Lanka Jathika Sarvodaya Shramadana Sangamaya

GFATM Round 9 HIV / AIDS

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka

Drug Users (DU)

Final Report -September 2012

MG CONSULTANTS

Acknowledgements

We wish to acknowledge The Lanka Jathika Sarvodaya Shramadana Sangamaya for taking an initiative to conduct Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) for funding the programme.

We also take this opportunity to thank all institutions and individuals for their valuable contributions and assistance extended to us in successfully carrying out this assignment.

We thank Dr. Harischandra Yakandawala, Programme Manager, GFATM Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya for his professional support, technical guidance, encouragement and continuous feedback extended to us throughout the assignment.

We greatly appreciate the unstinted support given by Dr. Nimal Edirisinghe, Director, National STD AIDS Control Programme (NSACP) for the cooperation extended to complete this study successfully.

A special word of thanks goes to the Technical Steering Committee Members, Dr. K. M. A. Ariyaratne, Dr. Neelamani Punchihewa, Dr. Sriyakanthi Beneragama, and Dr. Ajith Karawita of NSACP and Dr. Dayanath Ranatunge of UNAIDS for their valuable contribution, technical assistance and feedback given to ensure the completion of this study in a highly satisfactory manner.

We also wish to thank the Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) which are working for the most at risk populations for their great contribution in field data collection by providing field staff.

The tertiary, secondary and primary key informants who assisted the field team to identify the “Hot Spots” and the primary key informants; Female Sex Workers, Men who have Sex with Men, Drug Users and Beach Boys who provided the information and responded to our questionnaire, undoubtedly served as the nucleus of this study. We sincerely thank all of them and highly appreciate their contribution towards this venture of national importance for HIV prevention in Sri Lanka.

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Acronyms

ADIC	Alcohol and Drug Information Centre
AGA	Assistant Government Agent
AIDS	Acquired Immunodeficiency Syndrome
BB	Beach Boy
CBO	Community Based Organization
CORE	Community Oriented Resource Exchange
CSDF	Community Strength Development Foundation
CV	Curriculum Vitae
DS	Divisional
DSD	Divisional Secretariat Division
DU	Drug User
ECDIC	Environment and Community Development Information Centre
FPA	Family Planning Association of Sri Lanka
FRO	Field Research Officer
FRS	Field Research Supervisor
FSW	Female Sex Worker
GCE O/L	General Certificate of Education Ordinary Level
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GIS	Geographic Information System
GN	Grama Niladari
GPS	Global Positioning System
HIV	Human Immunodeficiency Virus
KI	Key Informant
MARP	Most at Risk Population
MGC	MG Consultants
MSM	Men who have Sex with Men
NGO	Non Governmental Organization
NSACP	National STD AIDS Control Programme
OECRP	Organization for Environment and Child Right Preservation
PR	Principal Recipient
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TOR	Terms of Reference
TSC	Technical Steering Committee
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program

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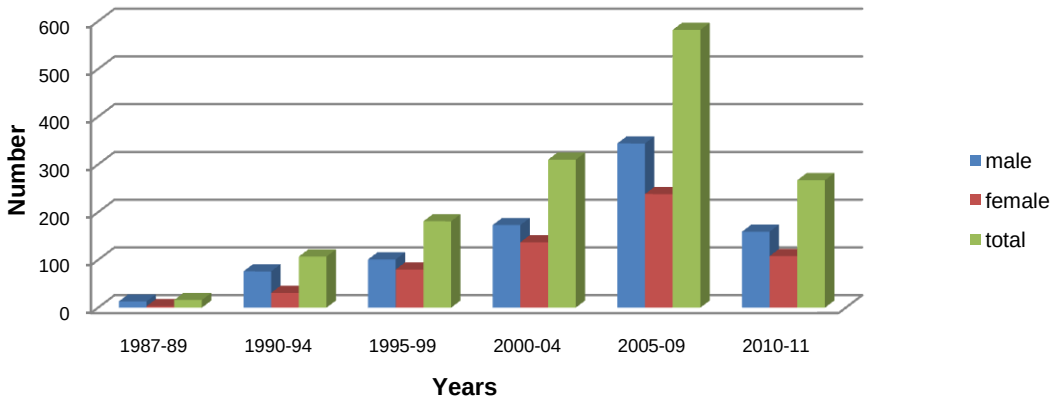
1. Introduction

