

**SEXUAL BEHAVIOUR AND HIV RISK IN MEN  
WHO HAVE SEX WITH MEN IN MYSORE,  
KARNATAKA STATE**



**CHARME Working Paper No. 17**  
**October 2010**

# **SEXUAL BEHAVIOUR AND HIV RISK IN MEN WHO HAVE SEX WITH MEN IN MYSORE, KARNATAKA STATE**

**S. Rajaram**

**Sushena Reza-Paul**

**Helen Munro**

**BM Ramesh**

**Shajy Isaac**

**AA Jaychandran**

**Syed HR**

**Sreeram SV**

**Bhagyalakshmi**

**Manjula Ramaih**

**Janet Bradley**

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The CHARME Project is a project of the Centre Hospitalier *affilié* Universitaire de Quebec (CHA), Quebec, Canada. Key partners in this project are Imperial College London UK, the London School of Hygiene and Tropical Medicine, London UK, the University of Manitoba, Winnipeg Canada, St John's Medical College (St John's Research Institute) Bangalore India, and the Karnataka Health Promotion Trust (KHPT), Bangalore India.

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## LIST OF ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
CHA	Centre Hospitalier <i>affilié</i> Universitaire de Québec
FSW	Female sex worker
FTFI	Face to face interview
GPS	General population survey
HIV	Human Immuno-Deficiency Virus
IBBA	Integrated Behavioural and Biological Assessment
ICVI	Informal confidential voting interviews
KHPT	Karnataka Health Promotion Trust
MSM	Men who have sex with men
MSM-T	Men who have sex with men, and transgendered men
MSW	Male sex worker
NACO	National AIDS Control Organisation (India)
NC	Non-commercial partner (male or female)
NGO	Non-Governmental Organisation
PSU	Primary sampling unit
SBS	Special behavioural studies
STI	Sexually transmitted infection
TLC	Time-location cluster sampling
UNAIDS	United Nations Programme on HIV/AIDS

## **INTRODUCTION**

### **The HIV epidemic in India**

India is the second most populous country in the world and has an estimated 2.4 million people living with HIV / AIDS (National AIDS Control Organisation (NACO) 2008; UNAIDS 2008). The epidemic is highly heterogeneous with HIV prevalence rates highest in the four southern states of Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu, and the two north-eastern states of Manipur and Nagaland (National AIDS Control Organisation (NACO) 2007; National AIDS Control Organisation (NACO) 2008). Unprotected paid sex is thought to be a key factor in its continued spread, particularly in the southern states, where rates among female sex workers (FSW) and also among MSM have reached over 30% in some districts (National AIDS Control Organisation (NACO) 2008). Indeed, mathematical modelling suggests that HIV prevention interventions targeted at FSWs alone could halt the HIV epidemic in this country, if applied at sufficient scale and quality (Nagelkerke, Jha et al. 2002).

### **The India AIDS initiative, Avahan**

The India AIDS Initiative, *Avahan*, of the Bill & Melinda Gates Foundation (BMGF) was established in 2003 with the aim of slowing down the HIV epidemic in India through targeted, integrated large-scale HIV prevention programmes with high-risk populations in 83 districts in the six high prevalence states of India and in 17 sites along the National Highways (Avahan 2008). The programmes target FSWs and their clients, men who have sex with men (MSM), Hijras (transgendered people) and injecting drug users (IDUs) and are tailored to the local situation and needs. Key programme components include: (i) focused HIV and STI prevention peer education outreach, with an emphasis on condom promotion and provision, (ii) behaviour change programs for HIV and STI risk reduction among regular partners of FSWs, (iii) improved quality and accessibility of high-quality STI management services for FSWs and their partners and (iv) key population (FSW / MSM / transgender) collectivisation and community mobilisation.

### **Mysore city, Karnataka state**

Karnataka state is situated in the south of India and has a population of 53 million people (2001 census). The capital of the state is Bangalore and Kannada is the main language spoken there. It is a predominantly Hindu state (83%), with Islam (11%) and Christianity (4%) also practiced (2001 census). Karnataka state has an estimated HIV prevalence of 0.75% amongst the adult population, placing it among the top four states in India with regards to HIV epidemic severity (National AIDS Control Organisation (NACO) 2008).

Mysore city lies in the south of Karnataka and is the second largest city in the state, with a population of approximately 800,000 (2001 census). The city is famous for its palace and for its sandalwood carvings, and is a major tourist destination. Initial visits to the city in 2003, before the HIV prevention programme began, found reported condom use was minimal and high numbers of new individuals were testing HIV sero-positive at the government voluntary counselling and testing (VCT) centre (~50 individuals per month) (Reza-Paul, personal communication).

## **NGO intervention with at-risk populations in Mysore**

In January 2004, a community-led HIV preventive intervention program was initiated among female, male and transgender (MSM-T) sex workers, supported by Avahan. The program took a rights-based approach (Jana, Basu et al. 2004; Reza-Paul, Beattie et al. 2008), with three key project foci: i) community mobilization and peer-mediated outreach, including condom promotion and provision; ii) increased access to and utilization of sexual health services, expansion of condom accessibility through social marketing, and increased condom availability in non-traditional outlets; and iii) enhancing the enabling environment to support the program. There have been several mapping exercises and the most recent in 2009 found 1093 FSWs and 661 MSM-T in Mysore town.

The project has focused on peer-mediated outreach and empowerment issues that have promoted a sense of camaraderie and kinship among the community. At the same time, dedicated sexual health services have been established. Additionally, a 24-hour crisis response team was established to assist male and female sex workers during crises, and a drop-in-centre was created to provide a welcoming safe space, promoting dialogue among the community, as well as providing services such as a community kitchen and literacy classes. The health services provided by the clinics took great care to promote a “positive health image”, whereby regular sexual health check-ups, including examinations, connoted “normal” health maintenance rather than merely treatment for symptomatic STIs. Alongside these activities, peer outreach focused on several issues, including condom use, the importance of routine health care and immediate STI treatment.

## **Monitoring and evaluation of Avahan programmes**

To monitor and evaluate the impact of the Avahan funded programmes, Avahan supports a series of surveys that measure changes in behaviours, STIs and HIV in the target population. These observational data provide parameter estimates for mathematical modelling that can estimate the number of HIV cases averted in high risk groups and the general population. The surveys include (i) cross sectional surveys called Integrated Biological and Behavioural Assessments (IBBA) which involve STI/HIV testing and face-to-face questionnaires with members of high-risk groups and their clients, (ii) Special Behavioural Surveys (SBS) (which have quantitative and qualitative components) and general population surveys (GPS) and (iii) regular behavioural tracking surveys (Avahan 2008).

The Mysore MSM-T IBBA survey was conducted in 2008 and found high rates of HIV and other STIs: HIV 23%; syphilis 23% (high titre syphilis 14%); HSV2 62%, but negligible rates of chlamydia and gonorrhoea.

## **Purpose of this study**

This quantitative Special Behavioural study (SBS) was conducted using face to face interviews (FTFI) with 75 MSM-T and informal confidential voting interviews (ICVI) with 75 MSM during November-December, 2007. The FTFI comprised a detailed questionnaire whereas the ICVI comprised a short questionnaire covering demographic characteristics followed by a short questionnaire of 17 key behavioural questions, conducted out of sight of the interviewer in a more confidential setting than a face-to-face interview. The main aims of this quantitative SBS study were to examine:

- 1) MSM-T demographic characteristics;
- 2) Sex work characteristics including sex work migration;
- 3) Sexual practices and condom use with clients and non-commercial sexual partners;
- 4) Alcohol use with clients and non-commercial sexual partners
- 5) HIV prevention programme knowledge and behaviours;
- 6) HIV/AIDS awareness and behaviours, including injection practices;
- 7) In addition, by comparing answers provided in face-to-face interviews with answers provided using an ICVI methodology, we aimed to gain a clearer understanding of the impact of social desirability bias on survey findings.

It was anticipated the findings from this study would be used in conjunction with findings from the IBBA quantitative to highlight ways in which programmes might work with MSM-T more effectively to reduce their vulnerability to HIV/ AIDS.

### **Definitions used in the study**

*Hijra*: Born biologically male but dress and socially behave as females. *Hijras* are known as the ‘third gender’ or male-to-female transgendered individuals. Traditionally *Hijras* held a special place in society by performing at births, festivals and celebrations (*badai*). Their religious role is being eroded however, and now only a minority retain their ritual status and increasingly *Hijras* survive by begging (*masti*) or selling sex to men (*pun*). *Hijra* can be classified as *nirvaan* (ritually castrated) or *akwa* (not yet castrated). Only one study has been published in the peer-reviewed international literature exclusively on the sexual behaviour of a small sample of *Hijras*; this reports that *Hijras* tend to be the receptive partner in anal and oral sex, which is consistent with their feminine identity (Setia, Lindan et al. 2006).

*Kothi*: Effeminate men, in terms in speech, clothes and mannerisms, *kothi* remain biologically male and predominantly engage in oral sex and receptive anal sex.

*Double Decker*: *Double Deckers* are primarily sexually orientated towards men, but their gender identity is more masculine or neutral than *kothi* or *hijra*. They can take both an insertive and/or receptive role during anal sex, and depending on their gender identity, can have relations with all four groups of MSM

*Pantheri*: This term describes men with a masculine identity. It is generally only used by *Kothi* or *Hijra*. Transient and irregular visitors of cruising areas, *Pantheri* commonly take the insertive role in anal sex. *Pantheri* do not necessarily identify themselves as homosexual and are typically married to a female.

