

**Integrated Bio-behavioral Survey (IBBS)**  
**among Men who have Sex with Men**  
**in the Kathmandu Valley – 2007**



**USAID** | **NEPAL**  
FROM THE AMERICAN PEOPLE



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## ABBREVIATIONS

AIDS	- Acquired Immuno-Deficiency Syndrome
BDS	- Blue Diamond Society
CAC	- Community Action Center
CCST	- Community Care Support and Treatment
CHBC	- Community Home Based Care
CREHPA	- Center for Research on Environment Health and Population Activities
CI	- Confidence Interval
CT	- Chlamydia Trachomatis
CWC	- Community Welfare Center
DIC	- Drop-in-Center
DNA	- Deoxyribonucleic Acid
ELISA	- Enzyme Linked Immuno Assays
FHI	- Family Health International
FSW	- Female Sex Worker
HIV	- Human Immuno-Deficiency Virus
IBBS	- Integrated Bio-Behavioral Survey
ID	- Identification Number
IDU	- Injecting Drug User
IEC	- Information, Education and Communication
LALS	- Life Giving and Life Saving Society
MSM	- Men who have Sex with Men
MSW	- Male Sex Worker
NCASC	- National Center for AIDS and STD Control
NFCC	- Nepal Fertility Care Center
NG	- Neisseria Gonorrhoea
NGO	- Non-Governmental Organization
NHRC	- Nepal Health Research Council
NRL	- National Reference Laboratory
OE	- Outreach Educator
PE	- Peer Educator
PHSC	- Protection of Human Subjects Committee
RDS	- Respondent Driven Sampling
RDSAT	- Respondent Driven Sampling Analysis Tools
RPR	- Rapid Plasma Regain
SACTS	- STD/AIDS Counseling and Training Services
SLC	- School Leaving Certificate
SPSS	- Statistical Package for the Social Sciences
STD	- Sexually Transmitted Disease
STI	- Sexually Transmitted Infection
TPHA	- Treponema Pallidum Hemagglutination Assay
VCT	- Voluntary Counseling and Testing
WHO	- World Health Organization

## EXECUTIVE SUMMARY

The National Center for AIDS and STD Control (NCASC) has developed a comprehensive National Surveillance Plan for HIV and AIDS that includes conducting Integrated Bio-Behavioral Surveys (IBBS) among the most at risk populations (MARPs) at regular intervals. These surveillance studies are aimed at assessing health risk behaviors and measuring the prevalence of HIV and Sexually Transmitted Infections (STIs) among MARPs as well as monitoring epidemic trends to inform the HIV response in Nepal.

The IBBS is conducted by NCASC with technical and financial support from Family Health International/Nepal and the United States Agency for International Development (USAID). The MARPs on which the current IBBS focuses are injecting drug users (IDUs), female sex workers (FSWs), clients of FSWs, migrant workers and men who have sex with men (MSM).

This report documents the findings of the second round of IBBS conducted among 400 MSM in the Kathmandu Valley. The primary objective of the study was to collect strategic information to analyze trends in risk behavior and HIV/STI prevalence rates among MSM.

It is a challenging task to collect information from MARPs. These groups are highly stigmatized and potential respondents are often reluctant to come forward and take part in research studies. Innovative sampling methods are needed in order to reach these individuals. Respondent Driven Sampling (RDS) methodology offers one of the most effective methods to date. RDS is a relatively new adaptation of chain referral sampling where subsequent respondents are recruited by previous respondents through their network of acquaintances.

The RDS methodology was used in this study and 400 respondents were successfully recruited. In the first stage, a list of MSM cruising sites was prepared for the sampling design. In the second stage, a structured questionnaire was administered to respondents at centrally located clinics. The questionnaire collected information on sexual behavior and HIV/AIDS awareness as well as socio demographics of the respondents.

The interview was followed by a clinical examination administered by a Health Assistant and involved the collection of blood, urine and swab samples for biological testing of HIV, Syphilis, Chlamydia Trachomatis (CT) and Neisseria Gonorrhoea (NG). Study centers with laboratories/clinics were set up at two easily accessible locations at Jamal and Gaushala in the Kathmandu Valley.

Samples were collected only after a pre-test counseling session. Study participants were provided syndromic treatment for STI related problems after being examined by a health assistant and HIV and syphilis test results were provided later at Cruiseaids, Parichaya Samaj and SACTS VCT centers along with post test counseling delivered by experienced counselors.

Below is a short summary of findings of this study.

## **STI/HIV/AIDS Prevalence**

HIV prevalence among MSM in the Kathmandu Valley is estimated to be about 3.3 percent. In terms of the HIV prevalence, no significant difference was found between non- male sex workers (non-MSWs) (3.4%) and male sex workers (MSWs) (2.9%).

The overall prevalence rate of at least one STI is 15.9 percent. Less than three percent of (2.4%) MSM had active syphilis while 2.8 percent had a history of syphilis. Prevalence of rectal NG and rectal CT was 8.1 percent and 3.6 percent respectively. The rate of urethral CT and urethral NG infection was comparatively lower (0.5% and 0.3% respectively).

## **Socio Demographic Characteristics**

MSM in the Kathmandu Valley are estimated to be young. The majority of respondents were below the age of 30 years (86.3% MSWs and 74.8% non-MSWs) with one in five below age 20 (23.3% MSWs and 20.5% non-MSWs).

Two thirds of MSM were single (66.3%). MSWs (84.4%) were found to be significantly more likely to be single than non-MSWs (62.2%). Of those who are currently married, the majority (97.8%) were married to women while 9.7 percent of MSWs and 0.5 percent non-MSWs were married to men.

A relatively low proportion of MSM (22%) reported living with a regular partner. Among those living with a regular partner, relatively higher percentage of non-MSWs tended to live with female partners (75.2%) compared to about one third of MSWs' (35.6%) who were living with regular female partners.

Around eight percent of MSM were illiterate; seven percent could read and write but had no formal schooling. Almost 40 percent had completed secondary education and a third had attended SLC or above.

One in ten MSM (10.4%) relied on exchanging sex with a male partner for money as their main source of income.

## **Use of Alcohol and Drugs**

The majority of MSM (86.3%) had consumed alcohol in the last month and one in three (31.5%) used one form of drug in the last year. Non-MSWs (88.7%) were significantly more likely to have consumed alcohol in the past month whereas MSWs (36.2%) were markedly more likely to have smoked Ganja than non-MSWs (29.9%) in the last year.

## **Sexual Behavior, Types of Partners and Condom Use**

MSM reported having their first sexual encounter fairly young. Half of them (51.5%) had sex before the age of 17. The majority of MSM (63.9%) had their first sexual experience with a female partner whereas 36 percent had it with a male. MSWs were more likely to have had their sexual debut both before the age of 17 (62.8%) and with a male partner (68.5%).

All the MSM had sexual contact with a male in the year preceding the survey, 67.1 percent of them had also maintained sexual relations with a female partner during the same period.

A relatively higher proportion of non-MSWs (71.4%) than MSWs (53.2%) had sexual contact with a female partner in the past year.

MSM reported highly promiscuous behavior; on average MSM had five non-paying male sex partners, three paid sex male partners and one non-paying female partner in the month preceding the survey.

The predominant sex practice among MSM was anal sex followed by oral sex. Three quarters of MSM (74.6%) had practiced anal sex in the past month; while six in ten (56%) had practiced oral sex during the same period. One in ten (11.7%) had oral as well as anal sex in the past month. During both anal and oral sex, MSW were more likely to perform receptive roles than non-MSWs.

Only one-fourth (24.3%) of MSM had used a condom at the time of their sexual debut. Two thirds (67.4%) had used condoms during their last sexual intercourse and seven in ten (71.6%) for their last anal sex with a male partner. MSWs were significantly more likely to use condoms consistently than non-MSWs regardless of the type of sex and sex of their partners. Overall *consistent condom use* was the highest with paid male anal sex partners (89.3%) and lowest with non-paying female sex partners (33%) in the month preceding the survey.

More than half (55.6%) had used lubricants before the survey but only one in four MSM (25.4%) reported using lubricants consistently. The most common type of lubricant MSM cited was saliva (32.6%) followed by water based lubricants (19.7%).

### **STI and HIV/AIDS Awareness**

Overall, 23.3 percent of MSM could not correctly name any symptom of STI in men. A markedly similar percentage of MSM (25.7%) have had at least one STI symptom.

Over three-fourths of MSM (76.7% MSW and 79.6% non-MSWs) had knowledge of all three major prevention measures for avoiding HIV transmission. Nearly half of MSM (46.4%) were aware of a confidential HIV testing facility, whereas only one in four MSM (26.2%) had taken an HIV test before the survey. Overall, a higher proportion of MSWs (49.8%) than non-MSWs (29.1%) had undergone HIV testing.

Around two thirds of both MSWs and non-MSWs (65.6% and 68.6%) perceived themselves to be at *little or no risk* of contracting HIV. At the same time 31.6 percent of MSWs and 29.4 percent of non-MSWs perceived that they had *medium risk* while around two percent of both MSWs and non-MSWs considered that they were at *high risk* of getting HIV.

### **Exposure to HIV/AIDS Related Programs**

More than half (55.9%) of MSM had met peer/outreach educators at least once in the past year. Around one third (31 %) had visited a drop-in center (DIC) and about one in ten had visited a VCT center (13.3%) or a STI clinic (9.6%) in the last year.

There were 19.4 percent MSM who had participated in at least one HIV/AIDS awareness raising program, or similar community events, in the year preceding the survey. *Cruiseaids*,

*Blue Diamond Society and Parichaya Samaj* were the main organizations cited by respondents with regards to activities and events on HIV/AIDS.

# 1. BACKGROUND

The National Center for AIDS and STD Control (NCASC) has been compiling and publishing data on reported HIV cases among different population subgroups since 1991. As of December 2007, a cumulative total of 10,546 HIV infections, including 1610 cases of AIDS, have been reported in Nepal (NCASC, December 2007). In 2007 the NCASC estimated around 70,000 people (including children and adults above the age of 15 years) to be infected by HIV in Nepal. These numbers indicate a big gap between the estimated number of HIV infections and the number of people who have been tested and know their status.

The HIV epidemic in Nepal is currently concentrated among most at risk populations (MARPs). The National HIV/AIDS Strategy 2006/2011 has identified several MARPs and proposes effective strategies and targeted intervention programs for these groups. To inform the development of the Strategy and the National HIV/AIDS Action Plan, the NCASC has included the Integrated Bio Behavioral Survey (IBBS) in its National Surveillance Plan. The aim of the IBBS is to (1) measure sexually transmitted infection (STI) and HIV/AIDS prevalence among MARPs, (2) collect information on risk behavior, (3) assess the level of knowledge on HIV/AIDS, (4) monitor trends over time and (5) understand the impact of current NCASC programs and effectively plan for future direction.

The IBBS is conducted at regular intervals in Nepal. The first round of the IBBS among MSM in Kathmandu Valley was conducted in 2004 and showed a 4.8 percent HIV prevalence among MSWs and a 3.6 percent prevalence among MSM (CREHPA/SACTS/FHI 2005). The survey also indicated that over half of the MSWs (54%) and one in five (19%) MSM were exposed to at least one form of STI(s). This report outlines the findings of the second round of IBBS and compares the results to the first survey on selected variables.

According to Blue Diamond Society, an NGO working with MSM in Nepal, the number of MSM in the country is on the rise (CREHPA/SACTS/FHI 2005) and low levels of awareness about HIV increases their exposure to the disease whilst preventing those who are living with the virus from seeking treatment. A number of intervention strategies are underway to promote HIV/AIDS awareness at a larger scale among the MSM population.

The information in this report is aimed to help design timely intervention strategies and monitor HIV prevalence among the target population.

## 2. DESIGN AND METHODOLOGY

### 2.1 Objectives of the Study

In line with the objectives of the previous rounds of IBBS, this second round of the study was also undertaken primarily to determine the prevalence of HIV/STI (Syphilis, Chlamydia Trachomatis (CT) and Neisseria Gonorrhoea (NG)) and to assess HIV/STI related risk behavior among MSM in Kathmandu Valley.

This study also collected specific information on MSM: their socio-demographic characteristics, level of awareness about HIV/STI and exposure to intervention programs in the three districts of Kathmandu Valley: Kathmandu, Lalitpur and Bhaktapur.

### 2.2 Study Population

This study was conducted among MSM who are considered as one of the *core groups* for transmission of HIV/STI infection. MSM from the three districts of Kathmandu, Lalitpur and Bhaktapur were included in the study.

For the purposes of this study the participants were divided into two categories; *MSW* and *non-MSW*. MSWs were defined as “*those male aged 16 years or more who have had sexual relation, (either oral or anal) with another male in the 12 months preceding the survey in exchange for money or other commodities*” while non-MSWs were defined as “*those male aged 16 years or more who have had sexual relation (either oral or anal) with another male in the 12 months preceding the survey without receiving cash payment or other commodities.*”

All participants were screened for eligibility criteria.

#### 2.2.1 Sample Size and Sampling Design

The sample size was calculated to detect 15 percentage points 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.

The respondent-driven sampling (RDS), a form of chain-referral, was used to recruit participants. The RDS, unlike the “*snowball*” method, attempts to overcome the biases, such as masking, volunteerism and over sampling of groups, with large networks and thus gives unbiased estimates of population parameters (Heckathorn, 1997) hence providing more representative samples.

Since it relies on social networks, RDS has the potential to reach individuals who are not easily accessible such as MSM, IDU (Injecting Drug User), MSWs and FSWs. In RDS, the sampling frame is created based on information collected from the participants during the sampling process itself. This information includes (1) who recruited whom, (2) the relationship of the participant to the recruiter (RDS population estimates are based on an assumption that the recruiter and the participant know each other), and (3) the participants’

personal network sizes; network size is used to estimate the average network size by different sample characteristics such as gender, race/ethnicity and age.

Since RDS population estimates are based on the recruiter and recruit knowing one another, RDS design includes means for encouraging participants to recruit those they already know. This involves offering rewards for recruiters and making recruitment rights scarce through quotas, so that recruitment is not wasted on strangers (Ramirez-Valles et. al., 2005).

For this study, the team carried out a preliminary mapping exercise together with BDS before creating the sampling frame. The mapping exercise helped the study team to acquaint with MSM circles, find out about their gathering locations and networks. Once familiar with the field, the study team recruited a total of six MSM who met study eligibility criteria from different sites and groups as *seeds*.

*Seeds* were informed about the study protocol and procedures and were encouraged to recruit other eligible individuals from their social networks to participate in the study. The participants recruited by the *seeds* were then asked to recruit the next wave of participants, with the process continuing until the target sample of 400 was achieved. Each participant who agreed to become a study recruiter was given three referral coupons to distribute to others. The referral coupon had a unique serial number that was used to link the recruiter to his recruit.

### **2.2.2 Seeds and Recruitment**

Following RDS theory, research staff recruited the *seeds* (initial participants), who then began the chain referral by recruiting their peers into the study. It was decided that *seeds* selected to initiate the recruitment process should be as diverse as possible; seeds were heterogeneous in age, ethnicity and MSM type.

The first wave of participants recruited for the study was brought in by *seeds*. Thereafter, each MSM received three recruitment coupons which they passed to their peers. Each coupon was uniquely coded in order to link recruiters and recruits. The coupon ID numbers were carefully recorded in each questionnaire.

The recruitment process in this study started with six *seeds*. Each *seed* was provided with three coupons to bring in three of their peers. Those peers who were eligible to take part in the study were also given three coupons each. In this way the recruitment process continued until 400 MSM were recruited. At the end, some *seeds* generated up to 10 waves with their recruits. Of the six initial *seeds*, one completed four, one five and one six; two seeds generated seven waves and one completed ten waves (Annex 3). RDS theory requires a minimum of six waves of recruitment for equilibrium, which implicates, in this survey, that respondents sufficiently represent the population being sampled.

Since RDS allows for a dual incentive system to induce recruitment, each participant received NRs. 100 (equivalent to \$ 1.6) for their participation in the study and another NRs. 50 (equivalent to \$ 0.8) for each individual they recruited. A participant could have received up to NRs. 250 (equivalent to \$ 3.9) for successfully recruiting three peers in the study.

Failure to meet the study criteria resulted in 36 MSM being turned down. Among them, 21 did not meet the study criteria. One did not want to participate as he had recently tested for



HIV; one was too afraid of a blood test, while another individual demanded his HIV test result immediately after the test. There were two MSM who were not interested to participate in the study and two others who did not have enough time to take part in the interview. Eight others refused to give rectal swabs.

## **2.3 Study Process**

A quantitative research approach was adopted for this study. Structured questionnaires were used to collect behavioral data relating to sexual behavior, sex partners, and use of condoms among MSM, along with demographic and social characteristics.

In order to draw up a comparative analysis of behavioral changes over the years, the same questions which were asked during the first round have been repeated. A new section was also added to the questionnaire this year to collect information on level of exposure and participation to ongoing HIV/AIDS awareness programs among MSM.

The questionnaires were developed based on the "*Guidelines for Repeated Behavioral Surveys in Populations at Risk of HIV*" (FHI, 2000). The new section on program exposure was pre-tested before finalizing the questionnaire (Annex 1).

Before starting the interview, all those coming with the referral cards were informally asked certain screening question to ensure that they meet the definitions of MSW or non-MSW with support from BDS staff.

Strict confidentiality was maintained throughout the study process. The names of the study participants or their full addresses were not recorded on any survey instrument. Each respondent was provided a plastic-coated card with a unique ID number. The questionnaire, medical records and blood specimen of the particular respondents were all recorded with their ID number. This ID card was used for the distribution of the test results; only those participants who produced their ID card were provided the HIV test results verbally.

**The fieldwork started on 13 June and was completed on 27 July 2007.**

### **2.3.1 Ethical Review**

The research 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 this study was done with individuals who are often stigmatized, *ethical as well as technical* approvals were obtained from Family Health International's ethical review body, Protection of Human Subject Committee (PHSC) and Nepal Health Research Council (NHRC) prior to the fieldwork.

The study protocols were carefully reviewed and approved by all the organizations above. A verbal consent was obtained from all the participants in a private setting and witnessed by a third party before the interview and clinical tests were conducted. Please refer to Annex 4 for a copy of the consent form.

### 2.3.2 Clinical and Laboratory Procedure

The study participants were clinically checked for STI related symptoms by a health assistant who also filled in a checklist with information provided by the respondents (Annex 5). They provided symptomatic treatment to the respondents in accordance with the “*National STI Case Management Guidelines*”. Over-the-counter medicines such as paracetamol, alkalysing agents and vitamins were given as necessary.

About five ml of blood was collected from each participant with a disposable syringe for sampling. Each sample was labeled with the respondent’s unique ID number. The specimens were placed in a cold box and sent to SACTS everyday where they were stored at a temperature of minus 12 °C to minus 20°C.

Respondents were tested for syphilis with the Rapid Plasma Regain (RPR) test card manufactured by Omega Diagnostics Ltd UK and confirmed by means of the Serodia *Treponema pallidum Hemagglutination* test (TPHA; Omega Diagnostics Ltd. UK). TPHA positive and all samples with positive RPR were further tested for the titre up to 64 times dilution. On the basis of titre of RPR, all the specimens with RPR/TPHA positive results were divided into two categories:

- TPHA positive with RPR-positive or RPR-positive with titre  $\leq$  1:8 were classified as history of syphilis
- TPHA positive with RPR titre 1:8 or greater were classified as current syphilis requiring immediate treatment

For detection of HIV, antibody Enzyme Linked Immuno Sorbent Assay (ELISAs) was used. If the ELISA test showed a negative result then no further test was conducted and the test result was reported as non-reactive. But if the first test showed a positive result then a second ELISA test was performed. If the second result confirmed the first result then the test result was reported as reactive. In cases where the second result contradicted with the first one, a third test was done. The final test results thus were declared positive if the test results showed positive, negative, positive, and negative if it gave out positive, negative, negative. This protocol is based on National VCT Guidelines of Nepal developed by the NCASC.

For DNA amplification testing for Gonorrhoea and Chlamydia, 20 ml of first catch urine at least two hours since last void was collected. The participant collected urine in a sterile plastic universal urine container; a 20 ml screw cap tube.

The urine container was put in a zip bag and stored at 4°C to 8°C and sent to NRL on the same day where it was stored in two different aliquots at minus 86°C.

Rectal swabs were also collected from all MSM by the health assistant. The rectal swab was collected by inserting the swab stick about 2.5 cm into the anal canal. Those who requested self collection were given proper instructions for collecting rectal specimen. They collected the specimen and passed the swab to the health assistant. All the swabs were rotated and moved gently from side to side for 10-12 seconds before gently removing it. If the swab was contaminated with fecal material, the collection procedure was repeated.

The swab was placed in the Roche Amplicor transport tube. The health assistant vigorously shook the tube for 15 seconds. The liquid was expressed from the swab by pressing it against

the side of the tube. The swab stick was discarded and the transport tube was recapped tightly. The tube was stored at 4°C -8°C and sent to NRL.

## **2.4 Study Management**

The study team was comprised of a study director, a research coordinator, a research officer, two research assistants, and two field teams.

Each of the field teams consisted of one research assistant, four supervisors/interviewers, one health assistant, one lab technician, and one runner. One facilitator from Cruiseaids and Parichaya Samaj were also part of the field team.

Before data collection started, the study team attended a one week training on the study objectives, characteristics of the target groups, rapport-building techniques, contents of the questionnaire and the study process. The training session also included theory and practical classes on pre-test counseling and questionnaire administration.

Experienced counselors from SACTS conducted a separate session on STI/ HIV/AIDS and pre-test counseling. Moreover, BDS staff trained the study team on the general attitudes of MSM and the best approaches to take when dealing them. The training also emphasized the definition of *informed consent*.

Two centrally located study centers at Jamal and Gaushala were established in Kathmandu for carrying out the study concurrently (Annex 6). Individual interviews, clinical examination and specimen collection were each carried out in separate rooms. A facilitator from BDS was present at both sites to facilitate the study process.

To ensure the quality of data, New ERA and FHI officials supervised the fieldwork regularly. Field supervisors reviewed all the completed questionnaires and any inconsistencies in the responses were clarified through discussions with the concerned interviewer later that day.

## **2.5 Post-Test Counseling and Test Result Distribution**

Once the clinical tests were over, the participants were informed about the location and operating hours of the nearest site where they could collect their test results. Those who displayed their ID cards were provided HIV and Syphilis test results with post-test counseling by a trained counselor at Parichaya Samaj, Cruiseaids and SACTS VCT centers.

Post-test counseling and individual report dissemination was completed between June 29-August 15, 2007 at Cruiseaids, Parichaya Samaj and SACTS VCT Centers. Out of 400 MSM tested for HIV, only 179 (44.8%) turned up for the test results (Annex 7). A small provision for reimbursement of transportation costs might have persuaded more MSM to visit the VCT centers to collect test results.

Trained counselors delivered the results to the participants in a private setting followed by a counseling session which focused on high-risk behavior and other aspects of STI and HIV.

## **2.6 Data Management and Analysis**

Data were entered using FoxPro Software. Double entry procedure was performed. Respondent-Driven Sampling Analysis Tool (RDSAT) software (RDSAT 5.6, Cornell University, 2005) was used for analysis of the sample. This software is designed to control three types of potential biases in chain-referral sampling namely (1) affiliation bias, (2) homophily and (3) network size bias (Heckathorn 1998).

Raw data was first prepared using SPSSWIN Version 11. This included generating new variables and re-coding missing values. Datasets were then converted to Microsoft Excel files and then to RDS files (Tab Delimited Text). Frequency, cross-tabulation, and prevalence estimates of key-indicators were performed in RDSAT.

With RDSAT the pull-in outliers option was used to eliminate extremely small and large outliers in network sizes. When the program encounters an individual whose network size is outside of the specified bounds, their network size is set to the value of the nearest lower or upper bound (percentage) with the help of the pull-in outliers option. The RDSAT analysis for this study used 5% pull-in outliers of network size.

There were certain limitations in using RDSAT for the entire set of data analyzed in the report. Some data obtained from the study did not meet the required numerator to be calculated with RDSAT. Such data have been calculated using SPSS and have been marked with asterisk in the tables in this report. They represent unadjusted proportions.

For the purpose of analysis MSWs and non-MSWs collectively have been defined as MSM. Both of these categories have been presented separately throughout the report but only variables which showed marked differences between these two groups have been commented on.

### 3. HIV/STI PREVALENCE AND SOCIO-DEMOGRAPHIC CHARACTERISTICS

Of 400 MSM recruited as study participants, 135 were MSWs and 265 were non-MSWs. All the study participants were selected from three districts: Kathmandu, Bhaktapur and Lalitpur.

#### 3.1 HIV/STI Prevalence

The HIV prevalence rate among MSM in Kathmandu Valley is estimated to be 3.3 percent. Non-MSWs (3.4%) are slightly more likely to have HIV than MSWs (2.9%). However, this difference is not statistically significant.

The overall prevalence rate for any one STI (i.e. percentage of respondents who have at least one of the following infections: HIV, active syphilis, Rectal and Urethral Neisseria Gonorrhoea (NG) and Rectal and Urethral Chlamydia Trachomatis (CT)) among MSM in Kathmandu Valley is 15.9 percent (Table 3.1).

The prevalence rate of active syphilis among MSM is 2.4 percent, and 2.8 percent of MSM have had a history of syphilis. RDSAT could not calculate the adjusted syphilis prevalence rate among MSWs and non-MSWs due to the low number of cases. The *unadjusted* active syphilis prevalence rate is 1.5 percent among MSWs and 2.3 percent among non-MSWs.

The prevalence rate of rectal NG among the total sample of MSM is 8.1 percent. There were no statistically significant differences between MSWs and non-MSWs (8.3 percent and 8.1 percent respectively).

Nearly four percent (3.6%) of MSM in Kathmandu Valley have CT. MSWs (11.6%) are significantly more likely to have CT than non-MSWs (2.6%).

Urethral NG and urethral CT were detected respectively in 0.3 percent and 0.5 percent of the total sample. RDSAT calculation of adjusted prevalence rates of urethral NG and urethral CT could not be computed due to the low number of cases.

