

(Draft)

REPORT

Integrated Behavioral and Biological Surveillance

A Pilot Study in Karachi and Rawalpindi
2004-05

NACP/ HASP

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ESWs	Eunuch Sex Workers
FoM	Frequency of Mention
FSW	Female Sex Worker
GoP	Government of Pakistan
HASP	HIV/AIDS Surveillance Project
HIV	Human Immunodeficiency Virus
HRAs	High Risk Activities
HRGs	High Risk Groups
IBBS	Integrated Biological and Behavioral Surveillance
IDUs	Injecting Drug Users
KHI	Karachi
KIs	Key Informants
MSWs	Male Sex Workers
NACP	National AIDS Control Programme
NGO	Non-Governmental Organization
PACP	Provincial AIDS Control Programme
RWP	Rawalpindi
STI	Sexually Transmitted Infection
VCT	Voluntary Counseling and Testing

Executive Summary

Integrated Behavioral and Biological Surveillance (IBBS) uses special tools and methodologies for collecting complex behaviors of high risk groups of HIV/AIDS. National AIDS Control Programme (NACP) alongwith HIV/AIDS Surveillance Project (HASP) conducted a pilot survey in Karachi and Rawalpindi to test various tools for IBBS and to determine status and variations of behaviors (unsafe sex and injecting drugs) followed by programmatic recommendations for addressing the current HIV epidemic in Pakistan.

IBBS was conducted in two phases. The first phase established sampling frame and size of study population, by conducting geographical mapping and by interviewing key informants. The second phase used various sampling techniques for recruiting the study population followed by structured interviews for assessing the socio-demographic characteristics and risky behaviors of high risk groups (HRGs), i.e. Injecting Drug Users (IDUs), Female Sex Workers (FSWs), Eunuch Sex Workers (ESWs) and Male Sex Workers (MSWs).

The results revealed that high risk activities (HRAs) are mainly concentrated in central and/or older parts of both cities, spreading to the periphery; these areas are mostly having lot of business activities, with bus stands, lot of traffic and human movements. An estimate of 38,000 and 3000 HRAs were projected for Karachi and Rawalpindi, respectively. This, when further studied according to major HRGs, illustrates that IDUs and FSWs (32.2% and 30.3% respectively) are major group in Karachi, in contrast to FSWs, who are 53% of all the HRGs in Rawalpindi. About one fifth of all the HRGs are ESWs in both cities. Mapping also revealed that some of the geographically demarcated zones/towns do have higher concentration of more than one HRGs. This estimated sampling frame was used for sampling and recruitment of HRGs for studying their behaviors. For Karachi, 400 each of IDUs, FSWs and half each of ESWs and MSWs were selected. In Rawalpindi, considering the smaller sampling frame, half the numbers of HRGs (200) were selected in similar proportion as of Karachi.

All the HRGs had an age range of 20-30 years; 40% of them were illiterate and were predominantly having ethnic background from Punjab. About half of the HRGs reported to have migrated from other cities; more than half of all the FSWs reported to be married and half (from Karachi) to one thirds (from Rawalpindi) of IDUs were living with their families. Average monthly income varied from Rs. 4,000 to 11,000, though FSWs and ESWs from Karachi had relatively higher income.

More than two-thirds of all the study population had heard about HIV/AIDS, but only one-fifth felt that they may be at risk of it. The causes of spread and its prevention appeared to relate with risky behavior, though HRGs of Rawalpindi also felt that “eating with patients” and “keeping oneself dirty” can also cause HIV/AIDS. Regarding protection from HIV/AIDS, “abstaining sex” was more commonly reported by FSWs of Rawalpindi (RWP), in contrast to “using condoms” as reported by FSWs of Karachi (KHI). About half of the HRGs had some knowledge of STIs (relatively lesser than for

HIV); 15-45% of them reported having a STI in last six months and two-thirds have sought treatments. The FSWs of KHI sought treatment mainly through hospital, Hakeem or Homeopath as compared to FSWs of RWP who got treatment mainly from the doctor.

Sexual activity commences earlier, 14 years for ESWS/MSWs and 17 years for FSWs. The sourcing of client also varies among the HRGs; ESWS/FSWs used either telephone or pick points, whereas more than half of FSWs from KHI got clients through pimps/aunties as compared to FSWs from RWP who relied more on older clients. More than 80% of FSWs from KHI were in full time sex work, as compared to only 44% of FSWs from RWP. Availability of condoms appeared to be easy; however, only 10% of these HRGs were carrying a condom at the time of interview. About 18% of all FSWs claimed to have “always used” a condom. Almost half of the FSWs from KHI had more than 20 clients last month as compared to only one third of FSWs from RWP. Anal and oral sex was more commonly practiced by FSWs of KHI; very few using condoms for this purpose. FSWs of KHI had been exposed much more frequently to other risky behaviors than FSWs of RWP; they were indulging in drinking alcohol, taking drugs orally as well injecting it also. Almost 20% of MSWs were selling blood for money, also.

The IDUs from both cities have been injecting drugs for almost three years with an average of two injections per day. IDUs of KHI were using all types of drugs, including Heroin, however those from RWP were mostly (56%) using Avil. The last shot was usually taken in a park/street, along with a friend. Though 80% of them have claimed that using a new syringe, 25-30% had also passed the syringe after using it. The IDUs of RWP were more frequently involved in having/buying sex (with male or female); more than half “never used” condoms with their partners. About 20% of IDUs had also sold sex for drug/money.

This pilot survey in two cities of Pakistan has revealed many interesting findings by applications of various tools and methodologies; however some core indicators should be selected for future surveillance systems, which should be practical and feasible. Issues related to terminology, identifying/targeting the clients also, and mismatch between reported and actual behaviors have also been discussed.

It is recommended that a more institutionalized approach along with capacity building efforts be focused for future similar exercises, through out Pakistan. Social as well as operational research are needed to determine the networks and behavioral patterns followed by targeted interventions. Above all, considering the current status of risky behaviors among various HRGs, it is essential that interventions are scaled up with a wider geographical coverage, by applying a comprehensive approach for reduction of vulnerabilities, harm and impact of HIV, in Pakistan.

1. INTRODUCTION:

The Integrated Biological and Behavioral Surveillance (IBBS) for HIV epidemic fundamentally differs from that of other infectious diseases, in context to complexity of behaviors in high risk communities who are quasi-legal and frequently mobile. Understanding the behaviors of these groups and relating them with HIV status at an early stage of epidemic is the key to an effective surveillance system.

The National AIDS Control Programme (NACP), along with the HASP (HIV/AIDS Surveillances Project) undertook a pilot study in Karachi and Rawalpindi to:

- Apply a number of tools and methodologies to learn lessons and recommend future approaches for an improved IBBS.
- Identify the status and variations of behaviors of high risk groups and relate it with a number of factors such as socio-economic status and knowledge about the HIV/AIDS and STI; the behaviors to be mainly studied would be unsafe sex and drugs injecting.
- Determine the biological status of these groups and use it as a baseline status for future surveillance.
- Recommend programmatic interventions for addressing the current biological and behavioral status that may lead to further spread of disease.

The report describes the methodology for conducting IBBS followed by results, conclusions, and recommendations. The report has been prepared to avoid “information-load” and to ensure practical relevance and utility. Details of the process are shared in annex to ensure that this report highlights key and relevant findings without losing any other information. The exercise has generated lot of rich data, which can be further analyzed depending upon the need to understand any particular aspect in further detail. It should be noted that there are some variations within and between the pilot studies conducted in Karachi and Rawalpindi, both in terms of approach and results deducted. Major and relevant comparisons would be shared between the two cities that would have implications in terms of programmatic interventions.

Like surveillance for any other diseases, “representativeness” was the fundamental prerequisite for planners and programme managers of AIDS Control Programme. Thus a two-phased approach was followed for IBBS.

- a) Estimating size of study population by geographical mapping of Karachi and Rawalpindi and establishing broad sampling frame.
- b) Determining behavioral and biological status through data collection, using probability sampling of the high risk group from sampling frame.

This is to emphasize that the whole IBBS should be understood as one continuum process. However, methodology and results are described in sequential order for above mentioned phases in the following sections

2. METHODOLOGY:

The IBBS requires especial methodologies and tools for collecting information from the high risk groups (the study population), so that the results deduced are scientifically acceptable and within limits generalizable for the high risk groups. IBBS methodology can be described in two phases; each phase has again further levels and processes for collecting the data.

2.1. Establishing sampling frame and size of study population:

The sampling frame would determine the location (of high risk activities) and estimated number of the study population (high risk groups), so that a representative sample (as opposed to all the population) could be drawn for studying both behavior and biological status.

The approach followed is conventionally termed as “the mapping approach”. However, unlike conventional mapping (as one of the epidemiological tools for any disease), A “geographical mapping approach” was applied to gather data and understand the risk situation in a given vulnerable population to be quantified in terms of number of settings or size of the population (see Annex-1 for source of this approach and comparison with, conventional approach).

The specific objectives of mapping were:

- a. To gather information on the types of existing risk behaviors that lead to the spread of HIV, in terms of person, place and time
- b. To collect information on the typologies of HRA (high risk activities)
- c. To generate estimates of the number of participants in HRA
- d. To prepare a list of contacts that can lead access to participants of HRA

The process involved in mapping approach:

- Cross-sectional survey of the area was conducted for mapping the HRAs and
- Selective key informant (KIs) were interviewed for estimating numbers and typologies of the HRG (high risk groups)

The above processes were conducted at two levels, especially in the context of HRAs and HRGs for validating the information from more reliable KIs and for narrowing down the sampling frame. Following table illustrates how data collection at two levels helped in achieving the objectives. The details of key concepts and definitions applied in this section are highlighted in Annex-2. Annex-3 describes specific characteristics of study population in Karachi and Rawalpindi, the study period and pre-mapping exercises in these two cities.

TABLE 2.1. Levels of Activities for Establishing Sampling Frame

CATEGORY	Level 1 activity	Level 2 activity	Remarks/comments
Purpose	<ul style="list-style-type: none"> ▪ Collecting information about HRAs in various geographical locations ▪ Estimating number of HRG individuals in various HRAs 	Soliciting and confirming information on typology and estimates of participants in HRAs at the spots.	The process follows a logical sequence by starting at level 1 activity in a defined area followed by conducting the level 2 activity.
Expected outcome	<ul style="list-style-type: none"> ▪ Locale of HRA ▪ Estimated number of HRGs ▪ Typology of HRGs 	<ul style="list-style-type: none"> ▪ Typology/sub-typology of HRGs ▪ Contacts of network operators. Activity (seeking/taking risk) at the spot.	Each city was divided either in zones (Rawalpindi) or towns (Karachi) KIs provide information on HRAs
Mapping of HRAs	A pre-designed format was used for mapping HRAs in whole of the city, conveniently divided into zones or towns.	Top three locations/places in each town/zone were selected. THEN 10 spots were selected from all the three places/locations of each town	Criteria for selection of places in level 2 were: a) Frequency of mention (FOM), b) largest estimates of participants in each HRA and c) highest number of spots.
Estimating HRGs	Estimates (minimum and maximum) followed by taking an average of HRG individual is collected for each of the HRAs Information is collected for each place (such as market place, residential colonies etc) and spot (area with a specific postal address such as cafes, houses, bus stops)	Estimates of HRGs within the selected spots Details and contacts of sex workers and estimated number of clients in HRAs. Events causing fluctuations in number of participants at the spot.	Primary KIs: Persons engaged in HRA themselves, e.g. commercial sex workers and injecting drug users Secondary KIs: Persons who are involved in the network of HRA or intimately acquainted with persons directly engaged in HRA, e.g. pimps, taxi drivers etc., Tertiary KIs: Persons involved with high risk activity in a professional capacity, e.g. police, STI service providers, and NGO workers
KIs	3-5 KIs for densely populated and/or urban areas, and 1 for rural and/or sparsely populated area. Mainly tertiary and secondary KIs involved.	2 KIs for each of the spot selected Mainly primary and secondary KIs were involved.	

Annex-4 describes in details the process for level 1 and level 2 activities, including data collection and collations

Data validation:

The methodology itself has various data validation processes i.e., spot validation and validation of estimates obtained from each spot. In addition, after compilation of data the estimates of HRA for each town/zone and for specific spots were triangulated. Meetings with Law enforcement agencies were held and estimates from members of the local police in selected towns were obtained. These estimates were compared with the estimates generated from the mapping exercise and no significant differences were noted. In addition Focus group discussions were conducted with network operators (pimps, aunties etc.) to verify the estimates of Kothi Khana and street based female sex workers in Karachi as well as specific locations and spots.

To determine a realistic estimate of FSWs of the only known brothel area of Karachi, a census of all the brothels at Napier Road was conducted. Using Circle level maps from the Population Census Office, the red light area around Napier Road was demarcated. Every structure within this demarcation was visited and a key informant from that structure was asked if any brothels existed within. All structures that were identified as having brothels were surveyed. Each apartment/room was surveyed for brothel based sex work and a head count of all the individuals in each brothel involved in HRA was carried out.