*Bisexual*: Although western paradigms do not always align neatly with the terms outlined above, one ‘non-indigenous’ identity stipulated by the local NGO at the outset of the study was bisexual. Similar to *Double Deckers*, bisexuals gender identity is more masculine than *Kothi*.

### **Agencies involved**

The MSM-T SBS in Karnataka was carried out by the CHARME Project (a project of the Centre Hospitalier *affilié* Universitaire de Quebec) in partnership with the Karnataka Health Promotion Trust (KHPT), the University of Manitoba (Winnipeg, Canada), Ashodaya, a Mysore-based FSW and MSM-T community-based organization, and in collaboration with St. John’s Medical College (St John’s Research Institute), Bangalore.



## **METHODS**

### **Study design and sampling framework**

Mapping and enumeration conducted in 2007 estimated that there were approximately 500 MSM-T in Mysore City.<sup>1</sup> Sample size calculations were designed to detect a 10-15% increase in condom use with 90% power and alpha error of 5%, assuming a baseline value for consistent condom use with commercial clients of 50%. Thus it was estimated that 150 participants were required, equally divided between the FTFI and ICVI surveys.

According to the mapping exercise, almost all MSM-T were thought to solicit their sexual partners in public areas, and so 14 public places sites or locations formed the basis of sampling as the primary sampling frame. A variation of the time-location cluster (TLC) sampling method was used to sample MSM-T. Each of the 14 sites were divided 1-6 time slots per day depending on the site, and 234 time-location clusters were formed. Thirty time location clusters (Primary Sampling Units (PSUs)) were randomly selected with equal probability.

Guides from the MSM-T community identified the MSM-T in each selected site during the specified time-segment (TLCs), and the first five respondents who agreed to participate were selected. Since two different techniques (ICVI and FTFI) of data collection were used, in each cluster the respondents were allotted alternatively to one of the two interview techniques – i.e. each participating MSM-T was interviewed using either ICVI or FTFI. MSM who agreed to participate were asked to provide written informed consent, and were then interviewed in a venue close to the solicitation site.

### **Inclusion criteria**

Any man over the age of 18 who had ever had sex with another man and who was identified in the selected cruising sites, was defined as an MSM-T and was eligible to participate in the survey. This included male sex workers (MSW) and their clients, as well as men cruising for non-commercial sex with men.

### **Special behavioural survey questionnaire**

A behavioural questionnaire was designed in English and translated into Kannada (the local language), pilot-tested with peer educators and re-designed to be culturally sensitive and context specific. It contained questions about socio-demographic characteristics; sexual identities, sex with different partners, male and female,; sex work characteristics, condom use and sexual behaviours with regular partners and clients, alcohol and drug use, and knowledge and use of the HIV prevention programme's services (Appendix 1). All data were double-entered using Microsoft Access and analysed using Stata (version 10).

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<sup>1</sup> The most recent estimates from 2009 show there are 661 MSM in Mysore city.

## **Informal confidential voting interviews**

Informal confidential voting interviews (ICVI) were designed to reduce social desirability bias experienced in face to face interviews to sensitive questions, by blinding the interviewer to the responses of the participant. The first part of the ICVI was conducted as an informal variant of the FTFI method and included questions on socio-demographic characteristics (Appendix 2). The second part incorporated respondent-completed cards, where the interviewer, who was screened from the respondent by a piece of cardboard or material, read out the questions to the respondent. The respondent filled in the coded answer (circle for NO and square for YES), on the card and put it in a locked ballot box (Figure 1). Seventeen key questions taken from the FTFI were asked using this anonymous and more confidential method, in order to validate the findings from the quantitative surveys and investigate whether social desirability bias was reduced using this method.

## **Interviewers**

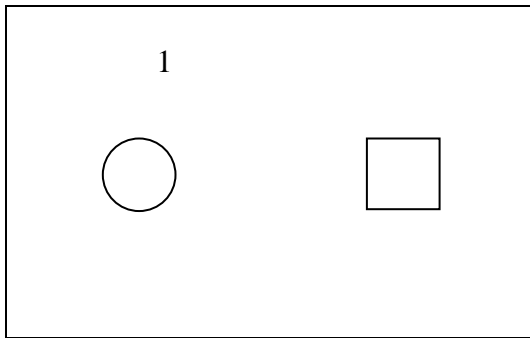
Field workers and peer educators employed by Ashodaya played a vital role in introducing the SBS research team to the MSM-T community and in collecting the data in the field. Literate MSM-T community members with a basic command of English were recruited by Ashodaya as interviewers to help identify and interview potential respondents in the cruising sites, because they could best understand the MSM-T dialect, understand local MSM issues and help reduce inhibition among respondents when talking about stigmatised sexual behaviour. Four field teams, each consisting of a team supervisor and 3 interviewers, were employed. The responsibilities of the interviewers were to administer consent forms and interview consenting respondents using either the FTFI or ICVI.

The field teams underwent a 10 day pre-survey training at Ashodaya. The training was comprehensive and included lectures on HIV/AIDS, survey methods, and interview techniques; they also conducted supervised and mock interviews. The survey took place in Nov-Dec 2007.

## **Ethical approval**

Ethical approval for this study was granted by the Research Ethics Review Board at the Centre Hospitalier *affilié* Universitaire de Québec, Canada, the Health Research Ethics Board of the University of Manitoba, Canada and the Institutional Review Board of St. John's Medical College in Bangalore, India.

**Figure 1: ICVI interview method**



Example of a Voting Card



Respondent inserting a voting card into a sealed box

## RESULTS

### Study population

In total 150 men participated in the Mysore MSM SBS study, half in the face to face interview (FTFI) and half in the informal confidential voting interview (ICVI). Here, demographic characteristics and sexual behaviour information are provided for both groups of respondents, but the more detailed information is provided only for FTFI respondents. At the end of the report, we compare responses of respondents in the two surveys using different techniques to questions that relate to sensitive sexual and risk behaviours to estimate the potential social desirability bias in responses in face to face interviews.

### Socio-demographic characteristics, FTFI and ICVI

Most of the respondents were over the age of 25, with a mean of 29.1 years (Table 1). Most were Hindus (69%), though a sizeable minority (22%) were Muslims, a figure higher than the proportion of Muslims in the general population (8.8% according to the 2001 census 2001). Interestingly there appeared to be two main groups of respondents in terms of education, with 44% being illiterate yet 46% having more than 10 years of education (Table 1). The main source of income was sex work for 16% of respondents, and the rest were engaged in a variety of occupations from either agricultural or non-agricultural labour (35%), self employment (13%), business/trade (13%); 5% were students (Table 1).

Most participants had never been married to a woman (68%), but one quarter (24%) were currently married. A small number (5%) reported that they were married *hijras*. Of those who had been married to a female, the mean age at marriage was 24.2 years. Most of the respondents reported that they lived with their family without a wife (55%), some lived alone (9%) and 23% lived with a female partner (mostly wives) (Table 2). Of those who reported that they lived with a sexual partner (male, female or *hijra*, the majority had done so for more than 10 years (52%). Only about 15 percent of the FTFI respondents reported being circumcised.

### Sex in and out of Mysore

Sixty percent of the respondents lived in Mysore, but the rest lived outside, and of those, more than a quarter (27%) said they come to town every day to have sex, and a further 37% come at least once a week. Most respondents (85%) had lived in their current place of residence for their whole lives, or for over 20 years. The respondents had been having MSM-T sex in Mysore for on average 12.3 years with 39% doing this for more than 15 years, suggesting a well established population of local men who have known each other for a long time (Table 3). Some of them (21%) said that they also have anal sex with MSM-T in other cities or towns, and had mostly been doing this for between 1-9 years (70%). One third of these respondents said they had last visited the other place less than a month ago and two thirds had had sex with between 1-4 MSM-T during the last trip (Table 4). The main reasons they gave for going outside for such sex was because they could earn more money there (40%), have more clients/partners (40%) and to maintain secrecy (33%). Sex in those places was most likely to be in public places, though a few said they rented rooms (Table 5).

## **Sexual behaviour characteristics**

Very few of our sample were *panthis* (1%): most were either *kothis* (43%) or *double deckers* (38%) and a few (18%) were *hijras* (Table 6). For almost three quarters of the FTFI respondents, their sexuality was hidden from the family (73%). Almost one third of the FTFI sample reported that they have sex with men and women (29%) and the rest reported that they only have sex with men (69%).

The mean age of first sexual intercourse with a man was 16.5, with 81% reporting first sex with a male before the age of 20 years, well before the age of marriage in the married group. Most of the respondents had first had gay sex with a friend/classmate (56%), a relative (19%) or a stranger (11%), with only a few having first male sex with a sex worker (2%) (Table 6). Twenty percent of the respondents said that in the last year alone, they had been beaten or otherwise physically forced to have sexual intercourse

### **Sex with women (FTFI)**

Although clearly identifying as gay men or transgendered people, 22 of the 75 in the FTFI sample reported that they had had sex with women, 18 of whom were currently married (Table 7). The average age at first sex with a female was 26.1 years which is significantly higher than the mean age at first sex with a man. More than a quarter, however, (27%) had had sex with females before the age of 20. The first female partners were usually wives (64%), but also almost one fifth (18%) had had sex with female friends or classmates. None of the respondents reported ever having sex with a female sex worker or with a *hijra*.