**Table 3.1: HIV and Prevalence of at least one STI among MSM**

STI Infection	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
HIV	2.9	1.1 – 6.6	3.4	0.6 – 6.5	3.3	1.0 – 6.1
Active Syphilis	1.5*	NC	2.3*	NC	2.4	0.5 – 5.0
Syphilis History	3.0*	NC	2.6*	NC	2.8	0.6 – 5.7
Rectal-CT	11.6	3.7 – 19.8	2.6	0.8 – 4.1	3.6	1.6 – 6.0
Rectal-NG	8.3	3.9 – 14.1	8.1	3.7 – 12.2	8.1	4.1 – 11.7
Urethral-CT	0.7*	NC	1.1*	NC	0.5	0.1 – 1.1
Urethral-NG	0.0*	NC	0.8*	NC	0.3	0.1 – 0.8
Any One STI**	19.4	11.0-29.2	16.4	10.6-18.2	15.9	10.8-21.1

Note: 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, Rectal CT & NG, and Urethral CT & NG.

### 3.2 Relation between Socio-Demographic Characteristics and HIV/STI

This section examines the relation between socio-economic characteristics and HIV, as well as the prevalence of at least one STI

HIV and STI follow a similar pattern; young MSM aged less than 25 are three times more likely to be diagnosed with HIV than MSM aged 25 or more (4.6% compared with 1.8%). Similarly, younger MSM are more likely to suffer from at least one STI than older MSM aged 25 or more (12.9 compared with 12.4).

Single MSM tend to be more at risk of HIV (4.7%) and STI (14%) than married MSM (0.8% and 9.9% respectively). Moreover, the prevalence rates of both HIV and STI are higher among those who have not received formal education (9.7% for HIV and 16.5% for STI) than others (2.3% for HIV and 11.9 % for STI).

**Table 3.2: Relation between Socio-Demographic Characteristics and HIV**

Socio-Demographic Characteristics	HIV		STI	
	Estimated Population Proportion (%)	95 % CI	Estimated Population Proportion (%)	95 % CI
<b>Age</b>				
Below 25 years	4.6	0.5 – 10.1	12.9	7.3 – 19.9
25 years and above	1.8	0.4 – 3.5	12.4	6.1 – 19.4
<b>Currently Married</b>				
Yes	0.8	0.2 – 1.9	9.9	3.9 – 18.2
No	4.7	1.0 – 9.7	14.0	8.5 – 20.7
<b>Literacy</b>				
Illiterate/Literate but No Schooling	9.7	0.3 – 26.3	16.5	6.4 – 29.9
Formal Schooling	2.3	0.7 – 4.7	11.9	7.4 – 17.3
<b>Total</b>	<b>3.3</b>	<b>1.0 – 6.1</b>	<b>12.7</b>	<b>8.5 – 17.4</b>

### 3.3 Relation between Sexual Behavior and HIV/STI Prevalence

Table 3.3 examines the relation between sexual behavior and prevalence of HIV/STI among MSM.

HIV and STI follow a similar trend in terms of sexual behavior as well as socio-demographic characteristics. For instance, MSM who exclusively had male partners in the last year were more likely to carry HIV and an STI (5.7% and 21.8% respectively) than average (3.3% and 12.7% respectively). Similarly, those who exchanged sex with a male partner for money in the last month were more at risk of HIV as well as for an STI (3.7% and 19.7% respectively).

On the other hand, there are some variables which buck this trend. For example, in this survey respondents who had their first sex between the age of 17 and 20 (7.3%) were more likely to be HIV-positive than average (3.3%) whilst this did not make a marked difference in terms of their susceptibility to STIs.

**Table 3.3: Relation between Sexual Behavior and HIV/STI**

Sexual Behavior	HIV		STI	
	Estimated Population Proportion (%)	95 % CI	Estimated Population Proportion (%)	95 % CI
<b>Age at first sex</b>				
8 – 16	1.4	0.6 – 2.5	10.9	6.6 – 16.1
17 – 20	7.3	1.5 – 15.4	14.5	6.2 – 23.5
21 – 30	1.1	0.0 – 4.4	14.6	0.8 – 36.1
<b>Ever had sex with a male in exchange for money</b>				
Yes	1.2	0.3 – 2.4	11.3	5.9 – 18.1
No	4.1	0.6 – 8.1	13.4	7.2 – 19.5
<b>Vaginal /anal/oral sex with women and anal/oral sex with male in the past year</b>				
Any type of sex with female in past year	2.4	0.4 – 5.3	9.0	4.8 – 13.4
Anal/oral sex with male partner only in the past year	5.7	0.6 – 12.6	21.8	12.0 – 32.0
<b>Bought sex from a male in the past month</b>				
Yes	1.8*	NC	7.1	1.8 – 13.2
No	4.1*	NC	14.1	8.9 – 19.5
<b>Bought sex from a female in the past month</b>				
Yes	2.3	0.7 – 6.8	3.3*	NC
No	3.4	0.7 – 6.9	17.8*	NC
<b>Sold anal sex to a male in the past month</b>				
Yes	3.7	1.2 – 7.9	19.7	8.7 – 29.1
No	3.0	0.6 – 8.1	11.6	7.0 – 16.9
<b>Oral and anal sex with a male in the past month</b>				
Yes	3.6	1.0 – 7.6	11.2	7.0 – 15.8
No	1.2	0.1 – 3.6	24.4	6.9 – 43.8
<b>Oral or anal sex with a male in the past month</b>				
Yes	3.1	0.4 – 7.5	13.2	7.8 – 19.9
No	3.6	0.6 – 9.1	11.8	5.1 – 19.9
<b>Oral sex with one time or regular client in the past month</b>				
Yes	1.6	0.3 – 3.5	11.6	5.9 – 19.5
No	3.7	0.8 – 7.7	12.7	7.5 – 17.9
<b>Total</b>	<b>3.3</b>	<b>1.0 – 6.1</b>	<b>12.7</b>	<b>8.5 – 17.4</b>

Note: 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.

### 3.4 Relation between STI and HIV

Table 3.4 explores the relationship between STIs and prevalence of HIV among MSM. Respondents with an STI were slightly more likely to be HIV-positive (4.5%) than those who do not have an STI (3.6%). However the difference is not statistically significant.

Notably, none of the respondents who were diagnosed with syphilis and CT were HIV-positive. On the other hand, all those who were HIV-positive were also diagnosed with NG, indicating a potential relation between NG and HIV.

**Table 3.4: Relation between HIV and STI**

STI Infection	Total Sample	HIV- positive	HIV %
	N	N	
Any STI	67	3	4.5
No STI	333	12	3.6
Untreated syphilis	8	0	0
Rectal Gonorrhoea	44	3	6.8
Rectal Chlamydia	21	0	0
Urethral Gonorrhoea	2	0	0
Urethral Chlamydia	4	0	0

### 3.5 Socio-Demographic Characteristics

Usual classification of MSM is largely based on sex roles. *Ta*, *Meti*, *Dohori*, and *Pinkyta* are some of the terms used to define different roles MSM play. On the basis of their sexual identity, 45.8 percent of MSM regarded themselves as *men*, 20.7 percent as *meti*, 11 percent as *homosexual*, 9.0 percent as *ta*, 7 percent as *bisexual*, 4.5 percent as *gay*, and 1.5 percent as *pinky meta*. There were two MSM (0.5%) who preferred to be referred to as *women*.

**Table 3.5: Self-categorization**

Preferred identity	N=400	%
<b>Prefer to be identified as:</b>		
Men	183	45.8
Third Gender		
Meta/Meti (n = 83 or 20.7%)	90	22.5
Pinky Meta (n = 5 or 1.3%)		
Woman (n = 2 or 0.5%)		
Homosexual	44	11.0
Ta	36	9.0
Bisexual	28	7.0
Gay	18	4.5
Other	1	0.3

**Note:** This table was based on the following question asked in the survey - “How would you identify yourself on the basis of your sexual orientation/behavior?”

After this study began in May 2007, the Government of Nepal, as a result of advocacy efforts by civil society, officially recognized “third gender” in addition to the conventional gender categories of “male” and “female”. Although this study did not specifically collect information on third gender, this report includes enumeration of “third gender” based on information provided by the Blue Diamond Society (BDS). According to BDS, the categories of *Meta/Meti*, *Pinky meta* and women can be interpreted as Third Gender. Ninety out of 400 (22.5%) of respondents were thus classified as Third Gender.

As table 3.6 indicates, the majority of MSM (63.4%) were born in the central region and live in Kathmandu (76.5%). Two in ten (22.3%) MSM were born in the Kathmandu Valley while three in ten (32.6%) moved there five or more years ago. Notably, nearly half of MSM (45.1%) are relatively new to the Kathmandu Valley, having moved there less than five years ago.

**Table 3.6: Birthplace and Current District of MSW/Non-MSWs**

General Information	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Birth Place of respondents</b>						
Eastern Region	19.9	6.6 – 37.4	19.4	12.3 – 25.2	21.8	14.4 – 27.4
Central Region	60.5	44.1 – 73.5	65.5	58.8 – 74.3	63.4	57.1 – 72.2
Western Region	13.7	5.4 – 22.2	12.6	6.8 – 17.9	11.8	7.1 – 16.8
Mid-Western Region	3.7	0.7 – 7.2	1.6	0.1 – 3.9	1.9	0.4 – 3.6
Out of Nepal	2.2	1.8 – 7.3	1.0	0.3 – 2.2	1.0	0.3 – 2.0
<b>Current living district</b>						
Lalitpur	12.9	4.5 – 22.4	22.2	12.0 – 32.0	21.8	12.4 – 32.5
Bhaktapur	2.6	0.1 – 7.9	2.4	0.3 – 5.7	1.7	0.2 – 4.2
Kathmandu	84.5	74.4 – 93.8	75.3	66.2 – 85.9	76.5	66.0 – 85.9
<b>Duration of residency at current location</b>						
Since birth	18.7	10.0 – 30.9	23.9	15.7 – 28.9	22.3	16.4 – 28.8
<=5 years	28.3	16.8 – 46.6	46.1	40.1 – 54.3	45.1	37.7 – 52.1
> 5 years	52.9	35.5 – 63.8	30.1	23.7 – 38.1	32.6	26.3 – 39.4



As in the first IBBS, MSM who participated in this survey were quite young. Eight in ten MSM (76%) were aged less than 30. MSWs tended to be younger, with nine in ten (86.3%) under 30. The percentage of adolescents aged 16 to 19, comprised approximately one fifth of MSM (18.5%).

One third of MSM (33.7%) were married. This proportion drops by half among MSWs (15.6%) who were more likely to be single (84.4%).

The majority of respondents (78%) did not have a regular partner at the time of the survey. Whilst MSWs were less likely to be married, they (27%) were more likely to live with a regular partner than non-MSWs (21.1%).

A relatively low proportion of MSM (22%) reported living with a regular partner. Among those living with a regular partner, relatively higher percentage of non-MSWs tended to live with female partners (75.2%) compared to about one third of MSWs' (35.6%) who were living with regular female partners.

**Table 3.7: Demographic Characteristic of MSW/Non-MSW**

Demographic Characteristics	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Age of respondent</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
16 – 19	23.3	10.1 – 42.1	20.5	15.9 – 29.7	18.5	13.4 – 26.7
20 – 24	32.3	20.0 – 45.7	37.8	28.9 – 43.8	39.1	31.4 – 45.8
25 – 29	30.7	18.5 – 43.9	16.5	11.1 – 20.8	18.4	13.1 – 22.5
30 – 34	10.3	3.4 – 16.1	16.5	11.7 – 23.2	16.0	11.3 – 22.8
35 – 39	3.0	0.1 – 6.4	3.5	1.5 – 5.2	3.4	1.7 – 5.1
40 or above	0.4	0.1 – 1.2	5.2	1.7 – 8.7	4.7	1.6 – 7.6
<b>Currently married</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	15.6	9.1 – 23.6	37.8	30.9 – 45.8	33.7	27.2 – 40.7
No	84.4	76.6 – 90.6	62.2	54.1 – 69.0	66.3	59.4 – 72.9
<b>Married to a:</b>	<b>N=42</b>		<b>N=91</b>		<b>N=133</b>	
Male	9.7	1.5 – 42.6	0.5	0.1 – 0.4	2.2	0.2 – 3.8
Female	90.3	57.6 – 98.6	99.5	99.6 – 99.9	97.8	96.3 – 99.8
<b>Currently living with regular partner</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	27.0	15.0 – 38.1	21.1	16.3 – 28.7	22.0	17.1 – 28.5
No	73.0	62.0 – 85.3	78.9	71.4 – 83.7	78.0	71.5 – 82.9
<b>Regular partner male or female</b>	<b>N=50</b>		<b>N=69</b>		<b>N=119</b>	
Male	64.4	41.4 – 91.6	24.8	13.3 – 45.1	41.8	26.0 – 72.1
Female	35.6	8.7 – 57.3	75.2	54.5 – 87.5	58.2	27.9 – 74.0

As Table 3.8 shows, 8 percent of the 400 respondents were illiterate at the time of the survey. A similar proportion (7%) had never been to a formal school but could read and write and twice as many had attended primary school (16.3%). Four in ten (39.3%) had completed secondary level and nearly a third (29.7%) had passed SLC or higher level of studies.

Four in ten MSM (38.2%) belonged to Brahmin, Chhetri or Thakuri castes, while one in three was from Mongoloid ethnic community (Rai/Limbu/Gurung/Tamang/Magar). Around 30 percent was either a Newar (14.2%) or from Terai (16.1%). MSWs were significantly more likely to come from Mongoloid ethnic communities (38.5%) than non-MSWs (25.8%).

Over three quarters of the MSM (76.1%) were Hindus and 15 percent were Buddhists, while a small minority (3.3%) were Christian.

Over two-fifth of MSM (42.7%) had stayed away from home in the last 12 months. MSWs (48.8%) were more likely to have been away from home than non-MSWs (40.9%) in the last 12 months.

**Table 3.8: Social Characteristics of MSWs/Non-MSWs**

Social Characteristics	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Education</b>						
Illiterate	8.7	0.8 – 15.3	7.5	3.2 – 11.7	7.8	3.6 – 11.4
Literate, no schooling	6.2	4.0 – 12.5	7.7	4.0 – 14.0	7.0	3.4 – 11.2
Primary	23.1	16.6 – 35.9	15.8	11.2 – 20.5	16.3	12.5 – 21.0
Secondary	38.6	19.3 – 48.4	38.4	32.0 – 48.0	39.3	33.2 – 47.2
SLC and Above	23.4	15.6 – 39.1	30.6	20.8 – 36.5	29.7	22.4 – 35.8
<b>Ethnic/Caste Group</b>						
Brahmin /Chhetri/Thakuri	33.9	19.1 – 47.5	40.7	31.4 – 47.3	38.2	31.4 – 45.5
Newar	18.3	8.0 – 27.8	14.7	9.4 – 20.1	14.2	9.7 – 19.7
Rai/Limbu/ Gurung/ Tamang /Magar	38.5	28.7 – 56.2	25.8	17.7 – 33.0	27.8	20.9 – 34.9
Terai Caste	5.8	1.4 – 11.2	14.8	10.0 – 25.9	16.1	10.0 – 22.2
Other hill caste	3.5	0.2 – 5.9	4.0	1.1 – 7.5	3.7	1.3 – 6.8
<b>Religion</b>						
Hindu	67.9	55.6 – 81.3	76.4	70.0 – 83.3	76.1	69.7 – 82.1
Buddhist	28.1	14.9 – 39.9	13.4	7.6 – 17.9	15.0	10.5 – 20.3
Christian	2.5	0.6 – 5.5	3.3	1.0 – 6.8	3.3	1.2 – 6.0
Others	1.6	0.1 – 3.7	6.9	2.9 – 12.1	5.6	2.0 – 9.9
<b>Lived away from home in the past 12 months</b>						
Yes	48.8	33.1 – 62.0	40.9	33.4 – 48.8	42.7	36.0 – 49.6
No	51.2	37.9 – 66.7	59.1	41.8 – 66.7	57.3	50.4 – 64.0

### 3.6 Monthly Income of MSM and their Sources of Income

Respondents came from a variety of backgrounds which ranged from farmers to civil servants. One third of MSM (28.3%) relied on labor wages as their main source of income whilst one fifth (21%) was employed by a private company. One in ten MSM (12.3%) run their own business and eight percent are studying.

Notably only one third of MSWs (28.1%) cited *sex work* as their main source of income. More MSWs (27.4%) than non-MSWs (17.7%) were employed as private company staff and fewer were wage laborers (12.6% compared with 36.2%).

**Table 3.9: Main Occupation of MSW/Non-MSWs**

Main Occupation	MSW	Non-MSW	MSM
	Estimated Population Proportions (%) (N=135)	Estimated Population Proportions (%) (N=265)	Estimated Population Proportions (%) (N=400)
<b>Main Occupation</b>			
Sex worker	28.1 *	0.0 *	9.5 *
Private company staff	27.4 *	17.7 *	21.0 *
Labor/Wage labor	12.6 *	36.2 *	28.3 *
Businessman	8.9 *	14.0 *	12.3 *
PE/OE	7.4 *	1.5 *	3.5 *
Student	5.9 *	9.4 *	8.3 *
Restaurant employee	2.2 *	1.5 *	1.8 *
Private Job holder	2.2 *	1.1 *	1.5 *
Driver	1.5 *	3.8 *	3.0 *
Other civil servant	1.5 *	2.3 *	2.0 *
Military	0.7 *	1.5 *	1.3 *
Farmer	0.7 *	1.9 *	1.5 *
Unemployed	0.7 *	6.0 *	4.3 *

Police	0.0 *	1.1 *	0.8 *
Others	0.0 *	1.9 *	1.3 *

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

In the month preceding the survey, 6.4 percent of MSM did not have income, one third (29.5%) made less than 3,000 NRs. and four in ten (37.7%) earned between 3,001 and 6,000 NRs. One in four (26.4%) reported making more than 6,000 NRs. MSW (54.8%) were significantly more likely to make more than 6,001 NRs. than non-MSWs (27.1%).

**Table 3.10: Source of Income for MSM and Number of Dependents**

Income and Dependents	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Last months income in Rs.</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
No income	0.7 *	NC	8.3 *	NC	6.4	3.1 – 10.6
<= 3000	13.3 *	NC	26.8 *	NC	29.5	22.6 – 35.4
3001 – 6000	31.1 *	NC	37.7 *	NC	37.7	30.6 – 44.2
> 6000	54.8 *	NC	27.1 *	NC	26.4	21.5 – 33.5
<b>Source of income#</b>	<b>N=134</b>		<b>N=243</b>		<b>N=377</b>	
Wage labor	19.5	10.3 – 35.3	42.4	37.4 – 55.0	40.9	34.2 – 49.5
Salaried job	27.4	13.1 – 34.1	28.0	18.9 – 33.3	27.4	19.5 – 32.0
Own business	8.4	3.7 – 15.4	22.3	15.0 – 28.8	19.5	14.1 – 26.3
Money from family	17.8	2.7 – 35.7	8.3	3.7 – 12.2	11.1	6.3 – 16.1
Sex work	85.8 *	NC	0.0 *	NC	10.9	8.4 – 15.8
Driver	0.7 *	NC	2.9 *	NC	1.6	0.6 – 3.3
Other work	0.7 *	NC	2.1 *	NC	1.6 *	NC
<b>Total number of dependents</b>	<b>N=134</b>		<b>N=243</b>		<b>N=377</b>	
None	56.4	44.3 – 72.8	47.8	4.8 – 57.7	48.5	41.1 – 57.0
1 – 2	13.5	6.2 – 19.7	20.1	11.3 – 24.5	19.4	14.1 – 26.6
3 – 4	27.2	14.1 – 39.5	21.6	15.4 – 28.1	22.0	15.5 – 27.5
5 – 6	2.8	0.9 – 5.2	9.2	4.9 – 14.8	8.7	4.3 – 12.8
7 +	0.0	0.0 – 0.1	1.3	0.1 – 4.6	1.4	0.1 – 3.4
<b>Paid by last client in NRs.</b>	<b>N=135</b>					
50 – 100	8.0	2.3 – 12.3	NA	NA	NA	NA
101 – 400	64.4	36.1 – 70.5	NA	NA	NA	NA
401 – 1000	18.8	14.9 – 47.8	NA	NA	NA	NA
1001 – 5000	8.8	2.8 – 16.8	NA	NA	NA	NA

#Note: Because of multiple answers, percentages add up to more than 100.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

NA- Not applicable for non-MSWs

One in ten MSM (11.1%) were sent money from their families. More MSW (17.8%) relied on money sent from their family as a source of income than non-MSWs (8.3%). Nearly half of MSM (48.5%) did not have any dependents to look after. MSWs (43.6%) were less likely to have dependents than non-MSWs (52.28%).

The price charged by MSWs varied from NRs. 50 to 5,000. The majority (64.4%) had been paid between NRs. 101 to NRs. 400 while 18.8 percent had received between NRs. 401 and NRs. 1000 from their last clients. A minority (8.0%) were only paid less than NRs. 100.

## 4. USE OF ALCOHOL AND DRUGS

Alcohol consumption and drug use are often associated with risky sexual behavior leading to HIV and STI transmission. This section attempts to analyze the extent of drug use and alcohol consumption by MSM in the Kathmandu Valley.

### 4.1 Use of Alcohol

The majority of respondents (86.3%) had consumed alcohol at least once in the last month. Non-MSWs (88.7%) were significantly more likely to have had alcoholic drinks than MSWs (72.9%). Among those who had alcohol in the last month, two in five (39.8%) consumed alcohol during last sex. Non-MSWs (42.2%) were more likely to have done so than MSWs (30.5%).

**Table 4.1: Use of Alcohol by MSW/non-MSWs**

Consumption of Alcohol	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Ever had any drinks containing alcohol in last one month</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	72.9	59.8 – 83.4	88.7	82.4 – 92.9	86.3	81.4 – 90.9
No	27.1	16.3 – 40.4	11.3	7.1 – 17.8	13.7	9.2 – 18.6
<b>Consumption of Alcohol in last one month</b>	<b>N=99</b>		<b>N=228</b>		<b>N=327</b>	
Every day	12.4	3.2 – 25.1	13.2	7.8 – 20.7	13.3	8.5 – 19.8
Three-four times a week	20.5	3.3 – 25.6	29.9	21.3 – 38.3	28.5	20.5 – 36.1
At least once a week	36.6	20.4 – 58.0	35.1	26.1 – 43.6	34.5	26.1 – 42.0
Did not drink alcohol in the last month	30.5	9.6 – 60.9	21.8	14.9 – 30.1	23.7	16.9 – 31.9
<b>Alcohol consumed during last sexual encounter</b>	<b>N=99</b>		<b>N=228</b>		<b>N=327</b>	
Alcohol consumed	30.5	11.5 – 36.2	42.2	32.4 – 49.5	39.8	32.6 – 48.0
Alcohol not consumed	69.5	63.9 – 88.5	57.8	50.7 – 67.6	60.2	52.0 – 67.4

### 4.2 Use of Drugs

Overall 31.5 percent of MSM (36.2% MSWs and 30.3% non-MSWs) had used drugs in the last year. Marijuana locally known as *Ganja* was the most popular drug used by 36.2 percent of MSWs and 29.9 percent of non-MSWs. Other oral/inhaling drugs used by the respondents are listed in Table 4.2.

Two percent of MSM (1.8%) had injected illicit drugs in the past year, with MSWs (4.2%) being more likely to have injected drugs than non-MSWs (1.6%); the difference is not statistically significant.

**Table 4.2: Use of Drugs by MSW/non-MSWs**

Use of Drugs	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Used drugs in the past 12 months</b>						
Yes	36.2	21.3 – 52.3	30.3	21.6 – 36.3	31.5	24.5 – 37.8
No	63.8	47.7 – 78.7	67.7	63.7 – 78.5	68.5	62.2 – 75.5
<b>Types of drug used in the past 12 months #</b>						
Marijuana (Ganja)	36.2	20.7 – 52.7	29.9	21.1 – 36.0	31.0	24.1 – 37.4
Charas	19.3	3.3 – 38.1	7.7	3.8 – 12.4	8.1	4.1 – 12.7
Oral tablet	1.5 *	NC	3.4 *	NC	2.2	0.5 – 4.9
Glue/Dendrite	5.6	0.3 – 17.0	0.8	0.3 – 1.6	1.5	0.3 – 3.0
Heroin	0.0 *	NC	0.8 *	NC	0.5 *	NC
Brown Sugar	1.5 *	NC	1.9 *	NC	2.5	0.6 – 5.3
<b>Injected drugs in the past 12 months</b>						
Yes	4.2	1.1 – 7.7	1.6	0.4 – 2.8	1.8	0.8 – 3.0
No	95.8	92.5 – 98.9	98.4	97.2 – 99.6	98.2	97.0 – 99.2

#: Because of multiple answers, percentages add up to more than 100.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

## 5. SEXUAL BEHAVIOR, TYPES OF PARTNERS AND CONDOM USE

This chapter deals with the sexual behavior of MSM. It focuses particularly on risky sexual behavior, type and number of partners, as well as use of condoms and lubricant in different sexual acts.

### 5.1 First Sexual Contact

Age at sexual debut for MSM ranged from 8 to 30 years with a median age of 16 years. Six in ten MSM (63.9%) had their first sexual encounter with a female partner. It is important to note MSWs (68.5%) were significantly more likely to have had their first sexual experience with a male partner than non-MSWs (31.5%).