2.2. Determining behavioral and biological status:

This section would first describe selection and recruitment of study population, followed by brief description of data collection process for assessing behavioral and biological status.

2.2.1. Sampling methodology and recruitment of study population:

A sampling approach based on probability sampling was devised and multiple sampling techniques were combined for different groups to obtain a 'representative' sample of the study population. Since probability sampling needs a sampling frame, a comprehensive and extensive mapping study conducted in earlier phase helped in developing sampling frames for the population under study. It also helped in identifying the typologies of HIV risk activities which formed the basis of their differentiation into subgroups. Based on the typology, estimates were derived for each subgroups and were used for proportionate allocation of the sample into various subgroups. e.g., based on the typology, female sex workers were divided into 03 subgroups i.e., Brothel based, Street based and Kothi khana based sex workers. Annex 5 illustrates formula for sample size calculations. Accordingly about 400 individuals from each of the three HRGs were selected. Following table shares the sampling methodology

Table 2.2. Sampling and Recruitment Techniques

Category	Sample size (refers only for Karachi)	Sample site/s	Recruitment techniques for <i>Karachi</i>	Recruitment techniques for <i>Rawalpindi (size differs)</i>
<i>FSWs (400)</i>				
Street based	200 (50%)	Proportionate number from each town; Top 05 spots with FoM (frequency of mention)	Convenient Sampling	Time location sampling (only 100)
Kothi Khana/home based	140 (35%)	Proportionate number from each town; Top 05 spots with FoM	Snow ball method	Snow ball method (only 100)
Brothel based	60 (15%)	Only from identified brothel	Random number sampling	ALL
<i>IDUs (400)</i>				
Street based	372 (93%)	Proportionate number from each town; Top 05 spots with FoM	Random selection	ALL (time location)
Home based	28 (7%)	No particular site	Snow ball method	ALL (time location)
<i>MSWs/ESWs (400)</i>				
MSWs	200	50% by Proportionate number from each town; Top 05 spots with FoM 50% by non-proportionate distribution	Random selection RDS (respondent driven sampling by 8 seeds (each recruiting an average of 13 MSWs	Snow ball (only 100)
ESWs	200	Proportionate number from each town; Top 05 spots with FoM	Random selection	Only 100—list of Gurus having 20 Hijras prepared and ESWs selected through convenient sampling

2.2.2. Data collection process:

a) Taking Informed Consent

Once selection of a study subject was done, s/he was taken to the interviewer. Prior to commencing the interview, interviewers first confirmed participants' eligibility and then read aloud a standardized consent form to the participants. This consent form provided participants with an overview of objectives of investigation, stressed confidential nature of the interview, right of the participants to respond to questions, as well as right of subjects to end the interview at any time. Written consent was not sought in order to maintain participant's confidentiality.

b) Administering the Questionnaire

Once informed consent was obtained, questionnaire was administered, which was followed by taking biological samples.

c) Debriefing and Referrals

A debriefing session was held with the participants on completion of questionnaire and drawing of biological sample. The interviewers and senior staff responded to participants queries. Participants were provided with information on modes of prevention and spread of HIV infection, and available services including primary health care and specified service delivery packages for the high risk groups. Since the results of sero status were not provided to the study subjects through this study, they were referred to the available voluntary counseling testing (VCT) centers for post test counseling.

Annex 6 describes case definitions, data collection instruments, training conducted for data collection team and the biological testing techniques employed for determining biological and behavioral status of the study population in Karachi and Rawalpindi.

The following section would share the results in a logical sequence. First the results of "mapping" would be described followed by description of behavioral and biological status of the study population.

3. RESULTS:

3.1. Establishing broad sampling frame and estimating size of study population by geographical mapping of Karachi and Rawalpindi.

This section describes the results based on analyzed data of survey conducted through the "geographical mapping" and interviews with various categories of Key Informants (KIs).

3.1.1. RESPONSES AND DISTRIBUTION OF KIs:

Table 31. illustrates that for level 1 activity, most of the information was sought from secondary KIs, where as primary KIs played an important role in level 2 activities for defining the locales and estimating the size of high risk activities (HRAs) and high risk groups (HRGs), respectively.

TABLE 3.1. Distribution of key informants for various levels of activities

Category/ variables	Karachi n (%)		Rawalpindi n (%)		Remarks/comments
	Level 1 n (%)	Level 2	Level 1	Level 2	
Primary KIs	179 (29)	175 (97)	12 (2.4)	165 (82.4)	Primary KIs: Persons engaged in HRA themselves, e.g. commercial sex workers and injecting drug users Secondary KIs: Persons who are involved in the network of HRA or intimately acquainted with persons directly engaged in HRA, e.g. pimps, taxi drivers etc., Tertiary KIs: Persons involved with high risk activity in a professional capacity, e.g. police, STI service providers, and NGO workers
Secondary KIs	382 (63)	05 (03)	361 (72.1)	33 (16.5)	
Tertiary KIs	51 (08)	NIL	128 (25.5)	2 (1.1)	
TOTAL KIs	612 (100)	180 (100)	501 (100)	200 (100)	
Total KIs (L1+L2)	792		701		
Total spots	1231		2816		
Males	660 (83)		493 (98.4)		
Eunuchs	84 (11)		2 (0.4)		
Females	48 (06)		6 (1.2)		

3.1.2. DISTRIBUTION OF HIGH RISK ACTIVITIES (HRAs) ACCORDING TO TOWN/ZONES:

HRAs were mainly concentrated in the central/old areas of both Karachi and Rawalpindi and then spreads to various peripheries. Referring to the exact locations of towns/zones in Annex-3, it would be noted in Table 3.2, that in Karachi, the largest numbers of HRAs were in Saddar (13.3%), followed by Baldia (13.0%) and then Lyari (10.1%).

In Rawalpindi, the largest number (25%) of HRAs were found in zone E (areas on east side of Murree road starting from Rawalpindi General Hospital stretching to Sadiqabad, Shamasabad and Faizabad and then in east up to Shaheen town). Zone I (starting from Saddar area and going up to 501 Workshop) accounted for 19% of HRAs. Zone C (comprising of Ganj Mandi, Raja Bazaar, Landa Bazar, Gordon College and going up to Banni) has the third largest number of HRA (15.0%) (Table 3.3.) Refer to HASP for further details and graphic representation on distribution of HRAs and HRGs.

TABLE 3.2. Estimates of HRAs according to Towns, in Karachi

Town	Min HRA	Max HRA	Ave HRA	Contribution to overall HRA in KHI
Aurangi	1,349	1,684	1,517	4.0%
Baldia Town	4,404	5,530	4,967	13.0%
Bin Qasim	2,357	3,015	2,686	7.0%
DHA	2,280	2,901	2,590	6.8%
Gadap	368	469	418	1.1%
Gulberg	532	694	613	1.6%
Gulshan	1,362	1,812	1,587	4.2%
Jamshed	2,661	3,362	3,011	7.9%
Keamari	984	1,278	1,131	3.0%
Korangi	555	715	635	1.7%
Landhi	881	1,187	1,034	2.7%
Liaqatabad	1,435	1,812	1,623	4.3%
Lyari	3,392	4,341	3,866	10.1%
Malir	652	836	744	2.0%
New Karachi	1,016	1,277	1,146	3.0%
N. Nazimabad	1,144	1,419	1,281	3.4%
Saddar	4,539	5,616	5,078	13.3%
Shah Faisal	1,142	1,410	1,276	3.3%
SITE	2,569	3,215	2,892	7.6%
Total	33,620	42,573	38,097	100.0%

TABLE 3.3. Estimates of HRAs according to zones in Rawalpindi:

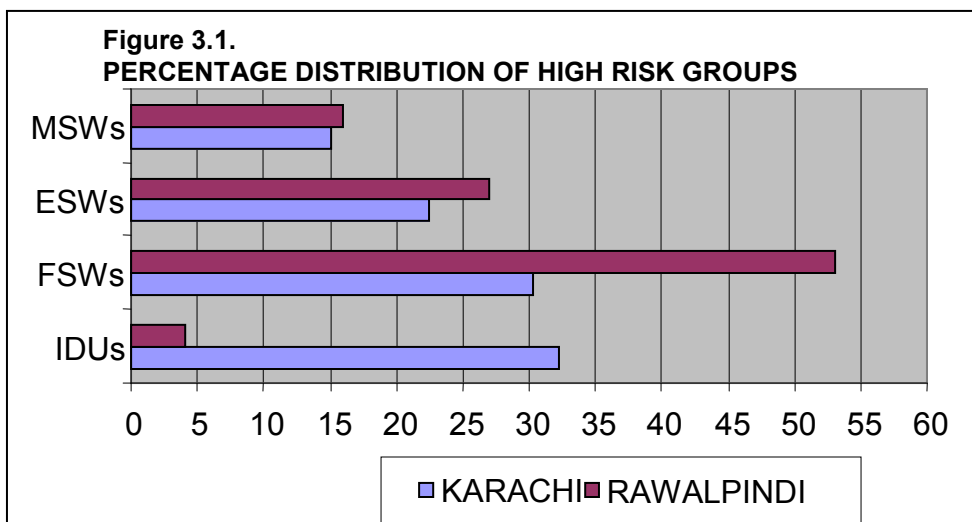
Zones	Min HRA	Max HRA	Ave HRA	Contribution to overall HRA in RWP
A	334	444	389	13%
B	82	117	100	3%
C	367	533	450	15%
D	137	192	165	5%
E	622	867	745	25%
F	194	305	249	8%
G	114	156	135	4%
H	141	207	174	6%
I	438	684	561	19%
J	32	48	40	1%
Total	2,461	3,553	3,009	100.0%

3.1.3. DISTRIBUTION OF HIGH RISK GROUPS (HRGs):

An average of 38,000 individuals were estimated to be in the HRGs in Karachi, which accounts for 0.34% of the total population. In Rawalpindi, being a smaller city, about 2816 were estimated to be HRGs, accounting for 0.021% of the total population (see Table 3.4). As regards proportions of various HRGs, about one third each of IDUs and FSWs comprised the total pie for HRGs in Karachi. However, in Rawalpindi, more than half (53%) of HRGs were FSWs, followed by ESWs (27%); see Figure 3.1.

TABLE 3.4: Distribution of HRGs in two cities

HRG	IDUs	FSWs	ESWs	MSWs	TOTAL
KARACHI					
No. of spots	809	753	712	553	1231
Min.	10,791	10,239	7,626	4,965	33,620
Max.	13,7731	12,853	9,538	6,410	42,573
Average	12,282	11,546	8,582	5,687	38,097
RAWALPINDI					
No. of spots	577	1048	789	402	2816
Min.	96	1293	675	397	2461
Max.	149	1899	946	559	3553
Average	123	1596	811	478	3007



Further analysis was conducted to identify the highest concentrations of HRGs in towns/zones of Karachi and Rawalpindi. Considering the three major HRGs (IDUs, FSWs and ESWs/MSWs), the results for both cities have been deduced. Detailed distribution of HRGs is given in Annex 7.

Table 3.5 shows towns (Lyari) and zones (A, C & E) in both cities having highest concentration (among first 4 ranks) of all the HRGs. In certain towns of Karachi such as Baldia and Lyari, all types of sex related activities (FSWs, MSWs and ESWs) were maximally noted. There also appears to some overlap between concentrations of IDUs and MSWs; higher concentrations were noted in Zone F (of Rawalpindi) and Saddar town (of Karachi).

TABLE 3.5: Distribution of IDUs according to concentrations in towns/zones

HRGs	Karachi Average number n (%)	Rawalpindi Average number n (%)
ALL IDUs	N: 12,282	N: 123
	Saddar 2463 (20.1)	Zone A 36 (29)
	Lyari 1197 (9.7)	Zone C 20 (16)
	SITE 1073 (8.7)	Zone H 17 (13)
	Jamshed 890 (7.2)	Zone E 14 (11)
	Bin Qasim 889 (7.2)	Zone F 14 (11)
ALL FSWs	N: 11,546	N: 1596
	Baldia Town 2130 (18.5)	Zone I 452 (28)
	Lyari 1172 (10.2)	Zone E 431 (27)
	DHA 1148 (9.9)	Zone C 182 (11)
	SITE 1068 (9.2)	Zone A 131 (8)

ALL ESWs	N: 8582		N: 811	
	Baldia Town	1910 (22.3)	Zone E	197 (24)
	Bin Qasim	846 (9.9)	Zone A	157 (19)
	Lyari	763 (8.9)	Zone C	146 (18)
	Jamshed	694 (8.1)	Zone I	73 (9)
ALL MSWs	N: 5687		N: 478	
	Saddar	1340 (23.6)	Zone E	103 (22)
			Zone C	103 (22)
	Lyari	734 (12.9)	Zone F	98 (21)
	Bin Qasim	602 (10.6)	Zone A	65.5 (14)
	Baldai Town	515 (9.1)	Zone I	29 (6)
Jamshed	515 (9.1)			

The two HRGs, i.e. IDUs and FSWs were further sub-classified into a) home based (or Kothi Khana) and b) street-based HRGs. Table 3.6 illustrates the distribution of these two HRGs in Karachi. It could be noted that most of the IDUs in Karachi's top ranking towns were street-based, except in Bin Qasim (42%) and in SITE town (25%). As regards classification of FSWs in Karachi, no particular pattern could be established; Baldia town had maximum FSWs who were home-based, as compared to those in Lyari town who were maximally operating from the streets.

