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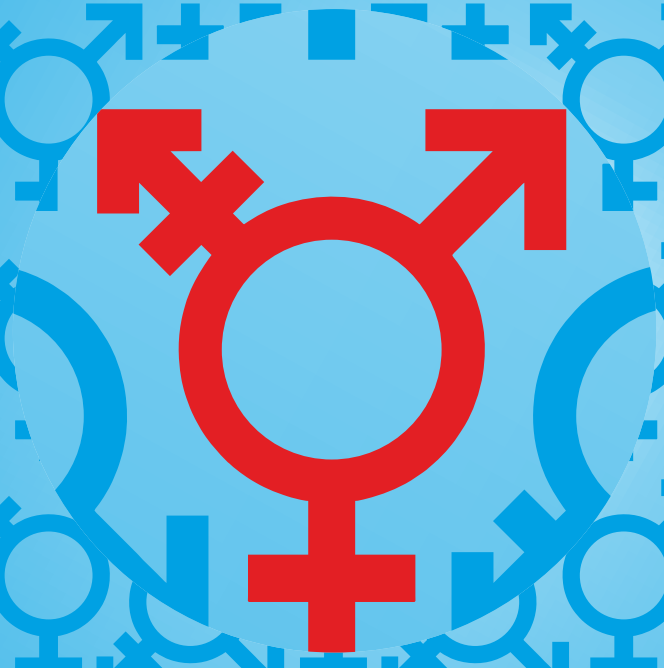

NATIONAL IBBS 2014-15

HIJRAS/TRANSGENDER PEOPLE

National AIDS Control Organization | MoHFW | GoI

NATIONAL IBBS 2014-15

Hijras/Transgender People

September 2016

National AIDS Control Organisation
Ministry of Health & Family Welfare
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FOREWORD

The HIV/AIDS epidemic in India continues to be concentrated in nature. Hijra/Transgender (H/TG) population is one of the high risk groups that have been disproportionately affected, with higher rates of HIV infection.

Considering the evidence indicating higher prevalence of HIV among H/TG, this group was included as one of the study populations under the National Integrated Biological and Behavioural Surveillance (IBBS) implemented during 2014-15. The national IBBS was implemented as a strategic focus to strengthen the HIV surveillance among High Risk Groups and Bridge Population. Besides H/TG, it was implemented in five study groups comprising Female Sex Workers (FSWs), Men having sex with men (MSM), Injecting Drug Users (IDUs), Male Migrants and Currently Married Women in high out migration districts. The national IBBS targeted an overall sample size of 5,588 at 14 domains across 11 States making it the world's largest bio-behavioural surveillance among H/TGs. Overall, the national IBBS targeted a sample size of 1.38 lakhs across all population groups.

The scale of the national IBBS demanded for an efficient implementation mechanism. A dedicated web-enabled integrated informational management system was designed for monitoring each aspect of the project. Data collection was done using tablet based Computer Assistant Personnel Interviewing technique with android based applications. Data collected on the devices were quickly transferred to the central server almost on a real time basis. Blood specimen collection was done through state-of-art paraphernalia using Dried Blood Spot (DBS) methods. Community structures were put in place at domain level not only to understand and address the concerns of stakeholder but also for safeguarding community interests through their active monitoring of field work locally.

The report from IBBS among H/TG provides a descriptive analysis on a wide range of behaviour and biological indicators. Considering that this is first of its kind survey among H/TG population, I am hopeful that programme managers will use this report not only to further understand the status of risk behaviour, vulnerabilities and spread of epidemic in the population but also to fine tune and strengthen programme responses.

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अपनी एचआईवी अवस्था जानें, निकटतम सरकारी अस्पताल में मुफ्त सलाह व जांच पाएं
Know Your HIV status, go to the nearest Government Hospital for free Voluntary Counselling and Testing

Acknowledgements

The National Integrated Biological and Behavioural Surveillance (IBBS) is world's largest bio-behavioural surveillance among high risk groups and bridge population. It was an extensive exercise implemented through remarkable involvement and unwavering support of various stakeholders at the survey unit level, as well as at district, state, regional and national level. We would like to thank everyone involved in the designing, planning and implementation of this survey.

First of all, we recognise the invaluable guidance and expertise of all members of IBBS Technical Advisory Group (TAG) in designing, implementing and managing this gigantic survey. The TAG comprised of senior most public health experts including from surveillance. We would like to thank each one of them for their contributions.

The TAG was supported by the National Working Group (NWG) which included representatives from development partners, namely, the Centers for Disease Control (CDC) -Director of the Division of Global HIV/AIDS and TB (DGHT) India, the World Health Organization (WHO) India, the Joint United Nations Programme on HIV/AIDS (UNAIDS) India, FHI 360, the Population Council and the Public Health Foundation of India (PHFI). NWG worked relentlessly to shape the vision of TAG, produced technical guidelines and tools, supported monitoring functions through field work and carried out on-site corrections proactively. The efforts of NWG are most gratefully acknowledged.

We would also like to thank all members of the Project Management Unit (PMU) which was set up at National AIDS Control Organisation (NACO) for efficient management of survey implementation. The team had members with diverse background and all worked in tandem to ensure smooth coordination, monitoring and troubleshooting. We sincerely express our gratitude to Project Management Unit for its energetic contribution in successful implementation of this survey.

The key to effective implementation of the National IBBS was engagement of Regional Institutes (RIs). Eight Regional Institutes were engaged to provide technical support, with emphasis on training and monitoring, during the implementation of the National IBBS. These institutes were: All India Institute of Medical Sciences (AIIMS), New Delhi; National AIDS Research Institute (NARI), Pune; National Institute of Cholera and Enteric Diseases (NICED), Kolkata; National Institute of Epidemiology (NIE), Chennai; National Institute of Health and Family Welfare (NIHFW), New Delhi; National Institute of Medical Statistics (NIMS), New Delhi; Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh and Regional Institute of Medical Sciences (RIMS), Imphal. The ownership of the project by focal persons at each RI ensured that field work was implemented as per the prescribed protocols. We sincerely appreciate and acknowledge their role and contributions.

Implementation of the National IBBS would not have been possible without competent support and facilitation by the State AIDS Control Societies (SACS), which enabled quality training, community engagement and trouble shooting. We congratulate all Project Directors and their teams at SACS for their contribution in the implementation of the National IBBS.

The National IBBS used the Dried Blood Spot (DBS) blood collection method. The specimens collected were quickly transferred to 16 DBS laboratories for testing. Once tested, DBS laboratories transferred the blood specimens to the Apex Laboratory at NARI, Pune as per the quality assurance protocol. All this was done in a record time, which was made possible due to the sense of ownership and hard work by laboratory teams. We gratefully acknowledge their massive efforts and contributions.

The National IBBS has been a flagship project of NACO funded largely by domestic budget. Complementary funding was provided by various developmental partners. CDC-DGHT India (through DAKSH-FHI360) and USAID India (through PIPPSI-PHFI) provided funding towards technical support, and implementation of the information technology (IT) component. Support was also provided by WHO India, UNAIDS India and Population Council on various technical components including training, monitoring, publications etc.

The task of bio-behavioural data collection in the field was executed by teams of interviewers, laboratory technicians, staff in charge of different tasks and domain coordinators. We recognise the hard work of all field team members.

The report was reviewed by NACO's TRG for H/TG people. The TRG chair, co-chair and members were very considerate in sparing time for reviewing the report and provided their inputs for finalization of report. Their interest and guidance is gratefully acknowledged.

Finally, the successful implementation of this survey could not have been possible without the active engagement and ownership of the communities whose leaders and representatives not only facilitated survey implementation but additionally ensured that community interests were also protected throughout the different phases of the survey. Study participants gave their time, tested for HIV and responded to a questionnaire covering various aspects including personal life experiences. We most humbly and gratefully thank all the community members and respondents for their support and participation in the survey and making it successful.

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Acronyms and Abbreviations

AIIMS	All India Institute for Medical Science
ART	Anti-Retroviral Treatment
AIDS	Auto Immuno Deficiency Syndrome
BCC	Behaviour Change Communication
CDC	Centre for Disease Control and Prevention
CIS	Cluster Information Sheets
CL	Community Liaison
CAPI	Computer Assisted Personnel Interview
CCS	Conventional Cluster Sampling
DGHT	Director of the Division of Global HIV/AIDS and TB
DBS	Dried Blood Spot
ELISA	Enzyme-Linked Immunosorbent Assay
FSW	Female Sex Worker
FI	Field Interviewer
FRA	Field Research Agency
HRG	High Risk Groups
H/TG	Hijra/Transgender
HSS	HIV Sentinel Surveillance
ICMR	Indian Council of Medical Research
ICF	Informed Consent Form
IDU	Injecting Drug User
IBBA	Integrated Behavioural and Biological Assessment
IBBS	Integrated Biological and Behavioural Surveillance
IIM	Integrated Information Management
LT	Laboratory Technician
MSM	Men who have Sex with Men
NACP	National AIDS Control Programme
NARI	National AIDS Research Institute

NICED	National Institute of Cholera and Enteric Diseases
NIE	National Institute of Epidemiology
NIHFW	National Institute of Health and Family Welfare
NIMS	National Institute of Medical Statistics
ORW	Outreach Worker
PE	Peer Educator
PGIMER	Post Graduate Institute of Medical Education and Research
PHFI	Public Health Foundation of India
RI	Regional Institute
RIMS	Regional Institute of Medical Sciences
RTI	Reproductive Tract Infection
SFD	Sampling Frame Development
STI	Sexually Transmitted Infections
SOP	Standard Operating Procedure
SACS	State AIDS Prevention and Control Societies
SPSS	Statistical Package for Social Sciences
TI	Targeted Interventions
TIC	Team In-Charge
TLCS	Time Location Cluster Sampling
TLC	Time Location Clusters
TOT	Training of trainers
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
WHO	World Health Organization

Executive Summary

India has one of the world's largest and most robust HIV surveillance systems. This surveillance has been fundamental to the provision of timely and critical epidemiological evidence on the level and trends in HIV prevalence across various population groups. Considering the low level and concentrated nature of HIV epidemic in country, the National AIDS Control Organization (NACO) implemented the National Integrated Biological and Behavioural Surveillance (IBBS) in 2014-15. The aim of the national IBBS was to generate evidence on risk behaviours among high risk groups (HRGs) that support planning and prioritization of the programme efforts at district, state and national level.

The National IBBS was implemented among six population groups comprising Female Sex Workers (FSW), Men who have Sex with Men (MSM), Injecting Drug Users (IDU), Hijra/Transgender people (H/TG), Migrants and Currently Married Women (CMW) in high outmigration districts. The implementation was carried out with technical support from eight leading government public health institutes of the country. This report presents the findings of the National IBBS among H/TG.

In terms of the methodology, a community based cross-sectional survey design was adopted, using probability based sampling. Blood specimen under the National IBBS was collected using the Dried Blood Spot (DBS) method. Additionally, the HIV testing approach adopted under the IBBS was Unlinked Anonymous Testing with informed consent. DBS specimens were tested for HIV, following Two Test Protocol at 16 DBS testing labs across the country. All positive and 2% of negative specimens were re-tested at the National AIDS Research Institute (NARI) under external quality assurance. As many as 4,966 H/TG samples across 14 domains in 11 States were analysed. Response rate among the surveyed population was 81%.

Respondents' Profile: In most of the survey domains, the median age of respondents was 25 years or more with the highest median age being 32 years. In the Dakshin Dinajpur domain in West Bengal, the median age of respondents was 19 years, with 55% of respondents being in the age group of 15-19 years. Literacy was high across every domain. About 75% or more of respondents reported to be able to read and write with the exception of Hyderabad where a lower proportion of respondents (70%) reported to be literate. While a high proportion of H/TG were never married, around three fourth or more of H/TG were reported to be married in most of the domains. The single largest main occupation as reported by H/TG in many of domains was sex work. A significant proportion of H/TG in many domains also mentioned that 'Badhai Mangna' and begging (in trains/at traffic signals) was their main occupation.

Sexual behaviour: Median age at the time of first sexual intercourse among H/TG ranged between 14-17 years in all domains except for Kannauj in Uttar Pradesh. A sizeable proportion of the respondents, ranging from 18% in

Dakshin Dinajpur (West Bengal) to 58% in Kollam (Kerala), reported that they had been forced to have sex with a male, the first time. There were significant inter-domain variations in the context of self-reported identity; however overall 54% reported to be Akwa (not castrated) while 38% reported to be Nirvan (castrated). Home was said to be the predominant location to have sex with male sexual partners in almost all domains except for both domains of Maharashtra. In Mumbai, 39% reported public places such as parks, streets, cinema halls, bus stands, railway stations etc. as primary place of entertainment, followed by 29% reporting home as a primary location, and another 18% reporting lodge/hotel as a primary location. In Thane, almost 50% of the respondents reported lodge/hotel as the primary location followed by 38% reporting home for the same.

Partner Types and Condom Use: Respondents reported to have diverse types of sexual partners, some more common than others, but with inter-domain variation. In general, around half of the respondents reported to have a regular male sexual partner while slightly more than half reported to have paid a male partner. Around one fourth of respondents also reported to have a paid as well as casual male partner in reference period.

Similar to having a diverse set of partners, H/TG also reported to have engaged in varied type of sex acts with their sexual partners. Anal sex (penetrative/receptive) is reported by most of the H/TG. However, oral and manual sex, reported by 57-72% and 41-49% of H/TG respectively, is also not uncommon.

By and large, condom use during last sex act has been reported by a large proportion (≥80%) of respondents. Consistent condom use though, which is defined as condom use in all instances of anal sex acts with a partner in last one month preceding the survey, has been moderate (52-65%). This has been common across most domains irrespective of partner types.

Notably, two thirds of respondents across all domains (except in Surat, Gujarat) reported to ever selling sex with an overall average of 69%. In most domains, predominant proportion of H/TG reported soliciting their clients either at home/rented room or at public places such as parks, streets, cinema halls etc. In the domains of Krishna (Andhra Pradesh), West Delhi (Delhi) and in both domains of Tamil Nadu, a sizeable proportion (17-41%) report soliciting clients at highways. In domains of Hyderabad (Telangana), Kollam (Kerala), Thane (Maharashtra) and Dakshin Dinajpur (West Bengal), a significant proportion reported the use of hotels/lodges. In fact, in Thane and Kollam, lodges/hotels were the most predominant location for solicitation of clients.

A significant proportion of H/TG (64% or higher) who engaged in selling sex had reported that their clients had contacted them through cell phone. In many domains (Hyderabad, Surat, Bangalore, Kollam, Mumbai, Thane and both domains in West Bengal), a sizeable proportion (15-35%) also stated that their clients use internet to contact them. In Delhi, two third of H/TG reported that their clients use internet to contact them.

Last time condom use with paying male partner was noted to be high. Ninety percent or more H/TG in all domains reported so; except for both domains in West Bengal where it ranged from

67-80%. However, consistent condom use was relatively low in comparison to condom use during last sex and this ranged from 38-88%.

Alcohol and Other Substance Use: Alcohol consumption was quite common with half or more of H/TG reporting its consumption in the reference period across all domains except for H/TG in Surat (Gujarat). Among those who reported consuming alcohol in the reference period, consumption of alcohol before or during sex is quite prevalent with at least 40% of H/TG reporting to have done so in all domains except for Surat (Gujarat), Khordha (Odisha) and Kannauj (Uttar Pradesh) where the proportion ranged from 13-26%. The prevalence of injecting drug practices among H/TG was quite low across domains (less than 10%), except for Krishna (Andhra Pradesh).Though the size of H/TG sub-group with IDU practices was low, sharing practices of needles/syringes was high in the group, as more than one third (36%) reported to have shared needle/syringes with someone when they last injected drugs.

Self-Reported STIs: Across all the domains, except for Kannauj in Uttar Pradesh, majority (70% or more) were reported to be aware of sexually transmitted infections (STIs). Most (70% or more) respondents, who had heard of STIs, were able to describe at least one symptom. In general, one in every four respondents was reported to be suffering from at least one of the seven symptoms explored; however, wide variations across domains were observed. Among H/TG who reported to be suffering from any STI symptoms in reference period, clinics run by non-governmental organizations and Targeted Interventions and government facilities were predominant facilities from where respondents availed the services for their last episode of STIs symptoms. Notably, in three domains of Kollam, Dakshin Dinajpur and Kolkata, a sizeable proportion (24-42%) reported not doing anything for their last episode.

Stigma and Discrimination: While inter-domain variations exist, a sizeable to very high proportion (22-84%) of respondents reported to have been treated disrespectfully within their family and immediate society. Similar variations were also seen in the context of perceived stigma and discrimination at health care facilities with 11-62% of H/TG reporting so during the survey.

HIV Testing: Among the H/TG who had heard of HIV/AIDS, 84% reported to have ever been tested for HIV. Among those who reported to be ever tested for HIV, almost all (98%) reported that they were tested in last 12 months. In essence, around 80% of H/TG recruited under National IBBS were tested for HIV in the 12 months preceding the survey.

This pattern was consistent across almost all domains. More than 80% of H/TG in most domains reported to have been tested for HIV at some point of time. Only notable exception to this pattern was Kannauj (Uttar Pradesh) where less than two fifth (39%) of respondents reported to have been tested for HIV. Both domains in West Bengal also had a relatively lower proportion (64%) of H/TG who were ever tested for HIV.

Program Exposure: At least 75% of H/TG across all domains reported to be exposed to at least one HIV/AIDS service during 12 months preceding the survey. The only notable exception to this trend was Kannauj (Uttar Pradesh) where less

than one third reported to have received any service in the reference period. However, there were significant inter-domain variations in intensity of coverage as exposure on key parameters of outreach, condoms and regular medical check-up ranged from moderate to high in most domains.

HIV Prevalence: The overall aggregated HIV prevalence reported among H/TG was 7.5% [95% CI 6.2-9.0]. However, there were wide variations across domains. HIV prevalence was observed to be more than 10% in both domains of Maharashtra. Krishna (Andhra Pradesh), Bangalore (Karnataka), West Delhi (Delhi), Khordha (Odisha) and Chennai (Tamil Nadu) were other domains with observed prevalence of 5% or more.

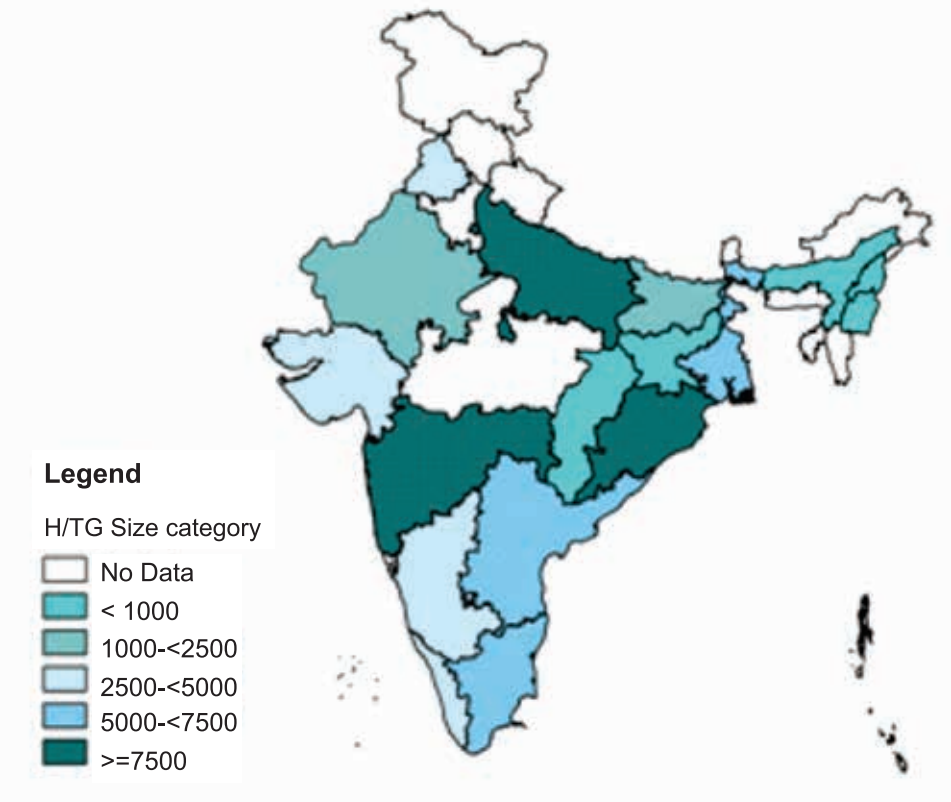
CHAPTER 1 INTRODUCTION

India has the third largest number of people living with HIV in the world. An estimated 21.2 lakh people are living with HIV in India in 2015 which brings the adult HIV prevalence to 0.26%. While this represents a relatively low HIV prevalence rate in the general population, the epidemic is concentrated in specific High Risk Groups (HRGs) which include Female Sex Workers (FSWs), Men who have Sex with Men (MSM), Injecting Drug Users (IDUs), Hijra/Transgender people(H/TG), Truckers and Migrants. HIV prevention through Targeted Interventions (TIs) amongst these groups is, therefore, an integral component of India's response to the epidemic through the National AIDS Control Programme (NACP).

1.1 H/TG Interventions under NACP

With an estimated population size of about 70,000, across 18 states, H/TG constitutes one of the four core HRGs with a relatively high HIV prevalence. Two third of H/TG are reportedly living in seven states of Maharashtra, Delhi, Uttar Pradesh, Odisha, West Bengal, erstwhile undivided Andhra Pradesh and Tamil Nadu based on mapping data. Each of these states has more than 5000 H/TG. Punjab and Rajasthan in the North, Gujarat in the West, Karnataka and Kerala in the South and Bihar in Eastern India are states with an estimated 1000-4200 H/TG people (Figure 1).

Figure 1 State-wise Size Estimates of H/TG



During the early phases of the NACP, H/TG was by and large covered under MSM interventions due to gaps in understanding of differences between groups. However, during the third phase of the NACP (2007-12), programme implementers realized that, while some commonalities did exist, H/TG differ in HIV prevention and care needs. Data from HIV Sentinel Surveillance (HSS), though from limited sites, also found a higher prevalence among H/TG than MSM.

Based on the emerging evidence, the unique HIV prevention, care, and treatment needs of H/TG were acknowledged in the NACP-IV (2012-2017), which recommended adaptation of H/TG interventions to specific needs of this group. Implementation of exclusively designed interventions for H/TG was initiated by the NACO in 2012.The aim was to roll-out these interventions and ensure scale up to achieve a much wider coverage. While they are focused on areas where H/TG is concentrated, they cover also cover large geographical areas and areas where services for this key population are scarce. In 2016, H/TG are being covered through 107 TIs under the NACP, which includes 37 exclusive TIs for H/TG.

1.2 Package of Services for H/TG under NACP

The TIs under NACP, are designed as a holistic package of HIV prevention and care interventions that are provided to HRG in a defined geographic area. These interventions are implemented through a peer-led approach, where people from the HRG community are engaged to reach out to individuals and provide them services. Peer outreach workers act as agents of change and promote adoption of safer behaviours through targeted behaviour change communication (BCC) as well as linking HRGs to services such as HIV testing and commodities, including condoms and lubricants.

Peer led outreach for H/TG is provided through three key strategies, namely: a) Hotspot-based outreach, b) Support of Gurus or Gharana/Jammat/Dera leaders[1] and c) Melas (fair)/functions where the H/TG usually gather.

The TI package for H/TG includes BCC, free condom and lubricant distribution among core groups, social marketing condom and referral for HIV testing. The package of services also includes linkage of HIV positive H/TG with care, support and treatment services and screening as well as treatment of sexually transmitted infections. The programme also seeks to create an enabling environment for the implementation of the programme among the H/TG through community involvement, mobilisation, participation and strengthening the ownership of the community in the interventions.

1.3 National IBBS among H/TG

India has one of the world's largest and robust HIV surveillance systems for providing timely and critical epidemiological evidence on the level of and trends in HIV prevalence among various HRG. While almost every district in India is covered under the HSS, there has been limited representation of H/

[1] H/TG people in India are usually organized as Gharana i.e. 'Houses' or 'Clans'. These Gharana are also sometimes referred as 'Jammat' or 'Dera' depending upon the state. Each of the Gharana is led by a senior H/TG usually referred to as 'Guru'.

TG in the system and hence availability of epidemiological data relevant to this group.

HSS was first initiated among H/TG at one site (Dai Welfare Society) in Mumbai in 2005. Since the site did not achieve the required sample size, it was considered to be invalid site. The site was, however, able to participate and achieve valid sample size in subsequent rounds of surveillance. Further, HIV prevalence among H/TG at these sites was found to be very high (14.2-29.6%). In the 2010-11 rounds, the HSS was done at three sites: one in Mumbai (Maharashtra) and two in Tamil Nadu (one each in Chennai and Thiruvellur district). The prevalence at the Mumbai site continued to be high (18.80%). However, there was significant difference in the HIV prevalence observed at sites in Chennai and Thiruvellur district with prevalence of 6.85% and 0.80% respectively. HIV surveillance, though conducted in limited sites, indicated a high prevalence of HIV among H/TG.

Considering the low level and concentrated nature of HIV epidemic in country, a nation-wide Integrated Biological and Behavioural Surveillance (IBBS) among FSWs, MSM, IDUs and migrant population was planned as a strategic initiative to strengthen HIV surveillance among key population and bring forth updated biological and behavioural evidence. With the availability of mapping data and size estimates of H/TG in 17 states of India, decision was also taken to include H/TG as another study group under the National IBBS.

The IBBS aimed at strengthening surveillance by generating evidence on HIV prevalence, risk behaviours and programme coverage to support the planning and prioritization of programme efforts at the district, state and national level. Specific objectives of National IBBS were:

I. To analyse and understand HIV-related risk behaviours and HIV prevalence among HRGs in different regions, by linking behavioural with biological findings.

II. To measure the change in HIV-related risk behaviours and HIV prevalence among key risk groups, between baseline and end line for NACP-IV.

1.4 National IBBS Publications

The report of the National IBBS among FSWs, MSM and IDUs, presenting state-wise detailed behavioural indicators as well as state/regional HIV prevalence, was published within three months of the end of data collection in the last state.[2]This report has been widely distributed to national and state level policymakers, programme administrators, developmental partners as well as civil society members responsible for implementing the response to the HIV/AIDS epidemic in India. The report is available online at the surveillance page of NACO's website. IBBS results for H/TG were not included in this report.

[2] National AIDS Control Organization (2015).National Integrated Biological and Behavioural Surveillance (IBBS), India 2014-15. New Delhi: NACO, Ministry of Health and Family Welfare, Government of India. Available for download at http://www.naco.gov.in/hiv-sentinel-surveillance

The current report provides results from the same, i.e., 2014-15 IBBS survey of H/TG people in India. The information generated from the survey will provide critical inputs to the NACP and its collaborators in planning, implementing and evaluating national responses to HIV among H/TG. The methodological overview of the IBBS among H/TG has been provided in Chapter 2, while and the main findings by domain/state are presented in subsequent chapters of the report.

CHAPTER 2 METHODOLOGY

The National IBBS 2014-15 is a cross-sectional survey implemented in six population groups. The core HRGs covered under National IBBS are FSWs, MSM, IDU and H/TG. Besides, the National IBBS was also implemented among male migrants at destination sites as well as among currently married women among high out-migration sites.

The National IBBS among H/TG, as for other study groups, had two components: (1) a questionnaire for collection of data on the socio-demographic characteristics of the respondents and their sexual and other HIV related risk behaviours, HIV/AIDS related knowledge and practices as well as exposure to programme and services, and (2) a biological component that involved collection and testing of blood specimen to determine the prevalence of HIV.

2.1 Study Design

2.1.1 Case Definition

For the purpose of inclusion into the IBBS, the operational case definition of H/TG was: a person aged 15 years or more, whose self-identity does not conform unambiguously to conventional notions of male or female gender roles, but combines or moves between them. The criterion for exclusion from the survey was previous participation in the same IBBS (in any of the domains).

2.1.2 Sample Size

The sample size under IBBS for HRGs was calculated with the primary objective to measure changes in selected behavioural indicator, i.e., consistent condom use with clients in reference period. Accordingly, the sample size was calculated using the following formula:

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

Where,

n =the required sample size

D = design effect

P_1= the estimated proportion at the time of the first survey

P_2= the target proportion at some future date, so that (P2– P1) is the magnitude of change to be detected

$P = (P_1 + P_2)/2$

$Z_{1-\alpha}$ = the Z – score corresponding to the desired level of significance

$Z_{1-\beta}$ = the Z – score corresponding to the desired level of power

Using the above formula, the sample size for each survey unit and target group was calculated. The calculation was based on the following assumptions:

D=1.7

$Z_{1-\alpha\alpha}$ = 1.96 (corresponding to 95% confidence level in two tailed test)

$Z_{1-\beta}$ = 1.282 (corresponding to 90% power of estimate)

P_1= 50% (consistent condom use)

P_2= 65% (15% percent point change on consistent condom use)

Using the above parameters, the exact sample size calculated to measure the changes over time for behaviour indicator in a survey unit was 385, which were rounded off to 400 for each HRG group for each survey unit.

