



Ministry of Health and Population
National AIDS Program
Arab Republic of Egypt

HIV/AIDS

BIOLOGICAL &

BEHAVIORAL

SURVEILLANCE

SURVEY

Summary Report

EGYPT 2006



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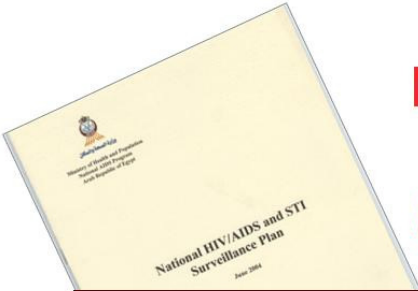
Lastly, I wish to thank the Survey Working Group and the numerous individuals and organizations that have contributed to the success of this effort.

Dr. Nasr El Sayed
First Undersecretary
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Introduction

The National AIDS Program (NAP), affiliated to the Egyptian Ministry of Health and Population (MOHP) has been making a concerted effort since 1986 to ensure that Egypt maintains its low prevalence of HIV/AIDS. As part of the efforts being made to control HIV/AIDS in Egypt, data are necessary to examine the trend of the HIV epidemic and the risk factors that could contribute to the spread of the infection.

Family Health International (FHI), with support from the United States Agency for International Development (USAID), under the Implementing AIDS Prevention and Care (IMPACT) Project, has assisted the NAP in developing a National HIV/AIDS and STI Surveillance Plan in 2004, the plan integrates biological and behavioral surveillance strategies into the national surveillance system to enhance reporting and monitoring of HIV data (Figure 1).



**National HIV/AIDS
and STI
Surveillance Plan**

TARGET GROUP	ANNUAL	EVERY 2 YEARS	EVERY 3-5 YEARS
HIV Serology (Biological):			
FSWs/IDUs/MSM/Tourism Workers		X	
STI Patients	X		
TB patients/ANC clinic attendees/Gynecology attendees			X
Applicants for work and travel documents	X		
Behavioral Surveillance:			
FSWs/IDUs/MSM/Tourism Workers		X	
General Population			X

Figure 1 National HIV/AIDS and STI Surveillance Plan

According to the National Surveillance Plan, the Biological Behavioral Surveillance Survey (Bio-BSS) is a model system that will provide baseline data and should be repeated periodically to track behavioral and biological trends. Following is the explanation of the biological behavioral surveillance survey (Bio-BSS) conducted in Cairo and Alexandria in 2006 among high-risk groups.

Goal and Objectives

The overall goal of the Bio-BSS was to establish a second-generation HIV surveillance system among high-risk groups over time. The general objectives of the Bio-BSS were to:

- Develop a model surveillance system
- Track behavioral data for high-risk groups
- Assess biological data for high-risk groups
- Provide counseling for study participants

Study Methods

Field work for the first round of Egypt's Bio-BSS was conducted between May and August 2006. The survey tracked four target groups: street children (SC), female sex workers (FSWs), men who have sex with men (MSM) and injecting drug users (IDUs). Among the street children and IDUs, both males and females were included. Although not initially designed as such, non-probability sampling was used to select SC and FSWs in Cairo. The respondent driven sampling (RDS) method was used to generate inferences about the characteristics of the larger network of the MSM in Alexandria and the IDUs in Cairo. Table 1 shows the sample size and collaborating NGO for each target group.

Table 1 Study Populations

Study Groups	Sample Size	Collaborating NGOs
Street children – male	408	Hope Village Society, Cairo
Street children – female	192	
Female sex workers	118	Freedom, Cairo
Men who have sex with men	267	Caritas, Alexandria
Injecting drug users – male	413	Freedom, Cairo
Injecting drug users – female	16	

Results

Street Children

A total of 408 street boys and 192 street girls between 12 and 17 years were enrolled in the study with a median age of 15.0 years for street boys and 16.0 years for street girls. In term of education, 30.4% of street boys and 72.9% of street girls never attended school. Street boys were more active than street girls as most of them were engaged in income generating activities, especially selling small products (Table 2).

Table 2 Background characteristics of the street children

	Male n=408	Female n=192
Median age at last birthday	15.0	16.0
Percent who never attended school	30.4%	72.9%
Percent working to earn money	90.9%	33.9%

Street girls reported a higher level of alcohol consumption in the previous 4 weeks. Around 14.0% of street boys and 20.3% of street girls reported that they consumed alcohol at least once per week. As for substance abuse other than alcohol, 67.9% of street boys and 71.4% of street girls reported that they ever tried any type of non-injecting drugs. Furthermore, about 1.0% of street boys and 13.5% of street girls reported injecting drugs in the previous 12 months (Figure 2).