TABLE 3.6: Distribution of IDUs and FSWs in Karachi according to sub-types

HRGs	Towns	Total Average (% of the grand total of all IDUs)	Street based Average (% distribution within town)	Home based Average (% distribution within town)
ALL IDUs	N: 12,282			
	Saddar-	2463 (20.1)	2445 (99.3)	18 (0.7)
	Lyari-	1197 (9.7)	1082 (90.4)	115 (9.6)
	SITE-	1073 (8.7)	803 (74.8)	270 (25.2)
	Jamshed-Bin Qasim	890 (7.2) 889 (7.2)	755 (84.8) 511 (57.5)	135 (15.2) 378 (42.5)
ALL FSWs	N: 11,546			
		Total Average (% of the grand total of all FSWs)	Street based Average (% distribution within town)	Home based/Kothi Khana Average (% distribution within town)
	Baldia Town-	2130 (18.5)	168 (7.9)	1962 (92.1)
	Lyari-	1172 (10.2)	706 (60.0)	467 (40.0)
	DHA-	1148 (9.9)	459 (40.0)	689 (60.0)
SITE-	1068 (9.2)	580 (54.3)	488 (45.7)	

Table 3.7 illustrates distribution of sub-types of IDUs and FSWs in Rawalpindi. Unlike Karachi, the IDUs were distributed both at home and in the streets; only zones C and H had maximum concentration of street based IDUs. As regards distribution of FSWs, it appears that relatively higher percentage are operating from home/kothi khana in all the zones except for Zone C, where majority of FSWs were street based. Further detail of distribution of all the HRGs in all the zones with graphic representations can be sourced from HASP.

TABLE 3.7: Distribution of IDUs and FSWs in Rawalpindi according to sub-types

HRGs	Zone	Total Average (% of grand total of all IDUs)	Street based Average (% distribution within town)	Home based Average (% distribution within town)
ALL IDUs	N: 123			
	Zone A	36 (29)	16 (44.4)	20 (55.6)
	Zone C	20 (16)	19 (95)	1 (05)
	Zone H	17 (13)	16 (94)	1 (06)
	Zone E	14 (11)	NIL	14 (100)
	Zone F	14 (11)	13 (92.9)	1 (7.1)
ALL FSWs	N: 1596			
		Total Average (% of grand total of all the FSWs)	Street based Average (% distribution within town)	Home based/Kothi Khana Average (% distribution within town)
	Zone I	452 (28)	81 (17.9)	371 (82.1)
	Zone E	431 (27)	174 (40.4)	257 (59.6)
	Zone C	182 (11)	134 (73.6)	48 (26.4)
	Zone A	131 (8)	78 (59.5)	53 (40.5)

The next section will describe the behavioral and biological status of the study population which has been analyzed on the basis of data collected by interviewing samples of all the types of HRGs, and by conducting blood tests.

3.2. Determining behavioral and biological status

The behavioral and biological analysis of high risk groups (HRGs) from two cities (Karachi and Rawalpindi) has been conducted by sampling and recruitment of the following number of HRGs. Through out the following section of results, these numbers will be used as denominators as appropriate.

Table 3.8. Frequency distribution of HRGs recruited for the study

HRGs CATEGORY	KARCHI (KHI)	RAWALPINDI (RWP)	TOTAL
Injecting Drug Users (IDUs)	400	200	600
Female Sex workers (FSWs)	400	200	600
Eunuch Sex Workers (ESWs)	200	100	300
Male Sex Workers (MSWs)	200	100	300
TOTAL	1200	600	1800

3.2.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF HRGs:

Table 3.9 and 3.10. illustrate socio-demographic characteristics of all the HRGs in two cities. Following key finding could be noted:

- a) All the HRGs were mostly between 20-30 years. However, FSWs and MSWs from KHI were relatively younger (28 and 21 years respectively) as compared to their counterparts (30 and 24 years respectively) from RWP.
- b) More than 40% of all the HRGs were illiterate, especially more than two-thirds of FSWs from RWP. However, ESWs of RWP were relatively more literate (51%) than their counterparts in KHI (44%).
- c) Most of the HRGs belonged to Punjabi ethnic background, though some preponderance of Urdu speaking HRGs was also noted in KHI.
- d) FSWs claimed to be much more frequently married (53-71%) among all the HRGs. Higher frequency of marriage was also noted among all the HRGs of RWP, especially among FSWs (70%) and IDUs (50%).
- e) Between 40-70% of all the HRGs reported to have migrated from other cities; ESWs (66-71%) and IDUs (58-66%) being most significant among all HRGs.
- f) The average monthly income of HRGs ranged from Rs. 4,000 to Rs. 11,000. However, FSWs and ESWs from KHI had higher monthly income (Rs. 12435 and Rs 6000 respectively) than their counterparts (approximately Rs 5000 in both groups) from RWP.
- g) More than half (55%) of IDUs were living with their families in Rawalpindi as compared to only one third (31%) of IDUs from KHI.

Table 3.9 Socio-demographic characteristics of HRGs from KARACHI:

Socio-demographic characteristics ((N)	IDUs N=400 (370 street-based & 28 home-based)	FSWs N=400 (140 Kothi Khana, 60 brothel & 206 Street based)	ESWs N=199	MSWs N=199
AGE: Mean (S.D.) Median	32 (8.01) 31 years	27.9 (4.8) 28.0 years	25.8 (4.8) 25 years	22.2 (4.9) 21 years
Educational status: Illiterate Primary Secondary	53 % 26.1% 17.3%	48% 29% 18%	55.8% 27.6% 14.1%	42.7% 33.7 23.1
Ethnic background*: Ranking 1 Ranking 2 Ranking 3	Urdu (41.0%) Punjabi (21.4%) Pushto (14 %)	Punjabi (45.6%) Urdu (35.8%) Bengali (3.5%)	Urdu (39.7%) Punjabi (31.2%) Sindhi (7.0%)	Urdu (32.7%) Punjabi (27.1%) Pushto (12.1%)
Marital status: Married Unmarried	28.1% 63.8%	52.8% 30.3%	7.5% 83.9%	10.6% 80.9%
Migration: % migrated to the study city	57.7%	49.4%	71.7%	56.4%
Monthly income: (in Pak Rupees) Mean (S.D.) Median	4362 (2776) 4000	11542 (2435) 10,000	9145 (8007) 9000	5907 (4615) 4500
Residence: Living with family In street/road??? Alone	31.1 31.1 (with friend) 22.7%			
Profession: Ranking 1 Ranking 2 Ranking 3	Laborer (17.5%) Janitor (9.5%) Beggars/thief/ car washer (6.9 %)			

*higher ranking with most frequent answers

Table 3.10 Socio-demographic characteristics of HRGs from RAWALPINDI:

Socio-demographic characteristics ((N)	IDUs N=200 (180 street-based & 20 home-based)	FSWs N=203 (120 Kothi Khana & 83 Street)	ESWs N=101	MSWs N=101
AGE:				
Mean (S.D.)	34 (8.6)	30.6 (8.0)	25.8 (5.9)	24.4 (6.8)
Median	33 years	30 years	25 years	23.5 years
Educational status:				
Illiterate	42.9%	67%	49%	49%
Primary	22.4%	14%	20.8%	23.8%
Secondary	31.1%	19%	26.7%	36.6%
Ethnic background*:				
Ranking 1	Punjabi (61.1%)	Punjabi (91.6%)	Punjabi (78.2%)	Punjabi (54.5%)
Ranking 2	Pushto (28.1%)	Urdu (5.4%)	Pushto (8.9%)	Pushto (22.8%)
Ranking 3	Urdu (9.2%)	Pushto (2.0%)	Urdu (5.9%)	Urdu (5.9%)
Marital status:				
Married	52.8%	71.4%	7.9%	23.8%
Unmarried	46.7%	10.3%	90.1%	90.1%
Migration:				
% migrated to the study city	65.5%	42.4%	66.0%	61.2%
Monthly income: (in Pak Rupees)				
Mean (S.D.)	4232 (2517)	8662 (8200)	6450 (2566)	6072 (4119)
Median	3550	6000	6000	6000
Residence:				
Living with family	55%			
In street/road	20%			
Alone	16%			
Profession:				
Ranking 1	Laborer (22.5%)			
Ranking 2	Driver (15.5%)			
Ranking 3	Beggar/thief (11.5%)			

*higher ranking with most frequent answers

3.2.2. KNOWLEDGE ABOUT HIV/AIDS AND STI:

The knowledge of HRGs regarding HIV/AIDS and STI has been described separately.

a) Knowledge about HIV/AIDS:

Figures 3.2. and 3.3. and Tables 3.11 and 3.12 share the knowledge status of HRGs from both cities. Following are some of the key findings from those tables.

- About two-thirds to four-fifths of all the HRGs had heard about HIV/AIDS.
- The two most commonly reported causes of spread of HIV/AIDS among HRGs were (i) sexual intercourse and (ii) sharing of syringes. However, “blood transfusion” was also reported more frequently (30-68%) by HRGs of KHI. Also reported were “eating with patients” and “keeping oneself dirty” as some of common causes for spread of HIV/AIDS, more so by HRGs of RWP.
- As regards protection from HIV, all the HRGs mostly felt that it can be done by “using condoms” and “abstaining sex”. However, “using clean syringes” was reported mainly by IDUs, as one of the ways of protection from HIV. It were the ESWs and MSWs from both the cities who felt that “staying away from patient” would protect one from HIV.
- An average of only one-fifth of all the HRGs felt that they are at risk of HIV/AIDS. Similarly only 10% knew about any HIV testing centre and only 5-15% of HRGs reported as ever being tested for HIV.

Figure 3.2.

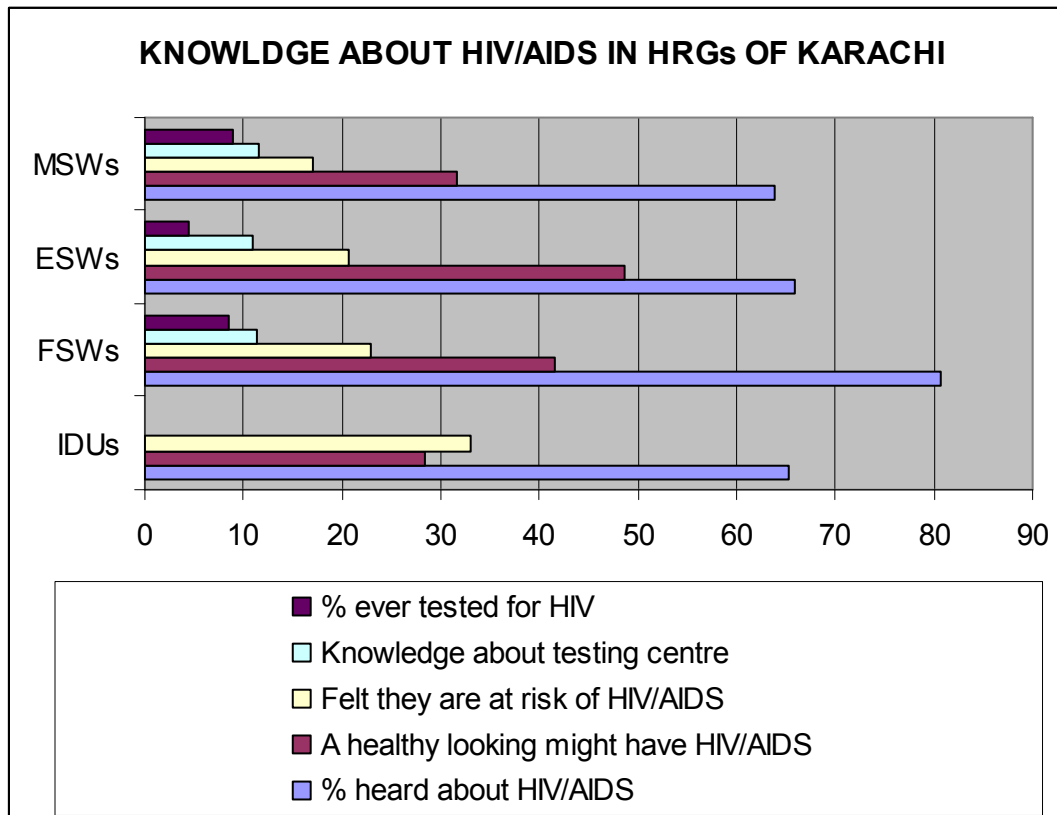


Table 3.11. Knowledge about HIV/AIDS---KARACHI

KNOWLEDGE CATEGORY/ HRGs	IDUs	FSWs	ESWs	MSWs
HIV can be spread by				
<i>Sexual intercourse</i>	41.0	63.8	51.3	45.2
<i>Sharing syringes</i>	46.0	57.0	62.8	59.2
<i>Blood transfusion</i>	30.3	68.3	51.8	54.3
<i>Mother to child</i>	16.5	68.5	3.5	2.0
<i>Kissing/hugging</i>	4.8	3.3	5.0	2.0
<i>Eating with patient</i>	10.0	5.3	7.5	1.5
<i>Un-cleanliness/ keeping oneself dirty</i>	13.5	5.0	16.6	4.5
HIV can be protected by:				
<i>Using condom</i>	29.8	45.3	44.8	31.2
<i>Abstaining sex</i>	8.3	31.5	55.2	45.7
<i>Staying away from patient</i>	8.8	5.5	80.0	62.3
<i>Using clean syringes</i>	31.0	14.3	78.4	57.3
<i>Avoiding blood transfusion</i>	38.0	nil	Nil	nil

Figure 3.3.