**Table 5.1: Sexual Behavior of MSWs/Non-MSWs**

Sexual Behavior	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Age at first sexual intercourse</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
8 – 16	62.8	49.3 – 75.4	48.2	4.0 – 55.4	51.5	44.1 – 58.4
17 – 20	31.0	18.1 – 42.5	39.7	32.9 – 48.5	37.5	30.4 – 44.8
21 – 30	6.2	2.0 – 15.0	12.1	6.7 – 16.5	11.0	6.3 – 16.1
<b>Median</b>	<b>15</b>	-	<b>16</b>	-	<b>16</b>	-
<b>Mean</b>	<b>14.8</b>	-	<b>16.6</b>	-	<b>16</b>	-
<b>First sex partner</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Male	68.5	51.1 – 83.1	31.5	24.0 – 38.3	36.1	28.9 – 41.8
Female	31.5	17.5 – 48.9	68.5	62.3 – 75.9	63.9	58.2 – 71.1
<b>Sex partners in the past 12 months</b>						
Women (vaginal/oral/anal)	53.2	39.2 – 67.0	71.4	64.1 – 77.8	67.1	60.6 – 74.2
Men (oral/anal)	100.0 *	NC	100.0 *	NC	100.0 *	
Male (in exchange of money)	100.0 *	NC	0.0 *	NC	88.8	67.3 – 99.3
<b>Ever had sex with a male in exchange for money</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	100.0 *	NC	3.4 *	NC	13.7	10.7 – 18.8
No	0.0	NC	96.6 *	NC	86.3	81.2 – 89.3
<b>Age at first sex with a male in exchange for money</b>	<b>N=135</b>		<b>N=9</b>		<b>N=144</b>	
9 – 16	21.5 *	NC	11.1 *	NC	20.3	12.1 – 38.7
17 – 20	42.2 *	NC	55.5 *	NC	53.8	27.1 – 61.6
21 – 36	36.3 *	NC	33.3 *	NC	25.8	16.9 – 45.4
<b>Mean</b>	<b>19.6</b>	-	<b>21.4</b>	-	<b>19.8</b>	-
<b>Median</b>	<b>19</b>	-	<b>18</b>	-	<b>19</b>	-
<b>Last sex with male in exchange for money</b>	<b>N=135</b>		<b>N=9</b>		<b>N=144</b>	
Up to 7 days	66.7 *	NC	0.0 *	NC	52.3	30.0 – 58.8
8 – 15 days	12.6 *	NC	0.0 *	NC	18.1	6.0 – 40.3
16 – 30 days	5.9 *	NC	0.0 *	NC	2.1	2.0 – 6.4
31 – 60 days	9.6 *	NC	0.0 *	NC	7.4	4.3 – 23.5
> 60 days	5.2 *	NC	100.0 *	NC	20.1	3.8 – 36.7

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

Seven in ten (67.1%) MSM also had sex with a female partner in the last 12 months. MSWs (53.2%) were significantly less likely to have had female partners than non-MSWs (71.4%) in the last year.

Nearly 14 percent of MSM (13.7%) reported ever having sex with a male partner in exchange for money; not all of these were MSWs. Nine respondents had sex in return for money but stopped doing so more than two months ago.

Half of those who had sex with a male partner in exchange for money (53.8%) were aged 17 to 20 when they had done so for the first time. The median age for starting to exchange sex for money was 19 and the average age was 20.

Nine in ten MSWs (85.2%) had exchanged sex with a male partner for money in the last month, and two thirds (66.7%) had done so in the last week. Only a minority of MSWs (5.2%) did not exchange sex for money in the last two months.

## 5.2 Sex Partners of MSM

This study made efforts to cover as many different types of sex partners of MSM as possible. Four types of sex partners were cited by MSM. These are (1) non-paying male, (2) non-paying female, (3) one-time paying male, and (4) regular paying male. This section deals with information on numbers of different types of sex partners respondents had in the month preceding the interview.

### *Non-paying Partners*

Two thirds of MSM (63.3%) who participated in the survey reported having sex with a non-paying male partner while half of them (49%) also had sex with a non-paying female sex partner in the last month. MSM reported more promiscuous behavior with non-paying male partners (an average of five) than with non-paying female partners (an average of one).

It is interesting to note that there are no significant differences between MSWs and non-MSWs in terms of the *number of non-paying partners*; on average both group had five male partners and one female partner in the last month. On the other hand, MSWs (38.7%) were significantly more likely to have had more than one non-paying female partner than non-MSWs (8.6%) in the month preceding the survey.

### *Paid Partners*

Nearly one fifth of MSM (19%) paid for sex in the last month. More MSM paid for male partners (17.4%) than for female partners (11.3%). MSM are more likely to have sex with a non-paying female partner (49%) than with a female sex worker (FSW) (12.7%).

Eight in ten (76.7%) MSWs reported having one or more regular paying partners while six in ten MSWs (58%) had one or more one-time paying clients in the last month. On average, MSWs had six one-time paying clients and six regular paying partners in the course of the month preceding the interview.

**Table 5.2: Number of Different Sex Partners of MSWs/Non-MSWs**

Number of Different Sex Partners	MSW	Non-MSW	MSM
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	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Number of non-paying male sex partners in the last month</b>						
None	36.3	22.3 – 53.8	38.9	29.8 – 44.5	36.6	29.2 – 43.0
One	15.1	8.0 – 26.6	21.6	16.6 – 28.3	21.8	16.8 – 27.3
Two – Five	35.2	21.0 – 46.4	31.8	25.5 – 39.6	33.3	27.3 – 40.3
> Five	13.3	6.7 – 28.4	7.7	5.6 – 11.1	8.2	5.9 – 10.9
<b>Mean</b>	<b>5.1</b>	<b>-</b>	<b>5.2</b>	<b>-</b>	<b>5.2</b>	<b>-</b>
<b>Number of non-paying female sex partners in the last month</b>						
None	52.3	23.5 – 89.9	50.3	40.4 – 66.7	50.9	39.7 – 66.0
One	9.0	0.6 – 14.9	41.1	27.4 – 50.4	35.6	24.4 – 47.9
Two – Twenty Five	38.7	4.7 – 72.1	8.6	2.0 – 15.0	13.4	4.2 – 19.9
<b>Mean</b>	<b>0.6</b>		<b>0.9</b>		<b>0.8</b>	
<b>Number of one-time paying male sex partners in the last month</b>						
None	42.1	15.8 – 42.1	NA	NA	NA	NA
One	10.6	1.8 – 35.2	NA	NA	NA	NA
Two – Five	27.8	17.8 – 50.7	NA	NA	NA	NA
> Five	19.6	9.3 – 37.2	NA	NA	NA	NA
<b>Mean</b>	<b>6.4</b>	<b>-</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Number of regular paying male sex partners in the last month</b>						
None	23.4	13.3 – 40.6	NA	NA	NA	NA
One	7.3	No Bound	NA	NA	NA	NA
Two – Five	43.6	17.0 – 56.9	NA	NA	NA	NA
> Five	25.8	19.6 – 49.7	NA	NA	NA	NA
<b>Mean</b>	<b>5.5</b>	<b>-</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Paid sex partners in the last month</b>						
Male (oral and anal)	20.0	10.6 – 27.7	15.5	9.7 – 21.9	17.4	12.2 – 23.0
Male (anal)	19.9	10.6 – 27.7	14.9	9.0 – 20.9	16.7	11.5 – 22.3
Female	15.0	4.8 – 21.9	10.3	6.0 – 16.5	11.3	6.7 – 15.9
<b>Number of paid male sex partners in the last month</b>						
None	79.8	71.5 – 88.6	83.9	74.8 – 90.0	81.0	71.9 – 85.9
One	8.3	2.8 – 13.7	8.3	3.8 – 18.5	9.5	6.2 – 19.5
Two – Ten	11.9	5.5 – 19.0	7.8	3.8 – 10.0	9.5	5.3 – 11.5
<b>Mean</b>	<b>2.9</b>	<b>-</b>	<b>2.5</b>	<b>-</b>	<b>2.7</b>	<b>-</b>
<b>Number of paid female sex workers as sex partners in the last month</b>						
None	92.6 *	NC	92.1 *	NC	87.3	82.7 – 92.0
One	1.5 *	NC	3.4 *	NC	5.6	2.3 – 8.1
Two – Twenty	5.2 *	NC	4.5 *	NC	6.5	3.1 – 10.4
Don't remember	0.7 *	NC	0.0 *	NC	0.7	0.6 – 2.2
<b>Mean</b>	<b>0.3</b>		<b>0.2</b>		<b>0.3</b>	

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

NA- Not applicable for non-MSWs

### 5.3 Anal and Oral Sex Partners

The predominant sex practice among MSM is anal sex followed by oral sex. Three quarters of MSM (74.6%) had practiced anal sex in the past month; while six in ten (56 %) had performed oral sex during the same period. One in ten (11.7%) had oral as well as anal sex in the past month. A higher proportion of MSWs (99.2%) than non-MSWs (68.9%) reported having anal sex.



**Table 5.3: Anal/Oral Sex in the Last Month**

Sexual Activities in Last Month	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (n=135)	95% CI	Estimated Population Proportions (%) (n=265)	95% CI	Estimated Population Proportions (%) (n=400)	95% CI
<b>Anal sex in the past month</b>						
Yes	99.2	98.2 – 99.8	68.9	63.4 – 77.3	74.6	68.5 – 81.5
No	0.8	0.2 – 1.8	31.1	22.7 – 36.6	25.4	18.5 – 31.6
<b>Oral Sex in the past month with one time/regular paying partners</b>						
Yes	56.0	37.9 – 80.9	NA	NA	NA	NA
No	44.0	19.1 – 62.1	NA	NA	NA	NA
<b>Anal and Oral sex in the past month</b>						
Yes	21.7	12.5 – 34.5	9.3	4.9 – 12.6	11.7	8.0 – 15.6
No	78.3	65.5 – 87.5	90.7	87.4 – 95.1	88.3	84.4 – 92.1

NA- Not applicable for non-MSWs

*MSWs and their Anal Sex Partners:* The MSWs had anal sex with different types of sex partners namely; (1) non-paying male (61.9%), (2) one-time paying male (54.9%), (3) paying regular male (74.7%) and (4) paid male (19.5%) in the past month (Table 5.4).

More MSWs had anal sex with regular paying partners (74.7%) than with one-time paying clients (54.9%) in the last month. MSWs were more likely to have more than one partner, either regular (69.7%), one-time (45.4%) or paid (11.1%), than only one partner in the month preceding the survey (Table 5.4).

*Non-MSWs and their Anal Sex Partners:* The anal sex partners of non-MSWs in the past month consisted of (1) non-paying male partner and (2) paid male partner. A total of 57.3 non-MSWs had anal sex with non-paying males, while 14.8 percent of them had paid male anal sex partners in the past month. Four in ten (35.9%) had more than one non-paying male anal sex partner while 6.6 percent had more than one paid male anal sex partner during the same period.

**Table 5.4: Anal Sex with Different Sex Partners**

Anal Sex with Different Sex Partners	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (n=135)	95% CI	Estimated Population Proportions (%) (n=265)	95% CI	Estimated Population Proportions (%) (n=400)	95% CI
<b>Number of non-paying male anal sex partners in the last month</b>						
None	38.1	23.0 – 53.8	42.8	33.9 – 48.6	40.7	32.6 – 47.3
One	24.9	16.2 – 41.0	21.4	16.1 – 28.5	23.0	18.1 – 29.1
More than One	37.0	23.1 – 45.7	35.9	29.4 – 44.1	36.3	29.9 – 43.1
<b>Number of one time paying male anal sex partners in the last month</b>						
None	45.1	30.9 – 59.1	NA	NA	NA	NA
One	9.5	3.7 – 15.5	NA	NA	NA	NA
More than One	45.4	32.6 – 59.6	NA	NA	NA	NA
<b>Number of paying regular male anal sex partners in the last month</b>						
None	25.3	15.2 – 38.9	NA	NA	NA	NA
One	5.0	1.2 – 10.3	NA	NA	NA	NA
More than One	69.7	55.6 – 79.9	NA	NA	NA	NA
<b>Number of paid male anal sex partners in the last month</b>						
None	80.5	72.7 – 89.7	85.1	77.7 – 90.7	82.9	75.5 – 87.7
One	8.4	2.9 – 14.1	8.2	3.8 – 16.2	8.0	5.0 – 16.3
More than One	11.1	4.7 – 17.2	6.6	3.2 – 9.3	8.3	4.8 – 11.3

NA- Not applicable for non-MSWs

MSWs also had oral sex with (a) one-time paying male (41.9%) and (b) regular paying male (62.1%) in the past month. As in anal sex, MSWs reported having oral sex with more than one either regular (53.4%) or one-time paying (31.5%) partner in the last month.

**Table 5.5: Oral Sex with Different Sex Partners**

Oral sex with different sex partners	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (n=135)	95% CI	Estimated Population Proportions (%) (n=265)	95% CI	Estimated Population Proportions (%) (n=400)	95% CI
<b>Number of one-time paying male oral sex partners in the last month</b>						
None	48.1	34.1 – 61.1	NA	NA	NA	NA
One	10.4	3.9 – 18.7	NA	NA	NA	NA
More than One	31.5	28.0 – 56.4	NA	NA	NA	NA
<b>Number of regular paying male oral sex partners in the last month</b>						
None	37.9	26.2 – 51.5	NA	NA	NA	NA
One	8.7	2.2 – 18.4	NA	NA	NA	NA
More than One	53.4	40.1 – 64.4	NA	NA	NA	NA
<b>Performed sexual act other than anal sex to satisfy one time and regular paying male sex partner in the last month</b>						
No customer	19.8	9.6 – 33.0	NA	NA	NA	NA
Yes	40.3	24.8 – 60.7	NA	NA	NA	NA
No	39.8	19.7 – 56.0	NA	NA	NA	NA

NA- Not applicable for non-MSWs

## 5.4 Types of Sex Acts with Sex Partners

In this study, MSM in Kathmandu were also asked about the sex role they performed in the month prior to interview. They were asked specifically about their roles in anal and oral sex acts.

**Type of Anal Sex:** Of all MSM, 56.8 percent had performed exclusively insertive anal sex acts whilst 7.8 had performed exclusively receptive roles. One quarter (25.2%) were not engaged in anal sex in the past month whilst one in ten (10.3%) had performed both insertive and receptive sexual roles in the past month.

**Table 5.6: Sexual Role in the Past Month**

Sexual role in the past month	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Role performed in anal sex</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
All insertive	41.6	22.9 – 55.0	57.5	50.1 – 66.0	56.8	49.5 – 63.1
All receptive	32.9	21.9 – 47.9	4.2	2.1 – 6.0	7.8	5.0 – 10.2
Equally insertive and receptive	14.2	7.6 – 24.8	6.1	4.1 – 10.3	6.9	5.3 – 10.9
Mostly insertive	5.9	1.7 – 10.0	2.1	0.3 – 6.8	2.6	0.9 – 6.6
Mostly receptive	5.0	2.2 – 8.5	0.1	0.0 – 0.2	0.8	0.4 – 1.2
Didn't have anal sex in the last month	0.5	0.1 – 1.5	29.9	21.1 – 35.6	25.2	18.0 – 30.3
<b>Role performed in oral sex</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
All insertive	32.0	17.1 – 48.3	38.6	30.4 – 44.4	39.0	31.6 – 45.0
All receptive	28.2	19.1 – 42.2	2.0	0.8 – 3.0	5.5	3.7 – 7.4
Equally insertive and receptive	21.3	11.0 – 34.6	4.7	2.0 – 8.6	6.7	4.2 – 10.8
Mostly insertive	5.1	1.2 – 8.9	3.0	0.6 – 7.6	2.9	1.0 – 7.0
Mostly receptive	4.0	1.5 – 6.5	0.5	0.1 – 1.4	0.9	0.4 – 1.8
Didn't have oral sex in the last month	9.4	1.9 – 15.7	51.1	44.0 – 59.3	45.0	37.7 – 51.2

Comparatively more non-MSWs than MSWs (41.6% MSWs and 57.5% non-MSWs) had performed an exclusively insertive role while more MSWs than non-MSWs (32.9% and 4.2% respectively) had practiced an exclusively receptive role in the month preceding the survey.

**Types of Oral Sex:** Nearly half of MSM (45%) reported not being involved in oral sex in the last month while four in ten (39%) had performed exclusively insertive oral sex. Very few (5.5%) had preformed only a receptive role and one in ten (10.5%) said they were engaged in both insertive and receptive oral sex in the past month.

In terms of the type of roles played by MSWs and non-MSWs, a similar pattern with anal sex was observed. Comparatively, more non-MSWs than MSWs (38.6%, non-MSWs and 32% MSWs) had played insertive roles and more MSWs than non-MSWs (28.2% MSWs and 2% non-MSWs) had performed receptive roles in the month preceding the survey.

## 5.5 Types of Different Partners at First Sex and Last Sex Acts

This survey also collected information about the partners at first and last sex acts. Nearly two-thirds of the MSM (63.5%) have had their first sexual intercourse with a female partner, paying or non-paying. More than half of MSM (55.5%) did not pay for their first sex with a female whilst around one in ten (8%) paid for their first sex act with a woman.

One-third of MSM (36.5%) had their *first sexual* contact with a male partner, mostly a non-paying one. MSWs' were more likely to have had sex for the first time with a non-paying male partner (73.3%) than non-MSWs (42.3%). On the other hand, more non-MSWs (50.6%) had their first sexual encounter with a non-paying female partner than MSWs (14.8%).

Overall, 73.7 percent of MSM reported that their *last sex partner* was a non-paying male (58.7%), paying male (7.4%) or male client (7.6%).

**Table 5.7: First and Last Sex Partners**

Sex act	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>First sex partner</b>						
Non paying male partner	73.3 *	NC	42.3 *	NC	33.4	26.5 – 39.0
Non paying female partner	14.8 *	NC	50.6 *	NC	55.5	48.7 – 62.5
Male client	8.9 *	NC	0.4 *	NC	2.7	1.2 – 5.4
Paid male sex partner	0.0 *	NC	1.5 *	NC	0.4	0.1 – 0.9
Paid female partner	3.0 *	NC	5.3 *	NC	8.0	4.1 – 13.7
<b>Last sex partner</b>						
Non paying male partner	28.9 *	NC	73.6 *	NC	58.7	51.8 – 65.7
Non paying female partner	5.9 *	NC	14.7 *	NC	19.1	13.1 – 25.5
Male client	59.3 *	NC	0.0 *	NC	7.6	5.0 – 11.2
Paid male partner	5.2 *	NC	7.2 *	NC	7.4	4.2 – 10.5
Paid female partner	0.7 *	NC	4.5 *	NC	7.3	3.0 – 12.1
<b>Last anal sex male partner</b>						
Male client	61.5 *	NC	0.0 *	NC	7.6	5.2 – 11.3
Non paying male partner	33.3 *	NC	88.7 *	NC	78.1	72.9 – 83.7
Paid male partner	5.2 *	NC	11.3 *	NC	14.3	9.0 – 18.6

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

Female partners accounted for 26.4 percent of last sex partners for of MSM. Non-MSWs (19.2%) were significantly more likely to have had their last sex with a female partner than MSWs (6.9%).

Six in ten MSWs (61.5%) reported that their last anal intercourse was with a male client, whilst only one in ten non-MSWs (11.3%) reported paying for their last anal sex. One in nine non-MSWs (88.7%) had their last anal sex with non-paying male partners, compared to one in three MSWs (33.3%) who had non-paying male partners for their last anal sex.

## 5.6 Condom Use Behavior of MSM

Table 5.8 shows condom use at sexual debut, last sex and last anal sex. Only one-fourth (24.3%) of MSM had used condoms at their first sexual debut. Two thirds (67.4%) had used a condom during their last sexual intercourse and seven in ten (71.6%) for their last anal sex with a male partner. MSWs were significantly more likely to have used condoms both during last sex (91.1%) and last sex with a male partner (93.1%) than non-MSWs (64.4% and 69.2% respectively).

**Table 5.8: Condom Use with First and Last Sex Partners**

Sex act	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Condom use during first sex</b>						
Yes	20.5	10.1 – 33.6	24.9	7.7 – 31.6	24.3	18.6 – 30.7
No	79.5	65.4 – 90.3	75.1	67.8 – 82.6	75.7	69.3 – 81.4
<b>Condom use during last sex</b>						
Yes	91.1	85.4 – 97.4	64.4	55.3 – 71.1	67.4	59.0 – 74.0
No	8.1	2.5 – 15.3	35.6	28.8 – 45.0	32.6	26.1 – 41.0
<b>Condom use during last anal sex with male</b>						
Yes	93.1	85.6 – 98.1	69.2	60.8 – 75.9	71.6	63.5 – 77.5
No	6.9	2.0 – 14.3	30.8	24.0 – 39.3	28.4	22.5 – 36.5

Table 5.9 depicts the condom use behavior of MSM during their last sex with different types of sex partners. Three types of sex practices (1) anal, (2) oral, and (3) vaginal with different partners were reported. Since MSWs and non-MSWs have different type of sex partners, their condom using practices have been discussed in separate sections.

### *MSWs and Condom Use during the Last Sex Act:*

Of the four types of different male sex partners of MSWs (1) non-paying (2) one-time paying (3) regular paying and (4) paid client, the highest percentage of condom use during the last anal sex was with a paid client (100%) and the lowest was during anal sex with non-paying male sex partners (85.2%).

Nearly all of MSWs had used a condom during last anal sex with a one time paying male (97.8%) and regular paying male (96%) sex partner. Overall, 93.1 percent of MSWs had used a condom with their last male anal sex partner and 67.5 percent had used a condom with their last oral male sex partner in the month preceding the survey.

As for last female sex partner, a lower proportion of MSWs (86.9%) had used a condom with non-paying female sex partners. Of the nine MSWs who had sex with a paid female sex partner in last month, eight had used condoms.

***Non-MSWs and Condom Use during the Last Sex Act:***

Overall, seven in ten (69.2%) non-MSWs had used condoms during their last anal sex with a male partner and four in ten (38%) had used condoms during their last oral sex with a male partner in the month preceding the survey.

Condom use during last anal sex was higher with paid male (85.7%) than with non-paying male sex partners (75.7%). Condom use with female sex partners was comparatively low with only four in ten (39.1%) using condoms with non-paying female sex partners and six in ten (61.9%) using them with paid female partners.

As these findings indicate, non-MSWs were more likely to use condoms with male and paid partners than with they were with female and non paying partners, putting their wives or girl friends at risk of HIV and STIs.

**Table 5.9: Use of Condoms during the Last Sex Act with Different Sex Partners**

Use of Condom during the Last Sex Act with Different Sex Partners	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Condom use during last anal sex with a non-paying male sex partner</b>	<b>N=110</b>		<b>N=204</b>		<b>N=314</b>	
Yes	85.2	73.1 – 98.0	75.7	66.6 – 84.0	75.2	67.8 – 83.1
No	14.8	1.9 – 27.4	24.3	15.5 – 33.8	24.8	17.0 – 32.3
<b>Condom use during last anal sex with a one time paying male sex partner</b>	<b>N=92</b>					
Yes	97.8 *	NC	NA	NA	NA	NA
No	2.2 *	NC	NA	NA	NA	NA
<b>Condom use during last anal sex with a regular paying male sex partner</b>	<b>N=101</b>					
Yes	96.0 *	NC	NA	NA	NA	NA
No	4.0 *	NC	NA	NA	NA	NA
<b>Condom use during last anal sex with paid male sex partner</b>	<b>N=21</b>		<b>N=35</b>		<b>N=56</b>	
Yes	100.0 *	NC	85.7 *	NC	91.1 *	NC
No	0.0 *	NC	14.3 *	NC	8.9 *	NC
<b>Condom use during last vaginal/anal/oral sex with non-paying female sex partner</b>	<b>N=28</b>		<b>N=86</b>		<b>N=114</b>	
Yes	86.9	21.4 – 74.5	39.1	27.4 – 75.1	42.2	23.7 – 70.6
No	13.1	27.0 – 78.1	60.9	25.4 – 71.7	57.8	29.5 – 76.3
<b>Condom use during last sex with a paid female sex partner in the last month</b>	<b>N=9</b>		<b>N=21</b>		<b>N=30</b>	
Yes	88.9 *	NC	61.9 *	NC	70.0 *	NC
No	11.1 *	NC	38.1 *	NC	30.0 *	NC
<b>Condom use during last anal sex with a male partner</b>						
Yes	93.1	85.9 – 98.1	69.2	60.6 – 76.1	71.6	63.5 – 77.5
No	6.9	1.8 – 14.2	30.8	24.2 – 39.8	28.4	22.5 – 36.5
<b>Condom use during last oral sex with a male sex partner</b>	<b>N=127</b>		<b>N=217</b>		<b>N=344</b>	
Yes	67.5	49.7 – 83.2	38.0	30.3 – 47.5	43.4	35.7 – 52.0
No	32.5	17.0 – 50.0	62.0	52.3 – 69.5	56.6	48.0 – 64.3

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

NA- Not applicable for non-MSWs

### 5.6.1 Consistent Condom Use with Different Types of Sex Partners

MSM who had sexual intercourse in the last month were asked questions on consistent condom use. Overall *consistent condom use* was the highest with paid male anal sex partners (89.3%) and lowest with non-paying female sex partners (33%) in the month preceding the survey.

#### *MSWs and Consistent Condom Use in the Last Month:*

Consistent condom use of MSWs with different types of male sex partners was as high as 100 percent with paid male partners and at its lowest, 71.8 percent, for non-paying male partners. The majority of MSWs reported using condoms consistently with one-time (94.6%) and regular paying male partners (97.2%).

Seven out of nine MSWs who had sexual contact with paid female partners always used condoms, while 19 out of 28 who had sexual relations with non-paying females had used condoms consistently.

#### *Non-MSWs and Consistent Condom Use in the Last Month:*

Non-MSWs are more likely to use condoms consistently with paid partners (82.9%) than with non-paying male partners (70.9%).

**Table 5.10: Consistent Use of Condoms with Different Sex Partners**

Consistent Use of Condoms with Different Sex Partners	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Condom use with non-paying male anal sex partner(s) in the last month</b>	<b>N=108</b>		<b>N=193</b>		<b>N=301</b>	
Always	71.8	56.3 – 89.4	70.9	62.2 – 81.2	70.1	62.1 – 79.0
Not always	28.2	9.9 – 44.6	29.1	19.0 – 38.1	29.9	21.0 – 38.0
<b>Condom use with one time paying male anal sex partner(s) in the last month</b>	<b>N=92</b>					
Always	94.6*	NC	NA	NA	NA	NA
Not always	5.4*	NC	NA	NA	NA	NA
<b>Condom use with regular paying male anal sex partner(s) in the last month</b>	<b>N=101</b>					
Always	97.2	88.9 – 97.8	NA	NA	NA	NA
Not always	2.8	2.2 – 11.3	NA	NA	NA	NA
<b>Condom use with paid male anal sex partner(s) in the last month</b>	<b>N=21</b>		<b>N=35</b>		<b>N=56</b>	
Always	100.0*	NC	82.9*	NC	89.3*	NC
Not always	0.0	NC	17.1*	NC	10.7*	NC
<b>Condom use in vaginal/oral/anal sex with non-paying female sex partner(s) in the last month</b>	<b>N=28</b>		<b>N=86</b>		<b>N=114</b>	
Always	69.2	11.6 – 75.5	33.8	19.0 – 65.7	33.0	15.3 – 57.6
Not always	30.8	24.7 – 86.9	66.2	34.4 – 81.2	67.0	42.5 – 84.7
<b>Condom use with paid female sex partner(s) in the last month</b>	<b>N=9</b>		<b>N=21</b>		<b>N=30</b>	
Always	77.8*	NC	61.9*	NC	66.7	60.0 – 69.2
Not always	22.2*	NC	38.1*	NC	33.3	30.8 – 40.0

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

NA- Not applicable for non-MSWs

As for female sex partners, while 61.9 percent of non-MSWs had consistently used condoms with paid female sex partners, only half as many (33.8%) had done so with non-paying female sex partners in the month preceding the survey.

