehensive Knowledge about ABC and BCDEF of respondent who meet PE/OE/CE and visited DIC in past 12 month

	TG	Non TG	Total	TG	Non TG	Total	Both (Total)		
							TG	Non TG	Total
	N=104	N=13	N=117	N=26	N=19	N=45	N=130	N=32	N=162
ABC	65.4	38.5	62.4	42.3	26.3	35.6	60.8	31.3	54.9
BCDEF	71.2	76.9	71.8	57.7	94.7	73.3	68.5	87.5	72.2

Annex 13 : Consistent condom use with different sex partner in past month

Consistent condom use with different sex partner in past month	First round (2004)			Second round (2007)			Third round (2009)			Fourth round (2012)			Fifth round (2015)		
	SPSS (%)			RDS EPP (%)			SPSS (%)			SPSS (%)			SPSS(%)		
	MSW (N=83)	Non-MSW (N=275)	MSM (N=358)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)	MSW (N=)	Non-MSW (N=)	MSM (N=400)	MSW (N=174)	Non-MSW (N=226)	MSM (N=)
With non-paying male anal sex partner				N=108	N=193	N=301	N=104	N=186	N=290						
	N=54	N=140	N=194							N=88	N=197	N=285	N=106	N=148	N=254
Always	57.4	39.3	44.3	71.8	70.9	70.1	65.4	65.1	65.2	69.3	74.1	72.6	80.2	73.6	76.4
Not always	42.6	60.7	55.7	28.2	29.1	29.9	34.6	34.9	34.8	30.7	25.9	27.4	19.8	26.4	23.6
With one time paying male anal sex partner				N=92			N=94								
	N=48									N=105			N=115	NA	N=115
Always	68.8	NA	NA	94.6*	NA	NA	85.1	NA	NA	83.8			88.9	NA	88.9
Not always	31.2	NA	NA	5.4**	NA	NA	14.9	NA	NA	16.2			11.1	NA	11.1
With paid male anal sex partner				N=21	N=35	N=56	N=9	N=65	N=74						
	N=12	N=34	N=46							N=30	N=52	N=82	N=8	N=38	N=46
Always	58.3	47.1	50	100.0**	82.9**	89.3	100	73.8	77	76.7	73.1	74.4	62.5	78.9	76.1
Not always	41.7	52.9	50	0.0**	17.1**	10.7	0	26.2	23	23.3	26.9	25.6	37.5	21.1	23.9
With non-paying female sex partner						N=14									
	N=15	N=63	N=78	N=28	N=86	N=14	N=20	N=70	N=90	N=21	N=64	N=85	N=6	N=71	N=77
Always	40	14.3	19.2	69.2	33.8	33	50	37.1	40	38.1	34.4	35.3	66.7	36.6	39
Not always	60	85.7	80.8	30.8	66.2	67	50	62.9	60	61.9	65.6	64.7	33.3	63.4	61

Source: IBBS MSM Kathmandu -20