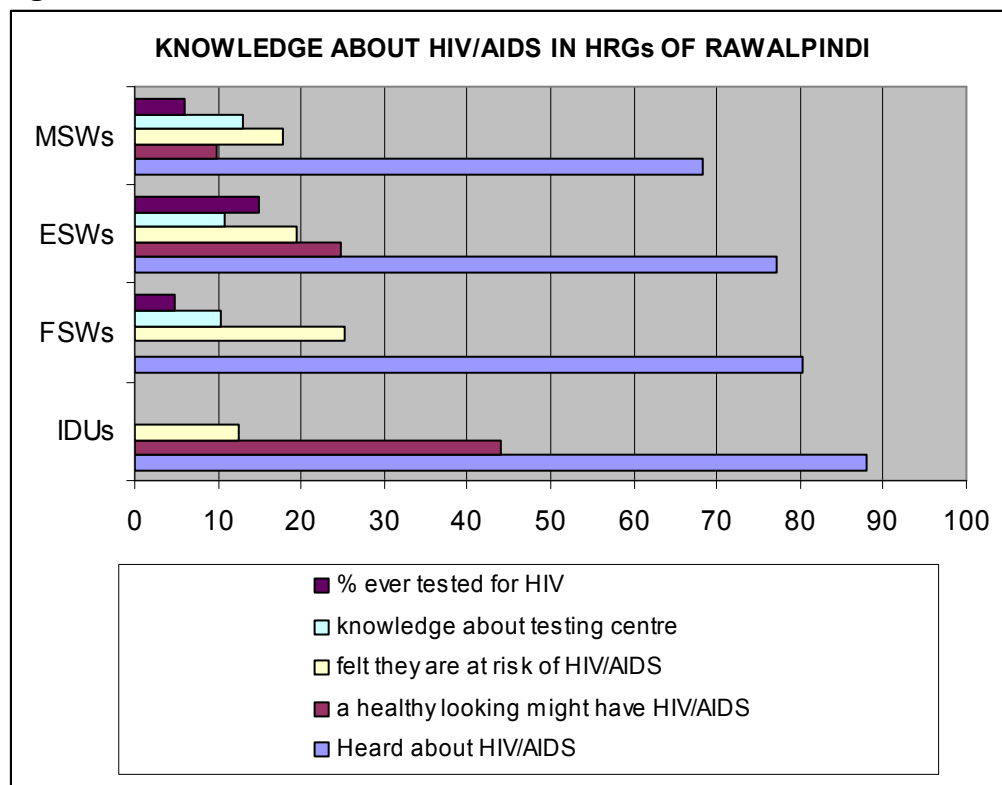


Table 3.12. Knowledge about HIV/AIDS ----RAWALPINDI

KNOWLEDGE CATEGORY/ HRGs	IDUs	FSWs	ESWs	MSWs
HIV can be spread by				
<i>Sexual intercourse</i>	42	68.6	28.7	17.5
<i>Sharing syringes</i>	53	11.5	27.7	17.8
<i>Blood transfusion</i>	12.0	12.8	23.8	11.9
<i>Mother to child</i>	3.5	4.5	8.9	8.9
<i>Kissing/hugging</i>	4.0	1.3	2.0	2.0
<i>Eating with patient</i>	34.5	5.1	14.9	23.8
<i>Un-cleanliness/ keeping oneself dirty</i>	6.5	7.7	10.9	13.9
HIV can be protected by:				
<i>Using condom</i>	20.5	15.4	24.0	11.9
<i>Abstaining sex</i>	34.0	57.7	10.7	8.9
<i>Staying away from patient</i>	28.5	4.7	30.7	24.8
<i>Using clean syringes</i>	39.0	6.7	9.3	14.9
<i>Avoiding blood transfusion</i>	nil	Nil	nil	nil

A detailed analysis regarding knowledge of sub-types of FSWs (Kothi Khana, Brothel – based and Street based) is illustrated in Table 3.13.

- a) It was noted that all the sub-types of FSWs from both cities had more or less same level of knowledge (“sexual intercourse”) leading to spread of HIV; however, all the sub types of FSWs from KHI were more frequently aware of other causes such as sharing of syringes (54-64%), blood transfusion (65-75%) and mother to child transmission (65-77%) than their counterparts from RWP (8-18%, 11-16% and 1-10% respectively).
- b) Regarding protection of HIV from “abstaining sex” was more commonly reported (48-65%) by all sub-types of FSWs of RWP. In contrast, all the sub-types of FSWs from KHI thought more frequently (39-68%) that “using condom” would give protection against HIV.
- c) Kothi Khana and Brothel based FSWs were relatively more frequently (6-19%) tested for HIV than the street based FSWs (only 3-5%).

**Table 3.13. COMPARISON OF KNOWLEDGE ABOUT HIV/AIDS, AMONG SUB-TYPES OF FSWs
BETWEEN KARACHI AND RAWALPINDI**

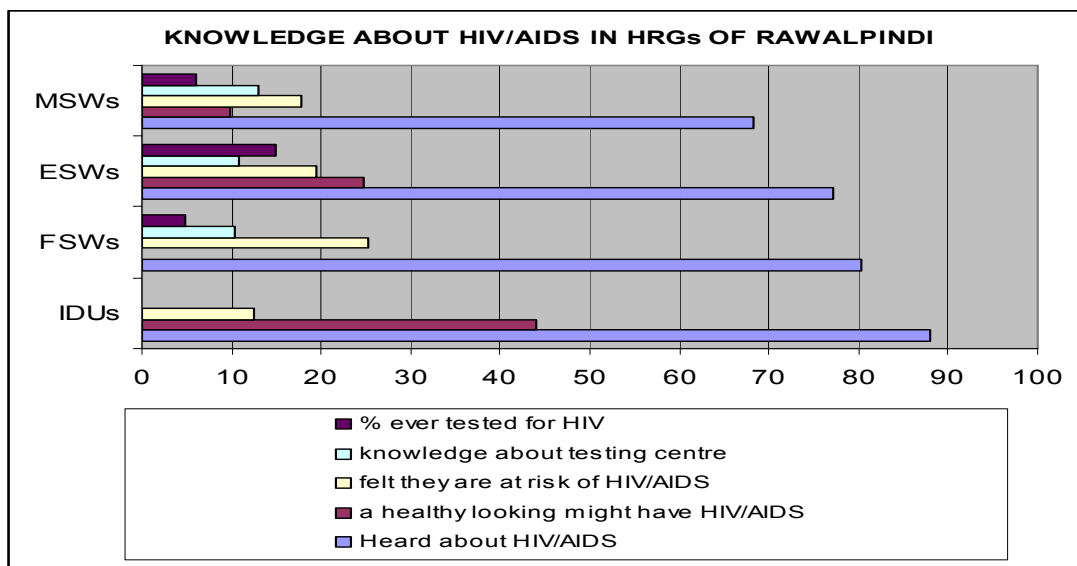
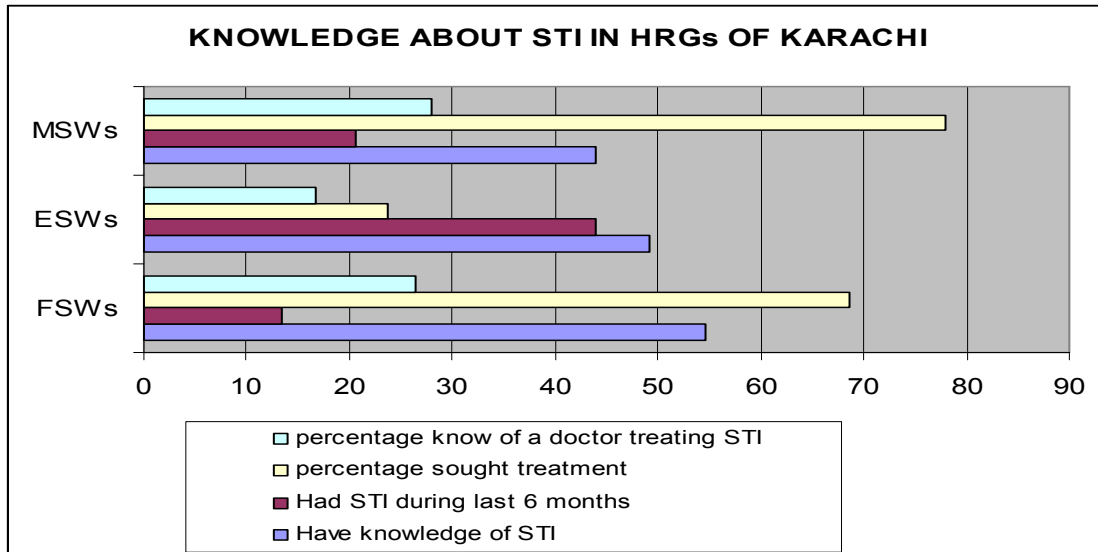
KNOWLEDGE CATEGORY/ HRGs	FSWs--KARACHI				FSWs--RAWALPINDI		
	Kothi khana	Brothel- based	Street- based	TOTAL	Kothi khana	Street- based	TOTAL
% heard about HIV/AIDS	79.7	91.5	78.1	80.7	82.5	77.0	80.3
% thought a healthy looking person be carrying HIV/AIDS	44.9	45.8	39.3	41.5	26.3	21.9	24.5
HIV can be spread by							
<i>Sexual intercourse</i>	65.9	74.6	61.2	63.8	71.0	65.1	68.6
<i>Sharing syringes</i>	63.8	57.6	54.1	57.0	7.5	17.5	11.5
<i>Blood transfusion</i>	75.4	71.2	64.8	68.3	10.8	15.9	12.8
<i>Mother to child</i>	76.8	67.8	65.3	68.5	1.1	9.5	4.5
<i>Kissing/hugging</i>	0.7	10.2	3.1	3.3	1.1	1.5	1.3
<i>Eating with patient</i>	4.3	3.4	6.6	5.3	4.3	6.3	5.1
<i>Un-cleanliness/ keeping oneself dirty</i>	1.4	5.1	7.7	5.0	5.4	11.1	7.7
HIV can be protected by:							
<i>Using condom</i>	38.9	67.8	44.4	45.3	11.1	22.0	15.4
<i>Abstaining sex</i>	41.0	18.6	29.6	31.5	64.4	47.5	57.7
<i>Staying away from patient</i>	4.3	8.5	5.6	5.5	3.3	6.8	4.7
<i>Using clean syringes</i>	12.2	18.6	14.8	14.3	4.4	10.2	6.7
<i>Avoiding blood transfusion</i>	nil	nil	nil	nil	Nil	Nil	Nil
% felt that they are at risk of HIV/AIDS?	20.2	32.2	23.0	23.0	32.3	14.1	25.2
% having knowledge about HIV testing centre	7.9	32.2	7.7	11.3	10.1	10.9	10.4
% ever tested for HIV	12.2	18.6	3.1	8.5	6.1	3.1	4.9

c) Knowledge about STI:

Figures 3.4 and 3.5 share findings regarding knowledge about STI among the HRGs of Karachi (KHI) and Rawalpindi (RWP). Following is a summary of key findings.