One quarter of the FTFI sample respondents (18 men) were living with their wives or another woman at the time of the interview; almost none of them reported that they had ever had sex with any other woman (Table 8). The mean age of the women was 29.9 and most were either housewives or engaged in business or as labourers. The most commonly used contraceptive was the condom (39%), followed by female sterilization (22%): 17% of the wives did not use any contraception. Although 11% of the women had no children, half had 2 or more children (Table 8). Very few respondents' wives reportedly knew of their husband's sexual liaisons with men. Of the 18 men, almost all had sex with their wives/cohabiting partners, and with some frequency with more than half of them (56%) reporting sex at least 5 times in a month. Only two of them said they ever had anal sex with their wives (Table 9).

### **Non commercial sex with men**

#### ***Cohabiting men***

Six of the 75 FTFI respondents reported that they currently live with another man, 5 of whom were *panthis*. They reported having anal sex on average 7.8 times a month. Details of the male cohabiting partners are shown in Table 10.

#### ***Other non-commercial partners***

Half the FTFI sample (39 respondents) said that they had sex with men on a non-commercial (NC) basis. These respondents were mostly *kothis* and *double deckers*. The mean number of lifetime NC partners was 16.1 although most (41%) said they had less than 5 lifetime NC partners (Table 11). The mean number of NC partners in the last month was 3.7, again with most reporting less than 4 in that time. These NC partners were usually picked up in public places: public gardens (41%); bus stand (46%); railway station (18%); cinema hall (10%); or

other public places (10%), though many were also found at or near home (36%). A few of these contacts were made by phone (13%). Very few of the respondents reported picking up partners in bars, nightclubs or lodges. Most of the sex with NC partners, however, was reported to take place at home (64%), in a lodge (46%) or rented room (28%), with some also having sex in public places such as gardens (31%) (Table 11).

Thirty eight of the 39 respondents who reported NC sex said they knew their partners, and 16 said they had NC sex with men they did not know. We asked for details of the 38 most recent known NC partners. They had a mean age of 24 and most (61%) were single and Hindu (84%). Anal sex with these partners was common (68%), though other practices were also quite common: oral (50%); thigh (32%) and masturbation (16%). Eleven percent of the most recent partners were also known by the respondents to buy sex from other men (Table 12).

We asked for some details about the sexual behaviour of the most recent known NC partner with whom the respondent had anal sex. Of the 26 respondents who had anal sex with the most recent known NC partner, most of the respondents reported having only receptive anal sex (58%) with this partner, 35% reported insertive anal sex and 8% reported having both (Table 12). The relationships with these partners were quite lengthy (3.2 years). For some it had been only a few days since last sex with this partner and for others more than a month.

Sixteen respondents noted they had NC sex with men they did not know and 69% of these had anal sex with these partners with the rest having oral (50%), thigh (38%) and masturbation (6%) (Table 13). Most of the anal sex in the last month was receptive (67%), though the denominator for anal sex with unknown NC partners in the last month was very small (9 respondents).

### **Commercial sex with men**

More than half the respondents (39) had at some time received money (23%) or money and gifts (29%) for sex, although this clearly did not happen at every encounter: 41% said this had happened more than five out of the last 10 times they had sex with men, with 49% getting "paid" 4 or 5 times out of 10 with an average of 6 times (Table 14). Of these 39 respondents, most (54%) had started receiving money or gifts before the age of 20 (mean age 19.5 years). Most commercial partners were picked up in public places: gardens 62%; bus stand 56%; railways stations 26%; toilets 21% or other public places 10%; and some were found at or near home 18%, though this was less common than where NC partners were found (Table 15). Forty four percent of clients were entertained at home, 51% in public gardens, and 26% in other public places. More than half of respondents said they entertained clients in lodges (51%) or rented rooms (26%). Clearly, given the number of responses, most respondents used a number of different strategies and locations for both soliciting and having sex with paying clients.

Respondents who sold sex reported working on average 7.6 days per month, and having a mean of 3.4 clients on the last working day (Table 16). Of the last 10 clients, the respondents had a mean of 3.5 new or occasional clients; some (15%) had no new clients and for the majority (67%), less than half of the last 10 clients were new clients.

Of the respondents who had at least one new client out of the last 10 clients (33 respondents), anal sex was most common (76%), but oral, thigh and masturbation were also widely

practised (Table 16). Sex with new clients was insertive (36%), receptive (48%) or both (16%).

Of the 39 respondents who said they sold sex, almost three quarters (74%, 29 respondents) said they had repeat clients, with a mean of 4.2 such partners (Table 17). The mean age of the most recent repeat clients was 28 and they were a mix of married and unmarried men, and were mostly Hindus (although only 38% were reported to be circumcised). The duration of time since the respondents had sex with their most recent repeat client varied with just over one quarter (28%) having had sex with him in the past week, but 35% not having had sex with him for over a month (Table 17). All types of sex were reportedly had with the last repeat client, though it appears to be mostly anal, mostly receptive sex.

Thirty five percent of the sample reported that they sometimes buy sex from other men, much of this involving gifts. They reported buying sex on average 4.6 days a month with 12% buying ten or more days a month (Table 18). However, these men do not always pay for MSM sex; of the last 10 sexual encounters with men, most (74%) paid for sex between 1-4 times (Table 19). These respondents mostly first started buying sex before the age of 20 (70%). Most of the pick-ups are in public places such as gardens, bus stand and cinemas; much of the sex also takes place in public places, but also half said they sometimes use lodges (48%).

### **Condom use with different partners**

Figure 2 shows condom use with different types of partners. Twenty four percent of the sample said they lived with, and had sex with their wives, largely more than 5 times a month, and of these men, the majority (60%) said they *never* used a condom with their wife/cohabiting partner and only two (13%) said they *always* used condoms with their wife (Table 9).

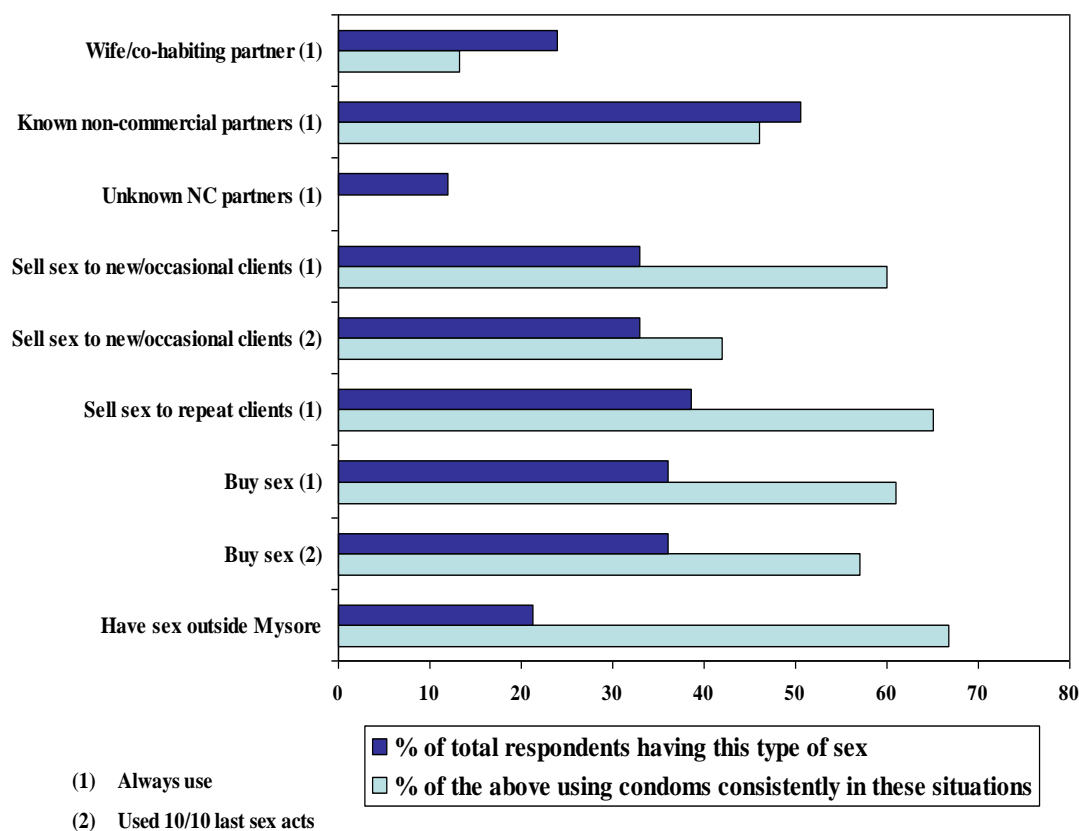
Half the sample had sex with known NC partners, and of these 46% reported always using a condom with the last NC partner. The others sometimes or frequently used and had mostly done so for less than 5 years (Table 12). In addition, 9 men had had anal sex with an unknown NC partner in the previous month, and none had used condoms consistently.

The respondents who *sold* sex reported slightly more condom use: of the 25 respondents who said they had anal sex with *new* clients, 60% reported always using condoms, although when asked about condom use with the last 10 new clients, only 42% reported using condoms all ten times. Most had started to use condoms within the last 5 years (Table 16).