The National Strategic Plan for Prevention and Control of HIV/AIDS 2002-2006 reported the first few cases of HIV in Sri Lanka and they were primarily among men having sex with men (MSM). To date there is no scientific determination of the MSM population in the country but Government official consensus based estimate reveals that there are about 12000 high risk MSM. The UNDP's estimates indicate that there about 30,000 'Beach Boys' who can be regarded as male sex workers[1].

The first HIV case in Sri Lanka was reported in 1987. There has been constant rise of the HIV and AIDS cases since then and hence HIV/AIDS can be regarded as a new epidemic emerging in Sri Lanka. Number of HIV cases has increased an exponential manner up to 2009 but a significant decline is seen during the period 2010-11 (Figure 1).



Source: National STD/AIDS Control Programme (NSACP), Sri Lanka

Figure 1: Number of HIV cases reported up to 2011

Available evidence suggests that Sri Lanka does not have a significant number of HIV/AIDS patients and thus the country is currently is not experiencing an epidemic in this regard. UNAIDS estimates based on a mapping exercise conducted in 2010, MSM were ranging between 24,000 and 37,000, respectively[2]. Currently the HIV prevalence is below 1.0 percent and as at end December 2011, a cumulative total of 1463 HIV persons were reported to National STD/AIDS Control Programme of Sri Lanka (NSACP). The main mode of transmission is unprotected sex between men and women (83.8 percent) followed by the category of men having sex with men (MSM) accounting for 12.3 percent. It has been

[1] *aidsdatahub.org/.../**MSM**_Country_Snapshots_-_**Sri_Lanka**_online.p... & www.**aids**datahub.org/.../4824-**sri-lanka-behavioural-surveillance-sur***
[2] *www.un**aids**.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf*

claimed that unprotected paid sex, the sharing of contaminated needles and syringes by injecting drug users and unprotected sex between men seem to be the commonalities observed in Asia in relation to HIV transmission (UNAIDS, 2008). Therefore, it appears that prevention efforts are highly associated with dire reduction of HIV transmission among and between these three categories of most-at-risk populations. However, injecting drug use in Sri Lanka is not a widespread experience (0.5 percent). Nevertheless, some socio-economic and behavioural factors which are seen in Sri Lanka could ignite an epidemic in the future[3]. The emerging trend of a large youth population entering into population structure of Sri Lanka, internal and external migration, underground but thriving sex industry, low level of condom use, concurrent sexual relationships among most-at-risk-populations (MARP) can be regarded as most influential factors which can future prevalence of HIV disease in Sri Lanka. In addition, low level of sexually transmitted infections (STI), availability and accessibility to free of charge health services from the state sector, high literacy rate, low level of drug injectors, are the factors which can be regarded as constraints to the spread of HIV.

However, Mahajan et al[4] have claimed that HIV-related stigma is associated with higher risk behaviors in a range of low and high prevalence scenarios[5]. Only 6 of 10 countries in the world have laws and regulations that bar discrimination against people living with HIV, and even for the states that have antidiscrimination laws, major barriers persevere in implementation. It has also been pointed out that HIV spread can go out of control not because of the size of the high-risk population but once this virus gets out of high-risk population, and set off to spread in general populations, the risk for everybody who is sexually active goes up in a heterosexual epidemic[6]. In such a situation, every sexually active person is at risk-not just drug users, female sex workers, men who have sex with men, and promiscuous people.

The present study seems very significant in global as well as local context although Sri Lanka is currently regarded as a ‘low prevalent’ country. This mainly because when a ‘low prevalence’ label is applied to a country, it needs further clarification as ‘low’ is a relative

[3]www.un**aids**.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf

[4]Mahajan AP, Sayles JN, Patel VA, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS*. 2008;22(Suppl 2):S67-S79.