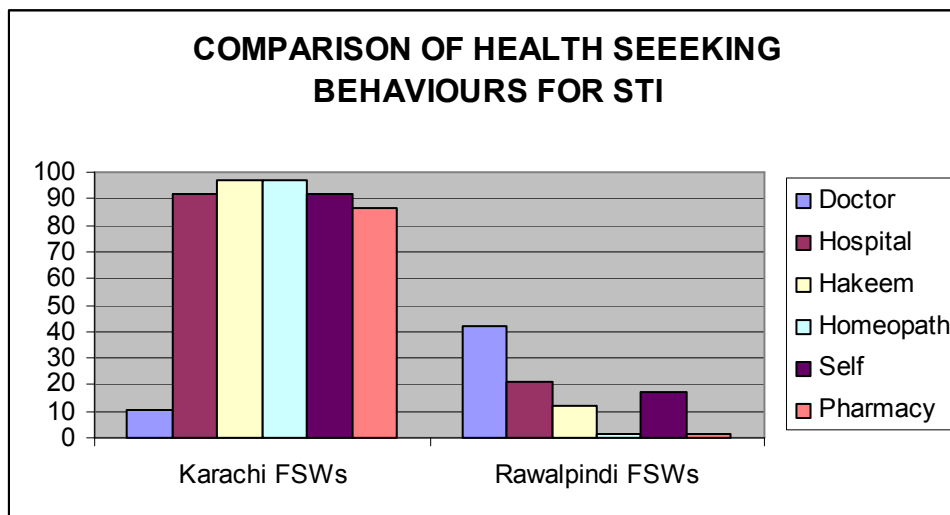
- About half of all the HRGs reported having some knowledge about STIs (sexually transmitted infections); higher frequency (48-66%) was noted among the HRGs of RWP as compared to those among KHI (44-55%).
- About 15-45% of all HRGs from both the cities reported as having a STI in the past six months. Except for ESWs from KHI (24%) more than two-thirds had sought treatment for their STI.

Figures 3.4 and 3.5.



- c. The treatment seeking behavior of FSWs and their sub-types (see Figure 3.6 and Table 3.14.) revealed that in KHI, the doctor was not as frequently visited (only 11%), as by all sub-types of FSWs of RWP (42%). This care seeking behavior from the doctor was noted in the context of the fact that all FSWs from both cities had more or less same knowledge about availability of a doctor in their area that would treat STI (26% in KHI and 20% in RWP).
- d. The treatment seeking behavior of FSWs from KHI was further explored. It was noted that all sub-types of FSWs from KHI more frequently visited (87-100%) hospital, hakeem, homeopath and/or pharmacy. Self treatment by these FSWs from KHI was also more frequently (90-93%) observed than their counterparts from RWP (17-18%) (see Table 3.14)

Figure 3.6



**Table 3.14 COMPARISON OF KNOWLEDGE ABOUT STI, AMONG SUB-TYPES OF FSWs
BETWEEN KARACHI AND RAWALPINDI**

KNOWLEDGE CATEGORY/ HRGs	FSWs--KARACHI					FSWs--RAWALPINDI		
	Kothi khana	Brothel- based	Street- based	TOTAL		Kothi khana	Street- based	TOTAL
% having knowledge about STI	49.6	84.7	48.6	54.7		75.0	51.8	65.5
% who had a STI during last 6 months	9.9	29.3	10.9	13.4		37.5	28.9	34.0
% sought treatment	91.7	52.6	70.0	68.6		87.0	77.8	83.6
% treated by/at								
Doctor	8.3	NIL	20.0	10.8		42.9	40.9	42.1
Hospital	91.7	100	86.7	91.9		20.0	22.7	21.1
Hakeem	100.0	100	93.3	97.3		14.3	9.1	12.3
Homeopath	100.0	100	93.3	97.3		2.9	Nil	1.8
Self	91.7	90.0	93.3	91.9		17.1	18.2	17.5
Pharmacy	100.0	70.0	86.7	86.5		Nil	4.5	1.8
% having knowledge of a doctor in the area who treats STI	13.3	50.9	28.6	26.4		18.5	22.9	20.3

3.2.3. INFORMATION ABOUT SEX WORK AND CONDOMS:

(FROM HRGs INVOLVED IN RELATED ACTIVITIES)

This information was collected from all the sex workers, i.e. FSWs, ESWs and MSWs from both cities. Following is a summary analysis of results illustrated in Tables 3.15 and 3.16.

- a. The average age of commencement of sexual act in ESWs and MSWs was about 14 years, as compared to 17 years among the FSWs (in KHI and RWP).
- b. The FSWs from both the cities reported being involved in sex work for last 1-5 years; whereas the ESWs and MSWs had been in sex work for more than 5 years.
- c. As regards sources of clients, ESWs and MSWs more frequently used either telephone or pick up points for sourcing the clients from both cities. However FSWs from KHI (54%) were sourcing clients through pimp/aunty, as compared to the FSWs from RWP who were mainly sourcing it through older clients.
- d. More than 80% of FSWs from KHI were in full time sex work as compared to only 44% of FSWs from RWP.
- e. A maximum of 10% of sex workers had a condom at the time of interview.
- f. Pharmacy and shops were more commonly reported (30-76%) as possible sources for accessing condoms by sex workers of RWP. In contrast, place of sex work, friend, pimp/aunty and/or health centre were more frequently cited (86-98%) sources for accessing condoms by sex workers of KHI.
- g. One third to two thirds of all sex workers thought that condoms were easily available when required. However, ESWs and MSWs (from both cities) more frequently (24-46%) thought that there was no need to have condoms, as compared to only 14% of FSWs.

Table 3.17 illustrates further analysis of sex work and information/use of condoms among sub-types of FSWs from both cities.

- a. In KHI, Kothi Khana and Brothel based FSWs started sex relatively earlier (16 years) than street based FSWs (18 years).
- b. The street based FSWs from both cities were engaged in sex work for relatively lesser number of years (1 or 1-5 years) than those of Brothel or Kothi Khana based FSWs (1-5 or more than 5 years).
- c. The street based FSWs were sourcing clients through telephone (51% in KHI) or older clients (91% in RWP). In contrast pimp/aunty had been the main source for kothi Khana and Brothel based FSWs in KHI (86%), and older clients (56%) and pimp/aunty (33%) in RWP.
- d. All the sub-types of FSWs from KHI more frequently (72-98%) felt that condoms were easily available (when required) as compared to relatively lower percentage (50-58%) of FSWs from RWP.
- e. Almost 80% of all the sub-types of FSWs from KHI were in full time sex work as compared to about 40% of their counterpart in RWP.

Table 3.15 INFORMATION ABOUT SEX WORK AND CONDOMS: KARACHI

INFORMATION CATEGORY/ HRGs INVOLVED IN SEX RELATED WORK	FSWs (%)	ESWs (%)	MSWs (%)
Age at first sex			
Mean (S.D.) years	17.7 (4.7)	13.6 (3.4)	13.8 (3.9)
Median years	17	14	14
Years into the sex work			
Less than a year	9.4	1.0	3.5
1 to 5 years	50.9	13.3	40.2
More than 5 years	39.7	85.8	56.3
Main source/s of client			
Pimp/aunty/Guru	54.1	7.0	5.1
Telephone/ pick up point (for ESW/MSW)	26.9	63.6	84.8
Old client	16.6	18.6	9.6
Others	2.4	10.9	0.6
% in full time sex work	82.6	?	?
% having condom at the time of interview	10.3	6.5	1.0
Condom sources:			
Pharmacy	57.0	55.3	51.8
Health centre	97.3	95.0	99.0
Place of sex work	99.5	99.5	99.5
Friend/peer	88.4	86.4	96.5
Pimp/aunty/Guru	97.0	99.5	99.5
NGOs	87.9	nil	95.5
shop	nil	nil	nil
Condoms are easily available when required			
Yes	75.8	35.2	56.8
No	4.1	3.5	3.5
No need	13.9	46.2	24.1

**TABLE 3.16. INFORMATION ABOUT SEX WORK AND CONDOMS:
RAWALPINDI**

INFORMATION CATEGORY/ HRGs INVOLVED IN SEX RELATED WORK	FSWs (%)	ESWs (%)	MSWs (%)
Age at first sex			
Mean (S.D.) years	17.1 (2.5)	13.9 (2.2)	14.7 (2.2)
Median years	17	14	14
Years into the sex work			
Less than a year	1.5	Nil	nil
1 to 5 years	79.8	24.8	38.6
More than 5 years	13.8	75.3	57.4
Main source/s of client			
Pimp/aunty/Guru	18.8	24.8	8.9
Telephone/ pick up point (for ESW/MSW)	3.8	79.2	89.1
Old client	59.4	5.0	10.9
Others	36.9	nil	nil
% in full time sex work	43.8	?	?
% having condom at the time of interview	4.4	5.0	2.0
Condom sources:			
Pharmacy	50.0	51.5	34.7
Health centre	1.8	6.9	7.9
Place of sex work	Nil	Nil	4.0
Friend/peer	29.1	1.0	4.0
Pimp/aunty/Guru	3.6	1.0	4.0
NGOs	nil	15.8	8.9
shop	30.0	89.1	76.2
Condoms are easily available when required			
Yes	54.7	54.5	36.6
No	0.5	1.0	1.0
No need	13.9	35.6	57.4

**TABLE 3.17 COMPARISON OF INFORMATION ABOUT SEX WORK AND CONDOMS,
AMONG SUB-TYPES OF FSWs BETWEEN KARACHI AND RAWALPINDI:**

INFORMATION CATEGORY/ HRGs INVOLVED IN SEX RELATED WORK	FSWs--KARACHI				FSWs--RAWALPINDI		
	Kothi khana	Brothel-based	Street-based	TOTAL	Kothi khana	Street-based	TOTAL
Age at first sex							
Mean (S.D.) years	16.6 (2.7)	15.5 (1.9)	19.4 (5.7)	17.7 (4.7)	17.0 (2.5)	17.1 (2.5)	17.1 (2.5)
Median years	16	16	18	17	17	17	17
Years into the sex work							
Less than a year	8.7	Nil	12.8	9.4	0.8	2.4	1.5
1 to 5 years	60.9	8.6	56.7	50.9	81.7	77.1	79.8
More than 5 years	30.4	91.4	30.5	39.7	11.7	16.9	13.8
Main source/s of client							
Pimp/aunty/Guru	86.3	86.8	21.7	54.1	32.9	4.9	18.8
Telephone/ pick up point (for ESW/MSW)	3.8	Nil	51.1	26.9	6.3	1.2	3.8
Old client	9.9	9.4	23.4	16.6	26.6	91.4	59.4
Others	nil	3.8	3.8	2.4	55.7	18.5	36.9
% in full time sex work	87.8	86.0	78.0	82.6	44.2	43.4	43.8
% having condom at the time of interview	4.4	30.9	8.6	10.3	3.3	6.0	4.4
Condom sources:							
Pharmacy	53.6	26.7	68.3	57.0	56.5	41.7	50.0
Health centre	97.9	96.7	97.1	97.3	3.2	Nil	1.8
Place of sex work	99.3	100.0	99.5	99.5	Nil	Nil	Nil
Friend/peer	98.6	90.0	81.0	88.4	17.7	43.8	29.1
Pimp/aunty/Guru	98.6	98.3	95.6	97.0	6.5	nil	3.6
NGOs	99.3	23.3	99.0	87.9	Nil	nil	nil
shop	nil	nil	nil	nil	25.8	35.4	30.0
Condoms are easily available when required							
Yes	72.0	98.1	72.0	75.8	58.3	49.4	54.7
No	3.0	Nil	6.0	4.1	Nil	1.2	0.5
No need	16.7	nil	15.9	13.9	17.5	8.6	13.9

3.2.4. SEXUAL BEHAVIORS:

Sexual behaviors of HRGs mainly involved in related activities were studied among the two distinct groups, i.e. those who had sex with “paid clients” and “non-paid clients”. This was done to identify any differences and/or similarities among the HRGs.

a) Sexual behaviors of HRGs with “paid clients”

The sexual behavior was studied for the month preceding the data collection, also emphasizing the use of condoms on last sex. Table 3.18 shares results of sexual behaviors in both cities. Following are some of the key findings:

- a. The HRGs involved in sex work from KHI had relatively higher range of clients (35-48% having more than 20 clients in last month) as compared to those in RWP (7-35% having more than 20 clients).
- b. The ESWs and MSWs more frequently (48-80%) “never used” condoms during last month as compared to FSWs (19-26%). However frequency of FSWs claiming to have “always used condoms” from both cities was only 17-18%.
- c. Almost 86% of FSWs from RWP were not involved in anal sex; however most of the FSWs from KHI, had anal sex, almost half of them having more than 6 clients.
- d. The HRGs from RWP were also not involved mainly in oral sex (49-92%), as compared to HRGs from KHI; among them more than half of FSWs had more than 6 clients during last month.
- e. It was noted that 37% (KHI) to 49% (from RWP) of FSWs had used condoms during last sex (for vaginal sex).
- f. The ESWs from KHI had more frequently (27%) used a condom for anal sex as compared to ESWs from RWP (only 6%).
- g. Use of condoms for oral sex was relatively low among all the HRGs, except among FSWs of KHI; 25% of them had used it.

Sexual behavior with “paid clients was further studied among various sub-types of FSWs. Following are key findings as illustrated in Table 3.19.