Sample size requirement was also calculated based on the objective of measuring the change in HIV prevalence among H/TG using the same formula as detailed above. Following assumptions were made to calculate the sample size for biological estimates among H/TG:

D=1.7

$Z_{1-\alpha}$ = 1.96 (corresponding to 95% confidence level in two tailed test)

$Z_{1-\beta}$ = 0.84 (corresponding to 80% power of estimate)

P_1= 8% (HIV prevalence)

P_2= 4% (assuming 50% decrease from current baseline HIV prevalence)

Using the above parameters, the exact sample size calculated to measure the changes over time for biological prevalence among H/TG was 938.

2.1.3 Survey Units and Their Selection

The primary unit for analysis for each study group under IBBS was a 'domain'. A domain was a basic geographical unit for which representative behavioural estimates were generated under IBBS. In most cases, a domain was a single district. However, in cases where a single district did not have enough size to provide the required number of samples, the neighbouring districts with similar socio-cultural characteristic were merged to form a 'domain'.

The district-wise population size estimates of H/TG produced by the National Institute of Epidemiology (NIE): Indian Council for Medical Research (ICMR), United Nations Development Programme (UNDP) and NACO has provided the basis for the creation and selection of domains. For every state, region wise list of potential domains was created, considering socio-cultural contexts. Each was with an estimated size of more than 700. If required, two or more districts in a particular socio-cultural region were merged to create a domain with estimated H/TG size of more than 700. In cases where there was no single socio-cultural region having a potential domain of ≥700 estimated H/TG on its own, districts from different socio-cultural region (up to a maximum of four districts and taking into account feasibility aspects) were merged to create at least one domain in a state with size estimate of ≥700H/TG.

Next, selection of 'domains' for the survey was based on two key criteria: socio-cultural region, and size of the H/TG people in a domain. While selecting the domains, the requirement was to have at least one domain in a state and then to have representation from each of the different socio-cultural regions within a state, wherever possible, to ensure heterogeneity in terms of characteristics. In states where more than one domain was possible in a particular socio-cultural region, domain with higher estimated size was selected under the National IBBS.

In some cases though, such as Kerala, only one domain was possible even after merging districts from different socio-cultural regions. This domain was

selected to have evidences on the risk behaviour and HIV prevalence in the state. In states such as Bihar, Jharkhand and Chhattisgarh, it was not possible to create even a single domain with estimated size of 700 or more, even after merging of up to four districts, and hence no IBBS H/TG domain was selected for these states.

Overall, 15 domains across 11 states were selected for implementation of the IBBS (Figure 2). Domains selected for the survey, with all constituent districts as well as their estimated H/TG sizes in each of district are presented in Table 1.

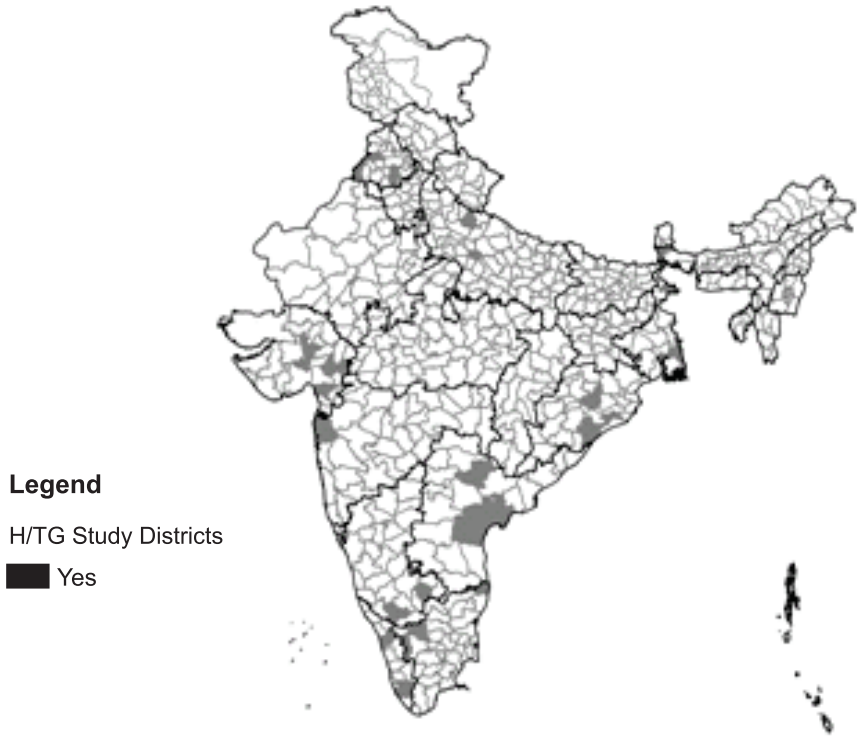
With a target sample size of 400 per domain, precise estimates were possible for tracking the key behaviours over time. This sample size is inadequate to accurately estimate the HIV prevalence at the domain level, however, the data has been presented at the domain level with 95% CI bound.

2.1.4 Sampling Design

National IBBS was designed using the cluster sampling approach to select respondents from selected clusters in H/TG domains. Conventional Cluster Sampling (CCS) was designed to recruit study group members from conventional clusters which were sites or establishments (such as homes, brothels etc.) to which the study group members were affiliated with and could be found at these sites any time.

Time Location Cluster Sampling (TLCS) was designed to recruit the more mobile study group members from Time Location Clusters (TLC). 'Take All' approach was followed in the Dakshin Dinajpur domain in West Bengal where sampling frame development estimated fewer than 400 H/TG people in the study districts.

Figure 2 Study districts among H/TG, National IBBS, 2014-15



2.2 Study Implementation

2.2.1 Survey Implementation Phases

In all the selected H/TG domains, IBBS field work was implemented in three main phases: of (i) Sampling Frame Development (SFD), (ii) Selection of clusters for recruitment of study population, and (iii) Behavioural and biological data collection in selected clusters. These phases were implemented from June 2014 to November 2015 in various H/TG domains.

In the first phase of SFD, a universe of hotspots[3] or locations in all districts of selected domains where H/TG congregate or solicit for partners/clients was developed. A district-wide mapping of the sites where H/TG could be accessed was done. Other information such as hours of operation, rough approximation of the number of eligible respondents available at spot on different times and days etc was collected. Hotspot lists available with NGOs running TI's or those who have been involved with the H/TG mapping and population size estimate served as the starting point for the process.

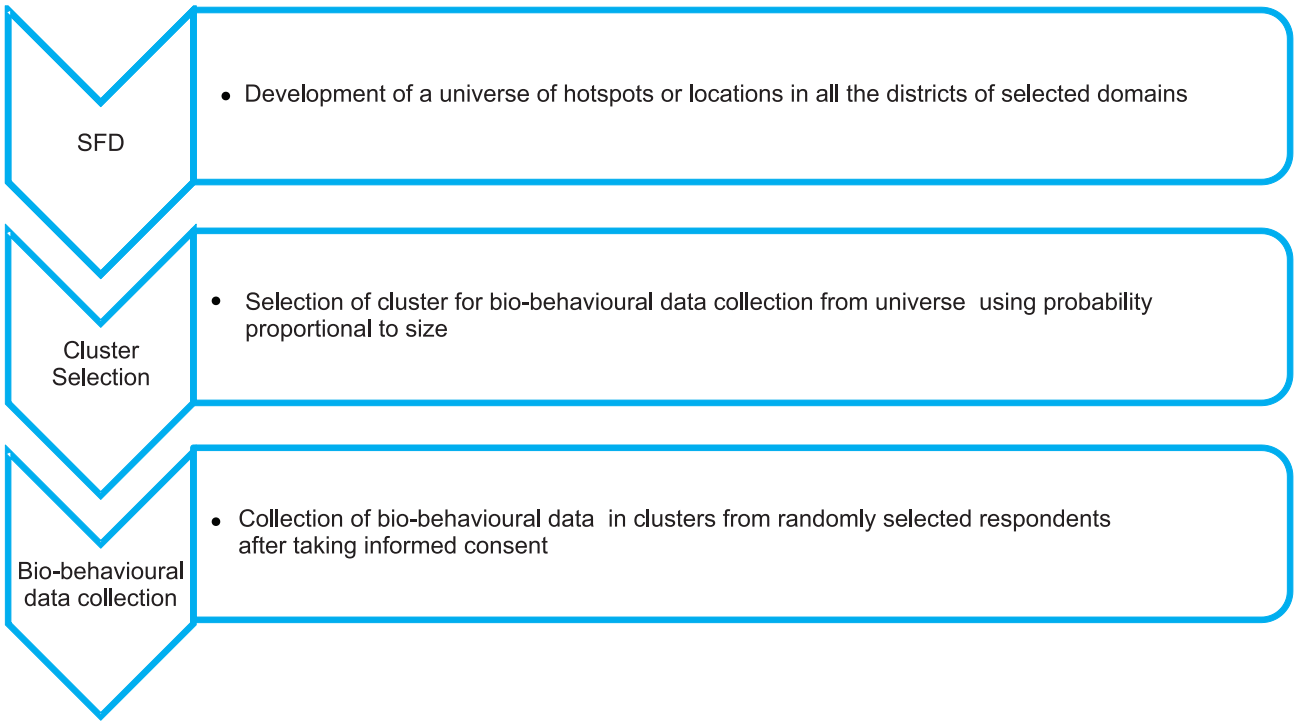
As the field team visited the hotspots on the lists of NGOs, its members collected information from various key informants about the location of nearby hotspots. When a new or not previously listed hotspot came to the knowledge of field team, this hotspot was also included in the list. The field team visited all new hotspots to estimate the number of H/TG present there and collected detailed information needed for TLCS. Overall, 1,386 hotspots were visited during the SFD process in the districts which had been selected to constitute domains. This initial phase of the survey included visits to a total of 394 new sites.

Table 1 H/TG study Districts in National IBBS and Population Size Estimates

S No	State	Domain	District 1		District 2		District 3		District 4	
			Name	Size	Name	Size	Name	Size	Name	Size
1	**Telangana**	Hyderabad	Hyderabad	634	Warangal	554	-	-	-	-
2	**Andhra Pradesh**	Krishna	Krishna	387	Guntur	335	Prakasam	321	-	-
3	**Odisha**	Khordha	Khordha	1092	Ganjam	649	Anugul	575	-	-
4	**Gujarat**	Surat	Surat	1526	Vadodara	357	Ahmadabad	318	-	-
5	**Maharashtra**	Mumbai	Mumbai	1995	-	-	-	-	-	-
6	**Maharashtra**	Thane	Thane	1912	-	-	-	-	-	-
7	**Tamil Nadu**	Chennai	Chennai	875	Thiruvallur	469	-	-	-	-
8	**Tamil Nadu**	Coimbatore	Coimbatore	453	Erode	411	-	-	-	-
9	**Karnataka**	Bangalore	Bangalore	452	Mysore	318	-	-	-	-
10	**Kerala**	Kollam	Kollam	385	Pathanamthitta	385	Malappuram	384	Calicut	337
11	**West Bengal**	Kolkata	Kolkata	795	North 24 Parganas	605	Howrah	357	-	-
12	**West Bengal**	Dakshin Dinajpur	Dakshin Dinajpur	983	Darjeeling	440	-	-	-	-
13	**Uttar Pradesh**	Kannauj	Kannauj	456	Bareilly	345	-	-	-	-
14	**Delhi**	West	West	1239	North-West	922	-	-	-	-
15	**Punjab**	Firozpur	Firozpur	623	Sangrur	572	-	-	-	-

[3] A 'hotspot' is a place where HRGs gather to interact and network with peers or other people.

Figure 3 Phases of Survey, H/TG National IBBS, 2014-15



Data collected from the field during SFD were transmitted on a daily basis using internet enabled Computer Assisted Personnel Interview (CAPI) tools. This data was reviewed concurrently for completeness and consistency; corrected as and when required, and then finalized.

Once SFD in a domain was over, the feasibility of implementing next phase of IBBS was assessed. Clusters for the first stage of sampling were then selected in feasible domains. Feasibility was assessed based on estimated measures of size from SFD. For example, Firozpur domain in Punjab was dropped from the next stage of bio-behavioural data collection since SFD findings revealed very less number of H/TG in the domain.

Once the clusters had been selected, the final phase of bio-behavioural data collection was implemented. Micro-planning for fieldwork was done on the basis of operational details of selected cluster (by days of the week and hours of the day) as well as taking into account logistical considerations such as number of available data collection teams, geographical distribution of selected clusters and placement of bio-behavioural data collection sites.

Each cluster was visited one to two hours prior to its operational time to carry out preparatory activities including taking the gatekeeper into confidence. Survey respondents at selected clusters were selected randomly from among all eligible respondents available during the time period specified for the cluster as per SFD data. The process included a quick listing of eligible respondents at the cluster followed by selecting, approaching, providing the information about survey as well as taking oral consent from the respondents for recruitment.

Those who agreed to participate in the survey, were brought to interview venues

where a detailed written Informed Consent Form (ICF) was administered. Behavioural and biological data was collected from those who provided written consent. At the end of data collection, referral for HIV testing was offered. Compensation was provided to the participants in terms of monetary assistance for their participation, following which they were transported back to the cluster (Figure 4).

2.2.2 HIV Testing Protocol and Quality Assurance

Following the interview, the laboratory technicians (LTs) collected blood on a filter paper using finger prick method or Dried Blood Spot (DBS) method. The DBS samples were shipped to the 16 select laboratories where they were tested for the presence of HIV antibodies.

The standard HIV testing protocol used under the IBBS was the 'Two Test Protocol'. All blood specimens were tested for HIV and only specimens reactive during first test were subjected to additional second test. Only those specimens which were reactive in first as well as second tests were labelled as 'Positive' in the final results. The testing of specimens was done using enzyme-linked immunosorbent assay (ELISA) kits, validated and distributed to testing labs by the apex laboratory (Figure 5).

2.2.3 Ethical Considerations

Given the sensitive nature of the population surveyed under the IBBS, many measures were put in place to ensure the confidentiality, safety and protection of the respondents. Ethical clearances were obtained from NACO's Ethics Committee as well as from the ethical committees of participating ICMR regional institutes. A comprehensive process for administration of informed consent was developed. It made respondents fully informed and have all their questions answered before agreeing to participate in the survey.

Respondents were informed that participation in the survey was voluntary. They were also informed about the behavioural data and biological specimen that would be collected, the compensation that would be provided for participants' time spent during the survey (INR 200 including transportation) and how respondents could obtain the information on their HIV status if they wanted. Respondents were told that they were allowed to consent to the behavioural portion of the survey and opt

Figure 4 Respondent Recruitment Procedures at Clusters, H/TG National IBBS, 2014-15

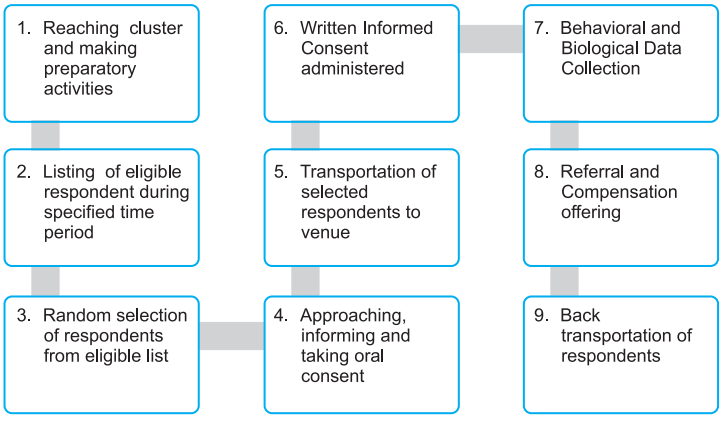
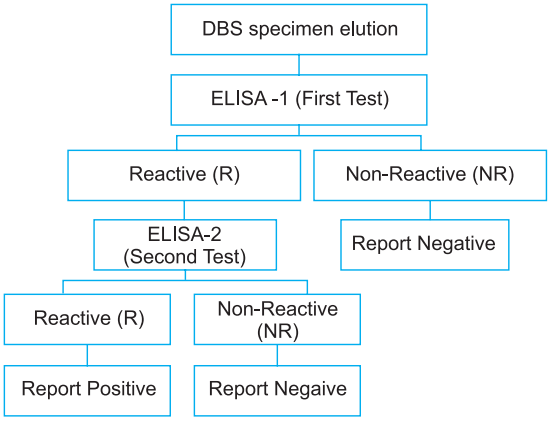


Figure 5 DBS Specimen Testing Strategy, H/TG National IBBS, 2014-15



out of the biological if they wanted. Even if the survey process had begun, they could stop participation at any time.

Written informed consent was required before the start of the interview process. In cases of eligible respondents in the age group of 15-17 years, assent was also obtained from the local guardian of the respondent. The ICF also contained the name and contact details of the responsible persons at NACO and regional institutes as well as of the Secretary of the Ethics Committee that respondents could contact if they had any further query on the IBBS or if they faced any trouble due to their recruitment in the survey.

Other protective measures included confidentiality oaths by all survey staff, and intensive sensitization and training of field personnel emphasizing the need for respect and empathy for the members belonging to the H/TG community, strict requirement to protect confidentiality of information collected in the survey and to ensure voluntary participation of respondents. The IBBS used state-of-the-art equipment for collection of blood specimens and an 'Unlinked Anonymous' approach meaning that no test results and behavioural data could be linked to any specific respondent. All documents and blood specimens were labelled only with a unique survey respondent number.

2.2.4 Community Engagement

Community engagement was core to the smooth implementation of the IBBS. It was promoted with the intent of not only understanding and addressing the concerns of stakeholders, gatekeepers and community members but also for safeguarding community interests through their active monitoring of field work by local structures. This aim was consistent with the 'Community First' approach recommended by NACP.

As a part of the community engagement strategy, independent Community Advisory Boards (CAB) and Community Monitoring Boards (CMB) were formed in each domain with focus on a specific HRG. The protocol was that no behavioural and biological data collection should take place in domains that did not have the presence of these formal community structures.

The CAB was chaired by a person, preferably someone from the community, who would be independent from the NACP. Besides the Chairperson, there were at least two community leaders for each HRG. The CAB aimed to (i) help safeguard community interests prior to and during survey activities, (ii) address community concerns, if any, prior to and during survey activities, and (iii) advise and help the Survey Team to deal with possible adverse events.

The CMB was comprised of members of the populations being surveyed. Their role was to visit the clusters and report any complaints, concerns or problems related to survey to the CAB. Whereas CAB and CMB primarily focused on protecting the interests of the communities involved under National IBBS, their activities also aimed at preparing communities for participation in IBBS and in ensuring a smooth functioning and quality survey.

2.2.5 Implementation Structure

At the national level, NACO constituted a Technical Advisory Group (TAG) comprising senior staff from NACO, regional public health institutes, and

development partners. Their role was to provide guidance on all policies, technical issues and strategies to ensure smooth implementation of the survey and production of good quality data. A National Working Group (NWG) was also constituted with members belonging to different disciplines and agencies including NACO and partner organizations. The NWG worked on the design, development of methodologies, guidelines and procedures required for implementation of the survey.

Eight regional institutes (RI) were designated as nodal institutes for providing technical support during the implementation of the IBBS. These institutes were: National Institute of Epidemiology (NIE) in Chennai, National AIDS Research Institute (NARI) in Pune, National Institute of Medical Statistics (NIMS) in New Delhi, All India Institute for Medical Science (AIIMS) in New Delhi, National Institute of Cholera and Enteric Diseases (NICED) in Kolkata, Post Graduate Institute of Medical Education and Research (PGIMER) in Chandigarh, National Institute of Health and Family Welfare (NIHFW) in New Delhi, and Regional Institute of Medical Sciences (RIMS) in Imphal.

Each RI was allocated two to five states. Their responsibilities included training, supervision, data management, data analysis and co-ordination of field activities in the allotted states. One Field Research Agency (FRA) was contracted and placed under each RI for data collection activities in the domain.

Survey Teams were hired by the FRA in each domain. There was a Domain Coordinator (DC) for every two field teams in each of the HRG domains. The DCs were responsible for the operational aspects of survey implementation, community preparation as well as adverse events management. Each Survey Team comprised of one Team in-Charge (TIC), two Field Interviewers (FIs) and one Lab Technician (LT). The TIC was generally responsible for listing, selecting, approaching as well as taking oral consent from respondents to recruit them into the survey. Interviewers administered the written consent forms and questionnaires, while LTs were responsible for collection and processing of blood specimen, referral to HIV counselling and testing facilities, and provision of monetary compensation to respondents.

Each Survey Team was additionally supported by a cluster-specific Community Liaison (CL) who was usually a member of the community being surveyed, and was not employed by any of the NGOs working with the community. The CL could help establish rapport with the communities in the selected clusters. The CLs were not eligible to participate in the survey, but played an important role in developing a relationship of trust between the Survey Team and respondents.

2.2.6 Quality Control Measures

Intensive Project Management through Integrated Information Management System

Given the large scale of the IBBS and the considerable number of institutions and implementers involved, it was necessary to enact a comprehensive project management system that would also help in tracking every aspect of the survey to ensure that things happened as planned. A web-enabled Integrated Information Management System (IIMS) was therefore

developed to provide timely information on key aspects of human resources management, supply chain management, survey progress, field and laboratory database management, monitoring and supervision, grievance redressal and adverse events management. IIMS could be accessed by different people involved with the implementation of the survey using features of viewing, reporting and reviewing information by specific geographical area and function. IIMS also had in-built features of auto-generation and emailing of scheduled reports to relevant stakeholders. This aided in redressal of various issues in a timely manner.

An important component of the IIMS was the tablet enabled Computer Assisted Personnel Interview (CAPI) method used for recording all collected data. CAPI, by default, stamped each element of data for location and time. All the data collected in the field together with their time and location was synced to IIMS as soon as CAPI was connected to the internet. As the data were immediately available to the RIs, they could be quickly examined for internal consistency, completeness as well as reliability. This allowed for quick feedback to the Survey Teams and contributed to ensuring quality of data collected in the field.

Standardized Tools, Translation and Pre-testing

More than 20 different tools and formats were developed for use in the IBBS (Figure 6). TG questionnaires, SFD formats and ICFs were prepared in English. These tools were later translated into several local languages which were Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Punjabi, Tamil and Telugu following a rigorous process of translation and back translation. Tools used in SFD, questionnaires and ICF were pre-tested using standard protocols. Pre-testing was conducted in all local languages using a hard copy of tools as well as with the tablet enabled CAPI method. Modifications were made as required.

Figure 6 Various Tools Used, H/TG National IBBS, 2014-15

Field Tools		Others
SFD	Bio-Behavioral Survey	
1. Pre-SFD Preparedness Checklist 2. Micro-Planning Tool 3. Domain Information Register 4. Domain Tracking sheet 5. Informed Consent Form 6. Hot Spot Information Format (HIF)-HRG 7. Village Information Format (VIF)-CMW 8. Site Information Format (SIF)-MIG 9. CAB/CMB/CL List Format 10. SFD Closure Checklist 11. SFD Monitoring Checklist & Quick Online Feedback (QOF)	1. Pre-Survey Preparedness Checklist 2. Domain Information Register 3. Interview venue Registration 4. Respondent Listing Sheet 5. Respondent Screening Tool (MIG) 6. House-listing Tool (CMW) 7. Informed Consent & Assent Forms 8. Questionnaires: 6 types & 16 languages 9. Interviewer Log Sheet 10. Lab Technician Log Sheet 11. Referral Slip 12. Cluster Information Sheet 13. Sample Transportation Sheet 14. Domain Tracking sheet 15. Survey Closure Checklist 16. Survey Monitoring Checklist & QOF	1. HR Screening Tool 2. Training Report Format 3. External Observer Checklist for Trainings 4. DBS Specimen Verification Checklist at Labs 5. Pre-testing Feedback Format 6. Process Documentation Formats & Tools

Standardized Guidelines and Training Materials

As the IBBS was a multi-domain survey carried out by multiple field research agencies—with technical assistance and supervision of multiple regional institutes as well as involvement of 17 different laboratories—a set of standard guidelines and training materials were developed for different needs and survey populations. A detailed Survey Protocol and Field Manual were shared with regional institutes to ensure that the Survey Teams were fully versed with all technical and operational aspects of the survey.

As the quality of data collection under the National IBBS depended on the knowledge and skills of FIs and LTs, HRG specific Interviewer Manuals and Field Laboratory Manuals were prepared to facilitate their task. To ensure consistency and quality of trainings, a standard training agenda and training materials were developed and used to strengthen the capacity of all Survey Teams. In addition, an Operational Guideline for DBS laboratory was prepared to guide LTs in the testing of blood specimen. These standard guidelines and training materials helped ensure consistency in implementing the survey in multiple sites across the country.

Standardized Trainings

Human resource training was integral for quality control. Close to 3500 persons were trained through a cascade of trainings that included the following: (i) Training for pre-testing. This was conducted in three batches through which 105 persons were trained, (ii) A national level training of trainers (TOT) where by 120 persons from RIs, research agencies and others were trained, (iii) A national level training for 58 persons on the IT component, (iv) A specialized core expert training for 38 regional level trainers, (v) Seven regional level training sessions, each for seven days, were conducted at each RI, and (vi) A two-week field level training was also conducted in each state where the IBBS was implemented. In a total of 38 training batches, 2,225 field based staff and state level monitors were trained. Refresher trainings were organized for the field team at the end of SFD phase, and before initiation of the main data collection phase to ensure that field teams were fully conversant with the protocols to be followed during bio-behavioural data collection. All field trainings were organized in local languages with in-built components of practical exercises during field exposure to ensure a good quality of fieldwork.

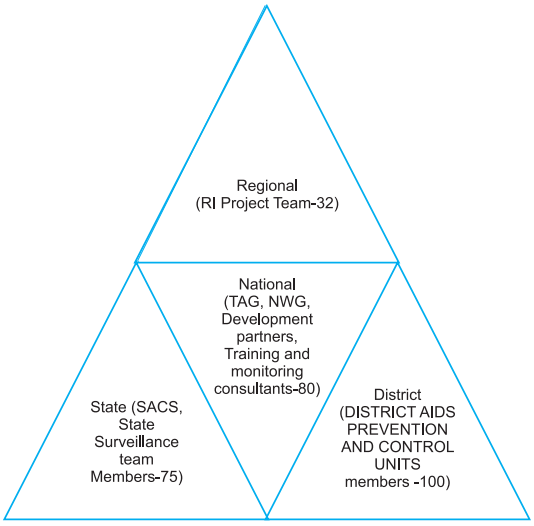
Intensive Monitoring and Supervision

Monitoring and supervision was both internal and external and at various levels including national, regional, state, and domain level to ensure the quality of the SFD as well as field survey activities. Internal monitoring and supervisions were done by the FRA staff to ensure adherence to guidelines, protocols, and a smooth implementation of the survey.

External monitoring was done by the RI and NWG to make sure those guidelines and protocols were followed correctly. Field work was supervised by the representatives from various SACS, RIs, development partners (i.e., WHO, CDC, FHI360, Population Council and PHFI) as well as NACO. All field teams were visited within the first week of SFD, and within the first 15 days of the commencement of the main Field Survey. Web-based systems were used for effective real-time

monitoring. A supervision format was used for recording progress and relevant issues to ensure quality of various processes.

Figure 7 External Supervision Structure, H/TG National IBBS, 2014-15



All processes related to human resource management (i.e., recruitment, training, dropout, re-training), logistics, consumables, equipment (i.e., procurement, stock-out alerts), field preparedness, community preparation, field progress monitoring (SFD and Field Survey), respondents recruitment at cluster and venue, questionnaire, interview, blood sample collection techniques, adverse events, laboratory process monitoring, and post survey activities, were included in the monitoring and supervision framework. Each supervisor followed standard checklists to make sure that all components were examined during supervision trips to the field.

Laboratory Quality Assurance

The National AIDS Research Institute (NARI), Pune, was designated as the Apex Laboratory for IBBS. It was responsible for quality assurance procedures and External Quality Assessment (EQA) including proficiency assessment of testing labs through panel testing and re-testing. Re-testing of all positive samples and 2% of the negative samples was done at the Apex Laboratory. Other measures that were taken for quality assurance included development of uniform Standard Operating Procedures (SOP), training of staff on DBS specimen collection, storage, transportation and testing procedures.

2.3 Data Management, Weighting and Analysis

Data management activities for IBBS were done using the web-enabled Integrated Information Management System (IIMS) as mentioned earlier. Data were collected in the field by investigators through tablet enabled Computer Assisted Personnel Interview (CAPI) tools. These had in-built skips and data validations to minimize the possibility of data entry errors. Data entered were reviewed and finalized by the RI. Since the IBBS used a cluster sampling approach, weights were applied to the dataset during analysis to generate representative estimates as applicable.

Information required for calculating weights was collected from Cluster Information Sheets (CIS) that were filled in during field work. This information was used to calculate domain level weights to be used in the data analysis. Domain level weights were calculated in two steps: first step was calculation of the selection probabilities of clusters; and second step was calculation of the selection probabilities of individual respondents. The weights were normalized.

Finally, analysis of the IBBS data was conducted using Statistical Package for Social Sciences (SPSS). Analysis of all behavioural and biological indicators was conducted at domain level using domain weight. Weighted aggregated/overall average has been also provided to get a sense of the big picture. Weight at the aggregate/overall level was calculated considering the selected domains only. However, the sample size (N) provided in all the tables of this report are un-weighted counts at domain and aggregated level.