Thirty eight percent of the respondents sold sex to repeat clients (or three quarters of those who said they sold sex to anyone) and of these 65% of said they always used a condom with the most recent repeat client. Thirty six percent of the sample said that they buy *sex* from other men and all the men who buy sex reported that they use condoms, with 61% saying they use them all the time (57% said they used in every one of the last 10 commercial sex acts), though most (87%) said that they had been doing this for less than 5 years (Table 19).

Some of the respondents (21%) said that they also have anal sex with MSM-T in other cities or towns (Table 3), two thirds of these respondents (67%) said they always used condoms when having sex outside Mysore (Table 4).

**Figure 2: Sex and condom use with different partners**



### Condom problems

Condom breakage has been reported widely in polling booth surveys among female sex workers and in ICVI surveys with MSM in 20 districts in Karnataka, ranging in MSM from 17-49% at last sex (PBS and ICVI surveys in key populations, KHPT, unpublished data). In this survey of MSM, the majority (55%) reported that they had not experienced any breakages in the last 10 times they used a condom. However, almost one fifth (19%) reported that the condom had broken 3-4 times or 30-40% of the time and one quarter (24%) said it had broken 10-20% of the time. Condom slippage is another problem, but most (76%) said this had not happened in the last 10 times a condom had been used (Table 20).

One third of the respondents reported that they had ever used a lubricant while having sex. Not advised lubricants included cooking oil, baby oil and butter, while some respondents had used KY jelly (Table 20).

### Alcohol use

Alcohol consumption was high as part of preparation for sex with MSM-T. Before having sex with an MSM-T, 47% of our respondents noted that they drink alcohol alone, while some



said they drink with the male partner (17%), and with male sex workers (21%) (Table 21). About half of them drink (47%) with at least one person before engaging in MSM sex.

### **Knowledge of HIV/AIDS**

All the respondents in the sample had heard of HIV/AIDS and had done so for on average 4.1 years, just prior to the start of the *Avahan* programme. The majority (64%) had known about HIV for less than 4 years, despite the mean length of time of practising MSM-T sex being over 10 years. Most of the respondents had also started to use condoms in the past 1-4 years. More than half the sample told us that they did not feel at risk of HIV (59%), and 45% had never taken an HIV test (Table 20). Those who had been tested had generally been tested more than once, either because they are sex workers or because the Ashodaya social worker or peer educator had recommended it.

### **Programme exposure**

All the respondents had had some contact with Ashodaya the local sex worker collective (Table 23). Most of them (72%) had been in contact for two or more years though a small number (13%) had only come into contact with Ashodaya in the previous year. Contact had been intense: all had seen a condom demonstration and almost all had visited the Ashodaya clinic, often multiple time (one third more than 10 times in the last year); the respondents had been visited in the field on average 9.6 times in the previous month and almost all were supplied with condoms at least once a week (90%).

### **Comparison of FTFI and ICVI responses to sensitive questions**

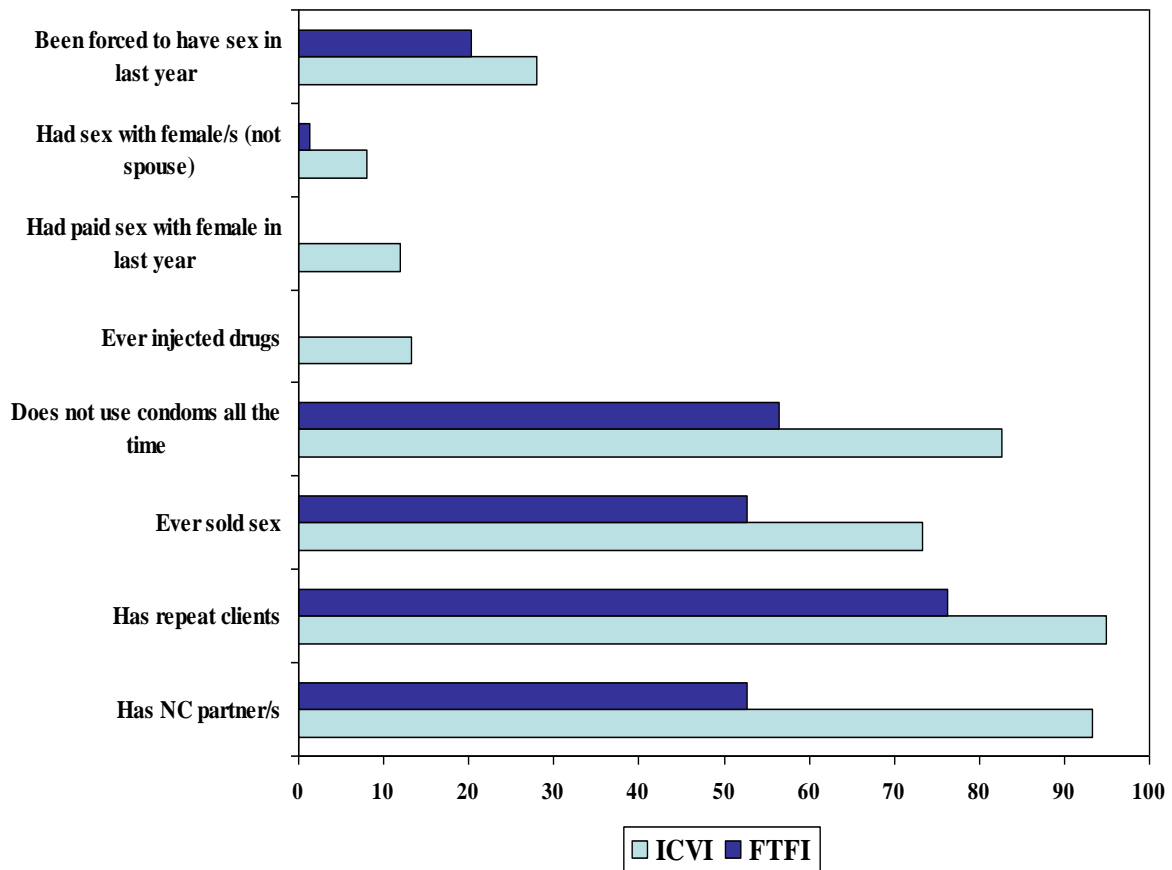
The characteristics of respondents in the ICVI and FTFI samples did not differ significantly and so a comparison of responses to the same questions using each survey method was undertaken. However, the number of respondents is small and so results should be treated with caution. On all sensitive questions relating to risk behaviours, the FTFI respondents were much more likely to report lower rates of such activities than were the ICVI respondents (Figure 3). Respondents in the ICVI group were slightly more likely to report that they had been abusive to someone or forced someone to have sex in the previous year (28% vs. 20%), although this was not statistically significant. However, ICVI respondents were more likely than FTFI respondents to report having sex with women (other than spouses (8% vs. 1%,  $p=0.035$ ), and more likely to report having paid for sex with a woman in the previous year (12% vs. 0%,  $p=0.004$ ) (Table 24).

One risk behaviour that is often not revealed to interviewers is drug use. In the ICVI, 13% of respondents admitted to ever injecting drugs, but in the FTFI, none of the respondents reported that they had done this ( $p=0.006$ ). Almost all the respondents had used a condom at some time, though in response to the question about consistent use, there was a significant difference: in the ICVI 17% of respondents reported that they always used condoms, compared to 44% of respondents in the FTFI ( $p=0.014$ ). Condom breakage was reported more in the FTFI, suggesting there may be some over-reporting of this phenomenon, although this was not statistically significant. There was no difference in reporting of lubricant use (Table 25).

Having ever sold sex was reported much more in the ICVI than in the FTFI (73% vs. 53%,  $p=0.044$ ), although the number of days per month that these respondents did so, did not differ (Table 26); though because of the greater proportion of respondents reporting having been paid for sex is higher in the ICVI group, this likely means to the total number of person days

per month when commercial sex is taking place is much higher in the ICVI group. Similarly there was no difference between the two groups in terms of the proportion of the last ten clients who were new or occasional clients. There was a significant difference though in the reported number of repeat clients. In the ICVI, 95% of respondents said they had repeat clients, compared to 76% of the FTFI respondents ( $p=0.021$ ) (Table 26). Similarly, more ICVI respondents reported ever having had a non commercial partner than did the FTFI respondents (93% vs. 53%,  $p= 0.000$ ). The number of such partners per respondent did not differ though the number of such partners in total is likely much higher in the ICVI sample, given the number reporting ever having had one or more non commercial partners (Table 27).

**Figure 3: Differences between ICVI and FTFI responses to sensitive questions**



## **DISCUSSION**

### **Study limitations**

A key limitation of this study was the cross-sectional survey design which provides a snapshot of MSM behaviours at a single time-point, but does not enable a comparison of behaviours over time. Unfortunately the IBBA study was conducted eight months later, in July 2008, during which time intensive project interventions were underway, making comparisons difficult. Without a control comparison group, it is always possible that the findings presented here could have occurred by chance, independently of the intervention programme. The lack of biological data means that it is not possible to examine associations between reported behaviours - which can be subject to reporting bias – and HIV / STI rates.

The use of Ashodaya community members to conduct the interviews in this study could possibly be an additional study limitation. Thus, although it is possible that MSM may feel more able to disclose information around sensitive issues with someone with whom they feel can empathise with their lives and choices, it is likely that the fear of disclosing sensitive or socially undesirable information to known members of the community who are in a position of relative power may have impacted on the quality of the data collected. However, the inclusion of the ICVI survey technique, designed to help minimise reporting bias, helps to qualify the FTFI data presented here. Finally, although sampling was random and thus we think, representative of the MSM population in Mysore, the small sample size means that it is difficult to draw firm conclusions about the community as a whole.

