National HIV Serological and Behavioural Surveillance, 2003-2004 Bangladesh

Fifth Round Technical Report

National AIDS/STD Programme
Directorate General of Health Services
Ministry of Health and Family Welfare
Government of the People's Republic of Bangladesh

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FOREWORD

This report summarises the findings of the fifth round of Second Generation Surveillance for HIV in Bangladesh, which has been conducted between June 2003 to March 2004. On behalf of the Government of Bangladesh ICDDR,B: Centre for Health and Population Research in collaboration with the Institute of Epidemiology, Disease Control and Research (IEDCR) carried out the surveillance where technical assistance was provided by the Family Health International (FHI).

For many years Bangladesh has been fortunate to escape the HIV/AIDS epidemic that is affecting our surrounding countries. Previous surveillance rounds have shown our country to be at risk of an epidemic and the results of the fifth round surveillance shows again that we have no reason to be complacent. HIV prevalence among the injection drug users (IDU) in central Bangladesh has increased significantly and is now at 4%. Moreover, sharing of needle/syringe among the injectors has increased. Data also suggests that the IDU population is well integrated into the community, socially and sexually, so that once HIV enters this community it will not be restricted within the IDU.

The Government of Bangladesh is very concerned about the information being presented in this report. The experience of other HIV affected countries tells us that early action is essential to stop the spread of HIV infection from the most at risk population groups to the general population. It is also the most cost effective way for a country with limited resources like ours to halt the spread of the virus before the economic burden becomes too large to bear. However, we are also aware, that as HIV is likely to first enter population groups most vulnerable to HIV, such as IDU, stigmatisation of those population groups will not help in stemming the epidemic, as it will only serve to drive them underground. Rather, an open-mindedness and humane approach is essential to allow intervention programmes to be able to reach people who are extremely marginalized for effective services.

For this endeavour, a multi-sectoral approach is essential to achieve positive results. We hope that this report will inspire all those involved in HIV/AIDS prevention programme- including different Government sectors, international organisations, NGOs and community based organisations to set up effective prevention programmes and to scale up successful interventions across the country.

Professor Dr. Md. Shahadat Hossain
Line Director, NASP & SBTP
Director General, DGHS
Ministry of Health and Family Welfare

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The National AIDS and STD Programme, Directorate General of Health Services, Ministry of Health and Family Welfare, is responsible for HIV surveillance in Bangladesh. The fifth round was conducted by ICDDR,B: Centre for Health and Population Research and funding was provided by GoB/IDA/DFID and FHI/USAID. Technical assistance was provided by FHI.

Participating NGOs, private organisations and community groups included APOSH, Badhan Hijra Sangha, Bandhu Social Welfare Society, Bangladesh Womens Health Coalition, Bangladesh Nari Odhikar Bastobayan Samity, CARE Bangladesh, Concern for Environmental Development and Research, Durjoy Nari Sangha, Family Planning Association of Bangladesh, Health and Education for the Less Privileged, Jagroto Jubo Sangha, Kalikapur Jubo Sangshad, Karmajibi Kallyan Sangstha, Marie Stopes Clinic Society, Mukti Mahila Samity, NGO Service Delivery Programme, Nari Maitree, Nari Mukti Sangha, Organization of Bangladesh Drug Addicts Rehabilitation, Punarjibon, PIACT Bangladesh, Prochesta, Rural Peoples Development Sangstha, Save the Children Fund Australia, , Social Advancement Society, Socio Economic Development Agency of Bangladesh, SAWRAB, Shapla Mohila Sangstha, Social Marketing Company, Sustha Jibon, Sylhet Jubo Academy, The Salvation Army, Voluntary Family Welfare Association, Voluntary Paribar Kallyan Association, World Vision and Young Power in Social Action.

The Principal Investigators (PI) were Dr Tasnim Azim (PI, Serological and Behavioural Surveillance), Laboratory Sciences Division (LSD) ICDDR,B; Director, Institute of Epidemiology, Disease Control and Research (PI, Serological Surveillance). Co-PI for the behavioural surveillance was Dr Rukhsana Gazi, Health Systems and Infectious Diseases Division (HSID), ICDDR,B. Co-investigators were Dr Md Shah Alam (serological surveillance), LSD, ICDDR,B; Dr Motiur Rahman (serological surveillance), LSD, ICDDR,B and Dr Rasheda Khanam (serological surveillance), HSID, ICDDR,B. Laboratory and field staffs for serological surveillance were Mr M Safiullah Sarker, Mr Giasuddin Ahmed, Mr Mohammed Repon Khan, Mr Bikash Chandra Swar, Mr Kartic Chandra Das, Mr Shah Jalal Bhuiyan, Mr Habibur Rahman, Mr K M Zahid, Mr S M Akramul Haque, Mr Md Awlad Hossain, Mr Md Morshed Alam Khan, Mr Abdus Salam, Mr Md Helal Uddin, Mr Md Mohiuddin Khadem, Mr Porimol Sarker, Mr Ratan Mistri, Mr Mamun Ar Rashid, Mr Md Amirul Islam, Mr Md Nurul Alam and Mr Saikat Mazumder. Field Co-ordinator for behavioural surveillance was Mr Md Humayun Kabir. Data management and analysis support was provided by Mr Masud Reza, LSD, ICDDR,B and data entry was done by Mr Md Emarat Hossain, Mr Md Forkan Hossain, Mr Md Saleh Ahmed, Mr Sattajit Barua and Ms Jannatul Ferdous. Field supervisors for behavioural surveillance were Mr Ashraful Islam, Mr Shahidul Haque Kayser, Mr A F M Saleheen, Mr K M Zakir Hossain, Mr A N M Shafiul Alam, Mr Mizanur Rahaman, Ms Ananya Hijra, Mr Paritosh Dev and Mr Jamal Uddin. Dr Tobi Saidel, FHI Asia Regional Office (ARO) and Mr. Parvez Sazzad Mallick, Senior Technical Officer, FHI Bangladesh provided technical assistance to behavioural surveillance.

Members of the Surveillance Advisory Committee were: Prof (Dr) Md Mizanur Rahman, Director General Health, DGHS; Major General (Rtd) A S M Matiur Rahman, Chairperson, TC-NAC; Prof (Dr) Fatima Parveen Chowdhury, Line Director HIV/AIDS and Director CME; Director General, Department of Narcotics; Director, IEDCR; Programme Manager, National AIDS/STD Programme, DGHS; Deputy Programme Managers, National AIDS/STD Programme, DGHS; Prof Nazrul Islam, Virology Department, BSMMU; Secretary General, Bangladesh Medical Association; Brigadier Q M S Hafiz, WHO; Dr Robert J Kelly, FHI/IMPACT; Ms Tara O'Day, FHI/IMPACT; Mr Parvez Sazzad Mallick, FHI/IMPACT; Dr Muhammad Abdus Sabur, DFID; Dr Najmus S Sadiq, UNDP; Dr Zareen Khair, USAID; Ms Shirin Jahangir, World Bank; Dr Farzana Israt, World Bank; Dr Evaristo Marowa, UNAIDS; Dr Ivonne Camaroni, UNICEF; Ms Ismat Bhuiyan, The Population Council; Dr G B Nair, ICDDR,B; Dr Motiur Rahman, ICDDR,B; Dr Rukhsana Gazi, ICDDR,B; Dr Rasheda Khanam, ICDDR,B; Dr Md Shah Alam, ICDDR,B and Dr Tasnim Azim, ICDDR,B.

The contributors to the surveillance and this report are:

Tasnim Azim, M Shah Alam, Masud Reza, Rukhsana Gazi, Md Humayun Kabir, Rasheda Khanam, Motiur Rahman, Parvez Sazzad Mallick, Md Abdus Salim, Md Hanif Uddin.

ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BSS	Behavioural Surveillance Survey
DFID	Department for International Development
DIC	Drop In Centre
DGHS	Directorate General of Health Services
ELISA	Enzyme Linked Immunosorbent Assay
FHI	Family Health International
GOB	Government of Bangladesh
HSID	Health Systems and Infectious Diseases Division
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
ICDDR,B	International Centre for Diarrhoeal Diseases Research, Bangladesh
IDA	International Development Association
IDU	Injection Drug Users
IEDCR	Institute of Epidemiology, Disease Control and Research
IMPACT	Implementing AIDS Prevention and Care Project
LSD	Laboratory Sciences Division
LIA	Line Immuno Assay
MOHFW	Ministry of Health and Family Welfare
MSM	Males Who have Sex with Males
MSW	Male Sex Worker
NASP	National AIDS/STD Programme
NEP	Needle/syringe Exchange Programme
NGO	Non-Government Organisation
PSU	Primary Sampling Unit
RPR	Rapid Plasma Reagin Test
SAC	Surveillance Advisory Committee
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TPHA	Treponema Pallidum Haemagglutination Assay
TPPA	Treponema Pallidum Particle Agglutination Test
UNAIDS	United Nations Joint Programme on HIV/AIDS
USAID	United States Agency for International Development
WHO	World Health Organisation

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1. HIV SURVEILLANCE IN BANGLADESH

The national HIV surveillance system set up by the Government of Bangladesh has now been active since 1998. It is based on the UNAIDS/WHO guidelines for a revised "second generation HIV surveillance", a key priority of which is to improve the monitoring of developing epidemics like that in Bangladesh[1]. HIV prevalence is monitored annually among specific groups at sentinel sites spread across the country. Behaviours that carry a risk of HIV infection are evaluated in tandem. Syphilis and hepatitis are also monitored as surrogate markers to corroborate behavioural data regarding unprotected sex and unsafe injections.

This report presents the findings and conclusions from the fifth round of the national HIV serological and behavioural surveillance that was conducted between June 2003 and March 2004. The information obtained can serve as a tool to inform programme policy and interventions, to advocate for increased resources and investment in prevention, aid in targeting interventions, and in measuring their progress and impact.

All the rounds of serological surveillance to date have been conducted by ICDDR,B: Centre for Health and Population Research. ICDDR,B also conducted the fifth round of behavioural surveillance described here. Technical assistance for the behavioural surveillance has been provided by FHI since the second round of surveillance. The Government of Bangladesh (GoB)/Department for International Development (DFID)/ International Development Association (IDA) and FHI/USAID funded the fifth round of national surveillance.

2. DESIGN AND METHODOLOGY

2.1 POPULATION SUB-GROUPS

As Bangladesh continues to remain a low prevalence country for HIV, selection of population sub-groups for surveillance remains focused on those groups considered to be most vulnerable to HIV infection and possible client of sex worker groups including mobile men. The final selection of population groups for the fifth round were decided through discussions in the Surveillance Advisory Committee (SAC) meeting and the launching meeting held on 29 June 2003 and 22 July 2003 for serological surveillance and behavioural surveillance respectively. All the concerned participating institutions and organisations attended the latter. As in previous years coverage was expanded to include more diverse vulnerable groups as well as new geographical areas.

2.1.1 Selection of groups for surveillance

The major changes in population groups and regional coverage decided upon for the fifth round were:

- Serological surveillance was expanded to sample: injection drug users (IDUs) from seven new cities of which three were new to interventions, female sex workers from all brothels (previous round included nine brothels), female street sex workers from one new city, female sex workers in hotels from two additional cities, and casual (part-time) female sex workers from three cities. The coverage area for Hijras in Central Bangladesh was expanded and included Central-G with Central-A to represent a single site. The transport workers sampled in this round included rickshaw pullers from cities in Central and the Southeast of Bangladesh. Truckers, launch workers and dockworkers were not included. "Babus", i.e. the boyfriends/regular partners of brothel based female sex workers, from three brothels were included and for the first time, partners of Hijras were also included. In the fifth round serology was not done on IDU in treatment clinics or STI patients.
- Behavioural surveillance was expanded to sample: hotel-based and street based female sex workers in one city in the Southeast and Southwest respectively, and IDU in another city in the Northwest region. Also, heroin smokers were included for the first time in Central-A. Male university/college students were not included in this round.

The surveillance population sub-group definitions at the time of sampling are shown in the box below.

Serological surveillance	Behavioural surveillance
Injection drug users: Those who were primarily injectors and had injected in the previous year **Heroin smokers:** Those who were primarily heroin smokers and had not injected more than twice in the previous six months **Female sex workers** *Brothel sex workers*: Those who were selling sex in a brothel during the previous month *Street sex workers:* Those who were selling sex on the street during the previous month *Hotel sex workers*: Those who were selling sex in hotels during the previous month *Casual sex workers*: Those who were selling sex either in the street, residence or hotel during the previous month and had either one or more main sources of income **Males who have sex with males** *Male sex workers*: Males who were selling sex to other males during the previous month *Non-sex workers*: Males who had male sex partners but did not sell sex **Hijras** (Transgenders or third gender): Those who identified themselves as belonging to a traditional Hijra sub-culture **Rickshaw pullers:** Those who were currently working as rickshaw pullers **Babus:** Males who were the regular, fixed partners of female sex workers living in and around brothels **Partners of Hijra:** Those who were currently boyfriend/regular sex partners of Hijras	**Injection drug users:** Males who injected drugs within last two months and were accessible through public injecting spots **Heroin smokers:** Those who were primarily heroin smokers and had not injected more than six times in the previous six months **Female sex workers** *Brothel sex workers*: Those who were contacted by clients in a brothel setting, with the sex act generally taking place in brothels *Street sex workers:* Those who were contacted by clients on the street, with the sex act taking place in public spaces or other venues *Hotel sex workers*: Those who were contacted by clients in a hotel setting, with the sex act taking place there **Males who have sex with males** *Male sex workers*: Males who were selling sex to other males at the time of the survey *Non-sex workers*: Males who had male sex partners but did not sell sex **Hijras:** (Transgenders or third gender): Those who identified themselves as belonging to a traditional Hijra sub-culture **Rickshaw pullers:** Men currently working as rickshaw pullers **Truckers:** Men currently working as truck drivers or their helpers

The population groups studied in the five rounds of HIV surveillance are shown in Table 1.

Table 1: Population groups sampled in serological and behavioral surveillance 1998-1999 (round I), 1999-2000 (round II), 2000-2001 (round III), 2002 (round IV) and 2003-2004 (round V)

Population Group		Geographical Location		Round I		Round II		Round III		Round IV		Round V	
				1998-1999		1999-2000		2000-2001		2002		2003-2004	
				Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior
Injection drug users (IDU)	In-treatment	Central	A	X		X		X					
	Out of treatment (Under NEP*)	Central	A		X	X	X	X	X	X	X	X	X
			E									X	
			H									X	
		Northwest	A		X	X	X	X	X	X	X	X	X
			B					X		X	X	X	X
			B1									X	X
			B2									X	
			F									X	
			F1									X	
		Southeast	D								X	X	X
Heroin Smokers		Central	A							X		X	X
Male sex workers		Central	A				X	X	X	X	X	X	X
Brothel based female sex workers		Southeast All brothels	A -		X		X		X		X X	X	X X
		Central	B	X		X		X		X			
			C			X				X			
			D					X		X			
			E	X									
		Southeast	A			X		X		X			
			B					X		X			
			C			X		X		X			
Hotel based female sex worker	Central	Central	A							X	X	X	X
	Southeast	Southeast	A									X	X
	Northeast	Northeast	A									X	

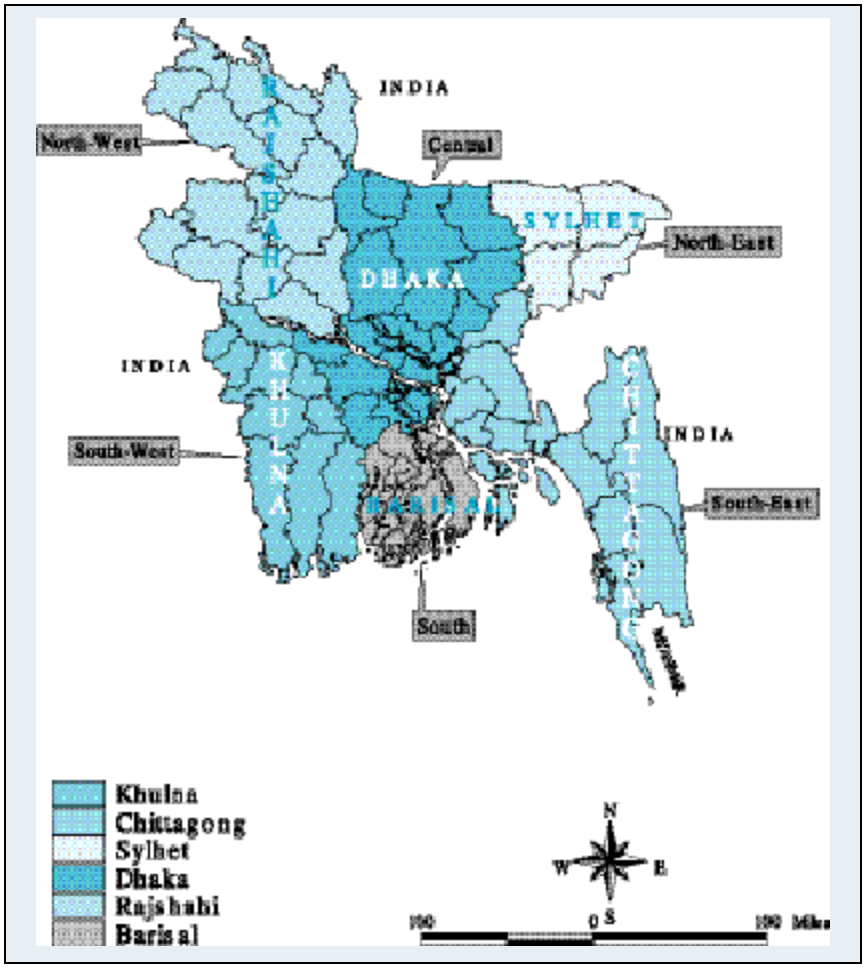
Population Group	Geographical Location		Round I		Round II		Round III		Round IV		Round V	
			1998-1999		1999-2000		2000-2001		2002		2003-2004	
			Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior
Street based female sex workers	Central	A	X	X	X	X	X	X	X	X	X	X
		B							X			
	Southeast	A				X		X		X	X	X
	Southwest	A							X		X	X
Casual female sex workers	South	A									X	
	Northwest	K1									X	
	Northwest	M1									X	
Hijras	Central	A				X		X	X	X		X
		A,G									X	
Males who have sex with males (MSM)	Central	A					X	X	X	X	X	X
	Northeast	A								X		X
MSM and male sex workers combined	Central	A	X	X	X							
		C							X		X	
	Southeast	A							X		X	
	Northeast	A						X	X		X	
Babus	Central	B							X		X	
		D							X		X	
		L									X	
Partners of hijra	Central	A,G									X	
Truckers	Central	A	X	X			X	X	X	X		X
	Southwest	B					X					
Lunch workers	Central	A							X			
Rickshaw pullers	Central	A						X		X	X	X
	Southeast	A				X	X	X		X	X	X
	Southwest	B					X					

Population Group	Geographical Location		Round I		Round II		Round III		Round IV		Round V	
			1998-1999		1999-2000		2000-2001		2002		2003-2004	
			Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior	Serology	Behavior
Dormitory based male college/university students	Central	A								X		
STI patients	Central	A	X		X							
	Southeast	A	X		X		X					
	Northeast	A	X				X		X			
	Northwest	A	X		X		X					
		C			X		X					
Dockworkers	Southeast	A					X					
	Southwest	C					X					

NEP=Needle/Syringe Exchange Programme

As in previous rounds, for surveillance the country was divided into 6 geographical regions as per the administrative division: Central, Northwest, Northeast, South, Southeast and Southwest (Figure 1). For purposes of maintaining anonymity and confidentiality of the results each city under surveillance in each region was designated by a particular alphabet code, such as Central-A, Southeast-D, etc.

Figure 1: Geographical regions under surveillance



2.2 SEROLOGICAL SURVEILLANCE

The fifth round of serological surveillance screened blood samples for HIV and syphilis infection. As previously, each blood sample was split into two: one unlinked sample was screened for HIV, and the other linked sample that could be traced to the donor was screened for syphilis, so that treatment could be given if necessary. The unlinked anonymous samples were also used to assay for Hepatitis C (HCV) among IDU.

Syphilis results were provided to participating organisations within two weeks of sample collection, along with the drugs for treatment. The particular clinic or intervention site personnel were then responsible for providing treatment to individuals who tested positive for syphilis.

The methodology used for the fifth round of serological surveillance was the same as that followed in previous rounds[2-4], and is described briefly below.

2.2.1 Strategy for serological surveillance

Prior to sampling, a series of small workshops were held with the population groups at most sites to provide information about surveillance. Interested organisations were included as collaborating partners only if they met the following criteria for inclusion:

- The capacity to access the selected population groups
- Access to an established clinic with medical professionals providing treatment services, particularly for the diseases being screened for by surveillance
- The availability of staff willing to collaborate with serological surveillance

Following the workshops, individuals were encouraged to attend the on-site clinics for giving blood. Such workshops were possible only in those sites where the intervention organization felt able to talk freely about HIV. The strategy used in those sites where workshops were not held, was that outreach workers informed people while working in their respective fields of the provision of free syphilis testing with results and treatment if they would attend the respective sentinel clinics.

Sample size

The sample size was calculated as 380 with an estimation of the HIV prevalence rate of 1% with a 1% precision and 95% confidence level. It was decided to take the first four hundred individuals who came to the clinic. At sites where the numbers of individuals available were less than 400, a take all approach was employed.

Blood collection

A 5ml blood sample was collected from each individual by venepuncture into sterile, plain Vacutainers (Becton Dickinson, Rutherford, NJ, USA). Serum was separated by centrifugation. Whole blood and serum samples were transported to the Virology Laboratory of ICDDR,B, while maintaining the cold chain, and were stored at -20^{o}C until testing was done.

Informed consent and confidentiality

At sites where the collaborating organisations felt comfortable about informing participants that the surveillance was for HIV, signed consent was obtained from each individual before collection of a blood sample. At other sites, blood was collected for syphilis testing, and the leftover serum was used for HIV testing. Consent was possible with all the groups except for MSM at three different sites, brothels at three different sites, female street sex workers at one site, hotel female sex workers at two different sites, hijras and partners of hijras accessed through one of the two collaborating NGO partners.

All the sample tubes containing serum for HIV and HCV testing were unlinked and anonymous, i.e. they were labelled only with information about age, sex, site, and surveillance round. The samples were also stored in such a way that the sampling period was unidentifiable.

Personnel and training

Serological surveillance was conducted by a team from ICDDR,B comprising of laboratory and field staffs. Trained team members provided training to individuals newly joining the team. In addition, training in serum separation, sample labelling, storage and sample transportation was provided to technologists from GOB, NGO and private institutions wherever it was required.

Laboratory methods

Tests were done for syphilis, HCV (in IDU only) and HIV.

Syphilis was tested by the Rapid Plasma Reagin test (RPR) and either by Treponema Pallidum Haemagglutination Assay (TPHA) or by Treponema Pallidum Particle Agglutination (TPPA) test. Samples positive for TPHA or TPPA with an RPR titre of ≥8 were considered to reflect active syphilis.

For antibodies to HCV, sera were initially tested using the Enzyme Linked Immunosorbent Assay (ELISA) kit and all positive samples were re-tested with a second ELISA kit. Discrepant results in the two ELISAs were confirmed by Line Immunoassay (LIA). Samples positive for any two tests were considered as positive.

For HIV, samples were initially tested by an Enzyme Linked Immunosorbent Assay (ELISA) kit and positive results were confirmed by LIA. An indeterminate result by LIA was considered as negative.

Sampling

A total of 10,445 samples were collected during the fifth round of serological surveillance and the dates of sample collection are shown below (Table 2).

Table 2: Population groups sampled with sampling dates, 2003-2004

Population Groups, Geographical Location (n)	Start date	End date
Injection Drug Users:		
NEP, Central-A (404)	18.6.03	6.7.03
NEP, Central-E (106)	31.8.03	8.9.03
NEP, Central-H (122)	9.9.03	21.9.03
NEP, Northwest-A (394)	26.10.03	24.11.03
NEP, Northwest-B (239)	27.10.03	6.11.03
NEP, Northwest-B1 (78)	16.11.03	20.11.03
NEP, Northwest-B2 (47)	8.11.03	13.11.03
NEP, Northwest-F (85)	25.2.04	4.3.04
NEP, Northwest-F1 (57)	25.2.04	2.3.04
NEP, Southeast-D (86)	25.2.04	1.3.04
HeroinSmokers:		
Central-A (391)	22.1.04	26.2.04
Brothel Based Female Sex Workers:		
Central-B (404)	2.9.03	14.9.03
Central-C (159)	4.9.03	13.10.03
Central-D (401)	13.12.03	27.12.03
Central-L (136)	2.10.03	21.10.03
Central-N (376)	6.12.03	21.12.03
Central-P (205)	14.1.04	8.2.04
Southwest-A, C (293)	8.10.03	26.10.03
Southwest-B (171)	6.1.04	29.1.04
South-E (59)	22.2.04	24.2.04
Street Based Female Sex Workers:		
Central-A (401)	22.9.03	21.10.03
Southeast-A (402)	6.12.03	25.12.03
Southwest-A (403)	2.12.03	22.12.03
Hotel Based Female Sex Workers:		
Central-A (400)	10.2.04	25.2.04
Southeast-A (132)	7.12.03	24.12.03
Northeast-A (166)	6.12.03	27.1.04
Casual Female Sex Workers:		
South-A (197)	18.1.04	27.1.04
Northwest-K1 (101)	10.2.04	19.2.04
Northwest-M1 (381)	9.2.04	2.3.04
Hijras:		
Central-A, G (405)	13.7.03	14.10.03
MSM Group:		
Sex workers, Central-A (274)	5.8.03	27.10.03
Non-sex workers, Central-A (399)	5.8.03	9.10.03

Population Groups, Geographical Location (n)	Start date	End date
MSM Group (Combined sex workers and non sex workers) :		
Central-C (400)	23.6.03	18.9.03
Southeast-A (398)	6.7.03	2.10.03
Northeast-A (400)	22.6.03	2.10.03
Babus (Brothel):		
Central-B (251)	15.9.03	30.9.03
Central-D (175)	28.12.03	7.1.04
Central-L (56)	15.10.03	21.10.03
Partners of Hijra:		
Central-A, G (88)	13.7.03	9.10.03
Rickshaw pullers:		
Central-A (401)	14.10.03	27.10.03
Southeast-A (401)	17.12.03	1.1.04

Data entry and analysis

All data were entered in the Statistical Package for Social Sciences (SPSS, version 11.5 for Windows, SPSS Inc., Chicago, IL, USA). Data analyses were carried out using SPSS and Epi Info Windows version 3. For comparison of continuous non-parametric data between any two sites the Mann-Whitney U test was used. For categorical data, chi-square statistic was used. For comparison of data over time chi-square for trends was used.

2.3 BEHAVIOURAL SURVEILLANCE

The Behavioural Surveillance Survey (BSS) is being undertaken on an annual basis to document behaviours leading to vulnerability for HIV infection among selected population groups and to determine trends of behaviours over the rounds of surveillance. The methodology used for the fifth round of behavioural surveillance was the same as that followed in the fourth round[4] of BSS. The methods are described briefly below.

2.3.1 Strategy for behavioural surveillance

Unlike the serological surveillance, the respondents for the BSS were not restricted to people involved in NGO interventions or attending clinics. The respondents were sampled randomly using a sampling frame based on mapping of individuals at risk in public venues.

Personnel training

Prior to starting surveillance, the BSS team comprising of 47 interviewers and eleven supervisors received a comprehensive training for four weeks on HIV/AIDS, sexuality and on conducting and field testing the questionnaires. A training manual was distributed to the team members. This training manual was developed by reviewing the fourth round manual and revising it to include updated information highlighting the present situation on HIV/AIDS. Questionnaires developed for the earlier rounds were used with little modifications. These minor changes were required in the questionnaires to ease questioning and to facilitate comparison between rounds. As part of the training exercise, pre-testing of the questionnaires was done.

Sample size

The estimates and design effect of some selected behavioural indicators of BSS fourth round such as injection sharing and condom use during last sex from each study site were used to calculate the sample sizes. The required sample sizes for all target groups were calculated using the standard formula[5] to enable detection of 8-20% changes over time in those key behaviours. Calculation of sample sizes for each sub-population group was based on a 95% confidence level,

with 80% power assuming a design effect of 0.5-2. The sample size obtained using the above formula was multiplied by the inflation factor that determined the final sample size. Table 3 shows the sample size of each sub-population group in the five consecutive rounds of BSS.

Table 3: Sample size of the population groups in different areas, BSS fifth round

Population	1998-1999 (BSS II)	1999-2000 (BSS III)	2000-2001 (BSS I)	2002 (BSS IV)	2003-2004 (BSS V)
Injection drug users:					
Central-A	430	682	515	500	483
Southeast-D	-	-	-	150	141
Northwest-A	450	512	706	675	474
Northwest-B	-	-	-	150	190
Northwest-B1	-	-	-	-	84
Heroin Smoker:					
Central-A	-	-	-	-	353
Brothel Sex Worker:					
National	1147	867	984	675	680
Street Based Sex Worker:					
Central-A	518	583	533	500	340
Southeast-A	-	521	503	300	369
Southwest-A	-	-	-	-	341
Hotel Based Sex Worker:					
Central-A	-	-	-	325	300
Southeast-A	-	-	-	-	89
Male Sex Worker:					
Central-A	-	582	486	350	368
Southeast-A	-	-	-	325	363
Males who have sex with males:					
Central-A	401	-	598	400	420
Northeast-A	-	-	442	325	390
Hijras:					
Central-A	-	336	380	350	410
Truckers (drivers & helpers):					
Central-A	411	-	841	450	441
Rickshaw pullers:					
Central-A	-	-	605	400	403
Southeast-A	411	-	549	300	315
Dormitory-based male College/University Students:					
Central-A	-	-	-	339	-
Total sample size over rounds	3357	4494	7142	6514	6954

'-' Indicates that the respective group was not included

Mapping

A mapping exercise was done in all study sites to identify the locations where individuals belonging to the different sub-population groups could be accessed. These locations or spots were considered as primary sampling units (PSU). During mapping for each group the PSU was defined and a list of PSUs was prepared. The definition of each PSU is shown in Table 4.

Table 4: Definition of spots/PSUs from where individuals in each population sub-group were sampled

Sl #	Population groups	Spot/cluster definition
01	Injection drug users	A spot/PSU was a specific location where at least 3 IDU were found injecting drugs in a specific time frame
02	Heroin smokers	A spot/PSU was a specific location where at least 5 heroin smokers were smoking drugs or taking rest in a specific time frame
03	Brothel based female sex workers	A used room in a brothel was considered as a spot/PSU
04	Street based female sex workers	A spot/PSU was a specific location where at least three sex workers were available in a specific time frame
05	Hotel based female sex workers	A residential hotel was considered as a spot/PSU if at least 5 sex workers were found in that hotel who sold sex there
06	Male sex workers	A spot/PSU was a specific location where at least 5 MSW gathered in a specific time frame
07	Males who have sex with males	A spot/PSU was a specific location where at least 5 MSM gathered in a specific time frame
08	Hijras	A house was considered as a spot/PSU if Hijras were living there
09	Truckers (drivers & helpers)	A truck stand was considered to be a spot/PSU where at least 5 trucks were found in a specific time frame
10	Rickshaw pullers	A spot/PSU was a specific location where at least 15 rickshaws were found in a specific time frame

For most groups, mapping was conducted at specific times as it was known that those individuals were likely to be present at those spots at those times (e.g. sex workers were more commonly found in the evenings). However, as behaviours of individuals may differ at different times even in the same location, mapping for some groups was conducted during more than one time frame (e.g. for IDU the same spot was mapped in the morning and in the afternoon). The BSS study team collected mapping information with the involvement of local guides, key informants and peers of the selected population groups. Table 5 shows the information obtained through mapping and number of PSUs selected in the fifth round.

Table 5: Information obtained through mapping and number of PSUs selected, BSS fifth round

Population groups	Number of PSUs identified through mapping	Total number of individuals in each population group seen during mapping	Number of selected PSUs visited to meet required sample size	Mean population per cluster (Column 3/ column 2)
Injection drug users:				
Central-A	160	1182	120	7.4
Southeast-D	28	119	28	4.3
Northwest-A	104	602	95	5.8
Northwest-B	12	191	12	15.9
Northwest-B1	8	97	8	12.1
Heroin smokers:				
Central-A	462	4115	117	8.9
Brothel based female sex:				
Workers		3280 (proportionate random sampling)		
National				
Street based female sex workers:				
Central-A	110	579	68	5.3
Southeast-A	151	522	75	3.5
Southwest-A	61	366	61	6.0
Hotel based female sex workers:				
Central-A	79	1028	57	13.0
Southeast-A	18	84	18	4.7
Male sex workers:				
Central-A	115	497	74	4.3
Southeast-A	42	297	42	7.1
Males who have sex with males:				
Central-A	116	561	84	4.8
Northeast-A	42	548	39	13.0
Hijras:				
Central-A	152	530	111	3.5
Truckers (drivers and helpers):				
Central-A	132	1210	44	9.2
Rickshaw pullers:				
Central-A	1384	27391	133	19.8
Southeast-A	1252	13099	105	10.5

Tables 6 and Table 7 show the start and end dates of mapping and interviewing along with the time frame of mapping.

Table 6: Start and end dates for mapping and interviewing in Central-A, BSS fifth round

Sl #	Name of component	Mapping start date	Mapping end date	Interviewing start date	Interviewing end date	Time frame Used
01	Injection drug users	26.08.03	15.10.03	20.10.03	30.11.03	7 am - 11 am & 2 pm - 6 pm
02	Heroin smokers	26.08.03	19.10.03	22.10.03	30.11.03	7 am - 11 am & 2 pm - 6 pm
03	Street based female sex workers	26.08.03	28.09.03	01.10.03	26.10.03	6 pm - 10 pm
04	Hotel based female sex workers	26.08.03	21.09.03	25.09.03	23.10.03	8 am - 8 pm
05	Male sex workers*	27.08.03	28.09.03	02.10.03	30.12.03	6 pm - 10 pm
06	Males who have sex with males*	27.08.03	28.09.03	02.10.03	30.12.03	6 pm - 10 pm
07	Hijras	27.08.03	28.09.03	07.10.03	30.10.03	10 am - 10 pm
08	Truckers (drivers and helpers)	29.08.03	20.09.03	30.09.03	27.10.03	8 am - 12 pm & 2 pm - 6 pm
09	Rickshaw pullers	26.08.03	17.09.03	28.09.03	18.10.03	7 am - 11 am & 6 pm - 10 pm

*Due to Ramadan and Eid interviewing was halted between 27th October to 6th December 2003

Table 7: Start and end dates for mapping and interviewing in cities other than Central-A, BSS fifth round

Sl #	Name of component	Mapping start date	Mapping end date	Interviewing start date	Interviewing end date	Time frame Used
01	Injection drug users:					
	Northwest-A	07.12.03	21.12.03	03.01.04	24.01.04	7 am - 11 am
	Southeast-D	14.09.03	24.09.03	24.09.03	11.10.03	&
	Northwest-B	22.12.03	26.12.03	27.12.03	06.01.04	2 pm - 6 pm
	Northwest-B1	04.12.03	08.12.03	08.12.03	11.12.03	
02	Street based female sex workers:					
	Southwest-A	08.12.03	25.12.03	28.12.03	26.01.04	5 pm - 10 pm
	Southeast -A	08.12.03	31.12.03	06.01.04	26.01.04	
03	Hotel based female sex workers:					
	Southeast-A	07.12.03	26.12.03	27.12.03	14.01.04	6 am - 2 p
04	Male sex workers:					
	Southeast-A	11.12.03	23.12.03	05.01.04	27.01.04	6 pm - 10 pm
05	Males who have sex with males:					
	Northeast-A	03.12.03	20.12.03	22.01.04	26.02.04	6 pm - 10 pm
06	Rickshaw pullers:					
	Southeast-A	05.11.03	14.11.03	08.12.03	04.01.04	7 am - 11 am & 6 pm - 10 pm

Design of the study

Like in other BSS rounds in Bangladesh two-stage cluster sampling was also used in the fifth round. In the first stage a time location systematic random sampling method was employed to select PSUs with equal probability as described above and in the second stage the numbers of respondents to be interviewed from each PSU was calculated.

Selection of the number of PSUs and the number of respondents from each PSU was dependent on the total number of individuals mapped. If the total numbers of individuals mapped were the same or less than the desired sample size a take-all approach was adopted. If, on the other hand, the numbers mapped exceeded the sample size, the two-stage cluster sampling method described above was used. Sampling weights were calculated by using standard formulae.

Table 8 shows the fixed time locations and selection of number of individuals from each PSU in the different population groups. A take all approach was followed for Hijras in Central-A, hotel based female sex workers in Southeast-A, street based female sex workers in Southwest-A, IDU in Northwest-B, Northwest-B1 and Southeast-D and for MSM in Southeast-A. Fixed number of interviews from each selected PSU was followed for all other groups except for brothel based female sex workers. For brothels, a proportional random sampling method was taken from all the existing registered brothels in Bangladesh. The total sample size was divided proportionately among all brothels and the required sample size from each brothel was estimated. Total numbers of used rooms in each brothel were counted and each used room was assumed as a PSU. A fixed number of sex workers were interviewed from each of the PSU selected.

Table 8: Time locations followed during interview of the different population groups, BSS fifth round

Sampled groups in BSS-V	Time-location	Approach: Fixed/Take all from each selected Primary Sampling Unit (PSU)
Injection drug users:		
Central-A	7 am to 11 am, 2 pm to 6 pm	Fixed:4
Southeast-D	7 am to 11 am, 2 pm to 6 pm	Take-all
Northwest-A	7 am to 11 am, 2 pm to 6 pm	Fixed:4
Northwest-B	7 am to 11 am, 2 pm to 6 pm	Take-all
Northwest-B1	7 am to 11 am, 2 pm to 6 pm	Take-all
Heroin smokers:		
Central-A	7am to 11 am, 2 pm to 6 pm	Fixed:3
Brothel based female sex workers:		
National	Proportional Random sample	
Street based female sex workers:		
Central-A	6 pm to 10 pm	Fixed:5
Southeast-A	10 am to 2 pm, 5 pm to 9 pm	Fixed:5
Southwest-A	5 pm to 10 pm	Take all
Hotel based female sex workers:		
Central-A	8 am to 8 pm	Fixed:5
Southeast-A	8 am to 12 pm	Take all
Male sex workers:		
Central-A	6 pm to 10 pm	Fixed:5
Southeast-A	6 pm to 10 pm	Take all
Males who have sex with males:		
Central-A	6 pm to 10 pm	Fixed:5
Northeast-A	6 pm to 10 pm	Fixed:5
Hijras:		
Central-A	10 am to 10 pm	Take-all
Truckers (drivers and helpers):		
Central-A	8 am to 12 pm, 2 pm to 6 pm	Fixed:10
Rickshaw pullers:		
Central-A	7 am to 11 am, 6 pm to 10 pm	Fixed:3
Southeast-A	7 am to 11 am, 6 pm to 10 pm	Fixed:3

Data collection

All interviews took place in a private space using anonymous questionnaires. All participants received a simple explanation about the objectives. Verbal consent was obtained prior to the interviews. Start and end dates of interviews are shown in Tables 6 and Table 7.

Data entry and analysis

Data were entered twice using Epi-Info for Windows Version 3 and range and consistency checks were incorporated in the data entry screens. Cleaned data files were converted into STATA data file format by using Stat Transfer Version 7. Data were analysed using STATA Inter-Cooled Version 8 for Windows package. Descriptive statistics such as weighted proportions for categorical and weighted means and un-weighted medians for numerical variables were reported. 95% confidence interval was reported for proportions and means. Categorical variables were compared between sites using chi square test and continuous variables were compared by adjusted Wald test (F-test). While comparing means or proportions between sites or rounds, overlapping confidence interval was considered as not significant.

3. RESULTS

Serological and behavioural surveillance findings from the fifth round are described in this section under the following categories:

1. Drug users (injection drug users and heroin smokers)
2. Female sex workers
3. Male sex workers and hijras
4. Males who have sex with male
5. Transport workers and sex partners of female sex workers and hijras

3.1 DRUG USERS (INJECTION DRUG USERS AND HEROIN SMOKERS)

3.1.1 Serology

Serological surveillance focused on IDU participating in Needle/syringe Exchange Programmes (NEP) in Central, Southeast and Northwest regions. As in the previous round, heroin smokers from Central-A were also sampled in this round and the results are included in this section.

Demographic characteristics (Table 9)

Demographic characteristics of IDU and heroin smokers are summarised in Table 9. IDU from Southeast-D were the youngest amongst all groups of IDU ($p<0.05$ for all comparisons) and those from Northwest-B were the oldest ($p<0.05$ for all comparisons). IDU from Northwest-B1 had the lowest median years of schooling ($p<0.05$ for all comparisons) with the lowest proportion who ever attended school ($p<0.001$ for all comparisons). The median duration of coverage by NEP was lowest in IDU from Northwest-B2 ($p<0.001$ for all comparisons). However, those from Northwest-A had been injecting drugs for a significantly longer duration ($p<0.01$) than IDUs from other cities.

Heroin smokers sampled were younger than the IDU in Central-A ($p<0.001$). The proportion of heroin smokers who had ever attended school was similar to that of IDU in Central-A and also the years of schooling were similar for the two groups.

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Heroin smokers sampled were younger than the IDU in Central-A ($p<0.001$). The proportion of heroin smokers who had ever attended school was similar to that of IDU in Central-A and also the years of schooling were similar for the two groups.

Table 9: Demographic characteristics of IDU and heroin smokers, 2003-2004

Geographical location (n)	Age in years median (IQR)	Ever attended school, % (n), 95% CI	Education (years) median (IQR)	Duration as IDU/heroin smoker (months) median (IQR)	Duration in NEP (months) median (IQR)
Injection Drug Users					
NEP:					
Central-A (404)	33 (28-40)	59.9 (242), 54.9-64.7	7 (4-10)	60 (30-96)	36 (12-60)
Central-E (106)	35 (30-40)	48.1 (51), 38.3-58.0	5 (3-8)	45 (24-96)	15 (7.7-19.9)
Central-H (122)	28 (25-32)	62.3 (76), 53.1-70.9	8.5 (6-11)	24 (18-30)	12 (6-18)
Northwest-A (394)	36 (31-42)	69.0 (272), 64.2-73.6	6 (4-9)	84 (48-120)	48 (36-48)
Northwest-B (239)	40 (35-48)	46.0 (110), 39.6-52.6	5 (3-9)	36 (24-84)	30 (18-34)
Northwest-B1 (78)	36.5 (30-42)	32.1 (25), 21.9-43.6	4 (3-8)	48 (12-87)	19.9 (16.5-19.9)
Northwest-B2 (47)	36 (32-43)	61.7 (29), 46.4-75.5	8 (3-10)	48 (12-96)	6 (6-6)
Northwest-F (85)	30 (27-36)	84.7 (72), 75.3-91.6	8 (3.3-10)	NA	NA
Northwest-F1 (57)	32 (28-35)	61.4 (35), 47.6-74.0	8 (3-10)	NA	NA
Southeast-D (86)	25 (23-29)	83.7 (72), 19.8-39.9	9 (5-10.8)	NA	NA
Heroin Smokers					
Central-A (391)	30 (25-35)	57.8 (226), 52.7-62.7	5 (3-8)	72 (48-120)	NA

Note: NA refers to Not Asked; IQR refers to Inter Quartile Range

HIV and syphilis prevalence (Table 10)

In Central-A, 4% of the IDU tested positive for HIV. The rate is similar to that of the fourth round of surveillance. As before, this is the highest prevalence recorded for HIV amongst all vulnerable population groups sampled. Fortunately no HIV infection was found among IDUs from other sampled sites. For the first time, HIV was detected in three heroin smokers (0.8%) in Central-A. Active syphilis rate varied from as low as 0 to as high as 7% among different sites of the IDUs. Active syphilis rate for heroin smokers were similar to that of IDU from the same region.

Table 10: Prevalence of HIV and syphilis among IDU and heroin smokers, 2003-2004

Study Populations, Geographical location (Numbers tested)	HIV % (n), 95% CI	Active syphilis % (n), 95% CI
Injection Drug Users:		
NEP, Central-A (404)	4.0 (16), 2.3-6.4	1.2 (5), 0.4-2.9
NEP, Central-E (107)	0	5.6 (6), 2.1-11.8
NEP, Central-H (122)	0	1.6 (2), 0.2-5.8
NEP, Northwest-A (394)	0	1.3 (5), 0.4-2.9
NEP, Northwest-B (239)	0	1.7 (4), 0.5-4.2
NEP, Northwest-B1 (78)	0	1.3 (1), 0-6.9
NEP, Northwest-B2 (47)	0	2.1 (1), 0.1-11.3
NEP, Northwest-F (85)	0	0
NEP, Northwest-F1 (57)	0	3.5 (2), 0.4-12.1
NEP, Southeast-D (86)	0	7.0 (6), 2.6-14.6
HeroinSmokers:		
Central-A (391)	0.8 (3), 0.2-2.2	2.6 (10), 1.2-4.7

Hepatitis C (HCV) prevalence (Table 11)

As HCV serves as marker of risk of transmission of HIV through sharing of needles/syringes and injection paraphernalia, HCV was assayed in IDU only, not in heroin smokers. HCV prevalence was high in IDU from most cites and the rate varied from as low as 5.7% to as high as 83%. The HCV rates were surprisingly low in two cites – Northwest-F and Central-H. In Central-A where the HIV prevalence was 4%, HCV prevalence was 59.2%. Overall, out of 1619 IDU sampled, 54.2% tested positive for HCV.

Table 11: Prevalence of HCV in IDU, 2003-2004

Study Populations, Geographical location (Numbers tested)	HCV % (n), 95% CI
Injecting Drug Users:	
NEP, Central-A (404)	59.2 (239), 54.2-64.0
NEP, Central-E (107)	29.9 (32), 21.4-39.5
NEP, Central-H (122)	5.7 (7), 2.3-11.5
NEP, Northwest-A (394)	67.0 (264), 62.1-71.6
NEP, Northwest-B (239)	77.0 (184), 71.1-82.2
NEP, Northwest-B1 (78)	55.1 (43), 43.4-66.4
NEP, Northwest-B2 (47)	83.0 (39), 69.2-92.4
NEP, Northwest-F (85)	8.2 (7), 3.4-16.2
NEP, Northwest-F1 (57)	29.8 (17), 18.4-43.4
NEP, Southeast-D (86)	52.3 (45), 41.3-63.2
Total (1619)	54.2 (877), 51.7-56.6

Breakdown of HIV and HCV prevalence according to different Drop In Centres in Central-A (Table 12)

An ongoing cohort study on IDU in Dhaka city showed that in one neighbourhood of the city 8% of the IDU were HIV positive[6]. Based on these findings, it was decided to see whether the surveillance could detect differences in HIV prevalence in the different neighbourhoods of Central-A. Therefore, in Central-A, a detailed analysis and breakdown of the IDU samples according to the seven Drop in Centres (DIC) covered during serological surveillance was done. Such a breakdown revealed that from the neighbourhood of DIC-1, 8.9% IDU were HIV positive and from that of DIC–2, 2.1% of IDU were HIV positive. Surprisingly, none of the IDU sampled from the areas of other DICs were positive for HIV.

HCV prevalence was very high among the sampled DICs from Central-A and the prevalence varied from as low as 25% in DIC-5 to as high as 73.2% in DIC-1.

Table 12: Prevalence of HIV and HCV in IDU according to Drop in Centre (DIC) in Central-A, 2003-2004

DIC (n)	HIV % (n), 95% CI	HIC % (n), 95% CI
DIC- 1 (157)	8.9 (14), (5.0-14.5)	73.2 (115), (65.6-80.0)
DIC- 2 (94)	2.1 (2), (0.3-7.5)	67.0 (63), (56.6-76.4)
DIC- 3 (59)	0	45.8 (27), (32.7-59.2)
DIC- 4 (25)	0	32.0 (8), (14.9-53.5)
DIC- 5 (24)	0	25.0 (6), (9.8-46.7)
DIC- 6 (32)	0	37.5 (12), (21.1-56.3)
DIC- 7 (13)	0	61.5 (8), (31.6-86.1)
Total (404)	4.0 (16), (2.3-6.4)	59.2 (239), (54.2-64.0)

3.1.2 Behaviour

For IDU, BSS focused on people who had been injecting drugs over the last two months since the time of surveillance, and were visible in public places or in so-called 'shooting galleries'. The fifth round of BSS included one new area for IDU in Northwest-B1. IDU in the other four areas namely Central-A, Northwest-A, Northwest-B and Southeast-D, which were included in the fifth round, were also covered in the fourth round of BSS. Heroin smokers in Central-A were included in BSS for the first time in the fifth round and included men who were primarily heroin smokers and had not injected drugs more than six times in the previous six months. Only those heroin smokers who were visible in public places were sampled. Data from IDU and heroin smokers are presented in separate sub-sections.

3.1.2.1 Injection Drug User

Socio demographic characteristics of IDU (Table 13)

IDU from the three sites in the Northwest were similar in age. IDU from Southeast-D were the youngest and most had some schooling when compared to IDU from other sites ($p<0.001$ for all comparisons). The average age at first sex was similar for IDU from all sites. More IDU in the different cities of the Northwest were married and living with their wives or their regular sex partners than those in Central-A and Southeast-D ($p<0.001$ for all comparisons). Although almost all IDU in the Northwest cities and in Southeast-D lived with relatives, approximately half lived with relatives in Central-A and one-third were living on the street. In all sites, most IDU had lived in the cities that they had been sampled from for their whole lives.

The median income in the last month for IDU varied from Taka 3000-4000. In Central-A, the most common occupation reported in the last six months was rag pickers. In Northwest-A and Northwest-B the most common source of income was driving rickshaws while in Southeast-D they were either running businesses or supported financially by their families.

Table 13: Socio-demographic characteristics of IDU

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Mean age (in years)	32.2(31.4-33.0) M = 32	40.9 (40.2-41.5) M = 40	40.0 (38.1-41.8) M = 40	35.5 (34.2-36.7) M = 36	27.4 (26.4-28.5) M = 27
Proportion who had no schooling	34.9 (29.9-40.3) N=481	47.5 (42.4-52.5)	47.4 (40.0-54.9)	47.6 (22.0-74.5)	1.4 (0.4-4.5)
Mean age at first sex in years (Denominator is who had sex and could recall)	17.6 (17.4-17.9) M = 17 N=476	18.5 (18.3-18.7) M = 18 N=474	18.7 (18.4-19.0) M = 19 N=189	17.9 (16.8-18.9) M = 18 N=84	18.2 (17.5-18.9) M = 18 N=135
Proportion who were currently married	35.0 (29.4-41.0)	80.4 (76.8-83.6)	71.1 (63.8-77.4)	93.0 (86.8-96.3)	34.8 (26.7-43.8)
Currently living with wife or other regular sex partner	32.2 (26.6-38.4) N=476	81.7 (77.9-84.9)	71.6 (63.9-78.2)	91.7 (78.8-97.0)	33.3 (26.1-41.5) N=138
Current living status	N=482	N=474	N=190	N=83	N=141
Alone	10.9 (7.9-14.8)	3.1 (1.9-5.1)	6.3 (3.2-12.0)	0	2.8 (1.0-7.9)
With relatives	52.1 (44.0-60.2)	95.4 (93.0-96.9)	93.2 (87.3-96.4)	100.0	97.2 (92.1-99.0)
Friends	4.1(2.4-7.0)	0.2 (0.03-1.4)	0	0	0
On the streets	32.1 (25.9-39.0)	0.8 (0.3-2.0)	0.5 (0.1-3.0)	0	0
Others[§]	0.9 (0.3-2.2)	0.6 (0.2-1.8)	0	0	0
Duration of stay in this city					
Whole life	87.0 (83.6-89.9)	97.4 (95.6-98.5)	99.5 (96.1-99.9)	100.0	96.5 (91.8-98.5)
<=10 years	3.0 (1.8-5.0)	0.5 (0.2-1.7)	0.5 (0.1-3.9)	0	2.8 (1.1-7.1)
>10 years	9.7 (7.3-12.9)	2.1 (1.1-3.9)	0	0	0.7 (0.1-5.8)
Could not remember	0.2 (0.03-1.5)	0	0	0	0
Mean income last month	4276.9 (3989.6 - 4563.8) M = 4000	3649.3 (3466.7 - 3832.1) M = 3000	3319.5 (2997.8 - 3641.1) M = 3000	3224.1 (2122.7 - 4325.5) M = 3000	4808.5 (4126.7 - 5490.4) M = 3500
Sources of income in the last 6 months					
Rickshaw pullers	14.1 (10.6-18.7)	42.2 (37.6-46.9)	42.6 (34.7-51.0)	0	5.0 (2.1-11.2)
Mobile sellers (small businesses using mobile vans)	0.6 (0.2-2.0)	3.4 (2.1-5.5)	4.2 (1.1-15.1)	0	0
Service	7.6 (5.4-10.6)	8.3 (6.3-10.9)	5.8 (3.2-10.2)	1.2 (0.04-27.3)	10.6 (7.1-15.7)
Rag Pickers	36.7 (30.0-44.0)	0.7 (0.2-2.0)	1.1 (0.2-6.3)	0	0

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Stealing/robbery	3.8 (2.2-6.6)	1.4 (0.7-2.8)	1.1 (0.2-6.3)	0	1.4 (0.3-5.7)
Business	15.1 (11.6-19.3)	24.1 (20.0-28.8)	20.0 (12.9-29.7)	4.8 (3.0-7.5)	32.6 (25.9-40.1)
Family	6.5 (4.2-10.0)	3.4 (2.1-5.6)	8.4 (4.1-16.4)	2.4 (0.6-9.1)	30.5 (24.1-37.8)
Agriculture	0	0.3 (0.04-1.8)	1.6 (0.5-5.3)	31.0 (20.3-44.1)	0
Smuggler	0	0	0	31.0 (22.3-41.3)	0
Mason	0	0.2 (0.03-1.5)	1.1 (0.2-5.9)	4.8 (1.2-17.6)	0
Fisher man	0	0	0	7.1 (0.3-68.1)	0
Others[§§]	15.5 (12.3-19.4)	16.1 (12.6-20.3)	14.2 (9.9-19.9)	17.9 (13.8-22.8)	19.9 (13.3-28.6)

[§]Others stated: rickshaw garage, mazar (holy shrine), shop, student hostel, mess

[§§]Others stated: car driver, daily wager, cheating, beggar, mechanic, cleaner, house rent, mastan, professional injection pusher, drug dealer, informer of men in uniform, tea stall, van driver, sing on the streets, helping with cows, barber, shop rent, rent boat station, tuition, contractor, sailor, cobbler

Note: M refers to median

History of drug use (Table14)

Most IDU took drugs through other modes before they started injecting. Mean years of using other drugs ranged from 8.6 years in Southeast-D to 19.6 years in Northwest-A while mean years of injecting drugs ranged from 3.3 years in Southeast-D to 6.1 years in Northwest-A. IDU in Southeast-D started taking any kind of drugs at a younger age than those in Northwest regions ($p<0.001$ for all comparisons). For injecting drugs, also IDU in Southeast-D started at a younger age than those in other sites ($p<0.001$ for all comparisons). In the last month, most of the IDU in Central-A and Southeast-D reported to have taken cocktail, while in the Northwest cities, buprenorphine was usually injected on its own. Most IDU had injected once or twice the day before the interview was conducted.

Table 14: History of drug use

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Mean duration of taking any kinds of drugs (years)	13.0 (12.4 – 13.5) M = 12	19.6 (19.0-20.3) M = 18	17.6 (16.6-18.5) M = 16	10.8 (9.9-11.6) M = 9	8.6 (8.0-9.1) M = 8
Mean duration of injecting drugs (years)	4.0 (3.7 – 4.4) M = 3	6.1 (5.8 – 6.5) M = 6	5.1 (4.5 – 5.7) M = 4	3.7 (3.5 – 3.9) M = 3	3.3 (2.8 – 3.8) M = 3
Mean age of starting any drugs	19.2 (18.7-19.7) M= 19	21.2 (20.9-21.6) M=20	22.4 (20.8-24.0) M=22	24.7 (22.7-26.7) M=25	18.9 (17.8-19.9) M=18
Mean age of starting injections	28.2 (27.4-28.9) M=27	34.7 (34.2-35.3) M=34	34.9 (33.4-36.3) M=35	31.8 (30.7-32.8) M=31.8	24.2 (23.3-25.1) M=24
Mean number of injections taken yesterday	2.5 (2.4 – 2.6) M = 2	2.4 (2.3 – 2.4) M = 2	2.4 (2.4 – 2.5) M = 2	1.6 (1.0 – 2.2) M = 2	1.0 (0.8 – 1.2) M = 1
Mean number of injections taken last week	17.8 (17.1 – 18.6) M = 16	17.9 (17.4 – 18.4) M = 17	19.0 (18.4 – 19.6) M = 18	12.3 (8.7 – 15.9) M = 13.5	8.2 (7.1 – 9.3) M = 7
Frequency of injecting in the last month					
Once a day	11.8 (8.8-15.6)	6.1 (4.5-8.3)	7.9 (5.0-12.4)	46.4 (35.5-57.7)	63.8 (53.9-72.7)
2-3 times a day	74.5 (70.6-78.0)	84.7 (81.2-87.7)	75.3 (69.0-80.6)	50.0 (40.3-59.7)	34.8 (26.6-43.9)
4 or more times a day	13.7 (11.0-17.0)	9.1 (6.8-12.2)	16.8 (12.9-21.7)	3.6 (0.3-29.9)	1.4 (0.3-5.6)
Type of drugs taken last month*					
Buprenorphine	72.4 (65.6-78.3)	99.8 (98.7-100.0)	100.00	94.1 (68.5-99.1)	0
Pethidine	0.3 (0.1-1.2)	0	0	0	0
Heroin	1.8 (0.3-10.3)	0.3 (0.05-2.5)	0	0	0
Cocktail	83.1 (78.9-87.2)	43.8 (39.3-48.4)	51.1 (40.5-61.5	17.9 (4.4 -50.9)	100.0
Others§	0.7 (0.2-1.9)	0.7 (0.2-2.3)	1.1 (0.3-3.9)	0	0

*Multiple responses

§Others stated: Avil, Easium, Vitamin B-50, Sedil

Note: M refers to median

History of selling blood (Table 15)

None of the IDU in Northwest-B1 and Southeast-D reported selling blood in the last year. In other areas, around 4-7% of IDU reported selling blood in the last year.

Table 15: History of selling blood

Indicators % (95 % CI)	IDU Central-A (N= 477)	IDU Northwest-A (N= 473)	IDU Northwest-B (N= 187)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU sold blood in last year	6.8 (4.8-9.5)	5.9 (3.7-9.3)	4.3 (1.6-11.0)	0	0

Injection behaviour of the IDU (Table 16)

Sharing of needles/syringes was determined by questions on whether the needles/syringes used by the IDU were borrowed or lent. The terms and working definitions to describe these are:

Active sharing or lending needle/syringe: If an IDU passed his used needle/syringe to another IDU for injecting.

Passive sharing or borrowing needle/syringe: If an IDU injected with someone else's used needle/syringe.

More than three quarters of IDU from Central-A reported either borrowing or lending needle/syringe during the last injection. Reported needle/syringe sharing (borrowing or lending) during the last injection was significantly higher in Central-A than the cities in the Northwest region ($p<0.001$ for all comparison) but it was similar with the IDU in Southeast-D. The proportion of IDU sharing needle/syringe during the last injection was similar in Northwest-B and Southeast-D. Similarly for needle/syringe sharing during the last week, more IDU from Central-A shared needle/syringe in the last week than those in other areas (Central-A vs Northwest-A: $p<0.001$, Central-A vs Northwest-B: $p=0.003$, Central-A vs Northwest-B1: $p<0.001$ and Central-A vs Southeast-D: $p<0.001$).

Use of professional injectors for last injection taken was most commonly reported in Northwest-B compared to other sites ($p<0.001$ for all comparisons) and it was almost non-existent in Southeast-D.

The mean size of the sharing network for those IDU who shared last time varied from 1.4-2.7. The network size was smaller in Southeast-D compared to Central-A, Northwest-A and B ($p<0.001$ for all comparisons). For those who shared last week, 50-71% shared with different partners and the mean size of the sharing network with different partners varied from 3.5-7.1.

Cleaning needles/syringes during sharing injections last time was more commonly reported by IDU in Southeast-D than by those in Central-A, Northeast-A and Northeast-B ($p<0.001$ for all comparisons). Cleaning methods employed were not effective and although most used water for cleaning, very few used boiling water. A large proportion used other material for cleaning including drugs, saliva, paper, cotton, etc. Bleach was not used.

Table 16: Injecting behaviour of IDU

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Borrowed used needle/syringe last time	53.2 (48.3 – 58.0)	7.3 (4.8 – 11.1)	28.4 (21.8 – 36.2)	4.8 (0.5 – 32.9)	46.1 (38.0 – 54.4)
Lent used needle/syringe last time	66.4 (61.9 – 70.6)	13.0 (9.1 – 18.4)	51.6 (44.1 – 59.0)	6.0 (0.7 – 35.8)	46.1 (36.5 – 56.1)
Borrowed or lent used needle/syringe last time	77.2 (72.6 – 81.3)	15.8 (11.1- 21.9)	58.4 (50.6 – 65.9)	7.1 (0.8 – 42.2)	68.8 (57.0 –78.6)
Borrowed used needle/syringe last week	86.0 (82.4 – 89.0)	21.2 (15.4 – 28.6)	63.7 (54.2 – 72.2)	4.8 (0.3 – 46.0)	63.1 (54.3 – 71.1)
Lent used needle/ syringe last week	90.2 (86.9 – 92.7)	21.9 (15.8 – 29.4)	74.2 (64.5 – 82.0)	6.0 (0.6 – 38.4)	63.8 (54.8 – 72.0)
Borrowed or lent used needle/syringe last week	90.6 (87.3 – 93.1)	24.2 (17.7 – 32.2)	75.3 (64.3 – 83.7)	7.1 (0.6 – 48.1)	69.5 (61.1 – 76.8)
Frequency of borrowing in the last week (Denominator is who injected last week)	N=480	N=474	N=190	N=81	N=128
Always	5.4 (3.5-8.2)	0	0	1.2 (0.02-39.1)	11.7 (6.9-19.1)
Sometimes	81.0 (76.7-84.7)	21.2 (15.4-28.6)	63.7 (54.2-72.2)	3.7 (0.1-56.4)	57.8 (48.3-66.8)
Never	13.6 (10.7-17.2)	78.8 (71.4-84.6)	36.3 (27.8-45.8)	95.1(52.8-99.7)	30.5 (21.4-41.4)
Frequency of lending in the last week (Denominator is who injected last week)	N=480	N=474	N=190	N=81	N=128
Always	5.9 (4.1-8.4)	0.2 (0.02-1.3)	5.3 (2.6-10.5)	1.2 (0.02-39.1)	7.8 (4.0-14.8)
Sometimes	84.7 (80.6-88.0)	21.7 (15.7-29.2)	69.0 (60.3-76.5)	4.9 (0.4-43.5)	62.5 (52.6-71.4)
Never	9.2 (6.9-12.2)	78.1 (70.6-84.2)	25.8 (18.0-35.5)	93.8 (59.8-99.4)	29.7 (20.5-40.9)
Cannot remember	0.3 (0.1-1.1)	0	0	0	0

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion injected by professional injectors last time	9.8 (6.5-14.4)	48.9 (44.1-53.8)	76.8 (68.6-83.4)	2.4 (0.1-44.2)	0.7 (0.1-4.7)
Proportion injected by professional injectors last week (Denominator is who injected last week)	N=480	N=474	N=190	N=81	N= 128
Always	4.6 (2.7-7.8)	9.8 (7.3-13.1)	26.8 (19.7-35.5)	1.2 (0.04-27.8)	0
Sometimes	8.8 (6.0-12.7)	61.2 (56.9-65.4)	64.2 (54.5-72.8)	6.2 (0.9-32.1)	1.6 (0.4-5.9)
Never	86.6 (81.3-90.6)	29.0 (25.1-33.1)	8.9 (5.2-15.1)	92.6 (57.0-99.2)	98.4 (94.1-99.6)
Mean size of sharing network (Denominator is who lent/borrowed last time in last two months)	2.6 (2.5-2.7) N=373 M=2	2.8 (2.5-3.0) N=80 M=3	2.8 (2.5-3.1) N=110 M=3	1.0 (1.0-1.0) N=2 M=1	1.5 (1.4-1.6) N=96 M=1
Proportion shared with same persons last week (Denominator is who shared last week)	N=435	N=122	N=143	N=6	N=98
Yes	36.6 (32.3-41.1)	40.5 (30.5-51.4)	29.4 (24.0-35.3)	50.0 (1.3-98.7)	39.8 (25.3-56.3)
No	63.4 (58.9-67.7)	59.5 (48.6-69.5)	70.6 (64.7-76.0)	50.0 (1.3-98.7)	60.2 (43.7-74.7)
Mean size of sharing network when IDU shared with different persons last week (Denominator who shared with different person last week)	6.2 (5.7-6.7) N=269 M=5	6.0 (5.4-6.7) N=68 M=6	7.1 (6.4-7.7) N=101 M=6	3.5 (0-22.6) N=2 M=3.5	3.5 (3.1-4.0) N=59 M=3
Proportion cleaned needle/syringe while borrowing last time in last two months (Denominator is who borrowed last time in last two months)	44.2 (38.3-50.4) N=261	89.6 (65.8-95.8) N=37	63.0 (44.2-78.5) N=54	100.0 N=2	98.5 (88.8-99.8) N=65
Method of cleaning* (Denominator is who borrowed and cleaned last time in last two months)	N=119	N=32	N=34	N=2	N=64
Water/hot water	46.9 (37.2-56.8)	86.6 (66.7-95.4)	50.0 (35.5-64.5)	50.0 (0-100.0)	17.2 (9.6-29.0)
Clothes	17.1 (11.1-25.3)	26.5 (10.8-51.7)	23.5 (11.8-41.5)	0	4.7 (1.5-13.4)
By blowing	25.0 (17.4-34.6)	26.5 (12.8-46.9)	14.7 (7.7-26.4)	0	6.3 (2.5-14.9)
Others§	63.1 (51.0-73.7)	57.8 (40.3-73.5)	50.0 (27.7-72.4)	50.0 (0-100.0)	93.8 (86.4-97.3)

*Multiple responses

[§]Other means of cleaning include: with drugs, paper/cotton/leaves, jerking needles/syringes, burning, saliva, pump

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on sources of needles/syringes (Table 17)

All IDU knew where to buy new needles/syringes. Pharmacy and NGO workers were the most common sources for obtaining needles/syringes in all sites except in Southeast-D where NGO interventions had not started at the time of interviewing for the fifth round of BSS.

Table 17: Knowledge on sources of needles/syringes

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion know where new needles/syringes are available	100.0	100.0	100.0	100.0	100.0
Sources of new needles/syringes*					
Pharmacy	96.7 (94.9-97.8)	92.0 (88.8-94.3)	93.2 (87.8-96.3)	36.9 (24.6-51.2)	100.0
Health centre	0.3 (0.1-1.2)	1.1 (0.5-2.4)	0	1.2 (0.4-27.3)	0
Friends	0.5 (0.1-2.0)	0.2 (0.03-1.7)	0	0	23.4 (16.1-32.8)
Drug partners	9.6 (6.8-13.3)	15.7 (11.2-21.7)	50.0 (37.0-63.0)	1.2 (0.4-27.3)	5.7 (2.7-11.6)
NGO workers	93.1 (90.0-95.3)	94.3 (90.9-96.6)	87.4 (72.5-94.8)	97.6 (75.4-99.8)	0
Drug sellers	3.0 (1.5-5.8)	32.3 (28.2-36.7)	62.1 (52.2-71.1)	29.8 (6.5-72.0)	1.4 (0.3-6.2)
Others[§]	0	0.5 (0.1-2.3)	0.5 (0.1-4.2)	1.2 (0.1-12.0)	0

*Multiple responses

[§]Others stated: hospital, acquaintance, adda

History of abscesses (Table 18)

Abscesses were reported by many IDU especially from Central-A where the proportions were higher than in Northwest-A, Northwest-B1 and Southeast-D ($p<0.001$ for all comparisons).

Table 18: History of abscesses

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion reported having abscesses last year	54.0 (49.0-58.9)	22.3 (18.4-26.8)	40.5 (30.0-52.0)	14.3 (6.5-28.6)	36.2 (27.2-46.2)

Efforts to quit injection drug use (Table 19)

More IDU in Southeast-D tried to quit injecting drugs than those in Central-A, Northwest-B or Northwest-B1 ($p<0.001$ for all comparisons). Of those who tried to quit, the average number of attempts in their lifetime was two to three and the most common mode was by locking themselves at home. However, 28-47% did attend detoxification clinics.

Table 19: Efforts to quit injection drug use

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion tried quitting drugs	57.4 (52.5-62.2)	79.9 (75.6-83.6)	62.6 (54.1-70.4)	54.8 (42.3-66.6)	81.6 (74.0-87.3)
Mean number of attempts at quitting drugs (Denominator is who tried quitting drugs)	3.0 (2.8-3.3) N=272 M=2	2.8 (2.5-3.0) N=371 M=2	2.9 (2.5-3.4) N=119 M=2	2.4 (1.9-2.9) N=46 M=2	2.0 (1.7-2.3) N=115 M=2
Methods tried for quitting drugs* (Denominator is who tried quitting drugs)	N=275	N=374	N=119	N=46	N=115
Detox clinic	36.8 (29.0-45.3)	46.5 (40.8-52.3)	42.0 (27.9-57.6)	28.3 (13.3-50.4)	30.4 (20.2-43.1)
Hospital	2.1 (0.9-4.6)	3.7 (2.0-6.7)	3.4 (1.1-9.8)	2.2 (0.5-52.1)	1.7 (0.4-6.5)
NGO	3.3 (1.8-6.0)	6.9 (4.6-10.1)	8.4 (4.7-14.6)	8.7 (4.9-15.1)	0
Went to village	33.1 (26.9-39.9)	24.6 (20.8-28.9)	27.7 (22.2-34.1)	0	2.6 (0.9-7.3)
Went for Tabligh Jamat	5.8 (2.6-12.5)	3.5 (2.3-5.5)	5.0 (2.1-11.6)	0	6.1 (2.6-13.4)
Locked himself at home	55.1 (47.5-62.5)	81.4 (76.8-85.2)	78.2 (70.4-84.3)	76.1 (60.0-87.1)	50.4 (40.6-60.2)
Others[§]	19.4 (14.7-25.3)	27.0 (21.5-33.3)	24.4 (14.0-38.9)	23.9 (11.0-44.5)	42.6 (34.9-50.7)

*Multiple responses

[§]Other ways of attempting to quit injecting drugs include: going to jail, taking non-injecting drugs such as cannabis/heroin/tablets, reducing the number of injections, injecting saline, staying away from friends, going home of relatives in the village, trying to control oneself, going abroad for treatment, taking long baths.