2.4 Response Rate

Figure 8 depicts the number of respondents targeted for recruitment, respondents who gave their informed consent for participation, and final valid sample size achieved. The reasons of dropping outs or being discarded at various stages of the interview process are also illustrated.

The target sample size for recruitment among TG was 5,588. Finally, a valid sample size of 4,966 was achieved including respondents who provided valid behavioural and biological data. The overall response rate (i.e., the number of valid sample size achieved per 100 eligible TG approached) was 81%.

Figure 8 Respondents Recruitment, H/TG National IBBS, India 2014-15

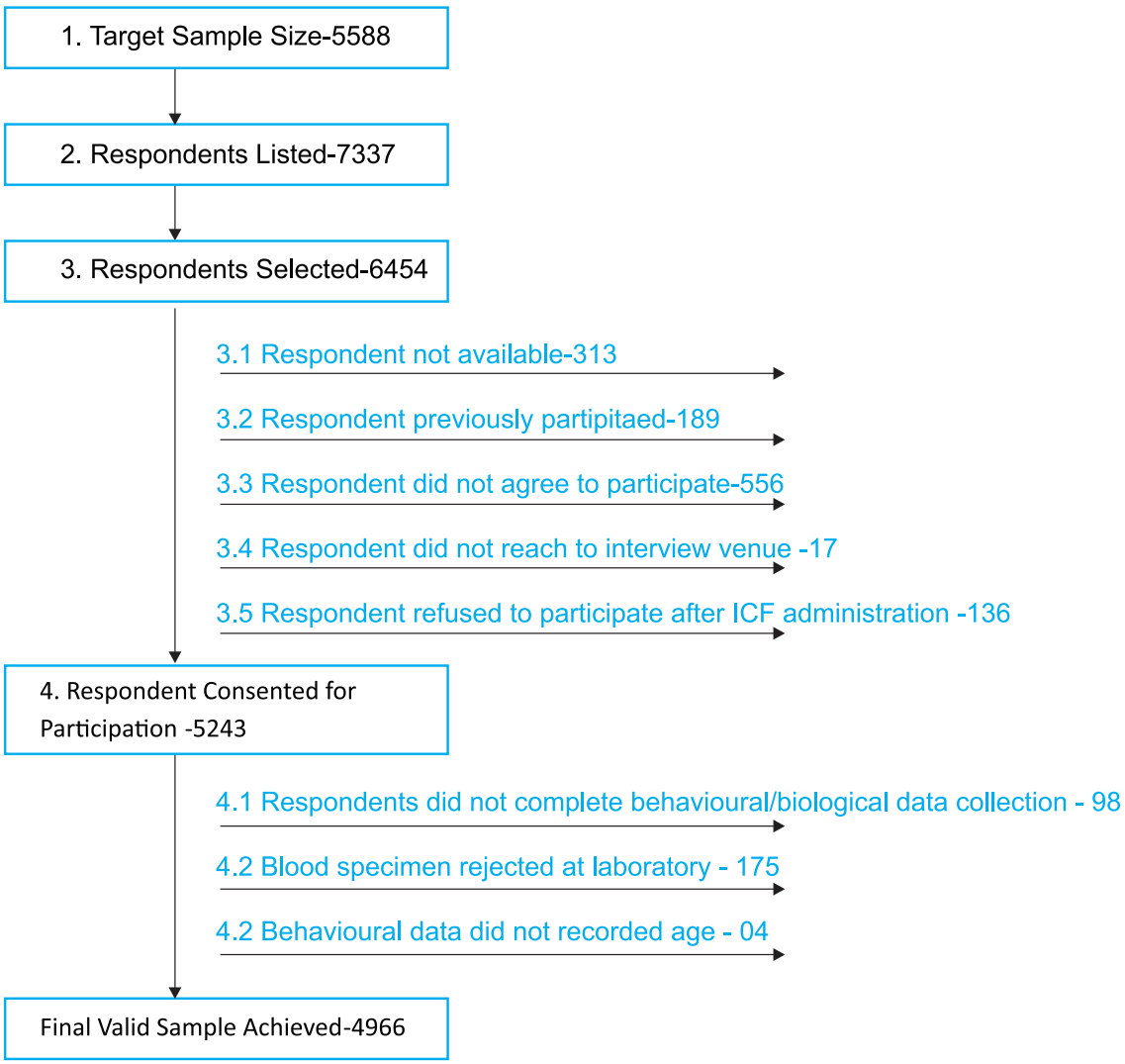


Table 2 presents domain wise results of respondent recruitment. Response rate was high in all domains with more than 70% of all prospective respondents retained in the survey, except for Mumbai (42%) in Maharashtra and Dakshin Dinajpur (63%) in West Bengal.

2.5 Limitations

While analysing and interpreting the findings of the National IBBS, it is important to be aware of the key limitations of the study. As mentioned earlier, H/TG domains for were not selected randomly. Districts with largest estimated size of H/TG were selected to represent different socio-cultural regions. Any aggregation of data across domains, as done in this report to provide an overall understanding, has this design limitation. Another key limitation is in the form of sample size. The sample size of 400, as recommended for each domain, is sufficient to provide robust estimates of key behavioural indicators such as condom use. However, for providing robust estimates of HIV prevalence, this sample size is inadequate. While overall the aggregated data has more than the required sample size to provide robust prevalence estimate, it is limited by non-random selection of domains. Aggregated prevalence estimates should be viewed in this context. Besides, total sample size achieved in Hyderabad, Kollam and Dakshin Dinajpur domain was less than the target sample size reducing the power, and hence findings in these domains should be interpreted keeping this context in mind.

Table 2 Response Rates by Domain, H/TG National IBBS National IBBS, India 2014-15

State	Domain	Target Sample Size	Respondent Listed	Respondent Selected	Respondent Consented	Valid Sample Achieved	Response Rate (%)
Telangana	Hyderabad	403	398	343	324	301	88.8
Andhra Pradesh	Krishna	404	587	531	420	348	72.3
Delhi	West	396	646	526	399	396	84.8
Gujarat	Surat	409	600	537	399	398	76.4
Karnataka	Bangalore	397	411	406	394	391	96.5
Kerala	Kollam	389	253	253	250	246	97.2
Maharashtra	Mumbai	406	713	609	388	385	42.2
	Thane	407	805	421	383	374	90.1
Odisha	Khordha	397	502	496	416	395	93.8
Tamil Nadu	Chennai	401	464	453	377	362	81.7
	Coimbatore	402	458	442	395	385	87.1
Uttar Pradesh	Kannauj	404	548	543	438	356	70.6
West Bengal	Dakshin Dinajpur*	-	419	415	269	256	63.1
	Kolkata	404	533	479	391	373	80.9
Total		**5,588**	**7,337**	**6,454**	**5,243**	**4,966**	**80.9**
Note: * Take all domain							

CHAPTER 3

RESPONDENTS CHARACTERISTICS

HIV/AIDS related knowledge, attitude, practices, service exposure as well as HIV prevalence are known to vary as per basic characteristics such as age, literacy, marital status etc. Accordingly, this chapter presents socio-demographic characteristics of the respondents. Some of the characteristics provide basis for differential analysis of HIV in subsequent chapters.

3.1 Socio-demographic Characteristics

Table 3 presents the overall percentage distribution of respondents by age, literacy, marital status and main occupation. Almost half of the respondents were 25-34 years old at the time of the survey. Notably, of all H/TG interviewed, 7.8% were aged 15-19. The distribution of the population by completed number of years of education reveals a high overall educational attainment by H/TG. Only 10% of H/TG had no education, while 7% had been to school but did not complete primary school. Around 49% have 10 or more years of education.

As far as current marital status is concerned, more than three fourths (79%) were never married, while 6% were widowed, divorced, separated or deserted. Nearly one third of all H/TG reported sex work as their main occupation. Notably, for 25% of respondents, the main occupation was categorized as 'Other'. An analysis of this 'Other' category revealed traditional practices of singing and dancing at weddings and births (i.e., Badhai Mangna). Many respondents also reported begging in trains or at traffic signal lights as their main occupation. Very few (3.5%) reported to be in service which highlights the prevalent non-acceptability of the third gender in the society, especially considering that around half of the respondents have 10 or more years of schooling.

Table 3 Socio-demographic Characteristics of Respondents, H/TG National IBBS, 2014-15

Background Characteristics		Percent	Unweighted Count
Age	15-19	7.8	380
	20-24	23.2	1150
	25-34	49.2	2418
	35+	19.8	1018
Completed Education	No Education	9.5	478
	<5 years	6.6	323
	5-7 years	17.9	852
	8-9 years	17.3	920
	10-11 years	24.3	1161
	12 or more years	24.3	1229
	Missing values	0.1	3
Marital Status	Never Married	79.2	3857
	Currently Married	14.5	702
	Separated/Widowed/Divorced	6.3	374
	Missing values/Other	0.4	33
Occupation	Unemployed	5.8	327
	Student	5.8	284
	Service	3.5	165
	Skilled/Semi-skilled worker	3.2	160
	Self employed	5.2	247
	Labourer	11.5	575
	Domestic Servant	1.3	77
	Transport Worker	1.0	41
	Hotel Staff	1.9	96
	Sex Work	32.9	1,542
	Masseur	2.9	83
	Others	25.3	1,361
	Missing values	0.2	8
Aggregated N			**4,966**

3.2 Age and Literacy

Table 4 presents domain wise analysis of the age and literacy status of the respondents. Median age, of all H/TG recruited into the National IBBS, was 28 years. In most of the survey domains, median age of respondents was 25 years or more with highest median age of 32 years in Kollam in Kerala and Kannauj in Uttar Pradesh. In Kollam, around 40% of the respondents were in the age group of 35+ years. The corresponding proportion in Kannauj was 45%. Notably, in Dakshin Dinajpur domain in West Bengal, the median age of respondents was 19 years, with 55% of respondents in the age group of 15-19 years. Kolkata in West Bengal and West Delhi in Delhi were another two domains with relatively young respondents, as in the rest of the domains, with median age being 23 years and 24 years respectively.

Table 4 Respondent's Age and Literacy, H/TG National IBBS, India 2014-15

State	Domain	N	Age	Age Group (%)				Literate (%)*
			Median	15-19	20-24	25-34	35+	
Telangana	Hyderabad	301	29	1.6	18.0	72.3	8.1	69.9
Andhra Pradesh	Krishna	348	30	1.2	9.0	65.7	24.1	81.8
Gujarat	Surat	398	31	0.3	11.0	56.0	32.6	88.6
Karnataka	Bangalore	391	29	1.4	19.9	50.6	28.2	78.1
Kerala	Kollam	246	32	0.4	10.0	49.1	40.5	93.9
Maharashtra	Mumbai	385	29	2.0	12.8	63.2	22.0	88.1
	Thane	374	28	4.3	24.2	53.7	17.7	92.6
Delhi	West	396	24	12.0	44.0	40.4	3.6	92.0
Odisha	Khordha	395	26	8.4	31.5	39.4	20.6	85.8
Tamil Nadu	Chennai	362	27	3.1	21.6	56.9	18.4	91.3
	Coimbatore	385	30	2.9	11.5	62.3	23.3	92.0
Uttar Pradesh	Kannauj	356	32	0.2	15.9	38.9	45.0	92.6
West Bengal	Dakshin Dinajpur	256	19	54.7	30.9	13.3	1.2	94.1
	Kolkata	373	23	18.9	37.7	33.3	10.1	97.1
Overall		**4966**	**28**	**7.8**	**23.2**	**49.2**	**19.8**	**89.1**

* Literate were defined as those who reported to have the ability to read and write

Basic literacy (i.e., the ability to read and write) is a fundamental aspect of the ability of individuals to fully participate and take advantage of socio-economic development. This ability significantly influences an individual's health seeking and other risk behaviours. National IBBS respondents were asked about their literacy status that is, if they can read and write.

Overall, a high proportion (89%) of the respondents reported to be literate (i.e., had capacity to read and write). High levels of literacy (75% or more) have been reported in almost every domain, except that of Hyderabad (Telangana) where a relatively lower (70%) proportion of the respondents reported to be literate.

3.3 Marital Status and Living Arrangement

Respondents were asked about their marital status at the time of National IBBS survey and also where they were living at that time. Domain wise analysis of these two indicators is presented in Table 5. The analysis reveals that a high proportion of H/TG have never been married. In most of the domains, around three fourth or more of H/TG reported that they were never married. However, in domains of Krishna (Andhra Pradesh), Kollam (Kerala), Khordha (Odisha) and Kannauj (Uttar Pradesh) a relatively lower proportion (57-67%) of respondents reported to be never married. Notably, in Krishna, Kollam and Khordha, around one third of respondents were married at the time of survey; a much higher proportion than that found in other survey domains. In contrast, 22% of H/TG in West Delhi reported to be separated, widowed or divorced.

The living arrangement of H/TG may be seen as an indicator of how well they are accepted in their immediate social environment including their own nuclear or extended families. Overall, about one in every four H/TGs (28%) reported to be living with their family/relatives without a sexual partner. Meanwhile a much smaller proportion (7%) stated they were living with a female partner (regular or casual). Notably, three fourth or more respondents in West Bengal and around half of the respondents in Kollam (Kerala) said they were living with their family/relatives without a sexual partner, indicating a better acceptance of H/TG within the family in these survey domains. Better support within the family in Kollam (Kerala), where one third of H/TG reported to be married, was further supported with 31% who reported to be living with a female partner. In contrast, in Krishna (Andhra Pradesh) and Khordha (Odisha), which were other domains with around one third of H/TG married at the time of survey, 18% and 12% of H/TG respondents respectively reported they were living with a female partner.

In most of the survey domains, respondents reported to be residing either alone or with their male/hijra partner. Significant proportion in most of the domains also reported to be living with friends. Except for Kollam (Kerala), West Delhi (Delhi) and both domains in West Bengal; in all of the other domains, one fourth or more of respondents reported to be living with their male/hijra partner. The proportion was more than one half in Surat (Gujarat) and Kannauj (Uttar Pradesh).

Table 5 Marital Status and Living Arrangement, H/TG National IBBS, India 2014-15

State	Domain	N	Marital Status (%)*			Living With (%)*				
			Never Married	Currently Married	Separated/ Widowed/ Divorced	Alone	Female Partners	Male Partners	Friends	With Family without Sexual Partner
Telangana	Hyderabad	301	80.2	10.3	9.5	31.9	4.0	44.3	15.3	3.8
Andhra Pradesh	Krishna	348	57.4	33.1	8.8	28.3	17.8	26.9	20.7	6.3
Gujarat	Surat	398	81.9	7.2	9.9	20.4	5.0	52.1	20.3	2.0
Karnataka	Bangalore	391	73.0	10.6	15.1	32.5	11.7	24.7	24.2	6.8
Kerala	Kollam	246	65.9	32.1	1.9	11.6	30.9	2.8	3.7	51.1
Maharashtra	Mumbai	385	95.1	4.2	0.7	12.1	2.8	29.2	20.1	26.1
	Thane	374	85.4	13.1	1.5	11.0	2.3	28.4	36.3	18.6
Delhi	West	396	74.2	3.3	22.2	34.9	1.4	11.3	13.5	37.8
Odisha	Khordha	395	67.2	32.5	0.4	8.4	11.6	28.3	16.5	34.5
Tamil Nadu	Chennai	362	77.5	16.4	4.4	30.7	6.4	35.7	20.9	6.1
	Coimbatore	385	80.1	17.5	1.7	30.2	5.3	22.6	3.7	38.2
Uttar Pradesh	Kannauj	356	64.1	22.4	13.3	13.0	0.5	60.9	21.6	3.5
West Bengal	Dakshin Dinajpur	256	93.4	6.3	0.0	5.1	2.3	0.4	1.2	78.9
	Kolkata	373	90.8	8.6	0.5	12.9	5.9	3.7	2.7	74.1
Overall		4966	79.2	14.5	6.3	19.3	6.9	26.5	16.6	28.4
* Totals may not add to 100% due to other or missing responses										

3.4 Main Occupation

Domain wise analysis of the H/TG respondents' main occupation is presented in Table 6. A very low proportion, less than 6% of all respondents, reported to be a 'Student' except for Dakshin Dinajpur (46%) and Kolkata (21%). The higher proportion of students here is consistent with the relatively younger age of respondents in these two West Bengal domains. Similarly, a relatively small proportion of H/TG (<10%) overall reported being unemployed, except in Hyderabad (Telangana) and Kolkata (West Bengal).

Notably, sex work emerged as the single largest main occupation reported by H/TG in many of domains, especially among those living in either state capitals or other major cities. While overall 33% of H/TG reported sex work as their main occupation, 86% of respondents reported the same in Mumbai. Bangalore (Karnataka), Chennai (Tamil Nadu), West Delhi and Thane (Maharashtra) were other domains where around half of H/TG reported to be engaged in sex work. Hyderabad (Telangana) and Krishna (Andhra Pradesh) were other domains where 34% and 46% of respondents reported sex work as their major occupation. In Kolkata (West Bengal) however, less than 10% of H/TG reported sex work as their primary occupation.

In general, a relatively smaller proportion of H/TG reported other pre-defined categories as their main occupation. A negligible proportion of H/TG reported to be working as Masseur, Domestic Servant, Transport Worker or Hotel Staff. Notable exceptions were West Delhi (Delhi) and Khordha (Odisha) where 7% and 10% respectively reported being a Masseur. In Bangalore (Karnataka), 7% reported working as Domestic Servant, and in Kollam, 10% said they were working as Hotel Staff. Similarly, in half of the domains, less than 5% of H/TG reported their main occupation was Labourer while in the remaining domains, 10-40% of H/TG reported being Labourer. A smaller proportion, less than 10% of H/TG, reported being Self-employed, employed in government or private sector, or as Skilled/Semi-skilled Worker. However, in Krishna (Andhra Pradesh), Kollam (Kerala), Chennai (Tamil Nadu), Dakshin Dinajpur and Kolkata (West Bengal), 12 to 36% reported being Self-employed, Service Employee or Skilled/Semi-skilled Worker.

It should be noted that overall, when asked about their primary occupation, over 25% of respondents cited a primary occupation which did not fall into any of the predefined answer categories. In Surat (Gujarat) and Kannauj (Uttar Pradesh) responses from more than 80% of H/TG fell into the 'Other' category. An analysis of specific responses revealed that H/TG often mentioned 'Badhai Mangna' and begging (in trains/at traffic signals) as their main occupation.

Table 6 Main Occupation Occupation of Respondents, H/TG National IBBS, India 2014-15

State	Domain	N	Main Occupation (%)*											
			Unemployed	Sex work	Masseur	Student	Labourer#	Domestic servant	Skilled/ Semi-skilled worker	Self employed	Service	Transport worker	Hotel staff	Others
Telangana	Hyderabad	301	26.0	33.7	0.3	2.7	5.0	0.1	1.3	3.8	3.8	0.7	1.3	21.1
Andhra Pradesh	Krishna	348	5.0	45.5	1.6	0.8	17.6	0.4	6.5	10.2	4.4	3.0	4.3	0.6
Gujarat	Surat	398	2.5	9.1	0.2	0.0	1.0	0.8	1.2	1.2	0.2	0.0	0.0	82.6
Karnataka	Bangalore	391	7.5	53.4	1.7	1.1	9.8	7.0	1.4	3.0	0.0	3.7	1.4	10.0
Kerala	Kollam	246	5.3	0.8	0.5	2.3	35.3	4.7	6.0	9.9	11.2	4.2	9.6	10.2
Maharashtra	Mumbai	385	1.9	85.7	2.5	1.1	1.1	0.0	0.1	0.1	1.0	0.6	0.6	5.3
	Thane	374	4.5	50.0	1.5	3.3	0.5	2.1	3.1	1.3	1.5	0.0	0.0	32.2
Delhi	West	396	2.4	55.6	10.2	3.9	1.0	0.0	0.3	1.5	0.0	1.6	1.1	22.2
Odisha	Khordha	395	5.2	17.4	7.3	4.7	33.6	1.4	1.8	3.3	8.9	1.6	1.9	12.6
Tamil Nadu	Chennai	362	0.0	49.7	2.1	0.1	0.4	0.9	0.1	19.5	1.6	0.0	5.8	19.8
	Coimbatore	385	8.3	10.9	0.0	1.3	38.9	3.0	5.7	3.2	4.4	0.0	5.6	18.6
Uttar Pradesh	Kannauj	356	3.3	1.9	0.2	0.9	0.1	1.4	0.1	3.2	0.3	0.0	0.0	88.6
West Bengal	Dakshin Dinajpur	256	6.3	2.7	0.0	45.7	20.3	0.0	4.3	5.9	2.0	0.4	0.0	12.5
	Kolkata	373	14.7	5.9	1.5	21.1	14.0	1.3	11.6	15.1	9.2	0.0	1.0	4.5
Overall		**4966**	**5.8**	**32.9**	**2.9**	**5.8**	**11.5**	**1.3**	**3.2**	**5.2**	**3.5**	**1.0**	**1.9**	**25.3**

* Totals may not add to 100% due to missing responses; # Includes Agricultural labour/cultivator, Non-agricultural labour and Daily wage labourer

CHAPTER 4

GENERAL SEXUAL BEHAVIOUR

There has previously been limited evidence on HIV related risk behaviours among H/TG in India. However, data from disparate and informal sources suggest higher rates of HIV and STD prevalence among H/TG in this key population group (UNDP, 2010). H/TG tend to engage more in behaviours that expose them to the risk of HIV transmission, such as having multiple sex partners or unprotected sex. H/TG also tends to engage in commercial sex work more than other people. As specific prevention interventions are being designed under NACP-IV for H/TG, there is an urgent need to better understand their sexual and other risk behaviours. Information obtained through this National IBBS is useful for informing the development of new interventions and fine-tuning of existing evidence-based interventions to meet the unique HIV prevention and treatment needs of transgender populations. Information has been accrued on many aspects of the sexual behaviour of the study group such as initiation of sexual behaviour, perceived sexual orientation, place of solicitation and entertainment of various types of partners (regular, commercial etc.) and condom use practices.

4.1 General Sexual Behaviour

Table 7 presents an overall picture of select sexual behaviours of H/TG. More than one fourth of H/TG respondents were sexually active by 14 years, while another 30% were active before turning 18. Over one fifth (22.0%) of respondents said they first had sex with a male partner when they were 18-24 years old. Notably, having been forced to have sex during their first sexual intercourse has been reported by 32% H/TG participating in the survey. While 54% identified themselves as 'Akwa' (non-operated), 38% reported to be 'Nirvan' (operated)[4]. Nearly 9% did not identify with either of these two categories. Around two thirds (60%) of H/TG reported home/rented home as the primary place where they have sex with male partners, while smaller numbers cited Lodge/Hotels (15%) or Public Places (14%).

[4] 'Nirvan' refers to persons who have undergone an operation to remove male genitalia, with or without construction of a vagina.

Table 7 Sexual Behaviour of Respondents, H/TG National IBBS, 2014-15

General Sexual Behaviour		Percent	Unweighted Count
Age at first sex with a male partner	≤14	26.0	1332
	15-17	30.2	1520
	18-24	22.0	1012
	25+	1.6	80
	Don't remember	20.3	1018
	Missing value	0.1	4
Forced to have sex in first sexual encounter with a male partner	Yes	31.5	1500
	No	68.4	3462
	Missing value	0.1	4
Self-identification	Akwa (non-operated)	53.8	2375
	Nirvan (operated)	37.5	2118
	Other	8.7	471
	Missing value	0.0	2
Primary Place where have sex with male partner	Home/rented home	59.8	3069
	Lodge/Hotels	14.7	724
	Vehicle	3.1	118
	Highway	4.9	183
	Public Places	13.9	681
	Other	3.6	186
Aggregated N			4,966

4.2 Initiation of Sexual Activity

Respondents were asked how old they were when they had sex for the first time with a male person, and whether they were forced to have sex during that first sexual encounter. Table 8 presents domain wise distribution of responses to these two questions.

Median age at first sex with a male partner, as reported by H/TG respondents, was 15 years. In most of the domains, median age of first sex ranged between 15-17 years with exception of Chennai (Tamil Nadu) where it was 14 years and Kannauj (Uttar Pradesh) where it was 20 years. In Kannauj, 68% of H/TG responded 'Don't Know' to this questions which may be related to the higher age of respondents at first sex with a male partner.

While 32% of all H/TG reported to have been forced to have their first sex with a male person, there are some notable variations across domains. In fact, this was the case with 18% of respondents in Dakshin Dinajpur (West Bengal) and 58% in Kollam (Kerala). Even within a single state some major variations were found in this indicator with nearly 38% of respondents in Mumbai reporting having been forced to have their first sex with a male person, compared to 21% of respondents in Thane.

Table 8 Initiation of Sexual Activities, H/TG National IBBS, India 2014-15

State	Domain	N	Age at first sexual intercourse with male, median and age group (%) wise distribution*					Forced to have first sexual intercourse with male partner (%)
			Median	≤14	15-17	18-24	25+	
Telangana	Hyderabad	301	16	26.3	25.1	39.2	0.0	33.6
Andhra Pradesh	Krishna	348	17	14.8	29.3	31.1	5.8	35.0
Gujarat	Surat	398	17	12.3	29.0	27.1	1.3	38.5
Karnataka	Bangalore	391	17	17.3	21.4	25.9	4.6	39.3
Kerala	Kollam	246	15	41.1	34.3	20.8	0.7	58.0
Maharashtra	Mumbai	385	15	26.1	34.6	24.2	0.3	37.8
	Thane	374	17	17.2	29.8	40.7	1.1	20.7
Delhi	West	396	15	19.3	18.0	3.4	0.0	31.7
Odisha	Khordha	395	15	26.2	39.9	13.1	5.0	23.6
Tamil Nadu	Chennai	362	14	51.9	29.2	17.4	1.2	40.9
	Coimbatore	385	15	38.9	38.7	20.3	0.6	30.0
Uttar Pradesh	Kannauj	356	20	1.8	5.7	23.8	1.6	19.1
West Bengal	Dakshin Dinajpur	256	16	30.9	44.5	19.9	0.0	17.6
	Kolkata	373	15	45.4	33.9	17.6	0.4	23.1
Overall		**4966**	**15**	**26.0**	**30.2**	**22.0**	**1.6**	**31.5**

* Totals may not add to 100% due to other or missing responses

4.3 Self-identification and Primary Place of Sexual Intercourse

Respondents under National IBBS were asked how they primarily identify themselves sexually and where they mainly have sex with their male sexual partners. Table 9 presents the domain wise answers to these two questions.

'Transgender' is a term used for persons whose gender identity, i.e. expression or behaviour does not conform to societal gender norms associated with their sex at birth. This term is applied widely and encompasses a lot of complex and diverse sub-groups with different perceived gender identities, cultures and experiences. This complexity is quite apparently reflected in the distribution of self-reported sexual orientation across different domains. In domains such as those in Hyderabad (Telangana), Krishna (Andhra Pradesh), Thane (Maharashtra) and West Delhi (Delhi), an almost equal proportion identified themselves as 'Akwa' (non-operated) and a 'Nirvan' (operated). In the domains of Surat (Gujarat), Chennai and Coimbatore (Tamil Nadu), instead, two thirds or more H/TG respondents self-identified as 'Nirvan'. In Mumbai (Maharashtra), Khordha (Odisha), Kannauj (Uttar Pradesh) and Kolkata (West Bengal), 72% or more of respondents said they were 'Akwa'. In Kollam (Kerala) and Dakshin Dinajpur (West Bengal), 66% and 93% of respondents respectively said they did not belong to either predefined categories.

In terms of places, where H/TG primarily had sex with their male partners, Home was the most commonly cited in almost all domains, except for both domains in Maharashtra. Over 70% of respondents reported Home as the primary place of sexual intercourse with males in Surat (Gujarat), Kollam (Kerala), Kannauj (Uttar Pradesh) and Dakshin Dinajpur and Kolkata (West Bengal). In contrast, only around one third of respondents did so in the two Maharashtra domains. In Mumbai, 39% of H/TG reported they used Public Places, such as parks, streets, cinema halls, bus stands and railway stations, for sexual encounters with male partners. Public Places were also frequently cited in Coimbatore (33%), Hyderabad (32%) and Krishna (27%). Lodge/Hotels were cited by high proportion of H/TG in Thane (48%) and to a lesser extent in Bangalore (22%). Vehicles as primary location for sexual intercourse with male partners were mentioned most often in Delhi (15% of respondents). Another frequent location was Highways. Over one in two respondents in Chennai and Krishna mentioned this as the primary place where they would have sexual intercourse with male partners.