### **Who, when and where?**

This study revealed that the MSM community in Mysore was quite heterogeneous in 2007. Although most respondents were long residents of Mysore or the surrounding area, there were wide differences in age, education levels, marital status, and occupation, and Muslims were over-represented. Many of the respondents had engaged in MSM sex for a long time, with a mean of over 12 years. Commercial sex between the respondents usually most often takes place in lodges or rented rooms, after pick-up in public places, whereas sex between NC partners more often took place at home, possibly between neighbours and friends. Still much of the MSM sex seemed to take place in public places where sex is likely more risky as condom use is more difficult; much of this sex however, is more likely to be thigh sex and masturbation.

### **Under-reporting of sex with women**

Only 1% of the respondents in the FTFI reported having sex with women (other than wives), though in the ICVI survey, 8% admitted this. Similarly none of the FTFI respondents reported sex with female sex workers in the previous year compared with 12% of the ICVI sample, suggesting some under-reporting of what they might consider inexplicable MSM behaviour. Under-reporting of behaviours that involve women might occur especially when the survey interviewers are themselves MSM. Married men all reported having (quite frequent) sex with their wives as well as with men; very few of the wives knew of the nature of their husband's infidelities. Very few respondents reported using condoms with their wives, despite an HIV rate of 23% in Mysore.

### **High risk concurrent non-commercial partnerships**

It seems that sex with NC partners was significantly under-reported in the FTFI, reported by half the sample, compared to 93% of the ICVI respondents, though why this is so is difficult to interpret. Those who did admit to having NC partners had on average 16 such lifetime partners and 3.7 in the previous month. As well as there being many such NC partnerships, there was an indication that many were also long term relationships: the mean length of the most recent partner was 3.2 years, suggesting that many respondents (and more than is suggested from the FTFI) have several concurrent and long term NC relationships. More worrying is that the majority of respondents with NC partners thought their most recent one also bought sex from other men. Less than half the respondents reported always using a condom with their last NC partner.

### **High risk commercial sex and sexual mixing**

Most respondents had jobs but 16% named sex work as the main source of income. Altogether about half had received money for sex at some time, though this was sometimes gifts rather than money, and 36% had also bought sex at some time. This figure also likely represents a gross under-reporting as almost three-quarters of ICVI respondents said they had been paid at some time. Almost all the respondents were *kothis*, *hijras* and *double deckers* engaging in receptive anal sex. The respondents seem to be divided between those *hijras* and *kothis* who sold sex and also had NC partnerships, and those *double deckers* who mostly had non-commercial sex interspersed with occasional buying of sex. The respondents who sold sex did not sell sex very frequently, with a mean of 7.6 days a month (although a few did this more than 15 days a month), but on those days, they entertained on average 3.4 clients about half of whom were new paying clients. However, paying clients represented about half of their recent sexual partnerships; with the rest NC partnerships. Condom use with new commercial partners, as reported in the FTFI was quite low at 42% using in all the last 10 acts with new clients, which is consistent with the rate of condom use that the clients themselves report (57%). A large number of the male sex workers who had new clients, also had repeat clients; in fact the majority of their clients were repeat clients. The number admitting to having repeat clients might also be under-reported as this was reported by 76% of the those who admitted to selling sex in the FTFI and 95% in the ICVI. Sixty five percent of these respondents reported consistent condom use with these partners.

Also, some men reported selling sex outside Mysore. Although they did not go frequently, they tended to have up to 4 clients during those trips and reported condom use 67% of the time, which is likely an over-estimate. Forty percent of the men also lived outside Mysore and came into town for sex at least once a week.

Overall condom use rates as reported in the FTFI are likely over-estimates and reflect social desirability bias, which might be especially pronounced as the interviewers were key members of the NGO implementing agency. Forty four percent of the FTFI respondents said that they use condoms all the time with all partners; however this number was only 17.3% among the ICVI respondents. The possibly low condom use, considerable sexual mixing between men in both commercial and non-commercial relationships, mixing between partners inside and outside the city, and unprotected sex with spouses, suggested a potentially very volatile situation in 2007.

### **Other risk behaviours exist**

Alcohol use was quite high and many of the respondents noted drinking with sex partners, or more often drinking alone before having MSM sex, which suggests the need for some sort of “Dutch courage” on the part of some men. It could not be determined if this alcohol use was moderate or excessive and problematic for condom negotiation. In addition, there is possibly more injection drug use in this population than admitted. None of the respondents in the FTFI noted this, however 13% of the ICVI respondents said they had injected drugs at some time.

### **Interventions are reaching the target**

It was impressive that all the respondents knew of Ashodaya and had had fairly intense exposure with frequent visits to the clinic and frequent meetings with field workers in the field, who give advice and condoms. Most of the contact had been fairly recent, since the start of Avahan support for HIV interventions in Mysore. With this in mind, it is not unexpected that condom use had not yet reached saturation when the starting level two to three years before was reported to be close to non-existent. In fact in the IBBA survey conducted 8 months later, 78% of respondents were carrying a condom at the time of the interview, although almost half said that there had been times in the previous six months when they wanted to use a condom but could not (IBBA Round 1, KHPT, unpublished data)

Overall, the findings of this study suggest that the HIV intervention programme, even by December 2007 was having a significant impact on the MSM population in terms of increasing condom use from a very low level, and enabling access to sexual health services. Most respondents reported having engaged in MSM sex for twelve years or more yet had come to learn about HIV and condoms only in the very recent past. Programme efforts should focus on ensuring full coverage of the at-risk population, including *panthis*, the hardest to reach group of MSM and about whom we know much less. The programme should also focus on promoting condom use with all partners, on addressing concurrency issues and promoting faithfulness/partner reduction and risk reduction between non-commercial partners and risk reduction when having sex away from Mysore.

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## TABLES

Table 1: Socio-demographic characteristics of respondents, FTFI and ICVI

Characteristic	Survey type		Total
	FTFI	ICVI	
<i>Age</i>			
< 20	6.67	4.0	5.3
20-24	22.7	33.3	28.0
25-29	22.7	18.7	20.7
30-34	16.0	18.7	17.3
35+	32.0	25.3	28.7
Mean age	29.5	28.7	29.1
<i>Literacy and educational level</i>			
Illiterate	41.3	46.7	44.0
1-5	4.0	2.7	3.3
6-9	8.0	5.3	6.7
10+	46.7	45.3	46.0
<i>Religion</i>			
Hindu	68.7		
Muslim	22.2		
Christian	8.5		
Other	0.6		
<i>Marital status</i>			
Currently married	24.0	24.0	24.0
Marriage dissolved	0.0	2.7	1.3
Never married	69.3	66.7	68.0
Hijra married	6.7	4.0	5.3
Hijra unmarried	0.0	2.7	1.3
<i>Main source of income (Economic activity)</i>			
None	4.0	1.3	2.7
Student	5.3	5.3	5.3
Self Employed	12.0	13.3	12.7
Non-agricultural labourer	34.7	17.3	26.0
Agricultural labourer	5.3	12.0	8.7
Business/Trade	9.3	17.3	13.3
Government Employee	0.0	1.3	0.7
Clerical/ Sales man	4.0	0.0	2.0
Transport	8.0	1.3	4.7
Sexwork	13.3	18.7	16.0
Other	4.0	12.0	8.0
Total percent	100	100	100
Number of cases	75	75	150
<b>Ever married (Other than hijra)</b>			
<i>Age at marriage</i>			
< 20	11.1		
20-24	38.9		
25+	50.0		
Mean age at marriage	24.2		
Total percent	100		
Number of cases	18		

Table 2: Living arrangements and duration of stay with living partner, FTFI and ICVI

Characteristic	Survey type		Total
	FTFI	ICVI	
<i>Living arrangements</i>			
Living with male partner	8.0	10.7	9.3
Living with wife (and family)	22.7	21.3	22.0
Living with other female partner	1.3	0.0	0.7
Living with hijra	0.0	2.7	1.3
Living alone	8.0	10.7	9.3
Living with guru	1.3	1.3	1.3
Living with family (no wife)	58.7	52.0	55.3
Living with friend/colleague	0.0	1.3	0.7
Total percent	100	100	100
Number of cases	75	75	150
<i>Duration of stay with living partner<sup>a</sup></i>			
0-4 years	13.0		
5-9 years	30.4		
10+	52.2		
Missing	4.4		
Total percent	100.0		
Number of cases	23		
<sup>a</sup> Only for persons living with male partner, wife (and family), other female partner, hijra			
<i>Circumcision</i>			
No	85.3		
Yes	14.7		
Total percent	100		
Number of cases	75		



Table 3: Duration of MSM sex Mysore and anal sex in other cities

Characteristic	Percent
<i>Duration of stay in the current place of residence</i>	
Since birth	70.7
< 10 years	5.3
10-19 years	8.0
20+ years	14.7
Don't remember	1.3
<i>Whether respondent lives in Mysore</i>	
Yes	60.0
No	40.0
<i>How long the respondent is having sex with men in Mysore</i>	
1-4 years	17.3
5-9 years	25.3
10-14 years	18.7
15-19 years	18.7
20+ years	20.0
Mean year	12.3
<i>Ever had anal sex with men in any city other than Mysore</i>	
Yes	21.3
No	77.3
No answer	1.4
Total percent	100
Number of cases	75
<b>Among respondents who lives outside Mysore</b>	
<i>How often respondent come to Mysore to have sex with men</i>	
Every day	26.7
Once a week	36.7
More than once a week	13.3
Fortnightly	10.0
Once a month	10.0
Missing	3.3
Total percent	100
Number of cases	30