Sexual partners and sexual behaviour of IDU (Table 20)

Close to one-third of IDU in Central-A and more than one-third in Southeast-D reported having non-commercial sex partners in the last month while 72-86% of the Northwest cities reported this. In general a considerable proportions of IDU had commercial female sex partners. Of those who had commercial partners in the last year, they had multiple partners with a median number ranging from three to six. Approximately 3 to 20% of IDU reported that they had group sex in the last year. The mean number of partners reported in group-sex last year ranged from three to four. Very few IDU reported selling sex in the last year and in most cities, those who did had a median number of one partner. A very small proportion of IDU reported having sex with Hijras in the last month or year.

Table 20: Sexual partners and sexual behaviour of IDU

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU who had sex with non commercial female partners in the last year	35.7 (29.6 – 42.3)	80.6 (76.5 – 84.2)	71.1 (63.7 – 77.5)	92.9 (86.8 – 96.3)	41.8 (33.9 – 50.3)
Proportion of IDU who had sex with non commercial female partners in the last month	30.5 (25.0-75.0)	72.0 (67.3-76.2)	68.4 (62.0-74.2)	85.7 (65.2-95.1)	36.2 (29.4-43.6)
Proportion of IDU who had sex with commercial female partners in the last year	34.5 (29.4 – 40.0)	32.5 (27.4 – 38.0)	42.1 (34.0 – 50.6)	21.4 (9.2 – 42.4)	44.0 (35.5 – 52.8)
Proportion of IDU who had sex with commercial female partners in the last month	19.1 (15.3-23.5)	21.2 (17.3-25.7)	27.4 (20.7-35.2)	9.5 (2.0-34.7)	14.2 (10.1-19.6)
Proportion of IDU who had sex with commercial male/ Hijras in the last year	2.3 (1.2 – 4.6)	0.3 (0.1 – 1.4)	2.6 (1.4 – 5.0)	0	2.1 (0.4 – 9.5)
Proportion of IDU who had sex with commercial male/ Hijras in the last month	0.1 (0.02-1.1)	0	0.5 (0.1-3.6)	0	0
Proportion of IDU who sold sex in exchange of money or drugs in the last year	1.3 (0.6 – 2.7)	0.6 (0.2 – 1.8)	3.2 (1.8 – 5.4)	0	1.4 (0.2 – 9.2)
Proportion of IDU who had group sex in the last year	14.3 (10.5 – 19.3)	3.4 (1.9 – 6.1)	10.5 (6.7 – 16.2)	8.3 (4.2 – 15.8)	19.9 (12.9 – 29.4)
Proportion of IDU who had group sex in the last month	7.6 (4.8-11.8)	0.9 (0.3-2.5)	2.6 (0.9-7.7)	0	2.1 (0.6-7.7)

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Mean number of sex acts with regular sex partners in the last month (Denominator who had non commercial sex last month)	7.1 (6.0 – 8.2) M= 6 N=155	5.9 (5.5 – 6.4) M= 5 N= 338	8.3 (7.4 – 9.1) M= 7 N= 130	9.2 (6.6 – 11.8) M= 8 N= 72	11.2 (9.2 – 13.3) M= 12 N= 51
Mean number of sex acts with female commercial sex partners in the last month (Denominator who had commercial sex last month)	2.4 (1.7-3.2) M=2 N=101	2.2 (2.0-2.5) M=2 N=102	2.7 (2.3-3.1) M=3 N=52	2.1 (0-6.1) M=1.5 N=8	1.7 (0.7-2.7) M=1 N=20
Mean number of commercial female partners in the last year	1.6 (1.3-2.0) M=0 N=482	2.2 (1.8-2.7) M=0	3.5 (2.4-4.6)	1.2 (0.04-2.4) M=0	1.9 (1.0-2.7) M=0
Mean number of commercial female partners in the last year (Denominator who had commercial sex last year)	4.7 (4.1 – 5.4) M= 4 N= 176	6.9 (6.1 – 7.6) M= 5 N= 155	8.4 (6.8 – 10.0) M= 6 N= 80	5.6 (2.6 – 8.7) M= 4 N= 18	4.2 (2.7 – 5.8) M= 3 N= 62
Mean number of commercial female partners in the last month	0.3 (0.2-0.5) M=0	0.4 (0.3-0.4) M=0	0.6 (0.3-0.8) M=0	0.2 (0-0.4) M=0	0.2 (0.1-0.3) M=0
Mean number of commercial female sex partners in the last month (Denominator who had commercial sex last month)	1.8 (1.3-2.3) M=1 N=101	1.7 (1.6-1.9) M=2 N=102	2.1 (1.7-2.4) M=2 N=52	1.6 (0.8-2.4) M=1.5 N=8	1.5 (0.8-2.1) M=1 N=20
Mean number of commercial male/ Hijra partners in the last year	0.04 (0.01-0.1) M=0	0.01 (0-0.01) M=0	0.04 (0.01-0.1) M=0	0	0.04 (0-0.1) M=0

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Mean number of commercial male/ Hijra partners in the last year (Denominator who had sex with commercial Hijra partners last year)	1.7 (1.2 – 2.2) M= 2 N= 13	1.5 (0 – 7.8) M=1.5 N=2	1.4 (0.7 – 2.1) M= 1 N= 5	0 N=0	2.0 (0 – 10.5) M=2 N=3
Mean number of commercial male/ Hijra partners in the last monthOnly (Denominator who had sex with commercial Hijra partners last month)	1 person N=1	- N=0	Only 1 person N=1	0 N=0	0 N=0
Mean number of partners while selling sex in the last year (Denominator who sold sex last year)	1.8 (0.8 – 2.8) M= 1 N= 7	2.0 (0 – 4.6) M=2 N=3	1.1(1.0 – 1.0) M= 1 N= 6	0 N=0	1.0 M=1 N=2
Mean number of partners during group sex in the last year (Denominator who had group sex last year)	3.6 (3.3 – 4.0) M= 2 N= 81	3.5 (2.5 – 4.5) M= 3 N= 16	3.5 (2.9 – 4.0) M= 3 N= 20	3.1 (2.4 – 3.9) M= 3 N= 7	4.4 (2.6 – 6.1) M= 4 N= 28

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use with different types of partners (Table 21)

Proportion of IDU using condoms in last sex with regular sex partners varied from as low as 6% in Northwest-B to as high as 35% in Northwest-B1. With commercial partners, this varied from 10% in Northwest-B to 44% in Northwest-B1. Fewer IDU from Northwest-B used condoms during the last sex act with non-commercial female partners compared to IDU from Northwest-B1 ($p<0.001$). Out of 13 IDU in Central-A who bought sex from males or Hijra last year, 13% used condoms during the last sex. In other areas very few IDU reported having sex with males or Hijra during the last year and of those IDU none used condoms during the last sex.

Consistent condom use was very low. In the last month, more IDU from Northwest-B1 reported consistent condom use with regular sex partners compared to those from Central-A and Northwest-A & B ($p<0.001$for all comparisons). Although more IDU from Northwest-B1 also reported consistent condom use with commercial partners in the last year, the difference with other cities was not significant.

Table 21: Condom use with different types of partners

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Condom use in last sex with regular partner (Denominator is who reported sex with regular partner last year)	13.3 (8.6-19.8) N = 182	23.2 (19.0-28.0) N = 381	5.9 (3.3-10.4) N = 135	34.6 (17.1-57.6) N = 78	17.0 (7.4-34.3) N = 59
Condom use in last sex with female commercial partner (Denominator is who reported commercial sex with female partner last year)	15.7 (10.3-23.3) N = 177	37.9 (28.6-48.1) N = 155	10.0 (4.5-20.6) N = 80	44.4 (19.7-72.3) N = 18	21.0 (11.5-35.2) N = 62
Condom use in last sex with commercial male or Hijra partner (Denominator is who reported commercial sex with male or Hijra partner last year)	13.0 (2.7-44.8) N = 13	0 N = 2	0 N = 5	0 N = 0	0 N = 3
Condom use in last anal/vaginal sex while selling sex in exchange of money or drugs (Denominator is who sold sex last year)	12.8 (0.8-71.8) N= 7	64.7 (0.3-99.9) N= 3	33.3 (4.2-85.1) N= 6	0 N=0	0 N= 2
At least one sexual partner used condom in last group sex (Denominator is who had group sex last year)	12.8 (6.4-24.0) N= 81	24.4 (7.7-55.4) N= 16	5.0 (0.5-33.5) N= 20	42.9 (16.8-89.8) N= 7	21.4 (8.2-45.6) N= 28
Consistent condom use with regular partners last year (Denominator is who reported sex with regular partner last year)	1.2 (0.3-4.7) N = 182	4.9 (3.0-8.0) N = 381	2.2 (0.7-6.9) N = 135	12.8 (4.0-34.0) N = 78	3.4 (0.8-13.7) N = 59
Consistent condom use with regular partners last month (Denominator is who reported sex with regular partner last month)	2.0 (0.6-5.9) N=155	8.4 (5.4-12.8) N=338	1.5 (0.5-4.7) N=130	26.4 (15.2-41.7) N=72	9.8 (3.9-22.4) N=51

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	5.4 (2.4-11.7) N = 177	9.1 (5.0-15.9) N = 155	8.8 (3.6-19.5) N = 80	27.8 (10.8-55.0) N = 18	9.7 (4.3-20.2) N = 62
Consistent condom use with female commercial partners last month (Denominator is who reported commercial sex with female partner last month)	6.7 (3.1-14.0) N=101	18.3 (10.6-29.6) N=102	5.8 (2.6-12.3) N=52	62.5 (5.3-98.0) N=8	25.0 (8.7-53.9) N=20
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)	6.4 (0.6-43.7) N = 13	0 N = 2	0 N = 5	0 N = 0	0 N = 3
Consistent condom use with male or Hijra commercial partners last month (Denominator is who reported commercial sex with male or Hijra last month)	0 N=1	0 N=0	0 N=1	0 N=0	0 N=0
Consistent condom use while selling sex last year (Denominator is who sold sex last year)	12.8 (0.8-71.8) N= 7	0 N= 3	33.3 (4.2-85.1) N= 6	0 N=0	0 N=2

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
Where the denominator for a particular variable was 0, the cells are blank

Knowledge of, ever use, access to and breaking of condoms (Table 22)

Almost all IDU recognised a male condom when the interviewers showed it. Of the IDU who had sexual experience, more IDU in Southeast-D reported to have never used condoms than those who were in Northwest regions (Southeast-D vs Northwest-A: $p<0.001$, Southeast-D vs Northwest-B: $p=0.002$, Southeast-D vs Northwest-B1: $p<0.001$). Almost all IDU knew where to get condoms and those who used condom in the last month reported that access to condoms was easy. In the last month most IDU in Central-A and in the Northwest region reported getting condoms from NGO workers and pharmacies while IDU in Southeast-D got condoms mainly from pharmacies. Very few IDU from all sites complained of condoms breaking during sex.

Table 22: Knowledge of, ever use, access to and breaking of condoms

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion recognized male condom	100.0	99.8 (98.8-100.0)	100.0	100.0	100.0
Proportion recognized male condom (Denominator is who had sexual experience)	100.0 N=476	99.8 (98.8-100.0) N=474	100.0 N=189	100.0 N=84	100.0 N=135
Proportion of IDU who knew where condoms are available	99.9 (99.0-100.0)	99.8 (98.8-100.0) N=473	100.0	100.0	100.0
Proportion of IDU who knew where condoms are available (Denominator is who had sexual experience)	99.9 (98.9-100.0) N=476	99.8 (98.8-100.0) N=473	100.0 N=189	100.0 N=84	100.0 N=135
Proportion of IDU who never used a male condom	49.5 (44.4-54.7)	30.2 (26.1-34.5)	35.8 (29.1-43.1)	21.4 (12.4-34.4)	50.4 (42.3-58.4)
Proportion of IDU who never used a male condom (Denominator is who had sexual experience)	50.2 (45.2-55.2) N=476	30.2 (26.1-34.5) N=474	35.5 (28.9-42.7) N=189	21.4 (12.4-34.4) N=84	52.6 (43.8-61.3) N=135
Sources of condom in last month* (Denominator is who used condom in the last month)	N= 59	N= 146	N= 37	N= 40	N= 23
Shop	3.7 (1.1-11.5)	33.0 (25.2-41.8)	40.5 (25.8-57.2)	30.0 (4.8-78.3)	30.4 (13.8-54.5)
Pharmacy	34.4 (23.0-48.0)	41.4 (31.6-52.0)	32.4 (19.8-48.4)	12.5 (2.9-40.8)	91.3 (69.1-98.0)
Health centre	0	0	0	2.5 (0.1-49.8)	4.3 (0.4-31.4)
Bar/guest/ house/hotel	1.5 (0.2-10.7)	0	0	0	4.3 (0.5-29.2)
NGO workers	72.2 (57.3-83.5)	78.0 (70.2-84.3)	81.1 (52.4-94.4)	95.0 (23.4-99.9)	4.3 (0.6-27.0)
Others[§]	1.9 (0.2-12.7)	0	0	2.5 (0.3-18.8)	4.3 (0.5-29.2)
Proportion of IDU reported easy access to condoms	10.9 (7.7-15.2)	30.5 (25.3-36.2)	17.9 (13.2-23.8)	47.6 (35.7-59.9)	16.3 (11.1-23.4)
Proportion of IDU reported easy access to condoms (Denominator is who used condom in the last month)	N= 57	N= 146	N= 37	N= 40	N= 23
Yes	92.2 (75.3-97.8)	99.4 (95.9-99.9)	91.9 (69.6-98.3)	100.0	100.0
No	7.8 (2.2-24.7)	0.6 (0.1-4.1)	8.1 (1.8-30.4)	0	0

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Reasons for not having easy access to condoms (Denominator is who reported not having easy access to condoms)*	N=3	N=1	N=3	N=0	N=0
Cost high	13.0 (0.02-99.0)	0	33.3 (0-100.0)	--	--
Shop/pharmacy is far away	0	100.0	100.0	-	-
Shop/pharmacy is closed	38.7 (0.1-99.8)	100.0	0	-	-
Feel ashamed to buy	38.7 (0.1-99.8)	100.0	0	-	-
Do not know where to buy	0	0	0	-	-
Not willing to carry	0	0	0	-	-
Others§§	48.3 (0.1-99.9)	0	0	--	--
Proportion of IDU complained of condoms breaking during sex in ast month	1.2 (0.5-3.0) N=482	0.6 (0.2-1.7)	0.5 (0.1-3.2)	2.4 (0.6-9.1)	0
Proportion of IDU complained of condoms breaking during sex last month (Denominator is who have used condom in last month)	10.3 (4.4-22.1) N=58	1.8 (0.6-5.9) N=146	2.7 (0.4-16.6) N=37	5.0 (1.2-18.3) N=40	0 N=23

* Multiple responses
§ Others stated: female sex workers
§§ Others stated: could not buy before

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on modes of HIV transmission and confidential HIV testing (Table 23)

Other than in Northwest-B1, all IDU in the other sites had heard of HIV/AIDS; in Northwest-B1 this was true for 83% of the IDU. The majority of IDU in the different sites (82 to 99%) knew that avoiding sharing of needles/syringes could prevent HIV transmission and 78 to 95% knew that condom use could prevent HIV transmission. However, considerable misconception still exists in many IDU regarding the mode of transmission of HIV; 31-62% believed that HIV can be spread by mosquito bites, 28 to 60% believed that sharing food with an AIDS patient can spread HIV; 29 to 38% of the IDU in

Central-A and the Northwest region felt that one can tell by looking at someone whether they are infected with HIV. None of the IDU in Northwest-B1 and very few IDU in Southeast-D knew where HIV could be tested confidentially. Among those who knew about confidential HIV testing, 72.0% in Central-A, 42.9% in Northwest-B and none in Northwest-A had an HIV test done. In Central-A most of the IDU tested blood for HIV when some one encouraged them to do so. Seventy five percent of IDU in Central-A knew the result of testing and most of them had been tested within the last year.

Table 23: Knowledge on modes of HIV transmission and confidential HIV testing

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU reported to have heard about HIV/AIDS	100.0	100.0	100.0	83.3 (48.8-96.3)	100.0
Proportion of IDU who knew that condom use is a mode of prevention	95.4 (92.7-97.2)	83.4 (78.7-87.2)	78.4 (72.0-83.7)	79.8 (42.3 – 95.5)	81.6 (73.8-87.4)
Proportion of IDU who knew that not sharing of needles/ syringes is a mode of prevention	98.9 (97.3 – 99.6)	95.1 (91.6 – 97.2)	86.8 (79.4 – 91.9)	82.1 (41.5 – 96.8)	97.2 (93.4 – 98.8)
Proportion of IDU knew that avoiding anal sex is a mode of prevention	61.7 (56.7-66.4) N=482	36.1 (31.4-41.1)	43.2 (35.7-51.0)	66.7 (41.7-84.8)	30.5 (23.3-38.9)
Proportion of IDU believed that HIV can be transmitted by mosquito bites	61.3 (55.1-67.1)	30.7 (25.7-36.3)	41.6 (36.0-47.4)	61.5 (33.5-83.5) N=83	56.7 (44.3-68.4)
Proportion of IDU believed that HIV can be transmitted by sharing food	57.2 (51.3-62.9)	36.8 (32.0-41.9)	27.5 (19.8-36.8)	59.5 (37.0-78.7)	48.2 (41.7-54.8)
Proportion of IDU knew that avoiding multiple sex is a mode of prevention	63.9 (59.3-68.2)	56.2 (49.4-62.8)	61.6 (53.6-69.0)	79.8 (40.9-95.7)	92.9 (88.0-95.9)
Proportion of IDU believed that one can tell by looking at someone whether they are infected with HIV	37.8 (33.1-42.8)	28.6 (24.9-32.6)	29.0 (24.2-34.2)	36.9 (12.5-70.5)	2.8 (1.0-7.5)
Proportion of IDU who knew where HIV can be tested confidentially	16.9 (12.7-22.3) N=482	10.5 (8.1-13.4)	3.7 (1.5 –9.0)	0	0.7 (0.09 – 5.4)

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU ever tested for HIV (Denominator is who knew where to test for HIV)	72.0 (58.7-82.3) N=79	0 N=50	42.9 (10.9-82.2) N=7	– N=0	0 N=1
Motivation for HIV testing (Denominator is who ever tested for HIV)	N=57	N=0	N=3	N=0	N=0
Self	16.5 (8.6-29.3)	–	0	–	--
By someone else	83.5 (70.7-91.4)	–	0	–	--
Needed	0	–	100.0	–	--
Proportion of IDU reported to have the result of HIV test (Denominator is who ever tested for HIV)	74.6 (61.6-84.3) N=57	–	100.0 N=3	–	--
Time when last HIV test was done (Denominator is who ever tested for HIV)	N=57	N=0	N=3	N=0	N=0
Within one year	96.4 (85.1-99.2)	–	33.3 (0.1-99.7)	–	--
More than one year	3.6 (0.8-14.9)	–	66.7 (0.3-99.9)	–	--
Do not remember	0	–	0	–	--

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on STIs, self-reported STIs and health care seeking behaviour (Table 24)

Most IDU knew that genital ulcers/sores, discharge from penis and burning/pain on urination are symptoms of STIs. Very few were aware that anal discharge/ulcers/sores were signs of possible STIs. Eleven to thirty three percent of IDU reported having at least one STI symptom in the last one year and of these 29-53% sought formal medical treatment as the first treatment option. Four to fifteen percent of IDU said they had visited STI clinics organized by NGOs in the last month and these were the clinics of CARE, Bangladesh.

Table 24: Knowledge on STIs, self-reported STIs and health care seeking behaviour

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Knowledge on STIs*					
Discharge from penis	43.6 (38.7-48.7)	68.8 (62.5-74.6)	72.6 (65.3-78.9)	56.0 (42.9-68.2)	17.0 (10.5-26.4)
Burning pain on urination	47.4 (42.3-52.6)	68.9 (63.6-73.7)	72.6 (64.6-79.4)	34.5 (14.7-61.8)	30.5 (22.5-39.9)
Genital ulcers/sores	79.1 (75.1-82.6)	78.5 (73.7-82.5)	79.0 (68.3-86.7)	78.6 (57.6-90.8)	48.9 (42.6-55.4)
Swellings in groin area	9.8 (6.8-13.8)	7.5 (4.8-11.4)	2.1 (0.6-7.4)	1.2 (0.04-27.3)	1.4 (0.3-6.1)
Anal discharge	3.6 (2.0-6.4)	0.2 (0.02-1.2)	0.5 (0.1-3.0)	1.2 (0.04-27.3)	2.1 (0.5-8.7)
Anal ulcer/sores	1.0 (0.3-3.0)	0.2 (0.02-1.2)	0	0	0
Others§	9.0 (6.6-12.2)	12.8 (9.5-17.1)	0.5 (0.1-4.2)	32.1 (15.0-56.0)	--
Proportion of IDU reported having urethral discharge in last one year	13.5 (10.6-17.0)	5.1 (3.4-7.7)	14.7 (11.3-19.0)	7.1 (3.7-13.3)	7.1 (3.8-12.8)
Proportion of IDU reported having anal discharge in last one year	1.0 (0.4-2.9)	0	0	0	0
Proportion of IDU reported having genital ulcer/sore in last one year	28.0 (23.5-32.9)	11.3 (8.5-14.8)	20.0 (13.9-27.9)	19.1 (10.0-33.4)	6.4 (2.9-13.5)
Proportion reported at least one STI symptom in last one year	32.8 (28.6 –37.3)	14.4 (11.2 –18.4)	27.4 (20.3 –35.8)	21.4 (13.9 –31.5)	10.6 (6.0 –18.3)
Proportion reported at least one STI symptom in last one year (Denominator is who reported sexual experience)	33.2 (28.9 –37.8) N = 476	14.4 (11.2 –18.4)	27.5 (20.4 –36.0) N = 189	21.4 (13.9 –31.5)	11.1 (6.3 –19.0) N = 135
Proportion sought formal medical treatment as first treatment option in last STI in last year (Denomination is who had sexual experience and reported STI last year)	42.1 (33.0 –51.8) N = 162	42.9 (31.4 –55.3) N = 69	28.9 (17.6 – 43.5) N = 52	38.9 (15.9 – 68.1) N = 18	53.3 (28.6 –76.5) N = 15

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Choice of STI treatment (Denominator is who had sexual experience and reported STI in last year)	N=162	N=69	N=52	N=18	N=15
Hospital	7.4 (3.1-16.5)	2.6 (0.6-10.3)	3.8 (1.0-13.9)	0	6.7 (1.1-31.6)
Drug seller	38.4 (30.2-47.4)	49.0 (37.5-60.5)	46.2 (32.9-60.0)	16.7 (3.8-50.4)	26.7 (8.9-57.7)
Private doctor	8.3 (4.6-14.5)	17.9 (9.5-31.1)	11.5 (5.1-24.0)	11.1 (1.3-54.8)	40.0 (15.0-71.6)
Private clinic	1.0 (0.2-4.4)	2.6 (0.6-10.1)	3.8 (0.7-18.1)	0	6.7 (1.1-31.6)
NGO clinic	25.4 (17.4-35.4)	19.8 (11.0-33.1)	9.6 (5.5-16.3)	27.8 (10.4-56.1)	0
Traditional healer	3.3 (1.3-8.1)	6.7 (2.5-16.7)	25.0 (16.1-36.6)	0	0
Advice/treatment from friends	0	0	0	16.7 (6.3-37.4)	0
Self-medication	2.4 (0.9-6.5)	0	0	0	6.7 (1.1-31.6)
Did not seek treatment	12.8 (7.8-20.1)	1.4 (0.2-9.9)	0	22.2 (3.8-67.7)	6.7 (0.6-46.4)
Others[§§]	1.0 (0.1-6.9)	0	0	5.6 (0.2-65.8)	6.7 (0.5-50.8)
Proportion sought formal medical treatment as first treatment option in last STI in last year (Denominator is who had sexual experience, reported STI last year and sought treatment)	48.3 (38.1-58.5) N = 144	43.5 (31.7-56.1) N = 68	28.9 (17.6 – 43.5) N = 52	50.0 (32.3 – 67.8) N = 14	57.1 (29.6 – 80.9) N = 14
Mean waiting days before seeking treatment for last STI (Denominator is who had sexual experience, reported STI last year and sought treatment)	10.7 (8.8 –12.6) M=10 N = 143	12.0 (10.4 –13.5) M=12 N = 68	12.8 (10.4 –15.1) M=10 N = 52	8.1 (5.3 –10.9) M=7.5 N = 14	9.6 (5.6 –13.7) M=7 N = 14
Mean expenditure in last STI treatment last year (Denominator is who had sexual experience, reported STI last year and sought treatment)	245.7 (197.1-294.4) M=150 N=144	392.6 (176.7-608.6) M=172.5 N=68	452.1 (63.4-840.9) M=140 N=52	188.6 (0-768.3) M=25 N=14	2659.8 (0-5473.1) M=450 N=13

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU reported to have visited STI clinics last month organized by NGO	10.5 (7.6-14.3) N=482	14.5 (11.4-18.9)	4.2 (2.5-7.0)	11.9 (3.4-34.2)	0
Name of clinics visited (Denominator is who visited STI clinics last month)	CARE N=52	CARE N=70	CARE N=8	CARE N=9	--

*Multiple responses
§ Other symptoms of STIs reported include: itching, syphilis, TB, syphilis/ gonorrhoea, poor vision, impotence
§§Others stated: buying medicine from the street, village doctor, homeopath

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measures taken to avoid STI and HIV (Table 25)

Most IDU either did nothing or a variety of things (see under category of "other") to avoid STIs. The majority of IDU in Northwest-A and B1 reported that they did not share needles/syringes to avoid HIV; the proportions reporting this in the other three sites were very low. Always and sometimes condom use was also reported by very few IDU in all sites as a measure adopted to avoid STIs or HIV.

Table 25: Measures taken to avoid STI and HIV

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Steps taken to avoid STIs*					
Do nothing	31.6 (27.6-35.9)	44.0 (39.2-48.8)	43.7 (37.3-50.3)	35.7 (28.5-43.7)	49.7 (42.7-56.6)
Wash genitalia with dettol/urine	18.5 (14.5-23.2)	12.0 (9.5-15.0)	21.6 (15.8-28.8)	3.6 (0.5-21.0)	12.8 (7.6-20.8)
Always use condoms	1.6 (0.6-3.9)	6.1 (4.3-8.6)	3.2 (1.4-7.0)	20.2 (13.1-29.9)	5.7 (2.7-11.4)
Sometimes use condoms	8.7 (6.5-11.5)	16.8 (13.4-20.9)	5.3 (3.0-9.0)	25.0 (16.3-36.3)	22.0 (16.8-28.2)
Take medicine	0.6 (0.2-1.9)	0.2 (0.03-1.4)	0	0	0
Others[§]	49.4 (44.5-54.3)	32.3 (28.2-36.8)	33.7 (27.0-41.1)	34.5 (23.9-47.0)	24.8 (17.7-33.6)
Steps taken to avoid HIV* (Denominator is who had heard about HIV)	N=483	N=474	N=190	N=70	N=141
Do nothing	35.0 (30.9-39.4)	17.3 (12.6-23.3)	62.6 (52.9-71.5)	8.6 (3.4-20.0)	61.0 (54.8-66.9)
Do not share needle/syringe	12.7 (10.1-15.9)	73.0 (64.8-79.8)	19.0 (12.6-27.5)	84.3 (79.2-88.3)	2.8 (1.0-7.6)
Wash genital organ by dettol/urine	13.8 (10.5-18.1)	4.1 (2.6-6.2)	2.1 (0.7-6.2)	4.3 (0.6-24.3)	9.2 (5.2-15.8)
Always use condom	1.1 (0.3-3.6)	4.3 (2.7-6.7)	3.7 (1.7-7.7)	22.9 (18.1-28.4)	4.3 (1.9-9.3)
Sometimes use condom	9.0 (6.4-12.5)	17.5 (14.0-21.7)	3.7 (1.5-6.8)	28.6 (17.1-43.7)	15.6 (10.7-22.2)
Take medicine	0.2 (0.02-1.2)	0	0	0	0
Others[§§]	47.7 (42.2-53.3)	30.2 (25.5-35.3)	19.0 (12.9-26.9)	35.7 (26.2-46.5)	22.7 (15.6-31.8)

*Multiple responses

[§] Other steps taken to avoid STIs include: avoid sex with sex workers, have sex only with wife, have sex with clean partners, currently not sexually active, be neat and clean, clean genitalia with soap/clothes, take good food, regularly attend Drop-In Centres of NGOs, share injections with known persons, do not share needle/syringe, be alert

[§§] Other steps taken to avoid HIV include: avoid sex with sex workers, have sex only with wife, avoid frequent sex, be neat and clean, be alert, try to avoid sharing needles/syringes, share needle/syringe with friends, clean needle/syringe before use by water/clothes/drugs, share with clean partners, do not share with unknown partners, check partner before sharing, regularly attend Drop-In Centres of NGOs, do not eat directly while share food (food that has already been partially eaten by others)

Self perception of risk (Table 26)

The IDU were asked if they perceived themselves to be at risk of becoming HIV infected and if they did, they were asked how much risk they perceived for themselves. In Northwest-B, half of the IDU sampled could not assess their own risk while in other cities a smaller proportion (20 to 27 %) could not assess their own risk. A quarter of the IDU in Southeast-D considered themselves to be at high risk of becoming infected with HIV but very few IDU in the other cities thought this.

Table 26: Self-Perception of risk

Sampled groups	IDU who perceived they were at high risk % (95% CI)	IDU who perceived they were at medium risk % (95% CI)	IDU who perceived they were at little or no risk % (95% CI)	IDU who could not assess their risk % (95% CI)
IDU Central-A (N= 483)	8.3 (5.7-11.8)	19.4 (15.6-23.9)	47.7 (42.2-53.3)	24.6 (20.8-29.0)
IDU Northwest -A (N= 474)	1.5 (0.7-3.2)	3.8 (2.3-6.1)	74.8 (68.0-80.6)	19.9 (15.0-25.9)
IDU Northwest-B (N= 190)	3.7 (2.1-6.4)	13.7 (9.2-19.9)	32.1 (23.6-41.9)	50.5 (42.5-58.5)
IDU Northwest-B1 (N=84)	3.6 (1.6-7.7)	8.3 (4.0-16.7)	64.3 (48.5-77.5)	23.8 (9.6-48.0)
IDU Southeast-D (N= 141)	25.5 (18.3-34.4)	19.9 (14.4-26.8)	27.7 (21.4-34.9)	27.0 (20.7-34.3)

Rationale for self-perception of extent of risk (Table 27)

Among those who considered themselves to be at high or medium risk for acquiring HIV infection, the reason stated by most of the IDU in Northwest-B1 was having frequent sex while in other sites (Central-A, Northwest-A and B) sometimes sharing of needles/syringes and in Southeast-D frequent sharing of needles/syringes was the most common reason provided. Among those who assessed themselves at little or no risk, in the Northwest regions most of the IDU mentioned that they did not share needles/syringes; in Southeast-D most IDU felt that even though they shared needles/syringes some of the times they were at no or little risk. Always condom use was reported by very few IDU in Central-A. A considerable proportion of IDU in all sites believed that having sex with clean/healthy partners put them at no or little risk.

Table 27: Rationale for self-perception of extent of risk

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Reasons for assessing themselves at medium/high risk (Denominator who thought themselves are at high or medium risk)*	N=143	N=28	N=33	N=10	N=64
Frequent sharing of needles/syringes	16.7 (10.7-25.2)	27.2 (13.1-48.2)	12.1 (5.4-25.1)	0	53.1 (39.6-66.2)
Sometimes sharing of needles/syringes	81.8 (73.1-88.1)	63.1 (42.8-79.6)	87.9 (74.9-94.6)	10.0 (0.1-95.1)	42.2 (30.7-54.6)
Doing frequent sex	36.1 (27.8-45.3)	28.2 (12.7-51.4)	27.3 (12.1-50.7)	70.0 (12.7-97.4)	25.0 (15.9-37.1)
Irregular use of condom	5.0 (2.1-11.2)	22.5 (9.5-44.7)	6.1 (1.0-28.7)	10.0 (0.1-95.1)	28.1 (19.3-39.0)
Others§	6.3 (3.3-11.6)	20.1 (8.7-40.1)	0	30.0 (2.6-87.3)	14.1 (7.2-25.6)

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Reasons for assessing themselves are at little or no risk (Denominator who perceived themselves to be at little or no risk)*	N=219	N=354	N=61	N=54	N=39
Never share needles/syringes	21.1 (15.8-27.6)	89.6 (84.6-93.2)	52.5 (34.9-69.4)	87.0 (75.2-93.7)	10.3 (3.8-24.7)
Sometimes share needles/syringes	29.1 (22.9-36.3)	4.1 (2.4-6.8)	16.4 (7.6-31.9)	1.9 (0.1-37.1)	71.8 (55.7-83.7)
Always use condom	1.8 (0.6-5.0)	6.3 (4.2-9.3)	11.5 (5.6-22.0)	22.2 (10.7-40.6)	10.3 (3.3-27.9)
Irregular use of condom	7.2 (4.2-12.0)	17.3 (13.4-22.0)	1.6 (0.2-13.6)	29.6 (19.8-41.8)	33.3 (18.8-51.9)
Have sex with healthy partners	35.9 (27.2-45.7)	8.7 (5.6-13.3)	16.4 (10.0-25.7)	7.4 (1.8-26.2)	5.1 (1.2-19.0)
Have sex with clean partners	10.8 (7.0-16.5)	0.2 (0.03-1.7)	4.9 (1.6-14.2)	1.9 (0.03-53.9)	0
Others[§§]	60.7 (53.1-67.8)	32.9 (27.0-39.4)	39.3 (27.0-53.2)	48.2 (35.7-60.8)	48.7 (28.3-69.6)

*Multiple responses

[§]Other reasons given for considering themselves to be at high/medium risk include: never used condoms, do not wash genital organ after sex, have sex with others, never used condom, feel weak because of drug use, do not eat/bath regularly, live on the streets, do not have clean friends, share drugs with many partners

[§§]Other reasons given for considering themselves to be at no/low risk include: avoid sex with sex workers, have sex only with wife or trusted partner, be alert, do not share injections with unknown partners, clean needle/syringe with clothes, share needle/syringe with same partners, share needle/syringe with clean partners, do not inject cocktails, use a mosquito net while sleeping, "if I had AIDS I would know", be neat and clean

Exposure to interventions (Table 28)

Approximately 89 to 98% of the IDU in all cities except Southeast-D were involved with interventions during the last year; at the time of interview, interventions for IDU in Southeast-D had not started. Almost all the IDU who were exposed to interventions in the last year were under the NEP and the median duration of involvement with the intervention programme was 2–3 years. In the four cities where intervention programmes were active, 94-100% IDU participated in the NEP in the last month.

Table 28: Exposure to interventions

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion exposed to HIV interventions in the last year	88.9 (85.2 – 91.8)	93.5 (89.8 – 95.9)	89.0 (72.9 – 96.0)	97.6 (75.4 – 99.8)	0
Proportion under needle/syringe exchange program in last year	88.3 (84.4 – 91.4)	93.3 (89.6 – 95.7)	88.4 (72.9 – 95.6)	97.6 (75.4 – 99.8)	0
Type of interventions exposed to in the last year (Denominator is those who participated in an HIV intervention in last year)*	N = 433	N = 439	N = 169	N = 82	N=0
Needle/syringe exchange program	99.3 (97.8 – 99.8)	99.8 (98.6 – 100.0)	99.4 (96.0 – 99.9)	100.0	--
Educational program	4.5 (2.4-8.1)	6.1 (3.8-9.8)	3.6 (1.7-7.1)	29.3 (21.1-39.0)	--
Obtained condom	15.7 (11.7-20.7)	29.3 (24.6-23.4)	27.2 (20.2-35.5)	58.5 (46.9-69.3)	--
Received STI treatment	5.8 (3.7-8.8)	1.8 (0.7-4.7)	2.4 (1.1-5.0)	2.4 (0.2-21.9)	--
Others§	7.4 (4.9-11.2)	1.4 (0.6-3.2)	1.2 (0.4-3.5)	1.2 (0.04-28.7)	--
Mean number of years involved with interventions (Denominator is those who participated in an HIV intervention in last year)	2.4 (2.2-2.6) M=2 N=433	2.7 (2.5-2.8) M=3 N=436	1.7 (1.6-1.9) M=2 N=169	1.8 (1.7-1.8) M=2 N=82	- N=0
Mean number of times participated in interventions in the last month (Denominator is those who participated in an HIV intervention in last year)	18.5 (17.8-19.1) M=20 N=423	22.2 (21.5-22.9) M=25 N=438	18.5 (17.0-20.0) M=20 N=169	21.2 (15.2-27.2) M=25 N=82	-- N=0
Proportion of IDU participated in needle/syringe programme in this city in the last month month (Denominator is those who participated in an HIV intervention in last year)	94.0 (89.9-96.5) N=433	99.8 (98.6-100.0) N=439	100.0 N=169	100.0 N=82	- N=0

*Multiple responses
§Other services received include: dressing for abscess, receiving medicine, learning about STIs, encouraged to quit sharing needle/syringe, participating in rally, receiving counselling, receiving peer training

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Mobility of IDU (Table 29)

Approximately 41 to 43% of the IDU from Northwest-B1 and Southeast-D reported that they injected drugs while visiting other districts in Bangladesh last year. From Southeast-D 82% of those IDU who travelled and injected in another district went to Central-A. About 10% IDU from Northwest-B and 12 % from Northwest-B1 injected drugs while abroad.

Table 29: Mobility of IDU

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU who injected drugs in another district last year	11.5 (8.7 – 15.1)	10.2 (7.2 – 14.4)	20.5 (14.4 – 28.4)	40.5 (17.8 – 68.1)	42.6 (33.5 – 52.1)
Proportion of IDU who visited Central-A and injected drugs last year	Not applicable	21.3 (11.4 – 36.1) N=51	10.3 (4.2 – 22.8) N=39	8.8 (4.2 – 17.6) N=34	81.7 (68.7 – 90.0) N=60
Proportion of IDU who injected drugs in another country last year	Only 1 person	4.4 (2.8 – 6.9)	10.0 (5.8 – 16.6)	11.9 (2.5 – 41.3)	1.4 (0.2 – 8.6)
Country visited	India	India	India	India	India

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Violence against IDU (Table 30)

Violence in IDU was most common in those from Central-A ($p<0.001$) (for all comparisons except Central-A vs Southeast-D: $p=0.005$). In Southeast-D the most common perpetrators of violence were family members and men in uniform while in the other cities these were men in uniform and local people. Approximately 6 to 27% reported that they have ever been to jail in the last one year.

Table 30: Violence against IDU

Indicators % (95 % CI)	IDU Central-A (N= 483)	IDU Northwest-A (N= 474)	IDU Northwest-B (N= 190)	IDU Northwest-B1 (N= 84)	IDU Southeast-D (N= 141)
Proportion of IDU physically abused last year	47.4 (42.8 – 52.2)	15.2 (11.7 – 19.4)	17.4 (12.4 – 23.8)	20.2 (16.2 – 25.1)	30.5 (20.6 – 42.6)
Mean number of times IDU were physical abused last year	4.9 (3.9 – 5.9) N= 217 M=3	2.3 (2.0 – 2.6) N= 74 M=2	2.2 (1.8 – 2.5) N= 32 M=2	1.8 (0.6 – 3.0) N= 16 M=1	3.6 (2.4 – 4.9) N= 40 M=3
Violence perpetrated by: (Denominator is those who reported violence in the last year)*	N=227	N=75	N=33	N=17	N=43
Men in uniform	86.9 (81.6-90.9)	73.9 (63.0-82.4)	51.5 (37.2-65.6)	0	30.2 (16.5-48.7)
Mastans (Hoodlums)	21.9 (15.7-29.6)	14.3 (8.1-24.1)	12.1 (3.0-38.5)	0	0
Local people	62.7 (55.5-69.5)	45.8 (35.0-57.0)	93.9 (84.6-97.8)	0	4.7 (1.0-19.2)
People from narcotics	6.5 (3.9-10.8)	2.8 (0.7-9.9)	0	0	0
People from special branch	0	0	0	0	0
Drug dealers	5.3 (2.8-9.6)	20.9 (12.9-32.0)	18.2 (9.6-31.6)	0	0
Family members and relatives	5.9 (3.3-10.3)	17.7 (9.5-30.7)	3.0 (0.5-15.7)	100.0	81.4 (71.0-88.6)
Others[§]	2.5 (1.0-6.0)	4.0 (1.4-11.0)	0	0	0
Proportion of IDU who had been to jail last year	26.6 (22.7 – 30.9) N=480	19.9 (16.4 – 24.0)	20.0 (16.3 – 24.3)	6.1 (2.0 – 17.3)	19.2 (10.6 – 32.1)

*Multiple responses
[§]Others stated: students from hostels, Bangladesh Rifles (BDR), employer, broker who organised selling of blood
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

3.1.2.2 Heroin Smokers

Socio demographic characteristics of heroin smokers (Table 31)

The socio demographic characteristics of heroin smokers are shown in Table 31. On an average heroin smokers were 30 years old and 22.1% had no schooling. More than half lived with relatives, 37% married and 39% were living with regular sex partners. Average monthly income was a little more than 6000 Taka. The average age at first sex was 16 years.

Table 31: Socio demographic characteristics

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Mean age (in years)	29.5 (28.7-30.2) M=29
Proportion who had no schooling	22.1 (18.3-26.5)
Duration of stay in this city	N=350
Whole life	75.9 (69.4-79.7)
0-10 years	8.2 (5.4-12.1)
11-20 years	12.6 (9.1-17.1)
>20 years	4.3 (2.6-7.1)
Living status	
Living alone	19.2 (14.8-24.6)
Living with relatives/families	64.6 (58.3-70.4)
Living with friends	5.8 (2.9-11.3)
Living on the streets	8.9 (5.9-13.2)
Living where the heroin adda location*	1.5 (0.7-3.2)
Mean age at first sex in years	16.1 (15.7-16.5) M=16
Proportion who were currently married	37.3 (31.6-43.4)
Proportion lived with wife or any regular sex partner	39.0 (33.2-45.1)
Mean income last month	6395.2 (5937.4-6853.0) M=5000 N=352
Sources of income in the last 6 months	
Rickshaw pullers	11.6 (8.2-16.2)
Mobile sellers (small businesses using vans)	0
Service	6.7 (4.3-10.2)
Rag Pickers	9.1 (6.2-13.3)
Stealing/robbery	13.6 (9.5-19.1)
Business	18.6 (14.4-23.7)
Family	5.0 (3.1-8.0)
Others[§]	35.4 (29.2-42.0)

*Heroin adda is the regular congregation of heroin smokers
[§]Others stated: to organize heroin adda, mastan, cheating, daily wager, car driver, mechanic, beggar

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

History of selling blood

Approximately 18% (95% CI: 13.7-23.1) of heroin smokers had sold blood in the last year.

History of drug use (Table 32)

Half of the heroin smokers had been smoking heroin for a median of 5 years while the median duration of taking other drugs was 10 years. On an average, heroin smokers had started taking any drugs at the age of 19 years and heroin at the age of 24 years. Most of the heroin smokers took cannabis, phensedyl and tablets before they started smoking heroin. Most heroin smokers smoked heroin 2-3 times a day and they usually smoked in addas.

Table 32: History of drug use

Indicators % (95 % CI)		Heroin smokers Central-A, (N=353)
Mean years of taking any kind of drug use		10.6 (9.9-11.2) M=10
Mean years of heroin use		6.0 (5.4-6.5) M=5
Mean age of initiation to any drugs (years)		18.9 (18.3-19.4) M=19
Mean age of starting smoking heroin (years)		23.5 (22.9-24.1) M=23
Type of drugs taken before starting heroin*	Cannabis Phensidyl Injections Tablets Others§	97.1 (94.0-98.6) 52.2 (45.6-58.8) 5.2 (2.9-8.9) 52.4 (46.2-58.5) 5.0 (2.9-8.3)
Mean frequency of heroin use yesterday		2.4 (2.2-2.5) M=2
Frequency of heroin use last week, %	Once in a day 2-3 times in a day 4 times in a day	13.6 (10.2-17.9) 78.4 (73.0-83.1) 8.0 (5.2-12.1)
Frequency of heroin use last one month, %	Once in a day 2-3 times in a day 4 times in a day	9.1 (6.4-12.7) 78.3 (73.0-82.8) 12.6 (9.0-17.4)
Place of taking heroin	At home At adda Others§§	11.7 (8.3-16.1) 95.8 (92.4-97.7) 4.0 (2.1-7.5)

*Multiple responses
§Others stated: alcohol, cocaine/opium, smell of petrol
§§Other sites used for smoking heroin include: open field, near dustbin, on the roof, park, slum and unused building

Note: M refers to median

Injection behaviour of heroin smokers (Table 33)

More than half of the heroin smokers sampled reported to have injected drugs some time in their lives and 34% had injected drugs in the last 6 months. The most common drug injected was buprenorphine. The reasons given for injecting were multiple including the high cost of heroin, lack of availability, bored with previous drug and also, very notably, as a way of quitting heroin.

Among those who injected and shared in the last 6 months more than 96% shared their needles/syringes in the last time. The mean number of partners that heroin smokers shared needles/syringes with while injecting in the last six months was 2.3. Although a considerable proportion felt that they had cleaned their needles/syringes before injecting the methods employed for cleaning were ineffective in prevention of virus transmission.

Almost all heroin smokers who had ever injected drugs knew where new needles/syringes were available and these commonly included pharmacies, NGO workers and drug taking partners. Abscesses were reported by 29.3% of the heroin smokers who injected in the last six months.

Table 33: Injection behaviour of heroin smokers

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion ever injected drugs	54.8 (48.4-61.0)
Proportion injected in last 6 months	34.4 (29.1-40.1)
Proportion injected in last 6 months (Denominator is who injected ever in lifetime)	62.7 (54.6-70.2) N=188
Mean number of injections taken in the last6 months (Denominator is who injected in last 6 months)	3.2 (2.9-3.5) M=3 N=115
Reasons for taking injections instead of heroin (Denominator is who injected ever in lifetime)	N=188
To quit heroin	29.4 (23.0-36.7)
Smoking heroin takes more time	2.4 (0.9-6.4)
Heroin is more expensive	23.0 (17.2-30.1)
Heroin is not easily available	25.5 (17.9-34.9)
Bored with previous drugs	34.8 (27.5-43.0)
Others[§]	35.8 (27.8-44.6)
Type of drugs ever taken by injections (Denominator is who injected ever in lifetime)	N=188
Buprenorphine	78.9 (71.9-84.6)
Pethidine	12.3 (8.2-18.0)
Cocktail	52.3 (44.0-60.4)
Others[§§]	24.3 (17.3-33.0)
Injections taken in the last 6 months (Denominator is who injected in last 6 months)	N=115
Buprenorphine	72.5 (60.5-81.9)
Pethidine	6.0 (2.9-12.3)
Cocktail	49.5 (39.9-59.0)
Others[§§§]	28.0 (19.5-38.3)
Proportion of heroin smokers who shared needle/syringe last time (lent or borrowed) (Denominator is who injected in last 6 months)	92.1 (83.8-96.3) N=115
Proportion of heroin smokers who borrowed used needle/syringe last time (Denominator is who injected in last 6 months)	75.2 (65.7-82.7) N=115

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers who lent used needle/syringe last time (Denominator is who injected in last 6 months)	75.3 (65.1-83.3) N=115
Proportion of heroin smokers who shared needle/syringe last time (lent or borrowed)	31.7 (26.3-37.6)
Proportion of heroin smokers who borrowed used needle/syringe last time	25.8 (21.2-31.1)
Proportion of heroin smokers who lent used needle/syringe last time	25.9 (21.1-31.4)
Frequency of sharing (lending/borrowing) injections in last 6 months (Among those who injected in last 6 months)	N=115
Always	74.5 (61.9-84.0)
Never	4.4 (1.9-9.8)
Sometimes	21.1 (12.6-33.2)
Mean size of sharing network (Denominator is who injected in last 6 months and shared)	2.3 (2.0-2.6) M=2 N=102
Proportion cleaned injections during last injection in last 6 months (Denominator is who injected in last 6 months and shared)	39.5 (28.8-51.4) N=109
Method of cleaning (Denominator is who cleaned injections during last injection in last 6 months)*	N=40
Water/hot water	32.6 (16.8-53.5)
Clothes/leaves	24.6 (12.1-43.4)
Blowing/sucking the needle/syringe	32.4 (19.6-48.6)
Drugs	38.1 (22.8-56.2)
Others§§§§	20.7 (10.1-37.8)
Proportion knew where new needle/syringe can be found (Denominator is who had injected ever in lifetime)	97.8 (94.0-99.2) N=183
Sources of new needle/syringe (Denominator is who knew sources of new needle/syringe)*	N=183
Pharmacy	97.9 (94.4-99.2)
Health centre	2.8 (1.1-6.9)
Friends	1.0 (0.1-7.0)
Drug taking partners	24.9 (19.1-31.9)
NGO workers	31.6 (24.0-40.3)
Drug dealers	10.6 (6.7-16.4)
Proportion reported having abscess in the last 6 months	9.8 (6.5-14.6) N=349
Proportion reported having abscess in the last 6 months (Denominator is who injected in last 6 months)	29.3 (20.4-40.1) N=111

*Multiple responses
§Others stated: for more enjoyment, cost high, family problem, instigated by friends, frustration, to mange withdrawal, to increase sexual pleasure
§§Others stated: Avil, Sedil, Easium, Phenergan
§§§Others stated: Avil, Sedil, Easium, Phenergan
§§§§Others stated: jerking the needles/syringes, washing with hot tea

Note : Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Efforts to quit smoking heroin (Table 34)

Approximately three quarters of the heroin smokers sampled reported trying to quit smoking heroin and the average number of attempts was three. Among those who reported to have tried to quit smoking heroin, 49.8% locked themselves at home and 43.7% were admitted to detoxification clinics.

Table 34: Efforts to quit smoking heroin

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers who tried to quit smoking heroin	74.6 (69.3-79.3)
Mean number of attempts at quitting drugs (Denominator is who tried quitting drugs)	3.0 (2.8-3.2) M=3 N=268
Methods used for quitting drugs* (Denominator is who tried quitting drugs)	N=268
Detoxification clinic	43.7 (36.7-51.0)
Hospital	5.5 (2.8-10.5)
NGO	2.1 (1.0-4.5)
Went to village	21.8 (17.0-27.5)
Went to Tabligh Jamat	1.2 (0.4-3.1)
Locked himself at home	49.8 (42.7-56.9)
Others§	39.2 (33.2-45.5)

*Multiple responses
§Other methods used to quit drugs include: bathed, took tablets/cannabis/wine/other drugs, went to jail, went to relatives' house

Note : Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Sexual partners and sexual behaviour of heroin smokers (Table 35)

Heroin smokers reported having both regular non-commercial as well as commercial female sex partners in the last year and in the last month. However, a very small percentage reported having sex with males or Hijras and 2.8% sold sex in exchange of money or drugs in the last year. Many of the sexually active heroin smokers had multiple sex partners. Group sex in the last year was reported by 14% of the heroin smokers and of those who had group sex they had an average of four partners.

Table 35: Sexual partners and sexual behaviour

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers who had sex with non-commercial female partners in the last year	57.3 (51.4 – 62.9)
Proportion of heroin smokers who had sex with non-commercial female partners in the last month	41.1 (35.5-46.9)
Proportion of heroin smokers who had sex with commercial female partners in the last year	73.6 (68.1 – 78.5)
Proportion of heroin smokers who had sex with commercial female partners in the last month	52.7 (45.7-59.6)
Proportion of heroin smokers who had sex with male/Hijras in the last year	4.2 (2.3 – 7.5)
Proportion of heroin smokers who had sex with male/Hijras in the last month	0.4 (0.1-3.1)
Proportion of heroin smokers who sold sex in exchange of money or drugs in the last year	2.8 (1.1 – 6.9)
Proportion of heroin smokers who had group sex in the last year	14.0 (10.0 – 19.3)
Proportion of heroin smokers who had group sex in the last month	3.7 (1.9-7.0)
Mean number of sex acts with non-commercial female partners in the last month (Denominator who had sex with non commercial sex partners last month)	5.4 (4.1 – 6.6) M= 4 N= 157
Mean number of commercial female partners in the last year	7.9 (6.6-9.2) M=4
Mean number of commercial female partners in the last year (Denominator who had sex last year)	10.4 (9.1 – 11.6) M= 7 N= 247
Mean number of commercial female partners in the last month	1.3 (1.1-1.6) M=0
Mean number of commercial female partners in the last month (Denominator who had sex with commercial female partners last month)	2.5 (2.2-2.8) M=2 N=175
Mean number of sex acts with commercial female partners in the last month (Denominator who had sex last month)	3.2 (2.8-3.6) M=3 N=175
Mean number of commercial male/Hijra partners in the last year	0.06 (0.2-0.1) M=0
Mean number of commercial male/Hijra partners in the last year (Denominator who had sex with commercial male/Hijra last year)	1.4 (0.9 – 2.0) M= 1 N= 13
Mean number of partners (male/female) during selling sex in the last year (Denominator who sold sex last year)	1.1 (0.8 – 1.4) M= 1 N= 7
Mean number of partners during group sex in the last year	0.5 (0.3-0.7) M=0
Mean number of partners during group sex in the last year (Denominator who had group sex last year)	3.9 (3.4 – 4.4) M= 3 N= 45

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use during last sex with commercial and non-commercial partners (Table 36)

The reported condom use during last sex act was less than 10% in the commercial or non-commercial setting.

Table 36: Condom use during last sex with commercial and non-commercial sex partners

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Condom use during last sex with non-commercial female sex partners (Denominator is who reported sex with non-commercial sex partners last year)	7.9 (4.5-13.2) N=211
Condom use during last sex with female commercial partners (Denominator is who reported commercial sex with female partners last year)	3.8 (1.7-8.5) N=248
Condom use during last sex with commercial male or Hijra partners (Denominator is who reported commercial sex with male or Hijra partners last year)	0 N=13
Condom use while selling sex last time in last year (Denominator is who sold sex last year)	12.6 (1.2-63.4) N=7
At least one sexual partner used condom in last group sex (Denominator is who had group sex last year)	9.5 (3.3 – 24.2) N= 46

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Consistent condom use with commercial and non-commercial partners (Table 37)

Consistent condom use with commercial and non-commercial partners in the last month was very low. Of the 13 heroin smokers who reported having male or Hijra commercial sex partners in the last year and seven heroin smokers who sold sex in the last year none used condoms consistently with such partners.

Table 37: Consistent condom use with commercial and non-commercial partners

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Consistent condom use with non-commercial female partners last year (Denominator is who reported sex with non-commercial partner last year)	1.7 (0.5-6.0) N=211
Consistent condom use with non-commercial female partners in last month (Denominator is who reported sex with non-commercial partner last month)	2.8 (0.9 – 8.4) N=157
Consistent condom use with female commercial female partners in last year (Denominator is who reported commercial sex with female partner last year)	0.6 (0.1-2.5) N=248
Consistent condom use with female commercial female partners in last month (Denominator is who reported commercial sex with female partner last month)	1.0 (0.3 – 4.0) N=175
Consistent condom use with male or Hijra commercial partners in last year (Denominator is who had reported commercial sex with male or Hijra last year)	0, N=13
Consistent condom use with male or Hijra commercial partners in last month (Denominator is who had reported commercial sex with male or Hijra last month)	0, N=1
Consistent condom use during last time while selling sex in last year (Denominator is who sold sex last year)	0 N=7

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge of, ever use, access to and breaking of condoms (Table 38)

Though all heroin smokers were able to recognize a male condom and knew where to get condoms, approximately one third never used it. In the last month, most of the heroin smokers obtained condom from pharmacy followed by NGO workers. Among those who had used condoms in the last month most said that they had easy access to condoms.

Table 38: Knowledge of, ever use, access to and breaking of condoms

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers recognized male condom	100.0
Proportion of heroin smokers recognized male condom (Denominator is who had sexual experience)	100.0 N=353
Proportion of heroin smokers who have never used a condom	31.8 (26.5-37.5)
Proportion of heroin smokers who have never used a condom (Denominator is who had sexual experience)	31.8 (26.5-37.5) N=353
Proportion of heroin smokers who knew where condoms are available	99.0 (97.0-99.7)
Proportion of heroin smokers who knew where condoms are available (Denominator is who had sexual experience)	99.0 (97.0-99.7) N=353
Sources of condom in last month (Denominator is who used condom in last month)*	N= 33
Shop	5.8 (1.4-21.7)
Pharmacy	42.3 (23.4-63.9)
Health centre	0
Bar/guest house/hotel	4.1 (0.5-25.2)
Friends	0
NGO workers	10.5 (3.3-28.4)
Others[§]	29.1 (14.3-50.4)
Proportion of heroin smokers reported easy access to condoms	8.6 (5.6-13.1)
Proportion of heroin smokers reported easy access to condoms (Denominator is who had used condom in last month)	N= 33
Yes	91.7 (71.0-98.0)
No	8.4 (2.0-29.0)
Reasons for not having easy access to condoms (Denominator is who reported not having easy access to condoms)*	N=3
Cost high	0
Shop/pharmacy is far away	0
Shop/pharmacy is closed	0
Feel ashamed to buy	81.4 (0.5-100.0)
Do not know where to buy	0
Not willing to carry	81.4 (0.5-100.0)
Others[§§]	18.6 (0.03-99.5)
Proportion of heroin smokers had a condom break in the last month	0.4 (0.1-1.7)
Proportion of heroin smokers had a condom break in the last month (Denominator is who used condom last month)	4.4 (0.9-18.1) N=33

*Multiple responses
[§]Others stated: FSW, sex partner
[§§]Others stated: sex workers do not keep condoms always

Knowledge on modes of HIV transmission and confidential HIV testing (Table 39)

Almost all heroin smokers had heard about HIV/AIDS. About 75% of the heroin smokers knew that condom use or not sharing needles/syringes could prevent spread of HIV from one person to another but just over one-third knew that anal sex is an effective means of HIV transmission. At the same time, misconceptions about HIV transmission was also common with close to half the heroin smokers sampled believing that HIV can spread through mosquito bites and by sharing food with an HIV positive person. However only 2% of the heroin smokers knew where tests for HIV could be done confidentially and only one heroin smoker had an HIV test in the last year, which he had done because he felt he needed one and for which he did receive the result.

Table 39: Knowledge on modes of HIV transmission and confidential HIV testing

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers heard about HIV/AIDS	99.3 (97.0-99.8)
Proportion of heroin smokers who mentioned condom use as a mode of prevention	76.1 (70.3-81.0)
Proportion of heroin smokers who knew that not sharing of needles/syringes is a mode of prevention	N=351 75.3 (69.8-80.1)
Proportion of heroin smokers who knew that avoiding anal sex is a mode of prevention	37.8 (32.0-44.1)
Proportion of heroin smokers who believed that HIV can be transmitted by mosquito bites	49.4 (43.0-55.8)
Proportion of heroin smokers who believed that HIV can be transmitted by sharing food	48.7 (42.3-55.2)
Proportion of heroin smokers who knew that avoiding multiple sex is a mode of prevention	69.8 (63.5-75.4)
Proportion of heroin smokers believed that one can tell by looking at someone whether they are infected with HIV	27.9 (22.8-33.7)
Proportion of heroin smokers who knew where HIV can be tested confidentially	2.3 (1.1-4.8)
Proportion of IDU ever tested for HIV (Denominator is who knew where to test for HIV)	24.0 (1.8-84.7) N=7
Motivation for HIV testing (Denominator is who ever tested for HIV) Self Someone else	N=1 100.0 0
Proportion of IDU reported to have the result of HIV test (Denominator is who ever tested for HIV)	N=1 100.0
Time when last HIV test was done (Denominator is who ever tested for HIV) Within one year More than one year Do not remember	N=1 100.0 0 0

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self reported STIs and health care seeking behaviour (Table 40)

Many of the heroin smokers knew the symptoms of STIs although many also had misconceptions about this. Forty three percent of the heroin smokers reported having had at least one STI symptom in the last one year. Of heroin smokers who had STI symptoms in the last year, 25% sought formal medical treatment as the first treatment option. Only 2.2% reported visiting NGO STI clinics in the last month and of these four named CARE, Bangladesh as the NGO clinic that they visited.

Table 40: Self reported STIs and health seeking behaviour

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Knowledge on STIs*	
Discharge from penis	30.7 (25.1-36.9)
Burning pain on urination	30.3 (24.7-36.5)
Genital ulcers/sores	58.8 (53.1-64.4)
Swellings in groin area	5.3 (3.2-8.7)
Anal discharge	0.2 (0.03-1.4)
Anal ulcer/sores	0
Others[§]	34.6 (28.2-41.6)
Proportion of heroin smokers reported to have urethral discharge in the last one year	14.1 (10.6-18.5) N=352
Proportion of heroin smokers reported to have anal discharge in the last one year	2.5 (1.0-6.1)
Proportion of heroin smokers reported to have genital ulcer / sore in the last one year	32.7 (26.5-39.6)
Proportion of heroin smokers reported at least one STI symptom in the last year	43.0 (36.3-50.0)
Proportion of heroin smokers reported at least one STI symptom in the last year (Denominator is who reported sexual experience)	43.0 (36.3-50.0) N=353
Proportion of heroin smokers sought formal medical treatment as first treatment option (Denominator is who had sexual experience and reported STI in last year)	25.0 (17.9-33.8) N=135
Choice of STI treatment (Denominator is who had sexual experience and reported STI in last year)*	N=135
Hospital	4.1 (1.3-12.1)
Drug seller	25.6 (18.1-35.0)
Private doctor	14.2 (8.8-22.1)
Private clinic	0.8 (0.1-5.9)
NGO clinic	5.8 (2.6-12.5)
Traditional healer	10.8 (6.4-17.6)
Advice/treatment from friends	2.8 (1.1-6.9)
Self-medication	2.2 (0.8-6.1)
Did not seek treatment	31.6 (23.1-41.5)
Others[§§]	2.0 (0.7-5.4)
Proportion of heroin smokers sought formal medical treatment as first treatment option (Denominator is who had sexual experience, reported STI in last year and sought treatment)	36.6 (27.0-47.3) N=97

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Mean waiting days before seeking treatment for last STI in the last one year (Denominator is who had sexual experience and reported STI in last year and sought treatment)	17.1 (14.1-20.0) M=15 N=92
Mean expenditure in last STI treatment in the last one year (Denominator who sought treatment last year)	410.3 (286.0-534.6) M=240 N=87
Proportion of heroin smokers reported to have visited STI clinics organized by NGOs in the last month	2.2 (0.7-6.0) N=352
Name of clinics visited (Denominator is who visited STI clinics last month)	CARE N=4

*Multiple responses

§Other beliefs about symptoms of STIs: having erotic dreams, syphilis, gonorrhoea, AIDS, premature ejaculation, problem in penis, itching in penis, TB, skin disease, impotence, diabetes, blood with urine

§§Others stated: take bath/use oil in penis, washed with hot water with potassium and washed with urine

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measures taken to avoid STI and HIV (Table 41)

Half of the heroin smokers sampled reported not taking any precautions to avoid STIs and the same was true for two-thirds regarding taking precautions to avoid HIV. Approximately 9 to 26% took ineffective measures to avoid becoming infected with HIV and STIs.

Table 41: Measures taken to avoid STI and HIV

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Steps taken to avoid STIs*	
Do nothing	50.1 (44.3-55.9)
Wash genitalia with dettol/urine	26.0 (20.8-31.9)
Always use condom	1.9 (0.8-4.5)
Sometimes use condom	10.5 (6.9-15.6)
Take medicine	1.1 (0.3-3.8)
Others§	21.8 (17.1-27.2)
Steps taken to avoid HIV (Denominator is who had heard about HIV)*	N=351
Do nothing	68.1 (62.9-72.9)
Do not share needles/syringes	3.7 (2.1-6.5)
Wash genital organ by dettol/urine	8.6 (5.6-12.9)
Always use condom	4.7 (2.5-8.4)
Others§§	22.9 (18.5-28.1)

*Multiple responses

§Other steps taken to avoid STIs include: avoid sex with sex workers, have sex with wife only, wash genitalia with water/hot water/cigarette ash/hot water with potassium/clothes, be neat and clean

§§Other steps taken to avoid HIV include: Avoid sex with sex workers, have sex with wife only, sometimes use condom, be neat and clean, do not share heroin pipe, be alert, sleep with net/mosquito coil, wipe genital area with clothes after sex, do not share food

Self perception of risk (Table 42)

Approximately half of the heroin smokers sampled could not assess their own risk of becoming infected with HIV and only 3% thought that they were at high risk.

Table 42: Self perception of risk

Sampled groups	Heroin smokers who perceived themselves to be at high risk % (95% CI)	Heroin smokers who perceived themselves to be at medium risk % (95% CI)	Heroin smokers who perceived themselves to be at little or no risk % (95% CI)	Heroin smokers who could not assess their risk % (95% CI)
Heroin smokers Central-A (N=353)	2.6 (1.2-5.6)	8.4 (5.8-11.8)	38.6 (31.9-45.7)	50.5 (44.0-56.9)

Rationale for self-perception of extent of risk (Table 43)

Among those who assessed themselves to be at high or medium risk, the rationale behind this thinking was mixed with 50.8% identifying frequent sex as a cause, 45.8% for never using condoms, 23.3% for sometimes using condoms. Of those who assessed themselves to be at little/no risk of becoming HIV infected, more than 80% gave a variety of reasons all of which revealed their misconceptions about HIV transmission. Almost one-third believed that they were safe because their sex partners were clean.

Table 43: Rationale for self-perception of extent of risk

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Reasons for self-perception of risk (Denominator who assessed themselves to be at high or medium risk)*	N=39
Frequent sharing of needles/syringes	6.5 (1.2-27.8)
Doing frequent sex	50.8 (32.5-68.8)
No use of condoms	45.8 (29.4-63.3)
Sometimes use of condom	23.3 (11.1-42.5)
Others[§]	42.4 (25.5-61.2)
Reasons for not assessing themselves to be at no or little risk (Denominator who perceived themselves to be at no or at little risk)*	N=145
Always use condom	4.5 (1.8-10.7)
Have sex with clean partners	29.7 (21.0-40.1)
Have sex with healthy partners	1.4 (0.2-9.9)
Sometimes share needles/syringes	2.0 (0.6-6.0)
Never share needles/syringes	6.3 (3.5-11.0)
Others[§§]	82.3 (73.7-88.5)

*Multiple responses

[§]Other reasons for assessing themselves to be at medium/high risk include: for smoking heroin, for not being neat and clean, for going to brothels

[§§]Other reasons for assessing themselves to be at no/low risk include: avoid sex with sex workers, have sex with wife only, wash genitalia with urine after sex, be neat and clean, be alert, heroin smoking does not cause AIDS, do not take blood from others, do not eat at hotels

Violence against heroin smokers (Table 44)

Nearly half of the heroin smokers were physically abused in the last year and men in uniform, mastans and local people most commonly perpetrated the violence. The mean number of times that they were abused in the last month was 1.9. Thirty nine percent of the heroin smokers reported to have been jailed in the last year.

Table 44: Violence against heroin smokers

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers physically abused in the last year	48.5 (42.5 – 54.5)
Violence perpetrated by: (Denominator is those who reported violence in the last year)*	N=175
Men in uniform	59.2 (51.3-66.6)
Mastans	21.2 (15.4-28.4)
Local people	33.1 (26.4-40.6)
People from narcotics	4.8 (1.8-12.0)
People from special branch	0.6 (0.1-2.4)
Drug dealers	3.0 (1.0-8.2)
Others[§]	32.6 (24.8-41.4)
Mean number of times heroin smokers were abused in the last month	1.9 (1.7 – 2.2) M= 2 N= 101
Proportion of heroin smokers who had been jailed in the last year	39.0 (32.6 – 45.7)

*Multiple responses

[§]Others who perpetrated violence include: relatives, owner of hotel, night guard, army personnel

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Mobility of heroin smokers (Table 45)

The mobility of heroin smokers was assessed and information obtained on their sex and injection related risk behaviour while travelling. While travelling within the country to a different district, 2.8% of the heroin smokers injected. Twenty-two heroin smokers travelled abroad last year and of these nearly 34% had sex while abroad and only one used condom. None injected drugs while travelling abroad.

Table 45 : Mobility of heroin smokers

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion of heroin smokers who smoked heroin in another district in the last year	38.9 (33.5 – 44.5) N=352
Proportion of heroin smokers who injected drugs in another district in the last year (those who injected some time ever in their life)	2.8 (1.3 – 6.1) N= 187
Proportion of heroin smokers who travelled abroad in the last year	5.1 (3.4 – 7.6) N=352
Proportion of heroin smokers who had sex while abroad last year (Denominator is who travelled abroad last year)	34.3 (15.6 – 59.6) N=22
Proportion used condom during last sex while staying abroad (among those who reported sex while staying abroad)	11.0 (0.7-68.7) N=7
Proportion of heroin smokers who injected drugs while abroad in the last year (Denominator is who travelled abroad last year)	0 N=22

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Exposure to interventions (Table 46)

Of the heroin smokers sampled only 21 were exposed to NGO interventions in the last year and most were involved with educational programmes and close to one-third received condoms.