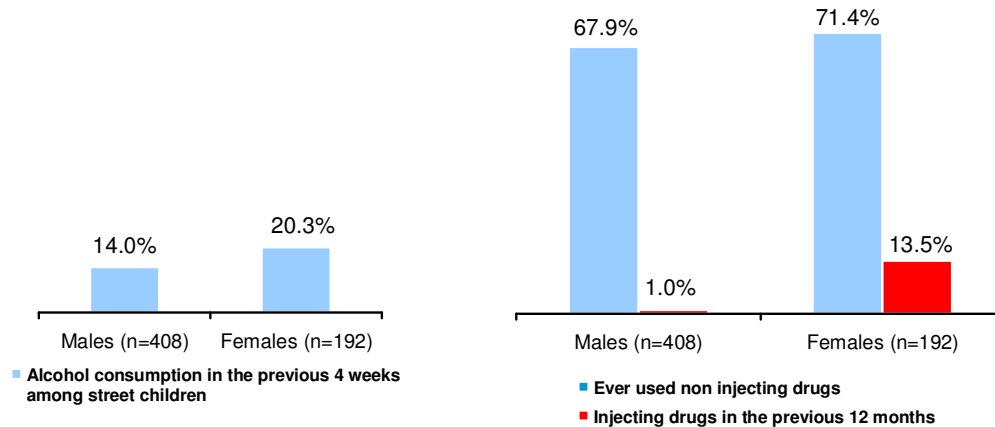


Figure 2 Alcohol consumption and substance abuse among street children

About half of the street children reported ever having sex. Among sexually active street children in the previous 12 months, the proportion of street girls that engaged in commercial sex (33.3%) was higher than street boys (14.9%). Additionally, street girls engaged more than street boys in non commercial sexual practices, with 97.1% for street girls and 95.2% for street boys. Sexual abuse by opposite sex was more reported by girls than boys, 44.9% of girls and 6.0% boys were forced to have sex with the opposite sex in the previous 12 months. Over three quarters of the sexually active street boys reported that they ever had sex with a male partner. In the year preceding their interviews, 37.1% of the sexually active street boys who had sex with the same sex were forced by their male sexual partner to practice sex (Table 3).

Table 3 Sexual activity among street children

	Male		Female	
	n	%	n	%
Ever had sex	408	54.7%	192	50.0%
Of those who have ever had sex:				
Percent who had sex in the 12 months preceding survey	223	75.3%	96	71.9%
Of those who had sex in the 12 months preceding the interview, percent who had sex with:				
Commercial sex partners	168	14.9%	69	33.3%
Non-commercial sex partners	168	95.2%	69	97.1%
Of those who reported sex with commercial or non-commercial sex partner in the 12 months preceding survey:				
Percent who reported to have used condom at least once with a:				
Commercial sex partner	25	12.0%	23	13.0%
Non-commercial sex partner	160	2.0%	67	6.0%
Of those who had sex in the 12 months preceding survey:				
Percent who reported ever had sex with same sex	168	77.4%	NA	NA
Percent who reported to have been forced to have sex in the past twelve months by person(s) of:				
Same sex	124	37.1%	NA	NA
Opposite sex	168	6.0%	69	44.9%

Knowledge of male condoms was low, with most sexually active SC reporting unprotected sex. Furthermore, knowledge about sexually transmitted infections (STIs) was also low, and some SC reported to have had STIs. Street children also had inadequate knowledge of HIV/AIDS. Television appeared to be the best means of disseminating information to this target group and HIV sero-prevalence was zero among street children.

Female Sex Workers

A total of 118 FSWs with a mean age of 25.9 years were interviewed. The majority were literate and nearly one third had completed secondary education or higher. At the time of the survey, 37.3% of the FSWs were married (Table 4).

Table 4 Background characteristics of the female sex workers

Background characteristics	n=118
Age Range	16-52
Percent under 20 years of age	19.5%
Percent who are literate	94.1%
Percent who completed secondary school or higher	28.0%
Percent ever married	72.9%
Percent currently married	37.3%
Percent who have another occupation	31.4%

About half of the FSWs consumed alcohol in the previous month. More than three quarters of the FSWs reported ever abusing a substance other than alcohol. Furthermore, 9.3% reported injecting drugs in the previous 12 months (Table 5).

Table 5 Alcohol consumption, substance abuse among female sex workers

	n	%
Alcohol Consumption		
Percent who in the four weeks preceding the interview consumed alcohol:		
Everyday	118	11.0%
At least once per week	118	33.1%
Substance abuse		
Percent who reported substance abuse:		
Ever used non-injecting drugs	118	78.8%
Injecting drugs in the previous 12 months	118	9.3%

In the week preceding their interviews, over 60.0% of FSWs had non-commercial sex partners. However, only 6.8% out of them used condoms last time they had sex with non-commercial sex partner (Figure 3).