[5]Sayles JN, Hays RD, Sarkisian CA, et al. Development and psychometric assessment of a multidimensional measure of internalized HIV stigma in a sample of HIV-positive adults. *AIDS Behav*. 2008;12:748-758.

[6]Yoon C. AsiaSource interview with Chris Beyrer. 2002. Available at: http://www.asiasource.org/news/special_reports/beyrerinterview.cfm.

measure in the global context when it comes to HIV epidemic. All countries, including those harshly affected in sub-Saharan Africa, have at some point in their epidemic histories been 'low-prevalence' countries. For instance, South Africa, which now has among the worst HIV epidemics in the world, was considered low prevalence about 10 years ago when other African epidemics were already well in progress. Current HIV prevalence assists to plan surveillance and interventions efficiently, but it is not predictive of the future of the epidemic. It is quite essential to note that the predicting the magnitude of future epidemics is challenging and has historically been extremely erroneous.

Drug Users (DUs) and HIV

Little is known about non-medically prescribed drug use in Sri Lanka. Sri Lanka has a large non medically prescribed drug-using population of whom it is believed only between one and two per cent inject drugs. In Sri Lanka the majority of heroin users inhales or snorts heroin. The only case of HIV transmission in Sri Lanka attributed to injecting drugs was reported in 2004. However, there has been a rapid transition to injecting in other parts of the region and this group may be at risk of HIV through needle sharing. Drug users also often experience difficulty accessing information and services for both prevention and treatment[7].

One Sri-Lanka-based study found a strong association between non-medically prescribed drug use and the prevalence of STDs among women sex workers and men and women prisoners. Moreover, in a study of current drug users aged 15 to 49 and living in Colombo, Tissera (2005) reported that among the males who had had sex with a non-regular partner in the previous month, 50 percent had 'always' used a condom with commercial partners while 22.8 percent had 'always' used a condom with 'occasional' partners[8].

According to the Dangerous Drug Control Board, there are 400,000 heroin users and 200,000 cannabis users on the island with 7.5 percent estimated to be injecting drug users. Although there is only one reported case of HIV infection through intravenous drug use, this group is at high risk because of needle-sharing and can be recognized as a population vulnerable to HIV/AIDS.

[7] World Health Organization, 2005

[8] Tissera, H. (2005). *Epidemiology of the use of addictive substances in the Colombo District. Sri Lanka. Report on the Behavioural Survey with a Biomarker Component for NHAPP.* Unpublished report obtained from the office of the National HIV/AIDS Prevention Programme, Ministry of Health, Sri Lanka.

HIV and Injecting Drug Use

Injecting drug use has created major public-health problems internationally. The transmission of blood borne viruses, in particular HIV[9]contributes substantially to the morbidity and mortality caused by illicit drug use[10]. Injecting drug use is dynamic. It is responsible for an increasing proportion of new HIV infections in many parts of the world, including countries in Eastern Europe, South America, and East and Southeast Asia.

It has been estimated that there are about 16 million (range 11–21 million) individuals who inject drugs worldwide. Extrapolated estimates of HIV prevalence within this population are extremely tenuous, but around 3 million (range 1–7 million) injectors might be living with HIV. Within this population, clear geographic differences have been found in estimated HIV prevalence. Areas of particular concern are countries in South East Asia, Eastern Europe, and Latin America, where the prevalence of HIV infection among some sub populations of people who inject drugs has been reported to be over 40 percent.

The prevalence among people who inject drugs is still very high in several countries and is increasing in others. An estimated 4.5 million people in Asia inject drugs; more than half live in China[11]. Overall, an estimated one in six people who inject drugs (16 percent) in Asia is living with HIV but the HIV prevalence is much higher in some places. In recent local studies, between 11 percent and 24 percent of people who inject drugs in Thailand[12]tested HIV-positive, as did between 23 percent and 58 percent of those in various provinces in Viet Nam[13], more than 50 percent in parts of Indonesia and 23 percent in Rawalpindi and 52 percent in Mandi Bahauddin, cities in Punjab (Pakistan)[14].