Table 46 : Exposure to interventions

Indicators % (95 % CI)	Heroin smokers Central-A, (N=353)
Proportion exposed to HIV intervention in the last year	7.0 (3.8-12.7)
Proportion under needle/syringe exchange program in the last year	1.2 (0.3-4.1)
Type of interventions exposed to in the last year (Denominator is those who participated in an HIV intervention in last year)*	N =21
Needle/syringe exchange program	17.1 (4.0-50.6)
Educational program	72.0 (41.3-90.4)
Obtained condom	29.7 (10.6-60.3)
Received STI treatment	25.4 (8.1-56.8)
Counselling	12.4 (2.0-49.9)
Others	0
Mean number of times participated in interventions in the last month (Denominator is those who participated in an HIV intervention in last month)	2.7 (0.5-4.9) M=1 N=11

*Multiple responses

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

3.1.2.3 Injection Drug Use in Other Population Groups

Behavioural surveillance also assessed drug-taking behaviours in other population groups that were sampled at different geographical sites- female sex workers (in brothels, streets, and hotels), male sex workers, Hijras, MSM, rickshaw pullers and truckers.

Drug taking history of female sex workers (Table 47)

Drugs other than alcohol were consumed by 12-33% of female sex workers in the last year. The most common drug taken was cannabis. In Central-A more than a quarter of the female sex street workers who had taken drugs in the last year, took heroin. Very few sex workers reported injecting drugs but all those who did were from Central-A (street and hotel); none of the sex workers from other areas had injected drugs.

Table 47: Drug taking history of female sex workers

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion reported taking drugs other thanalcohol in the last year	33.4 (29.9-37.0)	28.6 (23.1-34.8)	32.0 (26.9-37.6)	11.7 (8.2-16.4)	30.2 (23.6-37.6)	15.7 (9.5–25.0)
Proportion reporting types of drugs taken other than alcohol in the last year (Denominator is who reported taking drugs other than alcohol in the last year)*	N=227	N=96	N=118	N=40	N=91	N=14
Cannabis	81.9 (76.3-86.5)	74.5 (62.6-83.6)	48.3 (38.6-58.2)	45.0 (29.0-62.1)	88.0 (79.1-93.4)	92.9 (55.7-99.3)
Phensidyl	6.2 (3.7-10.2)	14.8 (7.7-26.8)	5.9 (2.5-13.2)	22.5 (12.5-37.1)	39.8 (30.5-50.0)	14.3 (2.8-49.1)
Tablet	21.2 (16.3-27.0)	52.9 (40.7-64.7)	67.8 (58.8-76.2)	67.5 (48.1-82.3)	61.4 (49.2-72.3)	0
Heroin	3.5 (1.8-6.9)	27.2 (17.8-39.3)	10.2 (5.8-17.2)	5.0 (1.2-19.1)	6.6 (2.8-14.6)	7.1 (0.6-49.1)
Injections	0	2.6 (0.5-12.0)	0	0	2.7 (0.8-9.1)	0
Proportion reported injecting drugs in the last year	0	0.7 (0.1-3.5)	0	0	0.8 (0.2-2.7)	0
Proportion reported injecting drugs in the last year (Denominator is who reported taking drugs other than alcohol in the last year)	0 N=227	2.6 (0.5-12.0) N=96	0 N=118	0 N=40	2.7 (0.8-9.1) N=91	0 N=14
Proportion reported injecting drugs in the last two months	0	0	0	0	0	0
Proportion reported injecting drugs in the last two months (Denominator is who reported injected drugs in the last year)	0	0 N=2	0	0	0 N=3	0
Proportion sharing needles/ syringes by borrowing or lending in the last year (Denominator is who reported injected drugs in the last year)	-	100.0 N=2	-	-	20.4 (0.04-99.4) N=3	-

*Multiple responses were allowed

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Drug taking history in MSW and Hijras (Table 48)

Fewer Hijras took drugs other than alcohol in the last year compared to MSW from either site (p<0.001 for all comparisons). None of the Hijras reported injecting drugs in the last year while few MSW injected, this was more common in Southeast-A than in Central-A (p=0.002). In the last two months fourteen MSW in Southeast-A reported injecting drugs. Most MSW in Southeast-A who had injected in the last year shared needles/syringes.

Table 48: Drug taking history in MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion reported taking drugs other than alcohol in the last year	12.5 (8.2-18.7)	18.2 (14.0-23.3)	2.2 (0.9-5.2)
Proportion reporting different types of drugs taken other than alcohol in the last year (Denominator is who reported taking drugs other than alcohol in the last year)* Cannabis Phensidyl Tablet Heroin	Not asked	Not asked	N=9 100.0 66.7 (34.7-88.3) 55.6 (22.2-84.6) 0
Proportion reported injecting drugs in the last year	0.5 (0.1-2.2)	3.9 (2.3-6.5)	0
Proportion reported injecting drugs in the last year (Denominator is who reported taking drugs other than alcohol in the last year)	4.3 (1.0-17.6) N=46	21.2 (12.5-33.6) N=66	0 N=9
Proportion reported injecting drugs in the last two months	Only 1 person	1.4 (0.6-3.2)	0
Proportion reported injecting drugs in the last two months (Denominator is who reported injecting drugs in the last year)	Only 1 Person N=2	35.7 (15.8-62.2) N=14	0 N=0
Proportion shared needles/syringes by borrowing or lending in the last year (Denominator is who reported injected drugs in the last year)	0 N=2	92.9 (58.5-99.2) N=14	0 N=0

*Multiple responses were allowed

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Drug taking history in MSM (Table 49)

More MSM from Northeast-A reported taking drugs other than alcohol last year (p=0.009). Of those MSM from Central-A who did take drugs other than alcohol, 75% injected in the last year most of whom shared needle /syringe while injecting.

Table 49: Drug taking history in MSM

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion reported taking drugs other than alcohol in the last year	2.8 (1.6-5.0)	8.2 (5.2-12.8)
Proportion reported injecting drugs in the last year	2.1 (1.1-3.9)	0.5 (0.1-2.1)
Proportion reported injecting drugs in the last year (Denominator is who reported taking drugs other than alcohol in the last year)	75.0 (41.6-92.7) N=12	6.3 (1.5-23.2) N=32
Proportion reported injecting drugs in the last two months	1.7 (0.8-3.4)	0.3 (0.03-1.9)
Proportion reported injecting drugs in the last two months (Denominator is who reported injecting drugs in the last year)	79.6 (35.3-96.6) N=9	1 person N=2
Proportion shared needles/syringes by borrowing or lending in the last year (Denominator is who reported injected drugs in the last year)	88.9 (37.3-99.1) N=9	0 N=2

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Drug taking history in transport workers (Table 50)

A large proportion of individuals sampled as representative of clients of sex workers (truckers and rickshaw pullers from two cities) reported taking drugs (other than alcohol) in the last year with cannabis being the most common drug taken. However, a considerable proportion of rickshaw pullers in Central-A gave a history of hard drug use including smoking heroin and injecting drugs in the last year. More rickshaw pullers in Central-A reported injecting drugs in last year than other groups ($p<0.001$ for all comparisons). Of the rickshaw pullers in Central-A who reported injecting drugs in the last year, more than 50% injected in the last two months (i.e. they were current IDU) and more than 80% shared needles/syringes.

Table 50: Drug taking history in transport workers

Indicators % (95 % CI)	Rickshaw pullers Central-A (N = 403)	Rickshaw pullers Southeast-A (N =315)	Truckers Central-A (N =441)
Proportion reported taking drugs other than alcohol in the last year	47.1 (41.1 – 53.0)	41.3 (36.0 – 46.7)	48.6 (43.5 – 53.7)
Proportion reporting different types of drugs taken other than alcohol in the last year (Denominator is who reported taking drugs other than alcohol in the last year)*	N=186	N=130	N=219
Cannabis	89.9 (84.1 – 93.6)	96.9 (90.2 – 99.0)	95.5 (90.2 – 98.0)
Phensidyl	15.5 (10.8 – 21.7)	8.5 (4.5 – 15.5)	25.1 (16.5 – 36.4)
Tablet	19.8 (14.1 – 27.0)	17.7 (12.1 – 25.1)	8.5 (4.6 – 15.2)
Heroin	21.1 (16.0 – 27.4)	4.6 (2.1 – 9.8)	5.8 (2.9 – 11.2)
Injections	13.6 (9.1-19.8)	0.8 (0.1-5.5)	0.7 (0.2-3.2)
Others[§]	0	0.8 (0.1-5.4)	4.0 (1.9-8.5)
Proportion reported injecting drugs in the last year	6.4 (4.3-9.5)	0.3 (0.04-2.3)	0.3 (0.1-1.6)
Proportion reported injecting drugs in the last year (Denominator is who reported taking drugs other than alcohol in the last year)	13.6 (9.1 – 19.8) N=186	0.8 (0.1 – 5.5) N=130	0.7 (0.2 – 3.2) N=219
Proportion reported injecting drugs in the last two months	3.8 (2.2-6.4)	1 person	0.3 (0.1-1.6)
Proportion reported injecting drugs in the last two months (Denominator is who reported injecting drugs in the last year)	59.5 (38.5 – 77.6) N=27	100.0 N=1	100.0 N=3
Sharing needles/syringes by borrowing or lending in the last year (Denominator who reported injected drugs in the last year)	87.3 (66.4 – 96.0) N=27	100.0 N=1	100.0 N=3

*Multiple responses

[§]Others stated: palm juice and date juice

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

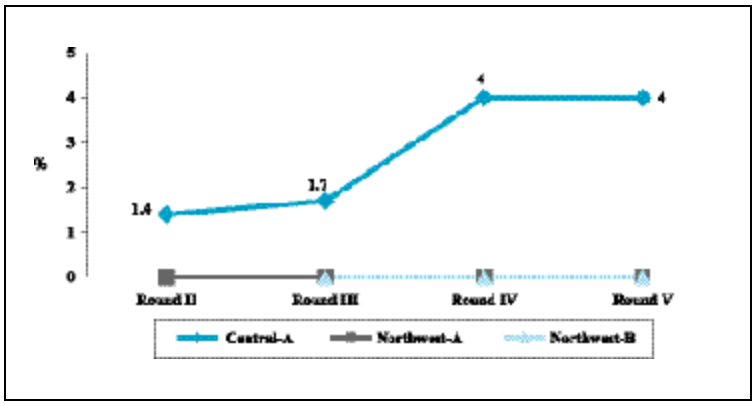
3.1.3 COMPARISON OVER THE ROUNDS

For serological surveillance, IDU have been sampled from the NEP since the second round and therefore trends of infections (HIV, HCV and syphilis) over the years can be determined. However, for BSS, although IDU have been sampled since the first round, modifications were made in the questionnaire so that key indicators are comparable only over the fourth and fifth rounds. For heroin smokers, this is the second year that serological surveillance has been conducted among them but for BSS this is the first year for heroin smokers. Therefore, limited trends can be determined for heroin smokers.

3.1.3.1 Serology

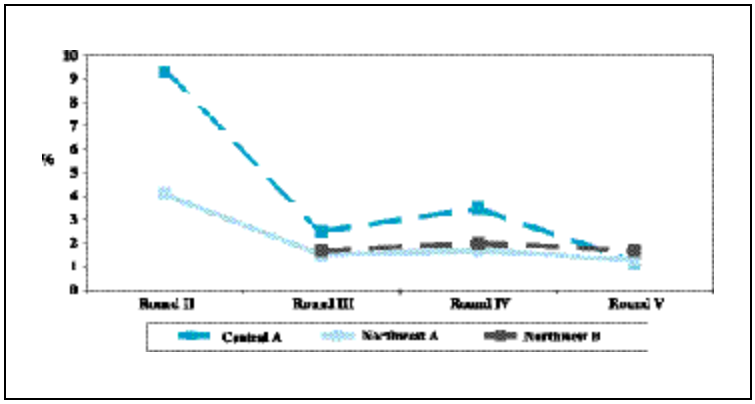
Over the rounds of serological surveillance, there has been a significant rise in HIV prevalence (p=0.007) in Central-A as shown in Figure 2 and in appendix A-1. The changes are also significant between second and fourth rounds (p=0.042) and between second and fifth rounds (p=0.043) of surveillance. In two cities of the Northwest region, where sampling was done over the third, fourth and fifth rounds, HIV was never detected.

Fig 2: HIV in IDU over the rounds of serological surveillance in Bangladesh



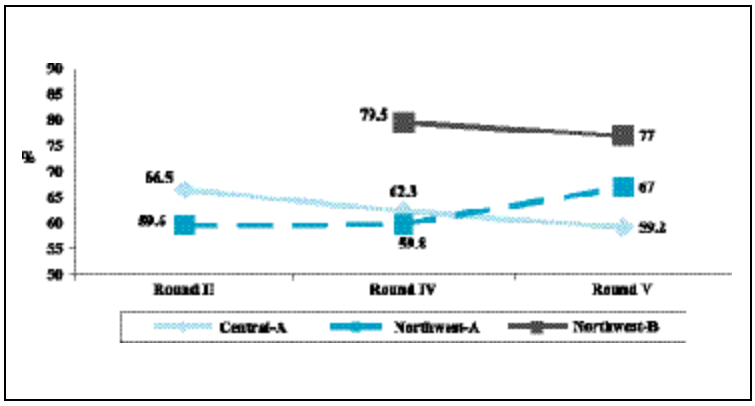
Among IDU in Central-A, active syphilis rates declined significantly over the rounds (p<0.001) as shown in Figure 3. Active syphilis rates in Northwest-A also declined significantly over the rounds (p=0.01). For IDU from Northwest-B, no changes in active syphilis rates were recorded. Details are provided in appendix A-2.

Fig 3: Active syphilis in IDU over the rounds of serological surveillance in Bangladesh



HCV rates in IDU in all three sampled sites remained high as shown in Figure 4 and in appendix A-3. Over the rounds, HCV prevalence declined significantly in Central-A (p=0.03) but increased in Northwest-A (p=0.03). However, changes in HCV prevalence were not significant in Northwest-B.

Fig 4: HCV in IDU over the rounds of serological surveillance in Bangladesh



In heroin smokers, HIV was not detected during the fourth round of surveillance but in the fifth round, 0.8% were positive for HIV in Central-A. Active syphilis prevalence remained the same between the two rounds (Table 51).

Table 51: Prevalence of HIV and active syphilis in heroin smokers over the last two rounds of serological surveillance in Central-A

	Round IV (N= 388)	Round V (N= 391)
HIV positive % (n), 95% CI	0	0.8 (3), 0.2-2.2
Active syphilis % (n), 95% CI	3.4 (13), 1.8-5.7	2.6 (10), 1.2-4.7

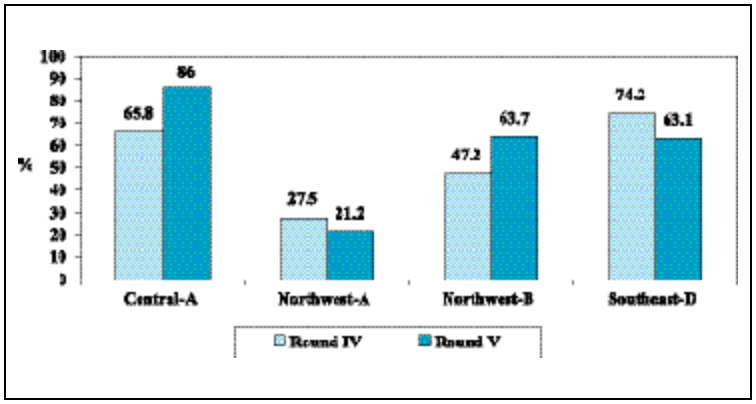
3.1.3.2 Behaviour

Some key behavioural data have been compared to determine if any changes have taken place over the last two rounds.

Injection sharing behaviour (Fig 5 and appendix A-6)

During the last injection, in Northwest-A, the proportion of IDU who borrowed or lent used needles/syringes declined significantly (p=0.002, appendix A-6). No changes in either borrowing or lending of used needles/syringes during the last injection were recorded in Central-A, Southeast-D and Northwest-B. However, although the proportion of IDU in Northwest-B who borrowed during the last time remained the same between the two rounds, the proportion who lent during the last injection increased significantly (p<0.001, appendix A-6). For sharing of needles/syringes in the last week, as the question on lending was not asked in the fourth round of BSS, this variable could not be compared. However, the proportions of IDU borrowing used needles/syringes in the last week (Fig 5) showed significant changes in all cities other than in Northwest-A and Southeast-D; more IDU in the fifth round compared to the fourth round reported borrowing in the last week in Central-A and Northwest-B (p<0.001 and p=0.002 respectively, appendix A-6).

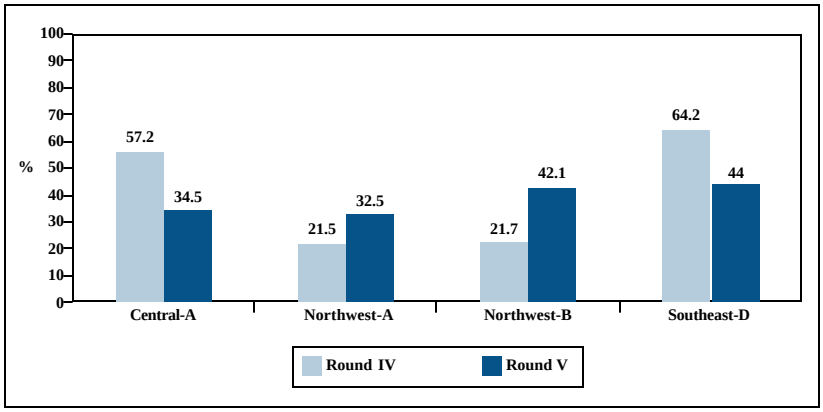
Fig 5: Borrowing used needles/syringes in the last week during the fourth and fifth rounds of surveillance



Sexual behaviour of IDU (Fig 6 and appendix A-7)

In the last year the proportion of IDU who bought sex from female sex workers increased between rounds four and five in Northwest-A and B (p<0.001 for all comparisons) while it decreased in Central-A and Southeast-D (p<0.001 and p=0.002, respectively) (Fig 6). The proportion buying sex from males or hijras in the last year also declined in Central-A (p<0.001) but remained the same in the other areas (appendix A-7). The mean number of commercial female sex partners decreased between the rounds in Central-A (p<0.001) and increased in the two Northwest cities (p<0.001 for all comparisons) but remained the same in the Southeast-D (appendix A-7).

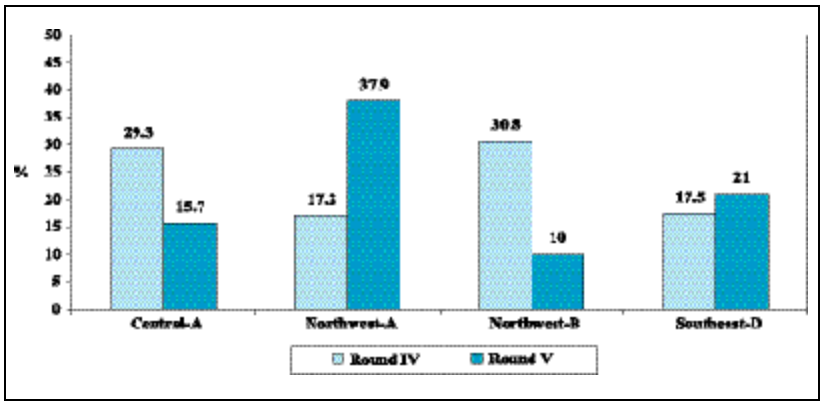
Fig 6: Proportion of IDU who bought sex from female sex workers in the last year



Condom use (Fig 7 and appendix A-8, A-9)

With female commercial partners, fewer IDU in Central-A reported using condoms during last sex in the fifth round compared to the fourth round of BSS (p=0.005) (Fig 7) and the proportion reporting consistent condom use in the last year also declined between the two rounds in Central-A but the change was not statistically significant (appendix A-9). In Northwest-A, more IDU in the fifth round compared to the fourth round reported condom use with female sex workers during the last sex (p<0.001) (Fig 7) but the proportions using condoms consistently over the rounds remained the same (appendix A-9). In Northwest-B and Southeast-D, there were no changes in condom use with female sex workers (last sex or consistently in the last year) between the two rounds of surveillance (Fig 7 and appendix A-9).

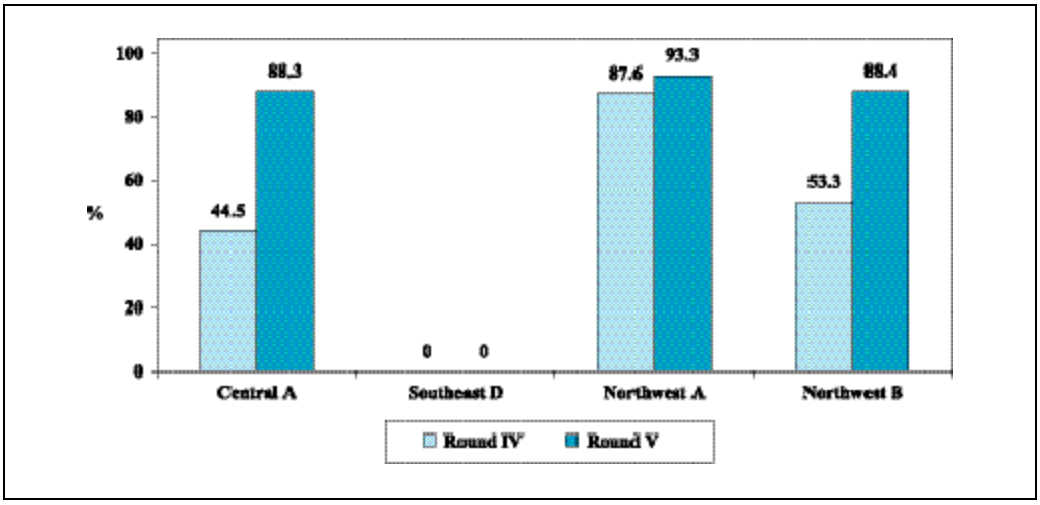
Fig 7: Proportion of IDU who used condoms during the last sex act with female sex workers



Exposure to interventions (Fig 8 and appendix A-10)

IDU in Southeast-D were not covered by any intervention programmes during both rounds of surveillance but interventions for IDU had been in place for several years in the other three cities. The intervention activity included mainly needle/syringe exchange. The proportion of IDU covered by the NEP in the last year significantly increased in Central-A and Northwest-B (p<0.001 for all comparisons) but remained the same in Northwest-A (Fig 8 and appendix A-10).

Fig 8: Proportion of IDU covered by the needle/syringe exchange programme in the last year



3.1.4 SUMMARY OF FINDINGS

Injection Drug Users

The highest rates of HIV have been recorded in IDU from Central-A in all rounds of surveillance while no HIV was detected in IDU from the other cities.

Using BSS data, comparisons of some key variables between IDU from the different cities showed that IDU in Central-A were very vulnerable because:

- Fewer lived with their relatives compared to those from other cities and close to one-third lived on the streets. Homelessness has been shown to be a risk factor for HIV7
- More shared (lent or borrowed) needles/syringes in the last week than IDU from other cities
- More reported suffering from abscesses in the last year.

IDU from Southeast-D were the youngest group of IDU and they had started injecting drugs at a younger age compared to IDU from other cities. These IDU were not under any intervention programme at the time BSS was conducted and despite the absence of a NEP in this city, the sharing rate (lending or borrowing) in the last week was lower than IDU in Central-A though higher than those from the Northwest cities. Also, the mean number of injections taken in the last week was lowest for IDU from Southeast-D and their injection sharing network size was also the smallest.

In the Northwest cities, a large proportion of the IDU were married and living with their relatives. Concomitantly, more IDU from these cities reported non-commercial sex with female partners in the last month and last year. But, at the same time, equal proportions (in comparison to IDU from Central-A and Southeast-D) reported buying sex from females. Condom use was low in all groups.

Comparisons of data over the rounds showed that:

In Central-A:

- More IDU were covered by interventions but at the same time more IDU reported borrowing used needle/syringes in the last week
- HCV and active syphilis rates declined over the rounds
- The proportion buying sex from sex workers in the last year declined but condom use rate also declined.

In Northwest-A,

- HCV rates increased over the rounds
- Fewer IDU shared their needles/syringes (borrowing or lending) during the last injection
- Active syphilis rates declined although more IDU bought sex from sex workers and the mean number of sex partners in the year increased. However, with female sex workers condom use during the last sex act increased although consistent condom use in the last year decreased.

In Northwest-B,

- There were no changes in HCV and active syphilis rates
- The proportion of IDU who borrowed used needles/syringes during the last injection remained the same between the two rounds, but the proportion who lent during the last injection declined significantly. However, in the last week, more IDU reported borrowing used needles/syringes
- More IDU bought sex from female sex workers in the last year and the mean number of commercial female sex partners increased
- There were no changes in condom use with female sex workers (last sex or consistently) in the last year.

In conclusion, it is clear that IDU from all cities are practicing very risky behaviours, which put themselves and their partners (both drug taking and sex partners) at risk of infection. This is particularly true for IDU in Central-A, who are at the brink of a concentrated epidemic. In fact, the epidemic appears to have already taken hold in one neighbourhood, which may be considered to be the epicentre of the epidemic. It is alarming that in this city, despite the expansion of the NEP, injection-sharing rates have risen and condom use has declined. In other cities, behaviours have become riskier in many aspects. And as IDU move from one city to another and inject in all cities, the risk of spread of HIV is high. There is also some overlap between sex work and drug use with 3.9% of MSW from Southeast-A reporting having injected drugs in the last year. This was not common in female sex workers.

Heroin Smokers

The concern that heroin smokers also inject intermittently but do not have access to the NEP, have led to their inclusion in the surveillance. These concerns have been confirmed by the surveillance data as more than half of the heroin smokers sampled were found to have injected some time in their lives while more than one third had injected in the last six months. Of those who injected more than 90% shared their needles/syringes during the last injection. Most of the heroin smokers were sexually active having non-commercial and commercial partners and with very few reporting condom use and less than 10% reporting easy access to condoms. 43% of the heroin smokers reported at least one STI symptom in the last year although active syphilis rates were low. Only 7% of the heroin smokers said they had been exposed to any intervention programme in the last year. Given all these risk behaviours, the close association with the IDU network and low access to intervention programmes, heroin smokers are very vulnerable to an HIV epidemic.

3.2 FEMALE SEX WORKERS

The female sex workers sampled were: brothel-based female sex workers from all brothels; street-based female sex workers in three cities one in each of the Central, Southeast and Southwest regions; and hotel-based female sex workers in three cities one in each of the Central, Southeast and Northeast regions (however in the BSS two cities were covered). In addition, casual sex workers, i.e. women who were not full-time sex workers were sampled for serological surveillance from one city in the South and two cities in the Northwest; they were not however, sampled in the BSS. The two cities in the Northwest were both bordering India where anecdotally it is known that considerable cross border movement occurs.

3.2.1 SEROLOGY

Demographic characteristics (Table 52)

Demographic characteristics of female sex workers are summarised in Table 52. It was not possible to administer the full range of demographic questionnaire to sex workers from brothels in Central-N, Central-P, South-E, street sex workers from

In Northwest-A,

- HCV rates increased over the rounds
- Fewer IDU shared their needles/syringes (borrowing or lending) during the last injection
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In Northwest-B,

- There were no changes in HCV and active syphilis rates
- The proportion of IDU who borrowed used needles/syringes during the last injection remained the same between the two rounds, but the proportion who lent during the last injection declined significantly. However, in the last week, more IDU reported borrowing used needles/syringes
- More IDU bought sex from female sex workers in the last year and the mean number of commercial female sex partners increased
- There were no changes in condom use with female sex workers (last sex or consistently) in the last year.

In conclusion, it is clear that IDU from all cities are practicing very risky behaviours, which put themselves and their partners (both drug taking and sex partners) at risk of infection. This is particularly true for IDU in Central-A, who are at the brink of a concentrated epidemic. In fact, the epidemic appears to have already taken hold in one neighbourhood, which may be considered to be the epicentre of the epidemic. It is alarming that in this city, despite the expansion of the NEP, injection-sharing rates have risen and condom use has declined. In other cities, behaviours have become riskier in many aspects. And as IDU move from one city to another and inject in all cities, the risk of spread of HIV is high. There is also some overlap between sex work and drug use with 3.9% of MSW from Southeast-A reporting having injected drugs in the last year. This was not common in female sex workers.

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Southeast-A and hotel sex workers from Southeast-A and Northeast-A; only age was recorded. A separate set of questionnaire was administered for the casual female sex workers.

Among all groups of female sex workers, casual sex workers from Northwest-K1 were the oldest ($p<0.05$ for all comparisons). Education levels were highest in hotel based sex workers from Central-A in terms of proportions who ever attended school ($p<0.001$ for all comparisons) and the median duration of education ($p<0.001$ for all comparisons). The median duration of selling sex was shortest for hotel based sex workers from Central-A ($p<0.001$ for all comparisons).

Table 52: Demographic characteristics of female sex workers

Geographical Location (N)	Age in years median (IQR)	Ever attended School % (n), 95% CI	Education (years) median (IQR)	Duration as sex worker (months) median (IQR)	Duration at same site as sex worker (months) median (IQR)
Brothel based female sex workers					
Central-B (404)	20 (18-25)	28.5 (115), 24.1-33.1	5 (3-6)	36 (12-96)	33 (9-82)
Central-C (159)	25 (20-30)	26.4 (42), 19.7-34.0	5 (2-8)	72 (36-156)	48 (18-132)
Central -D (401)	28 (24-35)	24.7 (99), 20.5-29.2	4 (3-5)	60 (24-108)	48 (12-96)
Central -L (136)	28 (24-38)	25.7 (35), 18.6-33.9	3 (3-5)	60 (24-129)	33 (12-117)
Central-N (376)	26 (24-30)	NA	NA	NA	NA
Central-P (205)	23 (20-25.5)	NA	NA	NA	NA
Southwest-A, C (293)	26 (21-31)	28.0 (82), 22.9-33.5	5 (3-6)	84 (48-156)	84 (36-144)
Southwest-B (171)	25 (20-30)	22.2 (38), 16.2-29.2	5 (3-8)	96 (48-180)	84 (36-120)
South-E (59)	25 (22-26)	NA	NA	NA	NA
Street based female sex workers					
Central-A (401)	24 (20-28)	40.6 (163), 35.8-45.6	5 (3-7)	48 (24-72)	48 (24-72)
Southeast-A (402)	24.5 (19-28)	NA	NA	NA	NA
Southwest-A (403)	27 (22-35)	48.4 (195), 43.4-53.4	5 (3-8)	24 (12-60)	24 (12-48)
Hotel based female sex workers					
Central-A (400)	20 (18-23)	67.8 (271), 62.9-72.3	6 (5-8)	12 (5-24)	12 (5-24)
Southeast-A (132)	18 (17-19.5)	NA	NA	NA	NA
Northeast-A (166)	25 (22-30)	NA	NA	NA	NA
Casual female sex workers					
South-A (197)	28 (25-32)	29.4 (58), 23.2-36.3	5 (3-6.3)	36 (24-60)	36 (24-60)
Northwest-K1 (101)	30 (28-35)	26.7 (27), 18.4-36.5	3 (2-5)	NA	NA
Northwest-M1 (381)	28 (24-35)	45.1 (172), 40.1-50.3	3 (2-5.8)	NA	NA

Note: NA refers to not asked; IQR refers to Inter Quartile Range

Other characteristics of casual female sex workers (Table 53)

In addition to asking the routine demographic questions to casual female sex workers, questions regarding their other occupation and spots from where they pick up clients were also asked (Table 53). In South A, most of the women interviewed were primarily sex workers but a small proportion were casual sex workers and they either worked as maids or as tobacco rollers in a factory. In the two cities in the Northwest, most of the women interviewed were casual sex workers.

Table 53: Other characteristics of casual female sex workers

	South-A	Northwest-K1	Northwest-M1
Other occupation	Maid servant (residence and boarding)-14.2 % Tobacco roller-5.6%	Business-25.7% Smuggler-19.8% Warehouse worker-12.9%	Stone crusher-89.2% Housewife-5.2%
Client pick-up spot	Street-73.6% Multiple-20.8% Residence-4.6%	Multiple-43.6% Residence-29.7% Street-23.8%	Multiple-39.1% Stone crushing spot-33.3% Street-21.0%

As it is known that people frequently cross over the border to India from the cities of Northwest K1 and MI, the female sex workers were asked questions regarding their mobility to India and the responses revealed that they did frequently cross the border to India where a considerable proportion sold sex (Table 54). Though the proportion of sex workers who crossed the border to India was higher in Northwest-K1 compared to those in Northwest-M1 ($p<0.001$), the proportion who sold sex across the border was higher in Northwest-M1 ($p<0.001$).

Table 54: Mobility of the casual female sex workers in the border area

Variables	Northwest-K1 N = 101	Northwest-M1 N = 381
Proportion crossed the border to India % (n), 95% CI	64.4 (65), 54.2-73.6	16.0 (61), 12.5-20.1
Proportion sold sex across the border % (n), 95% CI	60.0 (39), 47.1-72.0	91.8 (56), 81.9-97.3
Average time of last visit (months) median (IQR)*	1 (0.4-6)	3 (1-12)
Average time of last episode of selling sex across the border (months), median (IQR)	2 (0.4-7)	2.9 (0.9-10.5)

*IQR refers to Inter Quartile Range

HIV and syphilis prevalence (Table 55)

HIV prevalence was recorded as <1% in all female sex workers other than those from hotels in Southeast-A and casual female sex workers in Northwest-K1 where the rates were 1.5% and 2% respectively.

Syphilis rates were high among the various groups of female sex workers. Active syphilis rates were close to or greater than 10% in sex workers from three brothels (Central C, Central L, Central P) and from the streets of Central-A and Southeast-A.

Table 55: Prevalence of HIV and syphilis among female sex workers

Study Populations, Geographical Location (numbers tested)	HIV % (n), 95% CI	Active syphilis % (n), 95% CI
Brothel based female sex workers:		
Central-B (404)	0.5 (2), 0.1-1.8	3.2 (13), 1.7-5.4
Central-C (159)	0	10.7 (17), 6.4-16.6
Central-D (401)	0.5 (2), 0.1-1.8	6.0 (24), 3.9-8.8
Central-L (136)	0	11.0 (15), 6.3-17.5
Central-N (376)	0	8.2 (31), 5.7-11.5
Central-P (205)	0.5 (1), 0-2.7	12.2 (25), 8.0-17.5
Southwest-A,C (293)	0	4.8 (14), 2.6-7.9
Southwest-B (171)	0.6 (1), 0-3.2	7.6 (13), 4.1-12.6
South-E (59)	0	5.1 (3), 1.1-14.1
Street based female sex workers:		
Central-A (401)	0.2 (1), 0-1.4	9.7 (39), 7.0-13.1
Southeast-A (402)	0	11.9 (48), 8.9-15.5
Southwest-A (403)	0	1.5 (6), 0.5-3.2
Hotel based female sex workers:		
Central-A (400)	0	4.5 (18), 2.7-7.0
Southeast-A (132)	1.5 (2), 0.2-5.4	5.3 (7), 2.2-10.6
Northeast-A (166)	0.6 (1), 0-3.3	5.4 (9), 2.5-10.0
Casual female sex workers:		
South-A (197)	0	5.1 (10), 2.5-9.1
Northwest-K1 (101)	2.0 (2), 0.2-7.0	6.9 (7), 2.8-13.8
Northwest-M1 (381)	0	1.0 (4), 0.3-2.7

3.2.2 BEHAVIOUR

The various parameters assessing vulnerability and risk behaviours of female sex workers are presented here and these behaviours are compared between the different groups of female sex workers. As simple random sampling was used for interviewing sex workers in brothels and two-stage cluster sampling was used for sex workers in the streets and hotels, sex workers from brothels were not compared with those from the streets or hotels.

Socio-demographic characteristics of female sex workers (Table 56)

Amongst the sex workers from the streets and hotels, the youngest were in hotels of Southeast-A ($p<0.001$ for all comparisons) but the median age at first sex was similar in sex workers from all sites. More sex workers from hotels in both cities were educated compared to sex workers from the streets in all cities ($p<0.001$ for all comparisons) but the proportions of hotel based sex workers who had some schooling were similar between Southeast-A and Central-A. The mean income was highest for hotel based sex workers in Central-A ($p<0.001$ for all comparisons). More sex workers from the streets of Southwest-A were married compared to sex workers from the streets and hotels in other sites ($p<0.001$ for all comparisons except street Southeast-A vs street Southwest-A where the difference is not significant). Only 1% of brothel based sex workers were married but almost half were living with regular sex partners. 14-39% of female sex workers from other sites reported living with a regular sex partner and/or being married. Among those who had children, the mean number was less than two and the average age of the youngest child was four years.

More sex street workers in Southwest-A were living in the same city for their entire life compared to sex workers from other sites ($p<0.001$ for all comparisons).

Table 56 : Socio-demographic characteristics of female sex workers

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Mean age (in years)	23.8 (23.4-24.1) M=23	23.7 (23.0-24.3) M=24	23.2 (22.7-23.8) M=23 N=368	25.0 (24.2-25.7) M=25	21.1 (20.4-21.9) M=20	18.3 (17.4-19.3) M=18
Proportion who had no schooling	45.9 (42.2-49.7)	51.2 (41.9-60.4)	53.2 (46.7-59.7) N=363	47.2 (40.3-54.2)	21.4 (17.2 -26.3)	25.8 (17.2 -36.8)
Mean income last month	7276.2 (7026.8-7525.6) M= 6500	4398.6 (4129.1-4668.1) M= 4000 N=339	5212.2 (4844.8-5579.6) M= 5000	3880.7 (3589.9-4171.5) M= 3200	10236.1 (9702.0-10770.2) M= 10000 N=299	7048.2 (5732.2-8364.3) M= 6000 N=85
Proportion who were currently married	1.0 (0.5-2.1)	20.0 (14.5-27.0)	27.4 (22.7-32.7)	36.7 (30.0-43.8)	17.5 (13.0 -23.0)	13.5 (8.0 -21.9)
Proportion currently living with regular sexual partner	46.0 (40.0-52.2)	20.4 (15.0-27.1)	29.0 (24.3-34.2)	39.3 (31.6-47.5)	20.7 (16.1-26.3)	20.2 (13.0-30.1)
Mean number of living children (Denominator is who have children)	1.2 (1.2-1.3) M=1 N=239	1.7 (1.5-1.9) M=2 N=150	1.5 (1.3-1.6) M=1 N=135	1.9 (1.7-2.1) M=2 N=232	1.5 (1.4-1.7) M=1 N=95	1.1 (0.9-1.3) M=1 N=18
Mean age (in years) of the youngest child (Denominator is who have children)	4.0 (3.6-4.4) M=3 N=239	4.1 (4.8-1.4) M=3 N=150	4.1 (3.6-4.6) M=3 N=131	4.5 (4.1-5.0) M=4 N=231	4.7 (4.2-5.3) M=4 N=94	3.9 (2.8-5.1) M=3 N=18
Duration of stay in this city Whole life <=10 years >10 years Could not remember	N=680 9.0 (7.0-11.4) 82.5 (79.5-85.2) 8.5 (6.6-10.9) 0	N=340 40.8 (31.7-50.7) 40.6 (33.9-47.7) 17.2 (11.6-24.9) 1.3 (0.4-4.4)	N=367 54.5 (49.3-59.6) 33.0 (27.9-38.5) 12.5 (9.2-16.9) 0	N=341 68.3 (62.4-73.7) 25.5 (20.7-31.1) 5.9 (4.0-8.6) 0.3 (0.04-2.0)	N=300 29.0 (23.3-35.6) 59.0 (53.0-64.8) 9.9 (6.2-15.6) 2.0 (0.8-5.2)	N=89 6.7 (3.2-13.8) 93.3 (86.2-96.8) 0 0
Mean age at first sex in years (Denominator is / who could recall)	14.3 (14.2-14.4) M= 14	13.8 (13.4-14.2) M= 13 N=331	14.0 (13.8-14.2) M= 14	14.0 (13.8-14.2) M= 14	14.1 (13.8-14.4) M= 14 N=299	13.8 (13.5-14.1) M= 14

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Dynamics of sex work (Table 57)

Hotel based sex workers were newer in the profession compared to street based sex workers (Hotel Central-A vs Street Central-A: p=0.001, Hotel Central-A vs Street Southeast-A: p<0.001, Hotel Central-A vs Street Southwest-A: p<0.001. Hotel Southeast-A vs Street Central-A: the difference is not significant, Hotel Southeast-A vs Street Southeast-A: p<0.001, Hotel southeast-A vs Street Southwest-A: p<0.001). Mean duration in the profession was highest in brothel based sex workers (6.4 years) and lowest in hotel based sex workers. Selling sex from the same site was less common in hotel sex

workers where more than one fifth reported staying less than one year in any one hotel and the median duration of stay was two years.

Table 57: Dynamics of sex work

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N= 340)	Street Southeast-A (N=369)	Hotel Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion less than 1 year in profession	3.4 (2.3-5.0)	7.7 (3.7-15.2)	5.7 (3.7-8.8) N=340	5.3 (2.8-9.7)	21.3 (15.7-28.2)	18.0 (12.0-26.0)
Mean years in profession	6.4 (6.0-6.8) M= 5	4.6 (4.0-5.1) M= 4	5.0 (4.6-5.4) M= 4	3.5 (3.2-3.8) M= 3 N=340	2.5 (2.1-2.9) M= 2	2.1 (1.7-2.5) M= 2
Proportion stayed less than 1 year in the same site (brothel/street/hotel)	7.4 (5.6-9.6)	8.1 (4.0-15.7) N=338	7.6 (5.0-11.4)	10.6 (7.1-15.4)	22.9 (17.5-29.3)	21.6 (14.1-31.5) N=88
Mean duration of stay in this brothel/ street/hotel (in years)	5.2 (4.9-5.5) M= 5	3.9 (3.5-4.4) M= 3 N=338	4.3 (3.9-4.7) M= 3	2.9 (2.6-3.2) M= 2	2.2 (1.9-2.5) M= 2	1.7 (1.5-1.9) M= 2 N=88

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Clients and non-commercial partners of female sex workers (Tables 58)

The median number of days in the last week that sex workers from hotels and streets sold sex was three to four days while that for brothel based sex workers was six days.

Among streets and hotels, hotel based sex workers in Southeast-A had the highest mean number of clients (new or regular) in the last week than streets and hotels in other sites ($p<0.001$ for all comparisons). Almost all the hotel based sex workers from Southeast-A reported more than 20 clients in the last week and this was significantly higher than hotel based sex workers in Central-A as well as street based sex workers from all cities ($p<0.001$ for all comparisons). 30-47% of female sex workers had non-commercial sex partners in the last month and for those who had non-commercial partners, the median number was one in all sites.

Table 58: Clients and non-commercial partners of female sex workers

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Mean number of days of taking clients (any type) in last one week	5.9 (5.6-6.1) M=6	4.4 (4.0-4.8) M=4	4.4 (4.1-4.7) M=4	3.5 (3.2-3.8) M=3	4.1 (3.8-4.3) M=4	3.6 (3.4-3.7) M=4
Proportion of sex workers reported new clients last week	98.4 (97.1-99.1)	91.2 (86.4-94.4) N=340	83.2 (77.4-87.8)	86.8 (81.6-90.7)	94.7 (90.7-97.1)	100.0
Proportion of sex workers reported regular clients last week	99.0 (97.9-99.5)	79.4 (72.8-84.8) N=340	72.6 (67.0-77.6)	86.2 (81.5-89.9)	85.0 (78.2-90.0)	97.8 (91.6-99.4)
Proportion reported new/regular clients last week	100.0	98.6 (96.7-99.4)	96.2 (93.4-97.8)	98.2 (96.5-99.1)	99.2 (97.4-99.8)	100.0
Mean number of new clients last week	7.8 (7.5-8.1) M=7	7.0 (6.2-7.7) M=6 N=339	4.5 (3.8-5.1) M=4	3.3 (2.8-3.7) M=3	18.3 (16.0-20.6) M=16 N=296	30.9 (27.7-34.1) M=30
Mean number of new clients last week (Denominator is who had new clients last week)	7.9 (7.6-8.3) M=7 N=669	7.7 (7.0-8.3) M=7 N=308	5.4 (4.7-6.0) M=5 N=307	3.8 (3.3-4.2) M=3 N=296	19.3 (17.3-21.4) M=18 N=279	30.9 (27.7-34.1) M=30 N=89
Mean number of regular clients last week	8.3 (8.0-8.7) M=7	3.5 (2.8-4.2) M=3	3.3 (2.8-3.7) M=3	4.4 (3.6-5.2) M=3	13.4 (11.2-15.6) M=10 N=295	20.5 (17.5-23.5) M=20
Mean number of regular clients last week (Denominator is who had regular clients last week)	8.4 (8.1-8.7) M=7 N=673	4.4 (3.7-5.1) M=3 N=270	4.5 (4.0-5.0) M=4 N=268	5.1 (4.2-5.9) M=4 N=294	15.8 (13.5-18.2) M=13 N=247	21.0 (18.1-23.8) M=20 N=87
Mean number of clients (new or regular) last week	16.1 (15.6-16.7) M=15	10.5 (9.4-11.6) M=9 N=339	7.7 (6.9-8.6) M=7	7.6 (6.5-8.8) M=6	31.8 (28.3-35.2) M=30 N=295	51.4 (45.9-56.9) M=52
Proportion of sex workers reported >20 clients last week (new or regular)	24.1 (21.0-27.5)	3.5 (1.3-8.9)	2.2 (0.7-6.6)	5.0 (3.0-8.1)	70.4 (60.0-79.0) N=295	96.6 (89.8-99.0)

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of sex workers reported having non-commercial partners last month	45.9 (42.2-49.7)	31.6 (24.8-39.4)	29.8 (24.8-35.3)	40.8 (33.9-48.0)	35.9 (29.1-43.3)	47.2 (38.7-55.9)
Proportion reported anal/vaginal sex with non-commercial partner last month	45.9 (42.2-49.7)	31.6 (24.8-39.4)	29.8 (24.8-35.3)	40.8 (33.9-48.0)	35.9 (29.1-43.3)	47.2 (38.7-55.9)
Mean number of non-commercial partners in last month	0.5 (0.4-0.5) M=0	0.4 (0.3-0.5) M=0	0.4 (0.3-0.5) M=0	0.1 (0.4-0.6) M=0	0.4 (0.3-0.6) M=0	0.1 (0.4-0.6) M=0
Mean number of non-commercial partners in last month (Denominator who reported non-commercial sex last month)	1.0 (1.0-1.0) M=1 N=312	1.3 (1.2-1.5) M=1 N=115	1.3 (1.2-1.4) M=1 N=110	1.2 (1.1-1.2) M=1 N=139	1.2 (1.0-1.4) M=1 N=113	1.1 (1.0-1.1) M=1 N=42

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Nature of sex (Table 59)

Anal sex with both new and regular clients was reported by all groups of sex workers. In the last week, more sex workers from the streets of Southeast-A reported anal sex with new or regular clients compared to sex workers from the streets and hotels in other sites ($p<0.001$ for all). More than one-third of sex workers from the streets of Central-A and Southeast-A reported non-penetrative sex.

Table 59: Nature of sex

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion reported anal sex with new clients last week	10.2 (8.1-12.7)	3.2 (1.7-5.8)	15.7 (11.8-20.6)	5.9 (3.9-8.8)	7.6 (4.9-11.5)	3.4 (1.1-9.5)
Proportion reported oral sex with new clients last week	5.0 (3.6-6.9)	8.1 (4.9-13.1)	10.3 (7.3-14.4)	13.2 (10.1-17.1)	13.6 (9.7-18.7)	3.4 (1.0-10.7)
Proportion reported anal sex with regular clients last week	10.6 (8.5-13.1)	0.2 (0.02-1.2)	16.5 (11.8-22.6)	10.6 (7.4-14.9)	4.5 (2.6-7.7)	7.9 (3.4-17.3)
Proportion reported oral sex with regular clients last week	7.9 (6.1-10.2)	6.9 (4.0-11.5)	12.5 (9.3-16.5)	18.8 (14.1-24.6)	12.4 (8.8-17.2)	5.6 (2.2-13.8)
Proportion reported anal sex with new or regular clients last week	17.7 (15.0-20.7)	3.3 (1.8-6.1)	26.6 (20.9-33.1)	13.8 (10.2-18.4)	8.4 (5.7-12.3)	10.1 (5.4-18.1)
Proportion reported oral sex with new or regular clients last week	11.5 (9.3-14.1)	12.1 (8.1-17.7)	19.0 (14.8-23.9)	22.9 (18.0-28.7)	16.5 (12.3-21.7)	7.9 (3.8-15.5)
Proportion reported non-penetrative sex in the last week*	5.7 (4.2-7.8) N=679	38.8 (29.9-48.6)	34.4 (28.3-41.1)	8.5 (6.0-11.8)	27.8 (21.8-34.8)	16.9 (8.5-30.8)

*Non-penetrative sex was defined as bringing a client to orgasm without penetration into vagina/anus/mouth
Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Group sex (Table 60)

Group sex in the last month was reported by more street based sex workers from Southeast-A than sex workers from the streets and hotels in other sites ($p<0.001$ for all comparisons). The median number of clients during group sex varied between two and four.

Table 60 : Group sex

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion reported group sex last month	44.1 (40.4-47.9)	43.2 (35.8-50.8)	63.4 (55.6-70.6)	44.9 (39.0-50.9)	39.6 (32.6-47.1)	9.0 (3.7-20.2)
Mean number of clients in group sex in last month	1.3 (1.1-1.4) M=0	1.3 (1.1-1.6) M=0	1.9 (1.6-2.2) M=2	1.1 (1.1-1.4) M=0	1.1 (0.9-1.3) M=0	0.4 (0.04-0.7) M=0
Mean number of clients in group sex in last month (Denominator who reported group sex last month)	2.9 (2.8-3.0) M=3 N=300	3.1 (2.8-3.4) M=3 N=142	3.0 (2.8-3.1) M=3 N=234	2.8 (2.6-3.0) M=2 N=153	2.8 (2.6-3.0) M=3 N=120	4.3 (3.5-5.0) M=4 N=8

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge and ever use of and access to condoms (Table 61)

Almost all sex workers recognised male condoms. Fewer sex workers in the streets of Southeast-A reported ever use of male condoms compared to all other sites ($p<0.001$ for all comparisons). In the other sites, most sex workers had used condoms some time in their lives. A higher proportion of street based sex workers in Central-A were able to show male condoms to the interviewers compared to those in the streets of Southeast-A, Southwest-A and hotels of Central-A ($p<0.001$ for all comparisons).

NGO workers were the most common sources of condoms for sex workers in brothels and streets while for sex workers in hotels the most common source of condoms was from the hotel staff. Interestingly, 31-50% of sex workers from the streets and hotels reported that clients provided condoms (except in streets of Central-A). Among the sex workers who used condoms in the last month, the majority reported easy access to condoms and this was more commonly reported by sex workers in the streets of Southwest-A compared to those in hotels of either city (Street Southwest-A vs Hotel Central-A: $p<0.001$, Street Southwest-A vs Hotel Southeast-A: $p=0.003$). The numbers of sex workers saying that condom access was not easy was highest in the hotels of Central-A ($p<0.001$ for all comparisons except with Hotel Southeast-A) and the most common reasons stated were feelings of shame in buying condoms, not willing to carry condoms and high cost of condoms.

Table 61: Knowledge, ever use of and access to condoms

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion recognized male condom	100.0	100.0	98.6 (96.6-99.5)	99.7 (97.9-100.0)	100.0	100.0
Proportion of sex workers who have ever used a male condom	99.6 (98.6-99.9)	96.6 (90.9-98.8)	70.2 (63.6-76.1)	93.0 (85.7-96.7)	98.3 (95.1-99.4)	97.8 (91.3-99.5)
Proportion of sex workers showed a male condom to the interviewers	52.7 (49.0-56.5) N=679	55.0 (47.2-62.3) N=339	19.0 (13.9- 25.3)	20.3 (15.7-25.8) N=340	14.6 (10.8-19.3) N=294	32.6 (20.2-48.0)
Sources of condom in last month (Denominator is who used condom in the last month)*	N=677	N=321	N=227	N=298	N=279	N=86
Shop	55.0 (51.2-58.7)	9.7 (6.4-14.4)	7.0 (4.4-11.2)	26.5 (18.9-35.9)	1.4 (0.6-3.3)	47.7 (35.8-59.9)
Pharmacy	0	18.6 (12.4-27.0)	18.9 (127-27.2)	32.6 (26.0-39.8)	9.2 (5.8-14.4)	19.8 (9.1-37.9)
Health centre	5.5 (4.0-7.5)	4.4 (2.2-8.6)	0.9 (0.2-3.6)	0	2.9 (1.2-6.6)	0
Bar/guest house/hotel	0	0.7 (0.2-2.4)	1.3 (0.4-4.3)	0.3 (0.04-2.6)	92.6 (87.9-95.6)	52.3 (37.1-67.1)
Friends	1.8 (1.0-3.1)	14.5 (9.7-21.3)	6.6 (3.7-11.6)	2.3 (1.0-5.6)	3.0 (1.4-6.3)	0
Clients	1.6 (0.9-2.9)	17.6 (12.9-23.7)	49.8 (40.3-59.2)	30.9 (24.4-38.2)	33.0 (24.7-42.6)	44.2 (29.2-60.4)
Brokers	0	0.2 (0.03-1.5)	4.0 (1.8-8.6)	1.3 (0.6-3.2)	4.7 (2.8-7.9)	10.5 (5.5-19.1)
NGO workers	64.1 (60.4-67.6)	91.4 (85.7-95.0)	62.1 (50.3-72.6)	69.5 (59.3-78.0)	17.2 (11.8-24.3)	2.3 (0.6-9.2)
No condom bought last month	0	2.1 (0.6-7.8)	3.5 (1.6-7.6)	0	2.0 (0.9-4.6)	0
Others[§]	0.7 (0.3-1.8)	0.4 (0.1-1.5)	1.8 (0.7-4.2)	0.3 (0.04-2.5)	0.8 (0.2-3.3)	2.3 (0.5-9.5)
Proportion of sex workers with easy access to condoms	98.8 (97.7-99.4)	87.4 (81.6-91.6)	54.1 (46.5-61.5) N=368	83.0 (75.8-88.4)	59.7 (51.2-67.6)	67.4 (49.0-81.7)
Proportion of sex workers with easy access to condoms (Denominator is who used condoms in last month)	N=677	N=321	N= 226	N=298	N=279	N=86
Yes	99.3 (98.2-99.7)	93.9 (89.5-966)	88.1 (81.8-92.4)	95.0 (91.2-97.2)	63.7 (55.5-71.1)	69.8 (50.6-83.9)
No	0.7 (0.1-4.1)	6.1 (3.4-10.5)	12.0 (7.6-18.2)	5.0 (2.8-8.8)	36.4 (28.9-44.5)	30.2 (16.1-49.4)

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Reasons for not having easy access to condoms (Denominator is who reported not having easy access to condoms)*	N=5	N=17	N=27	N=15	N=103	N=26
Cost high	20.0 (0.8-88.9)	8.0 (0.8-47.9)	14.4 (5.0-36.6)	6.7 (0.6-47.5)	27.0 (17.6-39.0)	3.8 (0.4-27.9)
Shop/pharmacy is far away	0	3.5 (0.3-28.0)	0	0	13.6 (7.9-22.3)	23.1 (5.9-58.9)
Shop/pharmacy is closed	80.0 (11.1-99.2)	7.3 (0.7-45.6)	3.7 (0.4-26.4)	40.0 (16.1-69.7)	15.2 (9.3-23.8)	0
Feel ashamed to buy	0	27.8 (11.1-54.2)	22.2 (9.5-43.6)	33.3 (18.0-53.3)	50.6 (39.2-61.9)	65.4 (45.8-80.9)
Do not know where to buy	0	0	3.7 (0.4-24.8)	0	2.3 (0.7-7.8)	3.8 (0.6-22.1)
Not willing to carry	0	28.9 (8.6-63.8)	63.0 (38.0-82.5)	20.0 (5.6-51.2)	30.5 (19.0-45.1)	42.3 (17.9-71.2)
Others[§§]	20.0 (0.8-88.9)	45.6 (16.8-77.7)	51.9 (34.3-68.9)	46.7 (23.8-71.1)	20.9 (11.7-34.6)	34.6 (19.3-54.0)

*Multiple responses

[§]Other sources of condoms include: landlady, sardarni, STI clinic, husband

[§§]Other reasons stated include: inadequate supply, NGO workers not always available, not available with clients, forget to use, fear of men in uniform, clients dislike use

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use during last vaginal and anal sex with different types of sex partners (Table 62)

A variable proportion of female sex workers from the different sites requested their clients (new or regular) to use condoms in the last week. Brothel based sex workers commonly reported requesting their clients to use condoms.

Condom use during the last sex act (vaginal) with new or regular clients was significantly lower in the street based sex workers in Southeast-A than in street based sex workers of Central-A ($p<0.001$ for both new and regular clients) and hotel based sex workers from both cities (For new clients: Street Southeast-A vs Hotel Central-A: $p<0.001$ and Street Southeast-A vs Hotel Southeast-A: $p=0.002$. For regular clients: Street Southeast-A vs Hotel Central-A: $p<0.001$, Street Southeast-A vs Hotel Southeast-A: $p<0.001$). Condom use in the last anal sex both with new and regular clients was considerably low except in the case of female sex workers from hotels of Southeast-A (new client) and streets of Central-A (regular client) where the numbers having anal sex were very few.

Table 62: Condom use during last vaginal and anal sex with clients and non-commercial partners

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340	Street Southeast-A (N=369)	Street Southwest-A (N=241)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion requested new clients to use condom last week (Denominator is who had new clients last week)	N=669	N=309	N=307	N=296	N=283	N=89
Approached all	84.5 (75.7-90.5)	56.7 (46.1-66.8)	23.1 (17.1-30.4)	55.7 (46.4-64.7)	39.8 (32.1-48.0)	25.8 (18.9-34.3)
Approached some	14.8 (9.2-22.9)	31.3 (24.4-39.2)	37.8 (30.2-46.1)	17.6 (13.0-23.3)	52.0 (44.9-59.0)	62.9 (51.8-72.8)
Approached none	0.7 (0.3-2.0)	12.0 (6.6-20.6)	39.1 (32.3-46.3)	26.7 (19.6-35.3)	8.3 (5.5-12.1)	11.2 (6.1-9.7)
Condom use in last vaginal sex with new clients (Denominator is sex workers who reported new clients last week and had vaginal sex)	39.7 (36.1-43.5) N=667	37.7 (30.6-45.4) N=307	13.5 (10.1-17.8) N=303	20.6 (15.9-26.3) N=296	29.7 (24.8-35.1) N=283	37.5 (23.5-54.1) N=88
Condom use in last anal sex with new clients (Denominator is sex workers who reported new clients and had anal sex last week)	40.6 (29.4-52.8) N=69	15.1 (3.6-46.3) N=12	1.7 (0.2-13.3) N=58	10.0 (2.1-36.3) N=20	16.0 (5.5-38.4) N=23	100.0 N=3
Proportion requested regular clients to use condom last week (Denominator is who had regular clients last week)	N=673	N=270	N=264	N=294	N=252	N=87
Approached all	57.2 (51.0-63.2)	50.1 (38.6-61.7)	15.9 (11.4-21.8)	36.7 (28.7-45.6)	38.5 (30.5-47.1)	16.1 (10.1-24.8)
Approached some	36.1 (29.4-43.4)	23.6 (15.5-34.3)	14.8 (10.7-20.0)	17.7 (12.9-23.8)	43.7 (37.2-50.5)	60.9 (50.5-70.4)
Approached none	6.7 (4.2-10.4)	26.3 (18.1-36.4)	69.3 (61.9-75.8)	45.6 (36.8-54.7)	17.8 (12.3-25.1)	23.0 (14.0-35.3)
Condom use in last vaginal sex with regular clients (Denominator is sex workers who reported regular clients last week and had vaginal sex)	24.1 (21.0-27.5) N=673	34.3 (27.4-41.9) N=270	8.1 (5.5-11.7) N=259	15.1 (10.4-21.4) N=292	19.4 (14.5-25.4) N=250	27.1 (20.2-35.2) N=85

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340	Street Southeast-A (N=369)	Street Southwest-A (N=241)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Condom use in last anal sex with regular clients (Denominator is sex workers who reported regular clients and had anal sex last week)	30.6 (20.8-42.4) N=72	100.0 N=1	1.6 (0.2-12.7) N=61	5.6 (1.2-21.5) N=36	10.1 (1.0-55.8) N=12	28.6 (1.2-93.0) N=7
Condom use in last vaginal or anal sex with non-commercial partner (Denominator is sex workers who reported non-commercial partners last month)	3.5 (2.0-6.3) N=312	13.0 (7.5-21.6) N=115	3.6 (1.3-9.8) N=110	5.8 (2.8-11.3) N=139	17.3 (11.0-26.3) N=113	26.2 (12.8-46.2) N=42
At least one client used condom in group sex last month (Denominator is sex workers who reported group sex last month)	50.3 (44.7-56.0) N=300	35.7 (23.8-49.7) N=142	18.4 (13.3-24.9) N=234	58.2 (48.3-67.5) N=153	44.4 (33.7-55.7) N=120	87.5 (24.5-99.3) N=8

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Consistent condom use in vaginal or anal sex with clients and non-commercial partners (Table 63)

None of the sex workers from hotels of Southeast-A reported consistent condom use with new or regular clients in the last week. Only a few sex workers from brothels, streets and hotels reported consistent condom use in the last month with non-commercial partners. Overall, consistent condom use in all groups was very low.

Table 63: Consistent condom use in vaginal or anal sex with clients and non-commercial partners

Indicators % (95 % CI)	Brothel National (N= 680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Consistent condom use in vaginal or anal sex with new clients last week (Denominator is sex workers who reported new clients last week)	5.2 (3.8-7.2) N=669	12.0 (7.9-17.7) N=309	3.9 (1.9-8.1) N= 306	3.4 (1.6-7.0) N=296	3.9 (2.0 -7.8) N=283	0 N=89
Consistent condom use in vaginal or anal sex with regular clients last week (Denominator is sex workers who reported regular clients last week)	2.8 (1.8-4.4) N=673	15.3 (11.0-21.0) N=270	3.7 (1.8-7.7) N=267	5.8 (3.5-9.5) N=294	3.0 (1.3-6.6) N=252	0 N=87
Consistent condom use in oral sex with new clients last week (Denominator is sex workers who reported new clients last week)	8.8 (2.7-25.2) N=34	2.0 (0.2-16.5) N=26	0 N=38	0 N=45	7.7 (2.5-20.9) N=42	0 N=3
Consistent condom use in oral sex with regular clients last week (Denominator is sex workers who reported regular clients last week)	11.1 (4.9-23.1) N=54	3.5 (0.4-26.7) N=21	4.3 (1.2-15.1) N=46	4.7 (1.4-14.3) N=64	18.7 (7.9-38.1) N=36	0 N=5
Consistent condom use in vaginal or anal sex with non-commercial partner last month (Denominator is sex workers who reported non-commercial partner last month)	1.6 (0.7-3.8) N=312	4.6 (2.1-9.4) N=114	2.7 (0.8-8.7) N=110	2.9 (0.1-9.1) N=138	8.0 (4.5-14.1) N=113	2.4 (0.3-16.6) N=42

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Breakage of condoms (Table 64)

A higher proportion of hotel based sex workers from Central-A reported breakage of condoms during sex than sex workers in streets and hotels in other sites ($p<0.001$ for all comparisons). In brothels, close to one-third of the sex workers complained that condoms broke during sex.

Table 64: Breakage of condoms

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of sex workers who had a condom break last month	29.4 (26.1-33.0)	19.0 (13.7-25.7)	18.8 (13.4-25.7)	12.6 (8.5-18.3)	58.2 (51.6-64.5)	37.1 (29.8-45.0)
Proportion of sex workers who hada condom break last month (Denominator is who have used condom last month)	29.5 (26.2-33.1) N=677	20.4 (14.6-27.7) N=321	30.4 (22.7-39.4) N=227	14.4 (9.8-20.7) N=298	62.0 (55.3-68.3) N=279	38.4 (30.5-46.9) N=86

Female condoms (Table 65)

Few sex workers from hotels recognised female condoms and the highest proportion of sex workers who did recognise were from the streets of Central-A ($p<0.001$ for all comparisons). Of those who recognised female condoms, 24-43% had used them and of these 42-71% liked them. It is to be noted that of the female sex worker groups sampled those from hotels of Southeast-A had never used female condoms.

Table 65: Female condoms

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion recognized female condom	47.5 (43.8-51.3)	65.7 (59.0-71.8)	35.0 (28.6-41.9)	41.6 (32.6-51.3)	25.2 (18.8-33.0)	13.5 (8.8-20.1)
Proportion of sex workers who have ever used a female condom	11.2 (9.0-13.8)	19.8 (14.6-26.4) N=339	13.3 (9.8-17.8)	17.9 (12.6-24.7)	6.6 (4.0-10.6)	0
Proportion of sex workers who have ever used a female condom (Denominator who recognized female condom)	23.5 (19.2-28.5) N=323	30.2 (22.3-39.5) N=214	38.0 (30.5-46.1) N=129	43.0 (33.8-52.7) N=142	26.0 (16.9-37.6) N=70	0 N=12
Proportion liked female condom (Denominator who have ever used female condom)	55.3 (43.8-66.2) N=76	41.5 (29.7-54.3) N=68	71.4 (56.7-82.6) N=49	55.7 (41.9-68.7) N=61	64.0 (34.8-85.5) N=17	-- N=0

Money earned from new/regular clients (Table 66)

The mean earning from the last new client in the last week was highest among sex workers in the streets of Southeast-A compared to those working in the streets and hotels in other sites (p<0.001 for all comparisons except in street Southeast-A vs hotel Central-A which is not significant). The proportion of sex workers who gave their earned money to others in the last week was variable and was very commonly reported by sex workers from the hotels of Central-A. Most of the sex workers reported giving their money to their family members and brokers. More than one-third of the sex workers from the streets of Central-A and Southeast-A reported giving money to men in uniform in the last week.

Table 66: Money earned from new/regular clients

Indicators % (95 % CI)	Brothel National (N= 680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Mean amount of money earned from last new client in the last week (Taka) (Denominator is who reported new clients last week)	86.2 (80.9-91.6) M=50 N=669	98.9 (78.5-119.3) M=50 N=309	172.7 (151.2-194.3) M=115 N=306	59.4 (43.5-75.4) M=40 N=296	154.7 (136.5-173.0) M=120 N=283	106.9 (81.0-132.9) M=70 N=85
Proportion of sex workers who gave their earned money from new/regular clients in the last week to others	13.1 (10.1-16.9)	38.1 (31.8-44.7)	48.5 (42.0-55.0)	17.9 (13.2-23.9)	61.1 (54.9-66.9)	32.6 (21.3-46.3)
Mean amount of money given to others last week (in taka) (Denominator is who gave their earned money to others last week)	866.1 (646.8-1085.3) M=700 N=89	364.5 (237.9-491.0) M=120 N=128	593.6 (496.4-690.9) M=400 N=159	188.2 (146.6-229.8) M=100 N=59	1888.7 (1513.6-2263.7) M=1000 N=183	3810.1 (2607.9-5012.3) M=2000 N=29
Person to whom the money was given to*	N=89	N=128	N=179	N=61	N=186	N=29
Brokers	2.2 (0.7-7.3)	23.1 (15.0-33.7)	57.0 (46.9-66.5)	44.3 (32.3-56.9)	23.4 (16.5-31.9)	27.6 (15.6-44.0)
Mastans	1.1 (0.2-7.1)	19.7 (9.0-37.8)	6.7 (3.4-13.0)	21.3 (11.9-35.3)	2.2 (1.0-5.0)	3.4 (0.3-27.0)
Men in uniform	18.0 (8.6-33.9)	34.4 (25.4-44.6)	33.5 (20.9-49.0)	4.9 (1.0-21.1)	3.3 (1.3-8.1)	3.4 (0.5-20.9)
Family members	71.9 (48.8-87.3)	38.9 (27.9-51.1)	39.1 (28.4-50.9)	44.3 (30.2-59.3)	81.2 (72.5-87.6)	75.9 (59.4-87.1)
Others[§]	9.0 (3.0-24.1)	2.1 (0.6-6.7)	2.2 (0.6-7.4)	1.6 (0.2-11.8)	3.7 (1.5-8.6)	0

*Multiple responses
[§]Others to whom money was given include: Sardarni, friends, guards/gardeners, men in uniform, informer of men in uniform, lover, clients

Occupational profile of clients (Table 67)

The three most common groups of people representing clients in the three sites for sex workers (brothels, hotels and streets) varied. For brothels, these were businessmen, rickshaw pullers/van drivers, and a mixed group of individuals including drivers, fishermen, etc. For streets from all three cities, businessmen, rickshaw pullers/van drivers, and daily labourers were the three most common client groups. Civil servants, businessmen and students were the common client groups for hotel based sex workers. It is interesting that businessmen were reported by sex workers from all sites to be among their most common client group.

Table: 67: Occupational profile of clients

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Don't know clients' profile	2.2 (1.3-3.6)	1.4 (0.5-4.0)	1.9 (1.0-3.7)	1.5 (0.6-3.5)	11.4 (7.7-16.5)	9.0 (3.4-21.8)
Categories of clients (Denominator is who knew clients' profile)*	N=665	N=335	N=362	N=336	N=265	N=81
Student	30.7 (27.3-34.3)	36.4 (28.3-45.4)	26.0 (20.0-33.0)	13.7 (9.8-18.8)	46.8 (38.9-54.9)	48.2 (35.1-61.5)
Rickshaw pullers / van drivers	34.1 (30.6-37.8)	50.6 (41.0-60.1)	42.3 (35.0-49.9)	64.6 (57.6-71.0)	2.0 (0.9-4.7)	0
Men in uniform	17.7 (15.0-20.8)	21.8 (14.7-31.1)	23.2 (17.9-29.6)	22.9 (16.5-30.9)	35.6 (28.3-43.7)	22.2 (13.2-34.9)
Civil servant	30.4 (27.0-34.0)	32.5 (23.9-42.3)	35.4 (28.2-43.3)	17.0 (12.1-23.2)	78.2 (69.6-85.0)	40.7 (24.7-59.1)
Business man	82.3 (79.2-85.0)	74.7 (65.0-82.5)	74.6 (68.0-80.2)	55.7 (46.4-64.6)	98.8 (96.1-99.6)	95.1 (87.2-98.2)
Daily labour	24.8 (21.7-28.3)	55.1 (47.0-62.9)	36.5 (29.7-43.8)	65.8 (56.9-73.6)	1.0 (0.3-3.3)	0
Unemployed	30.8 (27.4-34.5)	8.8 (4.7-15.8)	35.9 (29.2-43.2)	12.5 (9.0-17.0)	10.1 (6.7-15.1)	0
Others*	47.8 (44.0-51.6)	17.6 (11.2-26.6)	20.4 (15.6-26.4)	31.3 (23.5-40.3)	6.1 (3.1-11.5)	51.9 (34.1-69.1)

*Multiple responses
§ Other clients include: car drivers, boatmen/fishermen, brokers, hawkers, foreigners/tourists, garment workers, mastans, cinema viewers, non-government jobholders, hotel boy

Other sex partner of non-commercial partners of the female sex workers (Table 68)

Around 28-51% of sex workers knew that their non-commercial partners had other non-commercial partners including wives.