- a. The Brothel based FSWs of KHI (90%) and Street based FSWs of RWP (80%) had relatively higher number of clients (more than 10 during last month).
- b. 21% of Brothel based FSWs from RWP, while 30% of Kothi Khana and 26% of Street based FSWs from KHI had “never used” condom during last month.
- c. As mentioned earlier, FSWs of KHI were more frequently involved in anal sex; among them Brothel based had relatively more clients (85% having more than 6 clients) than Kothi Khana or Street based FSWs (60-65% having up to 5 clients).
- d. Higher number of clients for oral sex was commonly reported among Brothel/Kothi Khana FSWs (33-63% having more than 6 clients) as compared to Street based FSWs of KHI (60% having up to 5 clients).
- e. Almost 90% of FSWs from RWP were not practicing oral sex; among the ones who were having oral sex, street based had relatively more clients.
- f. In KHI, Brothel based FSWs were more commonly (51%) using condoms as compared to Kothi Khana (27%), during vaginal sex. However, the Kothi Khana based FSWs were more frequently using condoms in case of anal sex (36%) and oral sex (78%) than their sub-types (only 11-23%). In RWP frequent use of condoms was noted mainly for vaginal sex (53% in Kothi Khana and 43% in Street based).

Table 3.18. SEXUAL BEHAVIORS OF HRGs WITH “PAID CLIENTS” IN KARACHI AND RAWALPINDI

BEHAVIOR CATEGORIES/TYPES OF HRGS INVOLVED MAINLY IN SEX WORK	HRGs OF KARACHI			HRGs OF RAWALPINDI		
	FSWs (%)	ESWs (%)	MSWs (%)	FSWs (%)	ESWs (%)	MSWs (%)
Number of clients last month						
Up to 10	32.5	34.3	18.1	29.5	24.8	41.6
11-20	33.0	30.3	28.6	45.0	46.5	42.6
21-30	15.5	22.3	20.6	13.0	17.8	4.0
31 & more	19.1	13.2	28.2	12.5	4.0	3.0
Use of a condom last month						
Always	18.1	7.6	9.1	16.7	4.0	3.0
Sometimes	55.6	44.1	36.4	64.0	16.8	7.9
never	26.4	48.2	54.5	18.7	75.2	80.2
Anal sex last month with clients <u>Karachi/Rawalpindi</u>						
1-5/1	50.0			8.4		
6-10/2	35.0			3.4		
11 and more/3 and more	15.0			2.5		
none				85.7		
Oral sex last month with clients <u>Karachi/Rawalpindi</u>						
1-5/1	59.8	22.4	20.6	5.9	6.9	9.9
6-10/2	19.7	28.5	13.9	1.0	7.9	16.8
11 and more/3 and more	20.5	17.6	11.9	1.5	14.9	15.8
none		31.5	53.6	91.6	64.4	48.5
Used a condom on last sex						
Vaginal sex (only FSWs)	36.7			49.3		
Anal sex	17.0	26.8	30.8	17.2	5.9	3.3
Oral sex	25.0	4.5	7.2	nil	2.9	4.7

Table 3.19. COMPARISON OF SEXUAL BEHAVIORS WITH “PAID CLIENTS”, AMONG SUB-TYPES OF FSWs BETWEEN KARACHI AND RAWALPINDI:

Behavior categories/ types of HRGs involved mainly in sex work	FSWs--KARACHI				FSWs--RAWALPINDI			
	Kothi khana (%)	Brothel-based (%)	Street-based (%)	TOTAL (%)	Kothi khana (%)	Street-based (%)	TOTAL (%)	
Number of clients last month								
Up to 10	41.6	10.9	32.1	32.5	35.6	20.6	29.5	
11-20	24.1	32.7	39.3	33.0	39.0	53.7	45.0	
21-30	11.7	27.3	14.8	15.5	11.9	14.6	13.0	
31 & more	22.7	29.1	13.7	19.1	13.6	11.0	12.5	
Use of a condom last month								
Always	19.0	8.9	19.9	18.1	18.3	14.5	16.7	
Sometimes	51.1	73.2	53.7	55.6	60.0	69.9	64.0	
never	29.9	17.9	26.4	26.4	20.8	15.7	18.7	
Anal sex last month with clients								
<u>Karachi/Rawalpindi</u>								
1-5/1	64.4	14.3	59.4	50.0	10.8	4.8	8.4	
6-10/2	21.4	64.3	28.1	35.0	3.3	3.6	3.4	
11 and more/3 and more	14.3	21.4	12.5	15.0	1.7	3.6	2.5	
none					84.2	88.0	85.7	
Oral sex last month with clients								
<u>Karachi/Rawalpindi</u>								
1-5/1	36.6	66.7	72.2	59.8	5.0	7.2	5.9	
6-10/2	31.7	33.3	11.1	19.7	1.7	0.0	1.0	
11 and more/3 and more	31.8	nil	16.7	20.5	0.0	3.6	1.5	
none					93.3	89.2	91.6	
Used a condom on last sex								
Vaginal sex (only FSWs)	27	51.1	40.1	36.7	53.3	43.4	49.3	
Anal sex	36	nil	17.9	17.0	10.5	30.3	17.2	
Oral sex	77.8	10.9	23.2	25.0	nil	nil	nil	

b) Sexual behaviors of the HRGs with “non-paid clients”

Table 3.20. illustrates finding of sexual behavior of HRGs with non-paid clients. Following is the summary of findings.

- a) Almost one third of all the HRGs from both cities (except FSWs) had no “non-paid” clients. The number was relatively lower (varying from 1-5clients), among those who had, as compared to having “paid clients.
- b) It was noted that 51-74% of HRGs had “never used” a condom during last month with their non-paid clients during last month.
- c) Anal sex with non-paid clients was practiced by only 6% of FSWs from KHI, however 68% had oral sex, majority had only one non-paid client.
- d) Most (93-96%) of the FSWs from RWP did not have either oral or anal sex.
- e) As regards oral sex by other HRGs, 60% of ESWs and 54% of MSWs from KHI, and 33% of ESWs from RWP had oral sex during last month.
- f) Only 13 and 22% of FSWs from RWP and KHI respectively, had used condoms with their non-paid clients for vaginal sex.
- g) Use of condoms for anal sex among ESWs/MSWs was much more frequent among non-paid client of KHI (13-19%) than those in RWP (2.0-5.0%).
- h) For oral sex about 5% of HRGS from KHI were using condoms as compared to only 1.0% from RWP.

Sexual behavior with “non-paid clients was further studied among various sub-types of FSWs. Following are key findings as illustrated in Table 3.21:

- a) All the sub-types of FSWs from KHI had few non-paid client/s; 41% of Kothi Khana and 59% of street based FSWs from RWP did not have any non-paid clients.
- b) Among all the sub-types of FSWs from KHI, street based were having more non-paid clients (53% having more than 2 clients in previous month).
- c) Almost 58-75% of sub-types of FSWs had never used a condom with their non-paid clients, except for the Brothel-based FSWs of KHI; 58% of them claimed to have used condoms.
- d) About 90% of all the sub-types of FSWs did not have anal sex with their non-paid clients.
- e) Oral sex by all sub-types of FSWs from RWP was also very low (only 7%). In contrast, 60-80% of all sub-types of FSWs (KHI) had oral sex, usually having only one non-paid client; while only 5% of them using a condom for the act.
- f) Use of condoms for vaginal sex by all types of FSWs from RWP was relatively lower (13-15%) as compared to their counterparts from KHI; 22% of Brothel based, 29% street based and 64% kothi khana based FSWs had used condoms during last sex act.

Table 3.20. SEXUAL BEHAVIORS OF HRGs WITH “NON-PAID CLIENTS” IN KARACHI AND RAWALPINDI

BEHAVIOR CATEGORIES/TYPES OF HRGS INVOLVED MAINLY IN SEX WORK	HRGs OF KARACHI			HRGs OF RAWALPINDI		
	FSWs (%)	ESWs (%)	MSWs (%)	FSWs (%)	ESWs (%)	MSWs (%)
Number of clients last month						
None	Nil	33.6	37.2	48.3	34.7	36.6
1	56.8	28.4	5.6	47.3	55.4	34.7
2-4	36.9	31.6	36.7	3.5	9.0	24.1
5 and more	6.2	6.6	20.4	nil	nil	2.0
Use of a condom last month						
Always	19.1	8.2	8.3	4.8	1.0	2.0
Sometimes	28.4	16.3	30.6	20.0	7.9	3.0
never	51.4	73.5	58.7	73.3	55.4	55.4
Anal sex last month with clients						
None	93.8			90.5		
1	6.2			3.8		
2-4	Nil			Nil		
5 and more	Nil			Nil		
Oral sex last month with clients						
None	32.4	40.6	45.9	92.5	65.4	96.0
1	67.6	25.7	12.6	3.8	32.7	Nil
2-4	Nil	28.7	30.0	1.0	3.0	4.0
5 and more	nil	1.0	10.2	nil	Nil	Nil
Used a condom on last sex						
Vaginal sex (only FSWs)	22.2			13.3		
Anal sex	13.3	18.5	12.6	Nil	5.0	2.0
Oral sex	4.9	5.4	4.0	nil	1.0	1.0

Table 3.21. COMPARISON OF SEXUAL BEHAVIORS WITH “NON-PAID CLIENIS”, AMONG SUB-TYPES OF FSWs BETWEEN KARACHI AND RAWALPINDI:

BEHAVIOR CATEGORIES/ TYPES OF HRGS INVOLVED MAINLY IN SEX WORK	FSWs--KARACHI				FSWs--RAWALPINDI		
	Kothi khana (%)	Brothel- based (%)	Street- based (%)	TOTAL (%)	Kothi khana (%)	Street- based (%)	TOTAL (%)
Number of clients last month							
None	Nil	Nil	Nil	Nil	40.8	59.0	48.3
1	65.1	72.0	46.7	56.8	54.2	37.3	47.3
2-4	30.1	27.8	44.3	36.9	2.5	3.6	3.5
5 and more	4.8	nil	9.0	6.2	0.8	0.0	nil
Use of a condom last month							
Always	12.0	58.1	10.8	19.1	5.6	2.9	4.8
Sometimes	22.0	32.3	30.4	28.4	18.3	23.5	20.0
never	64.0	9.7	57.8	51.4	74.6	70.6	73.3
Anal sex last month with clients							
None	97.6		89.4	93.8	90.1	91.2	90.5
1	2.4	Nil	10.6	6.2	4.2	2.9	3.8
2-4	nil	Nil	Nil	Nil	1.4	0.0	Nil
5 and more		nil	nil	Nil			Nil
Oral sex last month with clients							
None	18.1	33.3	42	32.4	93.2	91.2	92.5
1	81.9	66.6	58	67.6	4.2	2.9	3.8
2-4	nil	nil	nil	Nil	nil	2.9	1.0
5 and more				nil			nil
Used a condom on last sex							
Vaginal sex (only FSWs)	64.3	21.7	29.1	22.2	12.7	14.7	13.3
Anal sex	Nil	Nil	15.3	13.3	Nil	Nil	Nil
Oral sex	2.1	4.1	7.0	4.9	nil	nil	nil

3.2.4.5 INJECTING BEHAVIORS:

The injecting behavior was observed mainly among injecting drug users (IDUs) from both cities. Table 3.22 illustrates results related to this behavior during “last month” and with the “last injection”. Following is the summary of findings.

- a) The IDUs from both KHI and RWP had been injecting drugs for almost three years, with an average of two injections per day.
- b) During last month, there were relatively more (57%) IDUs from RWP who reported using a new syringe as compared to IDUs from KHI (43%).
- c) Majority (80%) of IDUs from RWP had never used services of a professional injector. In contrast, about 29% of IDUs from KHI always preferred to do so.
- d) The IDUs from KHI reported having used all types of drugs including Heroin (by 42% of IDUs); while IDUs of RWP were mostly using Avil (56%) followed by Heroin (26%).
- e) Most of the IDUs (79% from KHI and 89% from RWP) had their last injection in park/street and was done usually with a friend (72% in KHI and 56% in RWP). However, more than one thirds (36%) of IDUs from RWP had injected themselves, alone.
- f) Majority of IDUs (more than 80%) claimed that they had used a new syringe for their last injection.
- g) For cleaning of injection, mostly dettol (94%), paper (87%) and cloth (74%) was used by IDUs of KHI. Where as, water (100%), cloth (54%) and blowing/sucking techniques (23%) were used by IDUs of RWP.
- h) Majority of IDUs from RWP (74%), had used other supportive equipments, as compared to only 26% of IDUs from KHI.
- i) As regards sharing of injections (for the last shot), it was noted that IDUs from RWP had more risky behaviors. Thus 82% of them had used a syringe after been used by someone else, as compared to only 23% of IDUs from KHI.
- j) However, 25-30% (from RWP and KHI respectively) had also passed the syringe to someone else after using it.