### 5.6.2 Availability of Condoms and Their Brand Names

All of the MSM could identify a condom. The table below describes the availability of condoms.

**Table 5.11: Condom Possession and its Availability**

Condom Accessibility	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Can identify a male condom</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	100.0 *	NC	100.0 *	NC	100.0 *	NC
No	0.0 *	NC	0.0 *	NC	0.0 *	NC
<b>Possess a condom at the time of interview</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	22.9	14.5 – 33.0	27.2	20.0 – 34.8	25.4	19.6 – 31.8
No	77.1	67.2 – 85.4	72.8	66.4 – 80.0	74.6	68.2 – 80.4
<b>Can get a condom whenever necessary</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	91.9 *	NC	83.8 *	NC	77.0	67.3 – 82.1
No	8.1 *	NC	12.8 *	NC	18.0	13.4 – 25.3
Don't need one	0.0 *	NC	3.4 *	NC	5.0	2.4 – 10.1
<b>Reason for not having condom when needed</b>	<b>N=11</b>		<b>N=34</b>		<b>N=45</b>	
Shops/Pharmacy closed at night	90.9 *	NC	70.6 *	NC	75.6 *	NC
Shops/Pharmacy too far away	18.2 *	NC	17.6 *	NC	17.8 *	NC
Feel awkward buying condom	9.1 *	NC	17.6 *	NC	15.6 *	NC
Don't want to carry condom	0.0 *	NC	20.6 *	NC	15.6 *	NC
Cost is high	0.0 *	NC	11.8 *	NC	8.9 *	NC
<b>Source of last obtained condom</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Pharmacy	16.0	7.6 – 24.6	29.1	21.4 – 34.9	27.7	21.6 – 34.1
Cruiseaids	35.9	23.2 – 54.5	14.9	10.3 – 21.9	16.8	12.7 – 23.7
Friends	14.2	6.1 – 24.9	16.5	10.3 – 21.0	16.1	11.4 – 21.0
Sexual partner	0.0 *	NC	8.3 *	NC	10.0	6.0 – 15.2
BDS fieldworkers	9.4	3.5 – 22.1	8.7	4.9 – 13.5	8.1	4.9 – 12.2
Shops	2.5	1.2 – 6.7	3.6	0.9 – 7.2	3.2	1.0 – 6.0
BDS drop-in-center	5.0	1.3 – 10.4	1.7	0.1 – 4.9	2.5	0.6 – 5.6
Parichaya Samaj	8.1	3.8 – 11.8	1.4	0.3 – 2.7	2.0	1.0 – 3.3
Health facilities	2.2 *	NC	1.1 *	NC	1.5 *	NC
Never used condom	0.0 *	NC	5.3 *	NC	3.5 *	NC
Others	4.7	1.3 – 8.0	5.1	1.8 – 9.4	5.4	2.2 – 9.1
<b>Most preferred condom brand</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Number one	54.1 *	NC	49.4 *	NC	51.0 *	NC
Cobra	13.3 *	NC	14.0 *	NC	13.8 *	NC
Panther	8.1 *	NC	6.8 *	NC	7.3 *	NC
Jodi	7.4 *	NC	8.7 *	NC	8.3 *	NC
Kamsutra	4.4 *	NC	1.9 *	NC	2.8 *	NC
Dhaal	3.0 *	NC	2.6 *	NC	2.8 *	NC
Skinless	1.5 *	NC	1.5 *	NC	1.5 *	NC
Condom distributed by Ministry of Health	1.5 *	NC	3.4 *	NC	2.8 *	NC
Others	4.4 *	NC	1.9 *	NC	2.8 *	NC
Don't remember/Don't Know	2.2 *	NC	9.4 *	NC	7.0 *	NC
No response	0.0 *	NC	0.4 *	NC	0.3 *	NC
<b>Price paid for last single condom bought NRs.</b>	<b>N=135</b>		<b>N=251</b>		<b>N=386</b>	
Free	85.2 *	NC	69.7 *	NC	65.6	57.6 – 71.6
Re 1	6.7 *	NC	11.6 *	NC	11.6	8.0 – 18.1
Rs.2-5	4.4 *	NC	11.2 *	NC	15.4	9.8 – 20.0
Rs. 6-10	2.2 *	NC	4.8 *	NC	5.8	2.7 – 10.6
Rs. 11 or more	1.5 *	NC	2.8 *	NC	1.6	0.6 – 2.7

Note: Percentages add up to more than 100 because of multiple responses

Note: 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. NC- Not calculated (RDSAT conditions were not met)

Only about a quarter of MSMs (25.4%) were carrying condoms with them at the time of interview. Eight in ten MSM (77%) said they could get a condom when they needed one. On the other hand, 18 percent of MSM reported not being able to get condoms when necessary. Some of the reasons for not having condoms when needed were: *shop/pharmacy was closed* (75.6%) *or too far away* (17.8%), *and that they felt awkward buying a condom* (15.6%) *or carrying a condom with them* (20.6%).

As for the source of their last condom; 27.7 percent of MSM had bought it from a pharmacy, 16.8 percent had received it from Cruiseaids – an NGO providing services for MSM, another 16.1 percent got it from a friend. Others had obtained their last condoms from Parichaya Samaj, Blue Diamond Society (BDS) peer educators, BDS drop-in center, sex partners and others as listed on Table 5.11.

Seven in ten MSM (65.6%) had free condoms, a quarter (27%) paid less than six rupees and very few (1.6%) paid more than 11 rupees for condoms. MSWs (85.2%) were more likely to obtain condoms free of cost than non-MSWs (69.7%). Among MSM, pharmacies are the most common source of condoms (27.7%) followed by Cruiseaids (17%).

Whilst non-MSWs are more likely to buy condoms in pharmacies (29.1%), MSWs were more familiar with sources of free condoms than non-MSWs. Cruiseaids (35.9%), BDS fieldworkers (16%) and BDS drop-in centers (9.4%) are the most known sources of free condoms among MSWs.

The most preferred brand of condom was Number One (51%) among the respondents. Other brands cited by respondents were Cobra, Panther, Jodi, Kamasutra, Dhaal and Skinless.

## **5.7 Use of Lubricant**

More than half (55.6%) of MSM had used a lubricant at least once during anal sex and 69.3% had used it during their last anal sex. Significantly, more MSWs (70.6%) had used lubricant than non-MSWs (55.5%). The most common lubricant was saliva (32.6%), followed by water based lubricant (19.7%) and cream (7.2%).

Seven in ten (69.3%) had preferred condoms with lubricant in their last anal sex. MSWs (96%) were more likely to opt for condoms with lubricants than non-MSWs (67.4%)

The MSM were asked if they had heard about specially made lubricant (branded lubricant) that is used with condoms. Forty one percent of MSM had heard of such lubricant and 22.9 percent could cite the brand name. Comparatively, more MSWs (67.6%) than non-MSWs (37%) had heard of branded lubricants. Number One, K Y Jelly, Zycolin, ID Jelly, Johnson & Johnson, Sensation, and Babylon were the most recalled brand names.

A quarter of those MSM (25.4%) who had heard of specially made lubricants had used lubricant during anal sex consistently throughout last month. A higher percentage of MSWs (39.9%) tended to use lubricants with condoms than non-MSWs (21%).

Those who had never used lubricants or did not use it consistently stated unavailability in the market (41%) and lack of knowledge on where to find it (23.7%) as obstacles. Some MSM (36%) did not consider the use of lubricants necessary.



**Table 5.12: Use of Lubricant**

Use of Lubricant	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Ever used lubricant during anal sex</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	70.6	60.7 – 84.2	55.5	48.7 – 65.5	55.6	48.8 – 62.7
No	29.4	15.6 – 39.3	44.5	34.6 – 50.8	44.4	37.3 – 51.2
<b>Types of lubricant used during last anal sex</b>	<b>N=111</b>		<b>N=168</b>		<b>N=279</b>	
Saliva	29.7 *	NC	34.5 *	NC	32.6 *	NC
Water based lubricant	25.2 *	NC	16.1 *	NC	19.7 *	NC
Cream/lotion	8.1 *	NC	6.5 *	NC	7.2 *	NC
Number one	6.3 *	NC	4.8 *	NC	5.4 *	NC
Oil	4.5 *	NC	7.1 *	NC	6.1 *	NC
Gel	4.5 *	NC	1.2 *	NC	2.5 *	NC
Lubricant	2.7 *	NC	1.8 *	NC	2.2 *	NC
KY Jelly	1.8 *	NC	1.2 *	NC	1.4 *	NC
Antiseptic/antibiotic cream	0.0 *	NC	2.4 *	NC	1.0 *	NC
Others	2.7 *	NC	1.8 *	NC	2.2 *	NC
Did not used lubricant in the last sex	11.7 *	NC	21.4 *	NC	17.6 *	NC
Don't Know/can't remember	2.7 *	NC	1.2 *	NC	1.8 *	NC
<b>Used condom with lubricant during last anal sex</b>	<b>N=111</b>		<b>N=168</b>		<b>N=279</b>	
Yes	96.0	86.4 – 99.6	67.4	53.8 – 77.3	69.3	59.0 – 78.9
No	4.0	0.4 – 14.1	32.6	22.4 – 45.9	30.7	21.1 – 41.0
<b>Heard of lubricant that is specially used with condom</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	67.6	56.6 – 82.8	37.0	32.6 – 47.8	41.0	37.7 – 50.2
No	32.4	17.0 – 42.8	63.0	52.0 – 67.8	59.0	49.8 – 62.4
<b>Know brand name of lubricant</b>	<b>N=106</b>		<b>N=140</b>		<b>N=246</b>	
Yes, can say the brand name	36.9	18.1 – 49.9	18.1	8.7 – 26.4	22.9	12.1 – 29.1
No, can't say the brand name	63.1	50.4 – 81.9	81.9	73.0 – 91.2	77.1	70.9 – 87.9
<b>Brand Name of lubricant #</b>	<b>N=61</b>		<b>N=50</b>		<b>N=111</b>	
Number One	85.2 *	NC	74.0 *	NC	80.2 *	NC
KY Jelly	19.7 *	NC	24.0 *	NC	21.6 *	NC
Zycolin	9.8 *	NC	0.0 *	NC	5.4 *	NC
ID Jelly	8.2 *	NC	4.0 *	NC	6.3 *	NC
Johnson & Johnson	1.6 *	NC	4.0 *	NC	2.7 *	NC
Sensation	1.6 *	NC	2.0 *	NC	1.8 *	NC
Babylon	0.0 *	NC	2.0 *	NC	0.9 *	NC
Others	3.3 *	NC	4.0 *	NC	3.6 *	NC
<b>Frequency of use of special lubricant with condom during anal sex in the past month</b>	<b>N=106</b>		<b>N=140</b>		<b>N=246</b>	
Every time	39.9	18.5 – 53.2	21.0	9.7 – 33.6	25.4	14.5 – 36.8
Sometimes or Never	60.1	46.8 – 81.6	79.0	66.1 – 90.3	74.6	63.4 – 85.4
<b>Reasons for occasional or no use of lubricant#</b>	<b>N=56</b>		<b>N=83</b>		<b>N=139</b>	
Unavailability in the market	48.2 *	NC	36.1 *	NC	41.0 *	NC
Don't consider it necessary	39.3 *	NC	33.7 *	NC	36.0 *	NC
Don't know where to obtain it	5.4 *	NC	36.1 *	NC	23.7 *	NC
High price	5.4 *	NC	3.6 *	NC	4.3 *	NC
Not aware of such product	0.0 *	NC	1.2 *	NC	0.7 *	NC
Feel awkward to purchase	0.0 *	NC	1.2 *	NC	0.7 *	NC
Others	12.5 *	NC	2.4 *	NC	6.5 *	NC
Don't Know	1.8 *	NC	0.0 *	NC	0.7 *	NC
<b>Purpose behind using lubricant #</b>	<b>N=77</b>		<b>N=61</b>		<b>N=138</b>	
To decrease pain/inflammation	98.7 *	NC	91.8 *	NC	95.7 *	NC
To decrease the risk of condom breakage	44.2 *	NC	29.5 *	NC	37.7 *	NC
To increase sexual drive	20.8 *	NC	27.9 *	NC	23.9 *	NC
To obtain sexual pleasure	10.4 *	NC	3.3 *	NC	7.2 *	NC
To avoid HIV/AIDS infection	3.9 *	NC	4.9 *	NC	4.3 *	NC
Others	3.9 *	NC	0.0 *	NC	2.2 *	NC

#Note: Percentages add up to more than 100 because of multiple responses

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

The majority of MSM (95.7%) who used lubricant reported that it decreased pain/inflammation during sexual contact. Around 38 percent also perceived that use of

lubricant decreased the risk of condom breakage while 23.9 percent mentioned that lubricants increased sexual drive. There were few MSM (4.3%) who mentioned that they could avoid HIV transmission with the use of lubricant.

## 5.8 Problems in Using Condom and Lubricant

While the majority of condom users (92.5%) did not face any difficulties while using lubricants with condoms, a small proportion (8%) mentioned that they encountered certain problems like irritation/burning sensation and condom breakage/slippage while using lubricant with condoms.

Nearly one fifth of MSM (18.2%) had condom breakage during sexual contact in the last month. The respondents perceived that the breakage was caused by *improper use of condom* (65.2% MSWs and 71.7% non-MSWs) or *its size* (13% MSW and 10.9% non-MSWs). Thirteen percent MSWs thought that use of too little lubricant may have caused the condom breakage; a relatively less proportion of non-MSWs considered so (2.2%).

The majority of both the MSWs and non-MSWs preferred to buy condoms and lubricants from a pharmacy (80.8% MSWs and 89.6% non-MSWs) whilst shops were the next preferred suppliers of condoms for 17.7 percent of MSWs and 28.2 percent of non-MSWs.

**Table 5.13: Problems Encountered while Using Lubricant with Condoms**

Problems encountered while using lubricant with condoms	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Types of problems encountered while using lubricant</b>	<b>N=111</b>		<b>N=168</b>		<b>N=279</b>	
No problem	91.0 *	NC	93.5 *	NC	92.5 *	NC
Irritation/burning sensation	3.6 *	NC	4.2 *	NC	3.9 *	NC
Condom slippage	2.7 *	NC	1.2 *	NC	1.8 *	NC
Condom breakage	1.8 *	NC	1.2 *	NC	1.4 *	NC
Others	0.9 *	NC	0.0 *	NC	0.4 *	NC
<b>Condom broke during sex in the past month</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	34.1 *	NC	17.4 *	NC	18.2	13.3 – 25.0
No	63.7 *	NC	60.0 *	NC	55.1	46.5 – 61.5
Didn't use condom in the last 30 days	2.2 *	NC	17.4 *	NC	19.0	13.4 – 25.3
Never used condom	0.0 *	NC	5.3 *	NC	7.8	3.7 – 12.1
<b>Perceived reason for condom breakage #</b>	<b>N=46</b>		<b>N=46</b>		<b>N=92</b>	
Improper use of condom	65.2 *	NC	71.7 *	NC	68.5 *	NC
Condom was small	13.0 *	NC	10.9 *	NC	12.0 *	NC
Used less lubricant	13.0 *	NC	2.2 *	NC	7.6 *	NC
Use of oil based lubricant	10.9 *	NC	6.5 *	NC	8.7 *	NC
Condom was thin	2.2 *	NC	4.3 *	NC	3.3 *	NC
Others	6.5 *	NC	8.7 *	NC	7.6 *	NC
Don't know/can't remember	0.0 *	NC	2.2 *	NC	1.1 *	NC
<b>Preferred place for buying condoms and lubricant #</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Pharmacy	80.8	68.8 – 88.3	89.6	85.9 – 94.7	88.9	84.7 – 93.0
Shop	17.7	3.4 – 36.7	28.2	21.1 - 34.2	24.9	19.1 – 32.1
Cruiseaids	8.6	3.3 – 15.9	4.2	1.6 – 8.0	5.0	2.6 – 8.3
BDS field workers	7.0	2.2 – 17.2	3.1	0.9 – 4.5	3.5	1.7 – 5.7
Friends/sexual partner	0.6	0.2 – 1.3	3.1	0.5 – 6.7	3.0	0.8 – 6.1
Parichaya Samaj	4.2	1.4 – 6.5	0.7	0.1 – 1.9	1.2	0.4 – 2.1
BDS drop-in-center	7.2	2.2 – 12.2	0.5	0.1 – 1.1	1.2	0.5 – 2.1
Hotel/bar/guest house	0.0 *		0.8 *		0.1	0.0 – 0.3
Others	0.3	0.0 – 0.6	0.6	0.0 – 2.4	0.9	0.0 – 2.8

Note: Percentages add up to more than 100 because of multiple responses

Note: 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.

## 6. KNOWLEDGE OF STI AND HIV/AIDS

Along with HIV/AIDS awareness, knowledge about STIs is also crucial to reducing the risk of HIV transmission. This chapter deals with the level of knowledge among MSM regarding STIs.

### 6.1 Level of Knowledge of STIs

MSM were asked questions on STI related symptoms in order to assess their level of knowledge on STIs. A relatively high proportion of MSM (78.3%) mentioned that they were aware of at least one STI symptom. However, 21.8 percent of them said that they could not mention any symptoms.

**Table 6.1: STI Awareness among MSMs**

Knowledge of STI	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Can name at least one STI symptom</b>						
Yes	82.9	73.7-90.7	77.6	70.3-83.8	78.3	72.0-83.7
No	17.1	9.30-26.6	22.4	16.5-29.7	21.8	16.1-27.7

Most (68.5%) MSM cited genital ulcers as one of the symptoms of STIs. The other most commonly cited symptoms were genital discharge (43.5%), burning sensation while urinating (31%), itching in genital area (15.3%), swelling in groin, anal sore (8.3%) and anal discharge.

**Table 6.2: Reported STI Symptoms and Treatment in the Past 12 Months**

Perception on STI, STI symptoms experienced and treatment sought	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Perceived STI symptom in male</b>						
Genital Ulcers/Sore	71.6	58.2 – 81.7	67.7	60.1 – 74.0	68.5	62.0 – 74.9
White discharge/discharge of pus/ <i>Dhatu</i> flow from penis	44.8	43.7 – 71.1	43.2	35.4 – 50.2	43.5	37.5 – 51.0
Burning sensation while urinating	27.0	17.0 – 39.0	33.4	25.8 – 39.9	31.0	25.3 – 37.8
Itching in genital areas	15.7	9.4 – 23.2	13.9	7.8 – 18.9	15.3	10.5 – 21.3
Swelling in groin areas	19.9	7.9 – 41.3	8.8	4.2 – 13.4	10.7	6.5 – 15.8
Anal ulcer/sore	18.4	8.5 – 27.2	6.8	4.2 – 9.5	8.1	5.2 – 10.8
High temperature	4.5	0.4 – 9.1	6.4	3.4 – 10.5	6.4	3.4 – 9.8
Weakness/weight loss	7.2	0.7 – 18.4	5.5	2.4 – 9.7	5.5	2.5 – 9.0
Others	3.6	1.2 – 6.1	2.1	0.7 – 3.7	2.5	1.1 – 3.8
Mouth ulcer/sore	0.6	0.2 – 1.2	1.2	0.5 – 02.6	1.1	0.4 – 2.0
Anal discharge	3.5	0.5 – 7.1	0.1	0.0 – 0.3	0.6	0.2 – 1.2
Don't know	11.9 *	NC	15.8 *	NC	14.5 *	NC
No response	0.0 *	NC	0.4 *	NC	0.3 *	NC
<b>Knowledge of number of STI symptoms in men</b>						
None	20.4	11.9 – 30.5	23.5	17.6 – 31.5	23.3	17.1 – 28.3
One symptom	4.5	0.0 – 10.8	15.3	9.7 – 20.5	14.3	9.0 – 18.9
Two symptoms	32.0	18.1 – 43.9	34.3	28.1 – 42.8	33.4	28.4 – 41.6
Three symptoms	31.6	19.1 – 48.9	15.7	10.7 – 20.5	18.1	13.6 – 24.0
Four symptoms	6.4	2.6 – 9.9	7.4	3.5 – 11.2	7.4	4.0 – 11.0
Five symptoms	2.3	1.0 – 4.2	3.8	1.0 – 6.8	3.2	0.9 – 5.3
Six symptoms	2.7	0.7 – 5.8	0.0	0.0 – 0.1	0.4	0.1 – 0.7

#Note: Percentages add up to more than 100 because of multiple responses

Note: 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.

There were some differences in the responses provided by MSWs and non-MSWs regarding some of the symptoms. For instance, more MSWs (71.6%) than non-MSWs (67.7%) cited genital ulcer/sore as a STI symptom; in the same way more non-MSWs (18.4%) than MSWs (6.8%) cited anal sore as a STI symptom.

Overall, one in three MSM (33.4%) could mention two STI symptoms correctly. A similar proportion of MSM (29%) named more than three symptoms while one in four (23.3%) could not correctly mention any symptom of STIs (Table 6.2).

After assessing their awareness regarding STI symptoms, MSM were asked if they had ever experienced symptoms like genital discharge or genital ulcer/sores in the past year. Overall, 9.2 percent of MSM said that they have had urethral discharges while 13.7 percent of them mentioned that they had a genital ulcer/sore in the past year (Table 6.3). Anal discharges and anal ulcer/sores were reported by 1.9 percent and 5.6 percent of MSM respectively. Altogether, one in four MSM (25.7%) said they had experienced either genital discharge or anal/penis ulcer/sores in the past year.

**Table 6.3: Reported STI Symptoms and Treatment in the Past 12 Months**

Perception on STI, STI symptoms experienced and treatment sought	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>STI symptom experienced in the past 12 months #</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Genital discharge or anal/penis ulcer/sores	26.2	12.0 – 42.2	25.6	18.3 – 31.8	25.7	19.4 – 31.3
Genital ulcer/sores	11.0	3.7 – 16.5	13.2	8.0 – 19.1	13.7	8.9 – 18.8
Urethral discharge	11.9	0.9 – 29.6	8.8	4.8 – 14.0	9.2	5.3 – 13.7
Anal ulcer/sores	8.0	3.5 – 12.0	4.8	1.8 – 7.5	5.6	2.9 – 8.6
Anal discharge	4.0	1.7 – 7.4	1.6	0.4 – 2.7	1.9	0.8 – 3.0
<b>Ever had STI symptom(s) in past 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	26.2	12.1-42.9	25.6	18.5-32.0	25.7	18.9-31.4
No	73.8	75.1-87.9	74.4	68.1-81.5	74.3	68.6-81.1
<b>First step taken after experiencing STI symptom(s)</b>	<b>N=28</b>		<b>N=62</b>		<b>N=90</b>	
Received treatment from hospital	3.6 *	NC	8.1 *	NC	6.7 *	NC
Received treatment from drug seller	10.7 *	NC	12.9 *	NC	12.2 *	NC
Received treatment from private doctor/clinician	3.6 *	NC	16.1 *	NC	12.2 *	NC
Received treatment from BDS clinic	3.6 *	NC	0.0 *	NC	1.1 *	NC
Received treatment from Parichaya Samaj	7.1 *	NC	0.0 *	NC	2.2 *	NC
Received treatment from Cruiseaids	21.4 *	NC	9.7 *	NC	13.3 *	NC
Received treatment from friend	0.0 *	NC	1.6 *	NC	1.1 *	NC
Took medicine at home	10.7 *	NC	6.5 *	NC	7.8 *	NC
Did nothing	32.1 *	NC	41.9 *	NC	38.9 *	NC
Cleaned the affected part with hot water and soap	7.1 *	NC	3.2 *	NC	4.4 *	NC
<b>Used any medicine to cure STI before approaching a doctor or a pharmacy</b>	<b>N=14</b>		<b>N=29</b>		<b>N=43</b>	
Yes	7.1 *	NC	27.6 *	NC	20.9 *	NC
No	92.9 *	NC	72.4 *	NC	79.1 *	NC
<b>Days waited for seeking treatment for last STI symptom experienced</b>	<b>N=14</b>		<b>N=29</b>		<b>N=43</b>	
1 day	0.0 *	NC	10.3 *	NC	7.0 *	NC
2-7 days	64.3 *	NC	72.4 *	NC	69.8 *	NC
8-30 days	14.3 *	NC	10.3 *	NC	11.6 *	NC
31-180 days	14.3 *	NC	6.9 *	NC	9.3 *	NC
Did not seek treatment	7.1 *	NC	0.0 *	NC	2.3 *	NC
<b>Amount spent for the treatment of last STI symptom (including doctor's fee and other medical expenses)</b>	<b>N=13</b>		<b>N=29</b>		<b>N=42</b>	
Free of cost	38.5 *	NC	20.7 *	NC	26.2 *	NC
Rs. 5-90	7.7 *	NC	24.1 *	NC	19.0 *	NC
Rs. 91-200	15.4 *	NC	20.7 *	NC	19.0 *	NC
Rs. 201-5000	38.5 *	NC	34.5 *	NC	35.7 *	NC
<b>Mean</b>	<b>495.77</b>	<b>-</b>	<b>623.17</b>	<b>-</b>	<b>583.74</b>	<b>-</b>

#Note: Percentages add up to more than 100 because of multiple responses

Note: 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.  
 NC- Not calculated (RDSAT conditions were not met)

About 74.3 percent of MSM in Kathmandu had never experienced any STI symptom thus far; MSWs and non-MSWs were equally likely to have experienced symptoms.

Among those MSM who had reported experiencing STIs in the past year, 38.9 percent had never sought any treatment. Thirteen percent had received treatment from Cruiseaids, 12.2 percent had been to a private doctor/clinician to seek treatment, and another 12.2 percent had gone to a pharmacy and hospital (6.7%) while 7.8 percent had undergone self medication. Some others (less than 5%) had been to BDS clinic, Parichaya Samaj, and sought advice from friends (Table 6.3).