Table 68: Other sex partner of non-commercial partners of the female sex workers

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of sex workers knew that non-commercial partners have other wives or other sex partners (Denominator is who had non commercial partners last month)	51.0 (45.4-56.5) N= 312	33.2 (21.8-47.0) N=115	39.1 (28.7-50.6) N=110	48.9 (40.2-57.7) N=139	27.7 (18.7-39.1) N=113	31.0 (16.7-50.0) N=42

Reported injection of drugs by clients and non-commercial partners of sex workers (Table 69)

Sex workers were asked if they knew whether their clients injected drugs and 37-46% of hotel based sex workers said their clients' injected drugs. The proportion who knew this was highest among hotel based sex workers in Southeast-A (Hotel Southeast-A vs Street Central-A: p=0.001, Hotel Southeast-A vs Street Southeast-A: p<0.001, Hotel Southeast-A vs Street Southwest-A: p<0.001). Less than 10% reported knowing that their non-commercial partners injected drugs.

Table 69: Reported injection of drugs by clients and non-commercial partners of sex workers

Indicators % (95 % CI)	Brothel National (N= 680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of SW knew that clients (new or regular) inject drugs	0.4 (0.1-1.6)	23.9 (17.3-32.0)	14.9 (10.2-21.2)	2.3 (1.0-5.4)	37.4 (30.6-44.7)	46.1 (34.7-57.8)
Proportion of SW knew that non commercial clients inject drugs (Denominator is who had non commercial partners last month)	1.3 (0.5-3.4) N=311	6.5 (2.3-17.0) N=114	7.3 (3.6-14.0) N=110	0 N=139	9.3 (3.7-21.6) N=113	0 N=42

Knowledge on modes of HIV transmission (Table 70)

Almost all sex workers had heard about HIV/AIDS. Most sex workers, irrespective of site, knew that using condoms during sex, avoiding multiple sex partners and not sharing needles/syringes could prevent HIV transmission. More sex workers in the streets of Central-A reported that avoiding anal sex could prevent HIV transmission than those who were in the streets and hotels in other sites (p<0.001 for all comparisons except street Southwest-A where differences were not significant). The belief that mosquito bites can transmit HIV infection was not uncommon and was found to be highest among sex workers in the hotels of Southeast-A (Hotel Southeast-A vs Street Southeast-A: p=0.001, Hotel Southeast-A vs Street Southwest-A: p=0.003, Hotel Southeast-A vs Hotel Central-A: p<0.001 except in Hotel Southeast-A vs Street Central-A which is not significant). More than half of the hotel based sex workers in Southeast-A believed that HIV could be transmitted by sharing food.

Table 70: Knowledge on modes of HIV transmission

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N= 341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion reported to have heard about HIV/AIDS	100.0	99.7 (98.7-99.9)	98.4 (94.8-99.5)	94.4 (89.7-97.1)	99.4 (97.3-99.9)	97.8 (91.6-99.4)
Proportion of sex workers knew that condom use is a mode of prevention	98.5 (97.3-99.2)	90.5 (85.1-94.1)	78.3 (70.7-84.4)	86.2 (80.0-90.7)	83.9 (78.3-88.4)	84.3 (73.1-91.4)
Proportion of sex workers knew that avoidance of sharing needle/ syringe is a mode of prevention	95.2 (93.3-96.5)	79.2 (72.6-84.5)	55.2 (47.6-62.5) N=366	67.7 (60.4-74.3)	85.4 (79.5-89.8)	92.1 (84.7-96.1)
Proportion of sex workers knew that avoiding anal sex is a mode of prevention	46.0 (42.3-49.8)	69.9 (63.1-76.0)	43.0 (35.6-50.7) N=363	55.0 (46.5-63.3) N=340	46.3 (37.4-55.4)	28.1 (20.0-37.9)
Proportion of sex workers believed that HIV can be transmitted by mosquito bites	18.2 (15.5-21.3)	39.9 (34.9-45.0)	35.1 (29.2-41.4) N=368	36.4 (29.9-43.4)	22.0 (16.2-29.3)	57.3 (44.2-69.4)
Proportion of sex workers believed that HIV can be transmitted by sharing food	17.4 (14.7-20.4)	27.1 (20.2-35.4)	33.4 (27.8-39.6) N=368	37.0 (31.6-42.6)	27.7 (20.8-35.8)	51.7 (36.6-66.5)
Proportion of sex workers knew that avoiding multiple sex is a mode of prevention	62.6 (58.9-66.2)	78.6 (67.0-86.9)	82.7 (77.1-87.1)	74.0 (68.0-79.2) N=338	64.2 (55.9-71.6)	57.3 (44.9-68.9)
Proportion of sex workers believed that one can tell by looking at someone whether they are infected with HIV	9.6 (7.6-12.0)	24.5 (19.0-31.1)	19.9 (15.1-25.8) N=367	23.2 (18.3-28.9)	9.3 (6.2-13.7) N=299	19.1 (11.9-29.1)

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Confidential HIV testing (Table 71)

Other than sex workers from the streets of Central-A, where a quarter knew where to go for a confidential HIV, very few sex workers from other sites knew where facilities for confidential HIV testing are available. Consequently, the numbers who have been tested are very small.

Table 71: Confidential HIV testing

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N= 341)	Hotel Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of sex workers who knew where HIV can be tested confidentially	0.7 (0.3-1.8)	25.4 (17.4-35.7)	9.8 (6.4-14.7)	0.6 (0.2-2.2)	4.0 (2.2-7.1)	4.5 (1.8-10.6)
Proportion ever tested for HIV (Denominator is who knew where to test HIV)	0 N=4	37.4 (19.5-59.6) N=82	27.8 (12.1-51.8) N=36	0 N=2	72.6 (33.9-93.2) N=13	0 N=4
Did you yourself request the test or somebody asked you to have the test? (Denominator is who ever tested for HIV)	N=0	N=25	N=9	N=0	N=9	N=0
Self	--	48.1 (18.7-78.9)	11.1 (0.3-82.0)	--	16.4 (2.5-60.4)	--
By some one else	--	51.9 (21.1-81.4)	88.9 (18.0-99.7)	--	83.6 (39.6-97.6)	--
Needed the test*	--	0	0	--	0	--
Proportion reported to have the result of HIV test (Denominator is who ever tested for HIV)	-- N=0	100.0 N=25	11.1 (0.5-75.4) N=9	-- N=0	75.3 (33.1-95.0) N=9	-- N=0
When did you have the most recent HIV test? (Denominator is who ever tested for HIV)	N=0	N=25	N=9	N=0	N=9	N=0
Within one year	--	91.7 (71.9-100.0)	88.9 (24.6-99.5)	-- --	41.4 (9.4-82.8)	--
More than one year	--	8.3 (2.0-28.1)	11.1 (0.5-75.4)	--	58.6 (17.2-90.6)	--
Do not remember	--	0	0	--	0	--

*These are the people who became knowledgeable from HIV/AIDS prevention programs and went for testing
Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self-reported STIs and health care seeking behaviour (Table 72)

Genital ulcer/sores were recognised by most sex workers as signs of STI. From brothels, just over half of the sex workers reported at least one STI symptom in the last year but from all other sites 76-89% reported having at least on STI symptom in the last year.

Of the sex workers who reported STI symptoms in the last year, the proportions seeking formal medical treatment were lower in streets and hotels of Southeast-A compared to sex workers in the streets and hotels of other cities (Street Southeast-A vs Street Central-A: p<0.001, Street Southeast-A vs Street Southwest-A: p<0.001, Hotel Southeast-A vs Hotel Central-A: p<0.001).

The mean waiting days for seeking formal medical treatment was higher among street based sex workers in Southwest-A compared to street and hotel based sex workers in other sites (p<0.001 for all comparisons). The average expenditure for the last STI treatment was highest in the sex workers of hotels in Central-A than those in other sites (p<0.001 for all comparisons).

Table 72: Self-reported STIs and health care seeking behaviour

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N= 89)
Proportion of sex workers who knew the symptoms of STIs*						
Vaginal discharge	77.5 (74.2-80.5)	36.6 (28.2-45.8)	38.2 (31.4-45.5)	28.5 (22.8-34.9)	47.4 (40.2-54.7)	34.8 (14.6-46.7)
Smelly discharge	29.0 (25.7-32.5)	40.8 (33.6-48.5)	51.2 (25.3-57.1)	23.8 (19.2-29.0)	40.5 (33.8-47.5)	23.6 (16.7-32.2)
Genital ulcers/sores	81.2 (78.1-84.0)	82.7 (74.3-88.7)	81.3 (76.4-85.4)	61.3 (54.5-67.7)	54.4 (48.5-60.2)	60.7 (47.9-72.2)
Lower abdominal pain	27.2 (24.0-30.7)	32.3 (24.8-40.8)	35.5 (29.6-41.9)	36.1 (29.7-43.0)	50.8 (42.8-58.8)	49.4 (41.4-57.5)
Did not know	4.4 (3.1-6.2)	11.0 (6.1-19.2)	3.0 (1.6-5.4)	8.2 (5.7-11.7)	26.8 (20.5-34.3)	6.7 (3.0-14.5)
Others[§]	25.7 (22.6-29.2)	5.2 (2.7-9.7)	14.6 (10.3-20.4)	28.7 (22.6-35.8)	7.4 (4.2-12.6)	47.2 (34.5-60.3)
Proportion of sex workers who reported urethral discharge in last one year	36.9 (33.4-40.6)	43.1 (34.1-52.6)	64.8 (58.9-70.3)	29.6 (23.4-36.7)	59.4 (51.0-67.2)	64.0 (51.3-75.1)
Proportion of sex workers who reported anal discharge in last one year	12.8 (10.5-15.5)	35.8 (26.8-45.8) N=339	43.9 (37.8-50.2)	37.8 (31.7-44.4)	61.4 (53.6-68.7)	37.1 (26.3-49.3)
Proportion of sex workers who reported genital ulcer/ sore in last one year	13.5 (11.2-16.3)	47.7 (39.5-55.9)	49.1 (42.7-55.4)	51.6 (43.2-59.9)	50.3 (44.2-56.3)	24.7 (17.4-33.8)
Proportion of sex workers who reported at least one STI symptom last year	54.3 (50.5-58.0)	76.2 (70.2-81.2)	84.3 (79.6-88.0)	89.4 (84.0-93.2)	85.8 (80.7-89.7)	86.5 (78.4-91.9)
Proportion of sex workers who sought formal medica treatment as the first choice in last STI symptom in last year (Denominator is sex workers who had symptoms in the last year)	77.5 (72.9-81.4) N=368	77.5 (69.4-83.9) N=255	45.8 (39.0-52.7) N=310	74.1 (65.9-80.9) N=305	70.7 (64.2-76.4) N=258	29.9 (18.5-44.5) N=77
First choice of last STI treatment (Denomination is who reported STI in last year)	N=368	N=255	N=310	N=305	N=258	N=77

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hotel Southeast-A (N= 89)
Hospital	1.9 (0.9-3.9)	5.2 (2.8-9.7)	2.3 (1.1-4.7)	3.9 (2.4-6.5)	9.6 (5.9-15.4)	5.2 (1.2-20.3)
Drug seller	8.4 (6.0-11.8)	13.4 (9.0-19.6)	17.1 (13.0-22.1)	8.5 (5.2-13.7)	12.9 (8.8-18.4)	24.7 (16.8-34.7)
Private doctor	24.5 (20.3-29.1)	10.0 (6.5-14.9)	24.8 (19.3-31.4)	14.1 (11.3-17.4)	27.8 (21.2-35.6)	20.8 (10.3-37.4)
Private clinic	1.4 (0.6-3.2)	4.1 (2.1-7.7)	1.0 (0.3-3.0)	5.6 (3.4-9.0)	19.6 (14.4-26.2)	2.6 (0.6-10.0)
NGO clinic	49.7 (44.6-54.9)	58.2 (49.9-66.1)	17.7 (12.4-24.7)	50.5 (40.3-60.6)	13.6 (9.3-19.4)	1.3 (0.1-10.8)
Traditional healer	4.9 (3.1-7.6)	3.4 (1.2-9.7)	15.5 (10.6-22.0)	7.9 (4.6-13.1)	0.4 (0.1-3.1)	1.3 (0.2-9.9)
Advice/treatment from friends	0	0	2.9	0	0	22.1
Self-medication	1.1 (0.4-2.9)	0.3 (0.04-2.1)	2.3 (1.2-4.3)	1.0 (0.3-3.0)	1.5 (1.3-6.2)	13.0 (6.7-23.7)
Did not seek treatment	6.0 (4.0-8.9)	5.1 (2.5-10.3)	16.5 (12.4-21.6)	5.9 (3.8-9.0)	13.8 (9.7-19.4)	9.1 (4.5-17.4)
Others[§§]	2.2	0.3 (1.1-4.3)	0 (0.04-2.2)	2.6	0.7 (1.3-5.2)	0 (0.2-3.2)
Proportion of sex workers who sought formal medical treatment as the first choice in last STI symptom in last year (Denominator is sex workers who had symptoms and sought treatment in the last year)	82.4 (78.0-86.0) N=346	81.6 (74.7-87.0) N=243	54.4 (46.7-62.0) N=259	78.8 (70.6-85.1) N=287	82.0 (75.7-87.0) N=222	32.9 (20.4-48.3) N=70
Mean waiting days for last STI treatment (Denominator is sex workers who sought treatment in the last year)	10.1 (9.1-11.1) M= 7 N=346	7.4 (5.9-8.8) M= 5 N=243	14.5 (11.9-17.0) M= 10 N=255	21.8 (19.3-24.3) M= 15 N=287	6.7 (5.1-8.3) M= 4 N=219	4.5 (2.9-6.0) M= 2.5 N=70
Mean expenditure (in Taka) in last STI treatment last year (Denominator who sought treatment last year)	219.0 (167.6-270.3) M=80 N=344	123.1 (71.6-174.6) M=35 N=242	116.5 (98.6-134.4) M=80 N=252	93.0 (74.4-111.7) M=16 N=285	481.1 (393.9-568.2) M=300 N=221	150.5 (102.2-198.9) M=100 N=68
Proportion of IDU reported to have visited STI clinics last month organized by NGO	Not asked	47.6 (38.4-57.0)	11.1 (7.4-16.4)	36.1 (28.6-44.3)	15.0 (10.7-20.6)	1.1 (0.1-8.6)
Name of clinics visited (Denominator is who visited STI clinics last month)	Not asked	CARE, Marie Stopes, Ulka Nari Shangha, BWHC, ODPUP, Nari Maitree	CARE, IPSA, HELP, Marie Stopes,City Corporation Clinic	CARE, Durjoy Nari Shangha, World Vision	BWHC, CIRDUP, Sristy, BAPS, Marie Stopes PSKP	HELP

*Multiple responses
§Other symptoms of STI reported include: itching of genitalia, pain in genitalia, burning during urination and menstruation, excessive bleeding during menstruation, irregular menstruation, abscess in genitalia, "bad health", AIDS, fever, jaundice
§§Other choices of STI treatment include: Homeopath, tabij, washing with savlon or hot water, medicine brought by husband

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measures taken to avoid STI and HIV (Table 73)

Most of the sex workers reported that they used Dettol or urine to wash their genital organs followed by sometimes use of condoms to avoid STIs and HIV/AIDS.

Table 73: Measures taken to avoid STI and HIV

Indicators % (95 % CI)	Brothel National (N=680)	Street Central-A (N=340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N=300)	Hote Southeast-A (N=89)
Steps taken to avoid STIs*						
Do nothing	0.1 (0.02-1.0)	7.1 (4.3-11.5)	7.0 (4.6-10.7)	8.8 (5.8-13.1)	20.0 (15.4-25.6)	13.5 (8.0-21.9)
Wash genitalia with dettol/urine	88.4 (85.7-90.6)	64.4 (55.1-72.8)	66.7 (59.1-73.5)	49.9 (42.6-57.1)	50.1 (41.9-58.2)	52.8 (41.7-63.6)
Always use condom	2.9 (1.9-4.5)	10.2 (6.6-15.4)	3.3 (1.5-6.7)	1.8 (0.8-3.9)	3.2 (1.5-7.0)	0
Sometimes use condom	82.2 (79.1-84.9)	71.1 (62.8-78.2)	49.3 (41.5-57.2)	60.1 (52.5-67.3)	63.7 (55.0-71.6)	68.5 (55.5-79.2)
Take medicine	2.9 (1.9-4.5)	24.9 (16.9-35.0)	13.8 (9.1-20.5)	34.6 (27.2-42.9)	21.4 (15.8-28.4)	47.2 (32.4-62.5)
Others§	62.8 (59.1-66.4)	10.4 (6.3-18.9)	22.0 (16.7-28.3)	18.2 (12.8-25.1)	6.9 (3.9-11.9)	10.1 (5.5-17.8)
Steps taken to avoid HIV (Denominator who have heard about HIV)	N=680	N=338	N=363	N=322	N=298	N=87
Do nothing	0.1 (0.02-1.0)	14.6 (10.1-20.8)	11.6 (7.4-17.7)	18.0 (12.6-25.1)	16.3 (11.8-22.2)	18.4 (10.8-29.6)
Wash genitalia with dettol/urine	88.8 (86.2-91.0)	47.3 (38.5-56.3)	66.4 (58.9-73.1)	42.2 (34.5-50.3)	49.6 (42.0-57.3)	39.1 (29.9-49.2)
Always use condom	2.8 (1.8-4.3)	10.2 (6.7-15.1)	3.6 (1.9-6.6)	2.5 (1.2-4.9)	3.6 (1.7-7.3)	0 0
Sometimes use condom	82.9 (79.9-85.6)	66.4 (57.8-74.0)	52.1 (44.5-59.6)	58.7 (51.6-65.4)	66.6 (57.7-74.4)	72.4 (57.2-83.8)
Take medicine	0.9 (0.4-2.0)	9.8 (6.3-15.0)	13.0 (8.5-19.2)	6.2 (4.0-9.5)	19.3 (13.4-26.8)	5.7 (2.4-13.2)
Others§§	61.3 (57.6-64.9)	5.8 (3.2-10.4)	16.0 (11.6-21.6)	18.3 (13.5-24.4)	8.8 (5.4-14.3)	23.0 (16.0-31.8)

*Multiple responses
§Other steps taken to avoid STIs: wash genitalia with hot water/soap/water/oil/saliva, use savlon cream, have sex with clean/healthy clients, have fewer clients, check client before sex, be neat and clean, take good food, do not share injections, do not use other's bed, do not use other's clothes, by getting a urine or blood test, go to traditional healers, go to NGO Drop-In Centres, go for check ups, take bath, wipe with clothes after sex.

[§§] Other steps taken to avoid HIV: wash genitalia with hot water/soap/water/oil, use savlon cream, have sex with clean/healthy clients, have fewer clients, check clients, do not have sex with unknown clients, be alert, do not share needles/syringes, go to traditional healers, avoid sex during menstruation, take bath, wipe with clothes after sex.

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Violence against female sex workers (Table 74)

Violence (both beating and/or rape) was more commonly reported by street based sex workers from Central-A than sex workers in the streets and hotels in other cites (p<0.001 for all except Street Central-A vs Street Southeast-A: p=0.001). Both mastans and men in uniform perpetrated violence. None of the sex workers from the brothels reported being arrested during the last year. In contrast, 43-46% of the hotel based sex workers reported arrest in the last year.

Table 74: Violence against female sex workers

Indicators % (95 % CI)	Brothel National (N= 680)	Street Central-A (N= 340)	Street Southeast-A (N=369)	Street Southwest-A (N=341)	Hotel Central-A (N= 300)	Hotel Southeast-A (N=89)
Proportion of sex workers reported being beaten last year	18.7 (15.9-21.8)	59.5 (52.7-66.0)	40.4 (32.4-48.9)	36.1 (30.3-42.3)	32.3 (26.0-39.5)	11.2 (4.1-27.0)
Proportion of sex workers reported being raped last year	1.3 (0.7-2.5)	45.0 (34.8-55.6)	38.3 (31.9-45.1) N=368	24.3 (18.6-31.1)	30.8 (24.3-38.1)	20.2 (13.5-29.2)
Proportion of sex workers reported being beaten or raped last year	19.6 (16.7-22.7)	69.1 (61.8-75.5)	51.5 (43.3-59.6)	47.2 (39.7-54.9)	40.8 (33.4-48.6)	24.7 (15.1-37.7)
Violence perpetrated by (Denominator is who reported being beaten or raped last year)*	N=133	N=217	N=186	N=161	N=126	N=22
Men in uniform	2.3 (0.7-6.9)	76.1 (68.5-82.4)	57.0 (46.9-66.6)	15.5 (9.8-23.7)	19.2 (11.6-30.0)	22.7 (9.4-45.5)
Mastans (Hoodlums)	12.0 (7.5-18.8)	67.9 (57.8-76.7)	55.4 (48.0-62.5)	46.0 (35.7-56.5)	40.6 (32.9-48.8)	36.4 (18.2-59.5)
New clients	1.5 (0.4-5.9)	7.3 (3.6-14.3)	12.4 (7.6-19.5)	9.9 (5.6-17.1)	10.6 (6.6-16.6)	31.8 (18.1-49.6)
Regular clients	8.3 (4.6-14.4)	1.8 (0.4-6.9)	6.5 (3.2-12.7)	16.8 (11.8-23.2)	26.5 (18.4-36.6)	4.5 (0.4-33.6)
Others[§]	75.2 (67.0-81.9)	5.9 (3.1-10.8)	28.0 (19.4-38.4)	37.9 (29.9-46.6)	32.9 (22.9-44.7)	18.2 (5.3-46.7)
Proportion of sex workers reported being arrested in the last year	0	37.6 (29.4-46.6)	3.0 (1.4-6.0)	8.5 (5.5-12.8)	45.9 (39.3-52.6)	42.7 (32.6-53.4)
Proportion of sex workers reported being sent to rehabilitation centre in the last year	0	12.1 (7.4-18.9)	0.5 (0.2-1.9)	0.3 (0.04-2.2)	12.1 (8.5-16.8)	6.7 (2.6-16.3)

*Multiple responses

§Others who perpetrated violence include: lover, babu, husband, sardarni, house owner, neighbouring sex worker, alcohol seller, brokers, guards, hotel staff, local people, parents

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self- perception of risk (Table 75)

More than half of the sex workers sampled in the hotels of Southeast-A did not know whether they were at risk of HIV infection while this was true for 35-41% of sex workers from other sites (other than brothels). About one third of sex workers from brothels considered themselves to be at high risk of acquiring HIV infection.

Table 75: Self perception of risk

Sampled groups	Sex workers who perceived themselves to be at high risk % (95% CI)	Sex workers who perceived themselves to be at medium risk % (95% CI)	Sex workers who perceived themselves to be at little or no risk % (95% CI)	Sex workers who could not assess their risk % (95% CI)
Brothel, National (N=680)	29.4 (26.1-33.0)	15.7 (13.2-18.7)	44.6 (40.9-48.3)	10.3 (8.2-12.8)
Street, Central-A (N=339)	6.3 (3.7-10.4)	21.3 (15.6-28.3)	37.3 (28.2-47.4)	35.1 (27.9-3.0)
Street, Southeast-A (N=367)*	17.2 (13.1-22.2)	13.4 (9.9-17.8)	28.9 (24.1-34.1)	40.6 (34.8-6.7)
Street, Southwest-A (N= 341)	16.4 (12.7-20.9)	25.2 (19.8-31.5)	17.6 (13.7-22.4)	40.8 (32.5-9.6)
Hotel, Central-A (N=299)§	21.2 (14.4-30.2)	15.3 (10.0-22.8)	25.6 (17.5-35.9)	37.8 (28.8-7.8)
Hotel, Southeast-A (N=89)	20.2 (11.6-32.9)	4.5 (1.0-18.4)	16.9 (10.8-25.3)	58.4 (47.9-8.2)

*Two observations are missing

§One observation is missing

Rationale for self- perception of extent of risk (Table 76)

Most of the sex workers who assessed themselves to be at high or medium risk did so because they used condoms irregularly and considered their jobs to be a risky profession. Among those who assessed themselves at little or no risk the majority felt this was because they had sex with clean or healthy sex partners.

Table 76: Rationale for self- perception of extent of risk

Indicators % (95 % CI)	Brothel, National (N=680)	Street Central-A (N=340)	Street, Southeast-A (N=369)	Street, Southwest-A (N=341)	Hotel, Central-A (N=300)	Hotel Southeast-A (N=89)
Reasons for self-perception of risk (Denominator who considered themselves to be at high or medium risk)*	N=307	N=96	N=112	N=142	N=111	N=22
Risky work	65.5 (60.0-70.6)	58.7 (44.9-71.3)	92.9 (84.8-96.8)	33.8 (24.4-44.7)	26.1 (15.3-40.9)	90.9 (70.3-97.7)
Frequent anal sex	0.7 (0.2-2.6)	0	6.3 (2.8-13.4)	0.7 (0.1-5.3)	0.5 (0.1-3.9)	0
Not using condom	2.3 (1.1-4.7)	8.3 (3.7-17.7)	17.9 (11.4-26.9)	7.0 (3.3-14.4)	4.9 (1.8-12.9)	9.1 (1.0-49.5)
Irregular use of condom	89.9 (86.0-92.8)	85.2 (73.1-92.5)	80.4 (68.9-88.3)	85.9 (75.5-92.4)	96.5 (91.7-98.6)	54.6 (30.2-76.9)
Share needle/injections	0	2.1 (0.3-14.6)	0	0.7 (0.1-5.1)	0	0
Others[§]	17.6 (13.7-22.3)	6.6 (2.5-16.5)	4.5 (1.8-10.6)	4.2 (1.9-9.2)	1.2 (0.3-5.0)	9.1 (2.1-31.9)
Reasons for not assessing themselves are at little or no risk* (Denominator who perceived them selves at little or no risk)	N=303	N=126	N=105	N=60	N=80	N=15
Always use condom	5.6 (3.5-8.9)	23.9 (14.9-36.0)	13.3 (7.1-23.5)	11.7 (5.7-22.5)	13.3 (6.1-26.7)	0
Have sex with healthy partners	23.8 (19.3-28.9)	31.0 (45.9-85.4)	32.4 (23.6-42.6)	31.7 (21.3-44.2)	38.4 (26.0-52.5)	60.0 (27.8-85.4)
Have sex with clean partners	72.9 (67.6-77.7)	24.4 (15.0-37.2)	57.1 (45.9-67.7)	51.7 (37.2-65.9)	62.2 (46.3-75.8)	66.7 (31.3-89.8)
Do not have sex with foreigners	0	7.7 (3.7-15.4)	1.0 (0.1-6.6)	8.3 (3.5-18.6)	38.6 (27.4-51.2)	20.0 (4.7-56.1)
Do not share needles/syringes	7.3 (4.8-10.8)	0	3.8 (1.5-9.3)	0	22.3 (12.4-36.6)	13.3 (2.3-49.8)
Irregular use of condom	0	20.1 (10.2-35.8)	21.9 (14.4-31.8)	35.0 (23.9-48.1)	1.3 (0.2-9.8)	0
Others[§§]	89.1 (85.1-92.2)	38.3 (27.4-50.5)	48.6 (37.7-59.6)	31.7 (20.5-45.5)	41.8 (29.6-55.0)	46.7 (25.3-69.4)

*Multiple responses

[§]Other reasons for considering themselves to be at medium or high risk: not always using condoms, having multiple clients, being a sex worker for many years, not being neat and clean, breaking of condoms, sometimes having sex with foreigners, for having unhealthy clients, for washing genitalia with savlon/urine, not eating good food, taking drugs including hard drugs.

[§§]Other reasons for considering themselves to be at little or no risk: washing genitalia with dettol/hot water/soap, using savlon cream, having sex with clean clients, eating well, being clean and neat, being alert, having check-ups, being young, having few clients.

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Exposure to interventions (Table 77)

The proportion of sex workers who were involved with any NGO intervention last year was highest in the streets of Central-A compared to sex workers in the streets of other cities and hotels of both cities (p<0.001 for all comparisons). Many of the sex workers who were involved with interventions in the last year said this involvement helped in changing their behaviours and while some reported that they had obtained important information but this did not help in changing behaviour.

Table 77: Exposure to interventions

Indicators % (95 % CI)	Brothel, National (N=680)	Street, Central-A (N=340)	Street, Southeast-A (N=369)	Street, Southwest-A (N=341)	Hotel, Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion of sex workers who participated in NGO interventions last year	88.5 (85.9-90.7)	96.1 (92.9-97.9)	42.0 (33.7-50.8)	71.0 (61.8-78.7)	44.4 (34.0-55.3)	64.0 (50.0-76.0)
Proportion of sex workers who participated in NGO interventions last month	57.1 (53.3-60.7)	62.9 (56.0-69.3)	24.1 (17.9-31.7)	42.8 (34.3-51.8)	27.6 (20.3-36.3)	13.5 (5.5-29.5)
Proportion of sex workers who participated in NGO interventions last month (Denominator is who participated in NGO interventions last year)	64.5 (60.5-68.2) N=602	65.4 (58.2-72.0) N=325	57.4 (46.7-67.5) N=155	60.3 (51.9-68.2) N=242	62.1 (51.4-71.8) N=137	21.1 (9.1-41.6) N=57
Proportion of sex workers who attended meetings organized for sex workers in the last year	9.6 (7.6-12.0)	34.8 (26.5-44.3)	5.1 (3.0-8.8)	21.1 (14.8-29.2)	0.9 (0.3-3.1)	0
Benefits of involvement with intervention* (Denominator is who had exposure to intervention)	N=587**	N=324***	N=144****	N=233*****	N=137	N=57
Helped in changing behaviour	72.4 (68.6-75.9)	67.1 (58.6-74.6)	38.9 (29.1-49.6)	58.4 (50.5-65.8)	55.4 (46.63.7)	17.5 (8.0-4.4)
Received important information but behaviour did not change	1.7 (0.9-3.1)	21.6 (15.4-29.4)	50.0 (40.0-60.0)	41.6 (34.3-49.4)	25.8 (18.3-35.0)	73.7 (58.0-85.0)
Information was hard to understand	0	12.5 (8.3-18.4)	4.2 (1.8-9.5)	0.9 (0.2-3.3)	14.5 (8.4-23.8)	8.8 (3.1-22.2)
Information was not relevant to their needs	0	6.3 (3.0-13.0)	2.1 (0.7-5.7)	0	8.1 (3.7-16.5)	0
Gained important knowledge§	43.4 (39.5-47.5)	2.4 (0.9-6.5)	6.9 (3.9-12.0)	3.4 (1.6-7.0)	0	1.8 (0.2-12.8)
Others§§	16.7 (13.9-19.9)	1.5 (0.6-3.4)	13.2 (8.0-21.1)	12.0 (8.0-17.7)	0.8 (0.1-5.9)	0

*Multiple responses
**Fifteen observations are missing
***One observation is missing
****Eleven observations are missing
*****Nine observations are missing
§Gained important knowledge include: came to know about HIV/AIDS/STD and learnt how to use condom but we are not sure whether or not their behaviour changed
§§Others stated: received free treatment, counselling, learnt how to save money, learnt how to live neat and clean, received free condom, advise for check up, became health conscious, received clothes, received free blood test, do not know
Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Selling blood in last year (Table 78)

Very few sex workers reported selling blood in the last year.

Table 78: Selling blood in last year

Indicators % (95 % CI)	Brothel, National (N=680)	Street, Central-A (N=340)	Street, Southeast-A (N=369)	Street, Southwest-A (N=341)	Hotel, Central-A (N=300)	Hotel Southeast-A (N=89)
Selling blood last year	0	0.4 (0.1-3.0)	0	0.9 (0.3-2.5)	0	1.1 (0.1-8.6)

Mobility of sex workers (Table 79)

Most brothel based sex workers were not mobile. About 55-82% of street based sex workers reported selling sex in different spots in the same city and this was true for 35-51% of hotel based sex workers. Selling sex outside this city was less common and reported by 17-28% of sex workers in the streets and hotels. Selling sex outside the country was rare and was reported by only a few sex workers in the streets of Central-A and hotels of both cities. The countries included India, Nepal, Singapore, Dubai and Saudi Arabia.

Table 79: Mobility of sex workers

Indicators % (95 % CI)	Brothel, National (N=680)	Street, Central-A (N=340)	Street, Southeast-A (N=369)	Street, Southwest-A (N=341)	Hotel, Central-A (N=300)	Hotel Southeast-A (N=89)
Proportion had clients outside the current spot in the same city last year	0.4 (0.1-1.4)	54.9 (45.1-64.3)	65.3 (58.2-71.2)	82.1 (76.7-86.5)	35.3 (29.3-41.8)	50.6 (41.4-59.7)
Proportion had clients outside the current city last year	3.5 (2.4-5.2)	19.6 (14.3-26.2)	17.3 (12.9-22.9)	17.3 (13.7-21.6)	21.8 (16.7-27.9)	28.1 (18.7-39.9)
Proportion had clients outside the country last year	0	0.2 (0.03-1.4)	0 -	0 -	2.5 (1.1-5.4)	1.1 (0.1-8.6)
Name of countries	-	India	-	-	India, Dubai, Singapur, KSA	Nepal

3.2.3 COMPARISON OVER THE ROUNDS

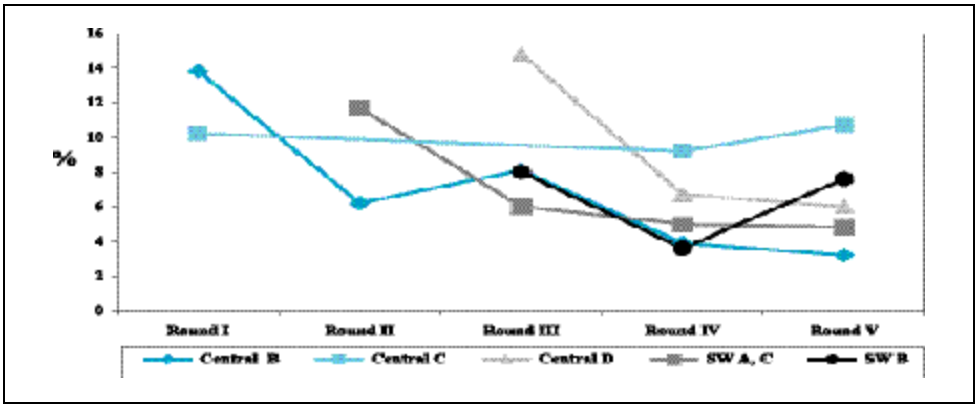
Female sex workers have been sampled from brothels in all rounds of surveillance. On the streets, female sex workers from Central-A have been sampled ever since the first round for both behavioural and serological surveillance, while those from Southeast-A and Southwest-A were sampled for the first time (for behavioural and serological surveillance respectively) during the present round. From hotels, female sex workers from Central-A were sampled in rounds four and five and those from Southeast-A were sampled for the first time in round five.

3.2.3.1 SEROLOGY

HIV has remained below one percent in most groups of female sex workers and therefore only trends in syphilis rates could be determined.

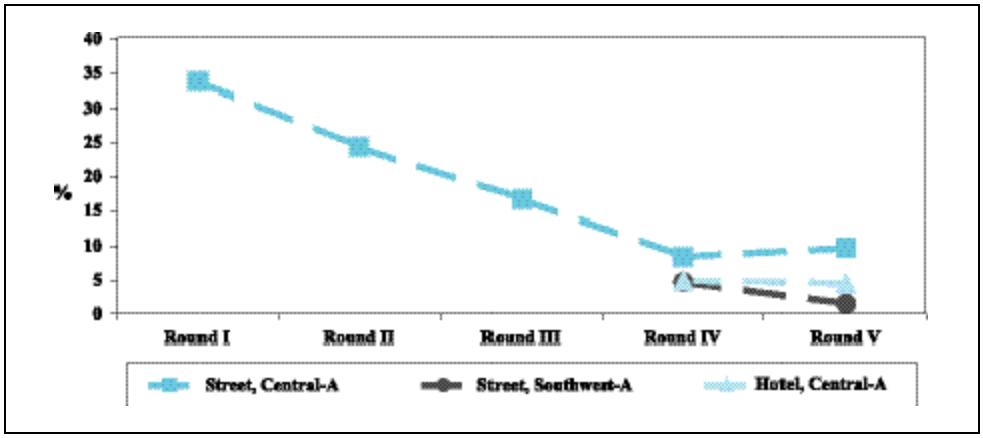
Among brothel based sex workers where sampling had been done from five cities for more than one round of surveillance, active syphilis rates over the rounds declined significantly ($p<0.001$) in all brothels except for two, Central-C and Southwest-B where rates remained unchanged (Fig 9).

Fig 9: Active syphilis in brothel based sex workers over the rounds of serological surveillance



In street based sex workers from Central-A, a significant decline in active syphilis rates was observed over the five rounds ($p<0.001$)) (Fig 10). Between rounds four and five active syphilis rates declined in sex workers from the streets in Southwest-A ($p=0.01$) but there were no changes in the rates in hotel based sex workers in Central-A (Fig 10).

Fig 10: Active syphilis in street and hotel based female sex workers over the rounds of serological surveillance



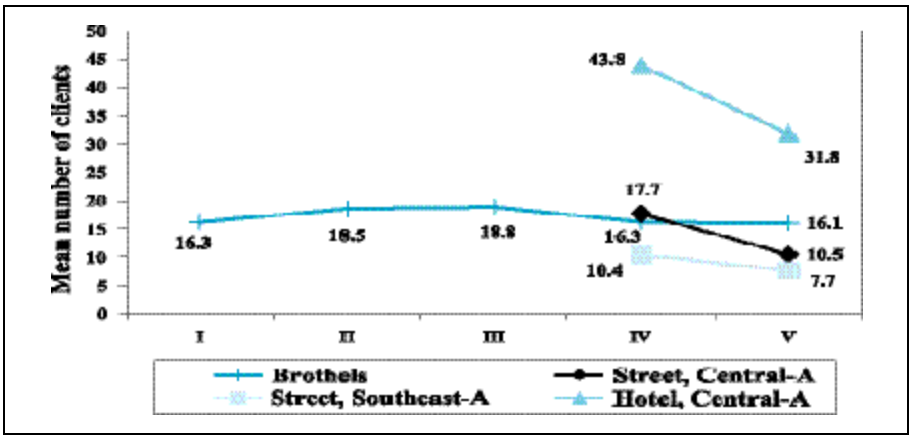
3.2.3.2 BEHAVIOUR

Key behavioural indicators have been compared for female sex workers over the rounds to determine trends; this has been done for all rounds for brothel sex workers and rounds four and five for those in the streets of Central-A, Southeast-A and hotels of Central-A.

Clients (new/regular) of sex workers in the last week (Fig 11 and appendix A-14)

In brothels, there was a significant decline in the mean number of clients per sex worker in the last week over the rounds (p=0.004) (Fig 11). However, there was an increase in the mean number of clients from first round to third round (p<0.001) and thereafter numbers declined in the fourth and fifth rounds compared to third round (p<0.001). For the street sex workers from Central-A and Southeast-A and hotel sex workers in Central-A, mean number of clients also declined between fourth and fifth rounds (p<0.001 for all comparisons) (appendix A-14)

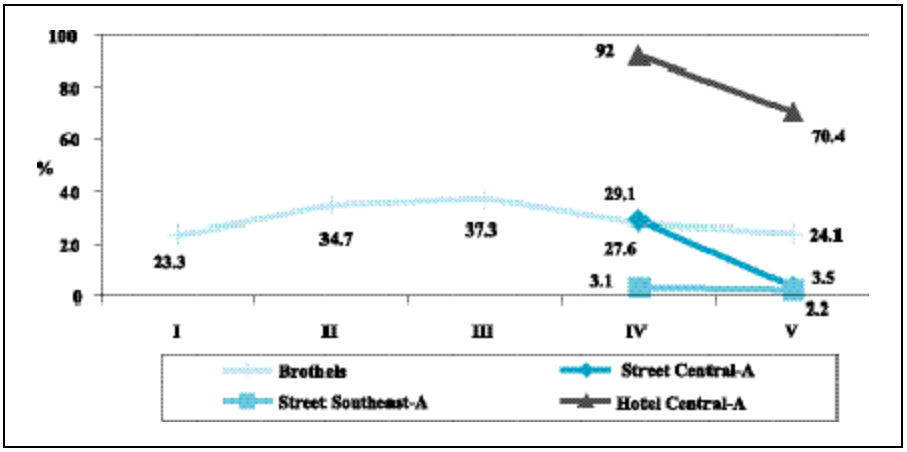
Fig 11: Mean number of new or regular clients of female sex workers in the last week



Sex workers reporting more than twenty clients last week (Fig 12 and appendix A-13)

In brothels, no change in trend was observed in the proportion of sex workers who reported more than 20 clients in the last week over the last five rounds (Fig 12). The proportion of sex workers who had more than 20 clients last week declined in the streets and hotels of Central-A (p<0.001 for both comparisons). The proportion of sex workers reporting >20 clients in the last week was comparatively low in the streets of Southeast-A and no changes were recorded between the two rounds (Fig 12 and appendix A-13).

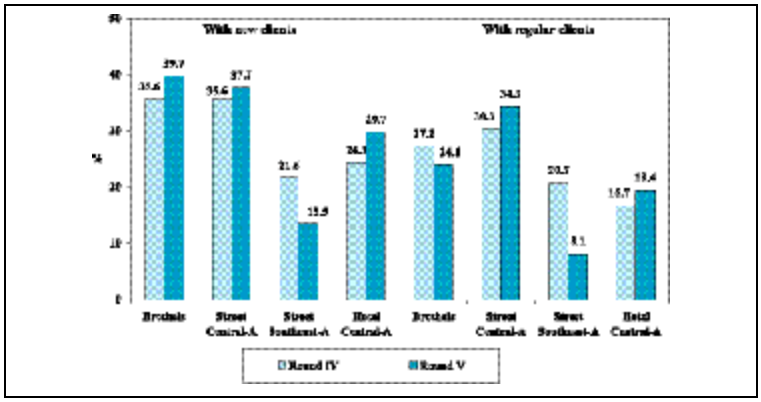
Fig 12: Proportion of female sex workers reporting more than twenty clients last week



Condom use with clients (Fig 13, 14 and appendix A-15, 162)

The proportion of female sex workers reporting condom use in the last vaginal sex with clients (new or regular) remained unchanged in the brothels, streets and hotels of Central-A (Fig 13). However, in Southeast-A, fewer sex workers from the streets reported using condoms during the last vaginal sex with regular clients between rounds four and five (p<0.001); the numbers with new clients were not significantly different (Fig 13 and appendix A-15).

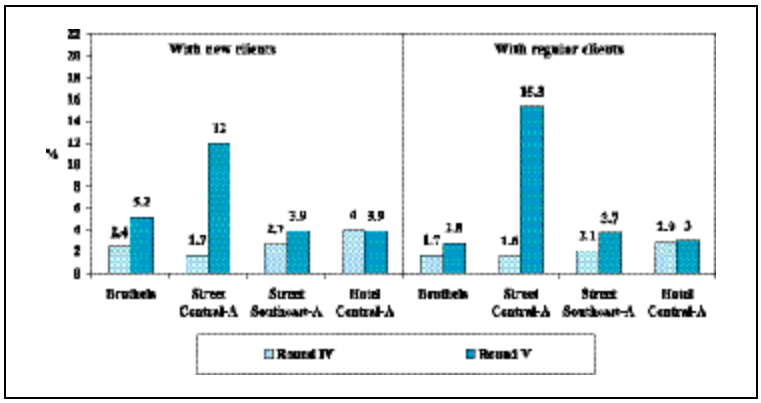
Fig 13: Proportion of female sex workers reporting condom use during last vaginal sex with new or regular clients



In brothels, consistent condom use with new or regular clients in the last week were not encouraging (Fig 14). With new clients, there were no changes in percentages of sex workers consistently using condoms or never using condoms. However, some time condom use declined significantly over the last two rounds (p=0.001). With regular clients, consistent condom use remained the same but some time condom use declined (p<0001) and never condom use increased (p<0.001) (appendix A-16).

Though consistent condom use with new and regular clients did not change over the last two rounds in brothels but compared to fourth round consistent condom use in the last week (Fig 14) was reported by significantly more female sex workers in streets of Central-A with during fifth round (p<0.001 for all comparisons). The proportions of female sex workers from the streets of Southeast-A and hotels of Central-A reporting consistent condom use with new clients last week remained unchanged. However, with regular clients, although no changes were observed in consistent condom use, there were changes in some time condom use and never condom use in the last week. In the streets of Southeast-A the proportions reporting using condoms some of the times declined significantly and those never using condoms in the last week increased significantly (p<0.001 for all comparisons). In contrast, proportions of sex workers in hotels from Central-A reporting condom use some of the times with regular clients increased significantly and those never using condoms last week declined significantly (p<0.001 for all comparisons) (Fig 14 and appendix A-16).

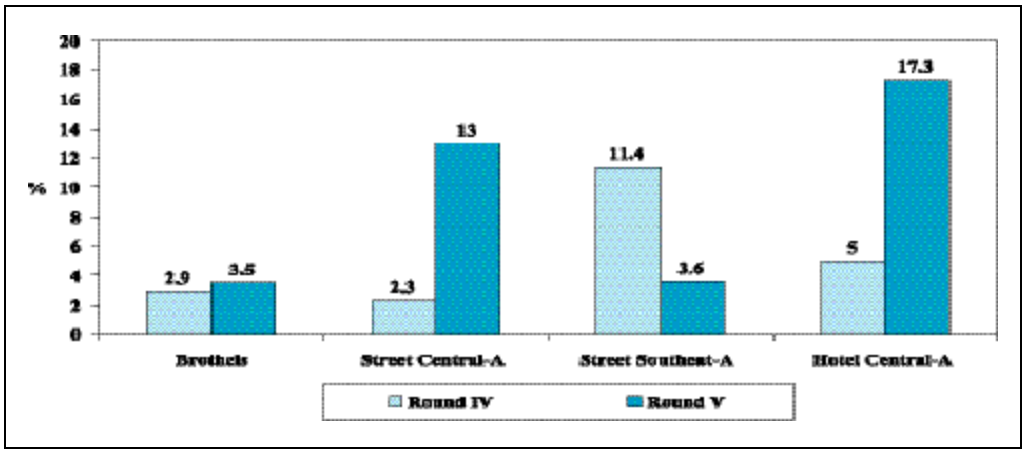
Fig 14: Proportion of female sex workers reporting consistent condom use in the last week with new/regular clients



Condom use in last sex with non-commercial partners (Fig 15 and appendix A-15)

No significant change was observed in condom use in last anal/vaginal sex with non-commercial partners in brothel based sex workers (Fig 15). The proportion of female sex workers reporting condom use in the last anal/vaginal sex with non-commercial partners (Fig 15) increased significantly in the streets of Central-A ($p<0.001$). No significant differences in proportions of sex workers using condoms in the last sex from the hotels of Central-A and streets of Southeast-A were observed over the rounds (appendix A-15).

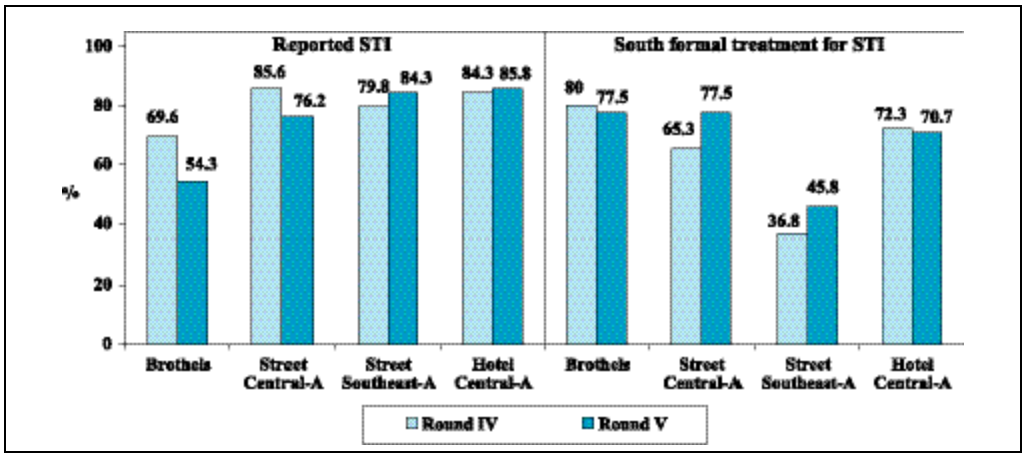
Fig 15: Condom use in last sex with non-commercial partner



Self reported STIs and medical treatment seeking behaviour for STIs (Fig 16 and appendix A-17)

Fewer female sex workers from brothels and the streets of Central-A complained of at least one STI symptom in the last year in round five compared to round four ($p<0.001$ and $p=0.001$, respectively) (appendix A-17). There were no changes in the proportion of sex workers reporting STI symptoms in the last year from the streets of Southeast-A and hotels of Central-A. Of those complaining of STI symptoms in the last year, the proportion seeking formal medical treatment remained the same between the last two rounds in the sex workers from all sites (Fig 16).

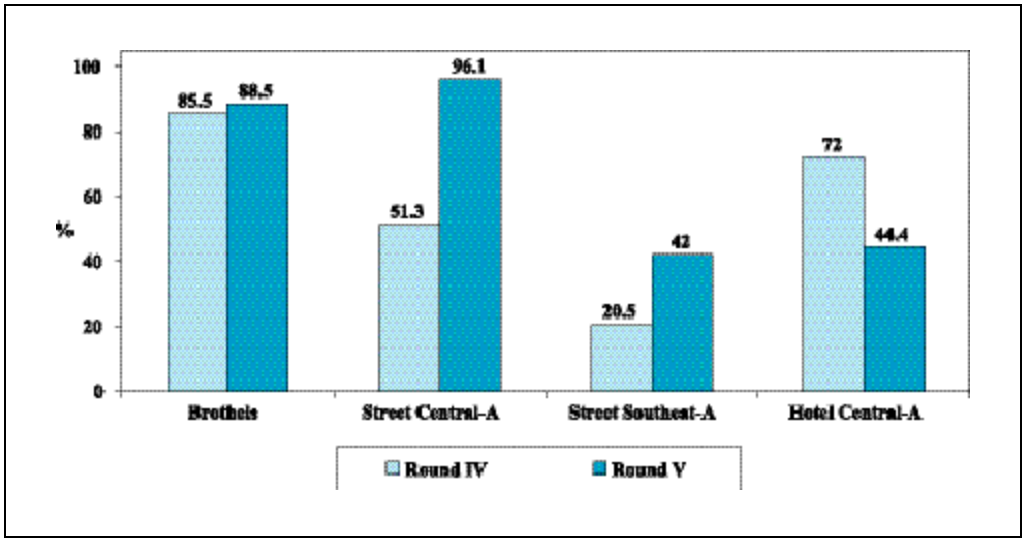
Fig 16: Proportion of female sex workers complaining of STI symptoms in the last year and seeking formal medical treatment for those symptoms



Female sex workers exposed to interventions in the last year (Fig 17 and appendix A-18)

During both rounds four and five, more than 80% of the brothel based sex workers reported being exposed to NGO interventions in the last year and no significant change was observed between the rounds (Fig 17). More female sex workers from the streets of Central-A and Southeast-A were covered by interventions during the fifth round compared to the fourth round ($p<0.001$ for all comparisons). In contrast, the proportion of female sex workers from hotels in Central-A covered by interventions in the last year significantly declined from the fourth to the fifth round ($p<0.001$) (Fig 17 and appendix A-18).

Fig 17: Proportion of female sex workers covered by interventions in the last year



3.2.4 SUMMARY OF FINDINGS

4.3 Female Sex Workers

The data from BSS have consistently shown very risky behaviours in female sex workers from different venues and cities. Amongst all groups of female sex workers, those from hotels were newest to the profession; they were more likely to move from one venue to another with more than one-fifth working from the same hotel for less than one year.

Comparison of sex workers from hotels and streets in Southeast-A with sex workers from similar venues in other cities (Central-A and Northeast-A), showed that sex workers from hotels of Southeast-A were most vulnerable as they had

- highest proportion of new and regular sex partners in the last week
- highest proportion with more than 20 clients in one week
- none using condoms consistently with clients in the last week
- highest proportion who knew that their clients injected drugs.

Also, sex workers from the streets of Southeast-A had the

- highest proportion reporting anal sex
- highest proportion reporting group sex
- highest proportion who reported difficulty in accessing condoms
- lowest proportion who ever used condoms.

Overall, fewer sex workers from Southeast-A (whether from hotels or streets) sought formal medical treatment for STI symptoms compared to sex workers from other cities. However, reported earnings from the last commercial sex in the last week were highest in sex workers from the streets of Southeast-A. Moreover, comparison with the fourth round showed that exposure to interventions had also increased between the two rounds in street sex workers.

In Central-A, more sex workers from the streets reported experiencing violence (whether rape or beating) in comparison to sex workers from other venues. A large proportion of hotel sex workers in Central-A reported difficulty in accessing condoms. Intervention programmes had a wider coverage with street sex workers in Central-A in the fifth round compared to the fourth round and this is in contrast to the hotel sex workers in this city, where coverage declined between the fourth and fifth rounds.

Fortunately, HIV prevalence remains low in the sex workers. Active syphilis rates in street sex workers from Central-A have declined over the rounds and this decline appears to be concomitant with a significant increase in condom use in this group of sex workers since the fourth round of BSS. Decline in active syphilis rates was also recorded in most brothels.

These findings highlight certain features– sex workers in the Southeast-A (from both hotels and streets) require coverage with quality services and those from the hotels of Central-A require both expansion and improved quality of services. Lessons may be learnt from the programmes on sex workers from the streets of Central-A where condom use has increased and syphilis rates have declined. However, in these sex workers, violence remains a major concern and understanding how to address violence is imperative.

3.3 MALE SEX WORKERS AND HIJRAS

Male sex workers were sampled from Central-A for both serological and behavioural surveillance. From Southeast-A, they were sampled only in the BSS as a group distinct from MSM. Serological surveillance however, sampled MSW and MSM as a combined group from Southeast-A and Northeast-A. For serological surveillance, this section will cover MSW only from Central-A. Hijras were sampled for both behavioural and serological surveillance from the Central region.

3.3.1 SEROLOGY

Samples were collected from MSW and Hijras from Central-A and Central-A,G respectively.

Demographic characteristics (Table 80)

MSW and Hijras were similar in age, the proportions who ever attended school, duration of education and duration in the sex work profession.

Table 80: Demographic characteristics of male sex workers and Hijras

Geographical location (N)	Age in years median (IQR)	Ever attended school % (n), 95% CI	Education (years) median (IQR)	Duration as male/Hijra sex worker (months) median (IQR)	Duration at the same site as male/Hijra sex worker (months) median (IQR)
Male sex workers:					
Central-A (274)	23 (20-28)	87.2 (239), 82.7-90.9	6 (4-10)	72 (36-120)	60 (24-120)
Hijras:					
Central-A, G (128)	23 (21-27)	76.6 (98), 68.3-83.6	8 (5-10)	84 (51-132)	72 (48-120)

Note: IQR refers to Inter Quartile Range

Overall, fewer sex workers from Southeast-A (whether from hotels or streets) sought formal medical treatment for STI symptoms compared to sex workers from other cities. However, reported earnings from the last commercial sex in the last week were highest in sex workers from the streets of Southeast-A. Moreover, comparison with the fourth round showed that exposure to interventions had also increased between the two rounds in street sex workers.

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Central-A (274)	23 (20-28)	87.2 (239), 82.7-90.9	6 (4-10)	72 (36-120)	60 (24-120)
Hijras:					
Central-A, G (128)	23 (21-27)	76.6 (98), 68.3-83.6	8 (5-10)	84 (51-132)	72 (48-120)

Note: IQR refers to Inter Quartile Range

HIV and syphilis prevalence (Table 81)

Only 0.2% of Hijras tested positive for HIV while none of the MSW sampled were found to be HIV positive.

Active syphilis rates were similar between MSW and Hijras. However, MSW had a higher active syphilis rate than MSM (p<0.001) in Central city A.

Table 81: Prevalence of HIV and syphilis among male sex workers and Hijras

Study Populations, Geographical Location (numbers tested)	HIV % (n), 95% CI	Active syphilis % (n), 95% CI
Male sex workers: Central-A (274)	0	6.2 (17), 3.7-9.7
Hijras: Central-A, G (405)	0.2(1), 0-1.4	10.4 (42), 7.6-13.8

3.3.2 BEHAVIOUR

Socio demographic characteristics of male sex workers and Hijras (Table 82)

Hijras on average were older than MSW (p<0.001 for both comparisons). More Hijras reported never having been to school than MSW in Central-A (p<0.001). No differences were found in the average monthly income in all groups. Most of the MSW and Hijras reported 'clients' as a source of income. More MSW in Southeast-A were married than those in Central-A (p<0.001) and more Hijras lived with regular sex partners than MSW (p<0.001 for all comparisons).

Table 82: Socio demographic characteristics

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Mean age (in years)	23.7 (23.1-24.3) M=23	24.2 (23.5-24.9) M=24	26.5 (25.8-27.2) M=26
Proportion who had no schooling	3.3 (1.4-7.2)	8.1 (5.2-12.3) N=359	16.1 (10.6-23.6)
Duration of stay in this city	N=368	N=363	N=409
Whole life	61.7 (57.1-66.1)	42.7 (36.9-48.7)	50.1 (44.1-56.2)
<=10 years	22.8 (18.7-27.6)	42.7 (35.9-49.8)	16.4 (13.0-20.5)
>10 years	11.4 (8.8-14.6)	13.8 (10.1-18.5)	30.1 (25.4-35.2)
Cannot remember	4.1 (2.3-7.1)	0.8 (0.3-2.5)	3.4 (1.5-7.5)
Mean income last month (in Taka)	5207.3 (4332.1-5682.6) M=4500	4272.6 (3895.1-4650.2) M=3700	4446.5 (4269.1-4624.0) M=4850

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Sources of income*			
Clients	100.0	99.7 (97.9-100.0)	99.8 (98.2-100.0)
Family	7.6 (4.7-12.0)	3.6 (2.0-6.4)	--
Badhai	--	--	91.7 (85.0-95.6)
Dance/singing	7.3 (4.7-11.3)	3.9 (2.2-6.7)	32.2 (23.1-42.9)
Cholla	--	--	57.1 (46.8-66.8)
Service	16.6 (12.2-22.1)	34.2 (27.5-41.5)	0
Others[§]	26.1 (21.4-31.4)	28.9 (21.7-37.4)	1.2 (0.5-2.9)
Proportion who were currently married	7.9 (5.5-11.3)	24.5 (19.2-30.8)	Not asked
Mean age at first sex in years (Denominator is who could recall)	13.3 (12.8-13.7) M=13 N=362	13.1 (12.8-13.4) M=13 N=362	11.6 (11.4 - 11.8) M=12
Proportion living with regular sex partners	42.1 (34.4-50.3)	49.9 (44.4-55.4)	89.5 (83.5-93.5) N=408
Self categorisation	N=367		
Man/Manly/General people	13.6 (10.8-17.0)	47.4 (41.4-53.5)	0
Parik	0.8 (0.3-2.5)	1.1 (0.4-3.0)	0
Actor/Actress	36.0 (28.6-44.1)	3.3 (1.8-6.1)	0
Kothi	33.2 (27.3-39.8)	41.3 (34.9-48.0)	0
Magi/Maigga	4.6 (2.9-7.4)	2.5 (1.2-5.1)	0
Do-porata	5.5 (3.5-8.4)	0.6 (0.1-2.2)	0
Half ladies	3.3 (1.8-5.8)	0	0
Hijra	0.5 (0.1-2.2)	2.5 (1.2-4.9)	100.0
Others[§§]	2.5 (1.2-4.9)	1.4 (0.6-3.2)	0

*Multiple responses

[§]Others stated: business, stealing, cook, handicraft, house rent, pick pocketing, tuition, shop rent, artist, broker, cleaner, snatching, office guard, driver, hotel boy, daily labour, working at tea stall

[§§]Others stated: gaira, destitute, papi, bad man, gay, dog, service holder, cannot tell

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Blood selling

None of the MSW in Central-A reported selling blood in the last year; of the MSW in Southeast-A, 1.4% (95% CI: 0.6-3.2) did so in the last year and of the Hijras 0.2 % (95% CI: 0.03-1.7) sold blood.

Dynamics of sex work (Table 83)

None of the Hijras sampled had been working as sex workers for less than one year unlike MSW. Hijras reported higher mean years of selling sex and also doing so in the same city than MSW ($p<0.001$ for all comparisons). MSW and Hijras had clients on an average of 4-5 days a week. Most of the MSW and Hijras reported that their regular sex partners were 'males'. They also reported that they had their first sexual intercourse with 'males'.

Table 83: Dynamics of sex work

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion working as sex worker for less than one year	7.6 (4.9-11.7)	6.3 (3.9-10.1)	0
Mean years in the profession of selling sex	7.2 (6.7-7.8) M=6 N=364	6.9 (6.1-7.8) M=6 N=361	11.5 (10.9-12.0) M=11 N=408
Proportion selling sex for less than one year in the same city	7.7 (4.9-11.7) N=366	8.5 (5.7-12.7)	0
Mean years as sex workers in this city	6.5 (6.1-7.0) M=5 N=364	6.7 (5.8-7.5) M=6	11.3 (10.8-11.8) M=11
Mean number of days had clients in last week	5.0 (4.8-5.2) M=5	4.2 (4.0-4.4) M=4	5.2 (5.0-5.4) M=5
Gender of regular sex partners (Denominator is who live with regular sex partners)	N=155	N=181	N=364
Male	81.3 (74.5-86.6)	63.5 (54.5-71.7)	100.0
Female	18.7 (13.4-25.5)	34.8 (26.7-43.9)	0
Hijra	0	1.7 (0.4-7.2)	0
Gender of first sex partners			
Male	96.2 (93.6-97.8)	89.0 (84.9-92.1)	100.0
Female	3.5 (2.0-6.1)	11.0 (7.9-15.1)	0
Hijra	0.3 (0.04-2.0)	0	0

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Income (Table 84)

MSW in Central-A earned on average Tk. 136.9 from the last new client which was more than that earned by Hijras (Tk. 61) but similar to MSW in Southeast-A (MSW Central-A vs MSW Southeast-A: p=0.352, MSW Central-A vs Hijra Central-A: p<0.001).

Table 84: Average monthly income in MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Average amount of money given by the last new client (Denominator is who had new clients last week)	136.9 (124.8-149.0) M=100 N=366	126.1 (106.1-146.0) M=100.0 N=332	61.0 (57.8-64.1) M=60 N=406

Sex partners of male sex workers and Hijras (Table 85)

Almost all of the MSW and Hijras reported that they had new clients in the last week. Compared to MSW in Southeast-A, more in Central-A had new clients and had anal sex or oral sex with new clients in the last week ($p<0.001$ for all comparisons) but there were no differences with Hijras. With regular partners, Hijras reported higher risk compared to MSW from both sites; thus more Hijras had regular clients and had anal sex with their regular clients ($p<0.001$ for all comparisons) than MSW. Non-penetrative sex was more commonly reported by Hijras with new/regular clients in the last week compared to MSW from both sites ($p<0.001$ for all comparisons). Buying sex from males or Hijras in the last month was reported by 10-12% of the MSW.

The most common place where sex was sold to new clients was inside houses for all three groups. This was followed by parks for Hijras and hotels for MSW in both sites.

Sex with females was also reported by the MSW. Approximately 4% of the MSW in Central-A and Southeast-A sold sex to females in the last month and 4-13% bought sex from females last month, which was more common in Southeast-A than in Central-A ($p=0.001$). Also, more MSW in Southeast-A reported non-commercial female sex partners in the last month than those in Central-A ($p<0.001$).

More MSW in Central-A reported having group sex in the last month than those in Southeast-A and Hijras in Central-A ($p<0.001$ for all comparisons). More Hijras reported having more than 20 clients (new/regular) in the last week than MSW ($p<0.001$ for all comparisons).

Table 85: Sex behaviour with different types of clients of MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion reported having new clients (male/Hijras) last week	99.7 (98.0-100.0)	91.5 (87.9-94.1)	99.0 (97.5-99.6)
Proportion reported receptive anal sex with new clients (male/Hijras) last week	99.7 (98.0-100.0)	90.9 (87.4-93.5)	98.8 (97.1-99.5)
Proportion reported oral sex with new clients (male/Hijras) last week	94.8 (91.4-97.0)	34.4 (29.1-40.3)	92.0 (87.9-94.7)
Proportion reported having regular clients (male/Hijra) last week	70.4 (61.0-78.3)	82.6 (78.0-86.5)	97.6 (93.8-99.1)
Proportion reported anal sex with regular clients (male/Hijra) last week	70.4 (61.0-78.3)	82.1 (77.3-86.1)	97.3 (93.6-98.9)
Proportion reported oral sex with regular clients (male/Hijra) last week	69.0 (59.5-77.1)	35.8 (30.3-41.7)	82.4 (75.6-87.6) N=409
Proportion reported new or regular clients in last week	100.0	99.2 (97.3-99.8)	100.0
Proportion who reported buying sex from male/Hijras last month	12.2 (8.2-17.8)	9.9 (7.2-13.5)	0.5 (0.1-2.0)*
Proportion reported anal sex with male/Hijras last month while buying sex	12.2 (8.2-17.8)	9.6 (7.0-13.1)	0.5 (0.1-2.0)*

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion reported oral sex with male/Hijras last month while buying sex	10.9 (7.1-16.4)	3.9 (2.3-6.3)	0.2 (0.03-1.8)*
Proportion reported non-commercial male/Hijras partner last month	46.2 (35.7-57.1)	37.7 (33.1-42.7)	90.7 (84.5-94.6)*
Proportion reported anal sex with non-commercial male/Hijras partner last month	46.2 (35.7-57.1)	37.5 (32.7-42.5)	90.7 (84.5-94.6)*
Proportion reported oral sex with non-commercial male/Hijras partner last month	45.1 (34.8-55.9)	21.2 (16.7-26.5)	69.4 (62.1-75.9)* N=409
Proportion reported non-penetrative sex with any male client in last week (new or regular)[§]	23.9 (17.7-31.6)	25.9 (20.0-32.8)	84.1 (76.1-89.8) N=409
Proportion sold sex to females last month	4.1 (2.4-6.9)	4.1 (2.5-6.7)	Not asked
Proportion bought sex from females last month	4.3 (2.5-7.5)	13.0 (8.9-18.4)	Not asked
Proportion reported non-commercial female sex partner last month	9.2 (6.2-13.5)	42.2 (36.5-48.0)	Not asked
Proportion reported group sex last month	65.8 (58.1-72.7)	22.9 (18.8-27.5)	34.4 (27.7-41.8)
Proportion reported having more than 20 clients (new/regular) last week**	11.1 (7.3-16.7)	0	75.4 (67.3-82.0)

*In Hijra figure corresponds to only males

**New/regular clients refer to male/Hijras

[§]Non-penetrative sex was assessed by asking whether the client was brought to orgasm without introducing the penis in anus or mouth

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Number of reported clients of MSW and Hijras (Table 86)

Hijras in Central-A reported the highest mean number of clients (new or regular) in the last week ($p<0.001$ for all comparisons). Hijras had more clients during last group sex than MSW in both cities in the last month ($p<0.001$ for all comparisons).

Table 86: Number of clients of MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Mean number of new clients last week	8.0 (6.4-9.6) M=4	2.8 (2.6-3.0) M=3 N=362	17.1 (16.1-18.0) M=17
Mean number of new clients last week (Denominator who had new clients last week)	8.0 (6.5-9.6) M=4 N=367	3.1 (2.9-3.3) M=3 N=330	17.2 (16.3-18.2) M=17 N=406
Mean number of regular clients last week	1.9 (1.6-2.1) M=2	2.0 (1.8-2.2) M=2	13.5 (11.9-15.2) M=15
Mean number of regular clients last week (Denominator who had regular clients last week)	2.6 (2.5-2.8) M=2 N=259	2.3 (2.1-2.5) M=2 N=298	13.9 (12.2-15.5) M=15 N=400
Mean number of clients (new or regular) last week	9.9 (8.5-11.2) M=7	4.8 (4.5-5.1) M=30 N=362	30.6 (28.3-32.9) M= 30
Mean number of clients while selling sex to females last month	0.1 (0.03-0.1) M=0	0.1 (0.02-0.1) M=0	Not asked
Mean number of clients while selling sex to females last month (Denominator who sold sex to females last month)	1.6 (1.2-2.0) M=2 N=15	1.4 (1.0-1.8) M=1 N=15	Not asked
Mean number of clients while buying sex from male/Hijra last month	0.2 (0.1-0.3) M=0	0.1 (0.1-0.2) M=0	0.1 (0.0-0.2)* M=0
Mean number of clients while buying sex from male/Hijra last month (Denominator who bought sex from male/Hijra last month)	1.8 (1.6-2.0) M=2 N=45	1.5 (1.2-1.7) M=1 N=36	15.0 (15.0-15.0)* M=15 N=2
Mean number of clients while buying sex from female last month	0.1 (0.04-0.1) M=0	0.2 (0.1-0.3) M=0	Not asked
Mean number of clients while buying sex from female last month (Denominator is who bought sex from female last month)	2.0 (1.4-2.6) M=2 N=16	1.6 (1.4-1.7) M=1 N=47	Not asked
Mean number of non-commercial male/Hijra clients last month	1.1 (0.8-1.4) M=0	0.6 (0.5-0.7) M=0	2.5 (1.6-3.3)* M=1
Mean number of non-commercial male/Hijra clients last month (Denominator is who had non-commercial male/Hijra clients last month)	2.4 (2.1-2.7) M=2 N=170	1.6 (1.4-1.8) M=1 N=137	2.7 (1.8-3.7)* M=1 N=372

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Mean number of non-commercia female clients last month	1.0 (0.5-1.4) M=0	1.9 (1.4-2.4) M=0	Not asked
Mean number of non-commercial female clients last month (Denominator is who had non-commercial female clients last month)	10.4 (7.5-13.2) M=12 N=34	4.5 (3.4-5.3) M=3 N=153	Not asked
Mean number of clients during group sex last month	1.8 (1.6-2.1) M=2 N=367	0.7 (0.6-0.8) M=0	1.5 (1.1-1.9) M=0 N=409
Mean number of clients during group sex last month (Denominator who had group sex last month)	2.8 (2.7-2.9) M=3 N=241	3.1 (2.8-3.4) M=3 N=83	4.4 (3.8-4.9) M=4 N=140

*In Hijra figure corresponds to only males
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use in last sex with commercial and non-commercial partners (Table 87)

A large proportion of MSW in Central-A did not ask their new clients to use condoms and this was significantly higher than MSW in Southeast-A and Hijras ($p<0.001$ for all comparisons). The same was true for regular clients. Condom use in last anal sex with new clients was lowest in Hijras ($p<0.001$ for all comparisons), and with regular clients this was significantly lower for Hijras compared to MSW from Central-A ($p<0.001$) but similar with MSW from Southeast-A. Condom use with non-commercial male clients was lower in MSW in Southeast-A than Central-A ($p=0.003$).