Table 3.22 INJECTING BEHAVIORS AMONG IDUs OF KARACHI AND RAWALPINDI

<i>Behavior category/IDUs from cities</i>	KARACHI (%)	RAWALPINDI (%)
Average years since injecting the drugs		
Mean (SD) years	4.6 (3.5)	4.23 (3.4)
Median years	3	3
DURING LAST MONTH		
Average number of injections per day		
Mean (SD)	2.2 (0.5)	2.3 (0.5)
Used a new syringe		
Always	42.6	57.3
Mostly	39.8	20.0
Sometimes	14.8	13.6
Never	2.6	1.5
Used services of a professional injector		
Always	28.9	1.0
Mostly	26.4	2.5
Sometimes	22.1	9.5
Never	22.6	79.9
Type of drugs injected:		
Marzine	94.5	NIL
Sosegan	93.5	8.5
Phenergan	90.8	1.0
Restoril	90.0	NIL
Bueperon	69.3	1.5
Diazepam	57.0	11.5
Heroin	41.5	26.0
Avil	32.0	55.5
Pentonil	87.8	nil
Tamgesic	nil	14.5
LAST INJECTION		
Place where injection was taken		
Park/street	78.8	89.4
Own/friend's home	10.9	3.0
Hotel/shop	7.2	6.5
Shrine/mazaar	2.6	0.5
Injected with		
Friend/family member	72.0	55.8
Acquaintance	10.8	6.5
Complete stranger	3.1	2.0
Alone	14.6	35.7
% used a new syringe	84	82.4
% attempted to clean the syringe	83.6	76.5
% cleaned syringe with/by:		
Water	39	100.0
Dettol	93.5	Nil
Cloth	73.9	53.8
Paper	87	nil
Blow/sucking	nil	23.1
% used other supporting injecting equipments (spoons, filters etc)	25.6	73.9
Sharing of syringes:		
% used syringes after been used by someone	23.2	81.8
% passed syringe to someone else after using it.	29.8	25.1

3.2.4.6. OVERLAPPING BEHAVIORS:

3.2.4.6.1. Overlapping of injecting behaviors with sexual behaviors

The overlapping behavior had been further studied within the IDUs (having mainly the injecting behaviors), especially in the context of their sexual behaviors with a) Paid partners and b) Non-paid partners.

Sexual behavior of IDUs with paid clients:

Table 3.23 illustrates the results of overlapping behaviors among the IDUs with their sexual paid partners. The reported behavior is for the last months, with an emphasis to find out use of condoms during the last sexual act. Following is the summary of findings.

- a) The IDUs of RWP were more frequently involved in having sex with male (27%) and female (28%) paid clients. In contrast, only 8-13% of IDUs from KHI had sex with male and female paid clients respectively, during last six months.
- b) The average number of paid clients was relatively higher (50% having more than 5 female clients) among IDUs of RWP, than those from KHI (only 18% having more than 5 female clients). Similarly 44% of RWP IDUs had more than 3 male clients as compared to only 17% of them from KHI.
- c) Condoms use by IDUs was very low; 49-86% of them had “never used” it since last six months with paid clients of RWP and KHI respectively.
- d) Use of condoms for last sex was also very low among the IDUs. However, IDUs from RWP had used condoms much more frequently with FSWs (28%) and E/MSWs (32%) as compared to only 6-3-3% of their respective counterparts from KHI.
- e) 20% of IDUs of KHI and 14% from RWP had also sold sex (for drug/money).

Sexual behavior of IDUs with non-paid clients:

Table 3.24. Illustrates findings, which have been summarized as follows.

- a) Majority of IDUs (79% of KHI and 58% of RWP) had sex during last six months with their non-paid clients/partners. This is in sharp contrast to the same act with their paid clients.
- b) Majority of IDUs (46% from RWP and 66% from KHI) had never used condoms during past six months with their non-paid clients.
- c) Similarly, during last sex act, only 7-10% (KHI and RWP respectively) of IDUs had used condoms.

Table 3.23. OVERLAPPING SEXUAL BEHAVIORS OF IDUs WITH PAID CLIENTS

Overlapping sexual behavior category/ IDUs from the cities	IDUs KARACHI (%)	IDUs RAWALPINDI (%)
% had sex with any of the commercial sex worker in <i>past 6 months</i>:		
Female	12.5	28.2
Male	8.3	26.8
Number of partners: (Female)--<i>past 6 months</i>		
1	35.6	16.7
1 to 5	31.1	21.4
More than 5	17.8	50.0
Number of partners: (Male)—<i>past 6 months</i>		
1	50.0	18.8
2	33.3	37.5
3 and/or more	16.7	43.8
Used condom with FSWs during <i>past 6 months</i>		
Always	2.0	23.3
Sometimes	4.0	23.3
Never	86.0	48.8
No response	4.0	2.3
% used condom at last sex, with		
FSWs	6.0	27.9
E/MSWs	3.0	31.6
% sold sex for drug or money	20.0	13.7

Table 3.24. OVERLAPPING SEXUAL BEHAVIORS OF IDUs WITH NON-PAID CLIENTS

Overlapping sexual behavior category/ IDUs from the cities	IDUs KARACHI (%)	IDUs RAWALPINDI (%)
% had sex during <i>past 6 months</i>:	78.8	57.9
Used condom during <i>past 6 months</i>		
Always	5.6	1.4
Sometimes	10.6	18.1
Never	66.1	45.8
No response	12.9	0.7
% used condom at last sex	6.6	10.4

3.2.4.6.2. Overlapping of sexual behaviors with other risky behaviors

This was mainly studied among the HRGs basically involved in risky sexual behaviors (FSWs, ESWs and MSWs), but tended to have other behaviors which might make them susceptible to HIV and AIDS

Figures 3.7 and 3.8 show results of overlapping behaviors of all types of sex workers, which may further make them more susceptible to the risk of HIV/AIDS. Major findings are summarized below and are based on reported behaviors for the past six months.

- a) FSWs of KHI had been exposed to risky behavior much more frequently than their counterparts from RWP. Thus, 51% of FSWs drank alcohol, 23% used drugs, 22% had physical violence and/or raped. In contrast to that only 21% of FSWs from RWP drank alcohol and only 9% had used any drugs.
- b) Similarly, ESWs from KHI had relatively higher frequency of other risky behaviors, such as 53% of them drank alcohol, (only 35% in RWP), 74% used drugs (69% in case of RWP) and 17% injected drugs (only 4% in RWP).
- c) However, MSWs from RWP were noted to have more risky behavior than their counterparts from KHI. They were more frequently (37%) arrested by Police (29% in KHI), more frequently (81%) used drugs (63% in KHI).
- d) Among all the sex workers from both cities, 17-19% of MSWs were selling blood for money as compared to 0-3% from other groups of sex workers (FSWs and ESWs).

Figure 3.7

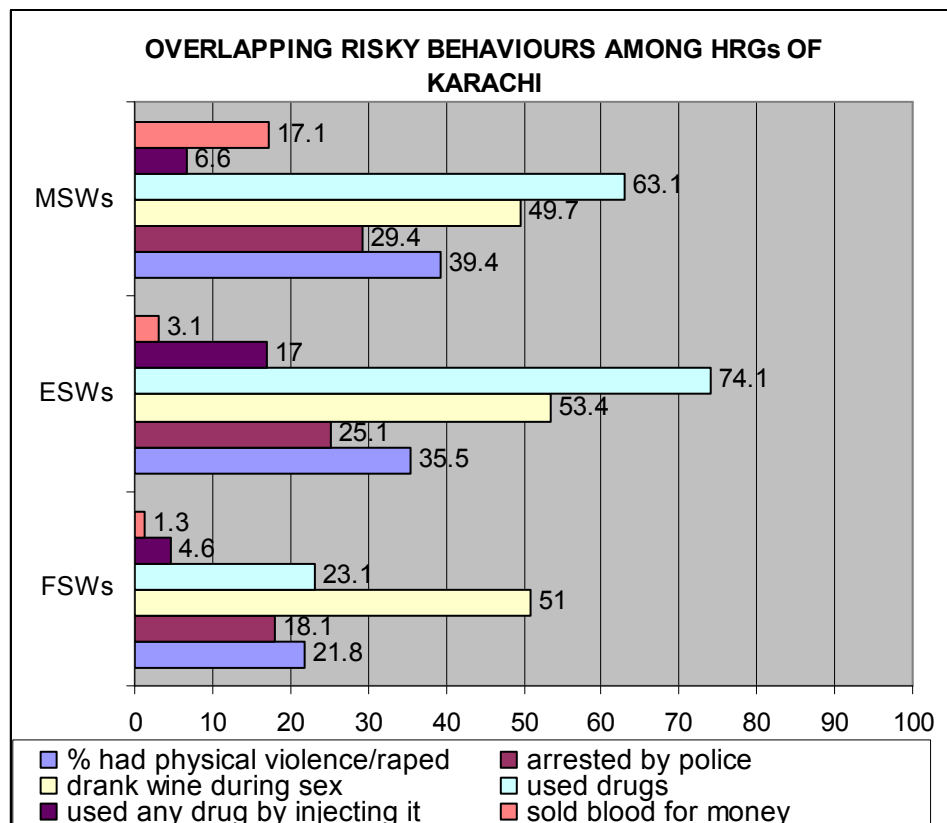
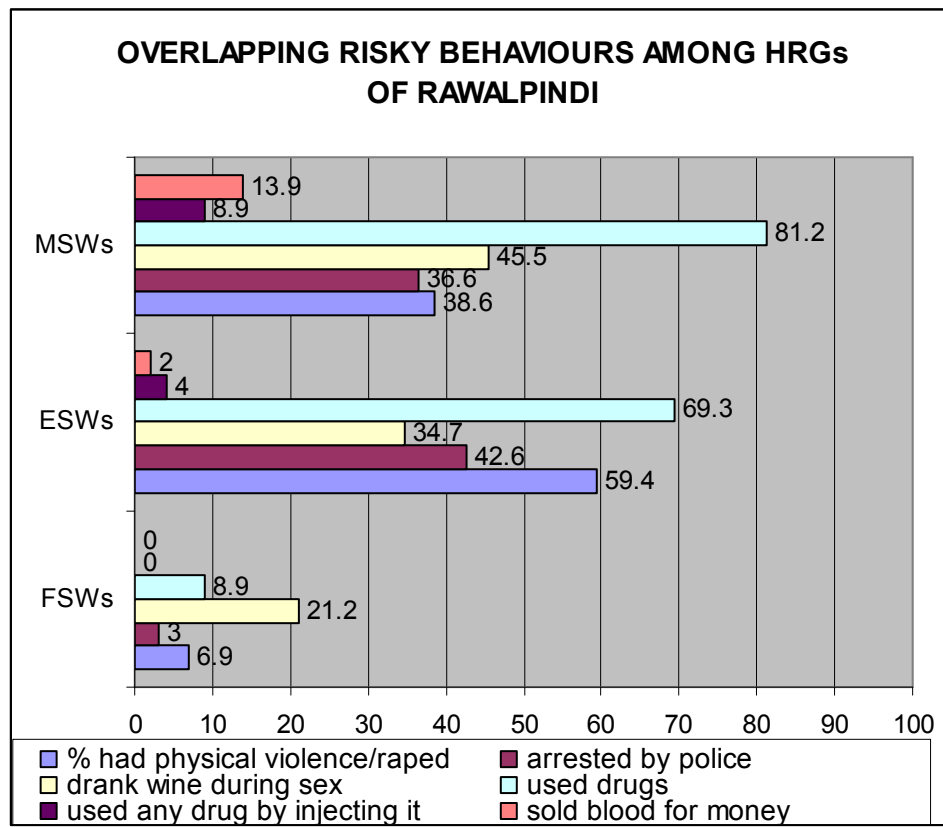


Figure 3.8



Overlapping risky behaviors among sub-types of FSWs were further studied (see Figure 3.9 and 3.10). Key findings are described as follows.

- a) As noted earlier, FSWs of KHI had indulged much more frequently in other risk behaviors. Among their three sub-types, it was found that Street based FSWs had relatively higher frequency for some of the overlapping behaviors. Thus, 27% had physical violence and/or raped, 24% were arrested by police, 6% were injecting drugs and 3% were selling blood for money.
- b) Kothi Khana based FSWs from both cities had higher frequency of drinking alcohol than their other sub-types; though it was much higher (56%) among those from KHI as compared to FSWs in RWP (23%).

Figure 3.9.