Of those who went to a doctor or pharmacy, 20.9 percent reported self medicating and 69.8 percent had waited up to one week before seeking treatment. More than a quarter of MSM (26.2%) received treatment free of cost. On an average NRs. 583.74 was spent on the treatment. The range of cost for treatment varied significantly from. NRs. 5 to NRs. 5,000.

## 6.2 Knowledge about HIV/AIDS

All of the study participants had heard of HIV/AIDS. The majority of respondents were familiar with preventative measures; nearly all of them mentioned that they knew consistent use of condoms (98.1%) and monogamy (having only one sex partner) (92.3%) will reduce the risk of HIV/AIDS. Eight in ten (83%) stated abstinence from sexual contact as one of the ways of preventing HIV.

Nine in ten respondents (89.5%) believed that a healthy looking person may have HIV. However, a relatively low proportion of the respondents (65.1%) knew that a person cannot get the HIV virus from a mosquito bite (56.7% MSWs and 68.3% non-MSWs) and one in ten (12.2%) thought that HIV can be transmitted while sharing a meal with a HIV-positive person.

**Table 6.4: MSM Knowledge about Preventing HIV/AIDS**

Knowledge of Six Major Indicators on HIV/AIDS	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
A Abstinence from sexual contact	86.6	68.2 – 95.4	83.3	78.1 – 89.9	83.1	76.9 – 88.9
B Monogamous sexual contact	94.1 *	NC	95.1 *	NC	92.3	87.6 – 96.2
C Consistent condom use during each sex act	100.0 *	NC	97.0 *	NC	98.1	96.0 – 99.6
D A healthy-looking person can be infected with HIV	85.5	76.9 – 94.9	89.6	81.7 – 93.2	89.5	84.5 – 94.2
E A person can not get the HIV virus from a mosquito bite	56.7	39.7 – 71.2	68.3	61.4 – 75.6	65.1	59.5 – 72.8
F HIV is not transmitted while sharing a meal with an HIV infected person	97.1	92.6 – 99.4	87.4	80.7 – 93.2	87.8	81.4 – 92.4
Knowledge of all three indicators -ABC	76.7	63.3 – 91.7	79.6	73.3 – 86.5	79.8	73.2 – 85.6
Knowledge of all five indicators -BCDEF	40.6	27.0 – 53.7	44.4	35.9 – 50.5	44.4	37.8 – 51.4

Note: 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.  
 NC- Not calculated (RDSAT conditions were not met)

More MSWs (64.7%) than non-MSWs (38.3%) knew someone living with HIV/AIDS or who had died of AIDS. MSW were closer to those with HIV/AIDS or who had died of AIDS;

59.3 percent of MSWs said that they were their friends while 67.9 percent of non-MSWs did not know them (Table 6.5).

**Table 6.5: Knowledge on Ways of HIV/AIDS Transmission**

Statements Related to HIV/AIDS	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Know a person who is infected with HIV or who has died of AIDS</b>	64.7	53.9 – 79.0	38.3	30.3 – 46.8	41.5	33.9 – 48.0
<b>Relation shared with the person who is infected with HIV or has died of AIDS</b>	<b>N=79</b>		<b>N=119</b>		<b>N=198</b>	
Close relative	3.8	0.1 – 6.1	11.6	3.0 - 25.1	9.5	2.0 – 20.2
Close friend	59.3	22.2 – 66.3	20.5	8.8 – 36.9	27.4	13.7 – 37.3
No relation	36.8	31.4 – 75.9	67.9	50.2 – 80.6	63.1	50.9 – 78.6
<b>Awareness on HIV/AIDS</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Blood transfusion received from an infected person can transmit HIV	97.8	93.7 – 98.7	99.6	99.3 – 99.9	99.5	98.9 – 99.9
Can reduce the risk of HIV by using a condom correctly during every act of anal sex	96.0	89.4 – 97.6	98.7	97.9 – 99.7	98.5	97.2 – 99.6
Using a previously used needle/syringe may transmit HIV	99.3 *	NC	98.9 *	NC	97.8	95.0 – 99.7
Holding an HIV infected person’s hand does not transmit HIV	95.6	91.5 – 98.6	95.5	91.9 – 98.5	95.1	91.6 – 98.1
HIV may be transmitted from a pregnant woman infected with HIV/AIDS to her unborn child	96.0	93.0 – 98.9	89.2	85.1 – 92.2	90.4	87.1 – 93.9
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	77.1	70.4 – 91.3	77.6	70.1 – 83.4	78.5	72.8 – 84.9
<b>A pregnant woman can reduce the risk of transmission of HIV to her unborn child by:</b>	<b>N=127</b>		<b>N=237</b>		<b>N=364</b>	
Taking medicine	18.8	12.9 – 39.3	15.0	9.7 - 22.3	15.5	11.2 – 21.5
Delivery by Caesarean Section	0.8	0.1 – 1.6	0.5	0.0 - 0.1	0.7	No Bound
Taking advice from a doctor/health personnel	9.7	47.0 – 20.7	6.0	2.3 – 6.5	6.9	3.6 – 8.7
Cannot do anything	11.1	5.0 – 23.0	5.8	3.4 – 9.4	7.6	5.0 – 11.7
Don't know	59.7	35.5 – 62.6	72.7	66.2 – 80.8	69.4	62.9 – 76.2

Note: 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.

The MSM’s perception of HIV/AIDS and its different modes of transmission were further tested with the help of certain probing questions. Over 95 percent of both MSWs and non-MSWs knew that holding an HIV infected person’s hand does not transmit HIV, whereas using the same needle and having a blood transfusion from a HIV-positive person will transmit the virus. The majority (98.5%) were aware that correct use of condoms in each anal sex reduces the risk of HIV.

Comparatively, fewer respondents (77.1% of MSWs and 77.6% of non-MSWs) were aware about the risk of a pregnant woman with HIV/AIDS transmitting the virus to her new born child in the womb or through breastfeeding. Among those who were aware of the risks, only 16 percent knew about anti-retroviral drugs.

### 6.3 Perceptions of HIV Testing

The availability of and awareness about confidential HIV testing allows people to undertake HIV tests promptly and without the fear of being exposed. In total 46.4 percent of MSM knew about the existence of a confidential HIV testing facility in their community. Among them more MSWs (49.8%) than non-MSWs (29.1%) had ever taken a HIV test. Over two-fifths of both MSWs and non-MSWs (43.8% MSWs and 41.1% non-MSWs) had taken up the

test voluntarily while others had been asked to test for HIV. Eighty nine percent of non-MSWs and 71.8 percent of MSWs had received their HIV test results. Nine in ten MSM who had tested had been given counseling at the time of HIV test.

Seventy percent of MSWs and 68.7 percent of non-MSWs had taken up the test within the last one year. Others had been tested more than one year before.

**Table 6.6: Perception on HIV Testing**

HIV Test	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Confidential HIV test facility available in the community</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	65.7	55.6 – 81.4	53.4	37.3 – 53.3	46.4	40.9 – 54.5
No	34.3	18.7 – 43.5	56.6	47.1 – 62.6	53.6	45.5 – 59.1
<b>Ever had an HIV test</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	49.8	36.5 – 66.5	29.1	17.6 – 30.3	26.2	21.5 – 33.2
No	50.2	33.8 – 63.3	76.9	69.5 – 82.9	73.8	66.9 – 78.6
<b>Voluntarily underwent the HIV test or because it was required</b>	<b>N=88</b>		<b>N=93</b>		<b>N=181</b>	
Voluntarily	43.8	27.6 – 73.7	41.1	19.4 – 54.1	40.1	25.6 – 57.3
Required	56.2	26.5 – 73.7	58.9	45.9 – 80.7	59.9	42.7 – 74.4
<b>Received HIV test result</b>	<b>N=88</b>		<b>N=93</b>		<b>N=181</b>	
Yes	71.8	77.5 – 98.3	89.0	62.3 – 98.4	83.6	68.3 – 96.5
No	28.2	1.6 – 21.7	11.0	1.7 – 37.7	16.4	3.5 – 31.7
<b>Received counseling at the time of HIV test</b>	<b>N=88</b>		<b>N=93</b>		<b>N=181</b>	
Yes	94.3	93.2 – 99.8	86.1	73.8 – 96.2	87.2	76.8 – 97.1
No	5.7	0.2 – 6.6	13.9	3.4 – 26.0	12.8	2.9 – 23.2
<b>Most Recent HIV Test</b>	<b>N=88</b>		<b>N=93</b>		<b>N=181</b>	
Within Last 12 months	70.0	70.8 – 98.0	68.7	54.1 – 85.3	66.1	57.3 – 85.6
More than 12 months ago	30.0	2.2 – 29.3	31.3	15.0 – 44.7	33.9	14.5 – 42.8

## 6.4 Attitudes towards HIV/AIDS

The stigma associated with HIV/AIDS increases the impact of HIV on the patient as well as on MARP. MSM's perception of HIV-positive persons and stigma associated with the disease was examined with the help of a series of questions as shown on table 6.4.

The majority of the respondents were ready to take care of a HIV-positive male relative (97.8% MSWs and 95.5% non-MSWs) or a HIV-positive female relative (97.8% MSW and 94.6% non-MSW) at their homes if necessary. On the other hand, more than half of MSM (57.4% of MSWs and 55.6 of non-MSWs) said that if a family member had HIV they would rather keep it confidential and not talk about it with others.

The majority of MSM (98.2% MSWs and 91.7% non-MSWs) said that they would readily buy food from a HIV-positive vendor. An equally high proportion of them (92.4% MSWs and 89% non-MSWs) also agreed unless very sick, people with HIV/AIDS should be allowed to continue their jobs.

When asked about the health care needs of HIV-positive patients, 55.6 percent of MSWs and 64.3 percent of non-MSWs maintained that they should be provided the same care and treatment as is necessary for chronic disease patients, while 39.5 percent of MSWs and 30.5 percent of non-MSWs believed that the health care needs of a HIV infected person were more involved than those of people suffering from chronic disease.

**Table 6.7: Attitudes of MSM towards HIV/AIDS**

Stigma and Discrimination	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%) (N=135)	95% CI	Estimated Population Proportions (%) (N=265)	95% CI	Estimated Population Proportions (%) (N=400)	95% CI
<b>Willing to take care of HIV positive male relative at home</b>						
Yes	97.8	94.1 – 98.7	95.5	91.6 – 98.4	95.4	91.9 – 98.5
No	2.2	1.3 – 6.2	4.5	1.5 – 8.5	4.6	1.5 – 8.1
<b>Willing to take care of HIV positive female relative at home</b>						
Yes	97.8	93.9 – 98.7	94.6	90.4 – 97.6	94.2	90.4 – 97.4
No	2.2	1.3 – 6.1	5.4	2.4 – 9.9	5.8	2.6 – 9.6
<b>Would prefer to keep the HIV+ status of a family member a secret</b>						
Yes	57.4	43.1 – 72.3	55.6	47.6 – 62.6	55.0	47.0 – 61.4
No	42.6	27.6 – 56.7	44.4	37.4 – 52.6	45.0	38.6 – 53.0
<b>Would buy supplies from HIV infected shop keeper</b>						
Yes	98.2	96.0 – 99.5	91.7	86.4 – 95.5	92.3	88.2 – 96.0
No	1.8	0.5 – 4.1	8.3	4.4 – 13.5	7.7	4.0 – 11.1
<b>Believe that a HIV infected person who is not so sick should be allowed to continue the job</b>						
Yes	92.4	85.1 – 97.8	89.0	83.1 – 94.0	88.6	83.5 – 93.1
No	7.6	2.1 – 14.8	11.0	6.0 – 17.1	11.4	6.9 – 16.5
<b>Believe that a HIV infected person should be provided equal, more or less health care compared to other people with chronic diseases</b>						
Equal	55.6	42.0 – 70.0	64.3	55.8 – 72.1	63.9	57.2 – 70.7
More	39.5	25.7 – 52.3	30.5	22.5 – 37.2	30.8	24.5 – 37.1
Less	4.9	0.7 – 10.4	5.2	2.0 – 10.8	5.3	2.0 – 9.2
Don't know	0.7*	NC	0.0*	NC	0.3*	NC

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

## 6.5 Perceived Risk of HIV

An effort was also made to understand whether or not MSM perceived themselves at risk of HIV infection. Around two thirds of both MSWs and non-MSWs (65.6% and 68.6%) perceived themselves to be at *little or no risk* of contracting HIV. At the same time 31.6 percent of MSWs and 29.4 percent of non-MSWs perceived that they had *medium risk*, while around two percent of both MSWs and non-MSWs considered that they were at *high risk* of becoming infected with HIV.

As table 6.8 indicates, there are no significant differences between MSWs and non-MSWs in terms of perceiving themselves at risk. Nevertheless, MSWs (90.7%) were more likely to use condoms consistently than non-MSWs (72.9%). Nearly one in five non-MSWs (18.9%) did nothing to protect against HIV while only two percent of MSWs are without any protection.

Those MSM who considered themselves at some risk of getting HIV felt so mainly because of *irregular and no use of condom* (41.1%), *having several partners* (34.2%), *condom breakage* (31%) and *frequent anal sex* (13.9%).

On the other hand, the majority of MSWs (90.9%) and non-MSWs (71.1%) saw themselves at little or no risk of getting HIV because they used a condom consistently. However, there were some respondents (6.7% MSWs and 10.8% non-MSWs) who assumed that they could not get HIV because they had healthy partners and some who said that they could not have the disease since their partners do not carry it (6.7% MSW and 7.6% non-MSW).



**Table 6.8: Risk Perception and Reason for Such Perception**

Risk perception and underlying reasons	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Measures adopted to avoid contracting HIV</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Always used condom	90.7	77.9 – 97.6	72.9	65.5 – 80.2	75.0	68.7 – 81.3
Not done anything	2.2 *	NC	18.9 *	NC	20.0	14.3 – 27.3
Not shared needles	19.9	10.4 – 31.3	16.8	11.1 – 23.5	17.4	12.3 – 23.2
Used new shaving blade	7.0	2.5 – 11.7	8.6	3.9 – 12.2	8.7	4.6 – 13.0
Maintained sexual contact with faithful partners	12.3	0.7 – 31.8	4.1	1.4 – 8.8	5.4	2.0 – 9.3
Do not have many sexual partners	0.4	0.0 – 1.2	4.6	1.5 – 7.1	3.7	1.4 – 6.7
Not taken untested blood	3.6	1.1 – 5.8	3.0	0.5 – 5.2	3.2	1.2 – 6.1
Others	2.3	0.1 – 4.6	0.6	0.1 – 1.4	0.8	0.2 – 1.5
Used lubricant	0.6	0.1 – 1.9	0.0	0.0 – 0.1	0.0	0.0 – 0.2
<b>Risk perception level</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
High risk	2.8	0.5 – 5.7	2.0	0.9 – 3.8	2.1	0.9 – 3.4
Medium risk	31.6	19.7 – 46.2	29.4	22.0 – 36.7	30.2	23.9 – 37.2
Little or no risk	65.6	51.3 – 77.9	68.6	61.0 – 76.0	67.8	60.6 – 74.0
Don't know	0.0 *	NC	0.4 *	NC	0.3 *	NC
<b>Reason for considering self at risk of HIV</b>	<b>N=45</b>		<b>N=86</b>		<b>N=131</b>	
Irregular condom use	26.7 *	NC	43.0 *	NC	41.1	36.1 – 81.5
Condom breakage	44.3	56.3 – 96.8	23.2	11.0 – 32.6	31.0	11.5 – 41.4
Many sexual partners	43.6	5.5 – 56.6	42.4	11.5 – 38.9	34.2	12.0 – 37.2
Don't use condom	6.7 *	NC	23.3 *	NC	24.3	3.2 – 41.9
High risk job	6.7 *	NC	1.2 *	NC	0.1	No Bound
Frequent anal sex	7.8	2.0 – 24.8	16.9	2.5 – 13.6	13.9	No Bound
Needle sharing with others	0.0 *	NC	2.3 *	NC	1.5 *	NC
Have STI symptom	2.2 *	NC	3.5 *	NC	3.1 *	NC
Others	6.7 *	NC	5.8 *	NC	13.1	No Bound
<b>Perceiving little or no risk #</b>	<b>N=90</b>		<b>N=178</b>		<b>N=268</b>	
Always use condom	90.9	79.0 – 99.1	71.1	61.9 – 82.6	72.2	64.6 – 84.2
Only one sexual partner	2.2 *	NC	14.0 *	NC	20.3	10.0 – 27.1
Never share injections	8.3	1.7 – 13.9	15.7	6.9 – 24.0	15.2	7.6 – 22.8
Partners are healthy	6.7	1.3 – 48.7	10.8	5.1 – 20.4	11.1	5.6 – 21.2
Have faithful sexual partner	6.8	0.1 – 19.5	13.6	5.2 – 23.3	12.0	4.9 – 20.2
Do not use other's shaving blade	3.0	0.2 – 6.5	7.3	1.4 – 14.8	8.7	2.4 – 14.6
Partners are clean	6.7	1.1 – 16.4	7.6	2.5 – 13.2	8.1	2.7 – 11.5
Self in good health	0.0 *	NC	4.5 *	NC	4.7	2.1 – 11.8
Use condom correctly	2.2 *	NC	0.6 *	NC	0.4	0.0 – 1.9
Share injections sometimes only	1.1 *	NC	0.0 *	NC	0.4 *	NC
Have tested for HIV	0.0 *	NC	1.7 *	NC	1.1 *	NC
Have not taken other's blood	1.1 *	NC	1.1 *	NC	1.1 *	NC
Others	3.4	0.2 – 6.6	1.1	0.4 – 1.7	1.8	No Bound
No response	0.0 *	NC	1.1 *	NC	0.7 *	NC

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

## 6.6 Physical/Sexual Violence against MSM

Many studies have shown that MSM are also subjected to discrimination and physical violence because of their sexual orientation. This study attempted to learn if any of the participants had been subjected to violence and/or discrimination in the past year.

Overall, one in ten MSM (10.1%) had faced discrimination at work, six percent had been forced to have sex, five percent had been blackmailed and four percent were beaten up because of their sexual orientation in the last 12 months.

MSWs reported to be more vulnerable to the social stigma associated with their sexual preference. More MSWs than non-MSWs had been subjected to physical/sexual violence such as beatings (19.1% MSWs and 1.8% non-MSWs), forced sex (14.8% MSWs and 4.4%

non-MSWs), blackmailing (18.1% MSWs and 2.5% non-MSWs) and discrimination at their job or in their daily life (25% MSWs and 8% non-MSWs) during the past one year.

More vulnerable are *dohoris* whose feminine personality and behavior distinguish them from other MSM. One in five (20.2%) *dohori* reported having faced different problems because of their sexual identity (35.8% MSWs and 11.6% non-MSWs).

The police, sexual partners and hooligans are the main offenders. Two thirds of MSM (66.7%) who were beaten up in the last 12 months were beaten up by the police, and one third (35.7%) by hooligans. MSWs were particularly vulnerable to offences carried out by the police and hooligans, whereas non-MSWs were more likely to be assaulted by their sex partners.

**Table 6.9: Personal Experience of Violence and Discrimination in the Past 12 Months**

Subjected to Violence/Discrimination	MSW		Non-MSWs		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Was beaten up due to sexual orientation in the past 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	19.1	11.7 – 31.7	1.8	0.5 – 3.8	4.2	2.6 – 6.5
No	80.9	68.1 – 88.1	98.2	96.2 – 99.6	95.8	93.5 – 97.4
<b>Was beaten up by#</b>	<b>n=31</b>		<b>n=11</b>		<b>n=42</b>	
Police	71.0 *	NC	54.5 *	NC	66.7 *	NC
Client	9.7 *	NC	0.0 *	NC	7.1 *	NC
Sex partner	6.5 *	NC	27.3 *	NC	11.9 *	NC
Hooligans	41.9 *	NC	18.2 *	NC	35.7 *	NC
Others	3.2 *	NC	0.0 *	NC	2.4 *	NC
<b>Forced to have sex</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	14.8	9.0 – 25.4	4.4	1.8 – 6.4	6.0	3.8 – 8.6
No	85.2	74.5 – 90.6	95.6	93.6 – 98.1	94.0	91.4 – 96.2
<b>Forced to have by</b>	<b>N=33</b>		<b>N=25</b>		<b>N=58</b>	
Police	42.4 *	NC	8.0 *	NC	27.6 *	NC
Army man	15.2 *	NC	0.0 *	NC	8.6 *	NC
Client	6.1 *	NC	4.0 *	NC	5.2 *	NC
Sexual partner	12.1 *	NC	68.0 *	NC	36.2 *	NC
Hooligans	36.4 *	NC	8.0 *	NC	24.1 *	NC
Others	0.0 *	NC	12.0 *	NC	5.2 *	NC
Don't remember/Don't know	3.0 *	NC	0.0 *	NC	1.7 *	NC
<b>Was blackmailed for being a MSM in the past 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	18.1	11.8 – 27.8	2.5	1.1 – 4.3	4.5	3.1 – 6.5
No	81.9	72.4 – 88.6	97.5	95.6 – 98.9	95.5	93.5 – 96.9
<b>Faced discrimination at job or in daily life for being a MSM</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	25.0	15.5 – 37.0	8.0	3.6 – 11.6	10.1	6.1 – 13.7
No	75.0	63.1 – 85.1	92.0	88.4 – 96.3	89.9	86.3 – 93.9
<b>Experienced any kind of problems due to sexual identity ( asked only to dohoris)</b>	<b>N=107</b>		<b>N=70</b>		<b>N=177</b>	
Yes	35.8	21.7 – 55.6	11.6	1.2 – 14.9	20.2	10.4 – 27.5
No	64.2	44.5 – 78.3	88.4	84.4 – 98.8	79.8	72.5 – 89.6

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

## 7. EXPOSURE TO HIV/AIDS AWARENESS PROGRAMS

Respondents' exposure to ongoing HIV/AIDS awareness programs and their participation in activities have been assessed in this chapter; this section is new and has been added to the survey this year.

### 7.1 Peer/Outreach Education

The peer/outreach education component consists of activities which involve the mobilization of peer educators and outreach educators (PE/OEs) for conducting awareness raising activities in community sites. PE/OEs meet with target groups and hold discussions regarding HIV/AIDS, safe injecting practices, safe sex and other related topics. They also distribute IEC materials, condoms, and refer the target groups to drop-in centers (DIC) and STI treatment services.

**Table 7.1: Meeting/Interaction with Peer Educator/Outreach Educator**

Peer Educator/Outreach Educator	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Met/discussed/ interacted with Peer Educators (PE) or Outreach Educators (OE) in the Last 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	88.4	81.7 – 95.8	51.1	45.3 – 61.0	55.9	50.4 – 64.5
No	11.6	4.2 – 18.2	48.9	38.6 – 55.2	44.1	35.5 – 49.6
<b>Activities carried out with/by PE or OEs #</b>	<b>n=125</b>		<b>n=187</b>		<b>n=312</b>	
Discussion on how HIV/AIDS is/isn't transmitted	93.5	85.9 – 99.1	87.9	82.3 – 95.2	89.3	82.4 – 94.4
Discussion on how STI is/isn't transmitted	50.2	32.2 – 67.3	35.6	28.6 – 47.7	39.0	23.3 – 49.5
Regular/non-regular use of condom	59.7	44.1 – 75.0	49.7	43.2 – 62.8	51.1	43.6 – 61.0
Demonstration on using condom correctly	47.3	24.9 – 56.1	42.9	36.7 – 56.3	43.1	38.2 – 55.0
Received condom	49.1	34.1 – 68.7	52.0	36.2 – 59.1	46.8	38.9 – 57.7
Blood tested	7.2	0.7 – 2.6	2.6	0.0 – 2.0	4.6	No Bound
Discussion on homosexual issue	1.5	0.1 – 5.1	1.8	0.5 – 3.2	1.7	0.6 – 3.3
Leaflet distribution	4.8 *	NC	3.2 *	NC	3.0	1.1 – 6.2
Discussion on lubricant and its use	0.1	0.1 – 0.3	0.2	0.0 – 0.7	0.2	0.0 – 0.7
Discussion on general health issue	0.8 *	NC	1.6 *	NC	0.8	0.2 – 2.4
Others	0.5	0.1 – 1.2	1.2	0.1 – 2.8	1.1	0.2 – 2.7
<b>Organizations represented by PE or OEs #</b>	<b>n=125</b>		<b>n=187</b>		<b>n=312</b>	
Blue Diamond Society	19.8	8.2 – 24.4	18.0	11.2 – 23.9	17.8	10.6 – 20.8
Parichanya Samaj	10.5	5.6 – 18.5	15.7	6.5 – 24.6	14.9	6.9 – 20.4
Cruiseaids	68.5	54.8 – 81.9	58.4	48.5 – 70.9	63.9	55.0 – 74.9
CWC	0.0 *	NC	1.1 *	NC	0.5	0.0 – 1.7
Shakti Samuha	0.8 *	NC	0.5 *	NC	0.0	0.0 – 0.0
SACTS	0.8 *	NC	0.5 *	NC	0.6	0.0 – 1.8
LALS	0.8 *	NC	0.5 *	NC	0.6 *	NC
Others	0.2	0.0 – 4.0	0.4	0.4 – 1.9	0.6	0.0 – 1.5
Don't know	0.8*	NC	3.2*	NC	2.2*	NC
<b>Number of Meetings with PE/OE in the Last 12 months</b>	<b>n=125</b>		<b>n=187</b>		<b>n=312</b>	
Once	0.0 *	NC	3.2 *	NC	1.9 *	NC
2-3 times	7.2 *	NC	15.5 *	NC	12.2 *	NC
4-6 times	9.6 *	NC	14.4 *	NC	12.5 *	NC
7-12 times	5.6 *	NC	6.4 *	NC	6.1 *	NC
More than 12 times	77.6 *	NC	60.4 *	NC	67.3 *	NC

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

Overall, 55.9 percent of MSM had met a PE/OE at least once in the past year. A relatively higher proportion of MSWs (88.4%) than non-MSWs (51.1%) had met PE/OEs in the last year. In PE/OE meetings respondents had mostly discussed HIV/AIDS transmission (89.3%) and regular/non-regular use of condoms (51.1%). Some had also received condoms (46.8%), been given a demonstration on using condoms correctly (43.1%) and information on STI transmission (39%). It is evident from Table 7.1 that MSM meet PEs/OEs quite often as a majority of the MSM had met with PE/OEs more than 12 times in the past year (77.6% MSWs and 60.4% non-MSWs).