Table 9 Self-identification and Place of Sexual Intercourse with Males, H/TG National IBBS, 2014-15

State	Domain	N	Self-identification (%)			Primary Place of Sexual Intercourse with Male Partners (%)					
			Akwa	Nirvan	Others	Home/ Rented home	Lodge/ Hotels	Vehicle	Highway	Public Places	Others
Telangana	Hyderabad	301	49.2	50.8	0.0	49.3	12.3	2.8	3.5	31.8	0.3
Andhra Pradesh	Krishna	348	52.0	47.7	0.0	41.0	15.5	1.5	13.1	26.6	2.0
Gujarat	Surat	398	30.4	69.4	0.2	87.2	7.1	0.2	4.3	0.2	0.4
Karnataka	Bangalore	391	44.4	55.6	0.0	60.0	21.5	4.4	3.3	4.4	6.3
Kerala	Kollam	246	1.7	32.7	65.6	71.3	14.9	4.2	0.4	6.1	3.1
Maharashtra	Mumbai	385	72.3	27.7	0.0	29.4	17.8	3.5	9.4	38.6	1.3
	Thane	374	56.9	43.1	0.0	37.5	48.0	0.6	4.8	7.9	1.2
Delhi	West	396	55.6	44.4	0.0	51.4	11.5	15.4	7.5	12.6	1.6
Odisha	Khordha	395	98.5	1.5	0.0	56.5	7.4	2.1	1.1	18	15.0
Tamil Nadu	Chennai	362	35.7	64.1	0.0	59.9	11.2	0.2	14.5	12	2.1
	Coimbatore	385	27.6	72.4	0.0	57.1	7.2	0.0	2.0	33	0.8
Uttar Pradesh	Kannauj	356	73.4	26.6	0.0	85.9	3.3	1.6	1.1	0.5	7.6
West Bengal	Dakshin Dinajpur	256	4.3	2.3	93.4	72.7	15.2	0.0	0.8	4.3	7.0
	Kolkata	373	78.1	9.6	12.3	91.6	7.7	0.1	0.0	0.4	0.2
Overall		**4966**	**53.8**	**37.5**	**8.7**	**59.8**	**14.7**	**3.1**	**4.9**	**13.9**	**3.6**

4.4 Partners Types and Condom Use

H/TG interviewed in the survey were enquired about existence, types of sex acts and condom use with diverse types of sexual partners. Table 10 shows that overall half of respondents had a regular male sexual partner at the time of interview, while 55% reported they had a paying male partner in the past 12 months. Much smaller proportions of H/TG said they had a male partner who they paid (22%) or had a casual partner (28%) in the 12 months preceding the survey. This shows that H/TG more often sell sex, rather than buying it.

National IBBS Respondents were also asked about the type of sex acts they have with their sexual partners. This was a multiple response question. With regular partners, 73% said they practiced receptive anal sex, whereas 46% reported practicing penetrative anal sex. High proportion of H/TG reported engaging in oral sex (66%) and manual sex (45%) with their regular partners.

Condom use during the last sex act was over 85% overall but varied depending on type of sexual partner. It was 94% with Paying Partner, 93% with Casual Partner, 89% with Paid Partner and 85% with Regular Male Partner.

As expected, consistent condom use – defined as condom use in all instances of anal sex acts with a partner in last one month preceding the survey– was relatively low: 65% with Paying Partner, 52% with Regular Male Partner, 60% with Casual Partner and 64% with Paid Partner. The fact that nearly one in two H/TG reported having had paying partners (hence selling sex), and one in three reported not having used condoms consistently with these partners, is a matter of concern and should be taken into account in the design of HIV prevention programmes.

Regarding the source of obtaining condoms, nearly half of the respondents indicated they obtained condoms from Targeted Interventions (TI) facilities/personnel. Around 14% reported that they obtained condoms from a drug/store chemist, while another 8% reported that they got it from their sexual partner. Use of other specific locations was mentioned by less than 6% of the respondents.

Respondents were also asked about instances of condom breakage in the month preceding the survey, while it was being used during anal sex. Nearly one fifth (21%) reported to have experienced condom breakage in the month preceding the survey.

Table 10 Partner Types, Sex Practices and Condom Use, H/TG National IBBS, 2014-15

Partner Types		Percent	Unweighted Count
Have a regular male sexual partner			
	Yes	48.7	2,470
	No	51.3	2,494
	Missing	0.0	2
Type of sex with Regular Male Partner*			
Anal penetrative	Yes	46.3	1,069
Anal receptive	Yes	72.6	1,752
Oral	Yes	65.8	1,598
Manual	Yes	45.2	1,064
Others	Yes	0.9	39
Condom use in sex act with Regular Male Partner@			
Last time	Yes	84.7	1,889
Consistent	Yes	51.5	1,196
Have a paying male partner in last 12 months			
	Yes	54.7	2,827
	No	45.3	2,137
	Missing	0.0	2
Type of sex with paying male partner*			
Anal penetrative	Yes	39.6	1,161
Anal receptive	Yes	78.6	2,084
Oral	Yes	71.6	1,949
Manual	Yes	48.8	1,276
Others	Yes	0.8	40
Condom use in sex acts with paying male partner@			
Last time	Yes	93.9	2,396
Consistent	Yes	65.2	1,627
Have a paid male partner in last 12 months			
	Yes	22.3	1,065
	No	77.6	3,895
	Missing	0.1	6
Type of sex with paid male partner*			
Anal penetrative	Yes	56.1	590
Anal receptive	Yes	72.4	740
Oral	Yes	57.3	618
Manual	Yes	40.5	377
Others	Yes	0.6	9
Condom use in sex act with paid partner@			
Last time	Yes	88.7	884
Consistent	Yes	63.5	627

Table 10 Contd..

Partner Types		Percent	Unweighted Count
Have a casual male partner in last one month			
	Yes	28.3	1,410
	No	71.6	3,553
	Missing	0.1	3
Type of sex with casual partner*			
Anal penetrative	Yes	49.7	681
Anal receptive	Yes	72.6	925
Oral	Yes	63.7	914
Manual	Yes	48.3	617
Others	Yes	0.4	8
Condom use in sex act with casual partner@			
Last time	Yes	92.7	1,131
Consistent	Yes	60.4	728
Place of obtaining condoms			
	TI facilities/Personnel	46.2	2,399
	Sexual partner	8.4	472
	Drug store/Chemist	13.6	707
	Health facilities	6.3	240
	Vending machine/stall	3.5	193
	Others	15.5	636
	Never obtained a condom	2.7	137
	Missing value/DR	3.8	182
Experience of condom breakage in last one month#			
	Yes	21.0	1,067
	No	77.1	3,459
	Others/Missing value	1.9	119
Aggregated N			4,966

*Among H/TG who had a respective sexual partner as applicable, @ Among H/TG who had anal sex (Penetrative/receptive) with their respective sexual partner as applicable, # among those H/TG who reported anal sex with their male sexual partners in the last one month preceding the survey; DR: Don't remember

4.5 Regular Male Partners and Condom Use Practices

In IBBS, Regular Male Partners are the primary non-paying male partners, including husbands, live-in-partners, boyfriends and lovers. They are the partners with whom H/TG tend to have strong emotional bonding and affectionate relationships, though some 'regular' partners are more like 'sex buddies' (i.e., partners with whom one regularly has sex, without much emotional attachment). Table 11 presents domain wise sexual behaviour of H/TG with Regular Male Partners.

Overall, while half of H/TG reported having a regular male sexual partner, wide inter-domain variations exist. In Krishna (Andhra Pradesh) almost three of four H/TG reported having a regular partner, against only one in five in Mumbai (Maharashtra). In West Delhi as well, a relatively low proportion of H/TG said they had a regular partner (31%).

In general, H/TG reported to be engaged in different types of sex acts with their regular male sexual partners including anal penetrative, anal receptive, oral and manual sex. Anal sex (penetrative/ receptive) is the most common type of sex, H/TG have with regular partners. Eighty percent or more respondents reported having had anal sex, except for Kollam (67%) and West Delhi (71%). In general, H/TG reported to engage in sex more as receptive partners, than as penetrative partner with the exception of respondents in Bangalore (Karnataka) and Thane (Maharashtra).Domains where a greater proportion of H/TG than average reported engaging in anal receptive sex with regular partners included Khordha (Odisha), Kolkata and Dakshin Dinajpur (West Bengal), Coimbatore (Tamil Nadu), Mumbai (Maharashtra), Hyderabad (Telangana) and Krishna (Andhra Pradesh). These are important findings as anal receptive sex involves a higher risk of HIV transmission.

Oral sex with regular partners was reported by 66% of all H/TG but there are considerable variations across domains. Manual sex is relatively less prevalent as a sex practice. Forty five percent H/TG cite this as a sex practice with their Regular Male Partner.

Respondents were asked if they used a condom when they had anal sex the last time with their main Regular Male Partner. More than 80% of all H/TG responded affirmatively to this question. There are, however, considerable variations across domains with relatively low condom use rates reported. For instance in Kolkata (West Bengal) nearly two thirds (62%) report this while it was below the average in the domain of Dakshin Dinajpur in West Bengal, Kannauj (Uttar Pradesh), Kollam (Kerala) and Surat (Gujarat).

While condom use at last anal sex with regular partner is high, consistent condom use is relatively low. There are wide inter-domain variations with very low proportion of H/TG reporting consistent condom use in Surat (Gujarat) (11%), Kolkata (West Bengal) (27%) and Krishna (Andhra Pradesh) (29%). In contrast, over two thirds of H/TG reported consistent condom use during anal sex with regular partners in West Delhi (Delhi), Bangalore (Karnataka), Thane and Mumbai (Maharashtra), Chennai and Coimbatore (Tamil Nadu). Many of these domains are locations with exclusive H/ TG interventions.

Table 11 Type of Sex Acts and Condom Use with Regular Partners, H/TG National IBBS, 2014-15

State	Domain	N	Had Regular Partner (%)	Type of Sex Act (%)*					Condom Use in Anal Sex (%)@	
				Anal Penetrative	Anal Receptive	Anal Sex (Penetrative/ receptive)	Oral	Manual	Last time	Consistent (past one month)
Telangana	Hyderabad	301	51.8	36.6	80.1	93.8	83.9	60.4	92.5	60.1
Andhra Pradesh	Krishna	348	74.1	51.5	78.6	94.3	77.2	33.8	83.0	29.1
Gujarat	Surat	398	37.1	35.8	60.2	89.3	75.8	22.8	78.4	11.3
Karnataka	Bangalore	391	54.4	65.8	26.6	80.3	54.6	25.1	94.2	78.9
Kerala	Kollam	246	58.9	32.6	59.7	67.4	80.4	27.9	75.2	48.4
Maharashtra	Mumbai	385	20.9	34.8	76.3	93.7	84.9	47.2	86.3	67.3
	Thane	374	68.7	87.7	61.8	96.8	56.1	46.7	94.1	75.7
Delhi	West	396	30.8	29.1	57.9	71.4	58.8	37.1	97.4	80.8
Odisha	Khordha	395	61.1	61.2	94.3	97.9	61.5	46.6	85.9	43.7
Tamil Nadu	Chennai	362	62.4	51.0	66.6	92.6	72.8	83.1	92.4	66.8
	Coimbatore	385	56.0	16.5	88.1	96.7	75.6	40.9	85.7	66.1
Uttar Pradesh	Kannauj	356	40.8	34.2	64.8	97.2	34.9	65.0	73.5	48.3
West Bengal	Dakshin Dinajpur	256	46.9	16.7	86.7	99.2	40.0	40.0	77.3	39.5
	Kolkata	373	46.8	19.6	89.5	94.0	62.9	54.5	62.2	27.1
Overall		**4966**	**48.7**	**46.3**	**72.6**	**91.1**	**65.8**	**45.2**	**84.7**	**51.5**

* Among H/TG who had a regular male sexual partner, @ Among H/TG who had anal sex (penetrative/receptive) with their Regular Male Partner

4.6 Commercial Partners and Condom Use Practices

Table 12 provides a domain wise breakdown of H/TG who reported having sold sex. Overall, 68% of respondents across all domains reported to have had a Paying Partner with the exception of Surat (Gujarat) where only 32% reported to have ever sold sex. More than half of H/TG (55%) who took part in the survey reported to have had a Paying Partner in the 12 months preceding the interview. However, there was a relatively lower proportion in Surat (14%) and low rates also in Kolkata (30%) and Kannauj (Uttar Pradesh) (36%). The only other domain, below the overall average was Dakshin Dinajpur (West Bengal) (42%).

National IBBS enquired regarding primary location where H/TG solicit/ pick-up most of their paying partners or clients, nearly 40% (highest proportion) of respondents reported that they solicited their clients principally in the Home/ Rented room. This can be explained by the great majority of respondents (86%) saying that they are contacted by clients through mobile phone. Nearly four out of five H/TG in Kannauj (Uttar Pradesh) and Bangalore (Karnataka) mentioned that they solicited clients mainly from Home/ Rented Rooms, which was the case also of around two thirds of H/TG in Kolkata (West Bengal).

Public Places such as parks, streets, cinema halls were overall the second most commonly mentioned place where H/TG solicits clients (27%). A high proportion of H/TG (65%) reported soliciting or picking up clients in Public Places in Mumbai and Coimbatore. While Highways were the second most commonly reported location for soliciting in West Delhi (32%), H/TG used both Public Places (44%) and Highways (41%) for solicitation/pick-up of paying partners in Chennai (Tamil Nadu).

In the domains of Kollam (Kerala) and Thane (Maharashtra), a considerable proportion of H/TG reported soliciting clients at Lodges/Hotels respectively at 51% and 42%. In fact, in these two domains, these were the predominant locations for solicitation of clients in contrast to anywhere else wherein this location was mentioned by less than 10%, with the exception of Hyderabad and Dakshin Dinajpur, where around one in five H/TG cited Lodges/Hotels as the main place of client solicitation.

One fourth of all respondents (25%) reported using internet to solicit/pick up clients. This method of solicitation is particularly used in West Delhi where over two third of H/TG mentioned it. More than one third reported its use in Kollam (Kerala) also, while in the remaining domains the use of internet remains around the overall average or below. Very low internet use was registered in the domains of Kannauj (Uttar Pradesh) (2%), Khorda (Odisha) and Coimbatore (Tamil Nadu) (3%). While modern communication technologies are quite prevalent for soliciting and picking up clients, the results need to be analysed more in depth. Still, these preliminary results are useful in illustrating current practices.

Regarding types of sex act H/TG had with their Paying Partners or clients and condom use practices, the majority—more than nine of ten respondents—reported having had anal sex (penetrative or receptive) in the 12 months preceding the survey.

Table 13 highlights domain wise distribution of sex practices of H/TG with Paying Partners or clients. Anal receptive sex was the most predominant form of sex followed by oral sex with Regular Partners. Condom use at last anal sex with Paying Partner was high at 90% or more, in all domains except for West Bengal where it was 67% in Kolkata, and 80% in Dakshin Dinajpur. However, consistent condom use during anal sex was relatively low in comparison with an overall average of 65%. It was lowest in Krishna, Dakshin Dinajpur and Kolkata at a little under 40%. Consistent condom use in commercial sex was highest in Thane (76%). Consistent condom use in anal sex with clients was reported by around half of H/TG respondents in Kollam, West Delhi and Kannauj, whereas in other domains it was above the average.

Table 12 Ways of Solicitation/Pick-Up and Contact of Paying Partners, H/TG National IBBS, 2014-15

State	Domain	N	Had Paying Partner (%)	Had Paying Partner in Last 12 Months (%)	Contacted by Clients Through (%)*		Primary Location of Solicitation of Paying Clients (%)*				
					Cell phone	Internet	Home/ Rented Room	Lodge/ Hotels	Highway	Public Places	Others@
Telangana	Hyderabad	301	78.8	68.9	98.3	29.4	34.6	18.8	7.7	32.7	6.3
Andhra Pradesh	Krishna	348	90.3	87.9	96.7	11.5	29.7	9.2	18.3	32.0	10.8
Gujarat	Surat	398	31.8	13.7	80.3	15.3	66.7	0.0	1.9	27.8	3.7
Karnataka	Bangalore	391	73.1	59.1	87.4	20.6	83.1	3.0	3.0	0.4	10.4
Kerala	Kollam	246	75.6	63.1	91.9	35	35.9	51.3	1.3	9.6	1.9
Maharashtra	Mumbai	385	85.4	72.7	67.8	19.2	16.1	6.4	10.0	65.4	2.1
	Thane	374	77.9	56.3	94.8	24.9	25.5	42.3	7.7	21.6	2.9
Delhi	West	396	82.1	73.6	89	66.8	39.7	3.1	32.4	5.9	19.0
Odisha	Khordha	395	66.3	57.3	89.7	2.5	63.3	9.3	0.9	17.7	8.8
Tamil Nadu	Chennai	362	71.4	60.6	64	9.9	7.7	1.4	40.5	43.6	6.8
	Coimbatore	385	78.5	67	96.2	3.2	12.1	0.8	17.1	64.6	5.4
Uttar Pradesh	Kannauj	356	54	35.6	92.1	1.6	84.3	2.4	0.8	6.3	6.3
West Bengal	Dakshin Dinajpur	256	55.1	42.2	78.7	24.1	49.1	20.4	7.4	8.3	14.8
	Kolkata	373	50.1	29.9	95.4	33.0	68.1	8.8	2.7	12.4	8.0
Overall		**4966**	**68.0**	**54.7**	**86.4**	**24.6**	**38.5**	**12.7**	**13.4**	**27.2**	**8.2**

* Among those who reported to have a paying partner in last 12 months;@ includes those who reported to solicit clients at Dhaba, Kothee, Bar/Night Club and vehicle

Table 13 Sexual Practices and Condom Use with Paying Partners, H/TG National IBBS, 2014-15

State	Domain	N*	Type of Sex Act (%)					Condom Use in Anal Sex (%)@	
			Anal Penetrative	Anal Receptive	Anal Sex (Penetrative/ receptive)	Oral	Manual	Last time	Consistent (past one month)
Telangana	Hyderabad	188	45.6	58.2	80.6	80.4	52.6	92.8	80.7
Andhra Pradesh	Krishna	291	47.4	76.6	92.7	81.6	35.6	97.0	37.8
Gujarat	Surat	79	18.4	87.5	90.4	63.3	14.2	91.5	67.6
Karnataka	Bangalore	233	79.5	27.0	87.9	48.7	36.7	93.2	73.4
Kerala	Kollam	156	37.1	63.1	73.0	85.5	15.7	89.6	51.3
Maharashtra	Mumbai	260	16.3	89.6	97.4	86.9	49.2	99.2	87.5
	Thane	206	85.3	72.6	93.4	59.4	50.9	92.7	76.4
Delhi	West	292	26.9	80.0	88.7	79.8	64.3	94.7	48.9
Odisha	Khordha	243	56.7	94.7	99.1	63.7	47.3	93.3	70.7
Tamil Nadu	Chennai	235	32.1	84.2	92.2	65.0	72.2	97.0	63.9
	Coimbatore	265	17.8	84.2	93.9	80.4	44.8	95.6	74.1
Uttar Pradesh	Kannauj	136	40.3	54.8	94.4	33.5	64.6	91.4	52.3
West Bengal	Dakshin Dinajpur	108	16.7	87.0	99.1	43.5	42.6	80.4	38.3
	Kolkata	135	20.5	91.9	95.4	71.1	51.2	67.4	38.8
Overall		**2827**	**39.6**	**78.6**	**92.0**	**71.6**	**48.8**	**93.9**	**65.2**

* N refers to those who reported to have a paying partner in last 12 months, @ among those who reported to have anal sex with their paying male partners

Table 14 presents domain wise data on H/TG who had paid a male partner in past 12 months for sex and related issues pertaining to buying sex.

A relatively lower proportion of respondents, in comparison to those selling sex, reported having bought sex, although wide inter-domain variation existed. Overall, this practice was reported by one in five H/TG. Only in Krishna and Khordha, over half of H/TG reported this as compared to around one third or less in Delhi and Bangalore.

Approximately 90% of H/TG reported having contacted males to buy sex by using cellular phone. Use of internet to contact paid partners was reported by 25% of respondents on the whole. In both domains of Maharashtra (Mumbai and Thane) as well as in West Delhi, more than half of respondents who had a Paid Partner reported having used internet for contacting their clients. However, internet use was very limited (less than 10%) in Khordha, Kannauj and in both domains of Tamil Nadu.

It is important to mention here that in six domains including Kollam (Kerala), Mumbai (Maharashtra), Chennai (Tamil Nadu), Kannauj (Uttar Pradesh) and in both domains of West Bengal, the number of H/TG who indicated they had a Paid Partner in the 12 months preceding the survey was less than 50.Hence survey results in these domains need to be interpreted with caution.

Overall, large majority of respondents (92%) reported to engage in anal sex (penetrative and receptive) with their Paid Partners. Oral sex was also reported by over one in two H/TG, whereas manual sex was reported by 41% of respondents. Again, this analysis for select domain shall is interpreted in the context of smaller sub-group size as described in the previous paragraph.

In terms of condom use, 89% of H/TG reported having used a condom during last sex act with a Paid Partner, across all domains. However, much lower rates of condom use during last sex were registered in Kannauj (51%), Kolkata (61%), Kollam (62%) and Hyderabad (65%). A relatively low proportion was also reported in the Dakshin Dinajpur domain of West Bengal (70%).

Similar to sex practices with regular and paying male partners, consistent condom use with Paid Partners, meaning having used condom every time in the past one month, was less frequently mentioned by H/TG (64%) than condom use in last sex act (89%).Consistent condom use with Paid Partner was particularly low in Chennai (14%), Kollam(17%) and Krishna (29%). Rates lower than overall average was also reported in Kolkata and Dakshin Dinajpur where less than half of H/TG reported to use condoms consistently.

Table 14 Sexual Practices and Condom Use with Paid Male Partner, H/TG National IBBS, 2014-15

State	Domain	N	Had Paid Partner in Last 12 Months (%)	Contacted by Clients Through (%)*		Type of Sex Act (%) *					Condom Use in Anal Sex (%)@	
				Cell phone	Internet	Anal Penetrative	Anal Receptive	Anal sex (Penetrative/ receptive)	Oral	Manual	Last time	Consistent (past one month)
Telangana	Hyderabad	301	25.3	94.8	20.9	58.5	62.7	94.9	75.9	58.4	65.4	58.8
Andhra Pradesh	Krishna	348	50.9	97.5	25.7	59.7	73.8	93.2	78.0	30.1	98.5	28.8
Gujarat	Surat	398	9.6	60.9	13.8	68.8	54.4	93.4	66.6	21.7	88.4	55.1
Karnataka	Bangalore	391	32.2	87.1	27.7	75.3	18.6	85.5	30.9	21.1	84.8	74.6
Kerala	Kollam	246	14.8	84.0	38.0	49.6	43.1	67.3	77.5	18.8	62.2	16.8
Maharashtra	Mumbai	385	5.9	81.7	51.9	58.9	65.9	100.0	60.3	18.4	94.4	89.9
	Thane	374	16.6	90.8	55.5	93.4	88.5	96.7	32.4	29.3	97.8	91.8
Delhi	West	396	32.8	86.3	58.7	37.9	66.8	77.4	59.5	36.3	93.8	87.7
Odisha	Khordha	395	53.7	87.5	3.5	61.3	92.8	98.1	60.2	51.1	93.7	63.3
Tamil Nadu	Chennai	362	11.0	98.1	7.5	85.6	13.4	97.1	23.7	97.3	100.0	13.7
	Coimbatore	385	19.9	96.7	5.2	10.7	89.5	100.0	66.5	10.0	90.2	76.8
Uttar Pradesh	Kannauj	356	15.3	87.6	3.8	19.8	81.4	100.0	10.3	77.7	51.3	67.3
West Bengal	Dakshin Dinajpur	256	7.8	75.0	25.0	70.0	45.0	100.0	25.0	30.0	70.0	45.0
	Kolkata	373	10.2	90.0	20.4	12.7	90.8	91.9	59.1	52.3	60.7	41.6
Overall		**4966**	**22.3**	**88.0**	**25.0**	**56.1**	**72.4**	**91.9**	**57.3**	**40.5**	**88.7**	**63.5**

* Among those who reported to have a paid partner in last 12 months;@ among those who reported to have anal sex with their paid male partner

4.7 Casual Partners and Condom Use Practices

National IBBS respondents were asked whether they had Casual Partners. Out of all H/TG respondents, 28% reported having had a Casual Partner in the 12 months preceding the survey. Having had a Casual Partner has been reported by a high proportion of H/TG especially in the domains of Bangalore (52%), Khorda (44%), Krishna (43%) and West Delhi (41%). In the domains of Surat, Kolkata, Kannauj and Hyderabad, less than one in five H/TG stated that they have had a Casual Partner (Table 15) during the aforementioned period.

Similar to practices with other types of partners, 90% of H/TG overall reported having had anal sex with Casual Partners, including both receptive and penetrative. Only in Kollam (Kerala) the share of H/TG reporting anal sex with Casual Partners was much less (57%). Oral sex was reported by 64% of H/TG and manual sex by 48%.

Reported condom use at last sex with Causal Partners was 93%. However, there are considerable variations across domains. In the following three domains, condom use at last sex with Casual Partner was less than 80%: -Kolkata (74%), Coimbatore (76%) and Dakshin Dinajpur (77%).

There were also wide variations across domains in terms of consistent condom use which overall was reported by 60% of H/TG. Very low rates were registered in domains of Krishna (15%), Kolkata (28%), Chennai (37%) and Dakshin Dinajpur (37%). High consistent condom use rates by H/TG with Casual Partners on the other hand were found in the domains of Hyderabad (91%), Surat (84%) and Thane (82%).

4.8 Places of Obtaining Condoms and Experiences of Condom Breakage

Condoms are one of the most effective methods for preventing HIV transmission among the sexually active population and accordingly, increasing access to condoms has been an integral component of the strategy to prevent HIV transmission among various population groups. While condoms are available in a wide variety of locations, the national programme also focuses on correct use of condoms as mechanical failures such as breakages may reduce their protective ability. Considering the importance of condoms in terms of availability as well as the need for their correct use, IBBS enquired about the places where H/TG obtains condoms as well as their experiences of condom breakage. Table 16 presents domain wise findings on these two aspects.

In general, prevention programmes (Targeted Interventions or TI) remain the predominant source for obtaining condoms across most of the domains. At least 40% of all H/TG interviewed reported having received condoms from TI facilities/personnel the last time they got condoms, except for Kannauj (3%), Kolkata (26%) and Khordha (31%). While TIs remain the main source of condoms for H/TG, respondents also reported obtaining condoms from a range of various other sources. Overall, 14% of H/TG indicated they had last obtained condoms from a Drug Store/Chemist. A high proportion of H/TG reported this source of condoms in Hyderabad (44%),

as also in Kolkata (22%) and Khorda (19%). Over 16% of H/TG mentioned they got condoms from various other sources, while 8% said they obtained condoms last from their Sexual Partner. Notably, in Kannauj, 28% of respondents said they last got condoms from their partner. Health facilities were mentioned as the source for obtaining condoms by only 6% of H/TG though in Surat (22%) and in Kollam (18%) this was reported by a higher proportion. Overall, only 4% of respondents cited Vending Stall/ Machine, but in Kolkata and Hyderabad, 18% and 12% respectively reported having obtained condom from this source.

Table 16 presents domain wise proportion of respondents who reported to have experienced instances of condom breakage when having anal sex in the month preceding the survey. In general, condom breakage was experienced by nearly one in five H/TG. However, breakage of condoms was much more frequently reported in some domains than in others. Over 40% of H/TG reported condom breakage in the month preceding the survey in Krishna (Andhra Pradesh) and Bangalore (Karnataka). High rates of condom breakage of over 30% were also reported in West Delhi, Mumbai and Chennai.