A small proportion of MSW from both cities reported buying sex from males, Hijras and females and of those who did, 23-53% used condoms in the last sex act. Hijras did not buy sex from males. Selling sex to females was reported by some MSW and of those who did more than 50% used condoms during the last sex. Condom use during last sex with non-commercial female partners was reported by more MSW from Central-A than Southeast-A ($p<0.001$). During group sex in the last month, more Hijras reported that condoms were used by at least one sexual partner than MSW in Central-A ($p<0.001$) but the proportions were similar to MSW in Southeast-A.

Table 87: Condom use in last anal sex with commercial and non commercial partners

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion who asked new clients to use condoms last week (Denominator is who had new clients last week)	N=367	N=332	N=406
Every one	36.8 (31.1-42.9)	41.0 (34.2-48.1)	24.4 (16.8-34.0)
Some of the clients	21.5 (17.1-26.7)	38.9 (33.5-44.5)	71.4 (61.8-79.4)
No one	41.7 (35.0-48.7)	20.2 (16.5-24.4)	4.2 (2.0-8.7)
Condom use in last anal sex with new clients (Denominator is who had new clients last week and had anal sex)	43.6 (37.8-49.6) N=367	44.7 (40.4-49.0) N=329	15.6 (10.1-23.4) N=405
Proportion who asked regular clients to use condoms with last week	N=259	N=299	N=400
Every one	35.1 (28.5-42.4)	40.1 (33.6-47.0)	24.3 (16.7-33.8)
Some of the clients	11.2 (7.7-16.0)	18.1 (14.2-22.7)	71.0 (61.4-79.0)
No one	53.7 (46.3-60.9)	41.8 (35.7-48.1)	4.8 (2.5-9.0)
Condom use in last anal sex with regular clients (Denominator is who had regular clients last week and had anal sex)	34.8 (28.2-41.9) N=259	30.2 (24.7-36.4) N=298	17.0 (10.8-25.9) N=399
Condom use in last anal sex withmale/Hijra non-commercial partner (Denominator is who reported sex with non-commercial partners last month)	36.5 (28.8-44.9) N=170	21.3 (15.8-28.2) N=136	11.8 (6.1-21.8)* N=372
Condom use in last anal sex while buying sex from male/Hijra (Denominator is who reported buying sex and had anal sex last month)	53.3 (40.5-65.7) N=45	37.1 (22.6-54.5) N=35	0 N=2*
Condom use in last vaginal/anal sex while buying sex from females (Denominator is who reported buying sex from females last month)	50.0 (29.0-71.0) N=16	23.4 (11.8-41.2) N=47	Not asked
Condom use in last vaginal or anal sex while selling sex to females (Denominator is who sold sex to females in the last month)	60.0 (31.8-82.8) N=15	53.3 (25.9-78.9) N=15	Not asked
Condom use in last vaginal or anal sex with female non-commercial partner (Denominator is who reported sex with non-commercial female partners last month)	79.4 (61.5-90.3) N=34	16.5 (9.3-27.4) N=152	Not asked
At least one sexual partner used condom in last group sex (Denominator is who had group sex last month)	38.3 (30.1-47.3) N=240	79.5 (69.1-87.1) N=83	92.7 (86.5-96.2) N=137

*In Hijra figure corresponds to only males

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Consistent condom use with commercial and non-commercial partners (Table 88)

Consistent condom use by Hijras during anal sex with new or regular clients was lower than in MSW (p<0.001 for both comparisons). Although selling sex to females was not common, but of the MSW who did 40% used condoms consistently in the last month during vaginal or anal sex. A higher proportion of MSW in Central-A than those in Southeast-A used condoms consistently during vaginal/anal sex with non-commercial female partners in the last month (p<0.001).

Table 88: Consistent condom use with commercial and non commercial partners

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Consistent condom use in anal sex with new clients (male/Hijras) last week (Denominator is who had new clients last week and had anal sex)	18.3 (13.8-23.8) N=367	21.8 (17.2-27.3) N=330	2.2 (0.7-6.5) N =405
Consistent condom use in anal sex with regular clients (male/Hijras) last week (Denominator is who had regular clients last week and had anal sex)	11.6 (7.9-16.7) N=259	19.1 (14.8-24.3) N=298	2.5 (0.9-6.7) N=399
Consistent condom use in anal sex with male/Hijra non-commercial partner last month (Denominator is who reported sex with non-commercial partners last month and had anal sex)	5.9 (3.4-10.1) N=170	17.0 (11.6-24.3) N=135	0.8 (0.2-3.5) N=372*
Consistent condom use in anal sex while buying sex from male/Hijra last month (Denominator is who reported buying sex from male/Hijra and had anal sex last month)	11.1 (4.6-24.5) N=45	31.4 (17.0-50.7) N=35	0 N=2*
Consistent condom use in vaginal/anal sex while buying sex from females in last month (Denominator is who reported buying sex from females last month)	31.3 (13.2-57.7) N=16	12.8 (5.6-26.4) N=47	Not asked
Consistent condom use in vaginal/anal sex while selling sex to females in last month (Denominator is who sold sex to females in the last month)	40.0 (14.7-72.1) N=15	40.0 (17.2-68.2) N=15	Not asked
Consistent condom use in vaginal/anal sex with female non-commercial partners in last month (Denominator is who reported sex with non-commercial female partners last month)	70.6 (52.0-84.2) N=34	13.5 (7.9-22.1) N=148	Not asked
Consistent condom use in oral sex with new clients (male/Hijras) last week (Denominator is who had oral sex with new clients last week)	19.0 (13.8-25.5) N=348	30.4 (21.6-40.9) N=125	2.9 (1.1-7.3) N=377
Consistent condom use in oral sex with regular (male/Hijras) clients last week (Denominator is who had oral sex with regular clients last week)	10.6 (6.8-16.2) N=254	21.5 (15.5-29.1) N=130	2.4 (0.8-6.7) N=337

*In figure corresponds to only males

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Occupational profile of clients (Table 89)

Most of the MSW and Hijras said they knew the professional occupations of their clients. For MSW in both cities businessmen were the most common clients followed by drivers of cars. For Hijras rickshaw pullers were their most frequent clients followed by car drivers.

Table 89: Occupational profile of clients

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Don't know clients' occupation	1.4 (0.6-3.2)	0	0.2 (0.03-1.8)
Clients' occupation* (Denominator is who knew clients' occupation)	N=363	N=363	N=409
Students	39.4 (33.0-46.2)	31.7 (25.4-38.7)	27.4 (21.2-34.6)
Rickshaw pullers	10.7 (7.5-15.2)	11.0 (7.2-16.5)	66.0 (59.1-72.3)
Men in uniform	40.8 (34.7-47.2)	20.1 (13.8-28.3)	27.6 (20.9-35.6)
Service holders	33.6 (27.2-40.7)	19.8 (12.9-29.3)	18.1 (13.7-23.5)
Car drivers	61.7 (54.8-68.2)	59.2 (49.9-67.9)	60.9 (53.9-67.5)
Business men	80.2 (74.8-84.6)	72.2 (66.1-77.6)	34.0 (27.6-41.1)
Daily labourer	12.4 (8.8-17.2)	27.0 (20.1-35.2)	30.1 (24.6-36.2)
Unemployed	5.8 (3.8-8.6)	8.0 (5.2-12.1)	28.9 (23.1-35.4)
Others[§]	13.0 (9.3-17.7)	14.1 (9.7-19.9)	0

*Multiple responses
[§]Others stated: political leaders, strangers, artists (TV/Cinema), sailor, house owner, cook, lawyer, rich people, bus-truck helper, boatman

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Drug use in clients (Table 90)

MSW in Central-A and Southeast-A reported knowing that one in every five of their client's injected drugs for fun or to get high. None of the Hijras knew of their client's drug taking behaviour. Drug use in MSW and Hijra has also been investigated and been described in section 3.1.2.3.

Table 90: Drug use in clients of MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion knew that clients (new or regular) inject drugs for funor to get high	19.0 (14.1-25.2)	19.7 (14.8-25.6) N=356	0

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge of, ever use, access to and breaking of condoms and lubricant use (Table 91)

Almost all MSW and Hijras recognized male condoms but only 38-43% were able to show it to the interviewers. All Hijras said that they had used condoms some time in their lives unlike MSW. For MSW NGOs was the most common source of condoms while Hijras obtained condoms primarily from pharmacies. Among those who used condoms in the last month more Hijras reported not having easy access to condoms compared to MSW ($p<0.001$ for all comparisons).

More MSW have ever used lubricant during last anal sex compared to Hijras ($p<0.001$ for all comparisons).

More MSW in Central-A had heard about lubricant products made specially for use with condoms compared to Hijras ($p<0.001$) and those who had heard of such products 62.8% MSW in Central-A, 47.7% MSW in Southeast-A and 33.2% Hijras in Central-A knew the brand name of such products. However, Hijras more commonly used special lubricants together with condoms during anal sex in the last month compared to MSW ($p<0.001$ for all comparisons).

More than three quarters of Hijras reported that their condoms broke during sex in the last month and this was significantly higher than MSW from both sites ($p<0.001$ for both).

Table 91: Knowledge, ever use, access to and breaking of condoms and lubricant use

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion recognized male condom	98.1 (96.1-99.1)	97.5 (95.1-98.8)	100.0
Proportion were able to show a male condom to the interviewers	43.4 (37.3-49.8) N=366	37.7 (32.8-43.0) N=363	40.1 (33.4-47.2) N=409
Proportion ever used a condom during receptive/ insertive sex	78.3 (71.9-83.5)	85.1 (80.6-88.8)	100.0
Sources of condom in last month* (Denominator is who had ever used condom in last month)	N=235	N=300	N=392
Shop	24.3 (17.3-32.9)	13.3 (9.3-18.7)	27.8 (20.3-36.9)
Pharmacy	43.8 (34.7-53.4)	49.3 (43.3-55.4)	89.8 (83.4-93.9)
Health centre	3.4 (1.5-7.7)	12.7 (8.2-19.0)	64.8 (54.8-73.6)
Bar/guest house/hotel	0.9 (0.2-3.4)	3.7 (1.9-6.9)	1.0 (0.2-4.7)
Friends	34.9 (27.2-43.4)	31.0 (22.2-41.5)	4.8 (1.4-15.7)
Pimp	9.8 (5.7-16.2)	16.3 (11.5-22.6)	1.0 (0.3-3.4)
NGO workers	70.2 (61.4-77.8)	93.3 (88.1-96.4)	79.6 (70.9-86.2)
No condom bought last month	0.9 (0.2-3.4)	0.7 (0.2-2.7)	0.8 (0.2-3.3)
Others (sex partners)	46.4 (36.5-56.5)	13.4 (8.7-20.1)	0
Proportion reported easy access to condoms	60.1 (53.4-66.6)	67.8 (61.0-73.9)	14.4 (9.4-21.4)
Proportion reported easy access to condoms (Denominator is who could identify a male condom and had used condom in last month)	N=235	N=300	N=392
Yes	94.0 (89.6-96.7)	82.0 (75.8-86.9)	15.1 (9.8-22.5)
No	6.0 (3.3-10.4)	18.0 (13.1-24.2)	85.0 (77.5-90.2)

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Reasons for not having easy access to condoms* (Denominator is who reported not having easy access to condoms)	N=14	N=54	N=333
Cost high	50.0 (20.8-79.2)	13.0 (5.0-29.9)	0
Shop/pharmacy is far away	35.7 (13.0-67.4)	16.7 (8.5-30.2)	41.4 (30.4-53.4)
Shop/pharmacy is closed	50.0 (20.8-79.2)	0	93.4 (87.1-96.7)
Feel ashamed/troublesome /afraid to buy	71.4 (42.6-89.4)	75.9 (60.2-86.8)	13.5 (8.0-21.9)
Do not know where to buy	0	1.9 (0.2-13.7)	2.4 (1.0-5.5)
Not willing to carry	78.6 (42.3-94.8)	61.1 (46.1-74.3)	19.5 (12.9-28.5)
Others§	0	22.2 (13.2-35.0)	1.2 (0.4-3.2)
Proportion ever used lubricant while having anal sex	99.2 (97.5-99.7)	98.4 (96.6-99.2)	64.6 (56.7-71.9)
Type of lubricant used last time* (Denominator who ever used lubricant)	N=365	N=357	N=265
Saliva	34.0 (27.4-41.3)	61.9 (52.6-70.4)	43.8 (34.0-54.1)
Oil	19.2 (14.1-25.5)	16.8 (11.5-23.9)	33.6 (24.0-44.7)
Water based condom lubricant	63.0 (55.0-70.3)	59.1 (53.2-64.8)	3.4 (1.1-10.2)
Antiseptic cream	18.9 (14.5-24.2)	21.9 (17.5-27.0)	0
Ordinary lotion/cream/petroleum jelly	23.0 (17.7-29.4)	26.9 (22.6-31.6)	5.7 (2.3-13.4)
Others§§	9.3 (5.9-14.4)	8.7 (6.0-12.4)	13.6 (7.4-23.6)
Proportion used condom during last sex with lubricant (Denominator is who have ever used of condoms and lubricant)	56.5 (51.0-61.7) N=287	43.4 (37.7-49.3) N=304	46.8 (36.0-57.9) N=265
Proportion ever heard about lubricant product made especially for use with condoms	63.9 (55.8-71.2)	57.0 (49.4-64.4)	40.0 (32.5-48.0)
Proportion were able to mention brand name of such a product	62.8 (54.8-70.1)	47.7 (39.6-55.9)	33.2 (26.1-41.1)
Proportion were able to mention brand name of such a product (Denominator is who have ever heard about of such products)	98.3 (94.5-99.5) N=235	83.6 (76.6-88.8) N=207	82.9 (71.8-90.2) N=164
Proportion frequently have used special lubricant together with a condom during anal sex last month (Denominator is who have heard about lubricant product specially use with condoms and had anal sex in the last month)	N=226	N=194	N=164

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Always	27.9 (21.8-34.9)	25.8 (19.8-32.9)	60.4 (47.5-71.9)
Sometimes	59.3 (53.0-65.3)	63.4 (53.2-72.5)	39.0 (27.7-51.7)
Never	12.8 (8.8-18.4)	10.8 (6.2-18.4)	0.6 (0.1-4.3)
Reasons for not using special condom lubricant (never or sometimes)*	N=163	N=144	N=65
High cost	31.3 (20.9-44.0)	0.7 (0.1-5.4)	0
Shy to buy/carry lubricant	38.0 (29.0-48.0)	14.6 (9.0-22.8)	29.2 (16.8-45.8)
Don't know where to obtain	1.2 (0.3-4.9)	5.6 (2.5-11.8)	0
Do not need to use	14.7 (10.2-20.9)	5.6 (2.6-11.5)	10.8 (3.9-26.2)
Use other cream/oil	34.4 (25.8-44.1)	50.0 (40.4-59.6)	69.2 (50.1-83.5)
Clients do not like	25.2 (18.1-33.9)	13.2 (7.1-23.1)	0
Dry soon	0	11.1 (6.8-17.6)	0
Do not feel good	7.4 (3.9-13.5)	10.4 (6.4-16.6)	3.1 (0.8-11.3)
Others§§§	17.2 (11.8-24.3)	14.6 (9.9-21.0)	6.2 (2.5-14.4)
Reasons for always using special condom lubricant*	N=63	N=50	N=99
Decrease pain/inflammation	84.1 (69.3-92.6)	56.0 (40.8-70.1)	8.1 (2.3-24.6)
Increase feeling	33.3 (21.1-48.3)	94.0 (80.7-98.3)	97.0 (87.5-99.3)
Decrease risk of condom breakage	95.2 (86.5-98.4)	92.0 (79.1-97.2)	97.0 (90.7-99.1)
To avoid HIV/AIDS/STD infection	61.9 (45.4-76.0)	52.0 (32.3-71.1)	11.1 (4.4-25.2)
Others§§§§	3.2 (0.7-12.8)	2.0 (0.2-15.1)	0
Proportion had a condom break last month	5.7 (3.5-9.2)	35.0 (29.7-40.6)	75.0 (67.4-81.3) N=408
Proportion had a condom break last month (Denominator is who have ever used condom in last month)	8.9 (5.4-14.5) N=235	42.3 (36.5-48.9) N=300	78.5 (71.2-84.3) N=390

*Multiple responses

§Others stated: NGO workers are not always available, careless, afraid of Men in uniform, no time to buy

§§Others stated: honey, soap, shampoo, special lubricant to use during sex, white substance of egg, water

§§§Others stated: cost high, use only female condom, sometimes stock is finished, use only lubricant with out condom, not always available, bad smell, careless, always cannot go to NGO for new supply

§§§§Others stated: don't believe sex partner, to give more fun to clients

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Mobility of MSW and Hijras and condom use while bought sex in abroad (Table 92)

One third of the MSW from both cities reported having sex while outside their respective cities and this was much less common for Hijras ($p<0.001$ for all comparisons). A small proportion of MSW and Hijras had sex while travelling abroad.

Table 92: Mobility in MSW and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion had sex outside of this city (inside country)	31.5 (25.9-37.8)	33.3 (28.4-38.6)	2.9 (1.4-6.1)
Proportion had sex outside the country	2.4 (1.3-4.6)	4.1 (2.7-6.3)	1.2 (0.4-3.4)

Note: Where responses from the tota number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on modes of HIV transmission and confidential HIV testing (Table 93)

More MSW had heard about HIV/AIDS than Hijras (p<0.001 for all comparisons). Misconceptions regarding routes of transmission of HIV/AIDS was significantly higher in MSW in Southeast-A than MSW in Central-A and Hijras (p<0.001 for all comparisons). Approximately one third of the MSW from Central-A knew where to get a confidential test for HIV but hardly any Hijras knew this.

Table 93: Knowledge on modes of HIV transmission and confidential HIV testing

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion reported to have heard about HIV/AIDS	95.1 (91.4-97.3)	95.3 (91.7-97.4)	72.7 (65.4-78.9)
Proportion mentioned condom use as a mode of prevention	61.4 (54.6-67.8)	85.1 (80.9-88.6)	57.5 (48.4-66.1) N=409
Proportion mentioned not sharing needles as a mode of prevention	48.4 (41.6-55.2)	79.6 (73.4-84.7)	56.5 (47.5-65.1) N=409
Proportion mentioned avoiding anal sex as a mode of prevention	35.9 (29.3-43.0)	43.8 (35.5-52.4)	57.2 (48.1-65.9) N=409
Proportion mentioned AIDS can be transmitted by mosquito bites	1.1 (0.4-2.9)	22.1 (17.3-27.8) N=362	0.2 (0.03-1.7)
Proportion mentioned AIDS can be transmitted by sharing food	1.6 (0.7-3.5)	24.0 (17.1-32.5)	0
Proportion mention avoiding multiple sex as a mode of prevention	32.2 (25.7-39.4) N=367	62.0 (55.3-68.3)	3.7 (1.5-8.5) N=409
Proportion mentioned one can tell by looking at someone whether they are infected with HIV	7.6 (4.9-11.7) N=367	14.1 (10.1-19.4) N=362	0
Proportion knew where HIV can be tested confidentially	31.0 (25.4-37.2)	9.6 (6.7-13.7)	1.5 (0.6 - 3.5)

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Proportion ever tested for HIV (Denominator is who knew where to test HIV or who did not knew but was taken to test centre by some one else)	16.7 (10.8-24.8) N=114	14.3 (6.5-28.4) N=35	0 N=6
Did you yourself request the test or somebody asked you to have the test? (Denominator is who ever tested for HIV)	N=19	N=5	N=0
Self	10.5 (2.4-36.3)	100.0	--
By some one else	21.1 (8.0-45.0)	0	--
Needed the test*	68.4 (40.1-87.5)	0	--
Proportion reported to have been given the result of an HIV test (Denominator is who ever tested for HIV)	100.0 N=19	80.0 (11.1-99.2) N=5	N=0 0
Time of the most recent HIV test (Denominator is who ever tested for HIV)	N=19	N=5	N=0
Within one year	31.6 (14.6-55.5)	40.0 (3.7-91.9)	0
More than one year	68.4 (44.5-85.4)	60.0 (8.1-96.2)	

*These are the people who became knowledgeable from HIV/AIDS prevention programs and went for testing

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge, self-reported STI and health care seeking behaviour (Table 94)

More than half of the MSW in Central-A reported at least one STI symptom in the last year and this was higher than MSW and Hijras (MSW Central-A vs MSW Southeast-A: p=0.001 and MSW Central-A vs Hijra Central-A: p<0.001). Most MSW from Central-A who had STI symptoms also sought formal medical treatment and the proportion seeking treatment here was higher than in other areas (MSW Central-A vs Hijras Central-A: p=0.003 but the difference with MSW in Southeast-A is not significant.). More MSW in Southeast-A compared to Hijra in Central-A, visited STI clinics in the last month (p<0.001).

Table 94: Self-reported STI and treatment seeking behaviour

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Knowledge on STIs*			
Discharge from penis	35.6 (28.0-44.0)	27.6 (21.4-34.7)	52.9 (42.2-63.4)
Burning pain on urination	44.3 (36.3-52.6)	61.2 (53.9-67.9)	64.9 (54.6-73.9)
Genital ulcers/sores	57.9 (50.6-64.9)	66.9 (63.0-70.7)	74.6 (64.8-82.5)
Swellings in groin	5.7 (3.5-9.2)	0.8 (0.2-3.4)	31.5 (23.7-40.4)
Anal discharge	23.6 (18.3-30.0)	20.4 (15.9-25.7)	1.0 (0.4-2.5)
Anal ulcer/sores	44.6 (38.0-51.3)	52.9 (44.9-60.7)	2.0 (0.9-4.2)
Others[§]	11.1 (7.2-16.9)	22.3 (16.7-29.2)	0
Proportion reported having urethral discharge in last one year	27.7 (23.1-32.9)	15.5 (11.8-20.1) N=362	2.4 (1.2-4.9)
Proportion reported having anal discharge in last one year	37.0 (28.9-45.8)	36.9 (31.0-43.3)	23.2 (17.0-30.8)
Proportion reported having genital ulcer/sore in last one year	25.5 (20.7-31.1)	22.0 (17.4-27.5)	32.0 (26.2-38.4)
Proportion reported at least one STI symptom in the last year	61.7 (54.6-68.3)	47.1 (41.4-52.9)	36.8 (30.0 - 44.3)
Proportion sought formal medical treatment for last STI symptom (Denominator is who had symptoms in last one year)	83.7 (76.7-88.9) N=227	72.5 (65.1-78.9 N=171	67.6 (58.5-75.5) N=151
Proportion sought formal medical treatment as a first choice for last STI symptom in last year (Denominator is who had symptoms and sought treatment in last one year)	84.4 (77.5-89.5) N=225	76.1 (68.6-82.2) N=163	67.6 (58.5 - 75.5) N=151
Choice of STI treatment (denominator is who reported STI in last year)	N=227	N=171	N=151
Hospital	9.7 (5.9-15.5)	3.5 (1.5-8.2)	2.6 (0.8-8.4)
Drug seller	10.6 (6.1-17.6)	11.7 (7.6-17.6)	8.6 (4.2-16.9)
Private doctor	16.3 (11.4-22.7)	11.1 (6.9-17.3)	16.6 (9.9-26.5)
Private clinic	0.4 (0.1-3.2)	1.2 (0.3-4.6)	0.7 (0.1-4.6)
NGO clinic	57.3 (47.7-66.3)	56.7 (48.2-64.8)	47.7 (36.9-58.7)
Traditional healer	0.4 (0.1-3.2)	2.3 (0.7-7.2)	22.5 (15.8-31.1)
Advice/treatment from friends	3.5 (1.7-7.3)	0.6 (0.1-4.4)	0.7 (0.1-4.5)
Self-medication	0.9 (0.2-3.6)	0	0.7 (0.1-4.5)
Did not seek treatment	0.9 (0.2-3.6)	4.7 (2.4-9.0)	0
Others[§§]	0	8.2 (4.8-13.7)	

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Mean waiting days for last STI treatment (Denominator is who sought treatment in last one year)	6.6 (5.8-7.5) M=5 N=225	8.2 (7.1-9.2) M=7 N=159	6.5 (5.5-7.6) M=6.5 N =146
Mean expenditure in last STI treatment last year (Denominator is who reported STI last year and sought treatment)	169.7 (124.7-214.8) M=30 N=225	177.8 (142.0-213.6) M=120 N=149	132.5 (104.0-160.9) M=70 N=148
Proportion reported to have visited STI clinics last month	26.1 (20.9-32.0)	34.5 (29.5-40.0) N=362	13.8 (8.4-21.7) N=407
Name of clinics visited (Denominator is who visited STI clinics last month)	Bandhu N=96	Bandhu, Marie Stopes clinic N=125	Sustho Jibon N=55

§Others stated: pain in testicles, itching, piles, Hepatitis-B, syphilis, gonorrhoea, impotence, AIDS, diabetic, rash
§§Others stated: use hot water, dettol, cream
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measures taken to avoid STI and HIV (Table 95)

A considerable proportion of the MSW and Hijras reported that they did not take any precautionary measure to avoid STIs and HIV. Many MSW and Hijras took ineffective measures to avoid becoming infected such as washing their genitals with soap/dettol/urine after having sex, checking clients before having sex, avoiding sex with foreigners, etc. Always using condoms during sex was mentioned by significantly higher number of Hijras than by MSW in both sites ($p<0.001$ for all comparisons).

Table 95: Measures taken to avoid STI and HIV

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N=410)
Steps taken to avoid STIs*			
Nothing	26.6 (20.6-33.7)	12.1 (9.3-15.7)	14.9 (9.2-23.2)
Never share needle/syringe	Not asked	Not asked	8.5 (4.2-16.6)
Wash genital organs with water/soap/dettol/urine	31.5 (25.4-38.4)	51.8 (46.2-57.3)	75.1 (66.1-82.4)
Always use condoms	17.9 (13.5-23.5)	18.7 (14.6-23.7)	65.4 (55.3-74.2)
Sometimes use condoms	39.1 (34.0-44.6)	55.7 (50.6-60.6)	6.3 (3.2-12.3)
Take medicine	1.1 (0.4-2.9)	4.1 (2.3-7.4)	0.7 (0.2-3.2)
Others[§]	30.7 (24.7-37.5)	16.5 (11.9-22.4)	0.5 (0.1-1.9)
Steps taken to avoid HIV* (Denominator is who have heard about HIV)	N=350	N=346	N=298
Do nothing	26.0 (19.9-33.2)	11.0 (8.1-14.7)	10.1 (5.2-18.5)
Never share needle/syringe	Not asked	Not asked	12.4 (6.3-22.9)
Wash genital organs with water/soap/dettol/urine	29.1 (23.1-36.0)	50.3 (44.0-56.6)	81.9 (73.0-88.3)
Always use condom	18.9 (14.2-24.7)	18.5 (14.2-23.8)	76.9 (66.5-84.8)
Sometimes use condom	40.9 (35.4-46.5)	56.9 (51.2-62.5)	2.0 (0.5-7.9)
Take medicine	0.9 (0.3-2.6)	3.8 (1.9-7.3)	0.3 (0.05-2.4)
Others[§§]	30.0 (23.2-37.9)	11.3 (7.2-17.3)	1.3 (0.4-4.4)

*Multiple responses

[§]Others stated: use lubricant, avoid sex with female sex workers, check clients before sex, avoid sex with aged males, sex with clean clients, do less anal sex, be alert, be neat and clean, use powder, use antiseptic cream, trusted sex partners, healthy clients, take doctor's advice, use amulets, use mustard oil

[§§]Others stated: do sex with lubricant, avoid sex with female sex workers, be alert, do less sex with males, avoid sick clients, sex with clean clients, do less oral sex, avoid sex with foreigners, check clients, trusted sex partners, take healthy clients, be neat and clean, wash with hot water, take beautiful clients

Violence against male sex workers and Hijras (Table 96)

In general, both MSW and Hijras commonly experienced violence. Both mastans and Men in uniform were commonly reported to be the perpetrators of violence.

Table 96: Violence against male sex workers and Hijras

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N= 410)
Proportion reported to have beaten in last year	38.9 (33.0-45.1)	20.9 (16.4-26.3)	43.7 (36.3-51.3)
Proportion reported to have raped in last year	37.0 (30.1-44.4)	36.6 (30.7-43.0)	47.8 (39.9-55.9)
Proportion reported beaten or raped in last year	56.8 (51.0-62.4)	39.9 (33.9-46.3)	53.7 (45.7-61.5)
Violence done by: (Denominator who reported violence in last year)*	N=208	N=140	N=220
Men in uniform	63.5 (54.6-71.5)	21.4 (14.1-31.2)	43.2 (34.3-52.6)
Mastans (Hoodlums)	58.7 (51.3-65.7)	68.6 (60.0-76.0)	94.1 (89.3-96.8)
New clients	4.3 (2.2-8.2)	17.9 (12.4-25.0)	13.6 (6.7-25.7)
Regular clients	16.4 (11.4-22.9)	20.7 (14.9-28.1)	2.7 (1.0-7.3)
Others§	34.6 (24.9-45.9)	22.1 (15.9-30.0)	0.5 (0.1-3.3)
Proportion reported ever being jailed in the last year	4.9 (2.6-9.1) N=367	9.9 (6.9-14.0)	2.9 (1.1-7.4) N=377

*Multiple responses

§Others stated: Relatives, neighbours, friends, drunk people, local people, family members, snatchers

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self-perception of risk (Table 97)

The highest proportion of respondents who did not know whether they were at risk of HIV infection was from MSW in Central-A ($p<0.001$ for all comparisons). More than half of the Hijras in Central-A thought that they were at high risk.

Table 97: Self-perception of risk

Sampled groups	MSW who perceived that they were at high risk % (95% CI)	MSW who perceived that they are at medium risk % (95% CI)	MSW who perceived that they were at little or no risk % (95% CI)	MSW who could not assess their risk % (95% CI)
MSW, Central-A (N=367)	5.2 (3.2-8.2)	22.9 (18.5-28.0)	30.3 (24.4-36.9)	41.7 (35.2-48.5)
MSW, Southeast-A (N=363)	16.0 (13.1-19.4)	24.3 (21.9-29.1)	35.8 (30.3-41.8)	22.9 (18.4-28.1)
Hijras, Central-A (N=410)	54.4 (44.9-63.6)	2.7 (1.1-6.4)	32.2 (23.6-42.2)	10.7 (7.1-15.9)

Reasons for self-perception of risk (Table 98)

The three most common reasons for considering themselves to be at high or medium risk for HIV by MSW was irregular use of condoms, frequent anal sex and being in a "risky profession". For Hijras not using condoms at all, frequent anal sex and risky profession were the reasons most commonly mentioned. Among the MSW who assessed themselves to be at little risk or no risk, the reasons mentioned were that they always used condoms, had sex with clean and healthy clients and avoided sex with foreigners. The Hijras had similar reasons except that instead of always using condoms they felt that even irregular use of condoms put them at little or no risk.

Table 98: Reasons for self-perception of risk

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N= 410)
Reasons for self-perception of risk (Denominator who thought themselves are at high or medium risk)*	N=103	N=150	N=234
Risky profession	44.7 (34.0-55.9)	72.0 (63.8-78.9)	96.2 (89.2-98.7)
Frequent anal sex	58.3 (46.3-69.3)	37.3 (26.5-49.6)	97.0 (93.0-98.7)
Do not use condoms	9.7 (5.3-17.2)	23.3 (16.8-31.4)	89.7 (81.5-94.6)
Sometimes use condoms	90.3 (82.8-94.7)	72.0 (63.7-79.1)	4.3 (1.9-9.5)
Sharing needle/syringe	0	2.0 (0.6-6.4)	8.5 (3.5-19.6)
Others[§]	3.9 (1.5-9.8)	9.3 (5.6-15.1)	0
Reasons for assessing themselves at little or no risk (Denominator is who perceived themselves to be at little or no risk)*	N=111	N=130	N=132
Always use condom	60.4 (47.4-72.0)	42.3 (31.5-53.9)	6.8 (2.2-19.1)
Irregular use of condom	35.1 (24.2-48.0)	15.4 (8.9-25.2)	12.9 (5.7-26.6)
Clean clients	38.7 (28.9-49.6)	56.2 (46.4-65.5)	78.8 (63.5-88.8)
Healthy clients	24.3 (16.5-34.3)	33.1 (23.7-44.1)	71.2 (57.4-82.0)
Avoid sex with foreigners	27.9 (20.2-37.2)	6.2 (2.8-13.1)	12.1 (5.6-24.5)
Never share needle/syringe	Not asked	Not asked	2.3 (0.5-9.7)
Others[§§]	9.0 (5.0-15.7)	36.9 (27.6-47.4)	0.8 (0.1-5.4)

*Multiple responses
§Others stated: swallow semen sometimes, cannot use lubricant always
§§Others stated: less frequent sex, avoid sex with female sex workers, check clients, avoid sex with older persons, use only lubricant, do not insert penis inside, be alert, use dettol, be neat and clean, take medicines, have sex with trusted sex partners, avoid anal sex, wash with hot water

Exposure to interventions (Table 99)

Although in the last one year more MSW in either site compared to Hijras ($p<0.001$ for all comparisons) had received some services from NGOs, in the last one month NGO coverage was higher in Hijras than in MSW ($p<0.001$ for all comparisons). Among those who were involved with NGOs in the last one year more than half of the MSW reported that the interventions had helped in changing behaviour but more than 60% of Hijras said that the information provided was not useful in helping them to change their behaviours.

Table 99: Exposure to interventions

Indicators % (95 % CI)	MSW Central-A (N=368)	MSW Southeast-A (N=363)	Hijras Central-A (N= 410)
Proportion exposed to intervention in last one year	66.0 (57.6-73.6)	86.5 (81.9- 90.1)	15.4 (9.7-23.4)
Proportion exposed to intervention in last one month (Denominator is who were exposed to intervention in last year)	70.4 (62.1-77.5) N=243	60.5 (53.5-67.1) N=314	93.6 (83.0-97.7) N=62
Proportion reported to have benefited from intervention (Denominator is who were exposed to intervention in last year)	N=220*	N=295**	N=62***
Helped in changing behaviour	56.8 (50.2-63.2)	56.6 (50.6-62.4)	27.4 (12.4-50.2)
Received useful information but behaviour did not change	32.7 (26.7-39.4)	36.6 (29.6-44.3)	71.0 (48.5-86.4)
Information was hard to understand	10.9 (6.8-17.1)	5.8 (3.5-9.5)	37.1 (21.1-56.5)
Information was not relevant to their needs	8.6 (5.1-14.3)	6.1 (3.7-9.9)	30.7 (14.7-53.1)
Gained important knowledge§	41.8 (30.2-54.4)	11.2 (7.7-15.9)	3.2 (0.7-13.3)
Others§§	4.5 (2.1-9.6)	1.4 (0.5-3.4)	0

*Twenty three observations are missing
**Nineteen observations are missing
***One observation is missing
§Gained important knowledge include: came to know about HIV/AIDS/STD/safe sex, learnt how to use condoms but we are not sure whether or not their behaviour changed
§§Others stated: came to know about lubricants, blood test, do not know and did not have any benefit
Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

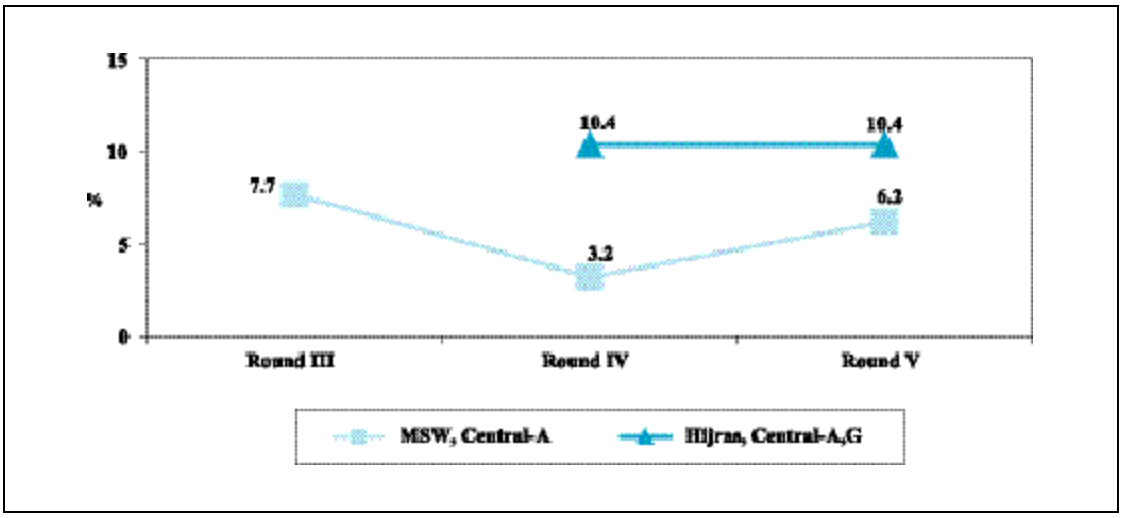
3.3.3 COMPARISON OVER THE ROUNDS

Trends in active syphilis rates could be determined for MSW in Central-A from the second round and for Hijras in the Central region from the fourth round. For BSS MSW from the Central and Southeast regions and Hijras from the Central region could be compared over the last two rounds.

3.3.3.1 SEROLOGY

HIV prevalence has remained below one percent for MSW and Hijras over the rounds. Active syphilis rates in MSW from Central-A varied considerably over the rounds, but the difference over the rounds is not significant. In Hijras the high rates of active syphilis remained unchanged between the two rounds (Fig 18).

Fig 18: Active syphilis rates in MSW and Hijras



3.3.3.2 BEHAVIOUR

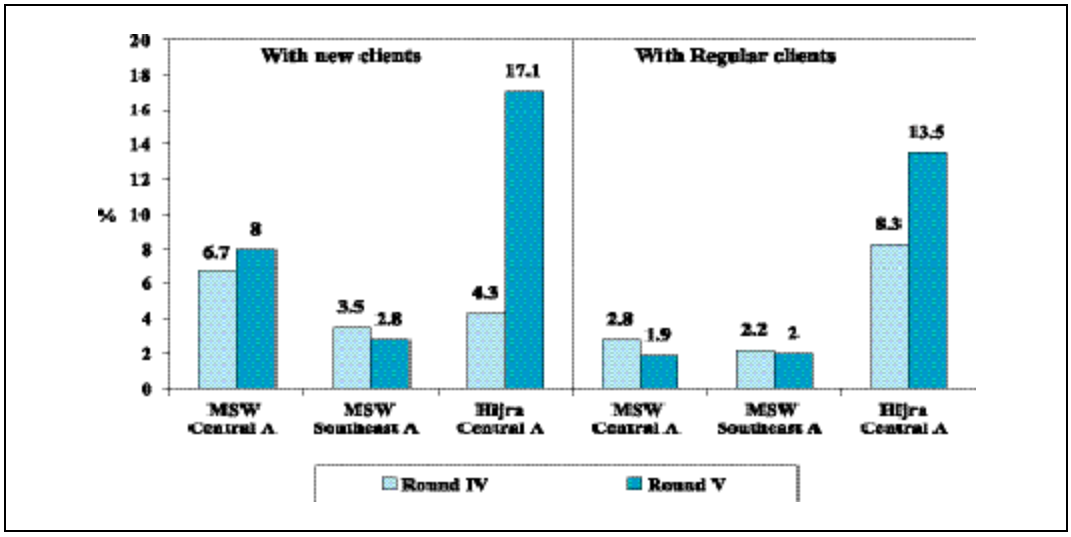
Socio-demographic characteristics and dynamics of sex work (Appendix A-19, 20)

Compared to the 4th round, MSW in Central-A interviewed during the 5th round were younger, significantly more had a history of selling sex for less than one year and concurrently the mean years in the profession of selling sex was lower ($p<0.001$ for all comparisons). MSW in Southeast-A were similar in age, in selling sex for less than one year, and in mean years in the profession between the two rounds. Hijras interviewed from Central-A were younger in the fifth round compared to the fourth round ($p<0.001$), in both rounds none of the Hijras interviewed had sold sex for less than one year and their mean number of years in the profession of selling sex were similar in the two rounds (Appendix A-19, 20).

Clients and non-commercial partners of MSW and Hijras (Fig 19, 20 and appendix A-21, 22)

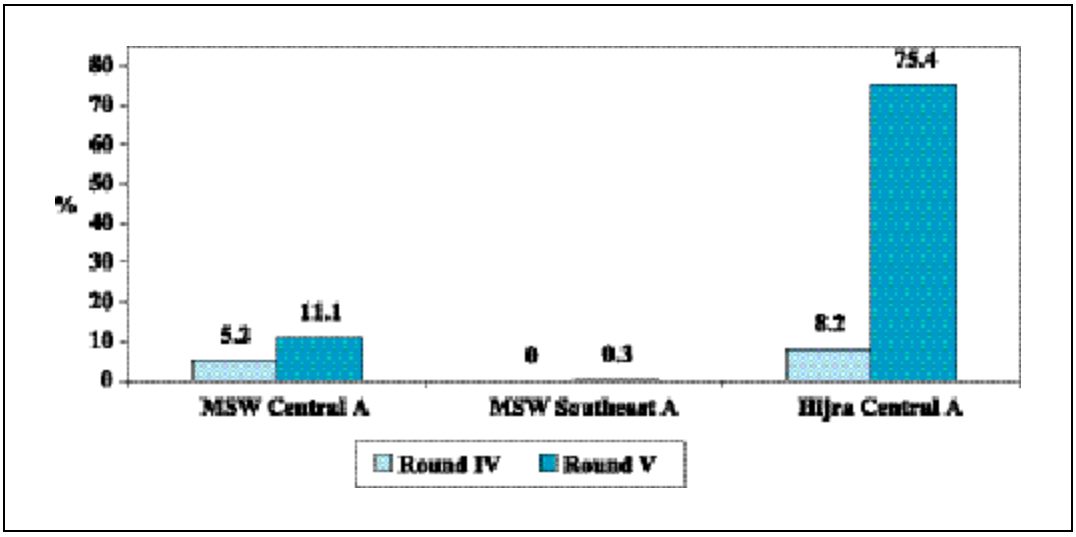
MSW but not Hijras were asked about both male and female clients. Between rounds four and five, MSW from Central-A had similar mean numbers of new clients last week but fewer regular clients ($p<0.001$) (Fig 19). In contrast, MSW from Southeast-A had similar numbers of regular clients last week but fewer new clients ($p<0.001$). Hijras had more new or regular clients in the last week in the fifth round compared to the fourth round ($p<0.001$ for both) (Fig 19).

Fig 19: Mean numbers of clients (new or regular) of MSW and Hijras last week



There were no changes in the proportion of MSW from either city who reported more than 20 clients in the last week between the last two rounds but there was a considerable increase in the proportions of Hijras who reported this ($p<0.001$) during the fifth round (Fig 20 and appendix A-21).

Fig 20: Proportion of MSW and Hijras reporting more than twenty clients in the last week



In Central-A, between the rounds there were no differences in the proportions of MSW who reported having non-commercial male, Hijra or female partner in the last month. In Southeast-A, though having non-commercial male and Hijra partner did not change over the rounds but more MSW had non commercial female partner in round five compared to round four ($p<0.001$). There were also no differences in the proportions of Hijras reporting non-commercial sex partners between the two rounds (Appendix A-21).

A small proportion of MSW from both cities reported selling sex to females last month and between the rounds no changes were observed in the proportions reporting these behaviours (Appendix A-21).

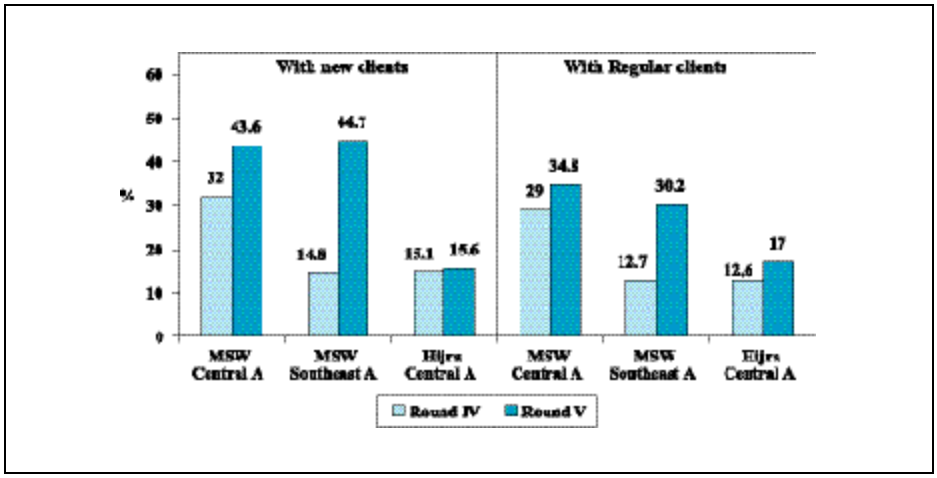
Buying sex (Appendix A-21)

The proportions of MSW from the two cities reporting buying sex from males and Hijras in the last month did not change between the two rounds. Buying sex from females by MSW was not commonly reported and the proportions reporting this in the last month were similar in the two rounds.

Condom use with commercial sex partners (Fig 21, 22 and appendix A-23, 24)

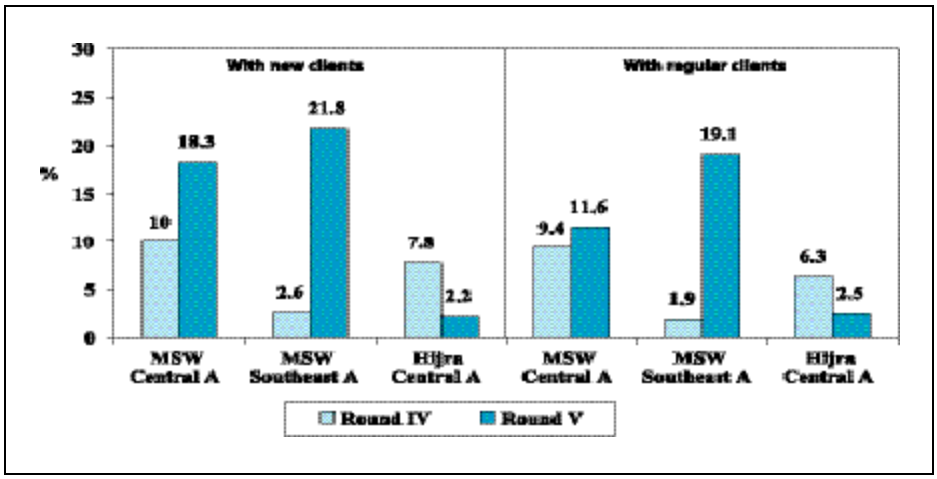
In Central-A, the proportions of MSW reporting condom use with new clients and regular clients during the last anal sex did not change over the rounds (Fig 21). In Southeast-A, there were significant increases in the proportions of MSW using condoms during the last anal sex with either new or regular clients ($p<0.001$ for all comparisons) (Fig 21). No changes were observed in Hijras with either client type between the two rounds and the proportions using condoms were very low (Appendix A-23).

Fig 21: Condom use with clients (new or regular) by MSW and Hijras during last anal sex



Consistent condom use in anal sex in the last week with new or regular clients did not change over the rounds for MSW and Hijras in Central-A but this increased in MSW in Southeast-A with both types of clients ($p<0.001$ for all comparisons) (Fig 22 and appendix A-24).

Fig 22: Consistent condom use in the last week by MSW and Hijras with new or regular clients



Condom use with non-commercial sex partners (Fig 23, 24 and appendix A-23, 24)

A large proportion of MSW and Hijras reported non-commercial male/hijra partners. The proportions reporting condom use in the last anal sex with these partners increased significantly between the fourth and fifth rounds in Southeast-A ($p<0.001$) but no changes were recorded in MSW or Hijras from Central-A (Fig 23 and appendix A-23). Similarly, consistent condom use in anal sex with male/Hijra partners also increased in Southeast-A ($p<0.001$) while no changes were recorded with the other groups (Fig 24 and appendix A-24). In contrast, with female non-commercial partners, a higher proportion of MSW in Central-A reported using condoms in the last sex as well as consistently over the last week ($p<0.001$ for all comparisons) but there were no significant changes in Southeast-A (Fig 23 and 24). Hijras were not asked about female sex partners.

Fig 23: Condom use in last sex by MSW and Hijra with non-commercial partners

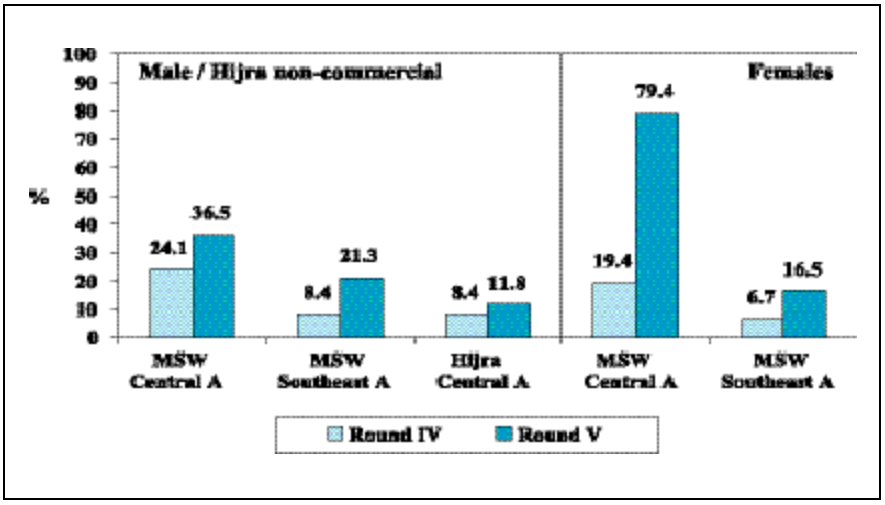
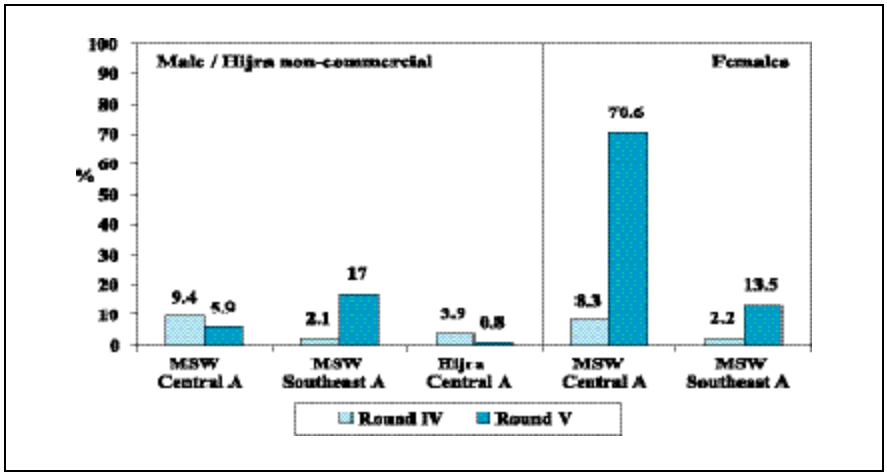


Fig 24: Consistent condom use by MSW and Hijra with non-commercial partners

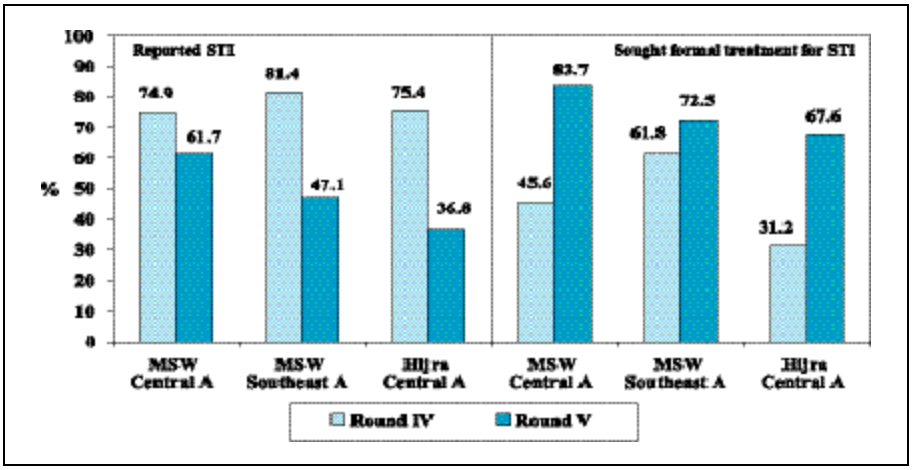


Self reported STIs and medical treatment seeking behaviour for STIs (Fig 25 and appendix A-25)

The proportion of MSW from both sites and Hijras reporting at least one STI symptom in the last year decreased significantly between the fourth and fifth rounds ($p=0.002$ for MSW in Central-A and $p<0.001$ for MSW in Southeast-A and

Hijras in Central-A) (Fig 25). And the proportions who sought formal medical treatment for the last STI symptom also increased for all three groups, this increase was significant for MSW and Hijras in Central-A (p<0.001) but not for MSW in Southeast-A (Fig 25 and appendix A-25).

Fig 25: Proportion of MSW and Hijras complaining of STI symptoms in the last year and seeking formal medical treatment for those symptoms



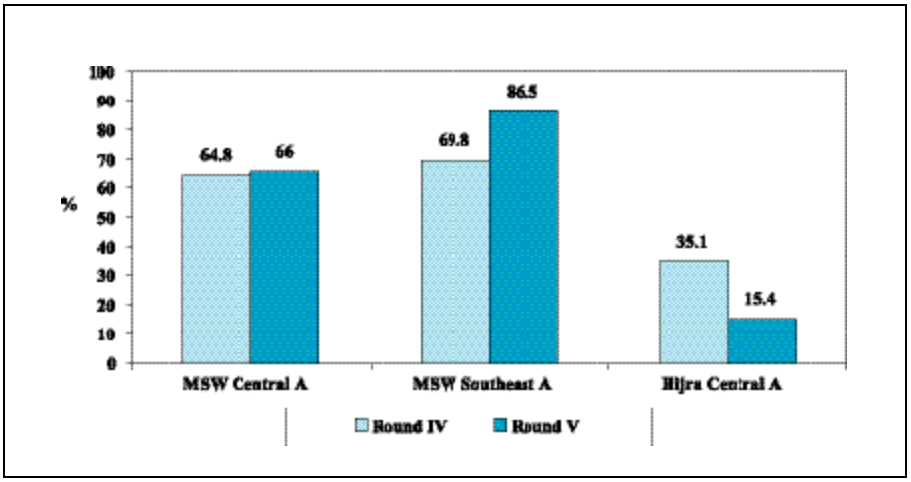
Self perception of risk (Appendix A-26)

Self-perception of risk in MSW and Hijras from Central-A showed significant improvements in the fifth round compared to the fourth round (p<0.001 for all comparisons) while in MSW from Southeast-A, no significant changes were recorded. Fewer Hijras from Central-A could not assess their risk, but at the same time more believed themselves to be at high risk (Appendix A-26).

Exposure to interventions (Fig 26 and appendix A-27)

The proportion of MSW exposed to interventions in the last year remained unchanged between the last two rounds in Central-A while this increased in Southeast-A (p<0.001) (Fig 26). Compared to the fourth round fewer Hijras sampled in the fifth round were exposed to interventions in the last year (p<0.001) (Fig 26 and appendix A-27).

Fig 26: MSW and Hijras exposed to interventions in the last year



3.3.4 SUMMARY OF FINDINGS

Data on MSW from the two cities and Hijras suggest that all groups are equally at high risk of HIV/STIs. For MSW the situation appears to be mixed; in both cities MSW were reporting commercial and non-commercial sex with males, Hijras and females and client numbers were large. Condom use was often low. A proportion of MSW were married. Although syphilis rates have remained the same, the proportion reporting STIs declined. Exposure to intervention programmes since the 4th round remained the same in MSW from Central-A, increased in those from Northeast-A and declined in Hijras.

In MSW two specific causes for concern are highlighted here:

- More than one tenth of the MSW from Central-A reported more than 20 clients in a week
- 3.9% of the MSW from Southeast-A reported having injected drugs in the last year.

The situation in Hijras was bleaker as:

- They had very high mean number of clients (30.6 in the last week), client numbers increased (new and regular) when compared to the last round of BSS and also more than three quarters reported having more than 20 clients in the last week
- Condom use was not common and there were no changes since the last round of BSS
- Active syphilis rates remained high (~10%) and similar to the last round
- The proportion reporting exposure to interventions in the last year declined since the 4th round.

The data indicate that the intervention programmes in these groups of MSW and Hijras are not having an impact and even this low quality intervention has declined in Hijras. Hijras require focussed attention and programmes on MSW need to be enhanced urgently.

3.4 MALES WHO HAVE SEX WITH MALES

Where possible attempts were made to separate MSM from MSW and this was possible in BSS from all sites (Central-A and Northeast-A). However, for serological surveillance this was only possible in Central-A. From Central-C, Southeast-A and Northeast-A, MSM and MSW were sampled as a combined group for serology.

3.4.1 SEROLOGY

MSM were sampled from Central-A and from the other three sites, MSM and MSW were combined to form a single group. It was not possible to administer the full range of demographic questionnaire to the combined MSM and MSW sites; only age was recorded.

Demographic characteristics (Table 100)

Age was similar between MSM and the combined sites. Other characteristics of MSM in Central-A are shown in Table 100.

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Table 100: Demographic characteristics of MSM and combined MSM and MSW

Geographical location (N)	Age in years median (IQR)	Ever attended school, % (n), 95% CI	Education (years) median (IQR)	Duration living in the same city (months) median (IQR)
Males who have sex with males				
Central-A (399)	24 (21-30)	87.2 (348), 83.5-90.3	8 (5-10)	120 (60-240)
Combined MSM and MSW				
Central-C (400)	21 (19-26)	NA	NA	NA
Southeast-A (398)	24 (20-29)	NA	NA	NA
Northeast-A (400)	23 (20.3-27)	NA	NA	NA

Note: NA refers to Not Asked;

IQR refers to Inter Quartile Range

HIV and syphilis prevalence (Table 101)

Only two MSM tested HIV positive out of a total of 1597 samples. The prevalence of active syphilis rates were similar in both MSM and combined MSM and MSW sites.

Table 101: Prevalence of HIV and syphilis among MSM and combined MSM and MSW

Study Populations, Geographical Location (numbers tested)	HIV % (n), 95% CI	Active syphilis % (n), 95% CI
Males who have sex with males:		
Central-A (399)	0	1.5(6),0.6-3.2
Combined MSM and MSW:		
Central-C (400)	0	2.5 (10), 1.2-4.5
Southeast-A (398)	0.3 (1), 0-1.4	2.8 (11), 1.4-4.9
Northeast-A (400)	0.3 (1), 0-1.4	3.3 (13), 1.7-5.5

3.4.2 BEHAVIOUR

Males who have sex with males were sampled from Central-A and Northeast-A.

Socio-demographic characteristics of MSM (Table 102)

MSM from Central-A were older than those from Northeast-A ($p<0.001$). Almost all MSM had been to school. More MSM from Central-A were married ($p<0.001$). The main source of income in the last month for MSM in Central-A and in Northeast-A was service and business respectively. Mean age at first sex was similar in both groups. Most MSM sampled identified themselves as being “manly”, i.e. being like any other man.

Table 102: Socio-demographic characteristics

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Mean age (in years)	32.0 (31.0-32.9) M=30	28.5 (28.1-28.8) M=28
Proportion who had no schooling	0	0
Duration of stay in this city	N=417	N=390
Whole life	51.3 (45.0-57.6)	71.5 (67.6-75.2)
<=10 years	20.9 (16.9-25.5)	18.5 (15.5-21.9)
>10 years	27.4 (22.2-33.3)	10.0 (7.2-13.7)
Cannot remember	0.4 (0.1-2.8)	0
Mean income last month	5851.4 (5349.4-6353.3) M=5000	5936.7 (5606.7-6266.6) M=5000
Sources of income in last month*		
Business	29.1 (25.0-33.5)	55.4 (50.4-60.3)
Service	33.9 (29.1-39.0)	17.7 (14.4-21.6)
Driver	14.1 (10.4-18.9)	25.4 (21.2-30.1)
Teaching	5.7 (3.8-8.5)	0.5 (0.1-2.1)
Others[§]	21.9 (16.7-28.2)	1.3 (0.5-3.0)
Proportion who were currently married	46.3 (41.1- 51.7)	17.7 (14.8 -21.1)
Mean age at first sex in years (Denominator is who could recall)	15.0 (14.8-15.2) M=15	16.9 (16.7-17.2) M=17
Proportion living with regular sex partners	59.7 (52.8-66.2)	20.5 (17.2-24.3)
Self categorisation	N=406	N=370
Man/manly/general population	39.4 (33.1-46.1)	98.4 (96.5-99.3)
Parik	15.0 (12.3-18.2)	0.5 (0.1-2.2)
Film hero/heroin	1.1 (0.3-3.9)	0
Panthi	10.1 (7.0-14.5)	0
Kothi	30.9 (27.1-35.1)	0
Do-parata	3.1 (1.8-5.4)	0
Others [§§]	0.2 (0.03-1.7)	1.1 (0.4-2.8)

*Multiple responses
[§]Others stated: rickshaw pullers, daily labour, student, men in uniform, cook, mastan, boatman, tailor, dance, guard, pimp, hotel boy, bus helper, tuition
[§§]Others stated: mastan, businessman
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Blood selling

Selling of blood was uncommon with 0.7% (95% CI: 0.2-2.1) of MSM in Central-A and none in the Northeast-A reporting having done so in the last year.

Dynamics of sex work (Table 103)

Most of the MSM in both areas reported that females were their regular sex partners. The first sexual experience of the MSM in Central-A was most commonly with males while in Northeast-A, approximately half reported this to be with females. Almost all MSM from both sites had had anal sex with males in the last year. However, more MSM in Central-A had had anal sex with Hijras and females in the last year than those in Northeast-A (p<0.001 and p=0.003, respectively).

Table 103: Dynamics of sex of MSM

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Gender of regular sex partner (Denominator is who lives with a regular sex partner)	N=252	N=79
Male	38.0 (32.6-43.8)	24.1 (16.8-33.2)
Female	61.6 (55.8-67.1)	76.0 (66.8-83.2)
Hijra	0.4 (0.1-2.8)	0
Gender of first sex partner		
Male	78.5 (74.0-82.4)	46.4 (39.1-53.8)
Female	18.4 (15.0-22.4)	53.3 (45.8-60.8)
Hijra	3.1 (1.8-5.4)	0
Cannot remember	0	0.3 (0.03-1.9)
Proportion reported anal sex with any Hijra last year	39.8 (33.5-46.5)	10.0 (6.7-14.8)
Proportion reported to have anal /vaginal sex with any female (not Hijra) in last year	72.7 (66.5-78.1)	59.2 (52.6-65.6)
Proportion reported to have anal sex with any male (not Hijra) last year	100.0 N=416	100.0

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Sexual behaviour of MSM (Table 104)

Buying sex in the last month from Hijras and females was more commonly reported by MSM from Central-A compared to those from Northeast-A (p<0.001 for both). However, more MSM in the Northeast-A reported buying sex from males than those in Central-A (p<0.001). More MSM in Central-A reported having non-commercial male/Hijra or female sex partners in the last month than those in Northeast-A (p<0.001 for both comparisons).

More than half of the MSM in Central-A reported having group sex in the last month while very few MSM from Northeast-A reported this (p<0.001). More MSM in Central-A had oral sex than those in Northeast-A (p<0.001 for all).

Table 104: Sexual behaviour

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion who bought sex from males last month	71.9 (64.8-8.1)	96.7 (94.2-98.1)
Proportion who bought sex from Hijra last month	38.0 (31.1-45.5)	7.2 (4.2-12.1)
Proportion who bought sex from females last month	57.2 (49.7-64.3)	25.1 (20.0-31.1)
Proportion who had non-commercial male/Hijra sex partners last month	87.9 (83.3-91.4)	19.2 (14.1-25.7)
Proportion who had non-commercial female sex partners last month	60.4 (53.2-67.2)	17.2 (14.3-20.5)
Proportion reported group sex last month	54.4 (47.1-61.6)	3.3 (1.6-6.7)
Proportion who reported to have oral sex with non commercial male/Hijra partners	82.6 (77.0-87.1) N=418	7.9 (5.3-11.7)
Proportion who reported to have oral sex with commercial male (not Hijra) partners	67.1 (59.3-74.0)	47.7 (40.2-55.3)
Proportion who reported to have oral sex with commercial Hijra partners	27.5 (20.9-35.3) N=418	1.8 (0.8-4.1)

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Sex partners of MSM (Table 105)

Overall, MSM from Central-A had more sex partners (all genders) in the last month than MSM from Northeast-A (p<0.001).

Table 105: Sex Partners of MSM

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Mean number of male commercial partners last month	3.0 (2.6-3.4) M= 2	3.2 (3.0 - 3.4) M= 3
Mean number of male commercial partners last month (Denominator is who had commercial male partners last month)	4.2 (3.8-4.6) M=3 N=304	3.3 (3.2-3.5) M=3 N=377
Mean number of commercial Hijra partners last month	0.7 (0.6-0.9) M=0	0.1 (0.04 - 0.2) M=0
Mean number of commercial Hijra partners last month (Denominator is who had commercial Hijra partners last month)	1.8 (1.7-2.0) M=2 N=160	1.4 (1.3-1.6) M=1 N=28
Mean number of non-commercial male/Hijra partners last month	3.9 (3.5-4.2) M= 3	0.2 (0.2-0.3) M=0
Mean number of non-commercial male/Hijra partners last month (Denominator is who had non commercial male partners last month)	4.4 (4.0-4.8) M=4 N=371	1.2 (1.1-1.3) M=1 N=75
Mean number of commercial female partners last month	1.2 (1.0-1.4) M= 1	0.4 (0.3-0.5) M=0
Mean number of commercial female partners last month (Denominator is who had commercial female partners last month)	2.1 (2.0-2.2) M=2 N=239	1.6 (1.4-1.7) M=2 N=98
Mean number of non-commercial female partners last month	0.7 (0.6-0.8) M= 1	0.2 (0.1-0.2) M=0
Mean number of non commercial female partners last month (Denominator is who had non commercial female partners last month)	1.2 (1.1-1.3) M=1 N=255	1.0 (1.0-1.1) M=1 N=67
Overall mean number of partners last month (commercial/non commercial- Male/female/Hijra)	9.5 (8.8-10.2) M=10	4.1 (3.9-4.3) M= 4
Mean number of partner during group sex	1.3 (1.1-1.5) M=2	0.1 (0.03-0.2) M=0
Mean number of partner during group sex (Denominator is who had group sex last month)	2.4 (2.3-2.5) M=2 N=230	3.3 (2.8-3.8) M=3 N=13

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use during last sex with commercial and non-commercial partners (Table 106)

Equal proportions of MSM from both cities reported condom use in last sex with different partners the exception being non-commercial female partners where more MSM from Central-A had used a condom during the last sex than MSM from Northeast-A ($p<0.001$).

Table 106: Condom use during last sex with commercial and non-commercial partners

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Condom use in last anal sex with commercial male partners (Denominator is MSM who reported anal sex with commercial male partners in last month)	46.7 (39.0-54.6) N=304	51.2 (45.0-57.3) N=377
Condom use in last anal sex with commercial Hijra partners (Denominator is MSM who repoted anal sex with commercial Hijra partners in last month)	27.3 (18.8-37.9) N=160	46.4 (32.4-61.0) N=28
Condom use in last vaginal/anal sex with commercial female partners (Denominator is MSM who reported vaginal/anal sex with commercial female partners in last month)	39.8 (33.4-46.6) N=239	55.1 (44.5-65.3) N=98
Condom use in last anal sex with non-commercial male/Hijra sex partners (Denominator is MSM who reported anal sex with non-commercial male sex partners in last month)	39.3 (33.1-45.8) N=371	25.7 (16.7-37.4) N=74
Condom use in last vaginal/anal sex with non-commercial female sex partners (Denominator is MSM who reported vaginal/anal sex with non-commercial female sex partners last month)	24.4 (19.7-29.7) N=255	4.5 (1.4-13.4) N=67
At least one sexual partner used condom in last group sex (Denominator is who had group sex last month)	61.0 (52.2-69.1) N=230	80.0 (38.8-96.2) N=10

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Consistent condom use with commercial and non-commercial partners (Table 107)

Fewer MSM from Central-A used condoms consistently in the last month compared to those from Northeast-A with commercial female or Hijra partners ($p<0.001$ and $p=0.005$ for female and Hijra respectively).