Cruiseaids (63.9%), Blue Diamond Society (17.8%) and Parichaya Samaj (14.9%) are the three leading organizations in meeting with MSM.

## 7.2 Drop-in Centers

Drop-in centers are another important component of HIV prevention programs. DICs not only provide a safe space for the target communities to socialize, but are also the site for educational and counseling activities. DICs offer a number of services to target groups including counseling, group classes and discussions, individual counseling, and video shows on STI/HIV/AIDS. In addition to these, DICs provide IEC materials and condoms for MSM.

**Table 7.2: DIC Visiting Practices**

DIC Visiting Practices	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Visited Outreach center (DIC/IC/CC) in the Last 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	39.6	22.0 – 47.5	28.3	24.0 – 37.8	30.7	25.6 – 39.0
No	60.4	51.4 – 77.9	71.7	61.8 – 76.0	69.3	61.0 – 74.4
<b>Activities Participated in at DIC #</b>	<b>N=92</b>		<b>N=113</b>		<b>N=205</b>	
Collected condom	56.1	33.2 – 73.7	35.5	26.9 – 61.6	37.0	28.7 – 58.1
Learnt correct ways of using condom	41.2	14.0 – 46.5	26.0	16.9 – 42.4	29.2	19.0 – 41.4
Watched film on HIV transmission	49.2	34.5 – 71.3	34.0	15.5 – 46.4	35.9	21.1 – 48.8
Took part in discussion on HIV transmission	67.6	50.5 – 85.2	71.5	59.4 – 91.4	70.2	62.3 – 86.0
Played games	3.8	0.2 – 12.0	5.4	0.1 – 13.3	5.5	0.9 – 13.1
Carried out discussion on STIs	5.5	2.3 – 14.9	6.6	0.8 – 17.9	7.1	2.3 – 17.7
Was distributed HIV/AIDS & STI information leaflet	4.3 *	NC	2.7 *	NC	5.3	0.8 – 17.6
Received training on HIV/AIDS	1.1 *	NC	1.8 *	NC	1.7	No Bound
Others	7.7	0.4 – 13.0	2.0	0.0 – 5.6	4.4	1.0 – 7.1
<b>Name of organizations that run the visited DIC</b>	<b>N=92</b>		<b>N=113</b>		<b>N=205</b>	
Blue Diamond Society	19.6	8.7 – 36.0	16.1	5.5 – 25.3	16.4	9.1 – 27.3
Parichaya Samaj	25.6	10.9 – 38.1	16.9	1.9 – 32.7	22.9	9.2 – 35.9
Cruiseaids	44.5	27.2 – 68.5	41.7	24.6 – 63.1	43.7	26.6 – 58.8
SACTS	3.3 *	NC	0.9 *	NC	1.3	0.1 – 3.9
CAC	0.0 *	NC	0.9 *	NC	0.5 *	NC
CWC	1.9	3.3 – 12.1	8.8	0.0 – 20.8	7.6	1.1 – 20.6
Others	1.6	0.1 – 6.6	1.1	0.2 – 3.2	1.1	0.2 – 3.2
Don't know	0.0 *	NC	1.8 *	NC	1.0 *	NC
<b>Number of the DIC Visits in the last 12 months</b>	<b>N=92</b>		<b>N=113</b>		<b>N=205</b>	
Once	6.9	2.4 – 16.4	32.9	12.3 – 41.7	30.3	15.3 – 43.3
2-3 times	43.0	30.5 – 67.5	31.6	18.8 – 52.0	30.5	19.7 – 46.3
4-6 times	11.4	4.9 – 20.2	22.1	10.1 – 43.4	18.2	7.6 – 31.0
More than 6 times	38.8	15.8 – 48.2	13.5	3.8 – 27.3	20.9	10.3 – 32.4

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

Around 31 percent of MSM had visited a DIC in the past year (39.6% MSWs and 28.3% non-MSWs). Among those MSM who visited a DIC in the last year, 70.2 percent had taken part in discussions relating to HIV transmission, while 37 percent had collected condoms. Moreover, 35.9 percent had watched a film on HIV transmission and 29.2 percent had learnt correct ways of using a condom at a DIC.

Overall, DICs run by Cruiseaids were the most frequently visited by respondents participating in this survey (44.5% MSWs and 41.7% non-MSWs); Cruiseaids was followed by Parichaya Samaj and Blue Diamond Society. MSWs were more likely to visit DICs than non-MSWs. MSWs also tend to visit DICs more often than non-MSWs. Nearly two in five MSWs (38.8%) had visited a DIC more than 12 times in the past year while among non-MSWs only 13.5 percent reported doing so.

### 7.3 STI Clinic

MSM who are engaged in unsafe sexual encounters are at high risk of contracting certain STIs. Timely detection of STIs may prevent them from serious health problems. There are different clinics being run by different government, as well as non-government, organizations for providing STI testing and treatment facilities.

**Table 7.3: STI Clinic Visiting Practices**

STI Clinic Visiting Practices	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Visited any STI Clinic in the Last 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	12.4	6.6 – 20.1	9.6	5.2 – 14.3	9.6	6.1 – 13.9
No	87.6	80.4 – 93.4	90.4	85.5 – 94.6	90.4	86.1 – 93.9
<b>Activities Participated in at the STI Clinic #</b>	<b>N=36</b>		<b>N=31</b>		<b>N=67</b>	
Blood tested for STI detection	52.8 *	NC	45.2 *	NC	49.3 *	NC
Physical examination conducted for STI detection	72.2 *	NC	83.9 *	NC	77.6 *	NC
Discussion on how STI is/is not transmitted	27.8 *	NC	35.5 *	NC	31.3 *	NC
Discussion on regular/non-regular use of condom	19.4 *	NC	19.4 *	NC	19.4 *	NC
Accompanied a friend	36.1 *	NC	16.1 *	NC	26.9 *	NC
Others	2.8 *	NC	3.2 *	NC	3.0 *	NC
<b>Name of Organization that Run STI Clinic Visited #</b>	<b>N=36</b>		<b>N=31</b>		<b>N=67</b>	
Blue Diamond Society	11.1 *	NC	6.5 *	NC	9.0 *	NC
Parichaya Samaj	33.3 *	NC	9.7 *	NC	22.4 *	NC
Cruiseaids	41.7 *	NC	61.3 *	NC	50.7 *	NC
SACTS	5.6 *	NC	6.5 *	NC	6.0 *	NC
NFCC	2.8 *	NC	0.0 *	NC	1.5 *	NC
Others	11.1 *	NC	22.6 *	NC	16.4 *	NC
Don't know	2.8 *	NC	3.2 *	NC	3.0 *	NC
<b>Number of STI Clinic Visits in the last 12 months</b>	<b>N=36</b>		<b>N=31</b>		<b>N=67</b>	
Once	25.0 *	NC	35.5 *	NC	29.9 *	NC
2-3 times	36.1 *	NC	32.3 *	NC	34.3 *	NC
4-6 times	5.6 *	NC	6.5 *	NC	6.0 *	NC
7-12 times	5.6 *	NC	3.2 *	NC	4.5 *	NC
More than 12 times	27.8 *	NC	22.6 *	NC	25.4 *	NC

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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. NC- Not calculated (RDSAT conditions were not met)

Compared with DICs, a relatively low proportion of MSM (9.6%) had visited an STI clinic in the past year. Most of those who visited an STI clinic were physically examined (77.6%) and had given their blood sample for STI detection (49.3%). They were also informed about STI transmission, safe injecting practices and use of condoms at the clinic.

The most visited STI clinics were run by Cruiseaids (50.7%). and by Parichaya Samaj (22.4%). Just under a third (29.9%) had visited an STI clinic only once while a quarter (25.4%) had been to an STI clinic more than 12 times in the last year (Table 7.3).

## 7.4 VCT Centers

VCT centers provide HIV/AIDS/STI tests along with pre- and post-test counseling. Information related to safe injecting practices, HIV/AIDS/STI transmission, and treatment facilities are also disseminated from these centers. VCT centers form an integral part of the HIV/AIDS prevention program.

**Table 7.4: VCT Visiting Practices**

VCT Visiting Practices	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Visited VCT Center in the Last 12 months</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	29.0	18.2 – 41.3	11.1	7.4 – 17.7	13.3	10.0 – 19.2
No	71.0	58.2 – 81.8	88.9	82.3 – 92.4	86.7	80.8 – 90.0
<b>Activities Participated in at VCT Center #</b>	<b>N=76</b>		<b>N=54</b>		<b>N=130</b>	
Received pre HIV test counseling	94.1	92.5 – 99.3	71.7	66.8 – 90.4	74.0	63.0 – 90.4
Blood tested for HIV detection	95.4	95.1 – 99.4	90.5	76.8 – 99.3	90.9	79.2 – 98.5
Received post HIV test counseling	65.1	45.6 – 88.0	68.1	36.5 – 82.9	65.5	43.7 – 77.9
Received HIV test result	67.6	33.3 – 77.6	76.8	60.0 – 93.6	72.8	58.3 – 84.9
Received counseling on using condom correctly in each sexual contact	11.6	4.3 – 23.8	7.2	0.2 – 11.9	11.3	3.1 – 14.0
Received information on HIV/AIDS window period	15.7	1.1 – 8.0	2.0	0.1 – 1.6	5.9	No Bound
Accompanied a friend	13.1	2.9 – 29.0	1.5	0.1 – 4.2	4.3	0.9 – 10.3
Received condom	0.0 *		5.6 *		18.3	0.3 – 42.0
Others	0.1	0.1 – 0.4	0.0	0.0 – 0.2	0.1	0.0 – 0.2
<b>Name of the Organization that Run the VCT Visited #</b>	<b>N=76</b>		<b>N=54</b>		<b>N=130</b>	
Blue Diamond Society	41.8	0.2 – 17.3	7.1	0.2 – 11.1	9.1	0.1 – 12.4
Parichaya Samaj	18.7	3.6 – 32.3	30.6	6.4 – 64.0	26.9	10.3 – 54.9
Cruiseaids	53.0	48.2 – 80.9	50.7	18.9 – 80.2	55.8	26.6 – 77.2
SACTS	13.2	3.8 – 36.1	12.8	0.1 – 25.2	12.9	1.9 – 25.3
CAC	1.3 *	NC	0.0 *	NC	0.8 *	NC
Teku hospital	1.3 *	NC	1.9 *	NC	1.5 *	NC
Others	2.6 *	NC	1.9 *	NC	2.3 *	NC
Don't know	0.2	0.2 – 0.8	2.0	1.7 – 9.2	1.2	0.1 – 6.4
<b>Number of VCT Visit s in the last 12 months</b>	<b>N=76</b>		<b>N=54</b>		<b>N=130</b>	
Once	17.3	7.0 – 44.9	82.1	63.1 – 94.0	58.7	43.3 – 77.9
2-3 times	51.3	28.6 – 76.7	9.7	3.5 – 20.4	23.6	12.7 – 39.7
4-6 times	12.6	2.4 – 27.9	7.0	0.1 – 21.5	11.6	2.1 – 21.5
<b>More than 6 times</b>	<b>18.7</b>	<b>2.3 – 16.5</b>	<b>1.2</b>	<b>0.1 – 6.5</b>	<b>6.1</b>	<b>0.7 – 7.2</b>

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)

Overall, 13.3 percent of MSM had visited a VCT center in the past year. MSWs (29%) were more likely to visit VCT centers than non-MSWs (11.1%). Among those who visited a VCT center 90.9 percent had given a blood sample for HIV testing, 74 percent received pre- HIV

test counseling, 72.8 percent received their HIV test result and 65.5 percent had post HIV test counseling at these centers.

More than one half of both MSWs and non-MSWs (53% and 50.7%) had visited a Cruiseaids VCT center. Around two-fifths of MSWs (41.8%) had also been to Blue Diamond Society while 30.6 percent non-MSWs had visited Parichaya Samaj VCT centers.

The majority of non-MSWs (82.1%) had visited a VCT center just once in the past year whereas MSWs are more likely to visit a VCT center more than once a year (82.7%).

## **7.5 Participation in HIV/AIDS Awareness Programs**

Various government departments as well as non-government organizations have been involved in implementing HIV/AIDS awareness activities. Their programs include workshops, group discussions, talk programs, training sessions, radio programs, condom day/AIDS day and street theatre . Some of these programs specifically target MARPs while some include the general population.

One in five MSM (19.4%) had participated in at least one HIV/AIDS awareness raising program or similar community event in the year preceding the survey. Comparatively more MSWs (38.4%) than non-MSWs (16.7%) had taken part in these activities. Among them many had participated in AIDS day (90.5% MSW and 57.3% non-MSWs), and condom day celebrations (51.5% MSW and 30.9% non-MSW). Others had participated in street drama, HIV/AIDS related training, and workshops and group discussions.

Around one-fourth of MSWs reported taking part in events organized by Blue Diamond Society (25.7%) and Cruiseaids (25.4%). A similar proportion of non-MSWs had participated in activities conducted by Cruiseaids (24.2%) and by other NGOs (28.3%).

When asked about the frequency of their participation in awareness programs, 17.4 percent of MSWs and 33.9 percent of non-MSWs reported taking part just once whilst 42 percent of MSWs and 21 percent of non-MSWs had participated 2-3 times in the past year.

MSM were also asked if they were aware of the Community Home Based Care Program (CHBC) and Community Care Support and Treatment Program (CCST). While 10.6 and 16.2 percent of MSWs were aware of CHBC and CCST respectively only around eight percent of non-MSWs (7.5% and 7.8%) were aware of these programs.

**Table 7.5: Participation in STI/HIV/AIDS Awareness Programs**

Participations on HIV/AIDS Awareness Programs	MSW		Non-MSW		MSM	
	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI	Estimated Population Proportions (%)	95% CI
<b>Ever Participated in HIV/AIDS Awareness Raising Program or Community Events</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	38.4	27.5 – 57.4	16.7	11.4 – 22.4	19.4	15.6 – 25.5
No	61.6	42.4 – 72.4	83.3	77.8 – 88.4	80.6	74.5 – 84.4
<b>Activities Participated in #</b>	<b>n=69</b>		<b>n=62</b>		<b>n=131</b>	
Street drama	27.7	0.9 – 15.2	10.6	0.3 – 4.5	15.7	No Bound
AIDS day	90.5	98.2 – 99.6	57.3	26.1 – 80.1	63.1	30.8 – 81.2
Condom day	51.5	30.0 – 84.0	30.9	24.2 – 72.1	34.5	26.6 – 70.3
Video show	8.7 *	NC	3.2 *	NC	0.3	No Bound
Group discussion	5.6	0.5 – 4.4	26.2	2.3 – 39.1	15.0	2.4 – 34.5
Talk program	1.4 *	NC	1.6 *	NC	1.5 *	NC
HIV/AIDS related training	16.6	2.1 – 14.3	12.7	2.6 – 20.2	12.2	3.4 – 22.4
HIV/AIDS related workshop	12.7	0.8 – 9.5	8.5	1.1 – 19.6	9.6	3.3 – 24.7
Condom use demonstration	1.3	0.5 – 3.7	17.3	4.1 – 46.5	10.0	3.0 – 41.2
Gaijatra	5.8 *	NC	3.2 *	NC	4.6 *	NC
Others	5.5	0.5 – 3.5	2.1	0.0 – 0.2	3.2	No Bound
<b>Name of the Organizations that Organized Such Activities #</b>	<b>N=69</b>		<b>N=62</b>		<b>N=131</b>	
Blue Diamond Society	25.7	9.5 – 53.9	13.0	1.5 – 33.5	18.6	3.3 – 33.7
Parichaya Samaj	14.7	15.2 – 65.5	1.8	0.6 – 6.1	3.7	1.7 – 13.3
Cruiseaids	25.4	6.7 – 35.3	24.2	2.6 – 67.1	20.5	3.4 – 51.5
Other NGOs	2.8	0.4 – 2.0	28.3	1.3 – 40.7	14.9	0.7 – 31.4
Government office	8.7 *	NC	6.5 *	NC	7.6 *	NC
Don't know	2.9 *	NC	14.5 *	NC	8.4 *	NC
<b>Frequency of Such Participation in the last 12 months</b>	<b>N=69</b>		<b>N=62</b>		<b>N=131</b>	
Did not participate in the last 12 months	8.7 *	NC	22.6 *	NC	15.3 *	NC
Once	17.4 *	NC	33.9 *	NC	25.2 *	NC
2-3 times	42.0 *	NC	21.0 *	NC	32.1 *	NC
4-6 times	15.9 *	NC	12.9 *	NC	14.5 *	NC
7-12 times	5.8 *	NC	1.6 *	NC	3.8 *	NC
More than 12 times	10.1 *	NC	8.1 *	NC	9.2 *	NC
<b>Heard about Community Home Based Care Program (CHBC)</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	10.6	5.8 – 17.9	7.5	3.5 – 12.0	7.7	4.8 – 12.4
No	89.4	81.9 – 94.3	92.5	88.2 – 96.4	92.3	87.6 – 95.2
<b>Heard about Community Care Support and Treatment Program</b>	<b>N=135</b>		<b>N=265</b>		<b>N=400</b>	
Yes	16.2	9.8 – 28.9	7.8	4.4 – 12.4	8.5	5.7 – 13.0
No	83.8	71.7 – 90.6	92.2	87.7 – 95.5	91.5	87.0 – 94.3

#Note: The percentages add up to more than 100 because of multiple responses.

Note: 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.

NC- Not calculated (RDSAT conditions were not met)



## 8. A COMPARATIVE ANALYSIS OF SELECTED VARIABLES

This chapter seeks to analyze the changes between the first and second round of studies on certain selected variables. It specifically deals with the socio-demographic characteristics, sexual behavior, and condom use among MSM in Kathmandu Valley. Data on HIV prevalence also is analyzed in this chapter.

### 8.1 Socio Demographic Characteristic

Socio-demographic characteristics of MSM indicate a similar pattern in both rounds of the survey. More than half of the study participants (60.3% in 2004 and 57.3% in 2007) in both rounds were comprised of young respondents aged below 25 years. The median age was 24 years both in 2004 and 2007.

**Table 8.1: Socio-Demographic Characteristics of MSWs/Non-MSWs**

Socio-Demographic Characteristics	First Round (2004)			Second Round (2007)		
	SPSS (%)			RDS EPP (%)		
	MSW (N=83)	Non-MSW (N=275)	MSM (N=358)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)
<b>Age of Respondent</b>						
Below 25 years	59.0	60.7	60.3	56.1	55.7	57.3
25 years and above	41.0	39.3	39.7	43.9	44.3	42.7
<b>Median age</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>
<b>Ethnic/Caste Group</b>						
Brahmin /Chhetri/Thakuri	36.1	40.0	39.1	33.9	40.7	38.2
Newar	14.5	19.3	18.2	18.3	14.7	14.2
Rai/Limbu/ Gurung/ Tamang /Magar	30.1	29.5	29.6	38.5	25.8	27.8
Terai Caste	15.7	8.0	9.8	5.8	14.8	16.1
Other hill caste/Muslim	3.6	3.3	3.4	3.5	4.0	3.7

Note: 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.

Similarly, in 2007, the ethnic/caste background of MSM remained mostly similar to 2004 with almost two fifths of MSM belonging to Brahmin/Chhetri/Thakuri caste groups and one third to Rai/Limbu/Gurung/Tamang/Magar castes. MSM belonging to Terai caste increased from 9.8 percent in 2004 to 16.1 percent in 2007, this is however not a significant difference.

### 8.2 Drug Injecting Practices

The rate of injecting drugs nearly halved in 2007, with only 1.8 percent reporting drug injecting practices compared with 3.4 percent in 2004. Notably non-MSWs were more likely to inject drugs in 2004 whereas more MSWs (4.2%) than non-MSWs (1.6%) had injected drugs in 2007.

**Table 8.2: Drug Injecting Practices of MSWs/Non-MSWs**

Drug Injecting Practice	First Round (2004)			Second Round (2007)		
	SPSS (%)			RDS EPP (%)		
	MSW (N=83)	Non-MSW (N=275)	MSM (N=358)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)
<b>Injected drugs during the last 12 months</b>						
Yes	0.0	4.4	3.4	4.2	1.6	1.8
No	92.8	95.6	95.0	95.8	98.4	98.2
Don't remember	7.2	0.0	1.7	0.0	0.0	0.0

### 8.3 Sexual Behavior

The sexual behavior of MSM remained the same in both rounds of the survey; the majority of respondents had their first sexual contact before the age of 21 (90.8% in 2004 and 89% in 2007) while more than half had their first sex before the age of 17 (58.4% in 2004 and 51.5% in 2007) both in 2004 and 2007

Fifty percent of MSM in 2004 had sex for the first time with a female partner while 63.9 percent of respondents reported so in 2007. About the same proportion of MSM in both the rounds (10.3% in 2004 and 11.3% in 2007) had paid a female partner for sex in the past month.

More MSWs in 2007 (82.2%) than in 2004 (71.1%) had sold sex to a male partner in the month preceding the survey.

**Table 8.3: Sexual Behavior of MSWs/Non-MSWs**

Sexual Behavior	First Round (2004)			Second Round (2007)		
	SPSS (%)			RDS EPP (%)		
	MSW (N=83)	Non-MSW (N=275)	MSM (N=358)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)
<b>Age at first sexual intercourse</b>						
Up to 16 years	79.5	52.0	58.4	62.8	48.2	51.5
17 – 20 years	14.5	37.8	32.4	31.0	39.7	37.5
21 and above	4.8	9.8	8.7	6.2	12.1	11.0
Can't remember	1.2	0.4	0.6	0.0	0.0	0.0
<b>Mean age at first sex</b>	<b>14.2</b>	<b>16.4</b>	<b>15.9</b>	<b>14.8</b>	<b>16.6</b>	<b>16.0</b>
<b>First sexual contact person male or female</b>						
Male	21.7	58.5	50.0	68.5	31.5	36.1
Female	78.3	41.5	50.0	31.5	68.5	63.9
<b>Bought sex from a male in the past month</b>						
Yes	14.5	12.7	13.1	20.0	15.5	17.4
No	85.5	87.3	86.9	80.0	84.5	82.6
<b>Bought sex from a female in the past month</b>						
Yes	3.6	12.4	10.3	15.0	10.3	11.3
No	96.4	87.6	89.7	85.0	89.7	88.7
<b>Sold anal sex to a male in the past month</b>						
Yes	71.1	NA	NA	82.2*	NA	NA
No	28.9	NA	NA	17.8*	NA	NA

Note: 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.

NA- Not applicable for non-MSWs

### 8.4 Condom Use with Different Partners

A significantly higher proportion of MSM in 2007 had consistently used condoms with different sex partners in the month preceding the survey than in 2004. The proportion of consistent condom use with a non-paying male partner increased from 44.3 percent in 2004 to 70.1 percent in 2007. Similarly, those reporting consistent condom use with a paid male anal sex partner in the previous month was up 89.3 percent in 2007 from 50 percent in 2004. The consistent use of condoms with non-paying female sex partners also improved from 19.2 percent in the first round to 33 percent in the second round. In all these cases the proportion of consistent condom users was higher in the second round than in the first round.

As mentioned above, a lower proportion of MSM used condoms consistently in sexual contact with non-paying female sex partners than with other partners in both rounds (19.2% in 2004 and 33% in 2007).

Among MSWs consistent condom use was reported highest with one time paying male anal sex partners (68.8%) in 2004; while in 2007, consistent condom use was highest with paid male anal sex partner. However this universal reporting of consistent condom use should be interpreted cautiously as only 21 MSWs in the sample were eligible for responding to this question

Among non-MSWs consistent condom use in the month preceding the survey was highest with paid male anal sex partners (47.1%) than with other partners in first round; similarly, in the second round, the highest proportion (82.9%) of non-MSWs had used condoms consistently with paid male anal sex partners as well.

**Table 8.4: Consistent Use of Condoms with Different Sex Partners in the Past month**

Consistent Use of Condom	First Round (2004)			Second Round (2007)		
	SPSS (%)			RDS EPP (%)		
	MSW	Non-MSW	MSM	MSW	Non-MSW	MSM
<b>With non-paying male anal sex partner</b>	<b>N=54</b>	<b>N=140</b>	<b>N=194</b>	<b>N=108</b>	<b>N=193</b>	<b>N=301</b>
Always	57.4	39.3	44.3	71.8	70.9	70.1
Not always	42.6	60.7	55.7	28.2	29.1	29.9
<b>With one time paying male anal sex partner</b>	<b>N=48</b>			<b>N=92</b>		
Always	68.8	NA	NA	94.6*	NA	NA
Not always	31.2	NA	NA	5.4*	NA	NA
<b>With regular paying male anal sex partner</b>	<b>N=36</b>	NA	NA	<b>N=101</b>		
Always	50.0	NA	NA	97.2	NA	NA
Not always	50.0	NA	NA	2.8	NA	NA
<b>With paid male anal sex partner</b>	<b>N=12</b>	<b>N=34</b>	<b>N=46</b>	<b>N=21</b>	<b>N=35</b>	<b>N=56</b>
Always	58.3	47.1	50.0	100.0*	82.9*	89.3
Not always	41.7	52.9	50.0	0.0*	17.1*	10.7
<b>With non-paying female sex partner</b>	<b>N=15</b>	<b>N=63</b>	<b>N=78</b>	<b>N=28</b>	<b>N=86</b>	<b>N=114</b>
Always	40.0	14.3	19.2	69.2	33.8	33.0

NA- Not applicable for non-MSWs

## 8.5 HIV and STI Prevalence

HIV prevalence among MSM has not changed in both rounds. As seen in Table 8.5 the first round of IBBS showed that the HIV prevalence among MSM was 3.9 percent while it was 3.3 percent in the second round. The rate of infection was higher among MSWs (4.8%) than among non-MSWs in 2004 while in 2007 no such difference is observed.

Overall, syphilis prevalence among MSM was 2.4 percent in the second round compared to 1.7 percent in the first round. Syphilis history, however, had decreased from 8.9 percent in the first round to 2.8% in the second round. On the other hand, the prevalence of rectal NG increased in 2007; the rate of infection was 8.1 percent in the second round, while it was 5.6 percent in the first round.