Table 15 Sexual Practices and Condom Use with Casual Partners, H/TG National IBBS, 2014-15

State	Domain	N	Had Casual Partner in Last 12 Months	Type of Sex Act (%)*					Condom Use (%)@	
				Anal Penetrative	Anal Receptive	Anal Sex (penetrative/ receptive)	Oral	Manual	Last time	Consistent (past one month)
Telangana	Hyderabad	301	17.4	55.9	60.8	89.7	86.1	29.8	95.8	90.7
Andhra Pradesh	Krishna	348	42.6	47.2	74.1	92.0	75.1	40.9	96.4	15.1
Gujarat	Surat	398	8.5	16.0	74.8	85.2	38.8	29.2	93.1	83.8
Karnataka	Bangalore	391	51.5	81.1	21.4	88.5	52.1	23.9	90.9	75.5
Kerala	Kollam	246	34.1	25.8	51.6	56.5	76.8	19.5	87.6	49.7
Maharashtra	Mumbai	385	23.5	44.9	86.9	97.6	87.1	45.6	99.1	77.2
	Thane	374	28.2	88.6	77.0	96.0	43.3	36.7	94.2	81.7
Delhi	West	396	40.9	41.3	76.3	85.5	69.3	58.7	94.7	60.4
Odisha	Khordha	395	43.5	54.7	90.2	95.3	68.0	59.9	96.2	66.8
Tamil Nadu	Chennai	362	33.8	48.9	72.4	84.8	38.7	76.9	97.6	36.6
	Coimbatore	385	21.8	14.7	81.5	96.2	65.2	20.3	76.0	63.4
Uttar Pradesh	Kannauj	356	17.2	68.1	29.7	96.3	45.3	43.9	86.6	59.1
West Bengal	Dakshin Dinajpur	256	24.6	28.6	73.0	98.4	63.5	69.8	77.4	37.1
	Kolkata	373	12.7	28.8	79.5	85.9	64.9	63.2	73.9	27.7
Overall		**4966**	**28.3**	**49.7**	**72.6**	**89.5**	**63.7**	**48.3**	**92.7**	**60.4**

* Among H/TG who had casual sexual partner in the last 12 month, @ Among H/TG who had anal sex (penetrative/receptive) with their casual partner

Table 16 Place of Obtaining Condoms and Experiences of Condom Breakages, H/TG National IBBS, 2014-15

State	Domain	N	Location of Obtaining Condoms (%)								Experience of condom breakages (%)#
			TI facilities/ personnel	Sexual Partner	Drug store/ Chemist	Vending stall/ machine	Health Facility	Others*	Never obtained a condom	Missing/ DR	
Telangana	Hyderabad	301	24.8	10.2	43.8	11.7	1.9	5.6	1.0	1.1	15.9
Andhra Pradesh	Krishna	348	54.5	7.1	15.5	4.5	13.0	4.9	0.4	0.2	41.4
Gujarat	Surat	398	40.2	5.0	0.5	3.6	22.0	20.0	1.7	7.0	8.5
Karnataka	Bangalore	391	55.7	13.7	8.3	7.4	3.8	10.2	0.5	0.5	41.6
Kerala	Kollam	246	49.2	13.3	2.7	0.9	17.7	12.5	2.4	1.4	8.8
Maharashtra	Mumbai	385	72.3	3.0	10.0	0.0	1.6	12.1	0.3	0.6	32.2
	Thane	374	54.8	7.2	15.7	0.3	3.3	12.2	2.0	4.6	15.7
Delhi	West	396	50.1	16.8	4.7	0.0	1.8	12.9	0.0	13.7	33.2
Odisha	Khordha	395	31.1	5.6	19.4	0.6	3.6	29.6	8.7	1.4	13.2
Tamil Nadu	Chennai	362	70.8	2.0	9.0	1.0	2.0	14.1	0.7	0.4	31.5
	Coimbatore	385	55.3	14.8	17.9	0.0	2.1	4.7	4.1	1.1	17.3
Uttar Pradesh	Kannauj	356	3.3	28.2	23.0	1.5	2.4	10.1	15.6	15.9	11.3
West Bengal	Dakshin Dinajpur	256	47.7	3.9	18.0	5.5	2.7	21.5	0.4	0.4	10.1
	Kolkata	373	26.1	3.3	22.2	17.5	6.2	22.2	2.3	0.2	17.9
Overall		**4966**	**46.2**	**8.4**	**13.6**	**3.5**	**6.3**	**15.5**	**2.7**	**3.8**	**21.0**

* Others included those reported to obtain condoms from paan shop, bar/guest house/hotel and friends. # Among those who had anal sex in the last one month preceding the survey; DR: Don't remember

CHAPTER 5

ALCOHOL AND DRUG USE PRACTICES

Alcohol, one of the most commonly used psychotropic substances, has been associated with increased sexual risks including inconsistent condom use as well as higher HIV prevalence[5,6,7]. In view of this, the National IBBS enquired about the prevalence of alcohol consumption in general as well as that before or during sex to inform HIV prevention programme on this aspect. The H/TG respondents were also asked about experiences of injecting drugs for non-medical purposes as well as needle sharing practices. This was important as, nationally, HIV infection rates among injection drug users (IDUs) have been high. The sections below present data on these two key aspects.

5.1 Alcohol and Drug Use Practices

More than half (57%) of H/TG reported having consumed alcohol in the 12 months preceding the survey (Table 17). Among those who consumed alcohol, more than half (55%) did so before or during sex. Injecting drugs for non-medical purposes in the three months prior to the survey was a practice reported by a much lesser number of H/TG. Four percent of all H/TG reported this. Among those who reported to have injected drugs, over one third (36%) used shared needles/syringes with someone else the last time they had injected drugs.

Table 17 Alcohol and Drug Use Practices, H/TG National IBBS, 2014-15

		Percent	Unweighted Count
Had consumed alcohol in last 12 months			
	Yes	56.9	2,964
	No	43.1	2,000
	Missing	0.0	2
Alcohol consumption before or during last sex acts*			
	Yes	54.7	1,618
	No	45.3	1,346
Drug injection for non-medical purposes in last 3 months			
	Yes	3.7	241
	No	89.4	4,334
	DK/Missing	6.9	389
Sharing of needles/syringes when injected drugs last time#			
	Yes	35.5	92
	No	61.1	143
	DK	3.4	6
Aggregated N			4,966

*Among those who reported to consume alcohol in last 12 months preceding the survey; # Among those who reported to have injected drug for non-medical purposes in the last 3 months; DK: Don't know

[5] Madhivanan, Purnima, et al. "Alcohol use by men is a risk factor for the acquisition of sexually transmitted infections and human immunodeficiency virus from female sex workers in Mumbai, India." Sexually transmitted diseases 32.11 (2005): 685.

[6] Verma, Ravi K., et al. 'Alcohol and sexual risk behaviour among migrant female sex workers and male workers in districts with high in-migration from four high HIV prevalence states in India.' AIDS and Behavior 14.1 (2010): 31-39.

[7] Mimiaga, M. J., et al. "Alcohol use and HIV sexual risk among MSM in Chennai, India." International journal of STD & AIDS 22.3 (2011): 121-125.

5.2 Alcohol and Drug Use Practices (Domain Wise)

Table 18 presents alcohol consumption and injecting drug practices among H/TG by domain. Alcohol consumption is quite common with over half of all H/TG reporting having consumed it in the 12 months preceding the survey. Surat (Gujarat) is an exception with less than 10% of respondents reporting so, which is consistent with alcohol prohibition laws in the state. Low alcohol consumption rates compared to the average was also registered in Kannauj (29%). Alcohol consumption in all other domains was reported by half or more respondents.

Among the H/TG who reported consuming alcohol, a large proportion said they did so before or during their last sex (55%). 40% of H/TG or more reported doing so in all domains except for those in Surat (13%), Kannauj (25%) and Khordha (26%).

Injecting drug for non-medical reasons in three months preceding the survey was overall reported at four percent with H/TG in Krishna (14%), Bangalore (8%), Thane (7%) and Surat (7%) reporting its use above the overall average.

Table 18 Alcohol and Injecting Drug Use Practices, H/TG National IBBS, 2014-15

State	Domain	N	Consumed alcohol in last 12 months (%)	Consumed alcohol before or during last sex act (%)*	Injected drug for non-medical reasons in the last 3 months (%)
Telangana	Hyderabad	301	79.3	68.1	0.2
Andhra Pradesh	Krishna	348	92.5	77.3	14.2
Gujarat	Surat	398	9.2	12.5	6.5
Karnataka	Bangalore	391	63.8	58.0	8.3
Kerala	Kollam	246	65.1	55.3	5.0
Maharashtra	Mumbai	385	69.0	60.8	4.2
	Thane	374	49.9	46.7	6.7
Delhi	West	396	58.6	77.2	4.7
Odisha	Khordha	395	61.4	25.9	0.1
Tamil Nadu	Chennai	362	62.6	57.3	0.3
	Coimbatore	385	63.8	67.1	0.1
Uttar Pradesh	Kannauj	356	29.1	24.7	1.5
West Bengal	Dakshin Dinajpur	256	63.7	40.5	0.0
	Kolkata	373	65.9	50.6	0.0
Overall		**4966**	**56.9**	**54.7**	**3.7**
*Among those who reported to have consumed alcohol in last 12 months preceding the survey					

CHAPTER 6

PHYSICAL AND SEXUAL VIOLENCE

Promotion of an enabling policy and legal environment, together with promotion of safe practices and periodic screening for HIV and other STIs are key components of Targeted Interventions (TI) for high risk groups (HRGs) in India. This is based on the fact that the immediate environment, in which HRGs live and work, plays an important role in their HIV risk as it has the ability to influence their capacity to enact harm reduction behaviours[8]. Accordingly the National IBBS enquired about physical and sexual violence in all study groups including among H/TG.

6.1 Physical and Sexual Violence

Table 19 presents the data on physical and sexual violence among H/TG. Overall, one fifth (20%) of H/TG reported to have experienced some form of physical violence in the 12 months preceding the survey. Those who reported to have been beaten by someone were asked to identify the perpetrators of such physical violence. It was a multiple response question. Strangers were the predominant perpetrators (32%), followed by family members/relatives (23%) and Law Enforcement Personnel (21%). Other perpetrators such as Clients, Goondas and other MSM or H/TG were also reported to be perpetrators of physical violence by one fifth (around 20%) of respondents. One in ten H/TG also reported that they have been beaten by their regular partner.

When asked who they informed the last time they were beaten, more than half of H/TG reportedly informed a fellow MSM or H/TG. Sixteen percent said they informed an NGO worker. Slightly more than one fifth of H/TG also reported to have informed a friend, relative or family member, who is not an MSM or H/TG, about the physical violence. About 28% of the H/TG respondents did not tell anyone about the physical violence.

Regarding sexual violence, one fifth of all H/TG (20%) reported having experienced this in the 12 months preceding the interview. Once again, there were varied perpetrators of such violence with many H/TG reporting more than one type of perpetrator. As in the case of physical violence, Goondas were the main perpetrators of sexual violence with 56% of H/TG stating this. Other commonly cited perpetrators (17- 22%) included Family Members, Clients and Other MSM.

Over one third of H/TG (37%) did not inform anyone when they last experienced sexual violence. Few (6%) said they informed Law Enforcement Personnel. The largest proportion of H/TG (46%) reported having informed a Fellow MSM or H/TG, while 18% informed a Friend, Relative or Family Member who is not an MSM or H/TG, and 15% informed an NGO worker.

[8]Bharat, Shalini. "A systematic review of HIV/AIDS-related stigma and discrimination in India: current understanding and future needs." *SAHARA-J: Journal of Social Aspects of HIV/AIDS* 8.3 (2011): 138-149.

Table 19 Physical and Sexual Violence, H/TG National IBBS, 2014-15

		Percent	Unweighted Count
Beaten by someone is last 12 months			
	Yes	19.9	1,120
	No	76.1	3,616
	DR/Missing	4.0	2
Perpetrators of physical violence*			
Family member/ Relative	Yes	22.6	230
Stranger	Yes	32.2	383
Law enforcement personnel	Yes	21.2	274
Client	Yes	14.8	192
Goondas	Yes	19.4	257
Other MSM or H/TG	Yes	19.3	203
Regular partner	Yes	10.6	114
Others	Yes	2.7	26
People who were informed about physical violence*			
Fellow MSM or H/TG	Yes	51.2	588
Friend/Relative/Family member who is not an MSM or H/TG	Yes	23.8	274
NGO worker	Yes	16.2	210
Law enforcement personnel	Yes	5.9	85
Other	Yes	0.9	11
Did not tell anyone	Yes	27.7	298
Experienced sexual violence in last 12 months			
	Yes	20.3	1104
	No	79.6	3859
	Missing	0.1	3
Perpetrators of sexual violence#			
Family member/ Relative	Yes	19.2	234
Client	Yes	22.4	258
Goondas^	Yes	55.5	264
Other MSM	Yes	16.5	187
Regular partner	Yes	7.4	77
Others@	Yes	14.7	182
People who were informed about sexual violence#			
Fellow MSM or H/TG	Yes	45.7	510
Friend/Relative/Family member who is not an MSM or H/TG	Yes	17.7	228
NGO worker	Yes	14.7	195
Law enforcement personnel	Yes	5.6	69
Did not tell anyone	Yes	37.4	396
Aggregated N			4,966

*Among those who reported to have experienced physical violence in last 12 months preceding the survey; # Among those who reported to have experienced sexual violence in last 12 months preceding the survey; ^ Includes reported sexual violence by strangers; @ Includes reported sexual violence by law enforcement personnel; DR: Don't remember

6.2 Physical and Sexual Violence (Domain Wise)

Table 20 presents domain-wise findings on H/TG's experiences of physical violence, its perpetrators and those whom they informed in such instances. Physical violence is wide-spread with one fifth of all H/TG (20%) reportedly being beaten in the 12 months preceding the survey. There are some variations in the proportion reporting this between the domains. The largest proportion of H/TG reporting physical violence was in Krishna (59%), followed by Hyderabad (36%) and Bangalore (29%). Relatively low rates of physical violence of around 10% were recorded in the two domains in Tamil Nadu as well as Dakshin Dinajpur (West Bengal) and Surat (Gujarat).

Physical violence was mostly inflicted by Strangers (32%), followed by family members/relatives (23%) and Law Enforcement Personnel (21%) and Goondas (19%). Nearly 19% cited MSM or other H/TG as main perpetrators, while 15% cited Clients as main perpetrators. There is difference across the survey domains. Physical violence by Goondas was reportedly high in Kannauj (55%) and Krishna (45%). Clients were mentioned most frequently in Coimbatore (33%) and also in Krishna (30%). Law Enforcement Personnel as perpetrator of physical violence ranked highest in Kannuaj (54%), Krishna (45%) and Hyderabad (32%). Strangers were instead reported by at least one fourth of H/TG in all domains except Thane, Khordha, Chennai and Dakshin Dinajpur.

Some domains had clearly higher rates of physical violence among H/TG than others. Krishna had the highest proportion of H/TG reporting violence (59%). Physical violence by Goondas and Law Enforcement Officers were mentioned respectively by 45% of H/TG. Physical violence by Goondas and Law Enforcement Officer was reported at similar levels in Kannauj in Uttar Pradesh. In the domains of Surat, Bangalore, Hyderabad and Kollam, high rates of physical violence by Strangers has been stated.

When asked if they had reported or informed someone about the physical violence they had experienced, 70% of H/TG overall responded affirmatively. Domain wise analysis revealed some differences. Forty six percent of H/TG reported instances of physical violence to someone in Coimbatore while 49% in Kollam and just over half of respondents did so in West Delhi and Thane. In Krishna domain, where physical violence encountered by H/TG is noted to be the highest (59% in the past 12 months), a large proportion (83%) of respondents informed someone about it. In Chennai, while 11% of H/TG stated to have been beaten in the 12 months prior to the survey, a high proportion (91%) informed someone of this.

H/TG were also asked about episode(s) of sexual violence in the 12 months preceding the survey. On the whole, one in five H/TG reported such occurrence. The domains of Krishna and Bangalore and Delhi are well above the overall average, with respectively 46%, 36% and 33% of H/TG reporting this. Goondas, followed by Clients and other MSM, were mentioned more often than other perpetrators, by H/TG in most of the domains. Notably, family members and relatives have been reported as perpetrators by more than 50% of respondents in Hyderabad (Telangana) and Bangalore (Karnataka) underlining the vulnerabilities H/TG face in their immediate environment (Table 21).

Table 20 Physical Violence, H/TG National IBBS, 2014-15

State	Domain	N	Beaten by Someone in Last 12 Months (%)	Perpetrators of Violence (%)*								Informed Someone for Physical Violence (%)*
				Family Member/ Relative	Stranger	Law Enforcement Personnel	Clients	Goondas	Other MSM or H/ TG	Regular Partners	Others	
Telangana	Hyderabad	301	36.0	37.7	54.2	32.4	17.7	9.1	9.9	2.0	0.0	75.2
Andhra Pradesh	Krishna	348	59.0	20.7	28.6	45.4	29.6	45.2	25.2	6.0	0.0	83.0
Gujarat	Surat	398	11.9	10.5	59.9	17.0	12.6	7.5	13.5	4.3	0.0	78.7
Karnataka	Bangalore	391	29.4	22.6	53.6	13.6	6.8	6.6	9.9	9.3	3.4	78.0
Kerala	Kollam	246	21.5	26.5	49.4	3.7	23.7	3.7	10.1	10.4	6.1	49.4
Maharashtra	Mumbai	385	20.7	16.3	35.5	11.9	25.5	16.7	33.4	7.2	0.0	81.5
	Thane	374	13.4	34.6	16.0	10.6	2.2	15.0	30.0	12.2	5.9	56.4
Delhi	West	396	17.2	17.4	36.0	24.1	14.5	20.3	15.7	10.3	0.0	52.1
Odisha	Khordha	395	23.1	24.6	7.5	18.8	7.0	18.7	14.2	23.1	3.2	68.9
Tamil Nadu	Chennai	362	10.6	39.6	20.2	11.8	8.4	24.8	36.7	4.3	9.7	91.1
	Coimbatore	385	10.6	20.3	32.2	5.0	33.2	0.0	2.5	10.5	0.0	45.5
Uttar Pradesh	Kannauj	356	22.0	5.8	24.7	53.9	3.5	54.9	8.5	10.3	0.0	73.7
West Bengal	Dakshin Dinajpur	256	10.5	14.8	11.1	0.0	0.0	7.4	29.6	22.2	29.6	59.3
	Kolkata	373	16.1	24.6	26.3	5.3	4.5	9.4	23.2	16.1	3.5	61.7
Overall		**4966**	**19.9**	**22.6**	**32.2**	**21.2**	**14.8**	**19.4**	**19.3**	**10.6**	**2.7**	**70.2**

*Among those who reported to be beaten by someone in last 12 months preceding the survey

Table 21 Sexual Violence, H/TG National IBBS, 2014-15

State	Domain	N	Experienced Sexual Violence in Last 12 Months (%)	Perpetrators of Violence (%)*						Informed Someone for Sexual Violence (%) *
				Family Member/ Relative	Clients	Goondas	Other MSM	Regular Partners	Others	
Telangana	Hyderabad	301	22.0	57.8	17.2	42.4	4.7	3.1	20.4	48.4
Andhra Pradesh	Krishna	348	46.1	18.8	38.9	73.1	14.6	4.1	28.3	66.2
Gujarat	Surat	398	15.5	20.4	54.0	45.9	20.6	7.4	24.5	85.8
Karnataka	Bangalore	391	36.3	56.5	5.4	40.1	10.2	6.2	9.5	57.8
Kerala	Kollam	246	20.2	13.2	21.3	44.9	13.2	16.6	10.6	45.1
Maharashtra	Mumbai	385	22.8	14.5	28.4	63.6	5.2	0.0	7.6	75.2
	Thane	374	14.0	24.0	10.8	42.3	29.0	11.9	16.2	37.0
Delhi	West	396	32.8	11.3	18.7	79.2	11.8	2.1	13.2	57.6
Odisha	Khordha	395	13.0	8.6	20.7	33.3	43.4	7.2	2.3	71.0
Tamil Nadu	Chennai	362	11.5	13.2	12.4	61.9	0.0	15.6	20.1	61.5
	Coimbatore	385	16.3	23.5	17.2	67.7	0.5	0.0	0.8	41.9
Uttar Pradesh	Kannauj	356	17.7	5.8	13.2	79.4	20.8	3.9	16.6	76.7
West Bengal	Dakshin Dinajpur	256	13.3	2.9	2.9	23.5	29.4	20.6	29.4	38.2
	Kolkata	373	16.2	6.4	12.5	31.1	29.6	28.3	9.9	37.5
Overall		**4966**	**20.3**	**19.2**	**22.4**	**55.5**	**16.5**	**7.4**	**14.7**	**59.9**

*Among those who reported to be beaten by someone in last 12 months preceding the survey

CHAPTER 7

SELF-REPORTED SEXUALLY TRANSMITTED INFECTIONS

Individuals with Sexually Transmitted Infections (STI)/Reproductive Tract Infections (RTIs) have a significantly higher chance of acquiring and transmitting HIV. Accordingly, provision of services for STI/RTI management is an integral component of HIV prevention services under NACP. The service package for STI/RTI include periodic screening and treatment of STI/RTI, and is delivered through a diverse model involving static clinics at TI facilities, preferred private clinics, model network, government health facilities as well as services provided through mobile health camps. Considering the association between STIs with HIV transmissions as well as NACP's focus on STI management, the National IBBS also enquired about related knowledge, symptoms as well as treatment seeking behaviours among H/TG.

7.1 STI Knowledge, Symptoms and Management

Table 22 summarizes the STI related knowledge of H/TG respondents, their self-reported STI prevalence and STI management approaches. A majority of H/TG (82%) had heard of diseases that can be transmitted through sexual intercourse. Respondents, who reported having heard of STIs, were asked to describe any symptoms of STIs. Ulcers/sores, (either genital or anal) were respectively described by 50-60% of respondents, while discharges (either urethral or rectal) were described by around 40%. Two fifths also mentioned symptoms of swelling in groin or scrotal areas. Warts, either genital or anal, were described by a relatively lower proportion of H/TG at 26% and 19% respectively.

Table 22 STI Knowledge, Symptoms and Management, H/TG National IBBS, 2014-15

		Percent	Unweighted Count
Heard of STIs			
	Yes	81.5	4043
	No	18.5	920
	Missing value	0.0	3
Awareness about various symptoms of STIs*			
Genital ulcer/sore	Yes	59.0	2409
Anal ulcer/sore	Yes	49.7	2018
Rectal discharge	Yes	43.4	1672
Urethral discharge	Yes	38.6	1568
Swelling in groin/scrotal area	Yes	40.7	1650
Genital warts	Yes	26.3	1167
Anal warts	Yes	19.3	853
Suffered from STI symptoms in last 12 months (self-reported)			
Genital ulcer/sore	Yes	12.7	646
Anal ulcer/sore	Yes	11.6	552
Rectal discharge	Yes	10.6	511
Urethral discharge	Yes	7.8	385
Swelling in groin/scrotal area	Yes	8.9	462
Genital warts	Yes	5.4	262
Anal warts	Yes	5.9	319
Sought treatment from facilities for last episode of STI #			
NGO/TI run clinic	Yes	42.0	571
Government facility	Yes	50.6	693
Private facility	Yes	24.3	271
Private pharmacy	Yes	14.5	163
Traditional healer/Homeopath/Unani/ Ayurvedic practitioners	Yes	23.6	274
Aggregated N			**4,966**

***Among those who reported to have heard of STIs; # Among those who reported to have experienced at least one STI symptom in last 12 months preceding the survey**

Around 11-13% of H/TG reported to have suffered from ulcers/sores (either genital or anal) in the 12 months preceding the survey. Rectal discharges were mentioned by 11% of H/TG, swelling in groin/scrotal by 9% and urethral discharges by 8%. Relatively lower proportions (5-6%) reported to have suffered from warts, either genital/anal.

Among those who reported to have had at least one STI symptom in the reference period, more than half (51%) said they turned to government facilities to get treatment. NGO/TI run clinics were availed by 42% of H/TG. Around one fourth (24%) reported having received STI treatment from a private clinic or hospital. Almost the same proportion reported to have received treatment from Traditional healers, Homeopath, Unani or Ayurveda practitioners. Fifteen percent reported that they went to a private pharmacy to avail advice/medicines for their last STI episode.

7.2 STI Knowledge, Symptoms and Management (Domain Wise)

Table 23 presents domain wise information on STI related knowledge, self-reported symptoms and treatment seeking behaviour among H/TG. When asked if they had heard of diseases that can be transmitted through sexual intercourse, 81% of H/TG replied affirmatively. These respondents were asked to describe symptoms of STIs, which were all recorded in the questionnaire. Most H/TG were able to illustrate at least one symptom. In all domains, more than 90% of respondents were able to describe at least one STI symptom, with the exception of the two domains in West Bengal.

Respondents were also asked if they had suffered from STI symptoms in the 12 months preceding the survey. While overall, one in every four respondents reported having at least one of the seven symptoms explored, there were wide variations across domains. Sixty percent of H/TG in Bangalore, 58% in Krishna, 52% in Surat and 42% in Khordha reported this. However, in Hyderabad, Kollam, Chennai and Coimbatore, less than 10% of H/TG respondents had STI symptoms.

Respondents who reported to have had at least one STI symptom were asked from where they sought advice or got medicines during their last episode. Respondents were also asked to list all the facilities in the order in which they visited. By and large, NGO/TI – run Clinics and Government Clinics/Hospitals were mentioned as predominant facilities from where respondents availed STI treatment services. However, there were diverse treatments seeking patterns across domains. In seven domains, comprising Kollam, Khordha, Chennai, Coimbatore, Kannauj, Dakshin Dinajpur and Kolkata, less than one fifth of H/TG availed services from TI/NGO - run Clinics during their last STI episode. In West Delhi, the largest number of H/TG sought STI treatment from NGO/TI - run Clinics, while half of them went to Private Clinics/Hospitals or availed alternative systems including Traditional Healers and Ayurveda Doctors.

In the rest of domains, around one in five H/TG went to Private Clinics/Hospitals, except Dakshin Dinajpur, Thane and Hyderabad where less than 10% reported doing so. In Surat (Gujarat), 69% of H/

TG reached out to alternative systems but in other eight domains, those who did so, comprised less than 5% of all respondents. A significant proportion of H/TG reported to have not done anything for their last STI episode in Kollam (42%) and the two domains in West Bengal namely Dakshin Dinajpur (39%) and Kolkata (24%). In most of the other domains, very few H/TG (less than 7%) reported this.

Table 23 STI Knowledge, Symptoms and Management, H/TG National IBBS, 2014-15

State	Domain	N	Heard of STIs (%)	Aware of at least one STI symptom (%)*	Had at least one STI symptom (%)	Sought advice/treatment from (%) #					
						NGO/ TI Run Clinic	Government Clinics/ Hospitals	Private Clinics/ Hospitals	Private Pharmacy	Traditional healer/ Homeopath/ Unani/ Ayurveda practitioners	Did Nothing
Telangana	Hyderabad	301	87.2	100.0	6.2	60.4	65.9	7.8	4.8	15.6	0.0
Andhra Pradesh	Krishna	348	90.0	99.3	58.1	59.7	51.3	13.8	9.2	3.9	4.4
Gujarat	Surat	398	72.9	100.0	52.0	41.6	50.0	24.4	29.7	69.0	1.9
Karnataka	Bangalore	391	90.2	98.1	59.5	73.2	31.5	22.8	5.8	5.9	0.0
Kerala	Kollam	246	92.3	97.7	9.6	16.9	24.4	19.8	0.0	4.4	41.9
Maharashtra	Mumbai	385	88.9	98.8	20.7	35.1	60.8	21.3	7.0	3.4	0.9
	Thane	374	76.9	98.8	12.2	55.6	53.7	5.9	2.7	3.8	0.9
Delhi	West	396	70.4	98.7	23.7	80.0	65.9	50.8	27.6	41.0	5.8
Odisha	Khordha	395	81.1	97.7	42.0	19.1	53.2	28.5	8.7	6.2	5.3
Tamil Nadu	Chennai	362	83.9	99.9	1.5	0.0	51.1	20.2	13.9	0.0	14.8
	Coimbatore	385	89.0	99.9	4.6	13.2	37.4	29.8	0.0	0.0	6.9
Uttar Pradesh	Kannauj	356	50.5	99.8	25.4	15.7	69.2	25.4	4.1	4.1	10.3
West Bengal	Dakshin Dinajpur	256	85.5	72.1	18.0	19.6	28.3	4.3	10.9	4.3	39.1
	Kolkata	373	91.8	84.6	14.3	5.1	34.1	15.8	9.3	11.2	24.1
Overall		**4966**	**81.5**	**96.2**	**26.0**	**42.0**	**50.6**	**24.3**	**14.5**	**23.6**	**6.3**

*Among those who reported to have heard of STIs; # Among those who reported to have experienced at least one STI symptom in last 12 months preceding the survey;

CHAPTER 8

HIV/AIDS RELATED KNOWLEDGE AND PRACTICES

HIV education and awareness raising programmes have been a key component of NACP since its inception in India in 1992. In the initial phases of the HIV response, the focus was on enhancing people's knowledge about HIV and AIDS and building awareness to promote safer behaviours pertaining to HIV transmission. However, as specific service delivery programmes under NACP were rolled out and scaled up for HIV prevention and treatment, demand generation also became a key component of educational and awareness raising campaigns. The National IBBS enquired about HIV related knowledge and practices among H/TG.

8.1 HIV/AIDS Knowledge and Practices

Table 24 presents the status of HIV/AIDS related knowledge and related practices among H/TG. Ninety six percent reported having heard of HIV/AIDS before. Knowledge about transmission of HIV through unprotected sex with infected person, sharing of infected needles as well as through infected blood transfusion is high. More than 90% of H/TG were aware of these modes of HIV transmission. However, awareness about vertical transmission of HIV, from mother to child at birth, is relatively low at 54%. Around one out of four H/TG respondents also wrongly believes that HIV can be transmitted through mosquito bites or through sharing a meal with a person who is infected.

Awareness about HIV prevention methods is high among H/TG respondents, with 92% correctly saying that HIV can be prevented by having sex with only one uninfected partner; always using condoms during sex (89%); avoiding use of shared injection needles and syringes (87%); and getting blood thoroughly checked/tested before transfusion (85%).

Despite knowledge of different routes of HIV transmission and ways of preventing it, only 53% of H/TG demonstrated to have a comprehensive knowledge of HIV/AIDS. Table 24 shows the level of comprehensive knowledge of HIV/AIDS among H/TG which is defined as: (i) Knowing that both condom use and limiting sex partners to one uninfected faithful partner are HIV/AIDS prevention methods, (ii) Rejecting the two most common misconceptions that HIV/AIDS can be transmitted through mosquito bites and by sharing food, and (iii) Being aware that a healthy looking person can have HIV/AIDS.