Table 107: Consistent condom use with commercial and non-commercial partners

Indicators % (95 % CI)	MSM Central-A	MSM Northeast-A
Consistent condom use with commercial male partners last month (Denominator is MSM who reported anal sex with commercial male partners in last month)	5.3 (3.2-8.6) N=304	8.0 (5.7-11.0) N=377
Consistent condom use with commercial Hijra partners last month (Denominator is MSM who reported anal sex with commercial Hijra partners in last month)	5.9 (3.2-10.6) N=160	32.1 (16.3-53.5) N=28
Consistent condom use in vaginal/anal sex with commercial female partners last month (Denominator is MSM who reported vaginal/anal sex with commercial female partners in last month)	15.2 (10.8-21.0) N=239	42.9 (30.2-56.6) N=98
Consistent condom use with non-commercial male sex partners last month (Denominator is MSM who reported anal sex with non-commercial male sex partners in last month)	6.8 (4.3-10.7) N=371	14.9 (8.0-25.9) N=74
Consistent condom use in vaginal or anal sex with non-commercial female sex partners last month (Denominator is MSM who reported vaginal/anal sex with non-commercial female sex partners last month)	15.6 (12.0-20.1) N=254	3.0 (0.7-12.0) N=67

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Mobility of MSM (Table 108)

Buying sex in another district of the country in the last year was more commonly reported by MSM in Central-A than those in Northeast-A ($p<0.001$). Buying sex while abroad was rarely reported and the few who did all said they had been to India.

Table 108: Mobility of MSM

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion mentioned bought sex in another district last year	32.6 (27.4-38.3)	15.6 (12.6-19.2)
Proportion mentioned bought sex in another country last year	1.9 (1.0-3.8)	0.3 (0.03-1.9)
Name of country	India	India

Knowledge, ever use, access to and breaking of condoms and lubricant use (Table 109)

All MSM in both areas were able to recognise male condoms. More MSM in Central-A were able to show a male condom to the interviewer ($p<0.001$). More than three-quarters of MSM from both areas reported ever using male condoms and

in the last month most obtained condoms from shops and pharmacies. More MSM in Central-A reported easy access to condoms than those in Northeast-A (p<0.001). Among those who reported not having easy access to condoms, most stated that was because of not willing to carry, shop/pharmacy being far way or shut. Although the majority of MSM in both areas said they used lubricants for anal sex most of whom who did, used saliva or oil. More MSM in Northeast-A had heard about lubricants made specially for use with condoms (p=0.001). More MSM in Central-A always used condom together with lubricant in last one month (p<0.001). Approximately one in every five MSM reported breaking of condoms during sex.

Table 109: Knowledge, ever use, access to and breaking of condoms and lubricant use

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion recognized male condom	100.0	100.0
Proportion were able to show a male condom to the interviewers	24.3 (19.7-29.7)	6.4 (4.3-9.4)
Proportion ever used a condom in life	79.9 (75.3-83.9)	83.9 (79.9-87.2)
Sources of condom in last month (Denominator is who have ever used condom in last month)*	N=322	N=325
Shop	15.3 (10.6-21.6)	24.3 (19.7-29.6)
Pharmacy	44.5 (35.8-53.7)	20.0 (16.5-24.1)
Health centre	6.2 (3.3-11.4)	0
Bar/guest house/hotel	1.0 (0.2-4.4)	0
Friends	19.6 (14.4-26.1)	9.2 (6.5-13.0)
Pimp	0.3 (0.04-2.1)	1.2 (0.5-3.3)
NGO workers	0.5 (0.1-2.1)	0
No condom bought last month	0.3 (0.04-2.3)	0
Sex partners	22.2 (16.7-28.8)	16.9 (12.7-22.2)
Others	0	0
Proportion reported easy access to condoms	42.7 (36.8-48.9)	19.2 (15.0-24.3)
Proportion reported easy access to condoms (Denominator is who have identified male condom and have ever used condom in last month)	N=322	N=325
Yes	55.3 (48.3-62.2)	23.1 (18.3-28.7)
No	44.7 (37.9-51.7)	76.9 (71.3-81.7)
Reasons for not having easy access to condoms (Denominator is who reported not having easy access to condoms)*	N=145	N=250
Cost high	29.0 (19.7-40.3)	0.4 (0.1-3.0)
Shop/pharmacy is far way	45.5 (33.6-57.9)	25.2 (19.7-31.6)
Shop/pharmacy is closed	36.0 (25.0-48.6)	43.6 (37.0-50.4)
Feel ashamed to buy	40.1 (30.8-50.2)	16.0 (10.6-23.4)
Do not know where to buy	1.8 (0.6-5.4)	0
Do not willing to carry	52.6 (42.9-62.2)	49.6 (42.1-57.1)
Others[§]	35.3 (26.0-46.0)	13.6 (9.8-18.6)
Proportion ever used lubricant while having anal sex	95.9 (92.6-97.8)	100.0

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Type of lubricant used last time (Denominator who have ever used lubricant)*	N=403	N=390
Saliva	80.5 (74.0-85.7)	65.1 (57.8-71.8)
Oil	42.4 (33.0-52.4)	2.8 (1.5-5.1)
Water based condom lubricant	31.1 (26.3-36.4)	7.9 (5.6-11.1)
Antiseptic cream	1.4 (0.6-3.2)	10.3 (7.7-13.5)
Ordinary lotion/cream/petroleum jelly	9.5 (6.4-13.9)	7.4 (5.1-10.7)
Others[§§]	0.2 (0.03-1.5)	14.4 (11.6-17.7)
Proportion who used condom during last sex with lubricant (Denominator is who have ever used condoms and lubricant)	55.8 (49.5-61.9) N=317	59.1 (51.8-66.0) N=325
Proportion ever heard about lubricant product made especially for use with condoms	43.1 (37.9-48.4)	57.4 (50.2-64.4)
Proportion were able to mention brand name of such a product	41.2 (36.3-46.4)	50.8 (44.0-57.5)
Proportion were able to mention brand name of such a product (Denominator is who have heard about such product)	95.7 (91.3-98.0) N=178	88.4 (80.5-93.4) N=224
Proportion frequently have used special lubricant together with a condom during anal sex last month (Denominator is who have heard about lubricant product specially use with condoms and had anal sex in the last month)	N=162	N=198
Always	37.4 (28.7-47.0)	3.5 (1.3-9.3)
Sometimes	61.7 (52.5-70.1)	92.9 (86.9-96.3)
Never	0.9 (0.1-6.1)	3.5 (1.7-7.2)
Reasons for not using special condom lubricants (never or sometimes)*	N=101	N=191
Cost is high	45.3 (33.3-57.8)	0
Shy to carry/buy lubricant	33.2 (22.1-46.4)	4.2 (1.9-9.0)
Don't know where to obtain	1.1 (0.1-7.8)	22.0 (15.4-30.5)
Do not need to use	4.1 (1.6-10.3)	0.5 (0.1-3.9)
Do not feel good	1.1 (0.1-7.8)	0.5 (0.1-3.8)
Use other cream/oil	19.7 (12.7-29.3)	53.9 (45.0-62.6)
Dry soon	2.1 (0.5-8.2)	0
Others[§§§]	12.7 (7.1-21.7)	33.0 (25.0-42.0)
Reasons for always using special condom lubricant*	N=61	N=7
Decrease pain/inflammation	89.4 (74.9-96.0)	28.6 (2.4-86.5)
Increase feeling	89.8 (75.5-96.2)	42.9 (3.5-94.0)
Decrease risk of condom breakage	86.5 (72.6-93.9)	28.6 (1.9-89.0)
Prevent HIV/AIDS/STD infection	29.8 (17.3-46.2)	42.9 (8.2-86.4)
Others[§§§§]	13.2 (5.8-27.4)	0
Proportion had a condom break last month	25.7 (20.7-31.3)	20.5 (15.9-26.1)
Proportion had a condom break last month (Denominator is who have ever used condom in last month)	33.2 (27.1-39.9) N=322	24.6 (19.3-30.9) N=325

*Multiple responses
§Others stated: not always available with the sex partners, not willing to use, do not like, NGO workers are not always available, do not meet NGO workers always, forgot/no time to buy when needed
§§Others stated: semen, sathi
§§§Others stated: anus become loose, not always available, not all sex worker have this, use other lubricants, to have fun and reduce pain
§§§§Others stated: easy to take big penis, sex partner like, to avoid bleeding in anus, can do sex long time

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on modes of HIV transmission and confidential HIV testing (Table 110)

Most MSM knew that using condoms and not sharing needle/syringe could prevent transmission of HIV. Misconceptions regarding transmission of HIV existed in both areas. While approximately one third of MSM in Central-A knew where to get a confidential HIV testing less than two percent of MSM in Northeast-A knew this. However, only one MSM in Central-A reported having had an HIV test done.

Table 110: Knowledge on modes of HIV transmission and confidential HIV testing

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion reported to have heard about HIV/AIDS	100.0	100.0
Proportion mentioned condom use as a mode of prevention	83.5 (78.3-87.6)	78.5 (73.1-83.0)
Proportion mentioned not sharing needles as a mode of prevention	72.3 (68.3-76.0)	65.9 (59.4-71.9)
Proportion mentioned avoiding anal sex as a mode of prevention	64.5 (58.4-70.2)	19.2 (14.0-25.9)
Proportion mentioned AIDS can be transmitted by mosquito bites	18.4 (14.6-22.9)	25.1 (19.8-31.3)
Proportion mentioned AIDS can be transmitted by sharing food	23.2 (18.0-29.4)	26.7 (21.0-33.2)
Proportion mention avoiding multiple sex as a mode of prevention	51.3 (46.0-56.5)	26.4 (21.1-32.6)\
Proportion mentioned one can tell by looking at someone whether they are infected with HIV	25.6 (20.1-31.9)	5.4 (3.3-8.7)
Proportion knew where HIV can be tested confidentially	32.3 (26.5-38.8)	1.8 (0.9-3.5)
Proportion ever tested for HIV (Denominator is who knew where to test HIV)	0.7 (0.1-5.1) N=135	0 N=7
Did you yourself request the test or somebody asked you to have the test? (Denominator is who ever tested for HIV)	N=1	N=0
Self	Only 1 person	--
By some one	0	--
Needed	0	--
Proportion reported to have the result of HIV test (Denominator is who ever tested for HIV)	Only 1 person N=1	-- N=0
When did you have the most recent HIV test? (Denominator is who ever tested for HIV)	N=1	N=0
Within one year	0	--
More than one year	Only 1 person	--
Do not remember	0	--

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self-reported STIs and health care seeking behaviour (Table 111)

Reporting of STI symptoms in the last year was more common in MSM from Northeast-A than in those from Central-A (p<0.001). Equal proportions of MSM from the two cities sought formal medical treatment for the STIs.

Table 111: Self-reported STIs and health care seeking behaviour

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Knowledge on STIs*		
Discharge from penis	77.3 (71.4-82.4)	28.2 (24.0-32.8)
Burning pain on urination	63.4 (57.4-68.9)	55.6 (49.8-61.3)
Genital ulcers/sores	74.6 (68.5-79.9)	53.3 (47.8-58.8)
Swellings in groin area	3.3 (1.9-5.6)	0
Anal discharge	20.1 (16.3-24.4)	0.5 (0.1-2.1)
Anal ulcer/sores	43.5 (37.7-49.5)	3.3 (1.8-6.1)
Others[§]	8.7 (5.6-13.3)	14.5 (11.7-18.7)
Proportion reported to have urethral discharge in last one year	26.0 (21.3-31.2)	28.2 (22.9-34.2)
Proportion reported to have anal discharge in last one year	11.8 (8.9-15.5) N=418	0.5 (0.1-2.1)
Proportion reported to have genital ulcer/sore in last one year	33.4 (28.5-38.6)	34.1 (29.1-39.5)
Proportion reported at least one STI symptom in last one year	38.7 (34.0-43.6)	61.0 (54.9-66.8)
Proportion visited formal medical facility as first choice of treatment for last STI in last year (Denominator is who reported STI in last one year)	78.8 (71.6-84.6) N=161	80.7 (74.2-85.8) N=238
First choice of last STI treatment (denomination is who reported STI in last year)	N=161	N=238
Hospital	11.5 (7.0-18.2)	8.0 (5.2-12.0)
Drug seller	14.4 (9.7-20.7)	18.9 (13.9-25.2)
Private doctor	12.0 (7.2-19.2)	0.4 (0.1-3.2)
Private clinic	20.5 (14.7-28.0)	0.4 (0.1-3.1)
NGO clinic	34.8 (26.8-43.8)	71.9 (64.5-78.2)
Traditional healer	2.4 (0.9-6.5)	0
Advice/treatment from friends	1.8 (0.6-5.6)	0.4 (0.1-3.1)
Self-medication	0	0
Did not seek treatment	2.6 (0.9-6.7)	0
Others	0	0
Proportion visited formal medical facility as first choice of treatment for last STI in last year (Denominator is who had reported STI in last one year and sought treatment).	80.9 (73.8-86.4) N=157	80.7 (74.2-85.8) N=238

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Mean waiting days before seeking treatment for last STI (Denominator is who had reported STI in last one year and sought treatment)	10.5 (8.9-12.1) M=7 N=157	7.7 (6.7-8.7) M=6 N=238
Mean expenditure (in Taka) in last STI treatment last year (Denominator is who had reported STI last year and sought treatment)	228.1 (69.3-386-9) M=70 N=145	148.7 (130.8-166.6) M=120 N=238
Proportion reported to have visited STI clinics last month organized by NGOs	32.2 (27.3-37.5)	25.6 (20.6-31.5)
Name of clinics visited (Denominator is who visited STI clinics last month)	Bandhu, CARE, ODPUP	Bandhu, ODPUP

*Multiple responses
§Others stated: piles, impotence, abscess in mouth/tongue, itching near/in penis, abscess in penis
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measure taken to avoid STI and HIV (Table 112)

More MSM in Central-A reported doing nothing to avoid STIs and HIV than those in Northeast-A ($p<0.001$ for both comparisons). The most commonly reported steps taken to avoid STIs/HIV was washing of genitalia with dettol/urine followed by using condoms some of the times.

Table 112: Measure taken to avoid STI and HIV

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Steps taken to avoid STIs*		
Do nothing	23.9 (19.7-28.7)	0.5 (0.1-2.1)
Wash genital organ by dettol/urine	64.0 (58.3-69.4)	62.1 (53.8-69.6)
Always use condom	6.9 (4.4-10.7)	6.2 (4.3-8.7)
Sometimes use condom	58.8 (52.4-64.9)	73.6 (68.7-78.0)
Take medicine	0.3 (0.04-2.0)	10.5 (6.1-17.8)
Others§	19.7 (14.5-26.3)	23.6 (18.7-29.3)
Steps taken to avoid HIV*	N=420	N=390
Do nothing	25.2 (21.1-29.7)	0.5 (0.1-2.1)
Wash genital organ by dettol/urine	63.2 (57.9-68.2)	64.4 (57.0-71.1)
Always use condom	6.9 (4.3-11.2)	6.4 (4.4-9.2)
Sometimes use condom	58.0 (51.9-63.9)	73.9 (68.9-78.3)
Take medicine	0.2 (0.03-1.7)	2.8 (1.4-5.7)
Others§§	14.4 (10.4-19.8)	31.3 (26.1-37.0)

*Multiple responses
§Others stated: sex with only one/trusted partner, use lubricant, try avoid commercial female sex workers, sex with clean partners, check client before sex, be neat and clean, do not sex with many partners, do sex with beautiful partners

[§§]Others stated: sex with only one partner, do not sex with commercial female sex workers, do less sex with male partners, take clean partners, take advice from NGO workers, trusted partner, be neat and clean, trusted partner, use antiseptic cream, take bath after sex

Violence against MSM (Table 113)

More MSM in Central-A reported being subject to violence than those in Northeast-A (p<0.001 for all comparisons). Men in uniform and mastans were the most commonly reported perpetrators of violence.

Table 113: Violence against MSM

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Proportion reported to have beaten in last year	24.2 (20.2-28.8)	3.1 (1.8-5.3)
Proportion reported to have raped in last year	23.2 (19.4-27.4)	1.0 (0.4-2.7)
Proportion reported beaten or raped in past year	26.0 (21.8-30.6)	3.6 (2.2-5.8)
Violence done by: (Denominator who reported violence in last year)*	N=108	N=14
Men in uniform	68.4 (56.7-78.2)	35.7 (13.0-67.4)
Mastans (Hoodlums)	60.6 (49.0-71.1)	35.7 (13.0-67.4)
New sex partners	35.6 (26.3-46.1)	0
Regular sex partners	13.6 (7.5-23.3)	14.3 (2.8-49.0)
Others[§]	14.9 (8.9-23.8)	21.4 (4.2-62.8)
Proportion reported ever been jailed in last year	3.0 (1.7-5.2) N=418	1.3 (0.5-3.6)

*Multiple responses
[§]Others stated: parik, koti, female sex worker, hotel owner, friend, my owner, elder brother, local people

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Self-perception of risk (Table 114)

More than half of the MSM in Northeast-A and 38% of the MSM in Central-A did not know whether they were at risk of becoming infected with HIV. None of the MSM in Northeast-A perceived themselves to be at high risk while a large proportion from both cities perceived that they were at little or no risk of HIV infection.

Table 114: Self-perception of risk

Groups	MSM who perceived themselves to be at high risk % (95 % CI)	MSM who perceived themselves to be at medium risk % (95 % CI)	MSM who perceived themselves to be at little or no risk % (95 % CI)	MSM who could not assess their risk % (95 % CI)
MSM, Central-A (N=417)	14.3 (9.6-20.8)	5.6 (3.6-8.4)	42.1 (37.1-47.4)	38.0 (32.3-44.1)
MSM, Northeast-A (N=390)	0	7.2 (4.8-10.7)	37.7 (30.9-45.0)	55.1 (47.0-63.0)

Reasons for self-perception of risk (Table 115)

Most of the MSM in Central-A reported risky job, frequent anal sex and irregular use of condoms and in Northeast-A irregular use of condoms and risky job as causes of being at high or medium risk of HIV. Most of the MSM in Central-A reported clean clients, healthy clients and never sharing needle/syringe and in Northeast-A clean clients and irregular use of condom as reasons for being at little or no risk of HIV. Always condom use was reported by only 15% of the respondents in both areas.

Table 115: Reasons for self-perception of risk

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Reasons for self-perception of risk (Denominator who thought themselves are at high or medium risk)*	N=80	N=28
Risky job	72.2 (57.0-83.6)	28.6 (15.1-47.3)
Frequent anal sex	51.8 (35.6-67.6)	3.6 (0.5-22.8)
Do not use condoms	20.0 (12.5-30.5)	0
Irregular use of condom	43.4 (32.5-55.0)	82.1 (63.3-92.5)
Sharing needle/syringe	2.3 (0.6-9.2)	0
Others§	18.3 (9.7-32.1)	7.1 (1.6-27.3)
Reasons for not assessing themselves are at risk or little risk (Denominator who perceived themselves are not or at little risk)*	N=177	N=147
Always use condom	15.7 (9.7-24.2)	16.3 (10.6-24.4)
Irregular use of condom	18.2 (12.9-25.2)	46.3 (37.0-55.8)
Clean sex partners	65.5 (55.0-74.7)	54.4 (43.6-64.8)
Healthy sex partners	56.6 (45.1-67.3)	3.4 (1.7-7.7)
Never share needle/syringe	45.5 (34.0-57.5)	6.8 (2.4-17.6)
Sometimes share needle/syringe	1.1 (0.3-4.5)	0
Others§§	21.4 (15.1-29.6)	27.9 (21.4-35.5)

*Multiple responses
§Others stated: sometimes had sex with female sex workers, because AIDS is already in Bangladesh, have sex with multiple partners,
§§Others stated: do not sex with female sex workers, trusted partner, do not sex with may partners, sex without condom during oral sex, be neat and clean, wash genital organ, use antiseptic cream, do less sex, take bath with savlon/dettol

Exposure to interventions (Table 116)

More MSM in Northeast-A were exposed to NGO interventions in the last year than those in Central-A ($p<0.001$). Among those who were involved with NGO interventions in the last year in Central-A, 64.5% mentioned that this helped in changing their behaviour while in Northeast-A, only 7.9% said this.

Table 116: Exposure to interventions

Indicators % (95 % CI)	MSM Central-A (N=420)	MSM Northeast-A (N=390)
Exposure to interventions last year	58.2 (51.1 – 65.1)	97.2 (92.8 – 98.9)
Proportion exposed to intervention in last one month (Denominator is who were exposed to intervention in last year)	82.0 (75.3-87.2) N=241	69.7 (63.2-75.5) N=379
Proportion reported to have been benefited from intervention (Denominator is who were exposed to intervention in last year)	N=239**	N=379
Helped changing behaviour	64.5 (57.0-71.3)	7.9 (5.3-11.7)
Received useful information but behaviour did not change	27.7 (21.9-34.4)	7.4 (3.8-13.9)
Information was hard to understand	13.2 (8.6-19.6)	2.9 (1.4-5.8)
Information was not relevant to their needs	4.6 (2.3-8.8)	0
Gained important knowledge§	7.4 (4.0-13.1)	65.7 (58.3-72.4)
Others§§	4.6 (1.9-10.5)	22.4 (17.0-29.0)

*Multiple responses

**Two observations are missing

§Gained important knowledge include: came to know about HIV/AIDS/STD/safe sex, learnt how to use condoms but we are not sure whether or not their behaviour changed

§§Others stated: came to know where STD treatment available & HIV testing, did not listen to them carefully, received treatment, received condom

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

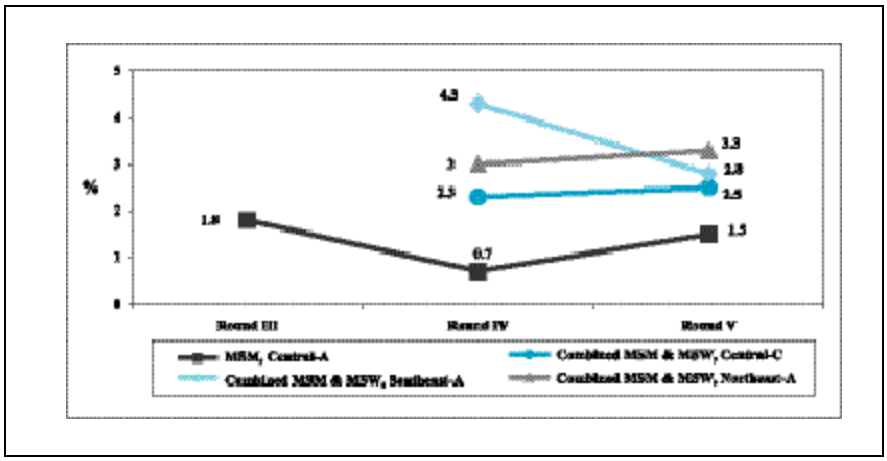
3.4.3 COMPARISON OVER THE ROUNDS

Trends in active syphilis rates could be determined for MSM in Central A from the second round and the combined MSM and MSW in the three other cites from the fourth round. For BSS comparisons were carried out between the fourth and fifth rounds.

3.4.3.1 SEROLOGY

HIV prevalence has remained very low throughout and numbers have never exceeded one in any city during any round. Over the rounds, active syphilis rates in Central-A, Central-C, Southeast-A and Northeast-A were unchanged (Fig 27).

Fig 27: Active syphilis rates in MSM and combined MSM & MSW sites over the rounds



3.4.3.2 BEHAVIOUR

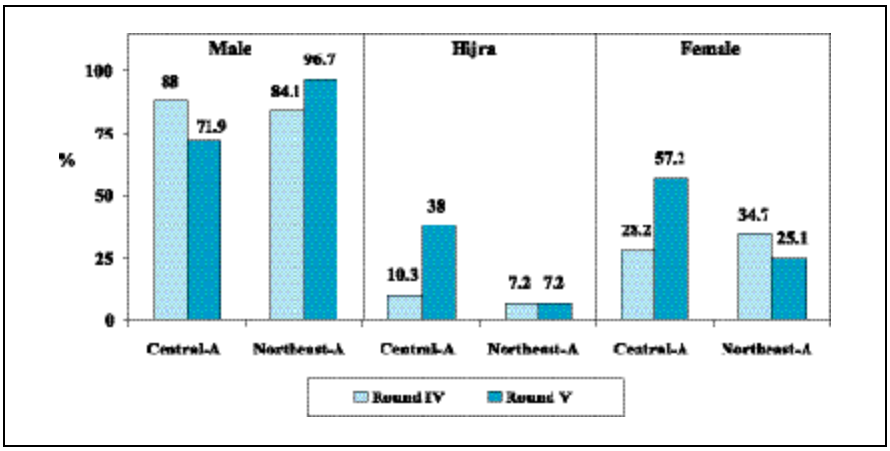
Socio-demographic characteristics and dynamics of sex work (Appendix A-28)

In the last two rounds, MSM sampled from Central-A had similar demographic features in terms of their age, mean age at first sex, educational and marital status, but the mean income last month was lower for MSM in the fourth compared to those in the fifth round (p<0.001). In Northeast-A, several differences were observed between the MSM of the fourth and fifth rounds; those in the fifth round were less educated (p=0.007), fewer were currently married (p<0.001) and the mean age at first sex was higher (p<0.001) (Appendix A-28).

Sexual behaviour of MSM (Fig 28, 29, 30 and appendix A-29)

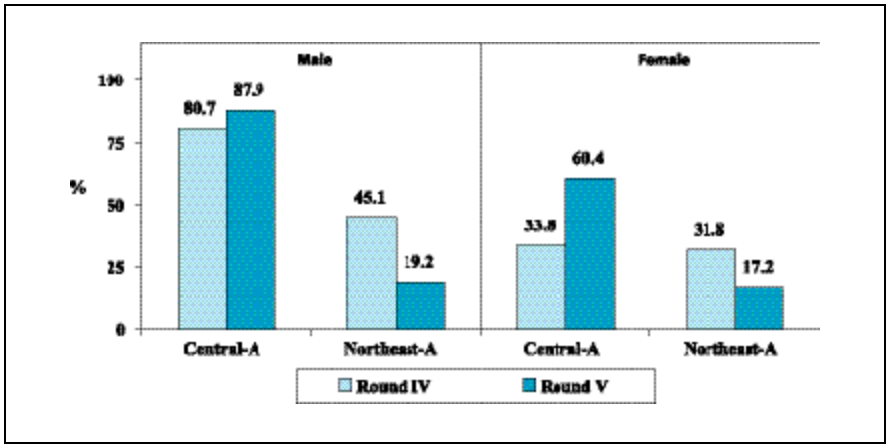
In Central-A, in the fifth round fewer MSM reported buying sex in the last month from males (p<0.001), but those buying from Hijras and females increased (p<0.001 for both comparisons) (Fig 28). In the Northeast, more reported buying sex from males in the last month (p<0.001) during the fifth round but from Hijras and females there were no differences (Fig 28 and appendix A-29).

Fig 28: Proportion of MSM buying sex from males, Hijras and females



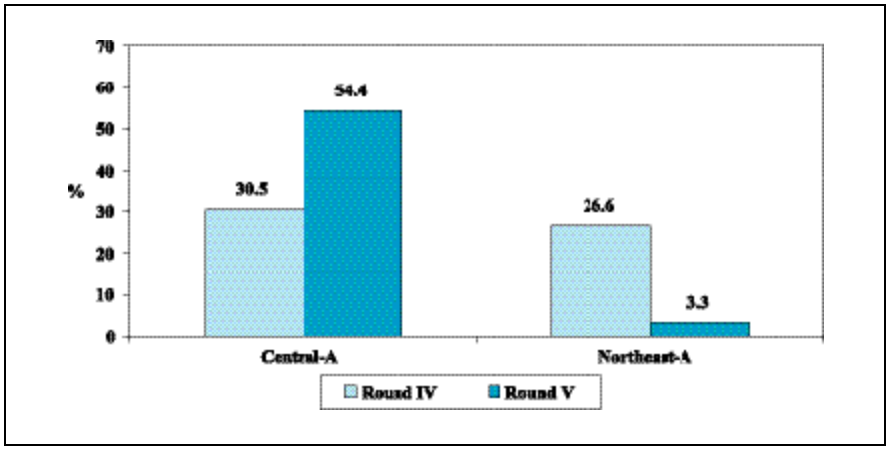
MSM were asked about their non-commercial male and female sex partners in the last month. In Central-A the proportions reporting non-commercial male sex partners remained the same between the two rounds but those reporting non-commercial female partners increased significantly in the fifth round (p<0.001) (Fig 29). In Northeast-A, significant declines in the proportions reporting either male or female non-commercial partners were recorded in the fifth round (p<0.001) (Fig 29).

Fig 29: Proportion of MSM reporting non-commercial partners



In Central-A, an alarming change observed in the fifth round was the increase in the proportion of MSM reporting group sex in the last month in comparison to the fourth round ($p<0.001$). Fortunately, the reverse pattern was observed in the Northeast, where fewer MSM reported group sex in the last month in the fifth round ($p<0.001$) (Fig 30).

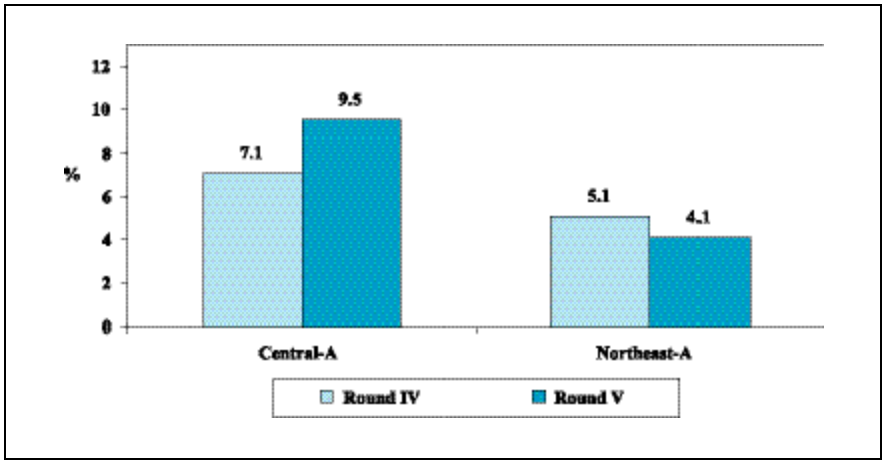
Fig 30: Proportion of MSM reporting group sex



Mean numbers of sex partners of MSM (Fig 31 and appendix A-30)

The mean numbers of commercial male partners in the last month did not change between the last two rounds for MSM from both cities. In Central-A, the mean number of commercial female and Hijra partners increased ($p<0.001$ for both comparisons) in the last month. In Northeast-A, the mean number of Hijra partners did not change between the two rounds but female partners declined significantly in the fifth round ($p<0.001$). For non-commercial partners in the last month, in Central-A there was an increase in the numbers of both male and female partners ($p<0.001$ for both comparisons) while in Northeast-A, significant declines in numbers of both males and females ($p<0.001$ for both comparisons) were recorded (Appendix A-30). Overall mean numbers of sex partners in the last month (all genders, commercial and non-commercial) increased in Central-A ($p<0.001$) while it decreased in Northeast-A ($p=0.002$) (Fig 31).

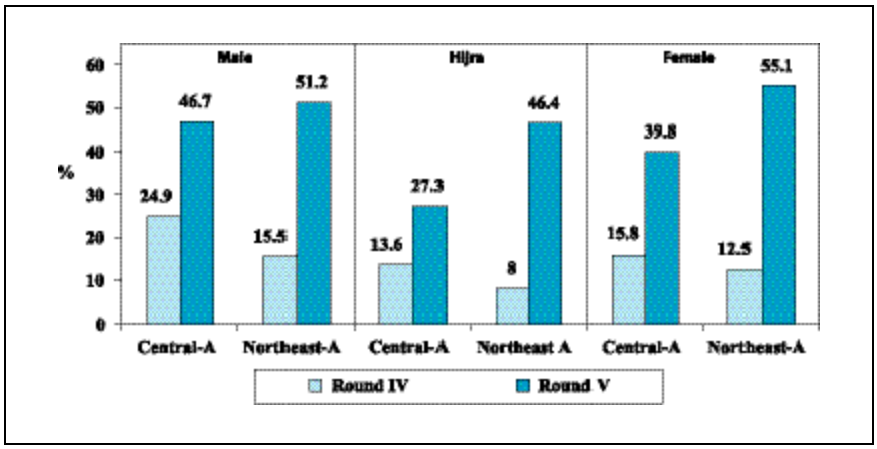
Fig 31: Overall mean number of sex partners of MSM in the last month



Condom use with commercial sex partners (Fig 32, 33 and appendix A-31, 32)

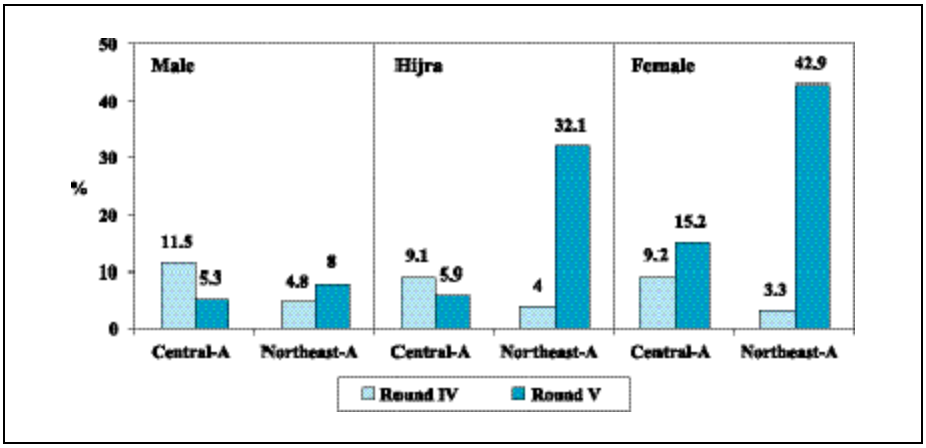
More MSM from Central-A reported condom use in last penetrative sex with commercial male and female partners in the fifth round compared to the fourth round ($p<0.001$ and $p=0.001$, respectively) but the proportions of MSM reporting the same with Hijras remained unchanged. In Northeast-A, more MSM reported using condoms during the last sex with male and female commercial sex partners ($p<0.001$ for both comparisons) (Fig 32 and appendix A-31).

Fig 32: Condom use in last sex with commercial sex partners



The proportion of MSM from Central-A reporting consistent condom use in the last month with commercial partners (male, female or Hijras) remained unchanged between the last two rounds. In Northeast-A, consistent condom use in the last month with female commercial partners during fifth round was reported more frequently ($p<0.001$) but the proportions of MSM reporting this for male and Hijra commercial partners were the same between the two rounds (Fig 33 and appendix A-32).

Fig 33: Consistent condom use in the last month with commercial sex partners



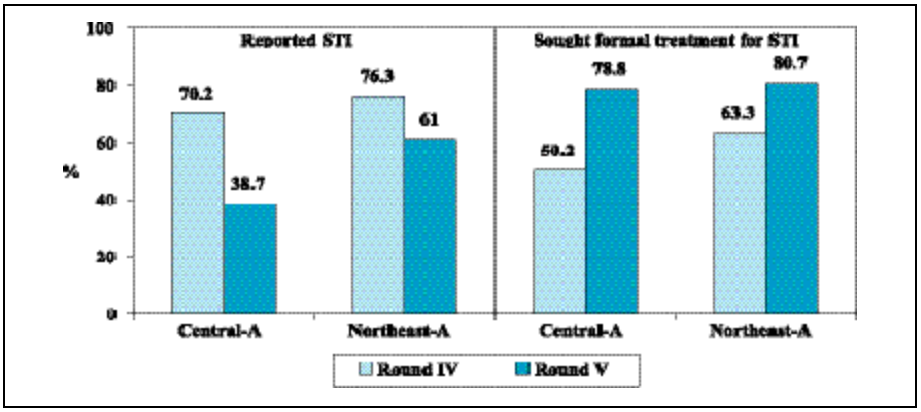
Condom use with non-commercial partners (Appendix A-31, 32)

Condom use in last sex with male non-commercial partners was reported by more MSM from both cities in the fifth round (Central A, p<0.001 and Northeast A p=0.004). With female non-commercial partners, similar proportions of MSM in both cities reported condom use in last sex (Appendix A-31). Reporting of consistent condom use in the last month with either male or female non-commercial partners remained unchanged between the rounds in both cities (Appendix A-32).

Self reported STIs and medical treatment seeking behaviour for STIs (Fig 34 and appendix A-33)

The proportions of MSM reporting at least one STI symptom in the last year decreased significantly in both cities in the fifth round (p<0.001 for both comparisons) and in both cities, the proportion seeking formal medical treatment for STI increased (p<0.001) (Fig 34 and appendix A-33).

Fig 34: MSM reporting STI symptoms and seeking formal medical treatment in the last year



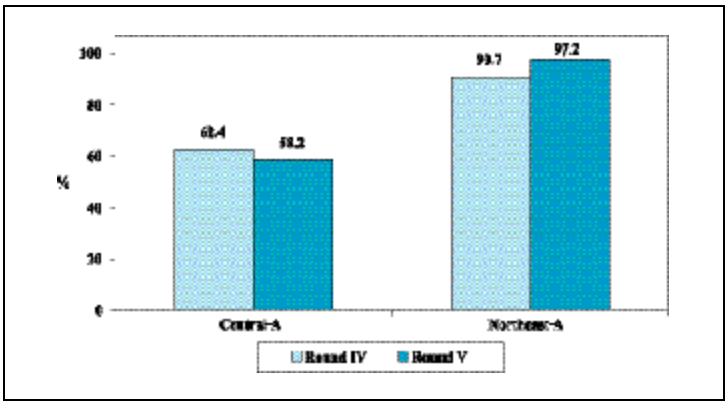
Self perception of risk (Appendix A-34)

In Central-A, proportions of MSM who assessed that they were at high risk for acquiring HIV increased (p<0.001) and in Northeast-A this decreased (p=0.002) during the fifth round. In both cities, the percentages of MSM who could not assess their own risk for acquiring HIV did not change between the rounds and in the Northeast this accounted for approximately half of the MSM (Appendix A-34).

Exposure to interventions (Fig 35 and appendix A-35)

The proportions of MSM exposed to interventions in the last year did not change between the two rounds (Fig 35). This lack of change is not relevant in Northeast-A as 97.2% were exposed to the interventions.

Fig 35: Exposure to interventions



3.4.4 SUMMARY OF FINDINGS

HIV rates in MSM remain low and syphilis rates, which are also relatively low, have not changed over time. However, complaints of STIs declined over the rounds in MSM from the two cities. But the risk behaviour documented for MSM from both cities remains high. Comparisons between the two cities showed that in many respects MSM from Central-A were more vulnerable because:

- More had non-commercial sex partners (male/female/Hijra) in the last month
- More had bought sex from females and Hijras in the last month
- Fewer used condoms consistently with female or Hijra commercial sex partners in the last month
- More had group sex in the last month
- Had higher average number of sex partners in the last month
- More had experienced violence in the last year
- Fewer had been exposed to HIV prevention programmes in the last year.

Increased vulnerability and risk was also observed when data from the fourth and fifth rounds of BSS were compared. For MSM from Central-A in the fifth round:

- More bought sex from Hijras and females and the numbers of female and Hijra commercial partners increased
- More had non-commercial female partners
- The overall number of sex partners in a week was higher
- More reported having group sex.

For MSM from Northeast-A in the fifth round:

- More were buying sex from males
- Fewer reported non-commercial partners (male and female)
- Numbers of non-commercial partners declined and overall mean number of partners in the week also declined.

These findings show that the MSM in Central-A are at greater risk and interventions do not appear to be having much effect. For the MSM in Northeast-A there is a mixed picture with improvements in some areas and no improvement in others particularly in the use of condoms. NGOs working with the MSM in these two cities need to be strengthened and they also need to assess their intervention strategies more critically taking into account differences that may be existing in the different cities e.g. in the way that MSM are organised or networked.

3.5 TRANSPORT WORKERS AND SEX PARTNERS OF FEMALE SEX WORKERS AND HIJRAS

The sex partners of female sex workers included: babus who were the boyfriends/regular partners of female sex workers in three brothels all in the Central region (for serological surveillance only). Regular sex partners of Hijras were sampled from Central-A,G (for serological surveillance only). The transport workers included: rickshaw pullers in Central-A and Southeast-A and truckers in Central-A (for BSS only).

3.5.1 SEROLOGY

Demographic characteristics (Table 117)

It was not possible to administer the demographic questionnaire for the sex partners of Hijras. Babus from the three brothels were similar in age, duration of education and they had been visiting their respective brothels for a similar period of time. Babus from Central-D were living in the same city for a shorter duration than babus from other two cities ($p<0.001$ for both comparisons). Rickshaw pullers from Central-A were younger than those of Southeast-A ($p=0.003$), they had a similar level of education and similar proportions had ever attended school.

Table 117: Demographic characteristics of babus and rickshaw pullers

Geographical location (n)	Age in years median (IQR)	Ever attended school % (n), 95% CI	Education (years) median (IQR)	Duration visiting the brothel or as rickshaw puller (months) median (IQR)	Duration living in the same city (months) median (IQR)
Babus (Brothel):					
Central-B (251)	28 (25-33)	81.3 (204), 75.9-85.9	7.5 (4-10)	72 (24-120)	288 (180-360)
Central-D (175)	28 (24-35)	70.9 (124), 63.5-77.5	6.5 (4.3-9)	60 (36-120)	180 (84-264)
Central-L (56)	28 (24-38)	58.9 (33), 45.0-71.9	5 (2.5-8.5)	60 (31.5-153)	336 (276-432)
Partners of Hijra:					
Central-A,G (88)	NA	NA	NA	NA	NA
Rickshaw pullers:					
Central-A (401)	25 (20-30)	60.6 (243), 55.6-65.4	5 (3-8)	60 (24-96)	NA
Southeast-A (401)	26 (22-32)	55.9 (224), 50.8-60.8	5 (4-8)	60 (24-120)	NA

Note: NA refers to not available; IQR refers to inter quartile range

HIV and syphilis prevalence (Table 118)

Other than one rickshaw puller from Central-A, all those sampled from the different population groups were HIV negative. Active syphilis among babus varied from 2-6.3%. No significant differences were observed between active syphilis rates of the babus with that of the sex workers from the corresponding brothels. Active syphilis rates were low among the rickshaw pullers and the prevalence was similar between the two cities.

Table 118: Prevalence of HIV and syphilis among babus and rickshaw pullers

Study Populations, Geographical Location (numbers tested)	HIV % (n), 95% CI	Active syphilis % (n), 95% CI
Babus (Brothel):		
Central-B (251)	0	2.0 (5), 0.6-4.6
Central-D (175)	0	6.3 (11), 3.2-11.0
Central-L (56)	0	5.4 (3), 1.1-14.9
Partners of Hijra:		
Central-A,G (88)	0	2.3 (2), 0.3-8.0
Rickshaw pullers:		
Central-A (401)	0.2 (1), 0-1.4	0.2 (1), 0-1.4
Southeast-A (401)	0	1.2 (5), 0.4-2.9

3.5.2 BEHAVIOUR

For the BSS, transport workers sampled included rickshaw pullers from Central-A and Southeast-A and truckers from Central-A.

Socio-demographic characteristics of rickshaw pullers and truckers (Table 119)

Mean age of the rickshaw pullers and truckers ranged from 27 to 28 years. Higher proportions of rickshaw pullers than truckers had no formal schooling ($p<0.001$ for both comparisons). Not surprisingly truckers on average earned more than rickshaw pullers ($p<0.001$ for both comparisons). More rickshaw pullers in Central-A were married than rickshaw pullers in Southeast-A and truckers in Central-A ($p<0.001$ for both comparisons). Mean age at first sex was similar for the three groups.

Table 119: Socio-demographic characteristics of the rickshaw pullers and truckers

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Mean age (in years)	28.4 (27.9-28.9) M=28	26.7 (26.0-27.3) M=26	28.0 (27.1-28.8) M=26
Proportion who had no schooling	33.3 (28.8-38.1)	48.1 (41.8-54.2) N=314	23.4 (20.1-26.9)
Duration of stay in this city	N=403	N=314	N=441
Whole life	3.2 (1.9-5.4)	21.7 (17.2-26.9)	15.3 (10.3-22.2)
<=10 years	85.7 (81.6-89.0)	70.4 (64.9-75.3)	65.2 (57.8-72.0)
>10 years	11.2 (8.3-14.9)	8.0 (5.4-11.6)	19.5 (15.0-25.0)
Mean income last month	3581.1 (3506.5-3655.7) M=3500 N=400	3224.8 (3133.6-3315.9) M=3000 N=311	6115.8 (5619.1-6612.5) M=5000 N=441
Proportion who were currently married	76.5 (71.6-80.9)	58.7 (54.1-63.3)	52.0 (47.1-56.9)
Proportion living with regular sex partners	79.5 (75.1-83.3)	52.4 (47.3-57.4)	51.6 (46.5-56.6)
Mean number of years as rickshaw pullers/truckers	6.1 (5.7-6.5) M=5	5.0 (4.5-5.5) M=4	6.2 (5.4-7.1) M=4
Proportion working as rickshaw pullers/ truckers for less than one year	4.2 (2.7- 6.5)	13.3 (9.7-18.1)	7.9 (5.5-11.2)
Mean age at first sex (Denominator is who had sexual experience and could recall)	18.6 (18.1-19.0) M=18 N=400	17.7 (17.4-18.0) M=18 N=300	17.0 (16.5-17.5) M=16 N=434
Profession of truckers			
Drivers	Not asked	Not asked	52.9 (43.9-61.6)
Helpers			47.1 (38.4-56.1)

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Selling of blood (Table 120)

Very few rickshaw pullers or truckers sold blood in the last year.

Table 120: Proportion sold blood in the last year

Indicators % (95 % CI)	Rickshaw pullers Central-A (N =403)	Rickshaw pullers Southeast-A (N =315)	Truckers Central-A (N =441)
Proportion sold blood in the last year	4.6 (2.3-9.0)	0	1.0 (0.3-3.6)

Sex partners of rickshaw pullers and truckers in the last year (Table 121)

More rickshaw pullers in Central-A had sex with regular female sex partners than rickshaw pullers in Southeast-A and truckers in Central-A (p<0.001 both for all comparisons). With commercial female sex partners, more truckers in Central-A reported having sex in the last year than rickshaw pullers in Central-A and Southeast-A (p<0.001 for both comparisons). Group sex in the last month was also reported by more truckers in Central-A than rickshaw pullers in Central-A (p<0.001) and Southeast-A (p=0.005).

Overall, truckers had more sex partners in last year than rickshaw pullers and this was particularly true with female commercial partners (p<0.001 for all comparisons). The numbers of male/Hijra sex partners in the last year was less than one for all three groups.

Table 121: Sex partners of the rickshaw pullers and truckers in the last year

Indicators % (95 % CI)	Rickshaw pullers Central-A (N =403)	Rickshaw pullers Southeast-A (N =315)	Truckers Central-A (N =441)
Proportion who had sex with regular female partners in the last year	79.1 (74.9-82.8)	58.7 (53.8-63.5)	54.9 (50.3-59.4)
Proportion who had sex with regular female partners in the last month	75.3 (70.9-79.2)	48.6 (43.3-53.8)	45.7 (39.3-52.3)
Proportion who had sex with commercial female partner in the last year	72.8 (67.3-77.7)	69.8 (63.5-75.5)	85.6 (79.9-89.8)
Proportion who had sex with commercial female partner in the last month	50.0 (44.5-55.6)	49.8 (43.4-56.3)	61.4 (56.0-66.5)
Proportion who had sex with commercial male/Hijras in the last year	7.1 (4.7-10.7)	8.6 (6.0-12.0)	7.0 (3.1-15.2)
Proportion who had sex with commercial male/Hijras in the last month	7.1 (4.7-10.7)	8.6 (6.0-12.0)	7.0 (3.1-15.2)
Proportion who had group sex in the last month	9.7 (6.9-13.4)	11.8 (8.2-16.6)	22.3 (16.7-29.3)
Mean number of commercial female sex partners in the last year	3.9 (3.4-4.3) M=3	3.3 (2.9-3.6) M=3	6.0 (5.1-7.0) M=4
Mean number of commercial female sex partners in the last year (Denominator who had commercial sex last year)	5.3 (4.8-5.8) M=4 N=292	4.7 (4.3-5.0) M=4 N=220	7.1 (6.1-8.0) M=5 N=378
Mean number of commercial female partners in the last month	0.8 (0.7-0.9) M=0	0.8 (0.7-0.9) M=0	1.0 (0.8-1.2) M=1
Mean number of commercial female partners in the last month (Denominator who had commercial sex last month)	1.6 (1.4-1.8) M=1 N=197	1.6 (1.5-1.7) M=1 N=157	1.6 (1.4-1.9) M=1 N=277
Mean number of commercial male/Hijra partners in the last year	0.2 (0.1-0.3) M=0	0.2 (0.1-0.3) M=0	0.1(0.01-0.23) M=0

Indicators % (95 % CI)	Rickshaw pullers Central-A (N =403)	Rickshaw pullers Southeast-A (N =315)	Truckers Central-A (N =441)
Mean number of commercial male/Hijra partners in the last year (Denominator who had sex with commercial male/Hijra partners last year)	2.4 (1.3-3.5) M=2 N=30	2.4 (1.8-3.0) M=2 N=27	1.7 (1.3-2.0) M=1 N=24
Mean number of commercial male/Hijra partners in the last month	0.05 (0.01-0.10) M=0	0.08 (0.01-0.14) M=0	0.04 (0.0-0.09) M=0
Mean number of commercial male/Hijra partners in the last month (Denominator who had sex with commercial male/Hijra partners last month)	1.5 (1.0-2.1) M=1 N=15	1.6 (0.5-2.7) M=1 N=15	1.0 (1.0-1.0) M=1 N=9
Mean number of partners during group sex in the last month (Denominator who had group sex last month)	3.3 (2.8-3.8) M=3 N=40	1.4 (1.1-1.7) M=1 N=37	2.9 (2.4-3.5) M=3 N=87
Overall mean number of commercial sex partners last year (female and male or Hijra)	4.0 (3.5-4.6) M=3	3.5 (3.0-3.9) M=3	6.2 (5.1-7.2) M=4

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Condom use during last sex with commercial and non-commercial partners (Table 122)

Condom use during last sex with females (commercial or non-commercial) was reported by a very small percentage of truckers and rickshaw pullers. More truckers (14.2%) reported condom use during last sex with female commercial partners compared to rickshaw pullers from both cities ($p<0.001$ for both comparisons). Amongst the rickshaw pullers and truckers who had commercial male or Hijra sex partners in the last year, none used condoms during the last sex with male/Hijra partners.

Table 122: Condom use during last sex with commercial and non-commercial partners

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Condom use in last anal/vaginal sex with non-commercial female sex partners (Denominator is who reported sex with non-commercial female sex partners last year)	5.4 (3.3-8.7) N=319	5.4 (2.9-9.7) N=185	6.4 (3.9-10.4) N=246
Condom use in last anal/vaginal sex with commercial female sex partners (Denominator is who reported sex with commercial female sex partners last year)	3.9 (2.2-6.8) N=292	3.2 (1.5- 6.6) N=220	14.2 (10.5-18.8) N=378
Condom use in last anal sex with commercial male or Hijra sex partners (Denominator is who reported sex with commercial male or Hijra sex partners last year)	0 N=30	0 N=27	0 N=24
At least one sexual partner used condom in last group sex (Denominator is who had group sex last month)	0 N=40	0 N=37	10.2 (4.4-22.0) N=87

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Consistent condom use with commercial and non-commercial partners (Table 123)

Consistent condom use by the rickshaw pullers or truckers with commercial and non-commercial female partners was very low in the last month as well as last year. None of the respondents reported consistent condom use with male or Hijra commercial partners last year.

Table 123: Consistent condom use with commercial and non-commercial partners

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Consistent condom use with non-commercial female sex partners last year (Denominator is who reported sex with non-commercial female sex partners last year)	2.4 (1.1-5.2) N=319	0.5 (0.1-3.8) N=185	0.8 (0.1-5.3) N=246
Consistent condom use with non-commercial female sex partners last month (Denominator is who reported sex with non-commercial female sex partners last month)	2.6 (1.2-5.4) N=304	2.6 (1.0-6.8) N=153	2.2 (0.8-5.9) N=202
Consistent condom use with commercial female sex partners last year (Denominator is who reported sex with commercial female sex partners last year)	2.3 (1.1-5.0) N=292	1.4 (0.4-4.2) N=220	4.1 (2.4-6.8) N=378
Consistent condom use with commercial female sex partners last month (Denominator is who reported sex with commercial female sex partners last month)	3.5 (1.6-7.3) N=197	1.3 (0.3-5.1) N=157	11.3 (7.2-17.4) N=277
Consistent condom use with commercial male or Hijra sex partners last year (Denominator is who reported sex with commercial male or Hijra sex partners last year)	0 N=30	0 N=27	0 N=24

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge of, ever use, access to and breaking of condoms (Table 124)

Almost all rickshaw pullers and truckers were able to identify male condoms. Fewer truckers compared to rickshaw pullers had never used condoms in their lifetime ($p<0.001$ for both comparisons). Most of the rickshaw pullers and truckers knew where condoms were available and most bought condoms from shops and pharmacies in the last month. Very few complained of condoms breaking during sex in the last month.

Table 124: Knowledge of, ever use, access to and breaking of condoms

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Proportion recognized male condom	99.5 (98.5-99.9)	94.9 (91.8-96.9)	98.3 (95.1-99.4)
Proportion recognized male condom (Denominator is who had sexual experience)	99.7 (98.6-99.9) N=402	99.3 (97.4-99.8) N=301	100.0 N=434
Proportion who knew where condoms are available	99.3 (98.2-99.7)	90.5 (85.7-93.8)	97.9 (94.8-99.2)
Proportion who knew where condoms are available (Denominator is who had sexual experience)	99.8 (99.0-99.9) N=400	95.3 (91.1-97.6) N=299	99.6 (98.7-99.9) N=434
Proportion who never used a male condom	71.7 (66.8-76.1)	70.2 (64.7-75.1)	52.5 (46.4-58.6)
Proportion who never used a male condom (Denominator is who had sexual experience)	71.8 (66.9-76.2) N=402	73.4 (67.8-78.4) N=301	53.4 (47.1-59.6) N=434

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Sources of condom in last month* (Denominator is who had used condom in the last month)	N=58	N=36	N=79
Shop	69.0 (55.4-79.9)	33.3 (19.2-51.2)	20.9 (11.8-34.2)
Pharmacy	91.0 (80.3-96.1)	63.9 (46.7-78.1)	57.5 (41.1-72.5)
Health centre	0	0	0
Bar/guest house/hotel	0	2.8 (0.3-19.0)	14.0 (6.4-27.8)
Friends	1.4 (0.2-10.3)	0	0
NGO workers	4.2 (1.3-12.7)	0	12.2 (5.7-24.3)
Others§	4.2 (1.3-13.1)	16.7 (7.6-32.6)	8.3 (2.7-22.6)
Proportion reported easy access to condoms	14.1 (10.8-18.2)	11.4 (8.3-15.5)	18.5 (14.9-22.7)
Proportion reported easy access to condoms (Denominator is who had used condom in the last month)	N=58	N=36	N=79
Yes	100.0	100.0	90.7 (79.2-96.1)
No	0	0	9.3 (3.9-20.8)
Reasons for not having easy access to condoms (Denominator is who reported not having easy access to condoms)*	N=0	N=0	N=12
Cost high	--	--	0
Shop/pharmacy is far away	--	--	41.9 (16.4-72.6)
Shop/pharmacy is closed	--	--	24.8 (5.1-66.8)
Feel ashamed to buy	--	--	9.8 (0.8-60.8)
Do not know where to buy	--	--	0
Not willing to carry	--	--	19.0 (2.9-65.2)
Others§§	--	--	71.2 (27.3-94.2)
Proportion complained of condom breaking during sex last month	1.9 (0.9-4.1) N=402	0	0.2 (0.02-1.3) N=440
Proportion complaining of condom breaking during sex last month (Denominator is who ever used condom in last month)	13.7 (6.3-27.0) N=57**	0 N=36	0.8 (0.1-6.4) N=78**

*Multiple responses

**One observation is missing

§Others stated: market, sex workers, and health workers.

§§Others stated: no time to buy, suddenly do sex, not easily available when needed.

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Knowledge on modes of HIV transmission and confidential HIV testing (Table 125)

More truckers in Central-A had heard about HIV/AIDS than rickshaw pullers (p<0.001 for both comparisons). More truckers in Central-A reported condom use and not sharing needles/syringes as a mode of HIV prevention than rickshaw pullers in other sites (p<0.001 for all comparisons). However, considerable misconceptions were recorded regarding routes of transmission of HIV in all groups. Very few knew where to go for confidential HIV tests. Four truckers were tested for HIV and all four had received their results.

Table 125: Knowledge on modes of HIV transmission and confidential HIV testing

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Proportion heard about HIV/AIDS	88.3 (82.6-92.4)	85.7 (81.6-89.0)	97.7 (95.0-99.0)
Proportion knew that condom use is a mode of prevention	75.0 (68.4-80.6)	58.7 (51.4-65.7)	88.0 (83.6-91.4)
Proportion knew that not sharing needles/syringes is a mode of prevention	67.6 (60.3-74.2)	72.1 (65.9-77.5)	92.7 (89.8-94.9)
Proportion knew that avoiding anal sex is a mode of prevention	62.3 (55.6-68.6)	27.9 (21.7-35.1)	46.4 (39.6-53.3)
Proportion believed that HIV can be transmitted through mosquito bites	43.1 (37.4-48.9)	34.3 (28.1-41.1)	30.0 (23.9-36.9)
Proportion believed that HIV can be transmitted by sharing food	57.6 (51.1-63.9) N=402	46.7 (40.6-52.8)	35.6 (29.4-42.4)
Proportion knew that avoiding multiple sex partners is a mode of prevention	76.7 (70.6-81.9)	80.3 (75.3-84.5)	88.1 (80.6-93.0)
Proportion believed that one can tell by looking at someone whether they are infected with HIV	19.3 (14.8-24.8)	11.8 (7.4-18.2)	8.9 (5.5-14.0)
Proportion knew where HIV can be tested confidentially	2.0 (0.8-5.2)	1.0 (0.3-2.9)	7.4 (4.8-11.4)
Proportion who had ever been tested for HIV (Denominator is who knew where to test HIV)	0 N=9	0 N=3	7.4 (2.6-19.2) N=39
Did you yourself request the test or somebody asked you to have the test? (Denominator is who ever tested for HIV)	N=0	N=0	N=4
Self	--	--	54.3 (2.7-98.1)
By some one else	--	--	45.7 (1.9-97.3)
Needed the test*	--	--	0
Proportion reported to have the result of HIV test (Denominator is who ever tested for HIV)	--	--	100.0 N=4
Time of the most recent HIV test (Denominator is who ever tested for HIV)	N=0	N=0	N=4
Within one year	--	--	45.7 (1.9-97.3)
More than one year	--	--	54.3 (2.7-98.1)

*These are the people who became knowledgeable from HIV/AIDS prevention programs and went for testing

Knowledge regarding STIs, self-reported STIs and health care seeking behaviour (Table 126)

Knowledge regarding STI symptoms varied among the three different groups of men sampled. About 40 to 48% of the rickshaw pullers and truckers reported having at least one STI symptom in the last year. Fewer rickshaw pullers in Central-A reported seeking formal medical treatment for the last STI symptom compared to truckers in Central-A and rickshaw pullers in Southeast-A (p<0.001 for both comparisons). NGO clinics as a choice for STI treatment was reported by one-quarter of the truckers interviewed and the only NGO that they could name was CARE, Bangladesh.

Table 126: Knowledge regarding STIs, self-reported STIs and health care seeking behaviour

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Knowledge on STIs*			
Discharge from penis	10.9 (7.7-15.2)	21.6 (16.6-27.6)	69.4 (61.9-76.0)
Burning pain on urination	34.9 (28.8-41.6)	30.5 (24.1-37.7)	50.2 (44.2-56.2)
Genital ulcers/sores	64.8 (58.4-70.7)	69.8 (64.3-74.9)	89.9 (83.4-94.0)
Swellings in groin area	11.7 (8.4-16.0)	1.9 (0.9-4.1)	3.8 (2.0-7.1)
Anal discharge	2.2 (1.1-4.4)	0	0.8 (0.1-4.8)
Anal ulcer/sores	0.7 (0.2-2.2)	0.6 (0.2-2.5)	1.1 (0.4-3.1)
Others[§]	16.5 (11.9-22.2)	10.2 (6.7-15.2)	19.8 (13.6-28.0)
Proportion reported urethral discharge in last one year	10.1 (6.6-15.2)	9.2 (6.4-13.1)	21.3 (16.6-27.0)
Proportion reported anal discharge in last one year	0.9 (0.2-3.4)	1.6 (0.4-5.7)	0.1 (0.02-1.0)
Proportion reported genital ulcer / sore in last one year	43.8 (38.2-49.6)	35.6 (30.2-41.3)	31.2 (26.4-36.6)
Proportion reported at least one STI symptom in last year	47.8 (41.7 - 53.9) N=402	40.3 (35.0 - 45.9)	45.2 (38.6 -51.9)
Proportion reported at least one STI symptom in last year (Denominator is who reported sexual experience)	47.8 (41.7-53.9) N=402	42.2 (36.9-47.7) N=301	46.0 (39.4-52.7) N=434
Proportion sought formal medical treatment as first option for last STI symptom in last year (Denominator is who had sexual experience and reported STI in last year)	19. 5 (12. 2-29. 6) N=193	51.2(41.9-60.4) N=127	55.8 (48.3-63.0) N=197
First choice of last STI treatment (Denominator is who had sexual experience and reported STI in last year)	N=193	N=127	N=197
Hospital	4.9 (2.7-8.9)	1.6 (0.4-6.0)	5.8 (2.9-11.4)
Drug seller	48.0 (40.1-56.1)	18.1 (12.1-26.1)	16.8 (11.9-23.3)
Private doctor	12.9 (6.9-22.9)	41.7 (33.1-50.9)	22.5 (17.8-28.0)

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Private clinic	0.6 (0.1-4.3)	7.1 (2.9-16.2)	1.9 (0.6-5.8)
NGO clinic	1.0 (0.3-4.1)	0.8 (0.1-5.5)	25.6 (18.6-34.1)
Traditional healer	14.6 (9.6-21.5)	16.5 (11.5-23.7)	5.6 (3.0-10.4)
Advice/treatment from friends	1.0 (0.2-4.0)	1.6 (0.4-6.3)	0
Self-medication	0.7 (0.2-3.1)	0.8 (0.1-5.6)	0.3 (0.04-2.4)
Did not seek treatment	15.4 (11.0-21.1)	11.0 (6.7-17.6)	18.6 (12.6-26.6)
Others[§§]	0.8 (0.2-3.3)	0.8 (0.1-5.5)	2.9 (1.0-8.0)
Proportion sought formal medical treatment as first choice for last STI symptom in last year (Denominator is who had sexual experience and reported STI in last year and sought treatment)	23. 0 (14. 6-34. 4) N=160	57.5 (47.9-66.6) N=113	68.5 (60.3-75.6) N=157
Mean waiting days for last STI treatment (Denominator is who had sexual experience and reported STI in last year and sought treatment)	9.2 (7.2-11.2) M=6 N=161	8.5 (7.7-9.4) M=8 N=113	10.5 (7.9-13.0) M=7 N=157
Mean expenditure in last STI treatment last year (Denominator is who had sexual experience, reported STI last year and sought treatment)	233.8 (134.2-333.4) M=80 N=161	214.8 (166.6-263.0) M=150 N=112	254.0 (203.0-304.9) M=150 N=157
Proportion reported to have visited STI clinics last month organized by NGO	0	0	13.8 (8.8-20.9) N=440
Name of clinics visited (Denominator is who visited STI clinics last month)	-- N=0	-- N=0	CARE N=44

*Multiple responses
[§]Others stated: syphilis, gonorrhoea, AIDS, stone in penis, itching, impotence, bad dream, cancer, eczema, discharge from pennies, abscess.
[§§]Others stated: coconut oil, cream, city corporation doctor, Quack (village doctor), homeopathic, doctor in jail.
Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

Measures taken to avoid STI and HIV (Table 127)

Around 40% of the rickshaw pullers and truckers reported that they did not take any precautionary measure to avoid STIs and HIV. A considerable proportion said that in order to avoid infection they have washed their genital organs with dettol/urine after having sex. Very few (1.5-3.3%) said that they always used condoms during sex to avoid infection.

Table 127: Measures taken to avoid STI and HIV

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Steps taken to avoid STIs*			
Do nothing	45.7 (39.7-51.8)	41.9 (35.8-48.3)	38.2 (32.5-44.3)
Wash genitalia with dettol/urine	24.5 (19.6-30.2)	37.8 (30.9-45.2)	23.0 (17.5-29.6)
Always use condom	1.3 (0.5-3.2)	1.0 (0.3-2.9)	3.1 (1.8-5.3)
Sometimes use condom	11.0 (8.2-14.7)	5.4 (3.3-8.6)	21.9 (18.0-26.4)
Take medicine	5.9 (3.0-11.4)	1.9 (0.6-5.8)	3.6 (1.8-7.0)
Others§	28.3 (23.2-34.0)	17.1 (13.2-22.1)	27.2 (22.4-32.5)
Steps taken to avoid HIV* (Denominator is who have heard about HIV)	N=361	N=270	N=431
Do nothing	47.2 (41.0-53.6)	35.2 (29.6-41.2)	38.7 (32.1-45.7)
Do not share needles/syringes	1.6 (0.6-3.7)	0	2.6 (1.2-5.4)
Wash genitalia with dettol/urine	26.2 (21.0-32.2)	42.2 (34.7-50.2)	22.9 (17.2-30.0)
Always use condoms	1.6 (0.6-4.0)	1.5 (0.6-3.9)	3.3 (2.0-5.5)
Sometimes use condoms	13.3 (10.0-17.4)	6.7 (4.2-10.4)	23.1 (18.9-28.0)
Take medicine	2.6 (0.8-8.2)	1.5 (0.3-6.8)	2.7 (1.2-5.7)
Others§§	29.9 (24.5-36.0)	25.2 (19.6-31.7)	29.8 (23.3-37.3)

*Multiple responses

§Other steps taken to avoid STIs include: avoid sex with sex workers, avoid sex with menstruating women, have sex with wife only, have sex with younger women, have sex with clean women, avoid multiple “illegal” sex, try and use condoms, clean genitalia with water/soap, take good food, be neat and clean, take bath, use cream /traditional medicine, be alert.

§§Other steps taken to avoid HIV include: avoid sex with sex workers, avoid sex with menstruating women, have sex with wife only, have sex with younger women, have sex with clean women, be neat and clean, do not take drugs, take good food, take bath, do not share food with a sick person, clean genitalia with water/soap, do not take blood from others, be alert, take traditional medicine.

Self-perception of risk (Table 128)

Approximately a quarter of the truckers and 37% to 47% rickshaw pullers did not know whether they were at risk of becoming infected with HIV. Also about half of the respondents from each group perceived themselves to be at little or no risk. Almost no rickshaw pullers and very few truckers perceived themselves to be at high risk of becoming infected with HIV.

Table 128: Self-perception of risk

Sampled groups	Rickshaw pullers /Truckers who perceived themselves be to at high risk % (95% CI)	Rickshaw pullers/ Truckers who perceived themselves to be at medium risk % (95% CI)	Rickshaw pullers/ Truckers who perceived themselves be at little or no risk % (95% CI)	Rickshaw pullers/Truckers who could not assess their risk % (95% CI)
Rickshaw pullers Central-A (N=403)	0.3 (0.1-2.1)	8.1 (5.6-11.5)	54.2 (47.1-61.1)	37.4 (30.5-44.8)
Rickshaw pullers Southeast-A (N=314)*	0.3 (0.04-2.3)	1.3 (0.5-3.3)	51.6 (45.2-57.9)	46.8 (40.4-53.3)
Truckers Central-A (N=441)	5.8 (1.6-19.2)	10.0 (6.7-14.8)	58.4 (49.7-66.5)	25.8 (21.4-30.8)

*One observation is missing

Rationale for self-perception of extent of risk (Table 129)

Among those who assessed themselves to be at high or medium risk for becoming HIV infected, most of the rickshaw pullers and truckers reasoned the cause was frequent sex. Among those who assessed themselves to be at no or little risk, most believed that was because they had sex with clean sex partners and sometimes used condoms.

Table 129: Rationale for self-perception of extent of risk

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Reasons for self-perception of risk (Denominator who thought themselves to be at high or medium risk)*	N=38	N=5	N=66
Frequent sharing of needles/syringes	0	0	0
Sometimes sharing of needles/syringes	0	0	0
Doing frequent sex	77.7 (60.6-88.8)	60.0 (10.0-95.3)	85.2 (67.7-94.0)
Do not use condoms	18.9 (9.2-34.7)	40.0 (0.9-97.9)	54.7 (43.0-65.9)
Sometimes use condoms	14.1 (6.3-28.6)	0	27.1 (17.7-39.3)
Others§	27.9 (15.3-45.3)	40.0 (1.5-96.7)	6.0 (2.0-16.2)
Reasons for assessing themselves at no or little risk (Denominator who perceived themselves at no or little risk)*	N=228	N=162	N=251
Never share needles/syringes	2.7 (1.3-5.6)	0.6 (0.1-4.4)	6.0 (3.7-9.6)
Sometimes share needles/syringes	0	0	0
Always use condoms	1.6 (0.5-5.2)	2.5 (0.9-6.4)	5.1 (3.1-8.2)
Sometimes use of condoms	20.1 (15.3-25.9)	13.0 (8.2-19.9)	24.0 (17.5-32.0)
Have sex with clean partners	24.6 (18.3-32.1)	20.4 (14.2-28.3)	32.5 (26.3-39.5)
Have sex with healthy partners	9.8 (5.5-16.7)	5.6 (2.6-11.4)	7.5 (3.9-14.0)
Others§§	81.2 (74.5-86.4)	82.1 (75.9-87.0)	64.3 (56.6-71.4)

*Multiple responses

§Other reasons stated for assessing themselves at medium/high risk for HIV infection include: always feel weak, anytime anyone can have disease, had sex recently, sore in genital organ, used condom only once in life, have STIs, may be infected from wife.