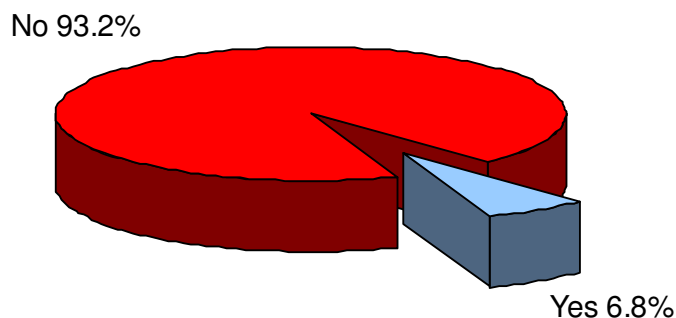


Figure 3 Female sex workers who reported condom use with last non-commercial sex partner

Three quarters of FSWs had heard of STIs and all FSWs had heard of HIV/AIDS. Although the majority had knowledge of the modes of prevention and transmission,

misconceptions existed with at least one third stating that HIV could be transmitted by sharing a meal with an infected person. Television appeared to be the best mode of disseminating information to this target group. One FSW was detected positive for HIV, giving a Sero prevalence of 0.8%.

Men Who Have Sex with Men

A total of 267 MSM were recruited using the RDS method. The age of the MSM ranged from 15 to 60 years (mean = 25.2 years). About 39.0% of MSM completed secondary school or higher education. About one third of the MSM had spent at least one month away from home in the year preceding their interviews. More than half of the MSM ever had sex with a female partner and 13.3% were ever married to a female (Table 6).

Table 6 Background characteristics of men who have sex with men

Background characteristics	n=267
Age Range	15-60
Percent who completed secondary school or higher	39.0%
Percent who have spent one month or more away from home in the 12 months preceding survey	32.4%
Percent ever had sex with a female partners	56.2%
Percent ever married to female partners	13.3%
Percent currently married to female partners	5.6%

More than one quarter of the MSM reported consuming alcohol in the previous month. More than three quarters reported ever using substance other than alcohol, while 10.9% of MSM injected drugs in the previous 12 months (Table 7).

Table 7 Alcohol consumption and substance abuse among men who have sex with men

	n	%
Alcohol Consumption		
Percent who in the four weeks preceding the interviews consumed alcohol:		
Everyday	267	8.1%
Less than once per week	267	18.9%
Substance abuse		
Percent who reported substance abuse:		
Ever used non-injecting drugs	267	79.3%
Injecting drugs in the previous 12 months	267	10.9%

Among the MSM, 82.0% were insertive sexual partners and 51.0% were receptive sexual partners. Approximately 42.0% and 80.0% of the MSM engaged in commercial sex and non-commercial sex respectively. In the year preceding their interviews, about 6.3% of MSM were forced by their sexual partners to practice anal sex. Even though more than three quarters of the MSM had heard of male condoms and condoms were easily accessible, very few used condoms during the last sex. Only 9.2% used condoms during the last commercial sex and 12.7% used condoms during the last non-commercial sex. More than three quarters of the MSM had heard of STIs.

Almost all the MSM had heard of HIV/AIDS and the majority were able to identify modes of transmission. Roughly one quarter of the MSM had misconceptions on how HIV can be transmitted. As with other target groups, television is the best mean of disseminating information to the MSM. Population estimates indicated 6.2% (95% CI: 1.7-14.4) HIV sero-prevalence among MSM.

Male Injecting Drug Users

A total of 413 male IDUs participated in the study. Their ages ranged from 18 to 65 years. The majority of IDUs were educated with 37.9% completing secondary school or higher. Male IDUs were mobile - more than one third spent at least one month away from their homes in the 12 months preceding data collection. More than half of male IDUs reported that they were ever married and 39.2% were currently married (Table 8).

Table 8 Background characteristics of male injecting drug users

Background characteristics	n=413
Age range	18-65
Percent of IDU who are literate	95.0%
Percent who completed secondary school or higher	37.9%
Percent who have spent one month or more away from home in the 12 months preceding survey	38.2%
Percent ever married (to female partners)	55.5%
Percent currently married (to female partners)	39.2%

Male IDUs did not report high levels of alcohol consumption. About two thirds reported injecting drugs for at least five years. Furthermore, 75.3% of male IDUs reported injecting drugs at least once per day. Injecting with a used needle or syringe appeared to be a common practice among male IDUs, in the previous month around 53.0% of male IDUs injected drugs with a used needle and about one third shared needles with one or more persons (Table 9).