Table 24 HIV/AIDS Knowledge and Practices, H/TG National IBBS, 2014-15

		Percent	Unweighted Count
Heard of HIV/AIDS	**Yes**	**96.4**	**4787**
Awareness about routes of transmission*			
Through unprotected sex with an infected partner	Yes	96.9	4618
Through sharing infected needles	Yes	93.3	4485
Through infected blood transfusion	Yes	91.3	4433
Through mother to child	Yes	54.4	2440
Through mosquito bites	No	78.1	3593
Through sharing a meal with someone who is infected	No	76.0	3583
Awareness about prevention methods*			
Having sex with only one uninfected partner	Yes	91.8	4419
Always using condoms during sex	Yes	89.3	4387
Avoiding the use of shared needles and syringes	Yes	86.6	4176
Getting the blood thoroughly screened before transfusion	Yes	84.5	4100
Comprehensive knowledge of HIV/AIDS*	Yes	53.3	2513
Ever been tested for HIV*	Yes	84.4	4076
Tested at least once for HIV in last 12 months#	Yes	98.2	4012
Collected the HIV test result when tested last#	Yes	84.7	3546
Heard of Anti-retroviral treatment*	Yes	64.1	3137
Aggregated N			4,966
***Among those who reported to have heard of HIV/AIDS; #Among those who reported to have heard of HIV/AIDS and ever tested for HIV**			

In terms of knowledge and practices regarding HIV testing and anti-retroviral treatment (ART),H/TG who had ever tested for HIV - among those who had heard of HIV/AIDS was 84%. Among those who reported to have tested for HIV, 98% reported that they had tested for HIV during the 12 months preceding the survey. Overall, 81% of all H/TG were tested for HIV in the reference period. However, awareness about the availability of ART was moderate with two thirds of those who were aware of HIV/AIDS saying they had heard of ART that can help increase longevity of persons infected with HIV/AIDS.

8.2 HIV/AIDS Knowledge and Practices (Domain Wise)

Table 25 presents domain wise findings on knowledge of HIV/AIDS in general as well as HIV transmission routes and prevention methods. While over 90% of respondents across all domains have heard of HIV/AIDS, one exception was Kannauj (Uttar Pradesh) where only 72% report this.

Awareness on HIV transmission through unprotected sex with infected person, or sharing of infected needles, or through transfusion of infected blood, was high, with more than 90% stating so in most of the domains. There are exceptions. For example, less than three of four H/TG in Surat knew that the sharing of infected needles was a key route of HIV transmission. Also, less than 80% of H/TG in Surat, as well as in West Delhi, were aware that one can get infected with HIV through transfusions of infected blood.

Knowledge about mother to child transmission of HIV was relatively low across all domains, especially in Kannauj (Uttar Pradesh) where only 13% reported to be aware of vertical HIV transmission. In the domains of Khordha (Odisha), Chennai and Coimbatore (Tamil Nadu) though, more than 70% of H/TG were aware of this.

A sizeable proportion of H/TG, ranging from 33% in West Delhi to 14% in Kannauj, had one or more misconceptions of how HIV transmits from one person to another. However, awareness about HIV prevention methods was high overall (80% or more across all domains). The only notable exception was Kollam (Kerala) where only half of H/TG were aware that a person can prevent HIV infection by avoiding the use of shared needles and syringes.

One in five H/TG had misconceptions about routes of HIV transmission (21%). Misconceptions were especially prevalent in West Delhi (33%), Coimbatore (32%) and Dakshin Dinajpur (30%).

Data were also analysed to see if H/TG respondents had a comprehensive knowledge on HIV transmission. Overall, only around half of them had full knowledge. Comprehensive knowledge was particularly low in Chennai and Kannauj (30%) and West Delhi (39%). In both domains of Maharashtra (Mumbai and Thane), comprehensive knowledge was well above overall average, at around three fourth of H/TG respondents.

National IBBS respondents, who were aware of HIV/AIDS, were asked about their knowledge of key services and interventions such as HIV testing and antiretroviral treatment (ART) provided

under NACP. On HIV testing, respondents were asked about their awareness of locations where one could get tested for HIV as well as their history of HIV testing. Regarding ART, respondents were asked about their awareness of availability of ART drugs as well as about places where to get them. Table 26 presents domain wise findings on these two key aspects.

Overall, 97% of H/TG respondents knew a place where one could get tested for HIV. Virtually all respondents in Hyderabad, Bangalore and Chennai fitted this category. Lowest proportion was found in Dakshin Dinajpur (85%) and Kollam (89%).

On the whole, 91% of H/TG mentioned that one could get tested for HIV at government facilities such as hospitals. However, only 78% mentioned this option in Surat and 74% in Bangalore. A much lower proportion of all H/TG indicated that one could get an HIV test in Private hospitals (27%), though in some domains the number was higher as in West Delhi (50%), Mumbai (47%) and Kannauj (43%). Very few H/TG were aware of availability of HIV testing in the private sector in Kollam (7%), Khordha and Dakshin Dinajpur (8%).

Overall 32% of H/TG were found to be aware about HIV testing services at NGO - run Clinics. This was the case with 58% of H/TG in Bangalore, 56% in Chennai and 50% in Mumbai. Lowest levels of awareness in this respect were registered in Khordha (5%) and Kannauj (8%).

When asked about their own HIV testing history, more than 80% of all H/TG reported to have ever been tested. There were significant variations across domains: 99% reported to be ever tested for HIV in Coimbatore and 98% in Krishna, but only 39% in Kannauj stated this. Both domains in West Bengal had a relatively lower proportion (64%) of H/TG who reported having ever tested. By and large, a very high proportion of all respondents (98%) who ever tested, said they had done so in the 12 months preceding the survey. While all of H/TG who ever tested in Krishna, Surat, Bangalore, Thane and West Delhi did so in the year preceding the survey, this was the case with 79% in Kolkata.

Respondents, who reported to have been tested for HIV, were also asked if they went for HIV testing on their own or if they were referred by someone else the last time they tested. Overall, nearly half of all H/TG went for HIV testing on their own. High proportion of H/TG went for HIV testing on their own, without referral, in Thane (74%), Kollam (71%) and Kolkata (61), as compared to 10% of H/TG in Surat. Around one third of H/TG in Hyderabad, Krishna and Bangalore also reported the same.

The proportion of H/TG who indicated they had collected their HIV test results when they last tested was overall 85%. The highest rates of H/TG who got their test result were registered in Bangalore (97%) followed by Kolkata and Mumbai (96%), and Hyderabad (95%). The lowest rates by far were recorded in the domains of Surat (49%) and Kannauj (57%), which needs to be kept in mind when thinking of how to improve services and programmes. In all other domains, over 70% of H/TG responded affirmatively to the question of whether they had collected their HIV test result.

When asked if they had heard of ART that can help a person infected with HIV/AIDS to live longer, 64% of all H/TG

responded affirmatively. Yet, knowledge of ART ranged from 31% in Kannauj (Uttar Pradesh) to 84% in Bangalore (Karnataka). There were four more domains of Krishna (Andhra Pradesh), Thane (Maharashtra), Chennai (Tamil Nadu) and West Delhi where more than three fourth of respondents were aware of ART. Lowest level of awareness was once again found in Kannauj (31%), and also in the two domains in West Bengal and in Kollam where around 45% of H/TG reported this.

Among those who reported being aware of ART, almost all knew where they could access treatment. However, in Dakshin Dinajpur in West Bengal, only 75% of H/TG, who knew about ART, knew where to access it. In all other domains, over 90% of H/TG who knew about ART also knew where to get the treatment.

Table 25 HIV/AIDS Knowledge and Practices, Domain Wise, H/TG National IBBS, 2014-15

State	Domain	N	Heard of HIV/AIDS (%)	Knowledge about routes of transmission (%)*				Had misconception about route of transmission (%)*,#	Knowledge about methods of prevention (%)*				Comprehensive knowledge (%)*
				Un-protected sex with infected person	Sharing infected needles	Through infected blood transfusion	Through mother to child		Having sex with one uninfected partner	Always using condoms during sex	Avoiding sharing of needles/ syringes	Getting blood thoroughly tested before transfusion	
Telangana	Hyderabad	301	99.7	98.4	96.5	97.4	59.3	22.3	95.0	92.6	93.4	89.9	60.4
Andhra Pradesh	Krishna	348	99.7	94.2	97.9	95.8	38.2	15.0	89.6	93.8	88.8	78.7	61.4
Gujarat	Surat	398	95.2	94.2	72.5	79.1	42.5	29.0	93.8	70.1	77.1	73.0	50.4
Karnataka	Bangalore	391	98.7	92.5	96.1	94.6	43.3	17.6	93.5	91.8	92.7	84.3	54.0
Kerala	Kollam	246	99.2	95.3	95.3	92.5	54.6	20.5	82.4	87.4	50.2	79.7	52.8
Maharashtra	Mumbai	385	98.5	97.9	98.1	97.0	51.5	8.9	93.7	94.4	91.4	89.9	77.2
	Thane	374	99.0	99.3	98.4	97.9	51.6	7.2	92.8	92.4	83.8	86.2	73.6
Delhi	West	396	99.5	98.8	97.3	79.6	46.8	33.2	96.4	95.3	88.3	87.4	38.7
Odisha	Khordha	395	91.8	98.0	97.9	96.4	87.7	20.3	85.8	88.4	89.8	87.3	45.2
Tamil Nadu	Chennai	362	99.4	96.6	85.6	87.9	70.7	27.3	96.7	80.6	95.5	78.8	30.0
	Coimbatore	385	98.4	100.0	99.2	99.8	82.6	31.9	97.9	99.3	98.3	96.8	44.0
Uttar Pradesh	Kannauj	356	72.3	93.1	88.1	89.4	12.9	13.5	92.7	91.7	85.7	84.0	30.4
West Bengal	Dakshin Dinajpur	256	94.9	95.1	94.7	94.2	43.6	29.6	83.5	97.9	94.2	93.8	46.9
	Kolkata	373	96.5	97.3	94.3	91.6	46.3	15.9	88.5	90.1	86.6	79.7	61.4
Aggregated N		**4966**	**96.4**	**96.9**	**93.3**	**91.3**	**54.4**	**20.9**	**91.8**	**89.3**	**86.6**	**84.5**	**53.3**

* Among those who had heard of HIV/AIDS; # misconception was defined as believing that HIV can be transmitted through mosquito bite or by sharing a meal with someone who is infected

Table 26 Knowledge and Practices Regarding HIV Testing and ART, H/TG National IBBS, 2014-15

State	Domain	N*	Aware of place of HIV Testing (%)*	Awareness about HIV testing availability (%)*			History of HIV Testing (%)				Awareness of ART services (%)	
				Govt. Hospital	Private Hospital	NGOs	Ever tested for HIV*	Tested for HIV/AIDS in last 12 months^	Voluntary Testing^	Collected HIV Test Result^	Aware of ART*	Aware of places of ART#
Telangana	Hyderabad	298	100.0	98.6	36.6	47.4	77.7	99.9	38.0	95.1	53.6	99.6
Andhra Pradesh	Krishna	347	98.3	90.4	28.9	20.1	98.2	100.0	38.7	88.0	80.8	99.5
Gujarat	Surat	384	98.5	78.1	27.3	49.4	85.8	100.0	9.6	48.9	63.4	97.8
Karnataka	Bangalore	387	100.0	73.8	32.6	58.0	90.7	100.0	38.7	97.2	84.2	98.5
Kerala	Kollam	244	89.4	98.1	7.0	13.3	85.1	98.3	71.3	93.8	45.9	91.3
Maharashtra	Mumbai	380	98.7	94.7	47.4	49.8	94.1	98.7	52.4	96.3	65.9	98.5
	Thane	370	99.2	97.1	17.3	20.4	91.8	100.0	74.4	93.7	78.3	97.7
Delhi	West	393	99.4	90.3	50.1	45.5	90.4	100.0	59.7	91.9	76.6	99.1
Odisha	Khordha	373	97.0	98.4	8.4	4.5	79.2	99.6	46.7	73.5	59.8	99.3
Tamil Nadu	Chennai	357	100.0	97.0	34.5	55.6	96.6	99.6	52.9	86.1	77.6	99.6
	Coimbatore	382	99.7	99.9	21.7	28.2	98.8	98.7	48.4	79.2	63.1	100.0
Uttar Pradesh	Kannauj	266	95.7	99.8	43.0	8.4	38.9	98.1	46.5	57.3	30.8	97.3
West Bengal	Dakshin Dinajpur	243	84.8	97.6	7.8	17.0	64.2	99.4	41.7	94.2	46.1	75.0
	Kolkata	363	91.3	99.7	16.2	16.1	63.5	78.5	60.7	95.9	44.2	92.0
Aggregated N		**4787**	**97.0**	**90.5**	**26.9**	**31.5**	**84.4**	**98.2**	**48.9**	**84.7**	**64.1**	**97.3**

* Includes those who were aware of HIV/AIDS; ^ among those who were ever tested for HIV; # Among those who were aware of ART

CHAPTER 9

STIGMA AND DISCRIMINATION

H/TG, like other key populations, face considerable stigma and discrimination within their family and society. Mainly because neither the family nor society normally accepts a male child who behaves in a way that is considered feminine or inappropriate according to the established gender norms (UNDP, 2010). The stigma and discrimination extends to various social settings including work places, law enforcement agencies as well as health care facilities. Considering that stigma and discrimination, whether perceived or experienced, act as a barrier to utilization of various services, it has the potential to adversely impact HIV/AIDS related services including willingness to seek HIV testing and disclosing HIV status to others. Accordingly, the National IBBS asked questions to understand the level of stigma and discrimination reported by H/TG.

9.1 Stigma and Discrimination (Domain Wise)

The National IBBS asked two questions pertaining to stigma and discrimination among H/TG. First, they were asked, 'Are you treated disrespectfully by your family/friends/neighbours because you are a H/TG?' The responses were recorded as either 'Yes' or 'No'. Then they were asked, 'Do you feel you are treated differently such as you receive less care/attention than other persons in health facilities/hospitals because you are a H/TG?' The responses were once again recorded as either 'Yes' or 'No'. Table 27 presents domain wise responses of these two questions.

Overall, half of H/TG respondents affirmed that they were treated disrespectfully by their family/friends/neighbours because they were H/TG. Considerable inter-domain variations were found to exist. The highest rates of stigma and discrimination were recorded in Krishna (84%), Hyderabad (77%) and Khordha (73%). Dakshin Dinajpur, Kolkata and Surat registered lowest proportions at 22%, 27% and 30% respectively. In 8 out of 14 domains, one out of two H/TG reported having been treated disrespectfully within the family or immediate society.

Table 27 also presents the findings of the survey on H/TG's perceived stigma and discrimination at health care facilities. A sizeable percentage of H/TG (37%) reported that they felt they were stigmatised and discriminated in health facilities/hospitals compared to other people. Highest numbers of H/TG who reported this kind of feeling were in Krishna (62%), Hyderabad (60%) and West Delhi (59%). In West Bengal, instead, lowest number of H/TG reported stigma and discrimination. In Kolkata, 11% of H/TG perceived stigma and discrimination in health facilities, followed closely by Dakshin Dinajpur (15%). Less than one third also report this in Kollam (20%), Surat (22%), Bangalore (27%) and Chennai (29%). In other domains, one third or a higher proportion reported stigma and discrimination.

Table 27 Stigma and Discrimination, H/TG National IBBS, 2014-15

State	Domain	N	Treated disrespectfully by family/friends/ neighbours because of being a H/TG	Felt that treated differently than other persons in hospitals because of being a H/TG
Telangana	Hyderabad	301	76.8	59.6
Andhra Pradesh	Krishna	348	83.7	61.9
Gujarat	Surat	398	29.6	21.6
Karnataka	Bangalore	391	40.9	27.3
Kerala	Kollam	246	35.5	19.8
Maharashtra	Mumbai	385	54.3	48.1
	Thane	374	39.2	32.1
Delhi	West	396	62.9	58.8
Odisha	Khordha	395	73.4	41.3
Tamil Nadu	Chennai	362	49.5	29.0
	Coimbatore	385	51.1	33.4
Uttar Pradesh	Kannauj	356	49.7	58.1
West Bengal	Dakshin Dinajpur	256	22.3	14.8
	Kolkata	373	27.0	11.0
Overall		**4966**	**49.8**	**36.7**

CHAPTER 10

PROGRAMME EXPOSURE

Targeted interventions among H/TG are integral component of India's response to HIV/AIDS epidemic. The interventions among H/TG have evolved over a period of time. In early years, interventions for transgender were subsumed within MSM interventions. However, as understandings of H/TG improved during NACP-III in terms of their unique needs and concerns, NACO initiated separate interventions for H/TG at feasible locations providing specific prevention, care, support and treatment services. In view of NACP focus on providing comprehensive package of services to H/TG, through exclusive as well as combined interventions, National IBBS enquired H/TG respondents about their exposure to HIV/AIDS related services through a series of questions.

10.1 Exposure to HIV/ AIDS Related Services

H/TG respondents were asked if they had received ten key pre-defined HIV/ AIDS related services in the 12 months preceding the survey. Those who reported having received at least one of the listed services were further asked about the frequency of contacts they had with a peer educator (PE) or outreach worker (ORW) and the number of condoms they were given by PE/ORW. H/TG were also asked if they had undergone a routine medical check-up in the 3 months prior to the interview. Table 28 summarizes the overall scenario across all domains on these aspects.

A sizeable proportion (85%) of respondents reported having received at least one HIV/AIDS services at some point of time in the 12 months prior to the survey. Receiving information on STI/HIV/AIDS and condoms from a PE or ORW were two of the most common services received by H/TG. At least seven out of ten H/TG respondents reported receiving them in the reference period.

While nearly two thirds of H/TG (63%) reported to have seen a condom demo, other services were received by 59% or less of respondents. Fifty-nine percent reported to have received a check-up and counselling for STI, 54% received lubricants, while 47% were referred to services for HIV testing. Help and support in case of violence or trouble with law enforcement personnel -a key component of the crisis management component of the national programme -were mentioned by only 44% and 38% of respondents respectively.

While exposure to individual HIV/AIDS related services ranged from moderate to high, focus of targeted interventions under NACP is on providing a comprehensive package of prevention services to H/TG. Table 28 provides data on the proportion of H/TG who received a comprehensive package of services. These findings are derived from analysis of responses on individual services. Comprehensive coverage, for the purpose of this report, has been defined as: (i) Received information on STI/HIV/ AIDS from PE or ORW, (ii) Received condoms from PE or ORW, (iii) Received

counselling, besides undergoing check-up for STIs, and (iv) Was referred to other services e.g., STI clinic, HIV testing, detox centres etc. The analysis finds two fifths of respondents (40%) having received a comprehensive package of services under the programme.

Those, who reported having received at least one service in 12 months preceding the survey, were also asked how often they received services in 1-3 months prior to the interview. As a norm, every H/TG under the National Prevention Programme (like other HRGs), is expected to be contacted at least twice by PE/ORW, and should receive 40 condoms in one month, besides undergoing routine medical check-up for STIs every three months. Against these three programme norms, overall 54% of H/TG reported having been contacted at least two times by PE/ORW, 52% said they received at least 40 condoms in the past four weeks, and 62% reported that they had undergone routine medical check-up for STI and RMC in the reference period.

10.2 Exposure to HIV/AIDS Related Services (Domain Wise)

Table 29 presents domain wise information on exposure of H/TG to HIV/AIDS related services. Three fourth of H/TG (75% or more) across all domains reported having been exposed to at least one HIV/AIDS service during the 12 months preceding the survey. The exception was Kannauj (Uttar Pradesh) where less than one third of H/TG reported to have received any service in the reference period. In general, Kannauj had the lowest proportion (21% or lower) of respondents reporting having received any of key HIV/AIDS services: i.e., information on STI/HIV/AIDS, condoms, referral to testing and STI/RTI services.

Information on STI/HIV/AIDS and receipt of condoms were the two most common forms of exposure to services reported by H/TG respondents (60% or higher) in most domains. On an average, over three out of four H/TG reported having received STI/HIV/AIDS information. However, there were some exceptions. In Kolkata, 50% of H/TG, followed by 21% in Kannauj (Uttar Pradesh), reported having received this kind of information.

In Kannauj, access by H/TG to all kinds of services was lowest and far below the average for each of the different services. Only 21% of H/TG in Kannauj said they received condoms in the past 12 months compared to an overall average of 74%. H/TG in Kannauj also reported very low accessibility rates for all other services, especially referral to HIV and STI services. Nearly no H/TG in this domain reported access to a comprehensive package of services in this domain. In other domains over one third of H/TG overall reported this. Access by H/TG to a comprehensive package of services was comparatively low in Kolkata (16%) and Bangalore (19%).

Access to STI/RTI check-ups and counselling was also moderate, as reported by H/TG across a number of domains, especially Kannauj (12%) and Kolkata (39%). Meantime, on an overall basis, exposure to these essential services was reported by 59% of all H/TG who participated in the survey. This was the third most important set of services that were accessed by H/TG across survey domains, after information on STI/HIV/AIDS (77%) and condoms (72%).

While exposure to individual services ranged from moderate to high proportion in most of domains, comprehensive coverage calculated by combining responses to each of the questions, varied considerably across domains. It ranged from only 2% in Kannauj (Uttar Pradesh) to 75% in West Delhi. Krishna (Andhra Pradesh), Surat (Gujarat), Mumbai and Thane (Maharashtra) were other domains where around half of respondents declared having been exposed to a comprehensive range of services. In the rest of domains, comprehensive coverage among respondents was reported by one third or less of respondents.

Among those who reported receiving at least one HIV/AIDS related services, intensity of coverage on key parameters of outreach, condoms and RMC ranged from moderate to high in most domains. At least two contacts in the month preceding the survey were reported by 50% or more respondents across most domains. Exceptions are Kannauj (24%), Kolkata (36%), Bangalore (40%), and Chennai (46%).

Against the expected norm of receiving at least 40 condoms in a month, only 52% of H/TG included in the IBBS reported having actually received the same. Sixteen percent H/TG in Kolkata reported having received 40 condoms in the month ahead of the survey. Low rates of accessibility to pre-established norms of condoms were also reported by H/TG in Dakshin Dinajpur (18%), Coimbatore (24%), Kollam (38%) and Delhi West (39%).

RMC was reported to be availed by nearly two in three H/TG (62%). However, such service access was relatively lower in the domains of Kolkata (48%), Dakshin Dinajpur (50%) and Thane (52%). The highest uptake in RMC services was recorded in Krishna (84%), followed by Bangalore (76%) and Delhi West (68%).

Table 28 Exposure to HIV/AIDS Related Services, H/TG National IBBS, 2014-15

		Percent	Unweighted Count
Programme Coverage: Received HIV/AIDS related services from NGO/Programme/ Individual/group in last 12 months			
Received information on STI/HIV/AIDS	Yes	76.7	3843
Received condoms	Yes	72.2	3689
Received lubricants	Yes	54.4	2747
Seen demonstration on condom use	Yes	62.9	3231
Received check-ups and counselling for STIs	Yes	59.3	2875
Received free medicine for STIs	Yes	47.2	2283
Visited drop-in centre	Yes	53.1	2426
Referred to other services	Yes	50.9	2355
Received help and support services when faced with violence	Yes	44.0	2099
Received help and support services when faced with trouble with law enforcement	Yes	38.2	1854
Received at least one of HIV/AIDS related services	Yes	85.2	4272
Received comprehensive package of services*	Yes	40.0	1829
Coverage Intensity in 1-3 months prior to survey#			
Contacted at least 2 times in last one month	Yes	54.4	2415
Received at least 40 condoms in last one month	Yes	51.5	2034
Received routine medical check-up in last 3 months	Yes	61.7	2691
Aggregated N			**4,966**

*Includes those who reported to receive all four of the following services:(i). Received information on STI/HIV/AIDS from a peer educator (PE) or an outreach worker (ORW) from the NGO/Program, (ii).Received condoms from a PE or an ORW from the NGO/Programme, (iii).Received check-up and counselling for STIs, and (iv).Referred to other services (STI clinic, HIV testing, Detox centres etc.) from the NGO/Programme;#Among those who reported to have receive at least one HIV/AIDS related services in 12 months preceding the survey.

Table 29 Exposure to HIV/AIDS Related Services, Domain Wise, H/TG National IBBS, 2014-15

State	Domain	N	Received HIV/AIDS services in Last 12 Months (%)						Received Services in last 1-3 Months (%)*		
			Information on STI/HIV/AIDS	Condoms	Referrals	Check-ups and counselling for STIs	At least one service	Comprehensive coverage	At least 2 contacts by ORW/PE#	At least 40 condoms#	Undergone RMC@
Telangana	Hyderabad	301	87.3	76.5	40.1	47.9	91.6	30.4	65.9	48.8	53.9
Andhra Pradesh	Krishna	348	90.4	86.2	57.3	66.0	92.6	49.0	55.2	51.9	83.8
Gujarat	Surat	398	92.9	61.8	68.7	65.7	98.6	55.0	49.8	58.3	55.9
Karnataka	Bangalore	391	81.0	77.0	44.8	45.1	88.9	19.1	40.4	63.3	76.3
Kerala	Kollam	246	56.9	66.8	25.5	57.7	74.6	24.5	57.5	38.4	63.4
Maharashtra	Mumbai	385	85.7	90.7	64.2	72.7	95.4	52.8	65.2	84.0	63.5
	Thane	374	79.2	79.1	59.9	67.8	82.8	54.8	59.9	55.8	51.8
Delhi	West	396	88.4	84.0	86.6	82.2	93.3	74.8	50.5	39.2	68.3
Odisha	Khordha	395	64.7	63.5	33.9	50.1	74.5	25.1	53.4	62.9	66.3
Tamil Nadu	Chennai	362	87.6	75.4	66.3	63.6	98.7	33.2	46.0	64.0	61.2
	Coimbatore	385	95.1	89.6	30.7	61.8	96.4	27.5	80.3	24.0	66.2
Uttar Pradesh	Kannauj	356	21.2	20.5	5.6	12.4	31.9	1.8	24.1	45.4	67.4
West Bengal	Dakshin Dinajpur	256	68.8	77.3	43.0	51.2	84.8	30.1	61.8	18.0	50.2
	Kolkata	373	49.7	52.9	21.4	39.0	67.1	16.3	35.9	16.2	47.8
Aggregated N		**4966**	**76.7**	**72.2**	**50.9**	**59.3**	**85.2**	**40.0**	**54.4**	**51.5**	**61.7**

* Among those who reported to receive at least one service in 12 months preceding the survey; # Refers to services received in last one month; @ refers to services received in last 3 months

CHAPTER 11 HIV PREVALENCE

With an estimated population of 70,000 in 18 states, transgender people are one of the key risk groups identified under NACP in India. Still, very few and relatively small scale evidences are available on HIV prevalence specifically among H/TG in India as in most cases, H/TG had been included as a part of MSM survey previously.

HSS among H/TG, last conducted in 2010, was limited to two states covering three districts. Integrated Behavioural and Biological Assessment (IBBA), implemented under Avahan project of Bill and Melinda Gates Foundation, had one H/TG domain in Tamil Nadu in both 2006-07 and 2009-10 rounds covering five districts.

Available evidence indicates high HIV prevalence among H/TG. Out of three sites in the 2010 round of HSS, two sites have reported more than 5% prevalence of HIV. In two rounds of IBBA (2006-07 and 2009-10), HIV prevalence among H/TG in Tamil Nadu sites was 12% in round one, and 10% in round two. With this background, National IBBS among H/TG has provided opportunity to understand the current status of HIV prevalence among H/TG with a relatively large sample size.

The following section present domain wise HIV prevalence with 95% CI bound as well as an overall aggregated prevalence. It also analyses variations in HIV prevalence based on key background and behavioural characteristics. Understanding of HIV prevalence in different geographical areas as well as by key socio-economic and behavioural factors is expected to offer new insights into HIV epidemic among H/TG which in turn may lead to more precisely targeted messages and interventions for the group.

11.1 HIV Prevalence

The aggregated overall HIV prevalence observed among H/TG was 7.5% [95% CI 6.2-9.0]. However, there were wide variations across domains. HIV prevalence was estimated at more than 10% in both domains of Maharashtra. Krishna (Andhra Pradesh), Bangalore (Karnataka), West Delhi (Delhi), Khordha (Odisha) and Chennai (Tamil Nadu) domains had 5% or more prevalence. Hyderabad and Kolkata recorded an observed prevalence of 4.6% and 4.8% respectively while Surat had a prevalence of 3.6%. Observed prevalence in Kollam (Kerala), Coimbatore (Tamil Nadu), Kannauj (Uttar Pradesh) and Dakshin Dinajpur (West Bengal) ranged from 0.5% to 2.3% which is relatively lower than the observed prevalence in rest of the domains (Table 30).

Table 30: HIV Prevalence (%), H/TG National IBBS, 2014-15

State	Domain	N	Prevalence (%)	95% CI
Telangana	Hyderabad	301	4.6	2.4-8.7
Andhra Pradesh	Krishna	348	5.9	3.5-9.8
Gujarat	Surat	398	3.6	1.8-7.1
Karnataka	Bangalore	391	6.2	4.2-9.1
Kerala	Kollam	246	2.1	0.8-5.3
Maharashtra	Mumbai	385	12.1	8.2-17.5
	Thane	374	23.0	16.8-30.7
Delhi	West	396	5.3	3.2-8.7
Odisha	Khordha	395	9.2	6.0-13.9
Tamil Nadu	Chennai	362	8.2	2.3-25.5
	Coimbatore	385	2.3	0.9-5.7
Uttar Pradesh	Kannauj	356	0.5	0.1-2.5
West Bengal	Dakshin Dinajpur	256	2.0	0.9-4.3
	Kolkata	373	4.8	2.8-8.0
Overall		**4966**	**7.5**	**6.2-9.0**

11.2 HIV Prevalence by Background Characteristics

HIV prevalence is known to vary according to background characteristics of age, education, marital status etc. Table 31 presents the relationships between HIV prevalence and select background characteristics.