§§Other reasons stated for assessing themselves at low/no risk for HIV infection include: Be neat and clean, do not sex with sex workers, do not sex without wife, sleep with net, take good food, good health, never did sex with sex workers, young age, do not do any sin, did not do illegal sex last year, take bath, do not take drugs, never did sex, this is a disease of rich people, be alert, take medicine, do less illegal sex, clean genital organ with soap /urine/dettol/ savlon, do not take blood from others, do not have any STI, try to use condom in illegal sex, check sex workers before doing sex, do sex with known woman.

Exposure to interventions (Table 130)

About 40% of the truckers in Central-A reported exposure to interventions (mostly to education programmes, STI clinics and some received condoms) in the last year while rickshaw pullers rarely reported involvement in such interventions.

Table 130: Exposure to interventions

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Exposure to interventions last year	0.5 (0.2-1.7)	1.0 (0.3-2.9)	39.5 (32.4-47.2)
Proportion under needle/syringe exchange programme in last year	0	0	0.1 (0.02-1.0)
Type of interventions exposed to in the last year (Denominator is those who participated in an HIV intervention in last year)*	N=3	N=3	N=172
Needle/syringe exchange program	0	0	0.3 (0.04-2.5)
Educational program	100.0	100.0	96.5 (90.6-98.7)
Obtained condom	0	0	6.6 (3.3-12.7)
Received STI treatment	0	0	19.3 (11.7-30.1)
Others§	0	0	5.6 (2.4-12.4)
Mean number of years involved with interventions (Denominator is those who participated in an HIV intervention in last year)	0.5 (0.0-1.6) M=0.5 N=3	0.1 (0.0-0.3) M=0 N=3	1.4 (1.1-1.8) M=1 N=172
Mean number of times participated in interventions in the last month (Denominator is those who participated in an HIV intervention in last year)	0 M=0 N=3	0.7 (0.0-2.1) M=1 N=3	0.6 (0.3-0.8) M=0 N=172

*Multiple responses

§ Others stated: general treatment, tested blood.

Mobility of rickshaw pullers and truckers (Table 131)

More truckers than rickshaw pullers reported travelling abroad in the last year (Truckers Central-A versus Rickshaw pullers Central-A: p=0.002 and Truckers Central-A versus Rickshaw pullers Southeast-A: p<0.001).

Table 131: Mobility

Indicators % (95 % CI)	Rickshaw pullers Central-A (N=403)	Rickshaw pullers Southeast-A (N=315)	Truckers Central-A (N=441)
Proportion who visited another country in the last year	1.2 (0.5-2.7)	0	10.5 (6.0-17.9)
Name of country visited	N=6	N=0	N=41
Kuwait	0	--	1.9 (0.2-15.3)
India	100.0	--	87.4 (72.4-94.8)
KSA	0	--	10.7 (3.8-27.1)
Proportion bought sex while travelling abroad in the last year (Denominator is who travelled last year)	67.1 (14.9-96.0) N=6	-- N=0	28.6 (8.3-64.1) N=41
Proportion used condom during sex while travelling abroad in the last year (Denominator is who travelled abroad and reported sex in the last year)	20.3 (0.4-94.8) N=4	-- N=0	9.4 (0.1-92.8) N=6

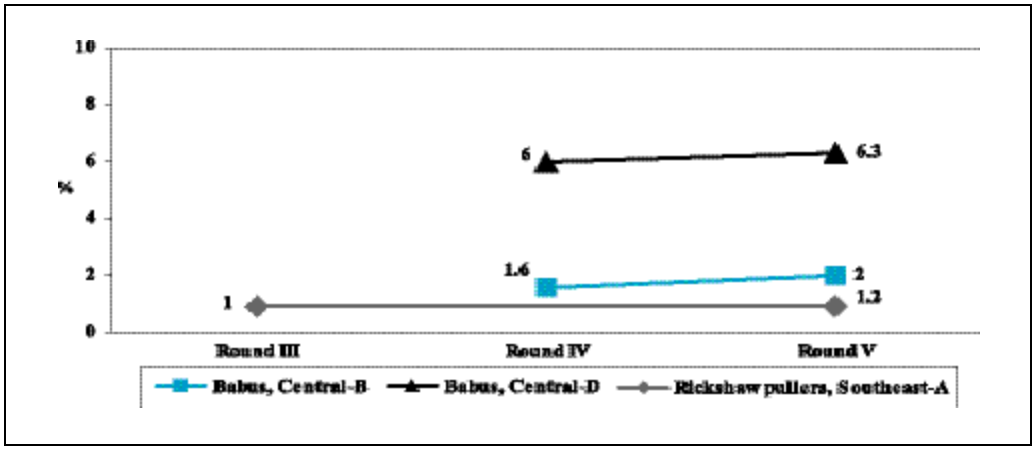
3.5.3 COMPARISON OVER THE ROUNDS

Rickshaw pullers from Central-A have been interviewed in the BSS from the second round onwards and those from Southeast-A from the third round. For serology, rickshaw pullers from Central-A were sampled for the first time in the fifth round and those from Southeast-A were sampled twice, in the third round and then again in the fifth round. Truckers from Central-A were sampled for both behavioural and serological surveillance in the first, third and fourth rounds and in the fifth round, they were sampled only in the BSS (Table 1). Babus and sex partners for Hijras were sampled only for serology and Babus were sampled in the fourth and fifth rounds from two brothels in the Central region; all others were sampled for the first time in the fifth round.

3.5.3.1 SEROLOGY

No HIV was detected in babus and sex partners of Hijras. In rickshaw pullers, for the first time, one case of HIV was detected in the fifth round from Central-A. Active syphilis rates have been low in rickshaw pullers and the prevalence remained similar between the third and fifth rounds in Southeast-A (Fig 36). In babus, from Central B and D, no changes in active syphilis rates were observed between the fourth and fifth rounds in both cities (Fig 36). As truckers were not sampled in the fifth round, the data are not being presented here.

Fig 36: Active syphilis rates over the rounds among babus and rickshaw pullers



3.5.3.2 BEHAVIOUR

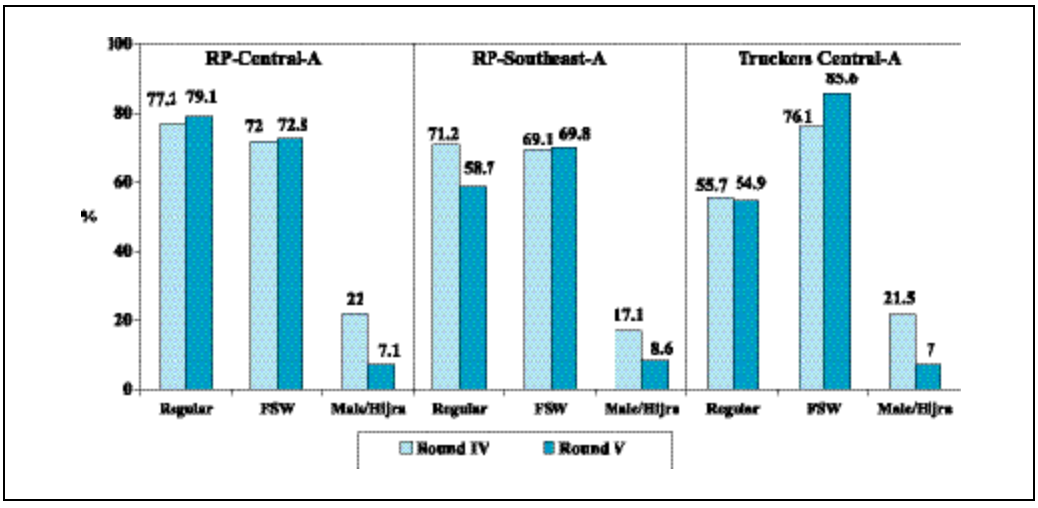
Sex partners (Fig 37 and appendix A-36, 37)

The proportions of rickshaw pullers and truckers who were currently married were similar over the last two rounds (Appendix A-36).

The proportions who reported having sex with non-commercial female partners in the last year were similar for rickshaw pullers and truckers in Central-A but fewer rickshaw pullers in Southeast-A reported having non-commercial female partners in the last year in the fifth round ($p<0.001$) (Fig 37 and appendix A-37).

For commercial partners, more truckers in Central-A bought sex from females in the last year in the fifth round than in the fourth round ($p= 0.007$) (Fig 37). Similar proportions of rickshaw pullers from both cities reported buying sex from females in the last year in the fourth and fifth rounds (Fig 37). However, regarding buying sex from males or Hijras in the last year, fewer males reported doing so in the fifth than in the fourth round (Rickshaw pullers in Central-A, $p<0.001$; Rickshaw pullers in Southeast-A, $p<0.001$; Truckers in Central-A, $p=0.004$) (Fig 37 and appendix A-37).

Fig 37: Proportions of rickshaw pullers and truckers reporting different types of sex partners in the last year

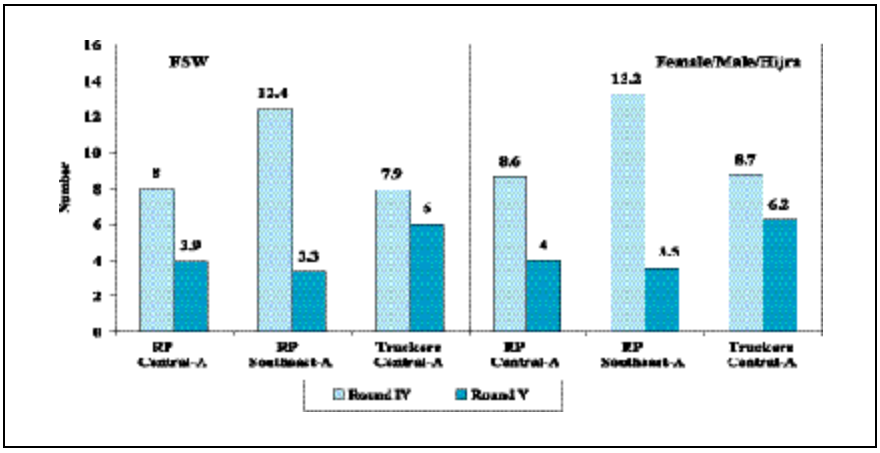


Note: FSW = female sex workers, RP= rickshaw pullers

Numbers of commercial sex partners (Fig 38 and appendix A-37)

The mean numbers of female commercial sex partners in the last year decreased in rickshaw pullers over the rounds (p<0.001 for both comparisons) (Fig 38). The mean numbers of male/Hijra commercial partners declined significantly for all three groups (p<0.001 for all comparisons) (Appendix A-37). Significant declines were recorded in the overall mean numbers of commercial sex partners (female/male/Hijra) for all three groups (p<0.001 for rickshaw pullers in both cities; truckers in Central-A, p=0.002) (Fig 38).

Fig 38: Mean numbers of commercial sex partners (female and overall)

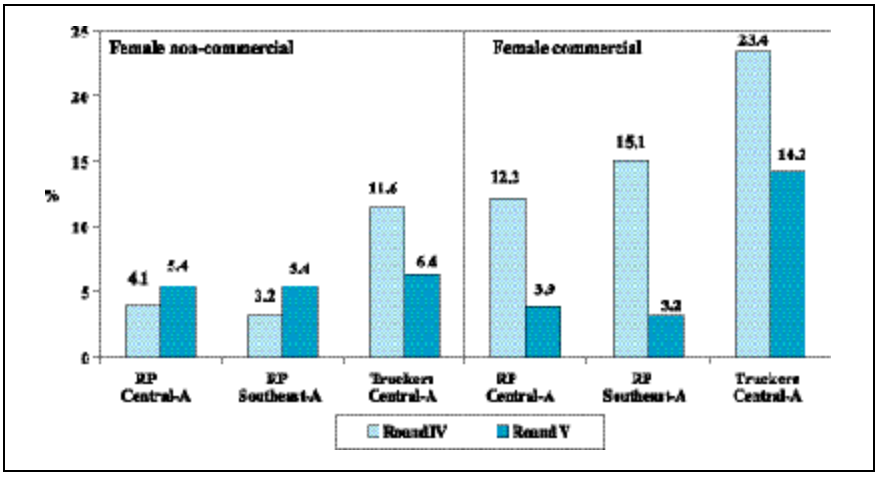


Note: FSW = female sex workers, RP= rickshaw pullers

Condom use with commercial and non-commercial sex partners (Fig 39, 40 and appendix A-38, A-39, A-40, A-41)

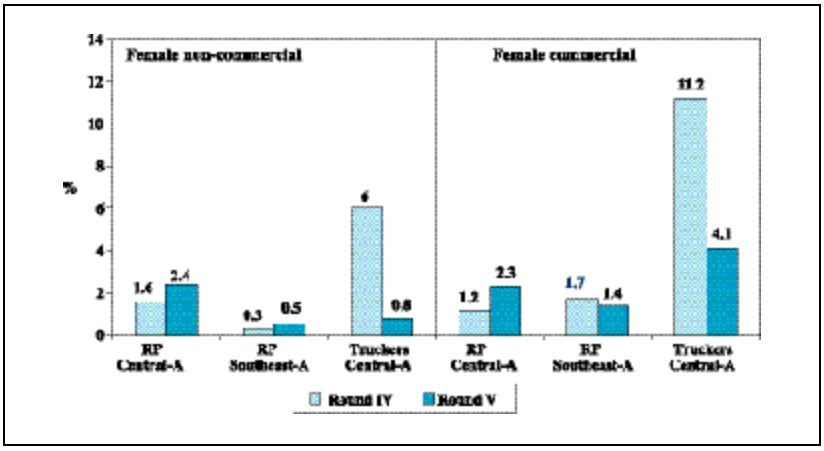
The proportions of rickshaw pullers and truckers using condoms during the last sex (Fig 39) and consistently during the last year (Fig 40) with non-commercial female sex partners remained the same between the last two rounds. However with female sex workers, the proportions using condoms during the last sex declined significantly (Rickshaw pullers from both cities, p<0.001 and truckers from Central-A, p=0.005) (Fig 39) and consistent condom use in the last year remained the same in rickshaw pullers from Central-A and Southeast-A but declined in truckers from Central-A (p=0.001) (Fig 40).

Fig 39: Last time condom use with female commercial and non-commercial sex partners



Note: RP= rickshaw pullers

Fig 40: Consistent condom use with non-commercial and commercial female sex partners



Note: RP= rickshaw pullers

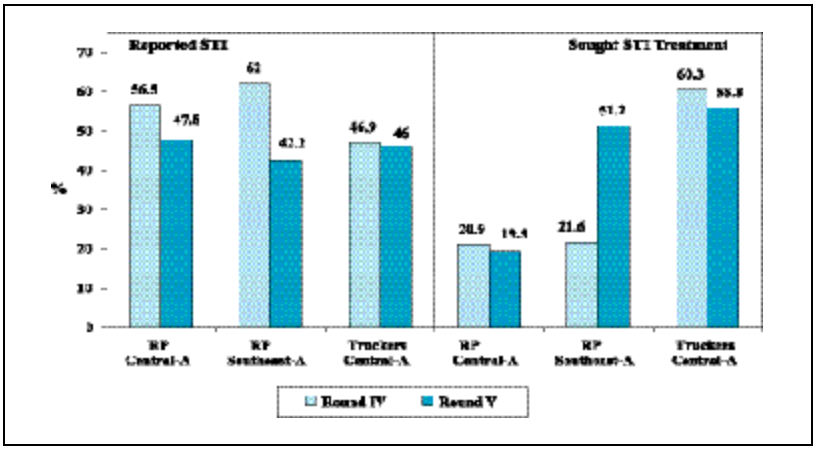
Knowledge about HIV transmission (Appendix A-42)

There were significant increase in the proportions of rickshaw pullers and truckers from Central-A who knew that condoms could prevent HIV transmission ($p<0.001$ for both comparisons) but no differences were observed between the two rounds for rickshaw pullers from Southeast-A (Appendix A-42). The proportions who knew that not sharing needles/syringes could prevent HIV transmission were higher in the fifth round for all three groups ($p<0.001$ for all comparisons) (Appendix A-42).

Self reported STIs and medical treatment seeking behaviour for STIs (Fig 41 and appendix A-44)

The proportion reporting at least one STI symptoms in the last year declined in rickshaw pullers in Southeast-A ($p<0.001$) but remained same in rickshaw pullers and truckers in Central-A (Fig 41). The proportions seeking medical treatment for their STI symptom increased in rickshaw pullers from Southeast-A ($p<0.001$) but remained the same in rickshaw pullers and truckers in Central-A (Fig 41).

Fig 41: Proportions reporting STI symptoms in the last year and seeking medical treatment for those symptoms



Note: RP = Rickshaw pullers

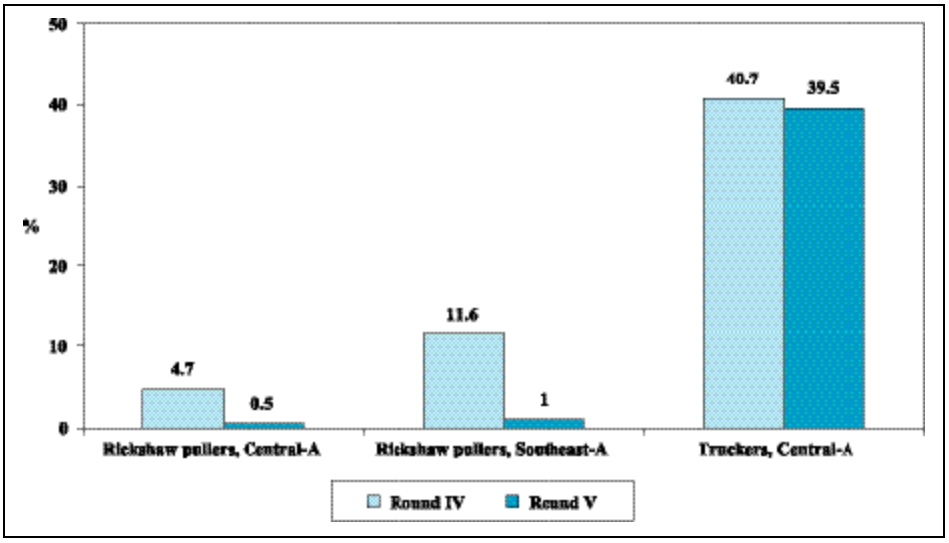
Self-perception of risk (Appendix A-43)

The proportion of men who could not assess their own risk of getting infected with HIV decreased significantly among rickshaw pullers in Central-A in the fifth round compared to the fourth round ($p<0.001$) while they remained the same for rickshaw pullers in Southeast-A and truckers in Central-A in the two rounds (Appendix A-43).

Exposure to interventions (Fig 42 and appendix A-45)

Fewer rickshaw pullers in both Central-A and Southeast-A reported being exposed to intervention programmes in the last year in the fifth round than in the fourth round ($p<0.001$ for both comparisons). The proportions of truckers in Central-A exposed to interventions in the last year were the same in the two rounds (Fig 42 and appendix A-45).

Fig 42: Proportions exposed to intervention programmes in the last year



3.5.4 SUMMARY OF FINDINGS

In these groups very low HIV and active syphilis rates were documented. BSS was conducted only in truckers and rickshaw pullers, not in the partners of female sex workers and Hijras. Over the rounds, the BSS data from these population groups recorded very risky behaviours; large proportions reported both commercial and non-commercial sex partners, some had multiple sex partners, consistent condom use was very low and more than half perceived themselves to be at little or no risk of acquiring HIV infection.

In some aspects truckers appeared to be practicing riskier behaviours than rickshaw pullers because compared to rickshaw pullers:

- More truckers reported buying sex from female sex workers in the last year
- More truckers reported group sex in the last month
- Truckers had on average higher number of sex partners in the last year
- More truckers travelled abroad (all to India) of whom more than a quarter bought sex while abroad.

On the other hand, rickshaw pullers were more at risk because, compared to truckers:

- More never used condoms
- More could not assess their own risk for acquiring HIV/STIs
- Fewer (almost none) had been exposed to an intervention programme on HIV/AIDS in the last year
- More from Southeast-A had injected drugs in the last year

More truckers knew about the modes of HIV transmission than rickshaw pullers however, in all groups, misconceptions about transmission were highly prevalent.

While comparing data with the fourth round of BSS, an improvement was observed during the fifth round with regards to the overall numbers of commercial sex partners in the last year which, declined in rickshaw pullers (from both cities) and in truckers. However, there was considerable enhancement of risk behaviour in the fifth round, particularly in truckers, as:

- The proportion buying sex from female sex workers in the last year increased (in truckers only)
- Consistent condom use declined (in truckers only)
- Last time condom use with female sex workers declined in all groups.

Exposure to interventions in the last year was reported by fewer rickshaw pullers (from both cities) in the fifth round compared to the fourth round, whereas in truckers, the proportions did not change. Large-scale expansion of HIV prevention knowledge and education, and easy access to condoms targeted for mobile men is essential. Data from many countries show that transport workers are at particular risk of HIV8-9.

4. CONCLUSIONS

The HIV surveillance system in Bangladesh is considered to be effective and well executed, but there are still several limitations. These limitations have been discussed in detail in previous reports and the major issues are presented briefly here:

1. ***Limited scope and coverage –*** the surveillance system does not cover all geographic areas of Bangladesh. However, attempts have been made to cover at least the main cities in the six Divisions and every year, the areas being covered are being expanded. In addition, the system may not be accessing all most-at-risk populations. A recurring issue has been returning external migrants as most of the passively identified HIV cases in Bangladesh are migrant workers who have returned from work abroad. The problem in accessing the returnee migrants as a distinct group is that once they return they become part of the overall population and cannot be categorised on the basis of any particular group. It is expected that ongoing ad hoc research studies will provide an understanding of their risks and vulnerabilities.

2. ***Bias in serological sampling –*** as before the serological system samples individuals through intervention programmes and is a convenience sampling methodology. Therefore, the system may not be providing a true picture of the epidemic. As the reason for doing this is to be able to provide services to the participants, this remains a difficult problem to overcome. However, as in earlier rounds, during this round, areas new to interventions were included, i.e. individuals who have never been exposed to interventions were sampled. This is true for the NEP programmes at the three sites in Northwest, casual female sex workers in South and Northwest Bangladesh etc. Moreover, in order to obtain a more representative sample, discussions are underway on how to both sample individuals randomly and to provide services so that ethical considerations are met.

3. ***Bias in behavioural surveillance sampling –*** the BSS uses the time location sampling methodology to map individuals available at public venues so that the more hidden individuals within the most-at-risk population groups may be missed. Discussions are underway to pilot new methodologies for sampling that will allow access to more hidden individuals.

The surveillance system in Bangladesh has always acknowledged these limitations and every year attempts to deal with some aspects of those limitations as discussed above. However, as the surveillance system in Bangladesh follows a systematic and well defined approach and is held annually, it therefore succeeds in providing a picture of the HIV scenario in the country. The core message from the data generated in all these years has been: despite the low HIV prevalence and the large numbers of NGOs and others working to prevent the epidemic, high risk behaviours in all population groups prevail.

Overall, the data from the fifth round of surveillance show very risky behaviours in all population groups sampled. There have been improvements in some areas with some specific groups, but this is rare. Although in most population groups the overall knowledge on HIV is high there has been very little internalisation of risk so that risk perception is often low.

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These risk behaviours exist despite the presence of many intervention programmes for HIV prevention. Also, the programmes are not of a large enough scale so that many are not covered. Urgent expansion and intensification of intervention programmes is imperative. This is particularly true for IDU in Central-A. It is well accepted that effective harm reduction services including NEP can reduce the spread of HIV10-11 in IDU. However, as IDU are well integrated into the general population through their sex partners, once HIV enters the IDU community it is a matter of time before it spreads, which has been documented in our neighbouring country12. Therefore, services must be made available to all marginalized population groups who are most vulnerable to HIV.

The data also indicate that simply expanding existing programmes may not be adequate to stem the epidemic as risky behaviours continue to be practiced in groups who are exposed to those intervention programmes. Therefore a critical assessment of what needs to be done is required in order to empower the most at risk population groups to practice safer behaviours.

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APPENDIX

A-1. Prevalence of HIV over five rounds of serological surveillance, 1998-1999, 1999-2000, 2000-2001, 2002 and 2003-2004

Study Populations, Geographical Location	HIV % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
IDU: Detoxification clinic, Central-A	2.5 (1.2-4.5), 10 (402)	0.2 (0-1.4), 1 (402)	0 (92)	ND	ND
NEP*, Central-A	ND	1.4 (0.5-3.1), 6 (418)	1.7(0.7-3.6), 7(401)	4.0(2.3-6.4), 16(403)	4.0(2.3-6.3), 16(404)
NEP, Central-E	ND	ND	ND	ND	0 (107)
NEP, Central-H	ND	ND	ND	ND	0(122)
NEP, Northwest-A	ND	0(416)	0(402)	0(405)	0(394)
NEP, Northwest-B	ND	ND	0(120)	0(200)	0(239)
NEP, Northwest-B1	ND	ND	ND	ND	0(78)
NEP, Northwest-B2	ND	ND	ND	ND	0(47)
Non NEP, Northwest-F	ND	ND	ND	ND	0(85)
Non NEP, Northwest-F1	ND	ND	ND	ND	0(57)
Non NEP, Southeast-D	ND	ND	ND	ND	0(86)
Heroin Smokers: Central-A	ND	ND	ND	0(388)	0.8(0.2-2.2), 3(391)
Brothel Based Female Sex Workers: Central-B	0(392)	0(402)	0.5(0.1-1.8),2(407)	0.2(0-1.4),1(406)	0.5(0.1-1.8),2(404)
Central-C	ND	0(322)	ND	0(152)	0(159)
Central-D	ND	ND	0.3(0-1.4), 1(384)	0.7(0-2.2), 3(402)	0.5(0.1-1.8), 2(401)
Central-E	1.5(0.4-3.8), 4(267)	ND	ND	ND	ND
Central-L	ND	ND	ND	ND	0(136)
Central-N	ND	ND	ND	ND	0(376)

Study Populations, Geographical Location	HIV % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
Central-P	ND	ND	ND	ND	0.5(0-2.7), 1(205)
Southwest-A, C[†]	ND	0(351)	0(335)	0(241)	0(293)
Southwest-B	ND	ND	0.5(0-2.9), 1(187)	0.5(0-2.8), 1(195)	0.6(0-3.2), 1(171)
South-E	ND	ND	ND	ND	0(59)
Street Based Female Sex Workers:					
Central-A	0(400)	0.2(0-1.3), 1(423)	0.5(0.1-1.7), 2(419)	0.2(0-1.4), 1(403)	0.2(0-1.4), 1(401)
Central-B	ND	ND	ND	0(199)	ND
Southeast-A	ND	ND	ND	ND	0(402)
Southwest-A	ND	ND	ND	0(317)	0(403)
Hotel Based Female Sex Workers:					
Central-A	ND	ND	ND	0.2(0-1.4), 1(405)	0(400)
Southeast-A	ND	ND	ND	ND	1.5(0.2-5.4), 2(132)
Northeast-A	ND	ND	ND	ND	0.6(0-3.3), 1(166)
Casual Female Sex Workers:					
South-A	ND	ND	ND	ND	0(197)
Northwest-K1	ND	ND	ND	ND	2.0(0.2-7.0), 2(101)
Northwest-M1	ND	ND	ND	ND	0(381)
Hijras:					
Central-A	ND	ND	ND	0.8(0.2-2.2), 3(393)	ND
Central-A,G	ND	ND	ND	ND	0.2(0-1.4), 1(405)
MSM Group:					
Sex Workers, Central-A	ND	ND	0(310)	0(401)	0(274)
Non-sex Workers, Central-A	ND	ND	0(399)	0.2(0-1.4), 1(406)	0(399)

Study Populations, Geographical Location	HIV % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
MSM Group (Combined sex workers and non sex workers)[§]					
Central-A	0.2(0-1.4), 1(401)	0(388)	ND	ND	ND
Central-C	ND	ND	ND	0(400)	0(400)
Southeast-A	ND	ND	ND	0(397)	0.3(0-1.4)(1(398)
Northeast-A	ND	ND	ND	0(402)	0.3(0-1.4), 1(400)
Babus (Brothel):					
Central-B	ND	ND	ND	0(252)	0(251)
Central-D	ND	ND	ND	0(200)	0(175)
Central-L	ND	ND	ND	ND	0(56)
STI Patients:					
Central-A	0.3(0-1.4), 1(399)	0(404)	ND	ND	ND
Southeast-A	0.2(0-1.4), 1(409)	0(404)	0.2(0-1.4), 1(403)	ND	ND
Northwest-A, C[§§]	0(401)	0(408)	0(392)	ND	ND
Northeast-A	0(397)	ND	0(389)	0(106)	ND
Truckers:					
Central-A	0(403)	ND	0(437)	0(402)	ND
Southwest-B	ND	ND	0(392)	ND	ND
Dock workers:					
Southwest-C	ND	ND	0(401)	ND	ND
Southeast-A	ND	ND	0(392)	ND	ND
Rickshaw pullers:					
Central-A	ND	ND	ND	ND	0.2(0-1.4), 1(401)
Southeast-A	ND	ND	0(400)	ND	0(401)

Study Populations, Geographical Location	HIV % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
Southwest-B	ND	ND	0(401)	ND	ND
Partners of Hijra: Central-A, G	ND	ND	ND	ND	0(88)
Launch Workers: Central-A	ND	ND	ND	0(402)	ND
Total	0.4(0.3-0.7), 17(3871)	0.2(0.1-0.4), 8(4338)	0.2(0.1-0.3), 14(7063)	0.3 (0.2-0.5), 27 (7877)	0.3 (0.2-0.5), 35 (10445)

*NEP – Needle/syringe Exchange Programme

†Southwest-A and C, two geographical related areas together representing one site

§In some sites male sex workers (MSW) and non-sex worker MSM could not be differentiated and they were sampled as a single group

§§In the first round, sampling was done only from Northwest-A

A-2. Prevalence of active syphilis over five rounds of serological surveillance, 1998-1999, 1999-2000, 2000-2001, 2002 and 2003-2004

Study Populations, Geographical Location	Active syphilis % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
IDU: Detoxification Clinic, Central-A	4.5 (2.7-7.0), 18 (402)	4.0 (2.3-6.4), 18 (402)	4.3(1.2-10.8), 4(92)	ND	ND
NEP*, Central-A	ND	9.3 (6.7-12.5), 39 (418)	2.5(1.2-4.5), 10(401)	3.5(1.9-5.8), 14(403)	1.2(0.4-2.9), 5(404)
NEP, Central-E	ND	ND	ND	ND	5.6(2.1-11.8), 6(107)
NEP, Central-H	ND	ND	ND	ND	1.6(0.2-5.8), 2(122)
NEP, Northwest-A	ND	4.1 (2.4-6.5), 17 (416)	1.5(0.5-3.2), 6(402)	1.7(0.7-3.5), 7(405)	1.3(0.4-2.9),5(394)
NEP, Northwest-B	ND	ND	1.7(0.2-5.9), 2(120)	2.0(0.5-5.0), 4(200)	1.7(0.5-4.2), 4(239)
NEP, Northwest-B1	ND	ND	ND	ND	1.3(0-6.9), 1(78)
NEP, Northwest-B2	ND	ND	ND	ND	2.1(0.1-11.3), 1(47)
NEP, Northwest-F	ND	ND	ND	ND	0(0-4.2), 0(85)
NEP, Northwest-F1	ND	ND	ND	ND	3.5(0.4-12.1), 2(57)
NEP, Southeast-D	ND	ND	ND	ND	7.0(2.6-14.6), 6(86)
Heroin Smokers: Central-A	ND	ND	ND	3.4 (1.8-5.7), 13 (387)	2.6 (1.2-4.7), 10 (391)
Brothel Based Female Sex Workers:					
Central-B	13.8 (10.5-17.6), 54 (392)	6.2 (4.1-9.0), 25 (402)	8.1 (5.6-11.2), 33 (407)	3.9 (2.3-6.3), 16 (406)	3.2(1.7-5.4), 13(404)
Central-C	ND	10.2 (7.2-14.1), 33 (322)	ND	9.2 (5.1-15.0), 14 (152)	10.7(6.4-16.6), 17(159)
Central-D	ND	ND	14.8 (11.4-18.8), 57 (384)	6.7(4.5-9.6), 27(402)	6.0(3.9-8.8), 24(401)
Central-E	28.7 (23.5-34.4), 81 (282)	ND	ND	ND	ND
Central-L	ND	ND	ND	ND	11.0(6.3-17.5), 15(136)
Central-N	ND	ND	ND	ND	8.2(5.7-11.5), 31(376)
Central-P	ND	ND	ND	ND	12.2(8.0-17.5), 25(205)
South West-A, C[†]	ND	11.7 (8.5-15.5), 41 (351)	6.0 (3.7-9.1), 20 (335)	5.0 (2.6-8.5), 12 (241)	4.8(2.6-7.9), 14(293)

Study Populations, Geographical Location	Active syphilis % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
South West-B	ND	ND	8.0 (4.6-12.9), 15 (187)	3.6 (1.5-7.3), 7 (195)	7.6(4.1-12.6), 13(171)
South-E	ND	ND	ND	ND	5.1(1.1-14.1), 3(59)
Street Based Female Sex Workers:					
Central-A	33.8 (29.1-38.6), 135 (400)	24.3 (20.3-28.7), 103 (423)	16.7 (13.3-20.6), 70 (419)	8.4 (5.9-11.6), 34 (403)	9.7 (7.0-13.1), 39 (401)
Central-B	ND	ND	ND	3.0 (1.1-6.4), 6 (199)	ND
Southeast-A	ND	ND	ND	ND	11.9 (8.9-15.5), 48 (402)
South west-A	ND	ND	ND	4.7 (2.7-7.7), 15 (317)	1.5 (0.5-3.2), 6 (403)
Hotel Based Female Sex Workers:					
Central-A	ND	ND	ND	4.9 (3.0-7.5), 20 (405)	4.5 (2.7-7.0), 18 (400)
Southeast-A	ND	ND	ND	ND	5.3 (2.2-10.6), 7 (132)
Northeast-A	ND	ND	ND	ND	5.4 (2.5-10.0), 9 (166)
Casual Female Sex Workers:					
South-A	ND	ND	ND	ND	5.1 (2.5-9.1), 10 (197)
Northwest-K1	ND	ND	ND	ND	6.9 (2.8-13.8), 7 (101)
Northwest- M1	ND	ND	ND	ND	1.0 (0.3-2.7), 4 (381)
Hijras:					
Central-A	ND	ND	ND	10.4 (7.6-13.9), 41 (393)	ND
Central-A,G	ND	ND	ND	ND	10.4 (7.6-13.8), 42 (405)
MSM Group: Sex Workers, Central-A	ND	ND	7.7 (5.0-11.3), 24 (310)	3.2 (1.7-5.5), 13 (401)	6.2 (3.7-9.7), 17 (274)
Non-sex Workers, Central-A	ND	ND	1.8 (0.7-3.6), 7 (399)	0.7 (0.2-2.1), 3 (406)	1.5 (0.6-3.2), 6 (399)

Study Populations, Geographical Location	Active syphilis % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
MSM Group (Combined sex workers and non sex workers)[§]					
Central-A	7.0 (4.7-9.9), 28 (401)	6.7 (4.4-9.7), 26 (388)	ND	ND	ND
Central-C	ND	ND	ND	2.3 (1.0-4.2), 9 (400)	2.5 (1.2-4.5), 10 (400)
Southeast-A	ND	ND	ND	4.3 (2.5-6.8), 17 (397)	2.8 (1.4-4.9), 11 (398)
Northeast-A	ND	ND	ND	3.0 (1.6-5.2), 12 (402)	3.3 (1.7-5.5), 13 (400)
Babus (Brothel):					
Central-B	ND	ND	ND	1.6 (0.4-4.0), 4 (252)	2.0 (0.6-4.6), 5 (251)
Central-D	ND	ND	ND	6.0 (3.1-10.2), 12 (200)	6.3 (3.2-11.0), 11 (175)
Central-L	ND	ND	ND	ND	5.4 (1.1-14.9), 3 (56)
STI Patients:					
Central-A	1.0 (8.1-14.5), 44 (399)	5.2 (3.2-7.8), 21 (404)	ND	ND	ND
Southeast-A	7.6 (5.2-10.6), 31 (409)	4.2 (2.5-6.7), 17 (404)	2.2 (1.0-4.2), 9 (403)	ND	ND
Northwest-A, C[§§]	2.2 (1.0-4.2), 9 (401)	1.7 (0.7-3.5), 7 (408)	1.5 (0.6-3.3), 6 (392)	ND	ND
Northeast-A	8.1 (5.6-11.2), 32 (397)	ND	5.1 (3.2-7.8), 20 (389)	0.9 (0-5.1), 1 (106)	ND
Truckers:					
Central-A	2.0 (0.9-3.9), 8 (403)	ND	2.1 (0.9-3.9), 9 (437)	1.0 (0.3- 2.5), 4 (402)	ND
Southwest-B	ND	ND	1.8 (0.7-3.6), 7 (392)	ND	ND
Dock workers:					
Southwest-C	ND	ND	1.0 (0.3-2.5), 4 (401)	ND	ND
Southeast-A	ND	ND	2.8 (1.4-5.0), 11 (392)	ND	ND

Study Populations, Geographical Location	Active syphilis % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
Rickshaw pullers:					
Central-A	ND	ND	ND	ND	0.2 (0-1.4), 1 (401)
Southwest-B	ND	ND	1.0 (0.3-2.5), 4 (401)	ND	ND
Southeast-A	ND	ND	1.0 (0.3-2.5), 4 (400)	ND	1.2 (0.4-2.9), 5 (401)
Partners of Hijra:					
Central-A,G	ND	ND	ND	ND	2.3 (0.3-8.0), 2 (88)
Launch Workers:					
Central-A	ND	ND	ND	1.5 (0.5-3.2), 6 (402)	ND
TOTAL	11.3 (10.3-12.4), 440 (3886)	8.0 (7.2-8.8), 347 (4338)	4.6 (4.1-5.1), 322 (7063)	3.9 (3.5-4.4), 311 (7877)	4.5 (4.1-4.9), 471 (10445)

*NEP – Needle/syringe Exchange Programme
†Southwest-A and C, two geographical related areas together representing one site
§In some sites male sex workers (MSW) and non-sex worker MSM could not be differentiated and they were sampled as a single group
§§In the first round, sampling was done only from Northwest-A

A-3. Prevalence of Hepatitis-C (HCV) over the rounds of serological surveillance

Study Populations, Geographical Location	HCV % positive (95% CI), number positive (total number tested)				
	1998-1999 Round I	1999-2000 Round II	2000-2001 Round III	2002 Round IV	2003-2004 Round V
Injection Drug Users:					
NEP, Central-A	17.4 (13.9-21.5), 70 (402)	66.5 (61.8-71.0), 278 (418)	ND	62.3 (57.4-67.0), 251 (403)	59.2 (54.2-64.0), 239 (404)
NEP, Central-E	ND	ND	ND	ND	29.9 (21.4-39.5), 32 (107)
NEP, Central-H	ND	ND	ND	ND	5.7 (2.3-11.5), 7 (122)
NEP, Southeast-D	ND	ND	ND	ND	52.3 (41.3-63.2), 45 (86)
NEP, Northwest-A	ND	59.6 (54.7-64.8), 248 (416)	ND	59.8 (54.8-64.6), 242 (405)	67.0 (62.1-71.6), 264 (394)
NEP, Northwest-B	ND	ND	ND	79.5 (73.2-84.9), 159 (200)	77.0 (71.1-82.2), 184 (239)
NEP, Northwest-B1	ND	ND	ND	ND	55.1 (43.4-66.4) 43 (78)
NEP, Northwest-B2	ND	ND	ND	ND	83.0 (69.2-92.4), 39 (47)
NEP, Northwest-F	ND	ND	ND	ND	8.2 (3.4-16.2), 7 (85)
NEP, Northwest-F1	ND	ND	ND	ND	29.8 (18.4-43.4), 17 (57)

NEP- Needle/syringe Exchange Programme, ND = Not done

Comparison Between Rounds IV vs. V
Injection Drug Users (IDU)

A-4. Socio demographic characteristics

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values
Mean age (in years)	32.7 31.9-33.6) M=32	32.2 (31.4-33.0) M=32	NS	37.0 (36.4-37.6) M=36	40.9 (40.2-41.5) M=40	<0.001
Proportion who had no schooling	14.1 (10.7-18.5)	34.9 (29.9-40.3) N=481	<0.001	13.5 (10.8-16.9)	47.5 (42.4-52.5)	<0.001
Mean income last month	3925 (3727-4123) M=3500	4276.9 (3989.6-4563.8) M = 4000	NS	3250 (3106-3394) M=3000	3649.3 (3466.7-3832.1) M=3000	<0.001
Proportion who were currently married	42.4 (37.3-47.6)	35.0 (29.4-41.0)	NS	55.2 (51-59.3)	80.4 (76.8-83.6)	<0.001
Mean age at first sex in years (Denominator is who could recall)	17.0 (16.7-17.3) M=17 N=491	17.6 (17.4-17.9) M=17 N=476	0.004	19.6 (19.2-20.1) M=18 N=591	18.5 (18.3-18.7) M=18 N=474	<0.001
Proportion living with regular sex partner	35.7 (30.5-41.2)	32.2 (26.6-38.4) N=476	NS	50.8 (46.4-55.2)	81.7 (77.9-84.9)	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-5. Socio demographic characteristics

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Mean age (in years)	39.7 (38.3-41.1) M=40	40.0 (38.1-41.8) M = 40	NS	25.8 (25.0-26.5) M=26	27.4 (26.4 - 28.5) M=27	NS
Proportion who had no schooling	3.9 (1.0-13.4)	47.4 (40.0 - 54.9)	<0.001	4.0 (1.2-12.0)	1.4 (0.4 - 4.5)	NS
Mean income last month	2737 (2538-2935) M=2600	3319.5 (2997.8-3641.1) M = 3000	0.002	4167 (3580-4753) M=3000	4808.5 (4126.7-5490.4) M = 3500	NS
Proportion who were currently married	87.8 (81.5-92.1)	71.1 (63.8 -77.4)	<0.001	25.8 (19.6-33.1)	34.8 (26.7-43.8)	NS
Mean age at first sex in years (Denominator is who could recall)	19.7 (19.1-20.3) M=19 N=173	18.7 (18.4 -19.0) M=19 N=189	0.002	16.2 (15.9-16.6) M=16 N=151	18.2 (17.5-18.9) M=18 N=135	<0.001
Proportion living with regular sex partner	80.0 (70.3-87.1)	71.6 (63.9-78.2)	NS	27.8 (21.5-35.1)	33.3 (26.1-41.5) N=138	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-6. Injecting Behaviour of the IDU

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northeast-A (N=701)	Round 5 IDU Northeast-A (N=474)	P-values
Borrowed used needle/syringe last time	46.4 (41.3-51.6)	53.2 (48.3-58.0)	NS	21.1 (16.5-26.5)	7.3 (4.8-11.1)	<0.001
Lent used needle/ syringe last time	60.5 (54.2-66.4)	66.4 (61.9-70.6)	NS	21.4 (16.2-27.8)	13.0 (9.1-18.4)	NS
Borrowed or lent used needle/syringe last time	70.2 (63.4-76.2)	77.2 (72.6-81.3)	NS	28.5 (23.1-34.6)	15.8 (11.1-21.9)	0.002
Borrowed used needle/syringe last week	65.8 (60.1-71.1)	86.0 (82.4-89.0)	<0.001	27.5 (22.4-33.3)	21.2 (15.4-28.6)	NS
Lent used needle/ syringe last week	Not asked	90.2 (86.9-92.7)		Not asked	21.9 (15.8-29.4)	
Borrowed or lent used needle/syringe last week	Not asked	90.6 (87.3-93.1)		Not asked	24.2 (17.7-32.2)	
Proportion injected by professional injectors last time	2.9 (1.6-5.2)	9.8 (6.5-14.4)	<0.001	72.2 (66.9-76.9)	48.9 (44.1-53.8)	<0.001
Proportion injected by professional injectors last week (Denominator is who took injections last week)	N=524	N=480		N=701	N=474	
Always	0	4.6 (2.7-7.8)	<0.001	59.2 (52.0-66.0)	9.8 (7.3-13.1)	<0.001
Sometimes	5.5 (3.5-8.6)	8.8 (6.0-12.7)	NS	29.5 (24.4-35.2)	61.2 (56.9-65.4)	<0.001
Never	94.5 (91.4-96.5)	86.6 (81.3-90.6)	0.002	11.3 (8.1-15.4)	29.0 (25.1-33.1)	<0.001

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northeast-A (N=701)	Round 5 IDU Northeast-A (N=474)	P-values
Mean size of sharing in the last time (Denominator is who shared last time)	2.1 (2.0-2.3) M=2 N=368	2.6 (2.5-2.7) M=2 N=373	NS	2.5 (2.3-2.7) M=2 N=162	2.8 (2.5-3.0) M=3 N=80	NS
Proportion cleaned needle/syringe after shared by one person (Denominator is who shared last time)	44.0 (38.9-49.3) N=368	44.2 (38.3-50.4) N=261	NS	50.0 (42.7-57.3) N=200	86.9 (65.8-95.8) N=37	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-6. Injecting Behaviour of the IDU (Continued)

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Borrowed used needle/syringe last time	31.7 (27.5-36.1)	28.4 (21.8-36.2)	NS	51.0 (44.0-57.9)	46.1 (38.0-54.4)	NS
Lent used needle/ syringe last time	32.8 (27.2-38.9)	51.6 (44.1-59.0)	<0.001	46.4 (37.3-55.7)	46.1 (36.5-56.1)	NS
Borrowed or lent used needle/syringe last time	47.2 (42.4-52.1)	58.4 (50.6-65.9)	NS	74.2 (66.2-80.8)	68.8 (57.0-78.6)	NS
Borrowed used needle/syringe last week	47.2 (42.4-52.1)	63.7 (54.2-72.2)	0.002	74.2 (66.2-80.8)	63.1 (54.3-71.1)	NS
Lent used needle/ syringe last week	Not asked	74.2 (64.5-82.0)		Not asked	63.8 (54.8-72.0)	
Borrowed or lent used needle/syringe last week	Not asked	75.3 (64.3-83.7)		Not asked	69.5 (61.1-76.8)	
Proportion injected by professional injectors last time	76.1 (69.6-81.6)	76.8 (68.6-83.4)	NS	0	0.7 (0.1-4.7)	NS
Proportion injected by professional injectors last week (Denominator is wh took injections last week)	N=180	N=190		N=151	N=141	
Always	51.7 (42.6-60.6)	26.8 (19.7-35.5)	<0.001	0	0	Not done
Sometimes	35.0 (25.7-45.6)	64.2 (54.5-72.8)	<0.001	4.6 (2.1-9.9)	1.6 (0.4-5.9)	NS
Never	13.3 (9.5-18.4)	8.9 (5.2-15.1)	NS	95.4 (90.1-97.9)	98.4 (94.1-99.6)	NS

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Mean size of sharing in the last time (Denominator is who shared last time)	1.6 (1.5-1.8) M=2 N=66	2.8 (2.5-3.1) M=3 N=110	<0.001	1.7 (1.6-1.8) M=2 N=112	1.5 (1.4-1.6) M=1 N=96	<0.001
Proportion cleaned needle/syringe after shared by one person (Denominator is who shared last time)	50.6 (41.8-59.4) N=85	63.0 (44.2-78.5) N=55	NS	73.2 (65.8-79.5) N=112	98.5 (88.8-99.8) N=65	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-7. Sexual partners and sexual behaviour of IDU

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values
Proportion of IDU who had sex with non commercial female partners in the last year	39.3 (33.8-45.1)	35.7 (29.6-42.3)	NS	57.5 (53.4-61.4)	80.6 (76.5-84.2)	<0.001
Proportion of IDU who had sex with non commercial female partners in the last month	36.6 (31.3-42.3)	30.5 (25.0-75.0)	NS	54.6 (50.8-58.4)	72.0 (67.3-76.2)	<0.001
Proportion of IDU who had sex with commercial female partner in the last year	57.2 (52.1-62.2)	34.5 (29.4-40.0)	<0.001	21.5 (18.5-24.9)	32.5 (27.4-38.0)	<0.001
Proportion of IDU who had sex with commercial female partner in the last month	40.1 (34.1-46.4)	19.1 (15.3-23.5)	<0.001	18.5 (15.8-21.6)	21.2 (17.3-25.7)	NS
Proportion of IDU who had sex with commercial male or Hijras in the last year	9.7 (7.3-12.9)	2.3 (1.2-4.6)	<0.00	1.7 (0.8-3.6)	0.3 (0.1-1.4)	NS
Proportion of IDU who had sex with commercial male or Hijras in the last month	9.7 (7.3-12.9)	2.3 (1.2-4.6)	<0.001	1.1 (0.4-2.9)	0.3 (0.1-1.4)	NS
Proportion of IDU who sold sex in exchange of money or drugs in the last year	4.8 (3.3-6.9)	1.3 (0.6-2.7)	<0.001	1.7 (0.8-3.6)	0.6 (0.2-1.8)	NS
Proportion of IDU who had group sex in the last year	Not asked	14.3 (10.5-19.3)		Not asked	3.4 (1.9-6.1)	
Proportion of IDU who had group sex in the last month	17.7 (14.2-21.9)	7.6 (4.8-11.8)	<0.001	8.0 (5.9-10.7)	0.9 (0.3-2.5)	<0.001
Mean number of commercial female sex partners in the last year	3.3 (2.7-3.8) M=1 N=524	1.6 (1.3-2.0) M=0 N=482	<0.001	1.2 (1.0-1.4) M=0 N=701	2.2 (1.8-2.7) M=0 N=474	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-7. Sexual partners and sexual behaviour of IDU (Continued)

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Proportion of IDU who had sex with non commercial partners in the last year	81.7 (76.7-85.8)	71.1 (63.7-77.5)	NS	35.8 (29.4-42.7)	41.8 (33.9-50.3)	NS
Proportion of IDU who had sex with non commercial partners in the last month	75.6 (70.1-80.3)	68.4 (62.0-74.2)	NS	34.4 (27.9-41.7)	36.2 (29.4-43.6)	NS
Proportion of IDU who had sex with commercial female partner in the last year	21.7 (15.3-29.8)	42.1 (34.0-50.6)	<0.001	64.2 (55.0-72.5)	44.0 (35.5-52.8)	0.002
Proportion of IDU who had sex with commercial female partner in the last month	15.6 (9.3-24.8)	27.4 (20.7-35.2)	NS	46.4 (37.9-55.1)	14.2 (10.1-19.6)	<0.001
Proportion of IDU who had sex with commercial male or Hijras in the last year	1.7 (0.5-4.9)	2.6 (1.4-5.0)	NS	4.6 (2.6-8.2)	2.1 (0.4-9.5)	NS
Proportion of IDU who had sex with commercial male or Hijras in the last month	0.5 (0.1-5.0)	2.6 (1.4-5.0)	NS	4.6 (2.6-8.2)	2.1 (0.4-9.5)	NS
Proportion of IDU who sold sex in exchange of money or drugs in the last year	2.2 (0.6-7.3)	3.2 (1.8-5.4)	NS	8.6 (4.4-16.1)	1.4 (0.2-9.2)	NS
Proportion of IDU who had group sex in the last year	Not asked	10.5 (6.7-16.2)		Not asked	19.9 (12.9-29.4)	
Proportion of IDU who had group sex in the last month	8.9 (4.3-17.4)	2.6 (0.9-7.7)	NS	14.6 (10.7-19.6)	2.1 (0.6-7.7)	<0.001
Mean number of commercial female sex partners in the last year	0.5 (0.3-0.7) M=0 N=180	3.5 (2.4-4.7) M=0 N=190	<0.001	3.4 (2.5-4.3) M=2 N=151	1.9 (1.1-2.7) M=0 N=141	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-8. Condom use with different types of partners

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values
Condom use in last anal/vaginal sex with female non-commercial partner (Denominator is who reported non-commercial sex with female partner last year)	16.5 (12.0-22.3) N=206	13.3 (8.6-19.8) N=182	NS	16.4 (13.1-20.3) N=403	23.2 (19.0-28.0) N=381	NS
Condom use in last anal/vaginal sex with female commercial partner (Denominator is who reported commercial sex with female partner last year)	29.3 (23.5-35.9) N=300	15.7 (10.3-23.3) N = 177	0.005	17.2 (11.4-25.1) N=151	37.9 (28.6-48.1) N = 155	<0.001
Condom use in last anal sex with commercial male or Hijra partner (Denominator is who reported commercial sex with male or Hijra partner last year)	7.8 (2.8-20.2) N=51	13.0 (2.7-44.8) N = 13	N is too small to test	16.7 (2.8-57.8) N=12	0 N = 2	N is too small to test

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-8. Condom use with different types of partners (Continued)

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Condom use in last anal/vaginal sex with female non-commercial partner (Denominator is who reported non-commercial sex with female partner last year)	48.3 (41.4-55.2) N=147	5.9 (3.3-10.4) N=135	<0.001	20.4 (11.6-33.3) N=54	17.0 (7.4-34.3) N=59	NS
Condom use in last anal/vaginal sex with female commercial partner (Denominator is who reported commercial sex with female partner last year)	30.8 (19.0-45.7) N=39	10.0 (4.5–20.6) N=80	NS	17.5 (10.9-27.0) N=97	21.0 (11.5-35.2) N = 62	NS
Condom use in last anal sex with commercial male or Hijra partner (Denominator is who reported commercial sex with male or Hijra partner last year)	0 N=3	0 N = 5	Test not done	0 N=7	0 N = 3	Test not done

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table-9. Consistent condom use with different types of partners

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values
Consistent condom use with female non-commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=206	N=182		N=403	N=381	
Always	1.9 (0.7-5.0)	1.2 (0.3-4.7)	NS	6.7 (4.5-9.9)	4.9 (3.0-8.0)	NS
Sometimes	60.7 (53.0-67.9)	37.0 (30.2-44.4)	<0.001	39.7 (33.5-46.3)	40.1 (34.6-45.8)	NS
Never	37.4 (30.4-44.9)	61.8 (54.4-68.8)	<0.001	53.6 (47.3-59.8)	55.0 (49.2-60.7)	NS
Consistent condom use with female non-commercial partners last month (Denominator is who reported commercial sex with female partner last month)		N=155			N=338	
Always	Not asked	2.0 (0.6-5.9)	Test not done	Not asked	8.4 (5.4-12.8)	Test not done
Sometimes		26.6 (20.7-33.5)			28.9 (23.0-35.7)	
Never		71.4 (64.0-77.8)			62.6 (56.1-68.8)	
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=300	N=177		N=151	N=155	
Always	12.7 (8.6-18.2)	5.4 (2.4-11.7)	NS	14.6 (9.2-22.3)	9.1 (5.0-15.9)	NS
Sometimes	49.3 (41.8-56.9)	30.1 (23.0-38.3)	<0.001	21.9 (15.0-30.7)	41.3 (33.3-49.7)	0.001
Never	38.0 (31.3-45.2)	64.5 (55.6-72.6)	<0.001	63.6 (54.9-71.4)	49.7 (40.8-58.5)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table-9. Consistent condom use with different types of partners (Continued)

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values
Consistent condom use with female commercial partners last month (Denominator is who reported commercial sex with female partner last month)		N=101			N=102	
Always	Not asked	6.7 (3.1-14.0)	Test not done	Not asked	18.3 (10.6-29.6)	Test not done
Sometimes		8.7 (3.9-18.4)			28.3 (19.1-39.8)	
Never		84.6 (74.4-91.2)			53.4 (41.1-65.3)	
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)		N = 13			N = 2	
Always	Not asked	6.4 (0.6-43.7)	Test not done	Not asked	0	Test not done
Sometimes		6.6 (0.6-44.6)			0	
Never		87.0 (55.2-97.3)			100.0	
Consistent condom use with male or Hijra commercial partners last month (Denominator is who reported commercial sex with male or Hijra last month)	N=51	N=1		N=12	N=0	
Always	5.9 (1.8-17.8)	0	N is too small to test	8.3 (0.6-58.4)	No one reported sex in the last month	Test not done
Sometimes	5.9 (1.8-17.4)	0		16.7 (1.3-75.7)		
Never	88.2 (75.2-94.9)	100.0		75.0 (24.7-96.5)		

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table-9. Consistent condom use with different types of partners (Continued)

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Consistent condom use with female non-commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=147	N=135		N=54	N=59	
Always	16.3 (10.3-24.9)	2.2 (0.7-6.9)	<0.001	3.7 (0.9-14.5)	3.4 (0.8-13.7)	NS
Sometimes	57.1 (47.1-66.7)	43.0 (35.5-50.8)	NS	50.0 (36.3-63.7)	30.5 (16.7-49.0)	NS
Never	26.5 (18.6-36.3)	54.8 (47.3-62.1)	<0.001	46.3 (32.4-60.8)	66.1 (48.4-80.2)	NS
Consistent condom use with female non-commercial partners last month (Denominator is who reported commercial sex with female partner last month)		N=130			N=51	
Always	Not asked	1.5 (0.5-4.7)	Test not done	Not asked	9.8 (3.9-22.4)	Test not done
Sometimes		23.9 (16.7-32.9)			21.6 (10.9-38.3)	
Never		74.6 (66.1-81.6)			68.6 (50.3-82.5)	
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=39	N=80		N=97	N = 62	
Always	15.4 (6.8-31.2)	8.8 (3.6-19.5)	NS	8.3 (4.1-16.0)	9.7 (4.3-20.2)	NS
Sometimes	30.8 (20.7-43.1)	18.8 (12.1-27.9)	NS	22.7 (15.0-32.8)	29.0 (18.6-42.4)	NS
Never	53.9 (39.0-68.1)	72.5 (62.7-80.6)	NS	69.1 (60.5-76.5)	61.3 (45.3-75.2)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table-9. Consistent condom use with different types of partners (Continued)

Indicators % (95 % CI)	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values	Round 4 IDU Southeast-D (N=151)	Round 5 IDU Southeast-D (N=141)	P-values
Consistent condom use with female commercial partners last month (Denominator is who reported commercial sex with female partner last month)		N=52			N=20	
Always	Not asked	5.8 (2.6-12.3)	Test not done	Not asked	25.0 (8.7-53.9)	Test not done
Sometimes		3.8 (1.0-13.3)			10.0 (2.2-35.9)	
Never		90.4 (81.4-95.3)			65.0 (34.8-86.6)	
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)		N=5			N=2	
Always	Not asked	0	Test not done	Not asked	0	Test not done
Sometimes		0				
Never		100.0				
Consistent condom use with male or Hijra commercia partners last month (Denominator is who reported commercial sex with male or Hijra last month)	N=3	N=1		N=7	N = 3	
Always	0	0	N is too small to test	0	0	N is too small to test
Sometimes	0	0		0		
Never	100.0	100.0		100.00	100.0	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

A-10. Exposure to interventions

Indicators % (95 % CI)	Round 4 IDU Central-A (N=524)	Round 5 IDU Central-A (N=483)	P-values	Round 4 IDU Northwest-A (N=701)	Round 5 IDU Northwest-A (N=474)	P-values	Round 4 IDU Northwest-B (N=180)	Round 5 IDU Northwest-B (N=190)	P-values
Proportion exposed to HIV interventions in the last year	46.0 (36.1-56.2)	88.9 (85.2-91.8)	<0.001	87.6 (82.6-91.3)	93.5 (89.8-95.9)	NS	60.0 (52.1-67.4)	89.0 (72.9-96.0)	0.003
Proportion under needle/syringe exchange program in last year	44.5 (34.6-54.8)	88.3 (84.4-91.4)	<0.001	87.6 (82.6-91.23)	93.3 (89.6-95.7)	NS	53.3 (44.7-61.7)	88.4 (72.9-95.6)	<0.001
Mean number of times participated in interventions in the last month (Denominator is those who participated in an HIV intervention in last year)	14.8 (13.3-16.3) M=15 N=241	18.1 (17.4-18.8) M=20 N=433	<0.001	25.7 (25.0-26.3) M=28 N=614	22.2 (21.5-22.9) M=25 N=439	<0.001	5.9 (4.4-7.3) M=4 N=108	18.5 (17.0-20.0) M=20 N=169	<0.001

Note: M refers to median : Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Comparison Between Rounds IV vs. V
Female Sex Workers

Table A-11: Socio demographic characteristics

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Mean age (in years)	23.8 (23.4-24.2) M= 23	23.8 (23.4-24.5) M= 23	NS	21.1 (20.8-21.4) M= 20	23.7 (23.0-24.3) M= 24	<0.001
Proportion who had no schooling	66.4 (62.9-69.7)	45.9 (42.2-49.7)	<0.001	17.8 (14-22.3)	51.2 (41.9-60.4)	<0.001
Mean income last month	4610 (4424-4796) M=4000 N=727	7276.2 (7026.8-7525.6) M=6500	<0.001	4049 (3670-4427) M=3800	4398.6 (4129.1-4668.1) M= 4000 N=339	NS
Proportion who were currently married	9.6 (7.7-12.0)	1.0 (0.5-2.1)	<0.001	15.7 (12.8-19.2)	20.0 (14.5-27.0)	NS
Mean age at first sex in years (Denominator is who could recall)	14.4 (14.3-14.5) M=14 N=738	14.3 (14.2-14.4) M= 14	NS	13.8 (13.6-14) M= 13 N=448	13.8 (13.4-14.2) M=13 N=331	NS
Proportion living with regular sex partner	22.6 (19.8-25.8)	46.0 (40.0-52.2)	<0.001	48.1 (44.3-51.9)	20.4 (15.0-27.1)	<0.001

Note: M refers to median : Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-11: Socio demographic characteristics (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Mean age (in years)	22.3 (21.6-23) M= 21	23.2 (22.7-23.8) M= 23 N=368	NS	20.2 (20-20.4) M= 20	21.1 (20.4-21.9) M= 20	NS
Proportion who had no schooling	41.9 (35-49.1)	53.2 (46.7-59.7) N=363	NS	13.2 (10.2-16.9)	21.4 (17.2-26.3)	0.004
Mean income last month	2455 (2293-2617) M=2200	5212.2 (4844.8-5579.6) M= 5000	<0.001	15792 (15453-16130) M=15000	10236.1 (9702.0-10770.2) M= 10000 N=299	<0.001
Proportion who were currently married	12 (8.9-15.8)	27.4 (22.7-32.7)	<0.001	21.2 (18.6-24.1)	17.5 (13.0-23.0)	NS
Mean age at first sex in years (Denominator is who could recall)	13.7 (13.3-14.1) M=13 N=293	14.0 (13.8-14.2) M= 14	NS	14.7 (14.6-14.9) M=14 N=279	14.1 (13.8-14.4) M= 14 N=299	<0.001
Proportion living with regular sex partner	22.2 (17.2-28.2)	29.0 (24.3-34.2)	NS	64.6 (60.7-68.4)	20.7 (16.1-26.3)	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-12: Dynamics of sex work

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Mean years in profession	6.8 (6.4-7.1) M=6	6.4 (6.0-6.8) M= 5	NS	3.6 (3.4-3.9) M=3	4.6 (4.0-5.1) M= 4	0.002
Proportion less than 1 year in profession	6.4 (4.8-8.4)	3.4 (2.3-5.0)	NS	13.6 (11.1-16.6)	7.7 (3.7-15.2)	NS
Proportion stayed less than 1 year in the same site (brothel/street/hotel)	10.0 (8.0-12.4)	7.4 (5.6-9.6)	NS	15.3 (12.6-18.6)	8.1 (4.0-15.7) N=338	NS
Mean duration of stay in this brothel/street/hotel (in years)	5.2 (4.8-5.5) M=4	5.2 (4.9-5.5) M= 5	NS	3.2 (3.0-3.4) M=3	3.9 (3.5-4.4) M= 3 N=338	0.005
Mean number of days of taking clients (any type) in last one week	6.1 (6.0-6.2) M=7	5.9 (5.6-6.1) M=6	NS	4.2 (4.1-4.3)	4.4 (4.0-4.8) M=4	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-12: Dynamics of sex work (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Mean years in profession	4.7 (4.2- 5.1) M=4	5.0 (4.6-5.4) M= 4	NS	3.4 (3.3- 3.6) M=3	2.5 (2.1-2.9) M= 2	<0.001
Proportion less than 1 year in profession	5.4 (3.5-8.3)	5.7 (3.7-8.8)	NS	12.0 (9.7-14.8)	21.3 (15.7-28.2)	0.002
Proportion stayed less than 1 year in the same site (brothel/street/hotel)	6.3 (4.3-9)	7.6 (5.0-11.4)	NS	17.5 (14.8-20.6)	22.9 (17.5-29.3)	NS
Mean duration of stay in this brothel/street/hotel in years	4.1 (3.8-4.5) M=3	4.3 (3.9-4.7) M= 3	NS	2.7 (2.5- 2.9) M=2	2.2 (1.9-2.5) M= 2	NS
Mean number of days of taking clients (any type) in last one week	4.3 (4.0-4.6) M=4	4.4 (4.1-4.7) M=4	NS	4.0 (3.9-4.0) M=4	4.1 (3.8-4.3) M=4	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-13: Type of clients of FSW

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)(	P-values	Round 4 Street Central-A N=522)	Round 5 Street Central-A (N=340)	P-values
Proportion who reported new clients last week	73.8 (70.5-76.9)	98.4 (97.1-99.1)	<0.001	98.5 (96.8-99.3)	91.2 (86.4-94.4) N = 340	<0.001
Proportion reported anal sex with new clients last week	5.3 (3.8-7.2)	10.2 (8.1-12.7)	<0.001	13.8 (11.6-16.4)	3.2 (1.7-5.8)	<0.001
Proportion reported oral sex with new clients last week	15.4 (13.0-18.2)	5.0 (3.6-6.9)	<0.001	21.6 (18.9-24.7)	8.1 (4.9-13.1)	<0.001
Proportion who reported regular clients last week	94.6 (92.7-96.0)	99.0 (97.9-99.5)	<0.001	94.8 (92.2-96.6)	79.4 (72.8-84.8) N = 340	<0.001
Proportion reported anal sex with regular clients last week	15.2 (12.8-18.0)	10.6 (8.5-13.1)	NS	7.3 (5.4-9.7)	0.2 (0.02-1.2)	<0.001
Proportion reported oral sex with regular clients last week	21.0 (18.2--24.1)	7.9 (6.1-10.2)	<0.001	18.0 (14.5-22.2)	6.9 (4.0-11.5)	<0.001
Proportion reported new/regular clients last week	99.9 (99.0-100.0)	100.0	NS	99.8 (98.6-100.0)	98.6 (96.7-99.4)	NS
Proportion of sex workers reported >20 clients last week (new or regular)	27.6 (24.5-31)	24.1 (21.0-27.5)	NS	29.1 (25-33.6)	3.5 (1.3 - 8.9)	<0.001
Proportion reported group sex last month	7.0 (5.4-9.1)	44.1 (40.4-47.9)	<0.001	63.4 (58.4-68.2)	43.2 (35.8-50.8)	<0.001
Proportion reported brought any client to orgasm without putting his penis in anus or mouth or vagina	2.2 (1.3-3.5)	5.7 (4.2-7.8) N=679	<0.001	39.1 (31.4-47.3)	38.8 (29.9-48.6)	NS
Proportion who reported non-commercial partners last month	27.8 (24.7-31.1)	45.9 (42.2-49.7)	<0.001	66.5 (61.3-71.2)	31.6 (24.8 - 39.4)	<0.001
Proportion reported anal/ vaginal sex with non-commercial partner last month	27.8 (24.4-30.9)	45.9 (42.2-49.7)	<0.001	66.5 (61.4-71.2)	31.6 (24.8-39.4)	<0.001

NS refers to not significant at 5% level

Table A-13: Type of clients of FSW (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Proportion who reported new clients last week	95.2 (92.1-97.1)	83.2 (77.4 - 87.8)	<0.001	100.0	94.7 (90.7 - 97.1)	<0.001
Proportion reported anal sex with new clients last week	16.8 (13.5-20.8)	15.7 (11.8-20.6)	NS	17.5 (15.2-20.2)	7.6 (4.9-11.5)	<0.001
Proportion reported oral sex with new clients last week	21.1 (17.6-25.1)	10.3 (7.3-14.4)	<0.001	51.1 (47.5-54.7)	13.6 (9.7-18.7)	<0.001
Proportion who reported regular clients last week	68.9 (62.8-74.5)	72.6 (67.0 - 77.6)	NS	96.0 (93.8-97.4)	85.0 (78.2 - 90.0)	<0.001
Proportion reported anal sex with regular clients last week	13.1 (9.8-17.2)	16.5 (11.8-22.6)	NS	8.9 (6.4-12.2)	4.5 (2.6-7.7)	NS
Proportion reported oral sex with regular clients last week	9.4 (7.2-12.1)	12.5 (9.3-16.5)	NS	40.0 (36.3-43.8)	12.4 (8.8-17.2)	<0.001
Proportion reported new/regular clients last week	97.4 (94.9-98.7)	96.2 (93.4-97.8)	NS	100.0	99.2 (97.4-99.8)	NS
Proportion of sex workers reported >20 clients last week (new or regular)	3.1 (1.6-6.2)	2.2 (0.7-6.6)	NS	92.0 (88.9-94.3)	70.4 (60.0-79.0) N=295	<0.001
Proportion reported group sex last month	57.0 (50.5-63.2)	63.4 (55.6-70.6)	NS	46.5 (42.5-50.5)	39.6 (32.6-47.1)	NS
Proportion reported brought any client to orgasm without putting his penis in anus or mouth or vagina	12.2 (9.0-16.4)	34.4 (28.3-41.1)	<0.001	46.5 (41.2-51.8)	27.8 (21.8-34.8)	<0.001
Proportion who reported non-commercial partners last month	29.9 (24.4-36.0)	29.8 (24.8 - 35.3)	NS	80.6 (76.0-84.5)	35.9 (29.1 - 43.3)	<0.001
Proportion reported anal/vaginal sex with non-commercial partner last month	29.9 (24.5-36.0)	29.8 (24.8-35.3)	NS	80.6 (76.0-84.5)	35.9 (29.1-43.3)	<0.001