Rectal CT infection rate also has decreased from 5.9 percent in the first round to 3.6 percent in the second round but the difference is not statistically significant. Prevalence of rectal CT and rectal NG was higher among MSWs than non-MSWs in both rounds. Urethral NG and urethral CT among MSM went down to 0.3 percent and 0.5 percent respectively in the second round from two percent in the first survey.

**Table 8.5: HIV and STI Prevalence among MSW/MSM**

HIV Prevalence	First Round (2004)			Second Round (2007)		
	SPSS (%)			RDS EPP (%)		
	MSW (N=83)	Non-MSW (N=275)	MSM (N=358)	MSW (N=135)	Non-MSW (N=265)	MSM (N=400)
HIV	4.8	3.6	3.9	2.9	3.4	3.3
Active Syphilis	2.4	1.5	1.7	1.5*	2.3*	2.4
Syphilis History	14.5	7.3	8.9	3.0*	2.6*	2.8
Rectal-CT	20.5	1.5	5.9	11.6	2.6	3.6
Rectal-NG	12.0	3.6	5.6	8.3	8.1	8.1
Urethral-CT	1.2	2.2	2.0	0.7*	1.1*	0.5
Urethral-NG	1.2	2.2	2.0	0.0*	0.8*	0.3

Note: 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.

## 9. SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

### 9.1 General Findings

The estimated HIV prevalence among MSM in the Kathmandu Valley is 3.3 percent while the overall prevalence rate of at least one STI is 15.9 percent (i.e. percentage of respondents who have at least one of the following infections: HIV, active syphilis, Rectal and Urethral Neisseria Gonorrhoea and Rectal and Urethral Chlamydia Trachomatis).

MSM consisted predominantly of members of the younger population with 76 percent being below the age of 30 years. Over one half of MSM (51.5) had their first sexual contact before the age of 17. More than two thirds of MSM (67.1%) had maintained sexual relations with both female and male partners in the past year.

MSM reported highly promiscuous behavior; on average MSM had five non-paying male sex partners, three paid sex male partners and one non-paying female partners in the month preceding the survey.

The predominant sex practice among MSM was anal sex followed by oral sex. Three quarters of MSM (74.6%) had practiced anal sex in the past month; while six in ten (56%) had practiced oral sex during the same period. One in ten (11.7%) had oral as well as anal sex in the past month.

Only one-fourth (24.3%) of MSM had used a condom during their first sexual debut. Two thirds (67.4%) had used a condom during their last sexual intercourse and seven in ten (71.6%) for their last anal sex with a male partner.

Overall *consistent condom use* was the highest with paid male anal sex partners (89.3%) and lowest with non-paying female sex partners (33%) in the month preceding the survey.

More than half (55.6%) of the respondents had used lubricants before the survey, however, only one in four MSM (25.4%) reported using lubricants consistently. The most common type of lubricant MSM cited was saliva (32.6%) followed by water based lubricant (19.7).

Nearly one fifth of MSM (18.2%) had experienced condom breakage during sex in the past month. More than two-thirds (68.5%) of these MSM knew that such breakage had been caused due to improper use of condom.

Overall, 23.3 percent of MSM could not correctly name any symptom of STI in men. A markedly similar percentage of MSM (25.7%) have had at least one STI symptom.

Over three-fourths of MSM (76.7% MSW and 79.6% non-MSWs) had knowledge of all three major prevention measures to avoid HIV transmission. Nearly half of MSM (46.4%) were aware of a confidential HIV test facility but only one in four MSM (26.2%) had taken an HIV test before the survey.

Around two thirds of both MSWs and non-MSWs (65.6% and 68.6%) perceived themselves to be at *little or no risk* of contracting HIV. At the same time 31.6 percent of MSWs and 29.4

percent of non-MSWs perceived that they had *medium risk* while around two percent of both MSWs and non-MSWs considered that they were at *high risk* of getting HIV.

More than half (55.9%) of MSM had met peer/outreach educators at least once in the past year. Around one in three (31%) had visited a drop-in center (DIC) and about one in ten had visited a VCT center (13.3%) or a STI clinic (9.6%) in the last year.

There were 19.4 percent MSM who had participated in at least one HIV/AIDS awareness raising program or similar community event in the year preceding the survey. *Cruiseaids*, *Blue Diamond Society* and *Parichaya Samaj* were the main organizations cited by respondents with regards to activities and events on HIV/AIDS.

## **9.2 Group Specific Findings on MSWs and Non-MSWs**

There are certain findings that suggest distinct behavioral features and other characteristics between MSWs and non-MSWs. Some of these findings have been briefly summarized in this section.

Non-MSWs were more likely to be *older* (25.2% older than 30 years old compared with 13.7% of MSWs) and *more educated* (30.6%, studied SCL or above compared with 23.4%) than MSWs. Additionally, a higher percentage of them are *married* (37.8% compared with 15.6%). Non-MSW are more likely to belong to *Brahmin/Chhetri/Thakuri* castes (40.7% compared with 33.9%) than MSWs.

MSWs were more likely to be *young* (86.3% were less than 30 years old compared with 74.8% of non-MSWs), *single* (84.4% compared with 62.2%) and belonging to Rai/Limbu/Gurung/Tamang/Magar castes (38.5% compared with 25.8%).

More MSWs (27.4%) than non-MSWs (17.7%) were employed as private company staff and fewer were wage laborers (12.6% compared with 36.2%). More MSW (17.8%) relied on money sent from their family as a source of income than non-MSWs (8.3%).

MSWs were more likely to have had their sexual debut both before the age of 17 (62.8%) and with a male partner (68.5%) than non-MSWs (48.2% and 31.5% respectively).

More MSWs (32.9%) than non-MSWs (4.2%) had performed an exclusively receptive role in anal sex in the month preceding the survey. In the same way a larger proportion of MSWs (28.2%) had performed an exclusively receptive role than non-MSWs (2%) in oral sex in the past month.

Overall, MSWs were more likely to use condoms consistently with both paying and non paying partners than non-MSWs. They also showed higher levels of awareness regarding sources of free condoms, use of lubricants, NGOs working in the field of HIV/AIDS, and on HIV prevention and awareness programs.

A higher percentage of MSWs had attended peer education or outreach meetings (88.4% compared with 51.1%), visited a DIC (39.5% compared with 28.3%) or a VCT Center (29% compared with 11.1%) in the last 12 months.

Not surprisingly, awareness of availability of a confidential HIV testing facility in the community was higher among MSWs (65.7%) than non-MSWs (53.4%). More MSWs (49.8%) than non-MSWs (29.1%) had tested themselves for HIV.

A higher proportion of MSWs (90.9%) than non-MSWs (71.1%) perceived themselves to be at little or no risk of contracting HIV because they used condoms all the time.

MSWs reported to be more vulnerable to the social stigma associated with their sexual preference. More MSWs than non-MSWs had been subjected to physical/sexual violence such as beatings (19.1% MSWs and 1.8% non-MSWs), forced sex (14.8% MSWs and 4.4% non-MSWs), blackmailing (18.1% MSWs and 2.5% non-MSWs) and discrimination at their job or in daily life (25% MSWs and 8% non-MSWs) in the past one year.

Among those who had been forced to have sex in the past one year, most MSWs (42.4%) were assaulted by the police, while most non-MSWs (68%) were forced by their sexual partner.

### **9.3 Recommendations**

Based on the findings of this study, here are some specific recommendations:

Data from the study indicate that a considerable proportion of MSM have their first sexual relation at quite a young age (62.8% MSWs and 48.2% non-MSWs were less than 17 at the time of their first sexual contact). *Specific program activities that target school children, college students, youth, and adolescents should be designed to impart HIV/AIDS awareness and sex education.*

Consistent condom use was relatively low with non-paying partners both among MSWs and non-MSWs. Around 29 percent of MSWs and non-MSWs had not used condoms consistently with non-paying male anal sex partners, while 30.8 percent of MSWs and 66.2 percent of non-MSWs had not used condoms consistently with non-paying female sex partners in the past month. *Barriers to inconsistent condom use among MSM should be explored and interventions targeted towards the general population as well as towards MSM should be stressed. Advocacy, behavioral change programs, and health promotion interventions should be further scaled up.*

Eighteen percent of MSM mentioned that they could not access condoms whenever necessary. When asked to cite the reason, around 76 percent of them said that shop/pharmacies were closed at night. *Harm reduction initiatives such as wider dissemination of information on safe sex practices and condom distribution should continue and expand further.*

Over one-third of MSWs (34.1%) and 17.4 percent of non-MSWs had experienced condom breakage during sexual contact in the past month. *Condom use demonstrations should be continued at a larger scale. One to one education for the promotion of correct condom use practices could yield positive results.*

As this report outlines, STIs and HIV often follow a similar pattern in terms of socio-demographic characteristics creating a great opportunity to raise awareness about STIs and HIV concurrently. *HIV/AIDS awareness campaigns should also focus on STI education.*

*Client friendly STI testing and treatment facilities as well as VCT centers should be made easily accessible to encourage more MSM to voluntarily come forward for such services.*

One-third (34.3%) of MSWs and over one half of non-MSWs (56.6%) were not aware of a confidential HIV testing facility being available in the valley. Moreover, 50.2 percent of MSWs and 76.9 percent of non-MSWs had never tested themselves for HIV at the time of this survey. *More MSM-specific and appropriate IEC materials should be made available to disseminate HIV/AIDS related information. STI and general health treatment, HIV counseling and testing facilities should be expanded further to cover more of the MSM population.*

PE/OEs are good contact points to disseminate necessary information and IEC materials to the target population especially MSWs. Around 88 percent of MSWs and 51.1 percent of non-MSWs had met them at least once in the past year. *PE/OE programs should continue and geographically expand further to cover more populations of MSM.*

Only around 31 percent of MSM had visited a DIC in the past year. DICs are not just socializing points for the target group, but are also the site for educational and counseling activities. *DICs located in convenient settings with private counseling and entertainment facilities could encourage more MSM to visit them.*

Some MSM were subjected to physical violence such as beatings and forced sex, blackmailing and discrimination on the basis of their sexuality. *Necessary information related to sexuality and rights of sexual minorities should be provided to families of MSM as well as to members of the general public and police to broaden their understanding of MSM issues.*

Overall, only 19.4 percent of MSM had ever participated in any HIV/AIDS related programs. *Ongoing programs should be expanded geographically and capacity building of local NGOs should be focused on to increase access to a greater proportion of the target population.*

The group specific findings suggest that a relatively low proportion of non-MSWs than MSWs have participated in different programs/services related to MSM community and HIV/AIDS. *New strategies need to be considered to cover unexposed MSM including clients of MSWs and non-MSWs.*

In the view of recognition of Third Gender by the Nepal Government it is recommended that future IBBS rounds target gender and sexual minorities and include third gender.



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# **ANNEXES**

## ANNEX – 1 Questionnaire

**Confidential**

### **Integrated Bio-Behavioral Survey (IBBS) among Male who have Sex with Male in Kathmandu Valley FHI/New ERA/SACTS - 2007**

Namaste! My name is..... I am here from New ERA to collect data for a research study. 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. You may feel uneasy responding to some personal questions. But it is important that you answer truthfully. We will also take your blood, rectal swab and urine sample for laboratory testing for STI and HIV. 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: \_\_\_\_\_/\_\_\_\_\_/2064

#### **Operational definition of respondent:**

Male sex workers (MSWs) will be included regardless their identity or label and if they have sold anal and/or oral sex to another male in exchange for money or any commodity in the 12 months preceding the study.

MSM will be included regardless their identity or label and if they have had anal and/or oral sex with another male in the 12 months preceding the study and Not sold sex to another male in the previous 12 months.

Men under the age of 16 will be excluded.

**Code Respondents: (circle)**

**MSW: 1**

**Non-MSWs : 2**

Seed: 1. Yes

2. No

**IDENTIFICATION NUMBER:**  (Write "0" for seed)

Coupon number given: 1)  2)  3)

---

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: \_\_\_\_/\_\_\_\_/2064

Checked by the supervisor: Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/2064

001. Has someone interviewed you from New ERA with a questionnaire in last few weeks?

1. Yes

2. No (**continue interview**)



When?

\_\_\_\_\_ Days ago (**end interview**)

Respondents ID 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)	Bisexual (Dohori)..... 1 Ta ..... 2 Pinkyta..... 3 Men ..... 4 Homosexual..... 5 Gay ..... 6 Meta/Meti ..... 7 Pinky Meta ..... 8 Women ..... 9 Hijra ..... 10 Others (Specify) ..... 96 Don't remember/know ..... 98 No Response ..... 99	
106	How would you identify yourself on the basis of your sexual orientation/behavior (only one answer)	Bisexual (Dohori)..... 1 Ta ..... 2 Pinkyta..... 3 Men ..... 4 Homosexual..... 5 Gay ..... 6 Meta/Meti ..... 7 Pinky Meta ..... 8 Women ..... 9 Hijra ..... 10 Others (Specify) ..... 96 Don't remember/know ..... 98 No Response..... 99	
107	Are you currently married?	Yes ..... 1 No..... 2 No response ..... 99	108 108
107.1	With whom are you married?  (Multiple answer possible)	Male ..... 1 Female ..... 2 Others (Specify) ..... 96	

Q. N.	Questions	Coding Categories	Skip to
108	Are you currently living with a regular sexual partner?	Yes ..... 1 No.....2 No response.....99	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 Wife.....2 Other female .....3 No response.....99	
110	In the last 12 months, have you been away from your home for more than one-month altogether?	Yes ..... 1 No.....2 Don't remember/know .....98 No response.....99	
111	What is your main profession?  (Only one response)	Student..... 1 Driver .....2 Police.....3 Military.....4 Other civil servant.....5 Businessman.....6 Private company staff.....7 Unemployed .....8 Laborer/wage labor .....9 Others (Specify) .....96 Don't know .....98 No response.....99	
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"/> <i>If response is "00" go to Q.201</i> Don't remember/don't know 98 No response 99	201 201
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 family .....2 Salaried job.....3 Own business .....4 Wage labor .....5 Other work (Specify) .....96 Don't remember/know .....98 No response.....99	301 301
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 know .....98 No response Own business.....99	

**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.....2 Don't know/Can't recall .....98 No response .....99	Stop interview
202	Was your first sexual partner male or female?	Male .....1 Female.....2 Don't know/Can't recall .....98 No response.....99	
203	Have you had vaginal, anal or oral sex with a woman in the last 12 months?	Yes .....1 No.....2 Don't remember .....98 No response.....99	
204	Have you had anal/oral sex with a man 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 in exchange for money?	Yes .....1 No.....2 Don't remember .....98 No response.....99	301
206	In the last 12 months have you been paid by a male to have sex?	Yes .....1 No.....2 Don't remember .....98 No response.....99	
207	How old were you when you were first paid by a man/meti to have sex?  (In Completed years)	Year's old ..... <input type="text"/> <input type="text"/> Don't remember .....98 No response .....99	
208	How many days, weeks or months ago, was the last time another male paid you to have sex?  (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	

### 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 where no payment was involved. When answering these questions I want you to think about "meti" or "ta" as well as other male.*

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	306 306 306
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 remember .....98 No response .....99	
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 Discotheque.....2 Restaurant.....3 Dance Restaurant .....4 Massage Parlor .....5 Street .....5 Pub/Cafe .....7 Temple.....8 Bus Station .....9 Public Toilets .....10 Cinema Hall .....11 Near Army barracks .....12 Internet .....13 Sauna/Steam Bath .....14 Swimming Pools .....15 Home .....16 <i>Bhatti Pasal</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 where no payment was involved.*

**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 on ..... 0 Don't remember ..... 98 No response ..... 99	309 309 309
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 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	315 315 315
310	How many one-time male clients did you have anal sex with in the last month?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	314
311	Did you ask them to use condoms?	All of them ..... 1 Some of them ..... 2 None of them ..... 3 Don't remember ..... 98 No response ..... 99	
312	How often did you use condom while you have had anal sex with a one-time male client in the last month?	Always ..... 1 Most of the time ..... 2 sometimes ..... 3 Never ..... 4 Don't remember ..... 98 No response ..... 99	
313	The last time you had anal sex with a one-time male client, did he use a condom?	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
314	How many one-time male clients did you have oral sex with in the last month?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	

### CONDOM USE WITH REGULAR MALE CLIENTS

*Regular male clients: Men who paid 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 clients have you had sex with you?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	320 320 320
316	How many regular male clients did you have anal sex with in the last month?	Number ..... <input type="text"/> <input type="text"/> No on ..... 0 Don't remember ..... 98 No response ..... 99	319
317	How often did you use condom while you have had anal sex with regular male client in the last month?	Always ..... 1 Most of the time ..... 2 Sometimes ..... 3 Never ..... 4 Don't remember ..... 98 No response ..... 99	
318	The last time you had anal sex with a regular male client, did you use a condom?	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response ..... 99	
319	How many regular male clients did you have oral sex with in the last month?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	
320	In the past month, have you brought any male client to orgasm without penetration? (Any male client: Regular or one-time)	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response ..... 99	
321	How much did your last client pay you?	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 client?	Park ..... 1 Discotheque ..... 2 Restaurant ..... 3 Dance Restaurant ..... 4 Massage Parlor ..... 5 Street ..... 5 Pub/Cafe ..... 7 Temple ..... 8 Bus Station ..... 9 Public Toilets ..... 10 Cinema Hall ..... 11 Near Army barracks ..... 12	

Q. N.	Questions	Coding Categories	Skip to
		Internet ..... 13 Sauna/Steam Bath ..... 14 Swimming Pools ..... 15 Home ..... 16 Bhatti Pasal ..... 17 Forest ..... 18 Saloon ..... 19 Shopping center ..... 20 Others (Specify) ..... 96 Don't remember ..... 98 No response ..... 99	
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 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 you for sexual services?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	327 327 327
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 PAYING MALE SEX PARTNER**

*Paying male sex partner: Men to whom you have paid for sex*

Q. N.	Questions	Coding Categories	Skip to
327	In the past one month, how many different men did you give money 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	331 331 331
328	How many of those partners did you have anal sex with in the last month?	Number ..... <input type="text"/> <input type="text"/> No on ..... 0 Don't remember ..... 98 No response ..... 99	331

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 paying male sex partner, did you use a condom?	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response ..... 99	

**CONDOM USE WITH PAYING FEMALE SEX PARTNER (FEMALE SEX WORKERS)**

*Paying female sex partner: Women to whom you have paid for sex*

Q. N.	Questions	Coding Categories	Skip to
331	In the past one month, how many different women have you paid to have sex with you?	Number ..... <input type="text"/> <input type="text"/> No-one ..... 0 Don't remember ..... 98 No response ..... 99	334 334 334
332	The last time you had vaginal or anal sex with a paying female sex partner, did you use a condom?	Yes ..... 1 No ..... 2 Don't remember ..... 98 No response ..... 99	
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 time ..... 2 Sometimes ..... 3 Never ..... 4 Don't remember ..... 98 No response ..... 99	
334.	With whom did you have the first sexual intercourse (vaginal or anal)?  (Check the answer given in Q 202)	Non-paying male partner ..... 1 Non paying female partner ..... 2 Male client ..... 3 Female client ..... 4 Paying male sex partner ..... 5 Paying female sex partner (FSW) 6 Don't Know ..... 98 No response ..... 99	
335.	Did you use a condom in the first sexual intercourse?	Yes ..... 1 No ..... 2 Don't remember/don't know ..... 98 No response ..... 99	
336	With whom did you have the last sexual intercourse?	Non-paying male partner ..... 1 Non paying female partner ..... 2 Male client ..... 3 Female client ..... 4 Paying male sex partner ..... 5 Paying female sex partner (FSW) ..... 6 No sexual intercourse in last 12 months ..... 7 Don't Know ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
337	Did you use a condom in the last sexual intercourse?	Yes ..... 1 No..... 2 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 client..... 2 Paying male sex partner ..... 3 No anal sexual intercourse in Last 12 months ..... 4 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 No..... 2 Don't remember/don't know ..... 98 No response ..... 99	

#### 4.0 SEXUAL PRACTICES AND VIOLENCE

Q. N.	Questions	Coding Categories	Skip to
401	Among all your male sexual partners <b>with whom you had also oral sex</b> last month, <u>were your partners (not you):</u>	All receptive ..... 1 All insertive ..... 2 Mostly receptive ..... 3 Mostly insertive ..... 4 Equally receptive and insertive ..... 5 Didn't have oral sex in the last month..... 6 Don't remember ..... 98 No response ..... 99	
402	I am still talking about oral sex. Did you use a condom with your last male partner with whom you had oral sex ?	Yes ..... 1 No..... 2 Don't remember/don't know ..... 98 No response ..... 99	
403	Among all your male sexual partners <b>with whom you had also anal sex</b> last month, <u>were your partners (not you):</u>  (Only one possible answer)	All receptive ..... 1 All insertive ..... 2 Mostly receptive ..... 3 Mostly insertive ..... 4 Equally receptive and insertive ..... 5 Didn't have anal sex in the last month..... 6 Don't remember ..... 98 No response ..... 99	
404	In the past 12 months, were you ever beaten because of your sexual orientation?	Yes ..... 1 No..... 2 Don't remember/don't know ..... 98 No response ..... 99	406
405	Who was/were the person who beat you?	Police ..... 1 Military ..... 2 Client..... 3 Regular Partner ..... 4 Sexual Partner..... 5 Gang..... 6 Others (Specify) ..... 96 Don't remember ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
406	In the past 12 months, were you physically forced to have sex with someone even though you did not want to?	Yes ..... 1 No..... 2 Don't remember/don't know ..... 98 No response ..... 99	408
407	Who was the person who physically forced you to have sex against your will?  (Multiple answer possible)	Police ..... 1 Military..... 2 Client..... 3 Regular Partner ..... 4 Sexual Partner..... 5 Gang..... 6 Others (Specify) ..... 96 Don't remember ..... 98 No response ..... 99	
408	In the past 12 months, have you been blackmailed/threatened because of your sexual orientation?	Yes ..... 1 No..... 2 Don't remember ..... 98 No response ..... 99	
409	In the past 12 months, have you experienced discrimination in your job or daily life because of your sexual orientation?	Yes ..... 1 No..... 2 Don't remember ..... 98 No response ..... 99	
410	<b>Ask Meti only:</b> Have you ever faced any problems because of your sexual identification?	Yes ..... 1 No..... 2 Don't remember ..... 98 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	608
502	Do you have condoms with you now? Please show me	Can show condoms ..... 1 Cannot show a condom ..... 2 No response ..... 99	
503	Last time you obtained a condom, where did you get it?  (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 Parchaya Samaj..... 9 Cruiseaids ..... 10 Never obtained a condom..... 11 Other (Specify) ..... 96 Don't know ..... 98 No response ..... 99	505  505
504	How much did you pay for a condom last time you bought one?	NRS ..... <input type="checkbox"/> <input type="checkbox"/> Free..... 1 Don't know ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
505	Can you obtain a condom every time you need one?	Yes ..... 1 No..... 2 Don't need one ..... 3 Don't remember..... 98 No response ..... 99	507 507 507 507
506	Why can't you get a condom every time you need one?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	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	Some people use a lubricant product made especially for using with condom. Have you heard of such a product?	Yes ..... 1 No..... 2 Don't remember..... 98 No response..... 99	513 513
509	Could you tell me the brand name of such a product?	Yes, (Name)..... 1 No..... 2 Don't remember ..... 98 No response ..... 99	
510	In the past 30 days, how often have you used a special lubricant for condoms together with a condom during anal sex?	Always ..... 1 Most of the time ..... 2 Sometimes ..... 3 Never ..... 4 Don't remember ..... 98 No response ..... 99	512
511	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 obtain..... 3 I do not need to use ..... 4 I use other cream ..... 5 Not aware of such products ..... 6 Other (Specify) .....96 Don't remember ..... 98 No response ..... 99	
512	<b>If the respondent is 4 in Q.N. 510 go to Q.N. 513</b>  For you, what are the purposes of using special lubricant with condoms during sex?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	Decrease pain/inflammation ..... 1 Increase feeling/stamina ..... 2 Decrease risk of condom breakage .... 3 Prevent HIV/AIDS infection ..... 4 Other (Specify) ..... 96 Don't know ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
513	Have you ever used lubricant when having anal sex? <b>(Lubricants: Something to make your or your partner's penis slippery so it is easier to insert without pain)</b>	Yes ..... 1 No..... 2 Don't remember..... 98 No response ..... 99	517
514	What types of lubricant did you used during last anal sex?	Saliva ..... 1 Oil..... 2 Water based lube ..... 3 Antiseptic/antibiotic cream ..... 4 Ghee ..... 5 Cream/lotion ..... 6 Other (Specify) .....96 Don't know ..... 98 No response ..... 99	
515	Were you using a condom that time?	Yes ..... 1 No..... 2 Don't know ..... 98 No response ..... 99	
516	Have you faced any problems while using lubricants?	Condom slippage ..... 1 Irritation or burning sensation..... 2 Condom breakage ..... 3 No problem ..... 4 Other (Specify) .....96 Don't know ..... 98 No response ..... 99	
517	What is your convenient/preferred place to buy condoms and lubricants? <b>(Multiple answers. DO NOT READ the possible answers)</b>	Shop..... 1 Pharmacy ..... 2 Bar/Guest House/Hotel..... 3 BDS drop-in center ..... 4 BDS field workers..... 5 Parichaya Samaj..... 6 CruiseAids..... 7 Other (Specify) .....96 Don't know ..... 98 No response .....99	
518	In the last month, have you used a condom that broke while you were using it?	Yes ..... 1 No..... 2 Condom never used/didn't use last month ..... 3 Don't know ..... 98 No response ..... 99	601
519	If experienced condom breakage, what reason do you think cause of breakage?	Use of oil based lubricant ..... 1 Improper use of condom..... 2 Other (Specify) .....96 Don't know ..... 98 No response ..... 99	