HIV prevalence increased with the age though the differentials between the higher age group of 20-24, 25-34 and 35+ appears to be insignificant. Though the prevalence in 15-19 years age group appears to be lower than the rest of the age group, the prevalence in this age group may be considered as proxy of the incidence. In this context, HIV prevalence of 3.2% in this younger age group may be considered as high.

Table 31: HIV Prevalence (%) by Background Characteristics, H/TG National IBBS, 2014-15

Background Characteristics	Prevalence (%)	95% CI	Aggregated N
Age Group			
15-19	3.2	1.6-6.3	380
20-24	7.3	5.4-9.7	1,150
25-34	7.2	5.7-9.1	2,418
35+	9.9	6.6-14.6	1,018
Literacy			
Can read and write	7.3	6.0-8.8	4,377
Can read only	1.6	0.6-4.5	156
Cannot read and write	11.2	7.6-16.1	429
Marital status			
Never married	7.1	5.8-8.6	3,855
Currently married	10.0	6.0-16.2	700
Separated/Divorced/Widowed	6.6	4.0-10.7	374
Self-reported Main Occupation			
Sex Work/Masseur	10.0	7.9-12.6	1,625
Others	6.1	4.7-7.8	3,341
Total	7.5	6.2-9.0	4,966

HIV prevalence appears to vary with literacy and marital status also; however, this variation may be insignificant as confidence bound tends to overlap. HIV prevalence appears to be high among those who reported sex worker/masseur as their main occupation.

11.3 HIV Prevalence by Sexual Behaviour

Table 32 presents prevalence of HIV infection according to sexual behaviour among H/TG respondents. Among those who reported age at first sex with a male at or before 20 years, prevalence was 8.6% (95% CI 7.0-10.5). Those who reported to have had first sex with a male after 20 years, had a relatively lower prevalence (1.7%, 95% CI 0.8-3.4). Both 'Akwa' and 'Nirvan' had a HIV prevalence of 8%. HIV prevalence among those who reported to have sex primarily at Lodge/ Hotels was 14.2% (95% CI 9.9-20.1).

Table 32 presents HIV prevalence differentials according to consistent condom use with various partners. Condom use is fundamental to HIV prevention under National AIDS Control Programme, and hence it is usually expected that HIV prevalence among condom non-users shall be higher than among condom users. Data indicates that HIV prevalence is invariably higher among condom users than non-users. While

this may not be statistically significant, a higher prevalence may be the result of high level of HIV testing uptake and subsequent desire of the population to protect un-infected partner. However, it may also be simply a reporting error as condom use is reported many times as socially desirable response.

Table 32 : HIV Prevalence (%) by Sexual Behaviour, H/TG National IBBS, 2014-15

Sexual Behaviour	Prevalence (%)	95%CI	Aggregated N
Age at first sex with a male			
<=20	8.6	7.0-10.5	3,638
>20	1.7	0.8-3.4	306
Self-reported identity			
Akwa	8.0	6.5-9.8	2,375
Nirvan	8.0	5.8-10.9	2,118
Primary location of sex with male sexual partners			
Home/Rented Home	5.8	4.5-7.5	3069
Lodge/Hotels	14.2	9.9-20.1	724
Public Places	7.4	4.7-11.2	681
Vehicle	8.5	3.1-20.1	118
Highway	8.4	4.3-15.9	183
Others	5.7	3.0-10.4	186
Consistent condom use with regular partner in last one month			
Yes	8.9	6.5-12.2	1196
No	8.7	5.5-13.4	993
Consistent condom use with paying partner in last one month			
Yes	8.1	6.3-10.3	1,627
No	5.5	3.9-7.7	933
Consistent condom use with Paid Partner in last one month			
Yes	8.4	5.5-12.5	627
No	5.1	3.0-8.5	332
Consistent condom use with Casual Partner in last one month			
Yes	9.4	6.1-14.4	728
No	9.9	4.8-19.2	514
Total	7.5	6.2-9.0	4,966

ANNEXURES

Annex. I. Composition of Technical Advisory Group (TAG) on National IBBS

1. Dr. Neeraj Dhingra, DDG (M&E), NACO (Chairperson)
2. Dr. DCS Reddy, Former HoD, Dept of PSM, IMS, BHU & Ex-NPO (Surveillance), WHO
3. Dr. Arvind Pandey, Director, NIMS, New Delhi
4. Dr. Raman Gangakherkar, In-Charge Director, NARI, Pune
5. Dr. Shashikant, Professor, Centre for Community Medicine, AIIMS, New Delhi
6. Dr. M. Bhattacharya, Former Head, Dept. of CHA, NIHFW, New Delhi
7. Dr. Sanjay Mehendale, Director, NIE, Chennai
8. Dr. Rajesh Kumar, Head, School of Public Health, PGIMER, Chandigarh
9. Dr. Manihar Singh, Head, Dept. of Epidemiology, RIMS, Imphal
10. Dr. Samiran Panda, Scientist-F, NICED, Kolkata
11. Dr. Bitra George, Director, FHI360 India, New Delhi
12. Dr. Rajat Adhikary, Associate II, Population Council
13. Dr. B. M. Ramesh, Project Director, UP-TSU, Bill & Melinda Gates Foundation
14. Dr. Pauline Harvey, Director, CDC-DGHA India, New Delhi
15. Dr. Taoufik Bakkali, Sr. SI Adviser, UNAIDS India, New Delhi
16. Dr. Niranjan Saggurti, Senior Programme Officer, Bill & Melinda Gates Foundation
17. Dr. A S Rathore, DDG (CST), NACO

Annex. II. Composition of Technical Resource Group for TG/Hijra

1. Dr Venkatesh Chakrapani, Centre for Sexuality and Health Research & Policy (C-SHaRP), Chennai, Chair
2. Mx Laxmi Narayan Tripathi, Astitva Trust, Mumbai, Co-Chair
3. Mx Gauri Sawwant, Sakhi Char Chowghi, Mumbai
4. Mx Ranjita Sinha
5. Representative, Karnataka State AIDS Prevention Society
6. Representative, MoHFW
7. Representative, MoSJE
8. Mr Manilal N R, The India HIV/AIDS Alliance, New Delhi
9. Representative, DSACS
10. Representative, AIIMS, New Delhi
11. Representative, UNDP, New Delhi
12. Dr. Neeraj Dhingra, DDG (TI), NACO
13. Dr Naresh Goel, DDG (IEC), NACO
14. Mr. Rajeenald T.D., PO-TI (MSM/TG), NACO

III. Composition of National Working Group(NWG) on National IBBS

1. Dr. Neeraj Dhingra, DDG (M&E), NACO, Chairperson
2. Dr. DCS Reddy, Former HoD, Dept of PSM, IMS, BHU & Ex-NPO (Surveillance), WHO
3. Dr Yujwal Raj, Independent Consultant
4. Dr Pradeep Kumar, Programme Officer (Surveillance), NACO, Coordinator
5. Dr Bhavna Sangal, Technical Officer (Surveillance), NACO
6. Ms. Lakshmi Ramakrishnan, Independent Consultant
7. Mr. Prabuddhagopal, Associate Director, FHI360
8. Mr. Bidhubhushan Mahapatra, Former Senior Programme Officer, Pop Council
9. Ms. Deepika Joshi, Public Health Analysis, CDC India
10. Mr. Gay Thongomba, Former Senior Programme Officer, FHI360
11. Dr Devendra Singh, Former Research Specialist, PHFI
12. Dr L B Chavan, Consultant, Strategic Information, WHO India
13. Mr Ugra Mohan Jha, Programme Officer (Statistics), NACO
14. Dr Chinmoyee Das, Former Epidemiologist, NACO
15. Dr Daniel Rosen, Chief, Strategic Information, CDC India

Annex. IV List of Testing Labs

S. No.	Designated Labs	State
1	All India Institute of Medical Sciences (AIIMS), New Delhi	Jharkhand
		Rajasthan
2	Maulana Azad Medical College (MAMC), New Delhi	Haryana
3	National Centre for Diseases Control (NCDC), New Delhi	Delhi
		Uttar Pradesh
4	Lady Hardinge Medical College (LHMC), New Delhi	Bihar
		Uttar Pradesh
5	Post-Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Chandigarh
		Punjab
		Himachal Pradesh
6	National Institute of Mental Health and Neuro-Sciences (NIMHANS), Bangalore, Karnataka	Karnataka
7	School of Tropical Medicine (STM), Kolkata, West Bengal	West Bengal
8	Institute of Preventive Medicine (IPM), Hyderabad, Andhra Pradesh	Odisha
9	Gandhi Medical College, Hyderabad, Andhra Pradesh	Andhra Pradesh
10	National Institute of Cholera and Enteric Diseases (NICED), Kolkata, West Bengal	Assam
		Nagaland
		Chhattisgarh
11	Regional Institute of Medical Sciences (RIMS), Imphal, Manipur	Arunachal Pradesh
		Manipur
		Meghalaya
		Mizoram
		Tripura
		Sikkim
12	Christian Medical College (CMC), Vellore, Tamil Nadu	Kerala
13	Tamil Nadu Dr. MGR Medical University (TNMGR), Chennai, Tamil Nadu	Tamilnadu
		Pondicherry
14	Seth GS Medical College & King Edward Memorial Hospital (KEM), Mumbai	Maharashtra
15	Lokmanya Tilak Municipal General Hospital & Medical College (SION), Mumbai	Madhya Pradesh
		Maharashtra
16	Grant Medical College & Sir JJ Group of Hospitals (JJ), Mumbai	Gujarat
		Goa

Annex. V. A

INFORMED CONSENT/ASSENT FROM ELIGIBLE RESPONDENT AGED 15 YEARS AND OVER

(PART A)

Introduction: My name is _____ (name), and I work with (_____). We are collecting data on risk behaviours for HIV for a program called Integrated Biological and Behavioral Surveillance (IBBS) which is conducted by The Department of AIDS Control (DAC), India.

Background of the Study: Government of India, through DAC, conducts HIV surveillance survey periodically among different population groups who may be at risk of HIV to know how HIV is progressing in the country. This survey will explore the HIV related knowledge, behaviors, practices and HIV status among these groups in this district. The government will use results of this survey to develop and improve programs to prevent HIV/AIDS in India.

We will be collecting information from 400 randomly selected members of your community who are 15 years or older and you happen to be one among them. This consent form gives you information about IBBS. You are being asked to think about whether you want to participate in this survey. It is necessary for you to understand and receive complete information about this survey before you decide to participate. Therefore, you have to read this form or somebody will read it out to you. If you want to participate in this survey, you will put today's date and sign this consent form. If you cannot sign, you can put your thumb impression and a witness can sign it.

What will be done in this Survey?

If you agree to participate in this survey, our investigators will ask you some personal questions about your life, sexual behavior, substance use and sexually transmitted infections, services you have received etc. in a setting ensuring complete privacy for you. After you answer the questions we will collect a few drops of your blood by finger prick. This will take about one to two minutes and will be done by our trained lab technician. Your blood sample will be tested for HIV prevalence, incidence and CD4. Our lab technicians will use disposable, clean and completely safe equipments for the collection of samples.

Your name and address will not be recorded either on data form or on blood specimen. Accordingly, the results of the HIV test cannot be tracked and therefore cannot be told to you. There is an Integrated Counseling and Testing Center (ICTC) which has facilities to counsel, test and provide results for HIV AND can guide for TREATMENT. If you wish to know your HIV status, we will refer you to a nearby ICTC WHERE YOU CAN BE counseled and TESTED free of cost.

In all, your participation will require about an hour. At the end of this form (which we will take about five minutes to run you through), we will request you to give consent for

interview and sample collection. You may participate, only if you are willing to. There is no right or wrong answer to any of the questions. You do not have to answer any questions that you do not want to.

Risks and Benefits of Participating in the Study

If included in survey, we will ask you some personal questions, including sexual behaviors. You may feel embarrassed or shy when discussing sexual behaviors; however our trained staff member will help you deal with any feelings or questions you have. Our trained lab technician will collect a few drops of blood by finger prick using a safe and sterile needle. Yet, you may feel some discomfort when your finger is pricked for collecting blood.

We will make every effort to protect your privacy and confidentiality in IBBS. However, it is possible that others may learn of your participation may treat you unfairly or discriminate against you. In very rare situation, the law enforcement may come to know of your communities work leading to the possibility for harassment.

This survey will be of no direct benefit to you. However, you and other members of your community may benefit in the future from information learned. We will refer you to HIV prevention services as well as counseling and testing for HIV. This survey cannot directly provide you with other medical care, but we can refer you to other available sources of care.

YOU MAY CHOOSE NOT TO ANSWER ANY OF THE QUESTIONS AND ALSO MAY REFUSE TO PROVIDE BLOOD SAMPLES. EVEN IF YOU DECIDE NOT TO ANSWER SOME QUESTIONS OR PROVIDE SAMPLES

YOU WILL CONTINUE TO RECEIVE THE SERVICES YOU DO FROM YOUR LOCAL INTERVENTION PROGRAM. YOU MAY WITHDRAW FROM THE SURVEY AT ANY TIME. EVEN IF YOU WITHDRAW, YOU WILL CONTINUE TO RECEIVE THE SERVICES FROM YOUR LOCAL INTERVENTION PROGRAM, AS USUAL.

Confidentiality We will not record your name and address either on data forms or on blood specimen. Except for the consent form all other forms and blood specimen will only have a code number. As neither name nor address will be recorded on data forms/ blood specimen, the HIV test results cannot be linked to any respondent.The consent form, having your name and age will be kept under lock and key at regional institutes of Dept of AIDS Control and will not be shared with anybody else.

Compensation for Your Participation

There is no cost to you to participate in the study. You will be compensated for your time and effort. (Rs. 100/). Additionally your travel to study site will be reimbursed. No other compensation will be provided to you.

Whom to call if you have any questions/problems/adverse events: If you ever have any question about this study, or in case of research-related inquiries, or if you face any trouble due to your participation in the IBBS, you are requested to immediately call Dr. ……..... (Name), Nodal Person for IBBS, …… (Name & Place of Regional Institute) at …….. (Telephone No.) or Dr. Yujwal Raj, National Programme Officer (Strategic Information), Dept. of AIDS Control, Govt. of India, New Delhi at toll free number 18001026388. You waive no legal rights by participating in this research study. If you have questions about your rights as a research participant, you may contact ……., Member Secretary of Ethics Committee, …… (Name & Place of Regional Institute) at …… (Telephone No.).

Do you have any questions?

==========

PART B: Statement to be Made By A Participant Willing to participate in the Study

I, _____, aged _____yrs have read this consent form completely / this consent form has been read out to me and have understood this . I willingly agree to respond to the questions asked and to give my blood sample for HIV and CD4 under this survey. I have been told about the risks and benefits from my participation in the survey. All my questions have been answered. I can withdraw my participation anytime, for any reason. I also know that the information collected from me will be used by the DAC , Government of India and will be kept confidential.

Signature/ thumb impression: _____ Date:_____

(This is the left thumb impression of _____.

Name of witness:_____ Signature:_____ Date:_____
(Signature of witness is required if the respondent is illiterate. Witness should be literate and not related to researchers.)

Investigators/ Designate's Name:_____ Signature:_____Date:_____

Annex. V. B

INFORMED CONSENT FROM GUARDIAN/ CARE-GIVER OF ELIGIBLE RESPONDENT AGED 15-17 YEARS

(PART A)

Introduction: My name is _____ (name), and I work with (_____). We are collecting data on risk behaviours for HIV for a program called Integrated Biological and Behavioral Surveillance (IBBS) which is conducted by The Department of AIDS Control (DAC), India.

Background of the Study: Government of India, through DAC, conducts HIV surveillance survey periodically among different population groups who may be at risk of HIV to know how HIV is progressing in the country. This survey will explore the HIV related knowledge, behaviors, practices and HIV status among these groups in this district. The government will use results of this survey to develop and improve programs to prevent HIV/AIDS in India.

We will be collecting information from 400 randomly selected members of high risk groups and migrants community in this district who are 15 years or older and your ward happen to be one among them. This consent form gives you information about IBBS. You are being asked to think about whether you want your ward to participate in this survey. It is necessary for you to understand and receive complete information about this survey before you give consent for your ward to participate. Therefore, you have to read this form or somebody will read it out to you. If you want your ward to participate in this survey, you will put today's date and sign this consent form. If you cannot sign, you can put your thumb impression and a witness can sign it.

What will be done in this Survey?

If you agree to participate in this survey, our investigators will ask your ward some personal questions about his/her life, sexual behavior, substance use and sexually transmitted infections, services he/she have received etc. in a setting ensuring complete privacy for him/her. After you answer the questions we will collect a few drops of him/her blood by finger prick. This will take about one to two minutes and will be done by our trained lab technician. His/her blood sample will be tested for HIV prevalence, incidence and CD4. Our lab technicians will use disposable, clean and completely safe equipments for the collection of samples.

Your ward name and address will not be recorded either on data form or on blood specimen. Accordingly, the results of the HIV test cannot be tracked and therefore cannot be told to your ward. There is an Integrated Counseling and Testing Center (ICTC) which has facilities to counsel, test and provide results for HIV AND can guide for TREATMENT. If your ward wish to know his/her HIV status, we will refer him/her to a nearby ICTC WHERE he/she CAN BE counseled and TESTED free of cost.

In all, your ward participation will require about an hour. At the end of this form (which we will take about five minutes to run you through), we will request you to give consent for interview and sample collection from your ward. Your ward may participate, only if you are willing to. There is no right or wrong answer to any of the questions. Your ward do not have to answer any questions that he/she do not want to.

Risks and Benefits of Participating in the Study

If included in survey, we will ask your ward some personal questions, including sexual behaviors. Your ward may feel embarrassed or shy when discussing sexual behaviors; however our trained staff member will help your ward deal with any feelings or questions he/she have. Our trained lab technician will collect a few drops of blood by finger prick using a safe and sterile needle. Yet, your ward may feel some discomfort when finger is pricked for collecting blood.

We will make every effort to protect your ward privacy and confidentiality in IBBS. However, it is possible that others may learn of your ward participation may treat him/her unfairly or discriminate against your ward. In very rare situation, the law enforcement may come to know of your ward communities work leading to the possibility for harassment.

This survey will be of no direct benefit to your ward. However, your ward and other members of your ward community may benefit in the future from information learned. We will refer your ward to HIV prevention services as well as counseling and testing for HIV. This survey cannot directly provide your with other medical care, but we can refer him/her to other available sources of care.

YOUR WARD MAY CHOOSE NOT TO ANSWER ANY OF THE QUESTIONS AND ALSO MAY REFUSE TO PROVIDE BLOOD SAMPLES. EVEN IF YOUR WARD DECIDE NOT TO ANSWER SOME QUESTIONS OR PROVIDE SAMPLES, YOUR WARD WILL CONTINUE TO RECEIVE THE SERVICES HE/SHE DO FROM LOCAL INTERVENTION PROGRAM. YOUR WARD MAY WITHDRAW FROM THE SURVEY AT ANY TIME. EVEN IF YOUR WARD WITHDRAW, YOUR WARD WILL CONTINUE TO RECEIVE THE SERVICES FROM LOCAL INTERVENTION PROGRAM, AS USUAL.

Confidentiality

We will not record your ward name and address either on data forms or on blood specimen. Except for the consent form all other forms and blood specimen will only have a code number. As neither name nor address will be recorded on data forms/blood specimen, the HIV test results cannot be linked to any respondent. The consent form, having your ward name and age will be kept under lock and key at regional institutes of Dept of AIDS Control and will not be shared with anybody else.

Compensation for Your Participation

There is no cost to your ward to participate in the study. Your ward will be compensated for his/her time and effort. (Rs. 100/). Additionally your ward travel to study site will be reimbursed. No other compensation will be provided to your ward.

Whom to call if you have any questions/problems/adverse events: If you ever have any question about this study, or in case of research-related inquiries, or if you face any trouble due to your participation in the IBBS, you are requested to immediately call Dr. ……..…..... (Name), Nodal Person for IBBS, …… (Name & Place of Regional Institute) at …….. (Telephone No.) or Dr. Yujwal Raj, National Programme Officer (Strategic Information), Dept. of AIDS Control, Govt. of India, New Delhi at toll free number 18001026388. You waive no legal rights by participating in this research study. If you have questions about your rights as a research participant, you may contact ……., Member Secretary of Ethics Committee, …… (Name & Place of Regional Institute) at …… (Telephone No.).

Do you have any questions?

==========

PART B: Statement to be Made By A Participant Willing to participate in the Study

I, _____, aged _____yrs have read this consent form completely / this consent form has been read out to me and have understood this . I willingly agree to allow my ward to respond to the questions asked and to give blood sample for HIV and CD4 under this survey. I have been told about the risks and benefits from my ward participation in the survey. All my questions have been answered. My ward can withdrawparticipation anytime, for any reason. I also know that the information collected from my ward will be used by the DAC , Government of India and will be kept confidential.

Signature/ thumb impression: _____ Date:_____

(This is the left thumb impression of _____.

Name of witness:_____ Signature: _____Date:_____

(Signature of witness is required if the respondent is illiterate. Witness should be literate and not related to researchers.)]

Investigators/ Designate's

Name:_____ Signature:_____ Date:_____

Annex. VI List of team members engaged in National IBBS implementation

National AIDS Control Organization (NACO)

Dr S. Venkatesh, DDG-Strategic Information Management Unit
Dr Neeraj Dhingra, DDG- Monitoring, Evaluation and Surveillance
Dr Yujwal Raj, NPO-Strategic Information
Dr Pradeep Kumar, PO-Surveillance
Dr Bhavna Sangal, TO-Surveillance

Regional Institutes

NIMS, New Delhi Dr Arvind Pandey (Director) Dr Damodar Sahu (Scientist E, Focal person) Dr Mahesh Nath Singh (SRO) Mr Padum Narayan Mishra (RO) Dr Kusum Bharati (Data Manager)	**PGIMER, Chandigarh** Dr PVM Lakshmi (Focal Person) Dr Deepak Sharma (Project coordinator) Dr Lopamudra Dutta (Senior Research Officer) Dr Titiksha Rawat (Research Officer) Ms Chandrakanta Chauhan (RO) Dr Priti Rawat (RO) Mr Rajinder Singh (Data Manager)
AIIMS, New Delhi Dr Shashi Kant (Prof. & Head) Dr Sanjay K Rai (Professor, Focal person) Dr Puneet Misra (Professor) Dr Partho Haldar (Asst. Professor) Dr Arvind Kumar Singh (SRO) Dr Rajan Wigh (RO) Mr Khalid Masood (Data Manager)	**NARI, Pune** Dr Sheela V Godbole (Focal Person) Dr Pranil Kamble (Project Coordinator) Dr Amit Lokhande (Project Coordinator) Ms Sucheta Deshpande (SRO) Ms Neelam Joglekar (SRO) Ms Chitra Kadu (Sr Research Assistant) Ms Manaswi Sawant (Data Manager) Ms Nisha Dulhani (Data Manager)
NIHFW, New Delhi Dr M Bhattacharya (Focal Person) Dr Pushpanjali Swain (Focal Person) Dr Sonoo Jha (Project Coordinator) Dr Chandravali Madan (RO) Dr Neha Gutkar (RO) Mr Jitendra Dhuria (Data Manager)	**NICED, Kolkata** Dr M.K. Saha (Focal Person) Dr Alok Deb (Scientist E) Dr Subrata Biswas (Project Coordinator) Dr Sandipta Chakraborty (RO) Dr Mallika Ghosh (RO) Mr Pankaj Kumar Khan (Data Manager) Ms Piyali Ghosh (Project Assistant)
RIMS, Imphal Dr Y. Manihar Singh (Focal Person) Dr H. Priyokumar Singh (Project Coordinator) Mr A. Lakhikanta (SRO) Ms Roshinbala Y. (RO) Ms L. Jayashree (RO) Mr M Arun (RO) Mr M. Rishikesh (Data Manager)	**NIE, Chennai** Mr. A. Elangovan (Focal Person) Dr Joseph K David (Scientist C) Mr A. Santhakumar(Project Coordinator) Mr R. Senthilkumar (RO) Mr Ganesh Kumar. S (SRO) Ms Chitra George (SRO) Mr R. Chandrasekar (Data Manager)

Project Management Unit-NACO
Dr Yujwal Raj
Dr Pradeep Kumar
Dr Bhavna Sangal
Dr Sunny Swarnkar
Mr Abhik Dutta
Ms Pragya Mishra
Ms Nidhi Dubey
Mr Akash Mishra
Mr Kedar dash

Development Partners

CDC
Dr Daniel Rosen
Ms Deepika Srivastava Joshi
Dr Archana Beri

WHO
Dr Laxmikant Bhimrao Chawan

FHI
Dr Bitra George
Dr Lakshmi Rmakrishna
Mr Prabhuddhagopal Goswami
Mr Shajan Mathew
Mr Gay Thongamba
Ms Shreena Ramanathan

Population Council
Dr Niranjan Saggurti
Dr Sangram Kishore Patel
Mr Madhusudana Battala

PHFI
Dr Devender Singh
Dr Harimohan Nagepalli
Dr Sumit Asthana

Independent Consultants
Dr Shankar Talwar
Dr Mandhar Mainkar
Mr Shreenivasan Kallam
Mr Nandan Roy
Mr Chakpram Umananda
Dr Nandini Roy
Dr Partha Haldar
Dr M. Prasanna Kumar
Ms Uma Mahajan
Ms Seema Anil Kumar
Dr Lincoln Choudhury

State AIDS Control Societies members

1. Dr. Vijay Kumar, AD (STD), HSS Focal Person, Bihar SACS
2. Mr. Pankaj Priya Chaubey, Joint Director (TI), Bihar SACS
3. Mr Yasir Imam, M&E Officer, Bihar SACS
4. Dr. B. P. Chaurasia,.....Additional Project Director, Jharkhand SACS
5. Dr. Sami Akhter, M&E Officer, HSS Focal Person, Jharkhand SACS
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Annex. VII

VII Department of AIDS Control, Ministry of Health and Family Welfare
Government of India
NATIONAL INTEGRATED BIOLOGICAL & BEHAVIORAL SURVEILLANCE (IBBS)
AMONG HIJRA/TRANSGENDER (H/TG)

Questionnaire for Behavioral Data Collection

Operational Definition:

Transgender: Person aged 15 or more, whose self-identity does not conform unambiguously to conventional notions of male or female gender roles, but combines or moves between these.