Table 4: Characteristics of sex in other cities<sup>a</sup> (among respondents who visit other cities)

Characteristic	Percent
<i>Number of men with whom the respondent had sex when the respondent visited the other city most recently</i>	
1-4	66.7
5-9	30.0
10+	3.3
Mean number	4.5
<i>How long ago the respondent first visited the other city</i>	
< 1 year	6.7
1-4 years	43.3
5-9 years	26.7
10+ years	16.7
Missing	6.7
Mean year	4.8
<i>How long ago the respondent last visited the other city</i>	
< 1 month	33.3
1-5 months	26.7
6-11 months	20.0
12+ month	20.0
Mean months	8.6
<i>How often the respondent use condom when having sex with men in city other than Mysore</i>	
Never	3.3
Sometimes	16.7
Frequently	10.0
Always	66.7
Missing	3.3
Total percent	100
Number of cases	30
<b>Among respondents who have used condom in other city</b>	
<i>Duration of condom use in other cities</i>	
< 1 year	7.1
1-4 years	71.4
5-9 years	14.3
10+ years	7.1
Mean year	3.3
Total percent	100
Number of cases	28
Note: <sup>a</sup> Details about maximum of three places are collected in the survey	

Table 5: Characteristics of sex in other cities<sup>a</sup> (among respondents who visit other cities)

Characteristic	Percent
<i>Reasons for going to other cities<sup>b</sup></i>	
Maintain secrecy	33.3
Beautiful place	26.7
More money	40.0
More men	40.0
Less police harrassment	10.0
Other	3.3
<i>Place of having sex with men in other cities<sup>b</sup></i>	
Home	6.7
Rented room	26.7
Bar/nightclub	13.3
Public garden	50.0
Public toilet	13.3
Railway station	20.0
Bus stand	30.0
Cinema hall	6.7
Other public places	3.3
Hammam	6.7
Lodge	16.7
Total percent	100
Number of cases	30
Note: <sup>a</sup> Details about maximum of three places are collected in the survey	
<sup>b</sup> May add to more than 100 due to multiple responses.	

Table 6: Sexual identity and age at first sex with a male, FTFI and ICVI

Characteristic	Survey type		Total
	FTFI	ICVI	
<i>Sexual identity</i>			
Kothi	45.3	40.0	42.7
Panthi	2.7	0.0	1.3
Double Decker	37.3	38.7	38.0
Hijra	14.7	21.3	18.0
<i>Age at first sex with a male</i>			
< 15	21.3	28.0	24.7
15-19	60.0	58.7	59.3
20-24	14.7	9.3	12.0
25+	4.0	4.0	4.0
Mean age at first sex with a male	16.8	16.1	16.5
<i>Relationship of male whom the respondent had first sex</i>			
Relative	24.0	14.7	19.3
Paying client	2.7	0.0	1.3
Male sex worker	0.0	4.0	2.0
Male partner	5.3	6.7	6.0
Friend/classmate	50.7	61.3	56.0
Colleague	2.7	2.7	2.7
Stranger	10.7	10.7	10.7
Neighbour	4.0	0.0	2.0
<i>Family know that you have sex with men</i>			
No	73.3		
Yes	24.0		
Missing	2.7		
<i>Men who ever have sex with</i>			
Men only	69.3		
Men and women	29.3		
No answer	1.3		
Total percent	100	100	100
Number of cases	75	75	150
<i>Ever beaten or otherwise physically forced to have sexual intercourse in the past one year</i>			
No	78.7		
Yes	20.0		
Missing	1.3		
Total percent	100		
Number of cases	75		

Table 7: Age at first sex with a female and relationship with the female (among who ever had sex with a female), FTFI

Characteristic	Percent
<i>Age at first sex with a female</i>	
15-19	27.3
20-24	36.4
25+	31.8
Missing	4.6
Mean age at first sex with a female	26.1
<i>Relationship of female whom the respondent had first sex</i>	
Wife	63.6
Relative	4.6
Friend/classmate	18.2
Colleague	9.1
Don't Know	4.6
Total percent	100
Number of cases	22

Table 8: Information of wife/female cohabiting partner

Characteristic	Percent
<i>Living with wife/female cohabiting partner</i>	
Yes	24.0
No	76.0
<i>Ever had sex with any other woman in your life besides wife/female partner and female sex workers</i>	
Yes	1.3
No	98.7
Total percent	100
Number of cases	75
<b>Among respondents who live with wife/female cohabiting partner</b>	
<i>Age of wife/female cohabiting partner</i>	
< 25	16.7
25-29	33.3
30-34	16.7
35+	16.7
Missing	16.7
Mean age	29.9
<i>Religion</i>	
Hindu	66.7
Muslim	11.1
Don't know/Missing	22.2
<i>Main source of income of wife/female cohabiting partner</i>	
None	27.8
Self employed/ professional	11.1
Non-agricultural labour	16.7
Business/trade	16.7
Government employee	5.6
Other	11.1
Missing	11.1
<i>Current use of family planning method<sup>a</sup></i>	
Not using	16.7
Pill	11.1
Condom/Nirodh	38.9
Loop/ Copper T	11.1
Female sterilization	22.2
Rhythm/ Safe period	5.6
<i>Number of children</i>	
0	11.1
1	27.8
2	27.8
3+	22.2
Missing	11.1
<i>Wife/ female cohabiting partner know that respondent have sex with men</i>	
No	77.8
Yes	5.6
Don't know/Missing	16.7
Total percent	100
Number of cases	18
Not: <sup>a</sup> May add more than 100 due to multiple response	

Table 9: Information of wife/female cohabiting partner

Characteristic	Percent
<i>Number of times the respondent have vaginal sex with wife/female cohabiting partner in a 'normal' month</i>	
0	5.6
1-4	27.8
5-9	33.3
10+	22.2
Missing	11.1
Mean number	7.4
<i>Number of times have anal sex with the wife/female cohabiting in a 'normal' month</i>	
None	77.8
1 or more times	11.1
Missing	11.1
Total percent	100
Number of cases	18
<b>Among respondents who have at least one vaginal sex in a 'normal' month</b>	
<i>How often condom is used during vaginal sex with wife/ female cohabiting partner</i>	
Never	60.0
Some times	13.3
Frequently	13.3
Always	13.3
Total percent	100
Number of cases	15

Table 10: Some characteristics of male cohabiting partner (among who are living with a male partner), FTFI

Characteristic	Percent
<i>Age of male cohabiting partner</i>	
<25	50.0
25+	50.0
Mean age	24.2
<i>Religion</i>	
Hindu	50.0
Muslim	33.3
Christian	16.7
<i>Sexual identity of male cohabiting partner</i>	
Kothi	16.7
Panhi	83.3
<i>Main source of income of male cohabiting partner</i>	
Self employed/professional	66.7
Non-agricultural labour	16.7
Government employee	16.7
<i>Male cohabiting partner know that respondent have sex with other men</i>	
Yes	33.3
No	66.7
<i>Male cohabiting partner is a sex worker</i>	
Yes	16.7
No	50.0
Don't know	33.3
<i>Number of times the respondent have anal sex with the male cohabiting partner in a normal month</i>	
0-4 times	33.3
5-9 times	16.7
10+ times	50.0
Mean	7.8
Total percent	100
Number of cases	6



Table 11: Information about non-commercial male sex partner/s

Characteristic	Percent
<i>Have non-commercial male sex partner/s</i>	
Yes	52.0
No	46.7
No answer	1.3
Total percent	100
Number of cases	75
<b>Among men who have non-commercial male sex partner</b>	
<i>Number of life time non-commercial sex partner/s</i>	
< 5	41.0
5-9	20.5
10-49	28.2
50+	10.3
Mean number of life time partners	16.1
<i>Number of non-commercial partners in the last one month</i>	
< 3	41.0
3-4	33.3
5+	25.6
Mean number of partner in the last one month	3.7
<i>Place of picking up the non-commercial partners<sup>a</sup></i>	
Home	35.9
Rented room	2.6
Bar/nightclub	2.6
Public garden	41.0
Public toilet	5.1
Railway station	18.0
Bus stand	46.2
Cinema hall	10.3
Other public palce	10.3
Phone contacts	12.8
Lodge	2.6
Other	2.6
<i>Place of having sex with non-commercial partners<sup>a</sup></i>	
Home	64.1
Rented room	28.2
Public garden	30.8
Railway station	2.6
Bus stand	7.7
Cinema hall	10.3
Vehicle	2.6
Hammam	2.6
Lodge	46.2
Total percent	100
Number of cases	39
Note: <sup>a</sup> May add more than 100 due to multiple responses.	