NS refers to not significant at 5% level

Table A-14: Number of clients of FSW

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Mean number of new clients last week	6.2 (5.7-6.6) M=5	7.8 (7.5-8.1) M=7	<0.001	11.8 (11.4-12.2) M=12	7.0 (6.2-7.7) M=6 N = 339	<0.001
Mean number of regular clients last week	10.1 (9.7-10.4) M=10	8.3 (8.0-8.7) M=7	<0.001	5.9 (5.5-6.3) M=6	3.5 (2.8-4.2) M=3	<0.001
Mean number of clients (new or regular) last week	16.3 (15.7-16.8) M=16	16.1 (15.6-16.7) M=15	NS	17.7 (17.1-18.3) M=17	10.5 (9.4-11.6) M=9 N =339	<0.001
Mean number of clients in group sex in last month	0.2 (0.2-0.3) M=0	1.3 (1.1-1.4)	<0.001	1.7 (1.6-1.9)	1.3 (1.1-1.6) M=0	NS
Mean number of non-commercial clients in last month	0.3 (0.2-0.3)	0.5 (0.4-0.5) M=0	<0.001	0.8 (0.7-0.9)	0.4 (0.3-0.5) M=0	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-14: Number of clients of FSW (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Mean number of new clients last week	7.8 (7.1-8.5) M=7	4.5 (3.8-5.1) M=4	<0.001	31.5 (30.8-32.3) M=30	18.3 (16.0-20.6) M=16 N=296	<0.001
Mean number of regular clients last week	2.5 (2.2-2.9) M=2	3.3 (2.8-3.7) M=3	NS	12.2 (11.7-12.7) M=11	13.4 (11.2-15.6) M=10 N=295	NS
Mean number of clients (new or regular) last week	10.4 (9.6-11.1) M=10	7.7 (6.9-8.6) M=7	<0.001	43.8 (43.2-44.4) M=42	31.8 (28.3-35.2) M=30 N=295	<0.001
Mean number of clients in group sex in last month	1.7 (1.5-2.0) M=2	1.9 (1.6-2.2) M=2	NS	1.2 (1.1-1.3) M=0	1.1 (0.9-1.3) M=0	NS
Mean number of non-commercial clients in last month	0.3 (0.3-0.4) M=0	0.4 (0.3-0.5) M=0	NS	0.9 (0.8-1.0) M=1	0.4 (0.3-0.6) M=0	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-15: Condom use in last vaginal or anal sex with clients and non commercial partners

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Condom use in last vaginal sex with new clients (Denominator is who had new clients last week)	35.6 (31.7-39.7) N=545	39.7 (36.1-43.5) N=667	NS	35.6 (32.7-38.7) N=514	37.7 (30.6-45.4) N=307	NS
Condom use in last vaginal sex with regular clients (Denominator is who had regular clients last week)	27.2 (24.0-30.6) N=698	24.1 (21.0-27.5) N=673	NS	30.3 (27.2-33.6) N=495	34.3 (27.4-41.9) N=270	NS
Condom use in last anal sex with new clients (Denominator is who had new clients and had anal sex last week)	12.8 (5.2-28.2) N=39	40.6 (29.4-52.8) N=69	0.003	0 N=72	15.1 (3.6-46.3) N=12	N is too small to compare in Round 5
Condom use in last anal sex with regular clients (Denominator is who had regular clients and had anal sex last week)	6.25 (3.0-12.7) N=112	30.6 (20.8-42.4) N=72	<0.001	2.6 (0.3-18.6) N=38	100 N=1	N is too small to compare in Round 5
Condom use in last vaginal or anal sex with non-commercial partner (Denominator is who reported sex with non-commercial partners last month)	2.9 (1.3-6.4) N=205	3.5 (2.0-6.3) N=312	NS	2.3 (0.9-5.6) N=347	13.0 (7.5-21.6) N=115	<0.001
At least one sexual partner in group sex used condom last month (Denominator is who reported group sex last month)	46.2 (32.8-60.1) N=52	50.3 (44.7-56.0) N=300	NS	8.5 (5.6-12.6) N=331	35.7 (23.8-49.7) N=142	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-15: Condom use in last vaginal or anal sex with clients and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Condom use in last vaginal sex with new clients (Denominator is who had new clients last week)	21.6 (17.4-26.3) N=334	13.5 (10.1-17.8) N=303	NS	24.3 (20.1-29.0) N=325	29.7 (24.8- 35.1) N=283	NS
Condom use in last vaginal sex with regular clients (Denominator is who had regular clients last week)	20.7 (15.4-27.1) N=242	8.1 (5.5-11.7) N=259	<0.001	16.7 (12.7-21.5) N=312	19.4 (14.5-25.4) N=250	NS
Condom use in last anal sex with new clients (Denominator is who had new clients and had anal sex last week)	5.1 (1.7-14.5) N=59	1.7 (0.2-13.3) N=58	NS	8.8 (3.1-22.5) N=57	16.0 (5.5-38.4) N=23	NS
Condom use in last anal sex with regular clients (Denominator is who had regular clients and had anal sex last week)	2.2 (0.3-15.5) N=46	1.6 (0.2-12.7) N=61	NS	10.3 (3.4-27.6) N=29	10.1 (1.0-55.8) N=12	NS
Condom use in last vaginal or anal sex with non-commercial partner (Denominator is who reported sex with non-commercial partners last month)	11.4 (6.8-18.5) N=105	3.6 (1.3-9.8) N=110	NS	5.0 (1.8-13.0) N=262	17.3 (11.0-26.3) N=113	NS
At least one sexual partner in group sex used condom last month (Denominator who reported group sex last month)	37.0 (30.7-43.8) N=200	18.4 (13.3-24.9) N=234	<0.001	0.7 (0.1-4.8) N=151	44.4 (33.7-55.7) N=120	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-16: Consistent condom use with commercial and non commercial partners

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values
Consistent condom use with new clients in last week (Denominator is who had new clients last week)			
Always	2.4 (1.4-4.1)	5.2 (3.8-7.2)	NS
Sometimes	93.4 (91.0-95.2)	87.9 (85.2-90.2)	0.001
Never	4.2 (2.8-6.3)	6.9 (5.2-9.1)	NS
	N=545	N=669	
Consistent condom use in with regular clients in last week (Denominator is who had regular clients last week)			
Always	1.7 (1.0-3.0)	2.8 (1.8-4.4)	NS
Sometimes	90.8 (88.5-92.8)	83.2 (80.2-85.9)	<0.001
Never	7.5 (5.7-9.7)	14.0 (11.6-16.8)	<0.001
	N=698	N=673	
Consistent condom use with non-commercial partners in last month (Denominator is who reported sex with non-commercial partners last month)			
Always	1.0 (0.2-3.8)	1.6 (0.7-3.8)	NS
Sometimes	20.0 (15.1-26.1)	17.0 (13.2-21.6)	NS
Never	79.0 (72.9-84.1)	81.4 (76.7-85.4)	NS
	N=205	N=312	
Consistent condom use with new clients during oral sex in last week (Denominator is who reported oral sex with new clients last week)			
Always	0.9 (0.1-6.1)	8.8 (2.7-25.2)	NS
Sometimes	7.0 (3.5-13.5)	0	NS
Never	92.1 (85.4-95.9)	91.2 (74.8-97.3)	NS
	N=114	N=34	
Consistent condom use with regular clients during oral sex in last week (Denominator is who reported oral sex with regular clients last week)			
Always	1.3 (0.3-5.1)	11.1 (4.9-23.1)	NS
Sometimes	6.5 (3.5-11.7)	1.9 (0.2-12.7)	NS
Never	92.3 (86.8-95.6)	87.0 (74.7-93.9)	NS
	N=155	N=54	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-16: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Consistent condom use with new clients in last week (Denominator is who had new clients last week)			
Always	1.7 (0.8-3.8)	12.0 (7.9-17.7)	<0.001
Sometimes	74.1 (70.1-77.7)	76.9 (68.6-83.5)	NS
Never	24.1 (20.7-28.0)	11.1 (6.1-19.5)	0.007
	N=514	N=309	
Consistent condom use with regular clients in last week (Denominator is who had regular clients last week)			
Always	1.6 (0.8-3.1)	15.3 (11.0-21.0)	<0.001
Sometimes	51.7 (47.1-56.4)	59.2 (49.1-68.6)	NS
Never	46.7 (42.0-51.4)	25.5 (17.6-35.3)	<0.001
	N=495	N=270	
Consistent condom use with non-commercial partners in last month (Denominator is who reported sex with non-commercial partners last month)			
Always	2.0 (0.9-4.5)	4.6 (2.1-9.4)	NS
Sometimes	9.5 (6.7-13.3)	32.2 (21.7-45.0)	<0.001
Never	88.5 (84.0-91.8)	63.2 (50.0-74.7)	<0.001
	N=347	N=114	
Consistent condom use with new clients during oral sex in last week (Denominator is who reported oral sex with new clients last week)			
Always	0	2.0 (0.2-16.5)	NS
Sometimes	4.4 (1.8-10.3)	2.9 (0.4-20.0)	NS
Never	95.6 (89.7-98.2)	95.1 (79.9-99.0)	NS
	N=113	N=26	
Consistent condom use with regular clients during oral sex in last week (Denominator is who reported oral sex with regular clients last week)			
Always	0	3.5 (0.4-26.7)	NS
Sometimes	4.3 (1.7-10.5)	0	NS
Never	95.7 (89.5-98.4)	96.5 (73.4-99.6)	NS
	N=94	N=21	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-16: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values
Consistent condom use with new clients in last week (Denominator is who had new clients last week)			
Always	2.7 (1.4-4.9)	3.9 (1.9-8.1)	NS
Sometimes	61.1 (54.7-67.1)	52.9 (45.0-60.7)	NS
Never	36.2 (30.2-42.7)	43.1 (36.0-50.6)	NS
	N=334	N=306	
Consistent condom use with regular clients in last week (Denominator is who had regular clients last week)			
Always	2.1 (0.8-4.9)	3.7 (1.8-7.7)	NS
Sometimes	54.1 (45.9-62.2)	26.2 (19.5-34.3)	<0.001
Never	43.8 (35.8-52.2)	70.0 (62.3-76.8)	<0.001
	N=242	N=267	
Consistent condom use with non-commercial partners in last month (Denominator is who reported sex with non-commercial partners last month)			
Always	3.8 (1.4-9.8)	2.7 (0.8-8.7)	NS
Sometimes	18.1 (12.3-25.9)	12.7 (7.7-20.4)	NS
Never	78.1 (69.9-84.6)	84.6 (76.5-90.2)	NS
	N=105	N=110	
Consistent condom use with new clients during oral sex in last week (Denominator is who reported oral sex with new clients last week)			
Always	4.1 (1.3-11.8)	0	NS
Sometimes	8.1 (3.7-16.8)	7.9 (2.5-22.4)	NS
Never	87.8 (77.3-93.9)	92.1 (77.6-97.5)	NS
	N=74	N=38	
Consistent condom use with regular clients during oral sex in last week (Denominator is who reported oral sex with regular clients last week)			
Always	6.1 (1.4-22.6)	4.3 (1.2-15.1)	NS
Sometimes	9.1 (2.8-26.0)	0	0.041
Never	84.9 (67.1-93.3)	95.7 (84.9-98.9)	NS
	N=33	N=46	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-16: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Consistent condom use with new clients in last week (Denominator is who had new clients last week)			
Always	4.0 (1.2-12.3)	3.9 (2.0 – 7.8)	NS
Sometimes	84.3 (78.7-88.6)	85.7 (81.3-89.2)	NS
Never	11.7 (8.9-15.3)	10.4 (7.2-14.7)	NS
	N=325	N=283	
Consistent condom use with regular clients in last week (Denominator is who had regular clients last week)			
Always	2.9 (0.7-11.3)	3.0 (1.3 – 6.6)	NS
Sometimes	45.8 (42.0-49.7)	79.7 (73.3-84.9)	<0.001
Never	51.3 (47.3-55.2)	17.3 (12.0-24.3)	<0.001
	N=312	N=252	
Consistent condom use with non-commercial partners in last month (Denominator is who reported sex with non-commercial partners last month)			
Always	1.5 (0.4-5.1)	8.0 (4.5-14.1)	NS
Sometimes	3.4 (1.3-8.9)	37.0 (26.5-48.8)	<0.001
Never	95.0 (87.4-98.1)	55.0 (43.6-65.9)	<0.001
	N=262	N=113	
Consistent condom use with new clients during oral sex in last week (Denominator is who reported oral sex with new clients last week)			
Always	1.2 (0.3-4.8)	7.7 (2.5-20.9)	NS
Sometimes	0	17.0 (6.9-36.1)	<0.001
Never	98.9 (95.2-99.7)	75.4 (54.7-88.6)	<0.001
	N=166	N=42	
Consistent condom use with regular clients during oral sex in last week (Denominator is who reported oral sex with regular clients last week)			
Always	1.5 (0.4-6.1)	18.7 (7.9-38.1)	<0.001
Sometimes	0.8 (0.1-5.5)	10.3 (3.4-27.6)	0.004
Never	97.7 (93.1-99.3)	71.0 (51.1-85.2)	<0.001
	N=130	N=36	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-17: Self reported STI and treatment seeking behaviour

Indicators % (95 % CI)	Round 4 Brothel, National (N=738)	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Proportion reported at least one STI symptom in the last year	69.6 (66.2-72.9)	54.3 (46.7-61.6)	<0.001	85.6 (82.5-88.3)	76.2 (70.2-81.2)	0.001
Proportion sought forma medical treatment for last STI symptom in last year (Denominator is who had symptoms in last one year)	80.0 (76.3-83.2) N=514	77.5 (60.5-88.5) N=368	NS	65.3 (60.8-69.6) N=447	77.5 (69.4-83.9) N=255	NS
Mean waiting days for STI treatment (Denominator is who sought treatment in last one year)	5.4 (4.9-5.8) M= 4 N=455	10.1 (8.4-11.8) M=7 N=346	<0.001	8.2 (7.6- 8.8) M=7 N=432	7.4 (5.9-8.8) M=5 N=243	NS
Mean expenditure in last STI treatment last year (Denominator is who sought treatment last year)	278.2 (213.2-343.3) M=150 N=440	219.0 (167.6-270.3) M=80 N=344	NS	107.1 (87.2-126.9) M=45 N=430	123.1 (71.6-174.6) M=35 N=242	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-17: Self reported STI and treatment seeking behaviour (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Proportion reported at least one STI symptom in the last year	79.8 (73.3-85)	84.3 (79.6-88.0)	NS	84.3 (80.0-87.9)	85.8 (80.7 – 89.7)	NS
Proportion sought formal medical treatment for last STI symptom in last year (Denominator is who had symptoms in last one year)	36.8 (29.8-44.4) N=280	45.8 (39.0-52.7) N=310	NS	72.3 (68.0-76.2) N=274	70.7 (64.2-76.4) N=258	NS
Mean waiting days for STI treatment (Denominator is who sought treatment in last one year)	7.1 (5.5- 8.7) M= 4 N=188	14.5 (11.9-17.0) M= 10 N=255	<0.001	9.8 (9.3-10.2) M=10 N=269	6.7 (5.1-8.3) M=4 N=219	<0.001
Mean expenditure in last STI treatment last year (Denominator is who sought treatment last year)	128.4 (104.9-151.9) M=100 N=188	116.5 (98.6-134.4) M=80 N=252	NS	342.9 (310.3-375.4) M=150 N=269	481.1 (393.9-568.2) M=300 N=221	0.004

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-18: Exposure to interventions

Indicators % (95 % CI)	Round 4 Brothel, National N=738	Round 5 Brothel, National (N=680)	P-values	Round 4 Street Central-A (N=522)	Round 5 Street Central-A (N=340)	P-values
Proportion exposed to intervention in last one year	85.5 (82.8-87.9)	88.5 (85.7-90.7)	NS	51.3 (47.6-55.1)	96.1 (92.9-97.9)	<0.001
Proportion who attended meetings organized for sex workers in last year	49.5 (45.8-53.1)	9.6 (7.6-12.0)	<0.001	28.2 (23.7-33.1)	34.8 (26.5-44.3)	NS

NS refers to not significant at 5% level

Table A-18: Exposure to interventions (Continued)

Indicators % (95 % CI)	Round 4 Street Southeast-A (N=351)	Round 5 Street Southeast-A (N=369)	P-values	Round 4 Hotel Central-A (N=325)	Round 5 Hotel Central-A (N=300)	P-values
Proportion exposed to intervention in last one year	20.5 (15.6-26.4)	42.0 (33.7-50.8)	<0.001	72.0 (61.0-80.9)	44.4 (34.0-55.3)	<0.001
Proportion who attended meetings organized for sex workers in last year	2.8 (1.3-6.2)	5.1 (3.0-8.8)	NS	20.9 (17.1-25.4)	0.9 (0.3 – 3.1)	<0.001

NS refers to not significant at 5% level

Comparison Between Rounds IV vs. V
Male Sex Workers and Hijras

Table A-19: Socio-demographic characteristics

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Mean age (in years)	26.5 (25.8-27.1) M=26	23.7 (23.1-24.3) M=23	<0.001	23.7 (22.5-24.9) M=22.5	24.2 (23.5-24.9) M=24	NS	29.1 (28.0-30.2) M=27	26.5 (25.8 - 27.2) M=26	<0.001
Proportion who had no schooling	3.3 (1.8-6)	3.3 (1.4-7.2)	NS	5.5 (3.0-9.8)	8.1 (5.2-12.3) N=359	NS	2.6 (1.1-6.2)	16.1 (10.6 - 23.6)	<0.001
Mean income last month	2923.8 (2754-3094) M=2500	5207.3 (4332.1-5682.6) M=4500	<0.001	3126.4 (2950-3303) M=3000	4272.6 (3895.1-4650.2) M=3700	<0.001	2554 (2382-2725) M=2500	4446.5 (4269-4624) M=4850	<0.001
Proportion who were currently married	10.1 (7.6-13.4)	7.9 (5.5-11.3)	NS	15.2 (10.7-21.2)	24.5 (19.2-30.8)	NS	1.8 (0.8-3.8)	Not asked	
Mean age at first sex in years (Denominator is who could recall)	13.3 (13.1-13.5) M=13	13.3 (12.8-13.7) M=13 N=362	NS	13.4 (12.9-14.0) M=13	13.1 (12.8-13.4) M=13 N=362	NS	13 (12.5-13.5) M=12	11.6 (11.4 - 11.8) M=12	<0.001
Proportion living with regular sex partner	32.2 (27.2-37.7)	42.1 (34.4-50.3)	NS	56.7 (48.4-64.7)	49.9 (44.4-55.4)	NS	82.7 (76.8-87.3)	89.5 (83.5-93.5) N=408	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-20: Dynamics of sex work

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion working as sex worker for less than one year	0.5 (0.1-2.1)	7.6 (4.9-11.7) N=367	<0.001	1.8 (0.8-3.9)	6.3 (3.9-10.1)	NS	0	0	Test not done
Mean years in the profession of selling sex	9.0 (8.2-9.7) M=8 N=365	7.2 (6.7-7.8) M=6 N=364	<0.001	7.5 (6.5-8.5) M=6.5	6.9 (6.1-7.8) M=6 N=361	NS	11.7 (10.8-12.6) M=10	11.5 (10.9-12.0) M=11 N=408	NS
Proportion selling sex for less than one year in the same city	1.6 (0.8-3.3)	7.7 (4.9-11.7) N=366	<0.001	3.0 (1.6-5.6)	8.5 (5.7-12.7)	0.004	Not asked	0	Test not done
Mean years as sex workers in this city	7.5 (6.7-8.3) M=6	6.5 (6.1-7.0) M= 5 N=364	NS	6.2 (5.3-7.2) M=5	6.7 (5.8-7.5) M= 6	NS	Not asked	11.3 (10.8-11.8) M=11	Test not done
Mean number of days took clients in last week	4.9 (4.6-5.1) M=5	5.0 (4.8-5.2) M=5	NS	3.8 (3.6-4.0) M=4	4.2 (4.0-4.4) M=4	NS	5.2 (5.0-5.5) M=5	5.2 (5.0-5.4) M=5	NS
Proportion reported anal sex with any Hijra last year	3.0 (1.7-5.3)	18.2 (13.3-24.4)	<0.001	5.2 (3.2-8.2)	12.4 (9.1-16.6)	0.001	100.0	93.4 (88.7-96.3)*	<0.001

*Figure corresponds to last month with male/Hijra

Note: M refers to median

Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell

NS refers to not significant at 5% level

Table A-20: Dynamics of sex work (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion reported to have anal /vaginal sex with any female (not Hijra) last year	16.4 (12.6-21.1)	17.9 (14.3-22.3)	NS	33.8 (28.3-39.9)	59.0 (53.8-63.9)	<0.001	0.3 (0.03-1.9)	0	NS
Proportion reported to have anal sex with any male (not Hijra) last year	100.0	100.0	Test not done	100.0	90.9 (87.0-93.7)	<0.001	Not asked	Not asked	
Proportion reported to have oral sex with any male/Hijra in last month	Not asked	Not asked		Not asked	Not asked		97.7 (95.4-98.8)	93.2 (88.4-96.1)	NS
Proportion reported to have anal /vaginal sex with any female (not Hijra) in life	Not asked	Not asked		Not asked	Not asked		2.3 (1.2-4.3)	1.2 (0.5-2.9)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-21: Reported clients of MSW and Hijras

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion who reported new clients last week	90.4 (86.7-93.2)	99.7 (98.0-100.0)	<0.001	92.7 (88.5-95.4)	91.5 (87.9-94.1) N=363	NS	59.7 (50.7-68)	99.0 (97.5-99.6)	<0.001
Proportion reported anal sex with new clients (male/ Hijra) last week (when he put his penis into your anus)	90.4 (86.7-93.2)	99.7 (98.0-100.0)	<0.001	92.7 (88.5-95.4)	90.9 (87.4-93.5)	NS	59.7 (50.7-68.0)	98.8 (97.1-99.5)	<0.001
Proportion reported oral sex with new clients (male/ Hijra) last week	74.0 (67.9-79.4)	94.8 (91.4-97.0)	<0.001	36.6 (30.8-42.8)	34.4 (29.1-40.3)	NS	37.5 (30.1-45.4)	92.0 (87.9-94.7)	<0.001
Proportion who reported regular clients last week	81.1 (76.9-84.7)	70.4 (61.0-78.3)	NS	81.4 (75-86.5)	82.6 (78.0-86.5)	NS	91.2 (85.7-94.7)	97.6 (93.8-99.1)	NS
Proportion reported anal sex with regular clients (male) last week	81.1 (76.9-84.7)	70.4 (61.0-78.3)	NS	81.4 (75.0-86.5)	82.1 (77.3-86.1)	NS	90.2 (84.6-93.9)	97.3 (93.6-98.9)	NS
Proportion reported oral sex with regular clients (male) last week	59.3 (55.2-63.5)	69.0 (59.5-77.1)	NS	29.3 (24.1-35.0)	35.8 (30.3-41.7)	NS	67.4 (60.0-74.1)	82.4 (75.6-87.6) N=409	0.002

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-21: Reported clients of MSW and Hijras (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion who reported selling sex to females last month	6.3 (4.5-8.6)	4.1 (2.4-6.9)	NS	4.6 (2.6-7.9)	4.1 (2.5-6.7)	NS	Not asked	Not asked	
Proportion who reported buying sex from male or Hijra last month	8.5 (5.8-12.2)	12.2 (8.2-17.8)	NS	10.7 (7.0-15.9)	9.9 (7.2-13.5)	NS	3.6 (2.0-6.4)	0.5 (0.1-2.0)*	NS
Proportion reported anal sex with male /Hijra last month while buying sex	8.5 (5.8-12.2)	12.2 (8.2-17.8)	NS	10.7 (7.0-15.9)	9.6 (7.0-13.1)	NS	3.6 (2.0-6.4)	0.5 (0.1-2.0)*	NS
Proportion reported oral sex with male/Hijra last month while buying sex	5.5 (3.4-8.7)	10.9 (7.1-16.4)	NS	0.9 (0.3-2.8)	3.9 (2.3-6.3)	NS	2.6 (1.3-5.0)	0.2 (0.03-1.8)*	NS
Proportion who reported buying sex from females last month	1.4 (0.6-3.1)	4.3 (2.5-7.5)	NS	16.2 (11.5-22.3)	13.0 (8.9-18.4)	NS	Not asked	Not asked	
Proportion who reported non-commercial male/ Hijra partner last month	55.5 (49.5-61.3)	46.2 (35.7-57.1)	NS	43.3 (37-49.8)	37.7 (33.1-42.7)	NS	93.0 (86.7-96.5)	90.7 (84.5-94.6)	NS

* Figure corresponds to male

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell, NS refers to not significant at 5% level

Table A-21: Reported clients of MSW and Hijras (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion reported anal sex with non-commercial male /Hijra partner last month	55.5 (49.5-61.3)	46.2 (35.7-57.1)	NS	43.3 (37.0-49.8)	37.5 (32.7-42.5)	NS	92.0 (85.5-95.7)	90.7 (84.5-94.6)*	NS
Proportion reported oral sex with non-commercial male/ Hijra partner last month	43.2 (37.2-49.4)	45.1 (34.8-55.9)	NS	7.3 (4.4-11.9)	21.2 (16.7-26.5)	<0.001	60.0 (50.8-68.5)	69.4 (62.1-75.9)* N=409	NS
Proportion who reported non-commercial female partner last month	9.8 (7.1-13.5)	9.2 (6.2-13.5)	NS	13.7 (9.8-18.8)	42.2 (36.5-48.0)	<0.001	Not asked	Not asked	
Proportion reported to have brought any male client (new or orgasm regular) to without putting his penis in anus or mouth last week	24.3 (19.8-29.4)	23.9 (17.7-31.6)	NS	22.6 (17.3-28.8)	25.9 (20.0-32.8)	NS	33.9 (25.6-43.2)	84.1 (76.1-89.8) N=409	<0.001
Proportion reported group sex last month	44.5 (40.0-49.2)	65.8 (58.1-72.7)	<0.001	24.4 (18.3-31.7)	22.9 (18.8-27.5)	NS	51.9 (44.2-59.6)	34.4 (27.7-41.8)	<0.001

* Figure corresponds to male

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell, NS refers to not significant at 5% level

Table A-21: Reported clients of MSW and Hijras (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion who reported more than 20 clients last week	5.2 (3.2-8.3)	11.1 (7.3-16.7)	NS	0	0.3 (0.03-2.1)	NS	8.2 (5.3-12.6)	75.4 (67.3-82.0)	<0.001
Proportion who reported new or regular clients last month**	95.9 (93.1-97.6)	100.0	<0.001	100.0	99.2 (97.3-99.8)	NS	100.0	100.0	Test not done

** Figure corresponds to sold sex last month
NS refers to not significant at 5% level

Table A-22: Number of reported clients of MSW and Hijras

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Mean number of clients (new or regular) last week	9.5 (8.8-10.2) M=8	9.9 (8.5-11.2) M=7	NS	5.7 (5.3-6.0) M=5	4.8 (4.5-5.1) M=5 N=362	<0.001	12.6 (11.5-13.7) M=12	30.6 (28.3-32.9) M= 30	<0.001
Mean number of new clients last week	6.7 (5.9-7.4) M=5	8.0 (6.4-9.6) M=4	NS	3.5 (3.2-3.8) M=3	2.8 (2.6-3.0) M=3 N=362	<0.001	4.3 (3.6-55.0) M=4	17.1 (16.1-18.0) M= 17	<0.001
Mean number of regular clients ast week	2.8 (2.6-3.1) M=3	1.9 (1.6-2.1) M=2	<0.001	2.2 (1.9-2.4) M=2	2.0 (1.8-2.2) M=2	NS	8.3 (7.0-9.7) M=6	13.5 (11.9-15.2) M= 15	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-23: Condom use in last anal sex with commercial and non commercial partners

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion reported approached using condoms with new clients last week (Denominator is who had new clients last week)	N=331	N=367		N=304	N=332		N=231	N=406	
Everybody	27.5 (22.7-32.8)	36.8 (31.1-42.9)	NS	38.2 (30.1-46.9)	41.0 (34.2-48.1)	NS	20.4 (13.9-28.7)	24.4 (16.8-34.0)	NS
Someone	15.7 (11.9-20.5)	21.5 (17.1-26.7)	NS	42.1 (35.5-49.1)	38.9 (33.5-44.5)	NS	41.6 (32.3-51.4)	71.4 (61.8-79.4)	<0.001
No one	56.8 (50.8-62.6)	41.7 (35.0-48.7)	0.001	19.7 (14.9-25.7)	20.2 (16.5-24.4)	NS	38.1 (27.5-49.9)	4.2 (2.0-8.7)	<0.001
Proportion reported approached using condoms with regular clients last week (Denominator is who had regular clients last week)	Not asked	N=259		Not asked	N=299		Not asked	N=400	
Everybody		35.1 (25.8-42.4)	Test not done		40.1 (33.6-47.0)			24.3 (16.7-33.8)	Test not done
Someone		11.2 (7.7-16.0)			18.1 (14.2-22.7)			71.0 (61.4-79.0)	
No one		53.7 (46.3-60.9)			41.8 (35.7-48.1)			4.8 (2.5-9.0)	

Table A-23: Condom use in last anal sex with commercial and non commercial partners

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Condom use in last anal sex with new clients (Denominator is who had new clients last week and had anal sex)	32.0 (26.8-37.8) N=331	43.6 (37.8-49.6) N=367	NS	14.8 (10.4-20.6) N=304	44.7 (40.4-49.0) N=329	<0.001	15.1 (8.3-26.0) N=231	15.6 (10.1-23.4) N = 405	NS
Condom use in last anal sex with regular clients (Denominator is who had regular clients last week and had anal sex)	29.0 (23.4-35.2) N=297	34.8 (28.2-41.9) N=259	NS	12.7 (8.4-18.9) N=267	30.2 (24.7-36.4) N=298	<0.001	12.6 (8.0-20.2) N=349	17.0 (10.8 - 25.9) N = 399	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-23: Condom use in last anal sex with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Condom use in last anal sex with male/ Hijra non-commercial partner (Denominator is who reported sex with non-commercial partners last month)	24.1 (17.3-32.6) N=203	36.5 (28.8-44.9) N=170	NS	8.4 (5.0-13.8) N=142	21.3 (15.8-28.2) N=136	<0.001	8.4 (4.5-15.1) N=356	11.8 (6.1-21.8) N=372	NS
Condom use in last anal sex while buying sex from male/Hijra (Denominator is who reported buying sex and had anal sex last month)	25.8 (14.8-41.0) N=31	53.3 (40.5-65.7) N=45	NS	17.1 (7.6-34.4) N=35	37.1 (22.6-54.5) N=35	NS	0 N=14	0 N=2	Test not done
Condom use in last vaginal/anal sex while buying sex from females (Denominator is who reported buying sex from females last month)	20.0 (0.8-88.9) N=5	50.0 (29.0-71.0) N=16	N is too small to test	9.4 (3.3-24.1) N=53	23.4 (11.8-41.2) N=47	NS	Not asked	Not asked	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-23: Condom use in last anal sex with commercial and non-commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Condom use in last vaginal or anal sex while selling sex to females (Denominator is who sold sex to females in the last month)	30.4 (11.5-59.5) N=23	60.0 (31.8-82.8) N=15	N is too small to test	13.3 (2.4-48.6) N=15	53.3 (25.9-78.9) N=15	N is too small to test	Not asked	Not asked	
Condom use in last vaginal or anal sex with female non-commercial partner (Denominator is who reported sex with non-commercial female partners last month)	19.4 (7.9-40.4) N=36	79.4 (61.5-90.3) N=34	<0.001	6.7 (2.0-19.7) N=45	16.5 (9.3-27.4) N=152	NS	Not asked	Not asked	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-24: Consistent condom use with commercial and non commercial partners

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Consistent condom use in anal sex with new clients in last week (Denominator is who had new clients last week and had anal sex)	N=331	N=367		N=304	N=330		N=231	N = 405	
Always	10.0 (6.7-14.5)	18.3 (13.8-23.8)	NS	2.6 (1.4-5.0)	21.8 (17.2-27.3)	<0.001	7.8 (3.6-16.0)	2.2 (0.7-6.5)	NS
Sometimes	36.3 (30.8-42.2)	43.9 (36.7-49.2)	NS	68.8 (61.6-75.1)	58.2 (52.7-63.5)	NS	53.7 (42.9-64.2)	94.1 (88.9-96.9)	<0.001
Never	53.8 (47.2-60.3)	37.9 (31.2-45.0)	0.001	28.6 (22.7-35.4)	20.0 (15.9-24.9)	NS	38.5 (28.0-50.3)	3.7 (1.6-8.1)	<0.001
Consistent condom use in anal sex with regular clients in last week (Denominator is who had regular clients last week and had anal sex)	N=297	N=259		N=267	N=298		N=349	N = 399	
Always	9.4 (6.5-13.4)	11.6 (7.9-16.7)	NS	1.9 (0.8-4.4)	19.1 (14.8-24.3)	<0.001	6.3 (3.5-11.1)	2.5 (0.9 - 6.7)	NS
Sometimes	31.3 (26.5-36.6)	34.8 (28.4-41.7)	NS	62.2 (53.1-70.5)	39.3 (33.0-45.9)	<0.001	56.7 (48.4-64.7)	93.0 (87.9-96.0)	<0.001
Never	59.3 (53.1-65.1)	53.7 (46.2-61.0)	NS	36.0 (28.0-44.8)	41.6 (35.6-47.9)	NS	37.0 (28.2-46.7)	4.5 (2.3-8.8)	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-24: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Consistent condom use in anal sex with male/Hijra non-commercial partner in last month (Denominator is who reported sex with non-commercial partners last month)	N=203	N=170		N=142	N=135		N=356	N = 372	
Always	9.4 (5.3-15.9)	5.9 (3.4-10.1)	NS	2.1 (0.6-6.7)	17.0 (11.6-24.3)	<0.001	3.9 (1.9-8)	0.8 (0.2 - 3.5)	NS
Sometimes	23.7 (17.8-30.8)	40.0 (31.3-49.4)	0.004	30.3 (22.0-40.1)	17.8 (12.5-24.6)	NS	7.9 (4.3-13.9)	79.0 (70.0-85.9)	<0.001
Never	67.0 (58.9-74.2)	54.1 (44.6-63.4)	NS	67.6 (57.8-76.1)	65.2 (58.2-71.6)	NS	88.2 (80.3-93.2)	20.2 (13.4-29.2)	<0.001
Consistent condom use in anal sex while buying sex from male/Hijra in last month (Denominator is who reported buying sex and had anal sex last month)	N=31	N=45		N=35	N=35		N=14	N = 2	
Always	9.7 (2.9-27.7)	11.1 (4.6-24.5)	NS	2.9 (0.3-20.2)	31.4 (17.0-50.7)	NS	0	0	N is too small to test
Sometimes	25.8 (12.4-46.1)	55.6 (42.9-67.6)	NS	22.9 (13.0-37.1)	25.7 (15.0-40.5)	NS	42.9 (15.4-75.5)	100.0	
Never	64.5 (46.1-79.5)	33.3 (23.2-45.3)	0.004	74.3 (60.8-84.3)	42.9 (29.3-57.6)	0.002	57.1 (24.5-84.6)	0	

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-24: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Consistent condom use in vaginal/anal sex while buying sex from females in last month (Denominator is who reported buying sex from females last month)	N=5	N=16		N=53	N=47		Not asked	Not asked	
Always	0	31.3 (13.2-57.7)	N is too small to test	3.8 (0.9-14)	12.8 (5.6-26.4)	NS			
Sometimes	60.0 (8.1-96.2)	31.3 (13.2-57.7)		41.5 (26.8-58.0)	21.3 (12.6-33.7)	NS			
Never	40.0 (3.8-91.9)	37.5 (17.2-63.5)		54.7 (38.4-70.1)	66.0 (51.7-77.8)	NS			
Consistent condom use in vaginal or anal sex while selling sex to females in last month (Denominator is who sold sex to females in the last month)	N=23	N=15		N=15	N=15		Not asked	Not asked	
Always	13.0 (2.8-43.4)	40.0 (14.7-72.1)	N is too small to test	0	40.0 (17.2-68.2)	N is too small to test			
Sometimes	47.8 (27.8-68.6)	20.0 (5.9-50.1)		40.0 (12.1-76.3)	26.7 (9.3-56.3)				
Never	39.1 (18.9-64.0)	40.0 (17.2-68.2)		60.0 (23.7-87.9)	33.3 (10.7-67.7)				

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-24: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Consistent condom use in vaginal or anal sex with female non-commercial partners in last month (Denominator is who reported sex with non-commercial female partners last month)	N=36	N=34		N=45	N=148		Not asked	Not asked	
Always	8.3 (1.8-31.3)	70.6 (52.0-84.2)	<0.001	2.2 (0.3-15.3)	13.5 (7.9-22.1)	NS			
Sometimes	38.9 (24.7-55.3)	20.6 (10.3-36.8)	NS	33.3 (19.2-51.3)	11.5 (6.9-18.4)	0.003			
Never	52.8 (34.6-70.3)	8.8 (2.7-25.1)	<0.001	64.4 (47.7-78.3)	75.0 (64.7-83.1)	NS			
Consistent condom use in oral sex with new clients last week (Denominator is who had oral sex with new clients last week)	N=271	N=348		N=120	N=125		N=145	N=377	
Always	4.1 (2.1-7.7)	19.0 (13.8-25.5)	<0.001	4.2 (1.5-10.8)	30.4 (21.6-40.9)	<0.001	6.9 (3.3-14.0)	2.9 (1.1-7.3)	NS
Sometimes	6.6 (4.2-10.4)	26.2 (20.9-32.2)	<0.001	22.5 (15.5-31.5)	17.6 (10.0-29.2)	NS	35.9 (25.2-48.1)	92.6 (87.4-95.7)	<0.001
Never	89.3 (85.2-92.4)	54.9 (46.0-63.4)	<0.001	73.3 (64.8-80.4)	52.0 (41.1-62.7)	0.002	57.2 (44.2-69.4)	4.5 (2.3-8.6)	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-24: Consistent condom use with commercial and non commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Consistent condom use in oral sex with regular clients last week (Denominator is who had oral sex with regular clients last week)	N=217	N=254		N=96	N=130		N=261	N=337	
Always	4.6 (2.6-8.1)	10.6 (6.8-16.2)	NS	3.1 (1.0-9.3)	21.5 (15.5-29.1)	<0.001	5.7 (2.8-11.6)	2.4 (0.8-6.7)	NS
Sometimes	5.5 (2.8-10.7)	13.8 (9.9-18.9)	NS	21.9 (12.3-35.8)	7.7 (4.2-13.7)	NS	51.0 (41.4-60.5)	94.4 (89.9-96.9)	<0.001
Never	89.9 (84.2-93.6)	75.6 (68.6-81.4)	<0.001	75.0 (61.2-85.1)	70.8 (62.3-78.0)	NS	43.3 (33.7-53.4)	3.3 (1.6-6.5)	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-25: Self-reported STI and treatment seeking behaviour

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion reported at least one STI symptom in the last year	74.9 (69.9-79.3)	61.7 (54.6-68.3)	0.002	81.4 (75.0-86.4)	47.1 (41.4-52.9)	<0.001	75.4 (68.5-81.3)	36.8 (30.0-44.3)	<0.001
Proportion sought formal medical treatment for last STI symptom (Denominator is who had symptoms in last one year)	45.6 (39.4-52.0) N=274	83.7 (76.7-88.9) N=227	<0.001	61.8 (55.3-67.9) N=267	72.5 (65.1-78.9) N=171	NS	31.2 (23.7-39.7) N=292	67.6 (58.5-75.5) N = 151	<0.001
Mean waiting days for STI treatment (Denominator is who sought treatment in last one year)	11.8 (10.7-13.0) M=9 N=257	6.6 (5.8-7.5) M=5 N=225	<0.001	8.0 (6.5-9.5) M=6 N=259	8.2 (7.1-9.2) M=7 N=159	NS	10.2 (8.7-11.6) M=8 N=248	6.5 (5.5-7.6) M= 6.5 N = 146	<0.001
Mean expenditure in last STI treatment last year (Denominator is who reported STI last year and sought treatment)	122.5 (100.9-124.2) M=70 N=259	169.7 (124.7-214.8) M=30 N=225	0.016	120.9 (103.7-138.1) M=80 N=259	177.8 (142.0-213.6) M=120 N=149	0.005	125.7 (101.9-149.4) M=100 N=248	132.5 (104.0-160.9) M=70 N=148	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-26: Self-perception of risk

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion who perceived themselves to be at high risk	0	5.2 (3.2-8.2)	<0.001	11.3 (8.2-15.3)	16.0 (13.1-19.4)	NS	30.2 (22.8-38.9)	54.4 (44.9 - 63.6)	<0.001
Proportion who perceived themselves to be at medium risk	2.7 (1.5-4.9)	22.9 (18.5-28.0)	<0.001	29.0 (21.9-37.2)	25.3 (21.9-29.1)	NS	20.4 (13.9-28.9)	2.7 (1.1 - 6.4)	<0.001
Proportion who perceived themselves to be at little or no risk	22.1 (17.9-27)	30.3 (24.4-36.9)	NS	30.8 (25.1-37.1)	35.8 (30.3-41.8)	NS	29.5 (20.5-40.3)	32.2 (23.6 - 42.2)	NS
Proportion who could not assess their risk	75.1 (70.5-79.3)	41.7 (35.2-48.5)	<0.001	29.0 (21.2-38.2)	22.9 (18.4-28.1)	NS	19.9 (14.0-27.4)	10.7 (7.1 - 15.9)	NS

NS refers to not significant at 5% level

Table A-27: Exposure to interventions

Indicators % (95 % CI)	Round 4 MSW Central-A (N=366)	Round 5 MSW Central-A (N=368)	P-values	Round 4 MSW Southeast-A (N=328)	Round 5 MSW Southeast-A (N=363)	P-values	Round 4 Hijra Central-A (N=387)	Round 5 Hijra Central-A (N=410)	P-values
Proportion exposed to intervention in last one year	64.8 (57.5-71.4)	66.0 (57.6-73.6)	NS	69.8 (62.9-76.0)	86.5 (81.9-90.1)	<0.001	35.1 (26.6-44.8)	15.4 (9.7-23.4)	<0.001

NS refers to not significant at 5% level

Comparison Between Rounds IV vs. V
Males who have Sex with Males

Table A-28: Socio-demographic characteristics

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Mean age (in years)	31.5 (30.5-32.6) M=29	32.0 (31.0-32.9) M=30	NS	28.0 (27.3-28.7) M=27	28.5 (28.1-28.8) M= 28	NS
Proportion who had no schooling	0.5 (0.1-1.9)	0	NS	3.5 (1.6-7.5)	0	0.007
Mean income last month	7895 (6852-8937) M=5000	5851.4 (5349.4-6353.3) M=5000	<0.001	5390 (5050-5729) M=4250	5936.7 (5606.7-6266.6) M=5000	NS
Proportion who were currently married	47.2 (41.9-52.5)	46.3(41.1-51.7)	NS	32.9 (27.1-39.3)	17.7 (14.8-21.1)	<0.001
Mean age at first sex in years (Denominator is who could recall)	15.0 (14.8-15.3) M=15	15.0 (14.8-15.2) M=15	NS	15.8 (15.4-16.2) M=15	16.9 (16.7-17.2) M=17	<0.001

Note: M refers to median
NS refers to not significant at 5% level

Table A-29: Sexual behaviour

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Proportion who bought sex from males last month	88.0 (83.3-91.6)	71.9 (64.8 -78.1)	<0.001	84.1 (78.8-88.2)	96.7 (94.2 - 98.1)	<0.001
Proportion who bought sex from Hijra last month	10.3 (7.1-14.7)	38.0 (31.1-45.5)	<0.001	7.2 (4.8-10.8)	7.2 (4.2-12.1)	NS
Proportion who bought sex from females last month	28.2 (19.9-38.2)	57.2 (49.7-64.3)	<0.001	34.7 (29.5-40.2)	25.1 (20.0-31.1)	NS
Proportion who had non-commercial male/ Hijra sex partners last month	80.7 (75.2-85.3)	87.9 (83.3-91.4)	NS	45.1 (37.7-52.7)	19.2 (14.1-25.7)	<0.001
Proportion who had non-commercial female sex partners last month	33.8 (29.2-38.7)	60.4 (53.2-67.2)	<0.001	31.8 (25.3-39.1)	17.2 (14.3-20.5)	<0.001
Proportion reported group sex last month	30.5 (25.7-35.7)	54.4 (47.1-61.6)	<0.001	26.6 (21.9-31.8)	3.3 (1.6-6.7)	<0.001
Proportion who reported to have oral sex with non commercial male/Hijra partners	45.5 (39.2-52.0)	82.6 (77.0-87.1) N=418	<0.001	24.0 (19.7-28.9)	7.9 (5.3-11.7)	<0.001
Proportion who reported to have oral sex with commercial male (not Hijra) partners	36.9 (32.7-41.2)	67.1 (59.3-74.0)	<0.001	51.2 (43.7-58.5)	47.7 (40.2-55.3)	NS
Proportion who reported to have oral sex with commercial Hijra partners	2.3 (1.2-4.7)	27.5 (20.9-35.3) N=418	<0.001	2.9 (1.3-6.3)	1.8 (0.8-4.1)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-30: Sex Partners of MSM

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Mean number of male commercial partners last month	3.4 (3.1-3.8) M=3	3.0 (2.6-3.4) M= 2	NS	3.3 (2.7-3.9) M=3	3.2 (3.0-3.4) M= 3	NS
Mean number of commercial Hijra partners last month	0.2 (0.1-0.3) M=0	0.7 (0.6-0.9) M=0	<0.001	0.09 (0.05-0.14) M=0	0.1 (0.04-0.2) M=0	NS
Mean number of non-commercial male/Hijra partners last month	2.4 (2.1-2.6) M=2	3.9 (3.5-4.2) M= 3	<0.001	0.6 (0.5-0.8) M=0	0.2 (0.2-0.3) M=0	<0.001
Mean number of commercial female partners last month	0.7 (0.5-0.9) M=0	1.2 (1.0-1.4) M= 1	<0.001	0.7 (0.6-0.9) M=0	0.4 (0.3-0.5) M=0	<0.001
Mean number of non-commercial female partners last month	0.4 (0.3-0.5) M=0	0.7 (0.6-0.8) M= 1	<0.001	0.3 (0.3-0.4) M=0	0.2 (0.1-0.2) M=0	<0.001
Overall mean number of partners last month	7.1 (6.6-7.6) M=7	9.5 (8.8-10.2) M= 10	<0.001	5.1 (4.5-5.7) M=4	4.1 (3.9-4.3) M= 4	0.002

Note: M refers to median
NS refers to not significant at 5% level

Table A-31: Condom use during last sex with commercial and non-commercial partners

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Condom use in last anal sex with commercial male partners (Denominator is MSM who reported with commercial male anal sex partners in last month)	24.9 (20.4-30.1) N=357	46.7 (39.0 - 54.6) N=304	<0.001	15.5 (11.4-20.6) N=291	51.2 (45.0 - 57.3) N=377	<0.001
Condom use in last anal sex with commercial Hijra partners (Denominator is MSM who reported with commercial Hijra anal sex partners in last month)	13.6 (4.9-32.5) N=44	27.3 (18.8-37.9) N=160	NS	8.0 (1.9-28.4) N=25	46.4 (32.4-61.0) N=28	N is too small to test
Condom use in last vaginal/ anal sex with commercial female partners (Denominator is MSM who reported vaginal/anal sex with commercial female partners in last month)	15.8 (8.3-28.0) N=120	39.8 (33.4-46.6) N=239	0.001	12.5 (6.9-21.4) N=120	55.1 (44.5-65.3) N=98	<0.001
Condom use in last anal sex with non-commercial male/Hijra sex partners (Denominator is MSM who reported anal sex with non-commercial male sex partners in last month)	17.1 (12.8-22.6) N=344	39.3 (33.1-45.8) N=371	<0.001	7.7 (3.4-16.4) N=156	25.7 (16.7-37.4) N=74	0.004
Condom use in last vaginal/ anal sex with non-commercial female sex partners (Denominator is MSM who reported vaginal/anal sex with non-commercial female sex partners last month)	13.2 (7.7-21.7) N=144	24.4 (19.7 - 29.7) N=255	NS	4.5 (1.5-12.7) N=110	4.5 (1.4 -13.4) N=67	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-32: Consistent condom use with commercial and non-commercial partners

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Consistent condom use with commercial male partners last month (Denominator is MSM who reported anal sex with commercial male partners in last month)	N=357	N=304		N=291	N=377	
Always	11.5 (8.0-16.2)	5.3 (3.2 - 8.6)	NS	4.8 (2.7-8.3)	8.0 (5.7-11.0)	NS
Sometimes	36.1 (30.6-42.1)	65.9 (59.7-71.5)	<0.001	35.7 (29.0-43.2)	73.7 (67.7-79.0)	<0.001
Never	52.4 (46.5-58.2)	28.8 (23.7-34.5)	<0.001	59.5 (51.7-66.8)	18.3 (14.1-23.4)	<0.001
Consistent condom use with commercial Hijra partners last month (Denominator is MSM who reported anal sex with commercial Hijra partners in last month)	N=44	N=160		N=25	N=28	
Always	9.1 (2.0-33.1)	5.9 (3.2 - 10.6)	NS	4.0 (0.5-26.7)	32.1 (16.3 - 53.5)	NS
Sometimes	20.5 (9.1-39.7)	30.6 (20.9-42.4)	NS	8.0 (1.9-28.4)	25.0 (11.3-46.7)	NS
Never	70.5 (53.2-83.3)	63.5 (52.0-73.6)	NS	88.0 (68.4-96.1)	42.9 (28.3-58.8)	<0.001
Consistent condom use in vaginal/anal sex with commercial female partners last month (Denominator is MSM who reported vaginal/anal sex with commercial female partners in last month)	N=120	N=239		N=120	N=98	
Always	9.2 (3.6-21.4)	15.2 (10.8 - 21.0)	NS	3.3 (1.2-8.8)	42.9 (30.2 - 56.6)	<0.001
Sometimes	40.0 (31.5-49.2)	36.8 (29.3-45.0)	NS	44.2 (33.2-55.7)	31.6 (20.0-46.2)	NS
Never	50.8 (40.3-61.3)	48.0 (40.7-55.4)	NS	52.5 (41.7-63.1)	25.5 (16.4-37.5)	0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-32: Consistent condom use with commercial and non-commercial partners (Continued)

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Consistent condom use with non-commercial male/Hijra sex partners last month (Denominator is MSM who reported anal sex with non-commercial male sex partners in last month)	N=344	N=371		N=156	N=74	
Always	8.4 (4.7-14.7)	6.8 (4.3 - 10.7)	NS	2.6 (0.7-8.4)	14.9 (8.0 - 25.9)	NS
Sometimes	34.6 (28.5-41.3)	58.0 (52.3-63.6)	<0.001	25.6 (18.1-35.0)	32.4 (21.4-45.9)	NS
Never	57.0 (50.0-63.7)	35.1 (30.0-40.7)	<0.001	71.8 (61.4-80.3)	52.7 (39.8-65.3)	NS
Consistent condom use in vaginal or anal sex with non-commercial female sex partners last month (Denominator is MSM who reported vaginal/anal sex with non-commercial female sex partners last month)	N=144	N=254		N=110	N=67	
Always	7.6 (3.9-14.3)	15.6 (12.0 – 20.1)	NS	0.9 (0.1-6.8)	3.0 (0.7 -12.0)	NS
Sometimes	18.1 (12.2-25.9)	11.0 (7.1-16.7)	NS	4.5 (1.5-12.6)	6.0 (2.2-15.0)	NS
Never	74.3 (64.6-82.1)	73.4 (67.7-78.4)	NS	94.6 (86.6-97.9)	91.0 (81.3-96.0)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-33: Self-reported STI and treatment seeking behaviour

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Proportion reported at least one STI symptom in the last year	70.2 (65.6-74.4)	38.7 (34.0-43.6)	<0.001	76.3 (70.2-81.5)	61.0 (54.9 - 66.8)	<0.001
Proportion sought formal medical treatment for last STI symptom (Denominator is who had symptoms in last one year)	50.2 (44.6-55.7) N=299	78.8 (71.6-84.6) N=161	<0.001	63.3 (56.2-69.8) N=264	80.7 (74.2 - 85.8) N=238	<0.001
Mean waiting days for STI treatment (Denominator is who sought treatment in last one year)	7.4 (6.7-8.1) M=7 N=269	10.5 (8.9-12.1) M= 7 N=157	<0.001	7.4 (6.8-7.9) M=7 N=261	7.7 (6.7 - 8.7) M= 6 N=238	NS
Mean expenditure in last STI treatment last year (Denominator is who reported STI last year and sought treatment)	259.4 (226.4-292.4) M=175 N=268	228.1 (69.3-386-9) M=70 N=145	NS	244.1 (205.1-283.1) M=200 N=260	148.7 (130.8-166.6) M=120 N=238	<0.001

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-34: Self-perception of risk

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Proportion who perceived themselves to be at high risk	3.5 (2.0-6.1)	14.3 (9.6-20.8)	<0.001	2.9 (1.5-5.6)	0	0.002
Proportion who perceived themselves to be at medium risk	10.6 (7.6-14.5)	5.6 (3.6-8.4)	NS	10.1 (7.0-14.3)	7.2 (4.8-10.7)	NS
Proportion who perceived themselves to be at little or no risk	42.2 (37.6-47.0)	42.1 (37.1 - 47.4)	NS	37.6 (31.1-44.5)	37.7 (30.9-45.0)	NS
Proportion who could not assess their risk	43.7 (38.5-49.0)	38.0 (32.3-44.1)	NS	49.4 (41.9-56.9)	55.1 (47.0-63.0)	NS

Note: Proportions have been calculated over 417 observations
NS refers to not significant at 5% level

Table A-35: Exposure to interventions

Indicators % (95 % CI)	Round 4 MSM Central-A (N=426)	Round 5 MSM Central-A (N=420)	P-values	Round 4 MSM Northeast-A (N=346)	Round 5 MSM Northeast-A (N=390)	P-values
Proportion exposed to intervention in last one year	62.4 (55.8-68.5)	58.2 (51.1-65.1)	NS	90.7 (86.9-93.5)	97.2 (92.8-98.9)	NS

Note: NS refers to not significant at 5% level

Comparison Between Rounds IV vs. V
Transport workers

Table A-36: Socio-demographic characteristics

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Mean age (in years)	30.4 (29.7-31.1) M=30	28.4 (27.9-28.9) M=28	<0.001	28.2 (27.6-28.9) M=28	26.7 (26.0-27.3) M= 26	<0.001	29.8 (29.0-30.7) M=28	28.0 (27.1-28.8) M= 26	0.003
Proportion who had no schooling	30.9 (25.6-78.1)	33.3 (28.8-38.1)	NS	9.0 (6.0-13.3)	48.1 (41.8-54.2) N= 314	<0.001	7.9 (5.7-10.8)	23.4 (20.1-26.9)	<0.001
Mean income last month	3266 (3163-3370) M=3000	3581.1 (3506.5-3655.7) M= 3500 N= 400	<0.001	3173 (3065-3280) M=3000	3224.8 (3133.6-3315.9) M= 3000 N= 311	NS	5046 (4855-5237) M=4000	6115.8 (5619.1-6612.5) M= 5000 N=441	<0.001
Proportion who were currently married	73.4 (68.2-78.1)	76.5 (71.6-80.9)	NS	64.2 (58.3-69.7)	58.7 (54.1-63.3)	NS	54.1 (47.7-60.3)	52.0 (47.1-56.9)	NS
Mean age at first sex in years (Denominator is who could recall)	17.3 (17.0-17.6) M=17 N=404	18.6 (18.1-19.0) M= 18 N=400	<0.001	18.9 (18.4-19.3) M=19 N=330	17.7 (17.4-18.0) M= 18 N=300	<0.001	17.3 (16.7-17.8) M=16 N=418	17.0 (16.5-17.5) M= 16 N= 434	NS
Proportion living with regular sex partner	73.7 (69.3-77.6)	79.5 (75.1-83.3)	NS	63.9 (58.0-69.4)	52.4 (47.3-57.4)	0.004	53.3 (46.8-59.7)	51.6 (46.5-56.6)	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell.
NS refers to not significant at 5% level

Table A-37: Sexual partners and sexual behaviour of male groups

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Proportion who had sex with non commercial female partners in the last year	77.2 (72.7-81.2)	79.1 (74.9-82.8)	NS	71.2 (65.9-75.9)	58.7 (53.8-63.5)	<0.001	55.7 (49.4-61.9)	54.9 (50.3-59.4)	NS
Proportion who had sex with non commercial female partners in the last month	71.9 (67.3-76.1)	75.3 (70.9-79.2)	NS	66.7 (61.1-71.8)	48.6 (43.3-53.8)	<0.001	52.5 (45.9-59.0)	45.7 (39.3-52.3)	NS
Proportion who had sex with commercial female partner in the last year	72 (66.8-76.6)	72.8 (67.3-77.7)	NS	69.1 (64.0-73.7)	69.8 (63.5-75.5)	NS	76.1 (71.9-79.8)	85.6 (79.9-89.8)	0.007
Proportion who had sex with commercial female partner in the last month	65.9 (60.8-70.8)	50.0 (44.5-55.6)	<0.001	61.6 (56.1-66.7)	49.8 (43.4-56.3)	NS	67.7 (63.5-71.7)	61.4 (56.0-66.5)	NS
Proportion who had sex with commercial male or Hijras in the last year	22 (17.5-27.3)	7.1 (4.7-10.7)	<0.001	17.1 (13.5-21.5)	8.6 (6.0-12.0)	<0.001	21.5 (16.8-27.0)	7.0 (3.1-15.2)	0.004
Proportion who had sex with commercial male or Hijras in the last month	14.9 (11.5-19.0)	7.1 (4.7-10.7)	0.002	14.4 (10.9-18.8)	8.6 (6.0-12.0)	NS	15.9 (12.0-20.8)	7.0 (3.1-15.2)	NS
Proportion who had group sex in the last month	32 (27.5-36.9)	9.7 (6.9-13.4)	<0.001	17.9 (14.0-22.6)	11.8 (8.2-16.6)	NS	30.7 (23.6-38.8)	22.3 (16.7-29.3)	NS

Table A-37: Sexual partners and sexual behaviour of male groups (Continued)

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Mean number of commercial female sex partners in the last year	8.0 (7.1-8.9) M=7	3.9 (3.4-4.3) M= 3	<0.001	12.4 (9.8-15.0) M=6	3.3 (2.9-3.6) M= 3	<0.001	7.9 (6.9-9.0) M=5	6.0 (5.1-7.0) M= 4	NS
Mean number of commercial female sex partners in the last month	2.1 (1.9-2.3)	0.8 (0.7-0.9) M=0	<0.001	2.4 (2.0-2.7) M=2	0.8 (0.7-0.9) M=0	<0.001	2.0 (1.8-2.2) M=2	1.0 (0.8-1.2) M=1	<0.001
Mean number of commercial male/ Hijra sex partners in the last year	0.6 (0.5-0.8) M=0	0.2 (0.1-0.3) M= 0	<0.001	0.8 (0.5-1.0) M=0	0.2 (0.1-0.3) M= 0	<0.001	0.7 (0.5-1.0) M=0	0.2 (0.01-0.23) M= 0	<0.001
Mean number of commercial male/ Hijra sex partners in the last month	0.3 (0.2-0.4) M=0	0.05 (0.01-0.10) M=0	<0.001	0.3 (0.2-0.4) M=0	0.08 (0.01-0.14) M=0	<0.001	0.3 (0.2-0.4) M=0	0.04 (0.0-0.09) M=0	<0.001
Overall mean number of commercial sex partners last year (female, male or Hijra)	8.6 (7.7-9.5) M=8	4.0 (3.5-4.6) M= 3	<0.001	13.2 (10.5-15.8) M=7	3.5 (3.0-3.9) M= 3	<0.001	8.7 (7.5-9.8) M=6	6.2 (5.1-7.2) M= 4	0.002

Note: M refers to median
NS refers to not significant at 5% level

Table A-38: Condom use with different types of partners

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Condom use in last sex with female non-commercial partner (Denominator is who reported non-commercial sex with female partner last year)	4.1 (2.3-7.0) N=328	5.4 (3.3-8.7) N=319	NS	3.2 (1.6-6.5) N=252	5.4 (2.9-9.7) N=185	NS	11.6 (7.8-16.8) N=248	6.4 (3.9-10.4) N=246	NS
Condom use in last sex with female commercial partner (Denominator is who reported commercial sex with female partner last year)	12.2 (8.3-17.5) N=298	3.9 (2.2-6.8) N= 292	<0.001	15.1 (10.3-21.7) N=235	3.2 (1.5-6.6) N= 220	<0.001	23.4 (18.9-28.6) N=352	14.2 (10.5-18.8) N= 378	0.005
Condom use in last sex with commercial male or Hijra partner (Denominator is who reported commercial sex with male or Hijra partner last year)	9.8 (5.3-17.5) N=97	0 N= 30	NS	12.2 (5.4-25.2) N=56	0 N= 27	NS	9.8 (5.1-18.0) N=107	0 N=24	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-39: Consistent condom use with different types of partners

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values
Consistent condom use with female non-commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=328	N=319	
Always	1.6 (0.7-3.9)	2.4 (1.1-5.2)	NS
Sometimes	11.7 (8.2-16.4)	18.8 (14.6-23.9)	NS
Never	86.7 (82.0-90.3)	78.7 (73.2-83.4)	NS
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=298	N= 292	
Always	1.2 (0.5-2.8)	2.3 (1.1-5.0)	NS
Sometimes	20.4 (15.6-26.3)	9.6 (6.4-14.2)	0.001
Never	78.4 (72.6-83.3)	88.0 (83.2-91.6)	NS
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)	N=97	N= 30	
Always	1.4 (0.3-5.8)	0	NS
Sometimes	8.3 (4.2-16.0)	7.6 (2.4-21.9)	NS
Never	90.2 (82.5-94.7)	92.4 (78.1-97.6)	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-40: Consistent condom use with different types of partners

Indicators % (95 % CI)	Round 4 Rickshaw pullers Southeat-A (N=342)	Round 5 Rickshaw pullers Southeat-A (N=315)	P-values
Consistent condom use with female non-commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=252	N=185	
Always	0.3 (0.04-2.3)	0.5 (0.1-3.8)	NS
Sometimes	15.4 (11.2-20.9)	24.3 (18.6-31.2)	NS
Never	84.3 (78.8-88.5)	75.1 (68.3-80.9)	NS
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=235	N=220	
Always	1.7 (0.6-4.4)	1.4 (0.4 - 4.2)	NS
Sometimes	35.6 (29.4-42.3)	8.2 (5.3-12.5)	<0.001
Never	62.7 (55.9-69.1)	90.5 (85.7-93.8)	<0.001
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)	N=56	N=27	
Always	3.1 (0.7-12.4)	0	NS
Sometimes	9.1 (3.4-21.9)	0	NS
Never	87.8 (74.8-94.6)	100.0	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-41: Consistent condom use with different types of partners

Indicators % (95 % CI)	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Consistent condom use with female non-commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=248	N=246	
Always	6 (3.2-11.0)	0.8 (0.1-5.3)	NS
Sometimes	22.4 (16.7-29.4)	30.4 (22.9-39.1)	NS
Never	71.5 (64.8-77.4)	68.8 (60.1-76.3)	NS
Consistent condom use with female commercial partners last year (Denominator is who reported commercial sex with female partner last year)	N=352	N= 378	
Always	11.2 (7.8-15.8)	4.1 (2.4 - 6.8)	0.001
Sometimes	32.8 (26.7-39.6)	31.0 (25.7-36.8)	NS
Never	56.0 (50.3-61.5)	65.0 (58.5-71.0)	NS
Consistent condom use with male or Hijra commercial partners last year (Denominator is who reported commercial sex with male or Hijra last year)	N=107	N= 24	
Always	4.6 (1.6-13.0)	0	NS
Sometimes	6.4 (2.9-13.2)	0	NS
Never	89.0 (81.0-93.9)	100.0	NS

Note: Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-42: Knowledge on modes of HIV transmission and HIV testing

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Proportion reported to have heard about HIV/AIDS	88.0 (84.2-91.0)	88.3 (82.6-92.4)	NS	85.5 (81.2-89.0)	85.7 (81.6-89.0)	NS	96.4 (94.1-97.9)	97.7 (95.0-99.0)	NS
Proportion mentioned condom use as a mode of prevention	38.6 (33.5-44.1)	75.0 (68.4-80.6)	<0.001	60.0 (54.7-65.1)	58.7 (51.4-65.7)	NS	66.9 (62.7-70.8)	88.0 (83.6-91.4)	<0.001
Proportion mentioned not sharing of needles/syringes as a mode of prevention	30.0 (24.6-35.9)	67.6 (60.3-74.2)	<0.001	47.8 (41.5-54.1)	72.1 (65.9-77.5)	<0.001	83.0 (79.5-86.1)	92.7 (89.8-94.9)	<0.001
Proportion mentioned avoiding anal sex as a mode of prevention	7.0 (4.5-10.8)	62.3 (55.6-68.6)	<0.001	16.4 (12.5-21.2)	27.9 (21.7-35.1)	0.003	49.5 (43.8-55.3)	46.4 39.6-53.3)	NS
Proportion mentioned AIDS can be transmitted by mosquito bites	28.2 (23.2-33.9)	43.1 (37.4-48.9)	<0.001	34.1 (28.4-40.3)	34.3 (28.1-41.1)	NS	44.9 (39.9-50.0)	30.0 (23.9-36.9)	0.001
Proportion mentioned AIDS can be transmitted by sharing food	41.7 (35.9-47.9)	57.6 (51.1-63.9) N=402	0.001	51.1 (44.7-57.4)	46.7 (40.6-52.8)	NS	51.4 (45.3-57.4)	35.6 (29.4-42.4)	0.001
Proportion mentioned one can tell by looking at someone whether S/he is infected with HIV	21.7 (17.5-26.7)	19.3 (14.8-24.8)	NS	27.3 (22.3-32.9)	11.8 (7.4-18.2)	<0.001	13.8 (11.0-17.0)	8.9 (5.5-14.0)	NS
Proportion knew where HIV can be tested confidentially	0.5 (0.1-2.1)	2.0 (0.8-5.2)	NS	0.8 (0.3-2.2)	1.0 (0.3-2.9)	NS	7.8 (5.3-11.3)	7.4 (4.8-11.4)	NS

Note: Where responses from the total number of respondents were not available, the `N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-43: Self perception of risk

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Proportion who perceived they were at high risk	3.7 (2.0-6.8)	0.3 (0.1 - 2.1)	NS	8.4 (5.6-12.4)	0.3 (0.04- 2.3)	<0.001	1.9 (0.8-4.6)	5.8 (1.6 -19.2)	NS
Proportion who perceived they were at medium risk	13.6 (10.3-17.7)	8.1 (5.6-11.5)	NS	21.1 (16.0-27.4)	1.3 (0.5-3.3)	<0.001	8.0 (5.7-11.1)	10.0 (6.7-14.8)	NS
Proportion who perceived they were at little or no risk	21.4 (17.2-26.3)	54.2 (47.1- 61.1)	<0.001	25.2 (20.1-31)	51.6 (45.2-57.9)	<0.001	70.4 (65.6-74.8)	58.4 (49.7-66.5)	NS
Proportion who could not assess their risk	61.3 (54.9-67.3)	37.4 (30.5-44.8)	<0.001	45.3 (39.1-51.6)	46.8 (40.4-53.3)	NS	19.6 (15.7-24.2)	25.8 (21.4-30.8)	NS

NS refers to not significant at 5% level

Table A-44: Self-reported STIs and health care seeking behaviour

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Proportion reported at least one STI symptom in last one year (Denominator is who reported sexual experience)	56.5 (50.7-62.2) N=404	47.8 (41.7-53.9) N= 402	NS	62.0 (55.0-68.6) N=330	42.2 (36.9-47.7) N=301	<0.001	46.9 (40.4-53.6) N=418	46.0 (39.4-52.7) N=434	NS
Proportion sought formal medical treatment as first treatment option (Denominator is who had sexual experience and reported STI last year)	20.9 (15.6-27.4) N=226	19.5 (12. 2-29. 6) N=193	NS	21.6 (15.7-28.9) N=205	51.2 (41.9-60.4) N= 127	<0.001	60.3 (52.8-67.4) N=215	55.8 (48.3-63.0) N= 197	NS
Mean waiting days before seeking treatment for last STI (Denominator is who had sexual experience, reported STI last year and sought treatment)	9.1 (8.3-10.0) M=10 N=192	9.2 (7.2-11.2) M= 6 N=161	NS	6.6 (5.9-7.3) M=6 N=188	8.5 (7.7-9.4) M=8 N=113	0.001	12.9 (11.8-14.1) M=10 N=199	10.5 (7.9-13.0) M=7 N=157	NS
Mean cost of treatment for last STI (Denominator is who had sexual experience, reported STI last year and sought treatment)	110.5 (83.5-137.4) M=50 N=192	233.8 (134.2-333.4) M=80 N=161	NS	152.3 (113.0-191.6) M=100 N=188	214.8 (166.6-263.0) M=150 N=112	NS	677.2 (550.6-803.9) M=300 N=199	254.0 (203.0-304.9) M=150 N=157	<0.001

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

Table A-45: Exposure to interventions

Indicators % (95 % CI)	Round 4 Rickshaw pullers Central-A (N=420)	Round 5 Rickshaw pullers Central-A (N=403)	P-values	Round 4 Rickshaw pullers Southeast-A (N=342)	Round 5 Rickshaw pullers Southeast-A (N=315)	P-values	Round 4 Truckers Central-A (N=459)	Round 5 Truckers Central-A (N=441)	P-values
Proportion exposed to HIV interventions in the last year	4.7 (2.9-7.3)	0.5 (0.2-1.7)	<0.001	11.6 (8.2-16.2)	1.0 (0.3-2.9)	<0.001	40.7 (34.8-46.8)	39.5 (32.4-47.2)	NS

Note: M refers to median
Where responses from the total number of respondents were not available, the 'N' is provided in the particular cell
NS refers to not significant at 5% level

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