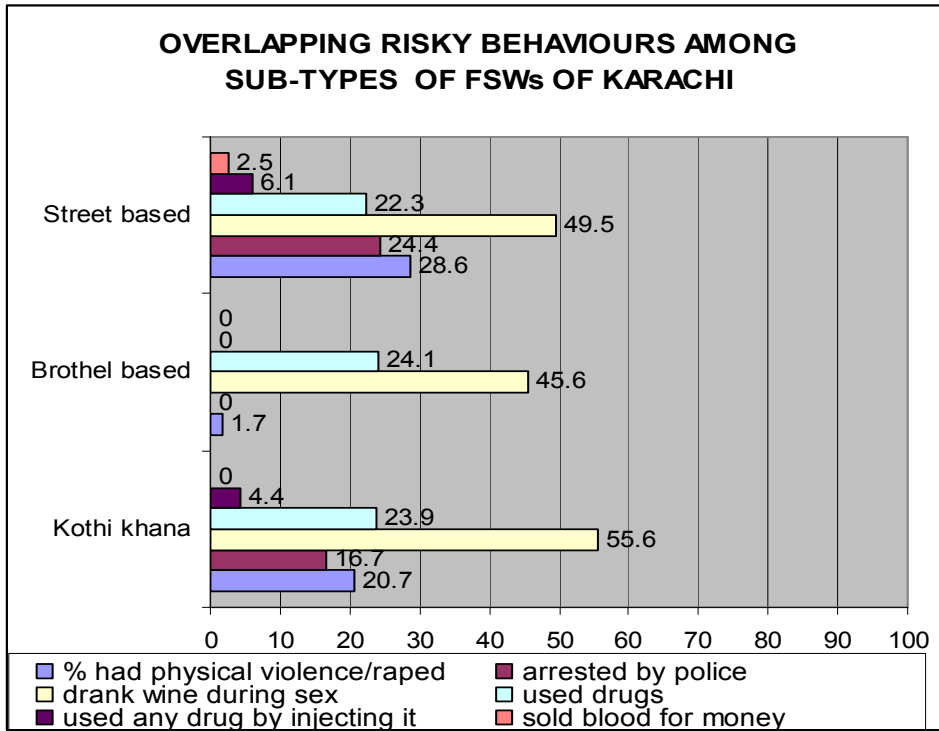
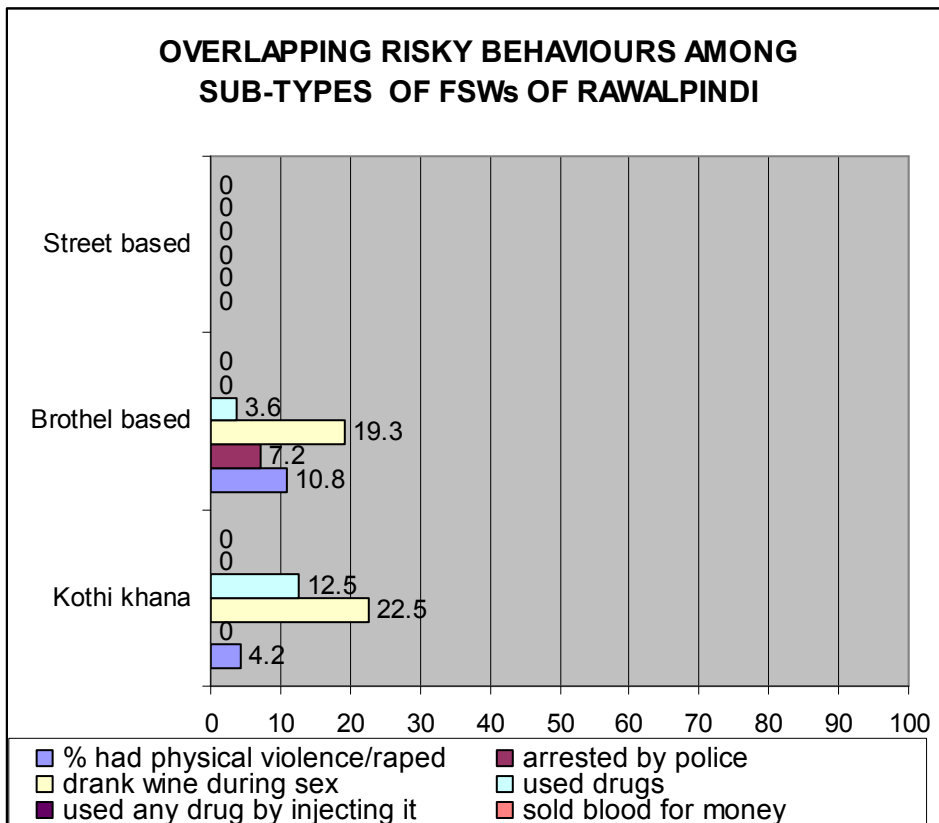


Figure 3.10.



4. DISCUSSION AND CONCLUSIONS:

This section discusses major findings and draws conclusions which can be used for future programme planning and for institutionalizing surveillance mechanisms through the National AIDS Control Programme.

4.1. SURVEILLANCE VERSUS DETAILED SURVEY

HASP alongwith NACP has conducted this pilot study/survey by applying various new methodologies and tools. Therefore, a number of gaps and weaknesses both among designers and implementers of this survey have been identified, which would be addressed in the next rounds of surveillance. In addition, there is also an information load, which may not be necessarily needed for subsequent similar activities. The findings generated through this survey are valid and consistent with the earlier studies conducted with similar population.

4.2. HRAs IN SMALL PROPORTION TO GENERAL POPULATION

The geographical mapping in both Karachi and Rawalpindi, has revealed that an average of 38000 and 3000 respectively, of high risk people were present. This apparently gives a very low percentage (0.34% and .021% respectively) for the whole population of these two cities. However, it should be noted that these are estimates based on the best available information collected through key individuals. The fact still remains that they are part of the general population, having various social networks. Interestingly, the survey could not actually pick up the aggregate number of the clients of sex workers (i.e. FSWs, ESWs and MSWs); rough estimates would indicate multiples of each of these sex worker. These “clients” mostly, are apparently normal individuals living in the mainstream without any identification.

4.3. ISSUES RELATED TO NOMENCLATURE:

The data generated, especially related to sex work has attempted to get further details by dividing into “paid” and “non-paid” sex work. This may be a good exercise for one-off activities but for future continuous surveillance, might not be very helpful, as whether a sex work is paid or not paid, it is important to ensure “safe-sex” and to document the trends over time. Similarly, some newer data is emerging which illustrate that the risky behavior does not relate necessarily with “buying and/or selling” and hence the label “sex worker”; this may be true with MSMs (males having sex with males). Some more issues needing further discussion could also include the sub-types of FSWs and whether including the detailed profiles of sub-types of FSWs for future surveillance would have significant benefits and if not, then what are the trade-offs.

4.4. HRGs DISTRIBUTED IN VARIOUS PROPORTIONS BETWEEN KARACHI AND RAWALPINDI

Geographical mapping of various cities as part of surveillance exercise has revealed that each city might have its own dynamics vis-à-vis high risk activities (HRAs). Though most of the groups involved in risky behavior are usually concentrated in the centre/older areas of a city having lot of activities and crowding of people, the nature of risky activities might vary in individual cities. Thus it was noted that was noted that both FSWs and IDUs form two-thirds of all the HRGs in Karachi; in contrast FSWs comprise more than half of all HRGs in Rawalpindi. This would have implications in terms of future programs addressing intervention for HIV preventions. Identification of places/spots having overlapping risky activities would also entail modifications in intervention approaches.

4.5. MOST HRGs ARE YOUNGER, ILLITERATE AND HAVE MEAGER SOURCE OF INCOME

It was noted that most of the high risk groups (HRGs) are poor and socially excluded, though at least more than half of them are having normal family life; thus poverty and lack of opportunities for improving their quality of life is interwoven and pushes them into a vicious nexus of poverty-ill health-poverty. In addition, stigma and their quasi-legal status precipitate their vulnerabilities. Though no data was collected to find out the determinants of these risky behaviors, it is obvious that there is lack of adequate social support for reducing vulnerabilities as well as risks associated with their behaviors.

4.6. GOOD KNOWLEDGE OF HIV AS COMPARED TO STI, BUT DO NOT RECOGNIZE RISK FOR THEMSELVES

It was noted that most of the high risk groups had fairly good knowledge about HIV and STI, more so about HIV; this may be due to media campaigns or awareness raising activities by various NGOs. Each of the specific groups (injecting drugs & sex worker) identified both the reasons and protective measures for preventing HIV, but thought that they might not be at risk of the disease. Whether this is a denial phase within themselves, or lack of adequate messages, which has resulted in these findings, is yet not clear. Above all, there might be issues related to confidentiality, especially among the FSWs, who if discovered to be suffering from HIV or susceptible to HIV might lose her business. Low condom use and use of new syringes though may be a “supply issue” but needs further probing in the context of social norms prevailing among each groups, power relations among worker, pimp and clients and the whole behavior as practiced by a common man who in normal life having a family might have varied behaviors while buying sex, as a client.

4.7. SEXUAL ACTIVITIES HIGHLY RISKY AND OVERLAP WITH OTHER RISKY ACTIVITIES AMONG SEX WORKERS.

As noted earlier, all types of sex activities are fairly “unsafe” with very low use of condoms. Though information about paid and non-paid sex workers also reveals same findings, it could not be ascertained how the client himself is behaving otherwise, if he is married with an apparently normal life. In addition, a number of overlapping risky behaviors were also noted among sex workers who were either drinking wine, taking drugs or even being rapped (single or gang-rapped). Both anal and oral sex is also commonly practiced by the sex workers in Karachi; condom use in these acts is also very low.

4.8. INJECTING THE DRUGS PER DAY THOUGH LOWER IN FREQUENCY, SHARING OF NEEDLES IS VERY COMMON.

The IDUs have been indulging in risky activities since an average of four years, injecting only twice a day. Though more than 80% of them claimed to have used new syringes on last act, the consistency of using new syringes/needles was noted only in half of the IDUs. The findings need to be interpreted with caution, as again (just like condom use) it is a reported behaviour. IDUs of Karachi are using a variety of drugs, including Heroin, but IDUs of Rawalpindi have been mainly using Avil for injecting purposes; this would have programmatic implications for both cities. Unprotected sex (either buying or selling) is also quite prevalent among the IDUs, which necessitates a comprehensive package of services for preventive programmes.

5. **RECOMMENDATIONS:**

The pilot study conducted by HASP along with NACP will serve as the pioneering work on surveillance of HIV in Pakistan. The results and conclusions drawn from this exercise need to be not only disseminated but critically reviewed with the key stakeholders and experts so as to institutionalize this process, which would be more robust and targeted and cost effective; following recommendations may be considered for both future surveillance and programmatic interventions.

5.1. SURVEILLANCE NEEDS TO BE EXTENDED TO OTHER AREAS/CITIES

A combination of geographical mapping with behavioral assessment results in a comprehensive status of both the risk activities and groups involved in those activities; facilitating the programmatic focus and types of interventions. These types of survey can also be considered as the baseline surveys to be compared with a) similar geographical places and b) subsequently after some interventions have been done with these groups. Recent studies conducted by various implementing organizations working with the high risk groups have shown high risk activities and vulnerabilities to HIV. It is recommended that all those town/cities or any of the major rural areas suspected to be having high risk activities be included in the future surveillance system, on priority basis and as soon as possible.

5.2. INSTITUTIONALIZE THE SURVEILLANCE SYSTEM

There is a need to disseminate and advocate for a standard surveillance system for HIV, throughout Pakistan. In that context, consultative processes should be initiated to finalize key indicators and to further explore including other indicators related to clients' behavior and condom uptakes. As discussed in earlier section, there is a need to limit to a very few selective indicators which can be gathered on a more regular basis as compared to collection of lot of information, without its practical application on operational interventions. It is also recommended that capacity of local NGOs and groups working for these HRGs be built to assist in collection of surveillance data. Finally, efforts should also be focused for exploring possibilities of linking this (developed by HASP) surveillance approach with the national health/disease surveillance and early warning system. This can be considered in future strategic planning exercise followed by allocation of budget in future PC1.

5.2. SOCIAL AND OPERATIONAL RESEARCHES NEEDED

This survey though has identified basic behavioral status of HRGs, but it has also raised a number of questions which still remain un-answered. It is recommended that more research be conducted to understand various social networks and overlapping risky behaviors and to understand factors contributing to the gaps between knowledge and behavior. This would help in understanding deeply ingrained behavior and the ways how they can be modified. Key operational research would also be needed to undertake some selective/innovative interventions on a smaller scale, before scaling it up.

5.3. SCALE UP INTERVENTIONS:

This pilot study has revealed that HRGs are involved in both unsafe sex and injecting behavior. It appears that coverage of services to these groups is small; with the current pace and scale of services, there is danger of spread of epidemics, especially among the IDUs. Thus there is a

need to develop some models for projecting the future of epidemics with various levels, pace and coverage for interventions. Based on those projections and options available, it would be required that NACP along with PACPs plans for scaling up of interventions having a wider geographical coverage through outreach activities and by involvement of peer educators; these should be some of the cornerstones of package of interventions.

5.4. HIV PREVENTION FOR LIFE:

HIV prevention needs long-term investment and sustained engagement in order to have a maximum impact. There are no easy solutions or “quick fixes” to promoting and sustaining safer forms of sexual and drug-related behaviors over time, or to changing contextual factors that drive the HIV epidemic. Therefore, long-term strategic plan considering a comprehensive approach is needed for HIV prevention in Pakistan. This should be in line with international policy position adopted for preventing HIV including reduction of a) vulnerability, b) risk and c) impact of HIV and/or AIDS.