Table 12: Information about known non-commercial male sex parter (among who had sex with known non-commercial partner)

Characteristic	Percent
<i>Age of the most recent known non-commercial client when you had first sex</i>	
< 20	21.1
20-24	39.5
25-29	21.1
30+	15.8
Don't know	2.6
Mean age	24.1
<i>Marital status of the most recent known non-commercial client</i>	
Currently married	23.7
Separated	2.6
Never married	60.5
Don't know/No answer	13.2
<i>Religion of the most recent known non-commercial partner</i>	
Hindu	84.2
Muslim	5.3
Christian	2.6
Don't know	7.9
<i>Type of sex with the most recent known non-commercial partner</i>	
Anal	68.4
Oral	50.0
Masturbation	15.8
Thigh	31.6
<i>Does the most recent known non-commercial partner buy sex from men</i>	
No	63.2
Yes	10.5
Don't know	26.3
Total percent	100
Number of cases	38

Table 12(Cont): Information condom use and insertive or receptive anal sex with the most recent known non-commercial client

Characteristic	Percent
<i>Have insertive or receptive anal sex with the recent known non-commercial partner</i>	
Insertive	34.6
Receptive	57.7
Both	7.7
<i>Duration since first sex with the most recent known non-commercial partner</i>	
<1 year	23.1
1-4 years	57.7
5+ year	19.2
Mean duration (in years)	3.2
<i>Duration since last sex with the most recent known non-commercial partner</i>	
< 7 days	26.9
< 1 month	34.6
1-11 months	30.8
> 11 months	7.7
<i>How often condoms used when have sex with the recent known non-commercial partner</i>	
Never	23.1
Sometimes	23.1
Frequently	7.7
Always	46.2
Total percent	100
Number of cases	26
<b>Among men who used condom with the most recent known non-commercial client</b>	
<i>Duration since started using condoms with the recent repeat client</i>	
< 1 year	30.0
1-4 years	55.0
5+ years	15.0
Mean duration (in years)	2.0
<i>Number of times condom is used out of the last 10 times</i>	
< 5 times	20
5-9 times	30.0
10+ times	50.0
Mean number of times	7.4
Total percent	100
Number of cases	20

Table 13: Information about unknown non-commercial male sex parter (among those who had sex with non-commercial partner/s)

Characteristic	Percent
<i>Type of sex with the unknown non-commercial partners<sup>a</sup></i>	
Anal	68.8
Oral	50.0
Masturbation	6.3
Thigh	37.5
Total percent	100
Number of cases	16
<b>Among respondents who had anal sex with unknown non-commercial client</b>	
<i>Number of unknown non-commercial partners with whom the respondent had anal sex in the past one month</i>	
None	18.2
1-4 times	45.5
5+ times	27.3
Missing	9.1
Total percent	100
Number of cases	11
<b>Among respondents who had anal sex with unknown non-commercial client in the past one month</b>	
<i>Have insertive or receptive anal sex with these unknown non-commercial partner</i>	
Insertive	11.1
Receptive	66.7
Both	22.2
<i>Condom use with unknown non-commercial partner</i>	
Sometimes	66.7
Frequently	33.3
<i>Duration of using condom with unknown non-commercial partner</i>	
< 5 years	66.7
< 5+ years	33.3
<i>Number of times condom is used out of the last 10 times respondent had anal sex with unknown non-commercial partner</i>	
< 5 times	11.1
5-9 times	66.7
10+ times	22.2
Total percent	100
Number of cases	9
Note: <sup>a</sup> May add more than 100 due to multiple responses.	

Table 14: Ever received cash or gifts from men in exchange for sex and age at first started receiving cash or gifts

Characteristic	Percent
<i>Ever received cash or gifts from men in exchange for sex</i>	
Cash only	22.7
Cash and gifts	29.3
No	46.7
No answer	1.3
Total percent	100
Number of cases	75
<b>Among men who received cash or gifts in exchange of sex</b>	
<i>Number of times received cash or gifts out of the last 10 sexual acts</i>	
1-3 times	7.7
4-5 times	48.7
> 5 times	41.0
Missing	2.6
<i>Age at first started receiving cash or gifts</i>	
< 15	10.3
15-19	43.6
20-24	25.6
25+	18.0
Missing	2.6
Mean age	19.5
Total percent	100
Number of cases	39

Table 15: Place of solicitation and place of sex among men who receive cash or gift in exchange of sex

Characteristic	Percent
<i>Place of picking the clients</i>	
Home	18.0
Reneted room	7.7
Bar/nightclub	2.6
Public garden	61.5
Public toilet	21.1
Railway station	25.6
Bus stand	56.4
Other public places	10.3
Cinema hall	25.6
Vehicle	7.7
Hammam	2.6
Phone contacts	18.0
Lodge	7.7
<i>Place of having sex with clients</i>	
Home	43.6
Reneted room	25.6
Bar/nightclub	5.1
Public garden	51.3
Public toilet	2.6
Railway station	10.3
Bus stand	7.7
Cinema hall	7.7
Vehicle	5.1
Lodge	51.3
Total percent	100
Number of cases	39
Note: May add more than 100 due to multiple responses.	

Table 16: Number of days worked in the last month, clients and condoms

Characteristic	Percent
<i>Number of days worked in the last month</i>	
< 5	35.9
5-9	23.1
10-14	23.1
15+	12.8
No answer	5.1
Mean number of days	7.6
<i>Number of clients in the last day</i>	
< 3	59.0
3-4	35.9
5+	5.1
Mean number of clients	3.4
<i>Number of new/ occasional clients out of the last 10 clients</i>	
No new/occasional client	15.4
1-4	51.3
5-9	30.8
10	2.6
Mean number of new/occasional clients	3.5
Total percent	100
Number of cases	39
<b>Among men who have at least one new/occasional client out of the last 10 clients</b>	
<i>Type of sex</i>	
Anal	75.8
Oral	57.6
Masturbation	21.2
Thigh	54.6
Total percent	100
Number of cases	33
<i>Have insertive or receptive anal sex with new/occasional client</i>	
Insertive	36.0
Receptive	48.0
Both	16.0
<i>How often condoms used when have sex with new/occasional client</i>	
Never	4.0
Sometimes	32.0
Frequently	4.0
Always	60.0
Total percent	100
Number of cases	25
<b>Among men who used condom with new/occasional client</b>	
<i>Duration of started using condoms with new/occasional client</i>	
< 1 year	12.5
1-4 years	58.3
5-9 years	16.7
10+ years	12.5
Mean duration (in years)	3.9

<i>Number of times condom is used out of the last 10 times</i>	
0	8.33
1-4 times	16.67
5-9 times	33.3
10+ times	41.7
Mean number of times	6.8
Total percent	100
Number of cases	24



Table 17: Sexual experience with the most recent repeat client and condom use

Characteristic	Percent
<i>Have repeat client</i>	
Yes	74.4
No	23.1
No answer	2.6
Total percent	100
<i>Number of cases</i>	
	39
<i>Number of repeat clients</i>	
< 5	58.6
5-9	31.0
10+	10.3
<i>Mean number of repeat clients</i>	
	4.2
<i>Age of the most recent repeat client</i>	
< 25	48.3
25-29	10.3
30+	41.4
<i>Mean age</i>	
	28.0
<i>Duration since last sex with a repeat client</i>	
< 7 days	27.6
< 1 month	37.9
1+ month	34.5
<i>Marital status of the most recent repeat client</i>	
Currently married	37.9
Never married	48.3
Don't know	13.8
<i>Religion of the most recent repeat client</i>	
Hindu	82.8
Muslim	3.5
Christian	3.5
Don't know	10.3
<i>Is the most recent repeat client circumcised</i>	
No	62.1
Yes	37.9
<i>Type of sex with the most recent repeat client</i>	
Anal	79.3
Oral	31.0
Masturbation	24.1
Thigh	34.5
Total percent	100
<i>Number of cases</i>	
	29
<i>Have insertive or receptive anal sex with the recent repeat client</i>	
Insertive	30.4
Receptive	65.2
Both	4.4
<i>How often condoms used when have sex with the recent repeat client</i>	
Never	4.4
Sometimes	17.4
Frequently	8.7
Always	65.2
No answer	4.4
Total percent	100
<i>Number of cases</i>	
	23

Among men who used condom with the most recent repeat client	
<i>Duration since started using condoms with the recent repeat client</i>	
1-4 years	90.5
5+ years	9.5
Mean duration (in years)	2.9
<i>Number of times condom is used out of the last 10 times</i>	
1-4 times	9.52
5-9 times	33.3
10+ times	57.1
Mean number of times	8.0
Total percent	100
Number of cases	21

Table 18: Information about buying sex with other men

Characteristic	Percent
<i>Ever given cash or gifts to other men to have sex</i>	
Cash only	10.7
Cash and gifts	16.0
Gifts only	8.0
No	64.0
No answer	1.3
Total percent	100
Number of cases	75
<i>Number of days in a typical month the respondent have anal sex with male sex workers</i>	
< 2	15.4
2-4	30.8
5-9	42.3
10+	11.5
Mean number of days	4.6
Total percent	100
Number of cases	26

Table 19: Information about buying sex with other men (among respondents who presently visit male sex workers)

Characteristic	Percent
<i>Out of the ten times, for how many men the respondent gave gifts or cash in exchange of sex</i>	
None	8.7
1-4 times	73.9
5+ times	13.0
Missing	4.4
<i>Age at first started visiting male sex workers</i>	
< 15	13.0
15-19	56.5
20-24	17.4
25+	13.0
<i>Place of picking the male sex workers<sup>a</sup></i>	
Home	21.7
Public garden	60.9
Public toilet	4.4
Railway station	21.7
Bus stand	73.9
Cinema hall	34.8
Vehicle	8.7
Hammam	4.4
Phone contacts	8.7
Lodge	13.0
<i>Place of having sex with male sex workers<sup>a</sup></i>	
Home	13.0
Reneted room	21.7
Public garden	52.2
Railway station	13.0
Bus stand	4.4
Cinema hall	13.0
Vehicle	13.0
Hammam	4.4
Lodge	47.8
<i>How often condom is used during anal sex with male sex workers</i>	
Sometimes	21.7
Frequently	17.4
Always	60.9
<i>Duration of using condom with known non-commercial partner</i>	
< 5 years	87.0
< 5+ years	13.0
<i>Number of times condom is used out of the last 10 times</i>	
< 5 times	13.0
5-9 times	30.4
10+ times	56.5
<i>How often condom is used during oral sex with male sex workers</i>	
Never	8.7
Sometimes	30.4
Frequently	13.0
Always	43.5
No answer	4.4
Total percent	100
Number of cases	23
Note: <sup>a</sup> May add more than 100 due to multiple responses.	