## 6.0 USE OF ALCOHOL AND DRUGS

Q. N.	Questions	Coding Categories	Skip to																														
601	Have you ever had any drinks containing alcohol?	Yes ..... 1 No..... 2 No response..... 99	604																														
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 weeks ..... 4 Don't know / remember ..... 98 No response..... 99																															
602	Normally what type of drinks do you take?	Local <i>raksi</i> ..... 1 Bear ..... 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 a range of different types of drugs. Which of the following have you ever tried in the last 12 months?  <b>READ OUT</b>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Yes</th> <th style="text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>Ganja .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Chares.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Tablets.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Glue.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Heroin.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Not used .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Other (Specify).....</td> <td style="text-align: center;">96</td> <td></td> </tr> <tr> <td>Don't Know .....</td> <td style="text-align: center;">98</td> <td></td> </tr> <tr> <td>No response.....</td> <td style="text-align: center;">99</td> <td></td> </tr> </tbody> </table>		Yes	No	Ganja .....	1	2	Chares.....	1	2	Tablets.....	1	2	Glue.....	1	2	Heroin.....	1	2	Not used .....	1	2	Other (Specify).....	96		Don't Know .....	98		No response.....	99		
	Yes	No																															
Ganja .....	1	2																															
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Not used .....	1	2																															
Other (Specify).....	96																																
Don't Know .....	98																																
No response.....	99																																
605	Some people have tried injecting recreational drugs using a syringe. Have you injected drugs recreationally in the last 12 months <b>DO NOT COUNT DRUGS INJECTED FOR MEDICAL PURPOSES OR TREATMENT OF AN ILLNESS</b>	Yes ..... 1 No..... 2 Don't remember/don't know ..... 98 No response..... 99																															
606	In the past 12 months, have you received any medical injections?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99																															

## 7.0 SEXUALLY TRANSMITTED INFECTIONS (STI)

Q.N.	Questions	Coding Categories	Skip to
701	<p>Could you describe any symptoms in men of diseases that can be transmitted by having sex?</p> <p>DO NOT READ OUT (Multiple responses possible)</p>	Penis discharge..... 1 Burning pain on 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	Have you had a urethral discharge during the past 12 months?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
703	Have you had anal discharge during the last 12 months?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
704	Have you had a genital ulcer / sore during the past 12 months?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
705	Have you had an anal ulcer / sore during the past 12 months?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
706	<p>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 <b>first</b> thing you did when you had those symptoms?</p> <p>DO NOT READ OUT</p>	Treatment from hospital ..... 1 Treatment from drug seller..... 2 Treatment from private doctor/ clinician ..... 3 Treatment from BDS clinic ..... 4 Treatment from Parichaya Samaj..... 5 Treatment from Cruseaids ..... 6 Treatment from friend ..... 7 Took medicine you had at home ..... 8 Nothing..... 9 Other (Specify) _____ 96 Don't remember / know ..... 98 No response..... 99	801           801 801
708	Before going to see the doctor or the drug seller, have you taken some drugs that you thought good to treat your STI?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	

Q.N.	Questions	Coding Categories	Skip to
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 had 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 the disease called AIDS?	Yes ..... 1 No ..... 2 No response ..... 99	901
802	Do you know anyone who is infected with HIV or has died of AIDS?	Yes ..... 1 No ..... 2 Don't know ..... 98 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	
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 a meal with someone who is infected?	Yes ..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to
810	Can a person get the HIV virus by getting injections with a needle that was already 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?	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	816 816
815	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child?	Take medication (Antiretrovirals) ..... 1 Others (Specify) ..... 96 Don't know ..... 98 No response..... 99	
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	
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	819 819 819 819 819
818	What medicine do you take?	Name..... 1 Don't know..... 98 No response..... 99	
819	How much 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	821 822 822
820	Why do you think you are at risk for HIV?  <b>Multiple answers possible (DO NOT READ OUT)</b>	High risk job..... 1 High number of partners ..... 2 Frequent 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	822 822 822 822 822 822 822 822 822

Q. N.	Questions	Coding Categories	Skip to
821	Why do you think you are at little or no risk of HIV?  <b>Multiple answers possible (DO NOT READ OUT)</b>	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 participating in this study, do you know anywhere in Kathmandu city you could go if you wanted to get a confidential test to find out if you are infected with HIV?  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	
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 request the test or did someone else require you to have the test?	Voluntary..... 1 Required ..... 2 Don't know / remember ..... 98 No response..... 99	
825	When you have been tested for HIV, have you received counseling, I mean proper information about HIV infection and prevention, the meaning of the HIV test and of being HIV positive and negative?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
826	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	
827	When did you have the most recent HIV test?	Within the past year ..... 1 More than a year ago..... 2 Don't remember / know ..... 98 No response..... 99	

## 9.0 STIGMA 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 No response..... 99	

Q. N.	Questions	Coding Categories	Skip to
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	
905	Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
906	If a colleague who is working with you has HIV but he is not sick, should he 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 discussed 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	When you met/discussed/interacted with PE or OE in what kind of activities were you involved?  (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 from which organization were they?  (Multiple answers possible)	BDS ..... 1 Parichaya Samaj ..... 2 Cruiseaids ..... 3 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), in which activities did you take part?  (Multiple answers. DO NOT READ the possible answers)	Went to collect condoms..... 1 Went to learn the correct way of using condom. .... 2 Went to watch film on HIV/AIDS. 3 Participated in discussion on HIV transmission... .. 4 Other (Specify)..... 96	

Q. N.	Questions	Coding Categories	Skip to
1007	Do you know which organizations run those out reach center (DIC,IC or CC)?  (Multiple answers possible)	BDS ..... 1 Parichaya Samaj ..... 2 Cruiseaids ..... 3 SACTs ..... 4 NFCC ..... 5 CAC ..... 6 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?	Yes ..... 1 No ..... 2	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 Discussion on how STI is/isn't transmitted ..... 3 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)	BDS ..... 1 Parichaya Samaj ..... 2 Cruiseaids ..... 3 SACTs ..... 4 NFCC ..... 5 CAC ..... 6 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?	Yes ..... 1 No ..... 2	1017
1014	When you visited such VCT center in what activity 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 Received counseling on using condom correctly in each sexual intercourse ..... 5 Received information on HIV/AIDS window period ..... 6 Took a friend with me ..... 7 Other (Specify) ..... 96	

Q. N.	Questions	Coding Categories	Skip to
1015	Do you know which organizations run those VCT centers?  (Multiple answers possible )	BDS ..... 1 Parichaya Samaj ..... 2 Cruiseaids ..... 3 SACTs ..... 4 NFCC ..... 5 CAC ..... 6 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 participated in HIV/AIDS awareness raising program or community events in the last 12 months?	Yes ..... 1 No ..... 2	1021
1018	When you participated in such events in what activities were you involved?  (Multiple answers. DO NOT READ the possible answers)	Street drama ..... 1 AIDS Day ..... 2 Condom Day ..... 3 Video Shows ..... 4 Group discussions ..... 5 Talk programs ..... 6 HIV/AIDS related training ..... 7 HIV/AIDS related Workshops ..... 8 Condom use demonstrations ..... 9 Others (Specify) ..... 96	
1019	Do you know which organizations organized those activities?  (Multiple answers. DO NOT READ the possible answers given below)	BDS ..... 1 Parichaya Samaj ..... 2 Cruiseaids ..... 3 SACTs ..... 4 NFCC ..... 5 CAC ..... 6 Others (Specify) ..... 96 Don't know ..... 98	
1020	How many times have you participated in such activities in the last 12 months?	Once ..... 1 2-3 times ..... 2 4-6 times ..... 3 7-12 times ..... 4 More than 12 times ..... 5	
1021	Have you heard about Community Home Based Care (CHBC) services that are provided to people with HIV?	Yes ..... 1 No ..... 2	
1022	Have you heard about programs that provide essential services for people with HIV, ART treatment and that which gives information on ART (Community Support Treatment Program)?	Yes ..... 1 No ..... 2	



## 11.0 GENERAL INFORMATION

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

## 12.0 INFORMATION ON BDS AND MSM NET WORK

Q. N.	Questions	Coding Categories	Skip to
1201	Have you ever heard about Blue Diamond Society in Kathmandu city?	Yes ..... 1 No..... 2 Don't know ..... 98 No response..... 99	
1202	Do you have friends who have also sexual relationship with other males in other district or cities than Kathmandu?	Yes ..... 1 No..... 2 No response..... 99	1204 1204
1203	Which districts /cities ?  (Multiple answer possible)	<u>District</u> <u>City</u> _____ _____	
1204	How many MSM do you know who also knows you? Knowing someone is defined as being able to contact them, and having had contact with them in the past 12 months – knowing each other	Number: ..... <input type="text"/> <input type="text"/> <input type="text"/> Don't know..... 98 No response..... 99	
1205	Among those persons, please try to estimate the number of people by range of age:	Less than 15 years old... <input type="text"/> <input type="text"/> <input type="text"/> 15-20 years old ..... <input type="text"/> <input type="text"/> <input type="text"/> 21-30 years old ..... <input type="text"/> <input type="text"/> <input type="text"/> 31-40 years old ..... <input type="text"/> <input type="text"/> <input type="text"/> > 41 years old ..... <input type="text"/> <input type="text"/> <input type="text"/> Don't know..... 98 No response ..... 99	

Q. N.	Questions	Coding Categories	Skip to																																																																																																				
1206	Again, among those guys, please try to estimate the number of people 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																																																																																																					
1207	How are you related with the person who gave you the coupon for taking part in the study?  <b>(Do not ask this to the seed)</b>	A close friend ..... 1 A friend ..... 2 You partner ..... 3 A relative ..... 4 A stranger ..... 5 Other (Specify) _____ ... 96 Don't know..... 98 No response ..... 99																																																																																																					
1208	In the past 6 months, how often have you been to the following locations to recruit / meet male sexual partners:  (Ask for all the items proposed and probe for other locations, as well)	<table border="1"> <thead> <tr> <th></th> <th>Very Often</th> <th>Often</th> <th>Some-time</th> <th>Never</th> </tr> </thead> <tbody> <tr><td>Park</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Discotheque</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Dance Restaurant</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Massage parlor</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Street</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Pub/Cafe</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Temple</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Bus Station</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Public Toilets</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Cinema Hall</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Near Army barracks</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Internet (chat room)</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Personal Add (web site)</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Personal Add (magazine or other)</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Sauna/Steam bath</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Swimming Pools</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Home</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Telephone</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>Other (Specify) _____</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> </tbody> </table>		Very Often	Often	Some-time	Never	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	
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Other (Specify) _____	1	2	3	4																																																																																																			
1209	Give me the names of the 3 mostly visited locations in Kathmandu Valley where you have been to recruit male sexual partners in the past 6 months:	_____. .... 1 _____. .... 2 _____. .... 3 Don't know..... 98 No response ..... 99																																																																																																					

☺☺ Thank You ☺☺

## ANNEX – 2 Sample Size Formulae

Basic equation used in sample design

$$n = D [(Z_{\alpha} + Z_{\beta})^2 * (P_1 (1 - P_1) + P_2 (1 - P_2)) / (P_2 - P_1)^2]$$

n = required minimum sample size per survey round or comparison groups

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

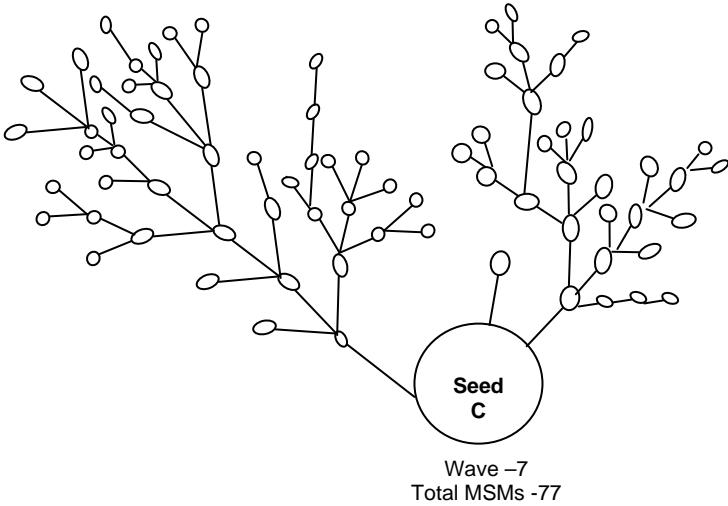
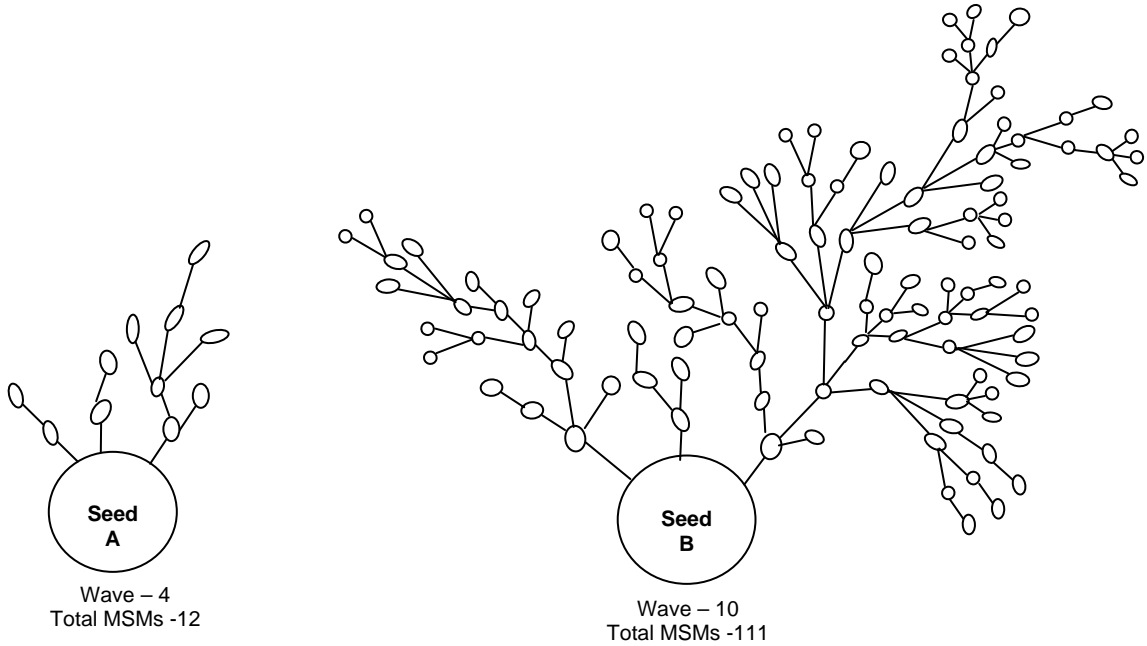
P<sub>1</sub> = the estimated number of an indicator measured as a proportion at the time of the first survey or for the control area

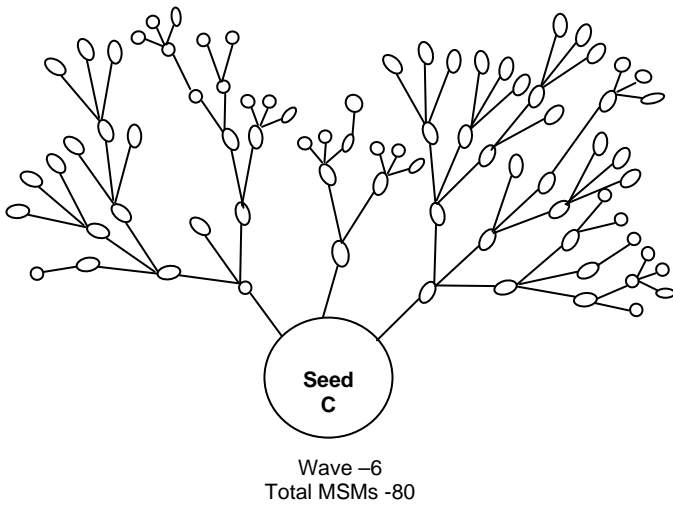
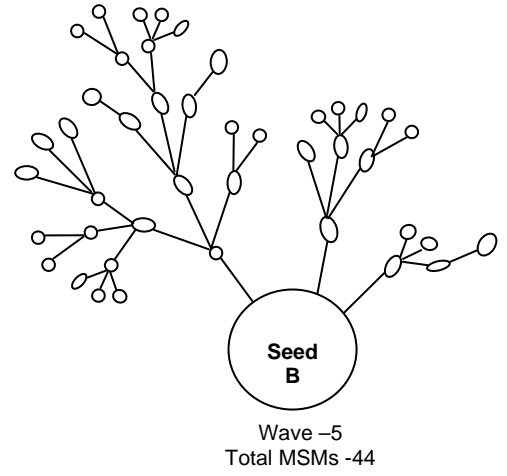
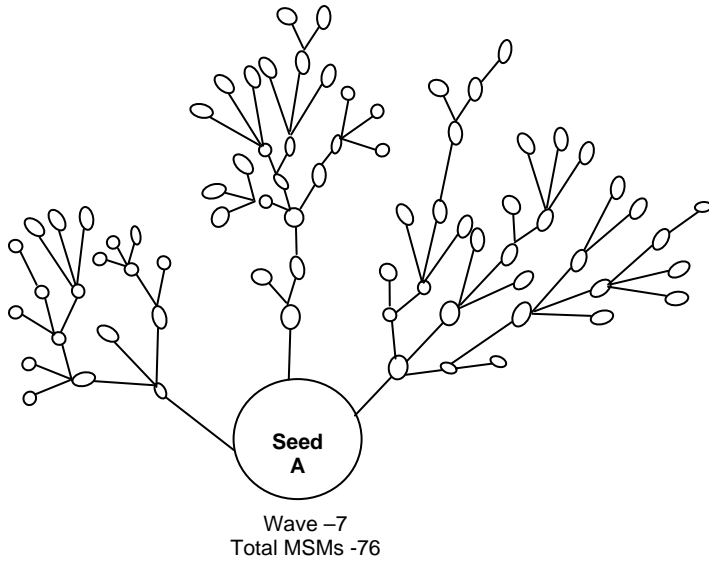
P<sub>2</sub> = the expected level of the indicator either at some future date or for the project area such that the quantity (P<sub>2</sub>-P<sub>1</sub>) is the size of the magnitude of change it is desired to be able to detect

Z<sub>α</sub> = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P<sub>2</sub>-P<sub>1</sub>) would not have occurred by chance (α – the level of statistical significance), and

Z<sub>β</sub> = the Z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P<sub>1</sub>-P<sub>2</sub>) if one actually occurred (β – statistical power)

**ANNEX – 3 Respondent Driven Sample of MSW/Non-MSW**





## ANNEX – 4 Oral Informed Consent

**Title:** Integrated Bio-behavioral Survey (IBBS) among Male who have Sex with Male (MSM) in Kathmandu Valley.

**Sponsor:** ASHA Project – FHI/Nepal and USAID/Nepal

**Principal Investigators:** Ms. Jacqueline McPherson, FHI/Nepal  
Dr. Laxmi Bilas Acharya, FHI/Nepal

Address:  
Post box No. 8803  
Gopal Bhawan, Anamika Galli  
Ward no. 4, Baluwatar  
Kathmandu, Nepal  
Phone: 977-1-4437173  
Fax: 977-1-4417475

### Introduction to Research

We are asking you to take part in research to collect information on knowledge of HIV/STIs, HIV/STI related risk behaviors, STI treatment practices and to measure the prevalence of HIV and STI among the populations like you. We want to be sure you understand the purpose and your responsibilities in the research before you decide if you want to be in it. Please ask us to explain any words or information that you may not understand. We should discuss all these before we start the interview. You do not have to sign on this form, you just have to tell us whether or not you understood whatever we explain to you. One of us will explain to you about this study and the other one will listen as a witness. The person who takes your consent to participate in the study (or your decision not to participate in the study) and the one who is here as a witness will both sign on this agreement paper.

### General Information about the Research

Study participants will be selected by those who have already participated in the study. In total of 400 men having sex with men will be selected for interview from Kathmandu Valley. We will ask you some questions and then ask you to provide blood samples for HIV and syphilis test. We will draw 5-6 ml blood by 10 ml disposable syringe from your vein. Rectal swab sample will be collected by inserting a cotton swab stick into the rectum to a distance of about 2.5 cm into the anal canal and urine sample will be collected in a sterile plastic tube with a lid.

If you decide to take part in this interview you will have to give us 45-60 minutes of your time. We would like to explain to you again that this is a research and not a health service-providing program.

### Possible Risks

The risk of participating in this study is the minor discomfort during blood drawing. Similarly, you may have mild pain in taking a rectal swab sample. Providing urine, blood and swab sample does not put you at any risk. Some of the questions we ask might put you in trouble or make you feel uncomfortable to answer them. You are free not to answer such questions and also to withdraw yourself from participating in the research process at any time you like to do so. You might feel some mental stress after getting your test results. But you will get proper pre and post test counseling on HIV and STI through a qualified counselor. They will provide you STI information and provide counseling if you are under any kind of mental stress.

There may be some risk that people may see you associated with the study, either now or when you return for your test results.

### **Possible Benefits**

You will be provided with free treatment, if currently you have any STI symptoms. You will be given lab test results and made aware of how STI/HIV is transmitted and how it can be prevented and controlled. If your STI tests are positive for the curable sexual infection such as syphilis and you have not been treated, you will be offered free treatment. We do not provide HIV services but we can suggest and help you to go to such centers. You will also be provided with information on safe sex. The information we obtain from this research will help us plan and formulate strategies to control and prevent further spread of HIV/AIDS and other sexually transmitted diseases.

At the time of sample collection the study team members will give you the detail address of the place and the exact dates where you can receive your test results of STI and HIV. Test result will be given by a qualified counselor with pre and post test counseling. Test results can only be obtained by presenting the study ID card with your code number on it. If you do not have the ID card when you return for the test results we cannot give you the results because we will not be able to recognize you without the study ID card.

### **If You Decide Not to Be in the Research**

You are free to decide whether or not to take part in this research. Your decision will not affect in any way in the health services you have seeking now and you would normally receive.

### **Confidentiality**

We will protect information collected about you and your taking part in this study to the best of our ability. We will not use your name in any reports. A court of law could order medical records shown to other people, but that is unlikely. We will not ask you your name. You just have to give your verbal consent/refusal to participate or not to participate in the study.

### **Payment**

We will not pay you for your participation but you will be given, condom, lubricants, reading materials about STI/HIV/AIDS and as compensation for your participation in the research. Moreover, we will provide you a fixed amount of Nepalese Rupees (NRs.) 100.00 (approximately, US\$1.6) after completing the study requirements as a local transportation or reimburse local transportation cost when you come to the study center for interview and for providing biological sample and an additional NRs. 50.0 (approximately US\$ 0.8) for successful referral each peer for the study. You may refer up to three peers or friend.

### **Leaving the study**

You may leave the research at any time. If you do, it will not change the healthcare you normally receive from the study clinic.

### **If you have a questions about the study**

If you have any questions about the research, call:

Ms. Jacqueline McPherson  
Asha Project, Family Health International (FHI)  
Baluwatar, Kathmandu  
Phone: 01-4437173

*Siddhartha Man Tuladhar*  
New ERA, Kalopool  
Kathmandu, Nepal, Phone: 01-4413603

*Laxmi Bilas Acharya*  
Asha Project, Family Health International (FHI)  
Baluwatar, Kathmandu, Phone: 01-4437173

After the completion of the study, if you get sick or have other health problem, we will not be able to take care of you.

**Your Rights as a Participant**

This research has been reviewed and approved by the Institutional Review Board of Family Health International and Nepal Health Research Council (NHRC). If you have any questions about how you are being treated by the study or your rights as a participant you may contact

Ms. Jacqueline McPherson, Family Health International (FHI), Baluwatar, Kathmandu, Phone: 01-4437173 OR Mr. David Borasky, Protection of Human Subjects Committee, PO Box 13950, Research Triangle Park, NC 27709, USA, phone number: [International Access Code]-1-919-405-1445, e-mail: [dborasky@fhi.org](mailto:dborasky@fhi.org).

**VOLUNTEER AGREEMENT**

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

\_\_\_\_\_

Signature of witness

\_\_\_\_\_

Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

\_\_\_\_\_

Signature of Person Who Obtained Consent

\_\_\_\_\_

Date



## ANNEX – 5 Clinical Test Records

**CONFIDENTIAL**

### INTEGRATED BIO- BEHAVIORAL SURVEY (IBSS) AMONG MALE WHO HAVE SEX WITH MALE IN KATHMANDU VALLEY FHI/NEW ERA/SACTS – 2007

#### Clinical/Lab Checklist

Respondent 

--	--	--	--	--	--

 Date: 2064/\_\_\_/\_\_\_

Name of Clinician: \_\_\_\_\_

Name of Lab Technician: \_\_\_\_\_

	(A) Clinical TEST	(B) Specimen collection		<u>Yes</u>	<u>No</u>
Weight	: _____ Kg	Pre-test counseled	1	2	
		Rectal Swab Collected for Gonorrhea & Chlamydia	1	2	
		Urine Collected for Gonorrhea & Chlamydia	1	2	
B.P.	: _____ mm of Hg	Blood Collected for HIV & Syphilis	1	2	
Pulse	: _____	Date & place for post-test results given	1	2	
Temperature	: _____ ° F	Condom given	1	2	
		IEC materials given	1	2	

#### 1.0 Syndromic Treatment Information

101. Have you experienced genital discharge/burning urination/swelling and tenderness of testis or epididymis in the past one month?

1. Yes
2. No

**[If yes, give urethral discharge/scrotal swelling syndrome treatment]**

102. Have you had genital ulcer/sore blister in the past one month?

1. Yes
2. No

**[If yes, give genital ulcer syndrome treatment and time for follow-up]**

103. Have you had a tender or non-tender/solid or fluctuant swelling in the groin area in the past one month?

Yes

2. No

**[If yes, give inguinal swelling (bubo) syndrome treatment and time for follow-up]**

## ANNEX – 6 Study Centers

District	Lab Centers	No. of Centers	Sample Covered	Total
Kathmandu Valley	Gausala	2	200	400
	Jamal		200	

## ANNEX – 7 Post Test Counseling

Counseling Date	Counseling Center	Expected Client	Client Counseled		Client with HIV-POSITIVE	Client with HIV-
			N	%		
June 29 – August 15,2007	Cruiseaids	298	124	41.6	7	117
	Parichaya Samaj	67	40	59.7	2	38
	SACTS	35	15	42.9	1	14
<b>Total</b>		<b>400</b>	<b>179</b>	<b>44.8</b>	<b>10</b>	<b>169</b>

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