Table 9 Alcohol consumption and substance abuse among male injecting drug users

	n	%
Alcohol Consumption		
Percent who in the four weeks preceding the interviews consumed alcohol:		
At least once per week	413	6.9%
Less than once per week	413	14.8%
Drug Injection		
Percent who reported to inject drugs with used needles in the 30 days preceding the survey	413	53.0%
Percent who reported to share needles with one or more persons in the 30 days preceding the interviews	413	32.2%

Almost all male IDUs were sexually active, with about 11.0% having at least 2 commercial sex partners and around 20.0% having at least 2 non regular non commercial sex partners. Furthermore, 9.4% of the sexually active male IDUs reported to have had sex with a male. Even though almost all male IDUs had heard of

male condoms which were easily accessible to nearly all of them, very few used condoms with any of their sexual partners (Table 10).

Table 10 Sexual activity and condom use among male injecting drug users

	n	%
Ever had sex	413	96.2%
Of those who have ever had sex:		
Percent who had sex in the 12 months preceding survey	397	70.5%
Of those who had sex in the 12 months preceding survey, percent who had sex with one or more:		
Commercial sex partners	280	13.3%
Regular non-commercial sex partners	280	88.2%
Non-regular non-commercial sex partners	280	28.7%
Of those who reported sex with commercial or non-commercial sex partner in the 12 months preceding survey:		
Percent who reported to use condom at least once with:		
Commercial sex partner	37	11.8%
Regular non-commercial sex partner	247	34.1%
Non-regular non-commercial sex partner	80	12.8%

Around 94.0% of male IDUs reported that they had heard of STIs. Additionally, almost all male IDUs had heard of HIV/AIDS and the majority was able to report modes of transmission and prevention. However, misconceptions about HIV transmission still existed. Television appeared to be the best mean of disseminating information to this group. Population estimates indicated an HIV sero-prevalence of 0.6% (95% CI: 0.1-1.8) among the male IDUs.

Female Injecting Drug Users

Although female IDUs exist in Egypt, recruiting them to this study was extremely difficult. Only 16 female IDUs agreed to participate in the study. Linkages among female IDUs are extremely weak due to the lack of trust they have for those around them. This lack of trust and the weak networks among females accounted for the failure of the RDS method to attract a significant number of participants. Although the data on this group was analyzed and included in the in-depth report, the sample size was too small to provide any reliable estimates.

HIV sero-prevalence results for all targeted groups are shown in Table 11

Table 11 HIV sero-prevalence BSS 2006

Groups	Target Achieved	HIV Sero-prevalence (%)
Male SC	408	0
Female SC	192	0
FSW	118	0.8
MSM*	267	6.2
Male IDUs*	413	0.6
Female IDUs	16	0

**RDS population estimates*

Conclusion

The first round of Egypt's Bio-BSS has provided a wealth of information on the behavioral practices, knowledge of STI/HIV/AIDS and HIV prevalence among selected high-risk groups, never before available in Egypt. These results should form the basis of a preventive program to sustain the current low level of HIV epidemic in Egypt.

In this survey, other than MSM, the prevalence of HIV is low among the target populations. These groups are vulnerable to HIV due to the various high-risk behaviors practiced among them. All of the target populations exhibit various risk behaviors, including unprotected sex, numerous sexual partners, forced sex and injecting drug use.

It is very difficult to reach females in Egypt as shown by the low number of female study participants. The target sample sizes were not achieved among any of the female target groups.

Recommendations

- Conduct successive rounds of Bio-BSS according to National HIV/AIDS STI Surveillance Plan in two years time among same groups using same methods of research and considering the following:
 - Covering a wider geographical area of Egypt
 - Combining STI, Hepatitis B and C infections with HIV to assess their correlation with behavior risk
 - Adding vulnerable groups identified in the National Surveillance Plan
- Implement Bio-BSS among general population every five years according to National HIV/AIDS STI Surveillance Plan
- Encourage more NGOs to collaborate with MOHP to outreach the most difficult to access high-risk groups and to implement proper interventions for them.
- Conduct in depth qualitative research to identify approaches:
 - To attract more high-risk groups
 - To address gap between knowledge and practice
 - To overcome contextual barriers
- Identify innovative approaches to decrease stigma and discrimination and create an encouraging environment to persuade female participation in future Bio-BSS
- Develop an appropriate Behavior Change Communication (BCC) intervention through:
 - Designing a HIV National Behavior Change Communication (BCC) strategy targeting vulnerable groups
 - Implementing targeted BCC programs tailored to each group to address misconceptions, stigma and discrimination
 - Promoting the abstinence – being faithful – condom use (ABC) approach as a preventive method for HIV among sexually active individuals
- Develop targeted specific strategies and interventions for each high-risk group encompassing counseling, STI and HIV management.
- Creation of an enabling environment to decrease stigma and discrimination among general population. Effort exerted through the media need to be strengthened.