Table 20: Information on condom breakage and lubricant use (among respondents who ever used condom)

Characteristic	Percent
<i>Number of times the respondent experience condom breakage out of last 10 times</i>	
None	54.7
1-2	24.0
3-4	18.7
Missing	2.6
<i>Number of times the respondent experience condom slippage out of last 10 times</i>	
None	76.0
1-2	14.7
3-4	6.7
Missing	2.6
<i>Ever use lubrication while having anal sex</i>	
No	64.0
Yes	33.3
Missing	2.7
Total percent	100
Number of cases	75
<b>Among respondents who had used lubricant during anal sex</b>	
<i>Type of lubricant used in the last one year<sup>a</sup></i>	
Baby oil	32.0
Butter	20.0
Cooking oil	60.0
Hand lotion	4.0
KY Jelly	20.0
Vaseline	8.0
Saliva	8.0
Other	4.0
Total percent	100
Number of cases	25
Note: <sup>a</sup> May add more than 100 due to multiple response	

Table 21: Information on other behaviours

Characteristic	Percent
<i>Type of partner with whom the respondent normally drink before sex<sup>a</sup></i>	
Male partner	17.3
Hijra partner	1.3
Clients	5.3
Non-commercial sex partner	2.7
Male sex workers	21.3
Wife	6.7
Female sex workers	1.3
Alone	46.7
Other	6.7
Total percent	100
Number of cases	75
Note: <sup>a</sup> May add more than 100 due to multiple response	

Table 22: Knowledge about HIV/AIDS

Characteristic	Percent
<i>How long ago the respondent know about HIV/AIDS</i>	
< 1 year	2.7
1-4 years	61.3
5-9 years	26.7
10+ years	9.3
Mean year	4.1
<i>Respondent feel that he is at risk of being infected with HIV</i>	
No	58.7
Yes	38.7
No answer/ missing	2.7
<i>Ever taken an HIV/AIDS test</i>	
No	45.3
Yes	53.3
Missing	1.3
Total percent	100
Number of cases	75
<b>Among respondents who had undergone HIV testing</b>	
<i>Number of times undergone HIV testing</i>	
Only once	30.0
More than once	70.0
<i>Reason for having the most recent test</i>	
Respondent is a sex worker	42.5
Social worker/ peer educator persuaded the respondent	42.5
Respondent was ill	15.0
Total percent	100
Number of cases	40

Table 23: Programme exposure

Characteristic	Percent
<i>Ever been contacted by workers from Ashodaya to provide you with information on HIV/AIDS and condom use</i>	
Yes	100.0
No	0.0
<i>Duration since first contacted by workers from Ashodaya</i>	
< 1 year	13.3
1 year	14.7
2 years	32.0
3+ years	40.0
Mean duration (in years)	2.0
<i>Number of times in the past one month the respondent was contacted in the field by a worker from Ashodaya</i>	
0	1.3
1-4	22.7
5-9	28.0
10+	48.0
Mean number of times	9.6
<i>How often the respondent was given condoms by workers from Ashodaya</i>	
Never	4.0
Every day	44.0
Once a week	25.3
More than once a week	21.3
Fortnightly	4.0
Once a month	1.3
<i>Ever received condom demonstration by workers from Ashodaya</i>	
Yes	100.0
No	0.0
<i>Ever visited the clinics run by Ashodaya</i>	
Yes	96.0
No	4.0
Total percent	100
Number of cases	75
<b>Among respondents who ever visited clinics run by Ashodaya</b>	
<i>Number of times the respondent visited the clinic to see a doctor in the last one year</i>	
0	1.4
1-4	36.1
5-9	29.2
10+	33.3
Mean number of times	8.9
Total percent	100
Number of cases	72



Table 24: Comparison of sexual behaviour of respondents with female partner, SBS-ICVI and SBS-FTFI

Characteristic	Survey type		P-value based on design-based F
	SBS-ICVI	SBS-FTFI	
<i>Have a wife or female cohabiting partner</i>			0.189
No	70.7	78.7	
Yes	29.3	21.3	
Total percent	100	100	
Number of cases	75	75	
<i>Number of times had vaginal sex with wife/female cohabiting partner in a normal month (among who had sex with wife or female cohabiting partner)</i>			0.554
< 5	45.5	37.5	
5-9	22.7	37.5	
10+	31.8	25.0	
Total percent	100	100	
Number of cases	22	16	
<i>Number of times had anal sex with wife/female cohabiting partner in a normal month (among who had sex with wife or female cohabiting partner)</i>			0.106
None	100	88	
1 or more than one	0.0	12.5	
Total percent	100	100	
Number of cases	22	16	
<i>In the past one year, ever beaten or physically forced to have sexual intercourse with someone even though you don't want to</i>			0.329
No	72.0	79.7	
Yes	28.0	20.3	
Total percent	100	100	
Number of cases	75	74	
<i>Had non-commercial sex with other woman, other than wife/female partner</i>			0.035
No	92.0	98.7	
Yes	8.0	1.3	
Total percent	100	100	
Number of cases	75	75	
<i>Paid to have sexual intercourse with a female in the last year</i>			0.004
No	88.0	100.0	
Yes	12.0	0.0	
Total percent	100	100	
Number of cases	75	74	

Note: For 1 case each information on sex with female sex worker, and experienced violence is missing in SBS-FTFI.

Table 25: Comparison of selected behavioural characteristics of respondents, SBS-ICVI and SBS-FTFI

Characteristic	Survey type		P-value based on design-based F
	SBS-ICVI	SBS-FTFI	
<i>Ever injected drugs for non-medical reasons</i>			0.006
No	86.7	100.0	
Yes	13.3	0.0	
Total percent	100	100	
Number of cases	75	75	
<i>Ever used condom</i>			0.161
No	2.7	0.0	
Yes	97.3	100.0	
Total percent	100	100	
Number of cases	75	75	
<i>Condom used with all the men every time</i>			0.014
No	82.7	56.4	
Yes	17.3	43.6	
Total percent	100	100	
Number of cases	75	55	
<i>Number of times experienced condom breakage out of the last ten times while using (among who ever used condom)</i>			0.411
0	67.1	57.3	
1-4	17.8	24.0	
5+	15.1	18.7	
Total percent	100	100	
Number of cases	73	75	
<i>Ever used lubricant</i>			0.625
No	61.3	65.8	
Yes	38.7	34.2	
Total percent	100	100	
Number of cases	75	73	
Note: For 2, 2 and 1 cases the information on use of lubricant, number of days in the last month sell sex and received cash or gift is missing in the SBS-FTFI survey.			

Table 26: Comparison of responses about sex work and partners, SBS-ICVI and SBS-FTFI

Characteristic	Survey type		P-value based on design-based F
	SBS-ICVI	SBS-FTFI	
<i>Ever received cash or gifts in return for anal sex</i>			0.044
No	26.7	47.3	
Yes	73.3	52.7	
Total percent	100	100	
Number of cases	75	74	
<i>Number of days in the last month did sex work (among those who ever received cash or gifts)</i>			0.965
0	3.6	2.7	
1-4	34.5	35.1	
5+	61.8	62.2	
Total percent	100	100	
Number of cases	55	37	
<i>Number of last clients who were new/occasional clients (among those who ever received gifts or cash)</i>			0.816
0	10.9	15.4	
1-4	54.5	51.3	
5+	34.5	33.3	
Total percent	100	100	
Number of cases	55	39	
<i>Number of repeat clients (among those who ever received gifts or cash)</i>			0.021
0	5.5	23.7	
1-4	60.0	44.7	
5+	34.5	31.6	
Total percent	100	100	
Number of cases	55	38	
Note: For 1 case the information on number of repeat client is missing in SBS-FTFI survey.			

Table 27: Comparison of sexual behaviour of respondents with non-commercial male partner, SBS-ICVI and SBS-FTFI

Characteristic	Survey type		P-value based on design-based F
	SBS-ICVI	SBS-FTFI	
<i>Ever had any non-commercial partner</i>			0.000
No	6.7	47.3	
Yes	93.3	52.7	
Total percent	100	100	
Number of cases	75	74	
<i>Number of non-commercial partner in the last 1 month (among who ever had non-commercial partner/s)</i>			0.407
< 5	68.6	74	
5-9	24.3	15.4	
10+	7.1	10.3	
Total percent	100	100	
Number of cases	70	39	
Note: For 1 case the information on ever had any non-commercial partner is missing in SBS-FTFI survey.			

## **APPENDIX 1: FACE TO FACE INTERVIEW TOOL**

## **APPENDIX 2: ICVI TOOL**