BLOCK I: IDENTIFICATION AND CONSENT STATUS				
#	**Question**	**Response categories**	**Code**	**Skip to**
101	Name and code of the state	State_____		
102	Name and code of the domain	Domain_____		☐☐
103	Name and code of the district	District_____		☐☐
104	Type of domain	Independent Composite	01 02	☐☐
105	Name and code of the city/town/ village	City/town/ village_____		☐☐
106	Name and code of the cluster	Cluster_____		☐☐
107	Date of interview	Day / Month / Year		
		☐☐ / ☐☐ / ☐☐		
108	Name and code of the inter-viewer	Name_____		☐☐
109	Language of interview	Language_____		☐☐
110	Already participated in IBBS in the last 2 months?	Yes No	01 02	▶112 ☐☐
111	Consent status	Agreed Refused	01 02	☐☐ ▶**END**
112	CASE ID ☐☐☐☐☐ ☐ ☐☐☐ (Domain Code) (Sub-Domain No.) (Sample No.)			
113	Completion status	Interview completed and blood sample given Only interview completed Interview partially completed	01 02 03	☐☐

BLOCK II: DEMOGRAPHIC CHARACTERISTICS				
#	**Question**	**Response categories**	**Code**	**Skip to**
201	How old are you?	Age in completed years		☐☐
202	Can you read and write?	Can read and write Can read only Cannot read and write	01 02 03	☐☐
203	What is the highest grade/ class you have completed?	Highest grade/class completed Never attended school	 96	☐☐
204	What is your main occupation? **DO NOT READ RESPONSES CIRCLE ONLY ONE**	Unemployed Student Agricultural labor/cultivator Non-agricultural labor Daily wage labourer Domestic servant Skilled/Semi-skilled worker Petty business/ Small shop Large business/ self employed Service (private/government) Transport worker Hotel staff Sex work Masseur Other (Specify)_____	01 02 03 04 05 06 07 08 09 10 11 12 13 14 97	☐☐
205	What is your current marital status?	Never married Currently married Widowed Divorced Separated Others (Specify)_____	01 02 03 04 05 97	☐☐
206	With whom do you currently live?	Living alone Living with spouse/regular (main) female partner Living with other female partner Living with regular (main) male/ hijra sexual partner Living with other male/hijra partner Living with friends Living with family/relatives without sexual partner Others (Specify)_____	01 02 03 04 05 06 07 97	☐☐
207	I don't want to know your number, but could you please tell me if you have a cell phone?	Yes No	01 02	☐☐

BLOCK III: MIGRATION AND MOBILITY				
#	**Question**	**Response categories**	**Code**	**Skip to**
301	Do you currently live in this district?	Yes No	01 02	▶303 ☐☐
302	Which district/state do you currently live in? **ASK ABOUT STATE AND DISTRICT**	DISTRICT_____ STATE_____ On the move (Does not stay in particular district/state)	 96	☐☐
303	How long have you been living in this district?	a. Years____ b. Months____ Don't remember	 98	☐☐ ☐☐
	IF RESPONSE Q301 IS"01", THEN ASK Q304, ELSE SKIP TO Q305			
304	Have you travelled outside this district (current place of residence) in the last 12 months?	Yes No	01 02	☐☐ **▶BLOCK IV**
305	How many times have you travelled outside the district you currently live in the last 3 months	Number of times____ Did not travel Don't remember	 00 98	☐☐ ▶307
306	How many such places have you travelled in the last 3 months?	Number of places travelled_ Don't remember	 98	☐☐
307	How many days did you stay in the place you visited last?	Number of days stayed____ Don't remember	 998	☐☐☐
308	Did you have sex with a male/hijra partner in the place you visited last?	Yes No	01 02	☐☐

BLOCK IV: GENERAL SEXUAL BEHAVIOR				
#	Question	Response categories	Code	Skip to
401	How old were you when you had your first sex with a male? **CONSIDER ANY TYPE OF SEX** **IF THE RESPONDENT MENTIONS HE HAD FIRST SEX ACT "XX"NUMBER OF YEARS AGO, THEN SUBTRACT IT FROM THE CURRENT AGE (Q201) AND CONFIRM WITH THE RESPONDENT**	Age in completed years Don't know	 98	☐☐
402	Were you forced to have sex during the first sexual encounter with a male?	Yes No	01 02	☐☐
403	How do you primarily identify (sexual) yourself?	Aqua Hijra Nirvana Hijra Others (Specify)_____	01 02 97	☐☐
404	Where do you primarily have sex with your male sexual partners? **DO NOT READ RESPONSES** **CIRCLE ONLY ONE RESPONSE**	Home/ rented home Lodge/Hotels Vehicle Highway Public place Massage parlours Other (Specify)_____	01 02 03 04 05 06 97	☐☐
	Now, I am going to ask you some questions related to condom use practices			

BLOCK IV: GENERAL SEXUAL BEHAVIOR				
#	**Question**	**Response categories**	**Code**	**Skip to**
405	The last time you obtained a condom, where did you get it? **READ ALL RESPONSES AND CIRCLE THE ONE SELECTED BY RESPONDENT**	Peer educator/Outreach worker	01	☐☐
		Paan shop	02	
		Apothecary/Drug store/ Chemist	03	
		Sex partner	04	
		Vending stall	05	
		Vending machine	06	
		Health facility	07	
		Bar/Guest House/Hotel	08	
		Friend	09	
		Mobile van/NGO office/ Drop-In Centre	10	
		Never obtained a condom	96	
		Others (specify) _____	97	
		Don't remember	98	
406	Did you use a condom the last time you had anal sex with your male partners?	Yes	01	☐☐ ▶ **Block 5**
		No	02	
		Never had anal sex	96	
407	Did you have an instance in the **last one month** where you had anal sex with your male sexual partners without using condoms?	Yes	01	☐☐ ▶409 ▶ **BLOCK V** ▶409
		No	02	
		Didn't have anal sex in last one month	03	
		Don't remember	98	
408	What was the **main** reason for **NOT** using a condom in that instance? **DO NOT READ RESPONSES**	Partner refused	01	☐☐
		Paid more for sex without a condom	02	
		Condom was not available	03	
		Condom costs too much	04	
		Was afraid of violence	05	
		Too embarrassed to ask him to use a condom	06	
		Had forced sex	07	
		He was a trusted partner	08	
		Do not like using condoms	09	
		Other (specify)	97	

BLOCK IV: GENERAL SEXUAL BEHAVIOR				
#	**Question**	**Response categories**	**Code**	**Skip to**
409	In the **last one month** have you had the experience of a condom breaking while it is being used during anal sex with your male sexual partners?	Yes No No condom use in last month	01 02 03	☐☐
410	In the last one month, was there an instance when you wanted to use a condom while having anal sex with your male partners but could not use it?	Yes No Didn't want to use condom Don't Remember	01 02 03 98	☐☐ ▶412
411	Have you used a lubricant **in the last one month** while having anal sex with your male sexual partners? **(Something that could make your penis or your partner's penis more slippery and easier to insert into the anus?)**	Yes No	01 02	☐☐ **▶Block V**
412	Which lubricants have you used in in the **last one month** during anal sex with your male sexual partners? **DO NOT READ RESPONSES** **MULTIPLE RESPONSES POSSIBLE**	Baby Oil Butter Cooking Oil Coconut oil Hand Lotion KY Jelly Vaseline Saliva Don't know Other (specify)_____	A B C D E F G H X Z	☐ ☐ ☐ ☐

BLOCK IV: GENERAL SEXUAL BEHAVIOR				
#	**Question**	**Response categories**	**Code**	**Skip to**
413	The last time you used a lubricant in the last one month while having anal sex with your male sexual partners where did you obtain it from? **READ ALL RESPONSES AND CIRCLE THE ONE SELECTED BY RESPONDENT**	Peer educator/Outreach worker	01	☐☐
		Apothecary/Drug store/ Chemist	02	
		Client	03	
		Sex partner	04	
		Health facility	05	
		Bar/Guest House/Hotel	06	
		Friend	07	
		Mobile van/NGO office/ Drop-In Centre	08	
		Never obtained lubricant	96	
		Others (specify) _____	97	
		Don't remember	98	

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
REGULAR NON-PAYING MALE PARTNERS (MALE SEXUAL PARTNER SUCH AS LOVER/BOYFRIEND, LIVE-IN-PARTNER)				
501	Do you have a **regular male sexual partner** who is your **main** partner and does not pay to have sex with you (such as live-in partner/ lover/ boyfriend/spouse)?	Yes No	01 02	☐☐ ▶510
502	How long have you been having sexual relations with this partner? **QUESTION IS OPEN-ENDED** **LISTEN TO RESPONSE** **IF < 1 MONTHTHEN PUT "OO" MONTHS**	a. Years b. Months Don't remember	__ __ 98	☐☐ ☐☐
503	Generally what type of sex do you have with this partner? **MULTIPLE RESPONSES POSSIBLE**	Anal penetrative Anal receptive Oral Manual Others (Specify)_____	A B C D Z	☐ ☐ ☐ ☐
	IF NEITHER "A" NOR "B" IS MARKED IN Q503, THEN SKIP TO Q508			
504	How many times did you have anal sex with this main regular male partner in the **last one week?**	Number of sex acts Don't know	 98	☐☐
505	The **last time** you had anal sex with this main regular male partner, was a condom used?	Yes No	01 02	☐☐
506	In the **last one month,** how often have you used condoms when you had anal sex with your main regular male partner? **READ ALL RESPONSES**	Every time Most of the time Sometimes Never Didn't have sex in last one month	01 02 03 04 96	☐☐ ▶508

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
507	How long have you been using condoms "every time" with your **main regular male partners?** **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐
508	Do you have any other **regular male sexual partners** who do not pay to have sex with you (such as live-in partner/ lover/ boyfriend)?	Yes No	01 02	☐☐ ▶510
509	How many such partners you had in the last 12 months	Number of partners____ Don't remember	98	☐☐
REGULAR NON-PAYING HIJRA PARTNERS (HIJRA SEXUAL PARTNER SUCH AS LOVER/BOYFRIEND, LIVE-IN-PARTNER)				
510	Do you have **a regular hijra sexual partner** who is your main partner and does not pay to have sex with you (such as live-in partner/ lover/ boyfriend/ spouse)?	Yes No	01 02	☐☐ ▶519
511	How long have you been having sexual relations with this partner? **QUESTION IS OPEN-ENDED** **LISTEN TO RESPONSE** **IF < 1 MONTHTHEN PUT "OO" MONTHS**	a. Years b. Months Don't remember	__ __ 98	☐☐ ☐☐
512	Generally what type of sex do you have with this partner? **MULTIPLE RESPONSES POSSIBLE**	Anal penetrative Anal receptive Oral Manual Others (Specify)_____	A B C D Z	☐ ☐ ☐ ☐

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
IF NEITHER "A" NOR "B" IS MARKED, THEN SKIP TO Q517				
513	How many times did you have anal sex with this main regular hijra partner in the **last one week?**	Number of sex acts Don't know	 98	☐☐
514	The **last time** you had anal sex with this **main regular hijra partner,** was a condom used?	Yes No	01 02	☐☐
515	In the **last one month,** how often have you used condoms when you had anal sex with your **main regular hijra partners?** **READ ALL RESPONSES**	Every time Most of the time Sometimes Never Didn't have sex in last one month	01 02 03 04 96	☐☐ ▶517
516	How long have you been using condoms "every time" with your main regular hijra partners? **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐
517	Do you have any other **regular hijra sexual partners** who do not pay to have sex with you (such as live-in partner/ lover/ boyfriend)?	Yes No	01 02	☐☐ ▶519
518	How many such partners you had in the last 12 months	Number of partners____ Don't remember	 98	☐☐
PAYING MALE PARTNER (SELLING SEX) (COMMERCIAL MALE PARTNERS WHO PAID YOU TO HAVE SEX WITH HIM)				
519	Have you ever received cash or gifts from other men in exchange for sex?	Yes No	01 02	☐☐ ▶533
520	How old were you when you first started receiving cash/gifts from men in exchange for sex?	Age in completed years Don't know	 98	☐☐

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
521	Have you received cash or gifts from other men in exchange for sex **in the last 12 months?**	Yes No	01 02	▶533
522	Where do you primarily solicit/ pick-up most of the paying male partners (male partners who paid to have sex with you)? **DO NOT READ RESPONSES** **CIRCLE ONLY ONE RESPONSE**	Home Rented Room Lodge/Hotels Dhaba Kothee Bar/Night club Vehicle Highway Public place Other (specify)	01 02 03 04 05 06 07 08 09 97	
523	Where do you primarily have sex with most of your paying male partners? **DO NOT READ RESPONSES** **CIRCLE ONLY ONE RESPONSE**	Home Rented Room Lodge/Hotels Dhaba Kothee Bar/Night club Vehicle Highway Public place Other (specify)_____	01 02 03 04 05 06 07 08 09 97	
524	Do your paying male partners contact you using cell phone for sex?	Yes No	01 02	
525	Do your paying male partners contact you through internet for sex?	Yes No Not aware of internet	01 02 03	
526	Generally what type of sex do you have with your paying male partners? **MULTIPLE RESPONSES POSSIBLE**	Anal penetrative Anal receptive Oral Manual Others (Specify)_____	A B C D Z	

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
IF NEITHER "A" NOR "B" IS MARKED IN Q526, THEN SKIP TO Q533				
527	How many paying male partners you had anal sex in the **last one week?**	Number of partners No partner Don't know	 00 98	☐☐ ▶529
528	How many times did you have anal sex with your paying male partners in the **last one week?**	Number of sex acts Don't know	 98	☐☐
529	The **last time** you had anal sex with a paying male partner, was a condom used?	Yes No	01 02	☐☐
530	In the last **one month,** have you turned away a paying male partner when he refused to use a condom during anal sex?	Yes No No clients refused to use a condom	01 02 03	☐☐
531	In the **last one months,** how often have you used condoms when you had anal sex with your **paying male partners?** **READ ALL RESPONSES**	Every time Most of the time Sometimes Never Didn't have sex in last one month	01 02 03 04 96	☐☐ ▶533
532	How long have you been using condoms "every time" with your **paying male partners?** **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
PAID MALE/HIJRA PARTNER (BUYING SEX) (MALES OR HIJRAS WHOM YOU HAVE PAID TO HAVE ANAL SEX WITH)				
533	Have you ever given cash or gifts to have sex with a male or hijra?	Yes No	01 02	☐☐ ▶543
534	Have you given cash or gifts to have sex with a male or hijra **in the last 12 months?**	Yes No	01 02	☐☐ ▶543
535	Do you use cell phone to contact your paid male/hijra partners?	Yes No	01 02	☐☐
536	Do you use internet to contact your paid male/hijra partners (male/hijra partners to whom you give cash or gift to have sex)?	Yes No Not aware of internet	01 02 03	☐☐
537	What type of sex do you normally have with paid male/hijra partners? **MULTIPLE RESPONSES POSSIBLE**	Anal penetrative Anal receptive Oral Manual Others (Specify)_____	A B C D Z	☐ ☐ ☐ ☐
IF NEITHER "A" NOR "B" IS MARKED IN Q537, THEN SKIP TO Q543				
538	How many paid male/hijra partners did you have anal sex with in **last one week?**	Number of partners No partner Don't know	 00 98	☐☐ ▶540
539	How many times did you have anal sex with paid male/hijra partners in the **last one week?**	Number of sex acts Don't know	 98	☐☐
540	The **last time** you had anal sex with a paid male/hijra partner, was a condom used?	Yes No	01 02	☐☐
541	In the **last one month,** how often have you used condoms when you had anal sex with your **paid male/hijra partners?** **READ ALL RESPONSES**	Every time Most of the time Sometimes Never Didn't have sex in last one month	01 02 03 04 96	☐☐ ▶543

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
542	How long have you been using condoms "every time" with your **paid male/hijra partners?** **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐
OTHER CASUAL NON-PAYING MALE/HIJRA PARTNERS (MALE/HIJRA PARTNERS OTHER THAN THE REGULAR NON-PAYING PARTNERS)				
543	Have you ever had sex with a casual male/hijra partners other than the regular non-paying partners we talked about?	Yes No	01 02	☐☐ ▶**BLOCK VI**
543	Have you had sex with a casual male/ hijra partners **in the last 12 months?**	Yes No	01 02	☐☐ ▶**BLOCK VI**
544	Have you had sex with a casual male partners **in the last one month**?	Yes No	01 02	☐☐ ▶**BLOCK VI**
545	What type of sex do you normally have with these casual partners? **MULTIPLE RESPONSES POSSIBLE**	Anal penetrative Anal receptive Oral Manual Others (Specify)_____	A B C D Z	☐ ☐ ☐ ☐
IF NEITHER "A" NOR "B" IS MARKED in Q545, THEN SKIP TO BLOCK VI				
546	How many casual male/hijra partners did you have sex in **last one week?**	Number of partners___ No partner Don't know	00 98	☐☐ ▶548
547	How many times did you have anal sex with this casual non-paid male/ hijra partner in the **last one week?**	Number of sex acts Don't know	98	☐☐
548	The **last time** you had anal sex with these partners, was a condom used?	Yes No	01 02	☐☐

BLOCK V: SEXUAL BEHAVIOUR WITH MALE/HIJRA PARTNERS				
#	**Question**	**Response categories**	**Code**	**Skip to**
549	In the **last one month,** how often have you used condoms when you had anal sex with your **casual male/ hijra partners?** **READ ALL RESPONSES**	Every time Most of the time Sometimes Never	01 02 03 04	☐☐ ▶**BLOCK VI**
550	How long have you been using condoms "every time" with your **casual male partners**? **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐
550	How long have you been using condoms "every time" with your **casual male/hijra partners?** **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: ☐☐ Value: ☐☐

BLOCK VI: ALCOHOL AND DRUG USE PRACTICES				
#	**Question**	**Response categories**	**Code**	**Skip to**
601	Have you consumed alcohol in the **last 12 months?**	Yes No	01 02	☐☐ ▶604
602	How many days did you consume alcohol in the **last one week?**	Number of days ____		☐☐
603	The last time you had sex with any of your sexual partners; did you consume alcoholic drinks before or during sex?	Yes No	01 02	☐☐
604	Have you consumed drugs such as Ganja, Heroine for pleasure in the **last 12 months?**	Yes No	01 02	☐☐
605	Have you injected drugs for non-medical reasons in the **last 12 months?** **EXPLAIN THAT 'INJECTED DRUGS' MEAN THOSE TAKEN FOR INTOXICATION**	Yes No Don't know	01 02 98	☐☐ **▶BLOCK VII**
606	Have you shared needles/syringes with someone when injected drugs last time?	Yes No Don't know	01 02 98	☐☐

BLOCK VII: EXPERIENCE OF PHYSICAL AND SEXUAL VIOLENCE				
#	**Question**	**Response categories**	**Code**	**Skip to**
701	Are you treated disrespectfully by your family/friends/neighbours because you are a TG?	Yes No	01 02	☐☐
702	Do you feel you are treated differently (such as receive less care/ attention) than other persons in health facilities/hospitals because you are a TG?	Yes No	01 02	☐☐
703	In the last 12 months, how many times would you say someone has beaten (hurt, hit, slapped, pushed, kicked, punched, choked or burned) you?	Never Once 2 – 5 times 6 – 10 times More than 10 times Don't remember	01 02 03 04 05 98	**►706** ☐☐
704	In the **last 12 months,** who was the person (or people) who have beaten you? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ RESPONSES, BUT 'ASK ANY OTHER?'**	Family member/ Relative Stranger Police Client Goondas Other MSM/TG Regular partner Other (Specify) _____	A B C D E F G Z	☐ ☐ ☐ ☐ ☐
705	The last time you were beaten by someone, whom did you inform? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ RESPONSES, BUT 'ASK ANY OTHER?'**	Did not tell anyone Fellow MSM/TG Friend/Relative/Family member who is not an MSM/TG NGO worker Police Don't remember Other (Specify)_____	A B C D E X Z	☐ ☐ ☐ ☐
706	In the **last 12 months,** were you physically forced to have sexual intercourse with someone even though you didn't want to?	Yes No	01 02	☐☐ **►BLOCK VIII**

BLOCK VII: EXPERIENCE OF PHYSICAL AND SEXUAL VIOLENCE				
#	**Question**	**Response categories**	**Code**	**Skip to**
707	In the **last 12 months,** who was the person (or people) who physically forced you to have sexual intercourse against your will? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ RESPONSES, BUT 'ASK ANY OTHER?'**	Family member/ Relative Stranger Police Client Goondas Other MSM/TG Regular partner Other (Specify) _____	A B C D E F G Z	☐ ☐ ☐ ☐
708	Whom did you inform when last time you were physically forced to have sexual intercourse against your will? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ RESPONSES, BUT 'ASK ANY OTHER?'**	Did not tell anyone Fellow MSM/TG Friend/Relative/Family member who is not an MSM/TG NGO worker Police Don't remember Other (Specify)_____	A B C D E X Z	☐ ☐ ☐ ☐

BLOCK VIII: SELF-REPORTED SEXUALLY TRANSMITTED INFECTIONS (STIs)					
#	**Question**	**Response categories**		**Code**	**Skip to**
801	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes No		01 02	☐☐ **►803**
802	Can you describe any symptoms of STIs in men? **DON'T READ RESPONSES** **CIRCLE ALL THAT ARE MENTIONED**	Genital ulcer/sore Anal ulcer/sore Discharge from rectum Urethral discharge Swelling in groin/scrotal area Genital warts Anal warts Others (Specify)_____		A B C D E F G Z	☐ ☐ ☐ ☐ ☐
803	During the last 12 months did you suffer from:	**Yes**	**No**	**Don't know**	
	803a. Genital ulcer/sore	01	02	98	☐☐
	803b. Anal ulcer/sore	01	02	98	☐☐
	803c. Discharge from rectum	01	02	98	☐☐
	803d. Urethral discharge	01	02	98	☐☐
	803e. Swelling in groin/scrotal area	01	02	98	☐☐
	803f. Genital warts	01	02	98	☐☐
	803g. Anal warts	01	02	98	☐☐
	CHECK FOR NUMBER OF SYMPTOMS IN Q803a-Q803g	At least one symptom No symptoms		01 02	☐☐ **►BLOCK IX**

804	The last time when you had any of these symptoms, what did you do? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ REASPONSES, BUT 'ASK ANY OTHER?'** **Ask the respondent to recall what he did first and then report the other actions sequentially**	Sought advice/medicine from NGO or TI run clinic Sought advice/medicine from a government clinic/ hospital Sought advice/medicine from a private clinic/ hospital Sought advice/medicine from a private pharmacy Sought advice/medicine from a traditional healer Sought advice/medicine from a homeopathic doctor Sought advice/medicine from a Unani practitioner Sought advice/medicine from a Ayurvedic doctor Took medicine I had at home Sought advice/medicine from friend/family/fellow MSM/TG Told my sexual partner about the STI Stopped having sex when I had symptoms Used condoms Did nothing Other (Specify) _____	A B C D E F G H I J K L M N Z	1st 2nd 3rd 4th 5th ►**BLOCK IX**
	IF RESPONSE IN Q804 IS EXCLUSIVELY I, J, K, L, M, N, Z; THEN SKIP TO BLOCK IX			
805	The last time you suffered from one of these symptoms, how long did you wait before seeking treatment?	Number of days Don't remember	 998	☐☐☐

BLOCK IX: KNOWLEDGE OF HIV / AIDS AND RISK PERCEPTION					
#	**Question**	**Response categories**		**Code**	**Skip to**
901	Have you ever heard of HIV before this interview?	Yes No		01 02	
902	Have you ever heard of AIDS before this interview?	Yes No		01 02	
	IF ANSWERS TO Q901 AND Q902 IS "NO", THEN SKIP TO BLOCK X				
903	**Can a person get HIV/AIDS?**	**Yes**	**No**	**Don't know**	
	903a. By having unprotected sex with an infected person	01	02	98	
	903b. By sharing infected needles	01	02	98	
	903c. By infected blood transfusion	01	02	98	
	903d. Through mosquito bites	01	02	98	
	903e. By sharing a meal with someone who is infected	01	02	98	
904	**Can a person prevent getting infected with HIV/AIDS?**	**Yes**	**No**	**Don't know**	
	904a. By having only one uninfected sex partner who has no other sex partners	01	02	98	
	904b. By always using condom while engaging in sex	01	02	98	
	904c. By avoiding the use of shared injection needles and syringes	01	02	98	
	904d. By getting blood thoroughly checked/tested before transfusion	01	02	98	

BLOCK IX: KNOWLEDGE OF HIV / AIDS AND RISK PERCEPTION				
#	**Question**	**Response categories**	**Code**	**Skip to**
905	What are the sources from where you have come to know about HIV/AIDS? **MULTIPLE ANSWERS POSSIBLE** **DO NOT READ REASPONSES, BUT 'ASK ANY OTHER?'**	Radio Television Newspaper Magazine Poster/Billboards/Wall writing/Hoarding Electronic board Pamphlets/booklets Public announcements Street play/Drama/ Friends/Relatives/ Colleagues NGO worker Health worker Other (Specify)_____	A B C D E F G H I J K L Z	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
906	Do you think that a healthy looking person can be infected with HIV, the virus that causes AIDS?	Yes No	01 02	☐☐
907	To what extent do you feel yourself at risk to being infected with HIV/ AIDS? **READ ALL RESPONSES**	High Moderate Low No risk	01 02 03 04	☐☐
908	Do you know any place where one can get tested for HIV/AIDS? If yes, which are those places? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ REASPONSES, BUT 'ASK ANY OTHER?'** **IF THE NAME OF THE FACILITY IS GIVEN, PROBE WHETHER IT IS GOVERNMENT / PRIVATE / NGO CLINIC, ETC. AND RECORD**	Government hospital Private hospital NGO run clinic Health camp Mobile clinic Don't know Others (Specify)_____	A B C D E X Z	☐ ☐ ☐ ☐ ☐ ☐

BLOCK IX: KNOWLEDGE OF HIV / AIDS AND RISK PERCEPTION				
#	**Question**	**Response categories**	**Code**	**Skip to**
909	Have you ever been tested for HIV/ AIDS?	Yes No	01 02	☐☐ ▶914
910	In the last 12 months, how many times you were tested for HIV/AIDS?	Number of times_____ Yes, tested but don't remember number of times	 98	☐☐
911	The last time you were tested for HIV/AIDS,did you go on your own or referred by health professional or NGO?	On my own Referred by health professional Referred by NGO Referred by others	01 02 03 04	☐☐
912	The last time you were tested for HIV/AIDS, where did you get tested? **IF THE NAME OF THE FACILITY IS GIVEN, PROBE WHETHER IT IS GOVERNMENT / PRIVATE / NGO CLINIC, ETC. AND RECORD**	Government hospital Private hospital NGO run clinic Health camp Mobile clinic Others_____ Don't remember	01 02 03 04 05 97 98	☐☐
913	I don't want to know the test result, but did you collect the HIV test result?	Yes No	01 02	☐☐
914	Have you heard of ART (Anti-retroviral treatment) that can help person infected with HIV/AIDS to live longer?	Yes No	01 02	☐☐ ▶916
915	Do you know any place where HIV infected persons can avail ART? If yes, which are those places? **MULTIPLE RESPONSES POSSIBLE.** **DO NOT READ REASPONSES, BUT 'ASK ANY OTHER?'**	Government hospital Private hospital NGO run clinic Health camp Mobile clinic Don't know Others (Specify)_____	A B C D E X Z	☐ ☐ ☐ ☐ ☐
916	Can HIV be transmitted from an HIV infected mother to her unborn baby during pregnancy?	Yes No Don't know	01 02 98	☐☐

BLOCK IX: KNOWLEDGE OF HIV / AIDS AND RISK PERCEPTION				
#	**Question**	**Response categories**	**Code**	**Skip to**
917	Can HIV be transmitted from an HIV infected mother to her unborn baby during delivery?	Yes No Don't know	01 02 98	☐☐
918	Can HIV be transmitted from an HIV infected mother to the new born child through breastfeeding?	Yes No Don't know	01 02 98	☐☐
919	Are you aware of any special medications that a doctor or a nurse can give to a woman infected with HIV/AIDS to reduce the risk of transmitting HIV to the baby?	Yes No	01 02	☐☐
920	If you come to know that one of your friend is HIV positive, would you continue interacting with him/her?	Yes No	01 02	☐☐
921	Would you access healthcare services from a provider/facility that also treats HIV positive persons?	Yes No	01 02	☐☐

BLOCK X: PROGRM EXPOSURE AND COMMUNITY MOBILIZATION				
#	Question	Response categories	Code	Skip to
1001	Have you received any of the following services from any NGO/programme/ individual/ group during the last 12 months?			
		Yes	**No**	**Don't remember**
	1001a. Received information on STI/ HIV/AIDS from a peer educator or an outreach worker from the NGO/ Program	01	02	98
	1001b. Received condoms from the peer educator or outreach workers of the NGO/Program	01	02	98
	1001c. Received lubricants from the peer educator or outreach workers of the NGO/Program	01	02	98
	1001d. Seen a demonstration on correct condom use by a peer educator/NGO outreach worker	01	02	98
	1001e. Received check-up and counselling for STIs	01	02	98
	1001f. Received free medicine for STIs	01	02	98
	1001g. Visited drop in centre	01	02	98
	1001h. Referred to other services (STI clinic, HIV testing, detox centre etc.) from the NGO/ Program	01	02	98
	1001i. Received help and support when faced with physical or sexual violence	01	02	98
	1001j. Received help and support when faced with trouble from police	01	02	98
	IF RESPONSES FOR ALL QUESTIONS IN Q1001a-Q1001j IS "NO" OR "DK", SKIP TO Q1007			
1002	When was the first time you received any service from these NGOs? **IF < 1 WEEK RECORD IN DAYS** **IF >1 WEEK AND < 1 MONTH RECORD IN WEEKS** **IF > 1 MONTH AND < 1 YEAR RECORD IN MONTHS** **IF => 1 YEAR RECORD IN YEARS**	Days Weeks Months Years Don't remember	01 02 03 04 98	Unit: Value:

BLOCK X: PROGRM EXPOSURE AND COMMUNITY MOBILIZATION				
#	Question	Response categories	Code	Skip to
1003	During the last one month, how many times have you been visited/ contacted by an outreach worker or peer educator?	Number of times contacted Don't remember	98	
1004	Approximately, how many condoms were given to you freely in the last one month	Number of condoms__ Don't remember	998	
1005	During the last 3 months, have you undergone a routine medical check-up?	Yes No	01 02	
1006	Are you registered with any of these NGOs?	Yes No Don't know	01 02 98	▶1008
1007	Have you heard of any NGO / program/ individual/group providing services such as HIV prevention, condoms, treatment for STIs in this district?	Yes No	01 02	
1008	Are you a member of a self-help group formed?	Yes No	01 02	
1009	Are you a member of any MSM/TG collective?	Yes No	01 02	
1010	If there was a problem that affected all or some of the TG community, how many TG would work together to deal with the problem: All, most, some or no one?	All Most Some None Don't know	01 02 03 04 98	
1011	In the last 12 months, have you negotiated with or stood up against the following in order to help a fellow TG?		Yes / No	
		1011a. Police	01 / 02	
		1011b.Goons/local leaders	01 / 02	
		1011c. Fellow MSM/TG	01 / 02	

Thank you very much for your time, and for providing the information. I assure you again that none of the information you have given us will be shared with anyone else, and your responses will remain completely confidential.

THANK YOU

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