[9]UNAIDS. 2006 report on the global AIDS epidemic. Geneva: Joint UN Programme on HIV/AIDS, 2006

[10]Degenhardt L, Hall W, Lynskey M, Warner-Smith M. Chapter 13: Illicit drug use. In: Ezzati M, Lopez AD, Rodgers A, Murray CJL, eds. Comparative quantification of health risks: global and regional burden of disease attributable to selected major risk factors, 2nd edn. Geneva: World Health Organization, 2004 &Ezzati M, Lopez AD, Rodgers A, Vander Hoorn S, Murray CJL, for the Comparative Risk Assessment Collaborating Group. Selected major risk factors and global and regional burden of disease.*Lancet* 2002; **360:** 1347–60.

[11]Mathers BM et al. Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet*, 2008, 372:1733–1745.

[12]Yongvanitjit K et al. Risk behaviors and high HIV prevalence among injecting drug users (IDUs) in a respondent-driven sampling (RDS) survey in Bangkok and Chiang Mai, Thailand.*XVIII International AIDS Conference, Vienna, Austria, 18–23 July 2010*

[13]Quan VM et al. Mortality and HIV transmission among male Vietnamese injection drug users. *Addiction*, 2011, 196:583–589.

[14]Medicine and HIV/AIDS Control, Ministry of Health, Viet Nam, 2005.*Rapid situation assessments of HIV prevalence and risk factors among people injecting drugs in four cities of the Punjab*. Islamabad, Punjab AIDS Control Programme, 2009.

In earlier sentinel surveillance studies in Thailand, the HIV prevalence ranged between 30 percent and 50 percent among people who inject drugs[15]. The prevalence of HIV infection among people who use drugs varies widely in China – from less than 1 percent in the cities of Haikon, Hangzhou, Qingdao and Shanghai, to 2.6 percent in Beijing, 7.5 percent in Chongqing and 16 percent in Kunming[16]. Most countries in the region have been slow to introduce and expand harm reduction programmes. In such a context, the HIV prevalence tends to rise drastically, as it has in Pakistan (from 11 percent in 2005 to 21 percent in 2008[17]) and in Cebu, Philippines (from 0.6 percent to 53 percent in 2009–2011). Many people who inject drugs are sexually active, but the rates of consistent condom use among them tend to be low[18]. Consequently, many of their sexual partners may be living with HIV. In Hanoi (Viet Nam), for example, 14 percent of the sexual partners of people who inject drugs tested HIV-positive in a 2008 study.

IDUs kick-started and gave momentum to the HIV epidemic in many countries in South-East Asia. In Kathmandu, Nepal, HIV among IDUs increased sharply from less than 5 percent in the early 1990s to 40 percent in 1999, and 68 percent in 2003. A similar pattern was noted in Jakarta, Indonesia—in 1999, 16 percent of the IDUs were infected and by 2001 nearly half of IDUs were infected with HIV. In Dhaka, Bangladesh, HIV steadily increased from nil to 5 percent over five years. The early IDU epidemics in India were in the northeastern states where up to 70 percent of the IDUs were infected. Recently, increasing HIV infection rates are being observed among IDUs in other urban areas, namely, Delhi, Mumbai and Chennai. Despite an overall successful reversal of the HIV epidemic in Thailand, HIV prevalence among IDUs has remained consistently high over the past 15 years, ranging between 30 percent and 50 percent.

[15] *HIV/AIDS in the South-East Asia Region*.New Delhi, WHO Regional Office for South-East Asia, 2007 http://www.searo.whot.int/LinkFiles/AIDS_SEARO-

[16] Zhang YH et al. [Analysis of HIV/syphilis/HCV infection among drug users in 15 cities in China.] *Zhonghua Yu Fang Yi XueZaZhi*, 2010, 44:969–974.

[17] *HIV second generation surveillance, national report round I, 2005 and round III*.Islamabad, Pakistan National AIDS Control Programme, 2008.

[18] Commission in AIDS in Asia.*Redefining AIDS in Asia: crafting an effective response*, New Delhi, Oxford University Press, 2008.

2. Objectives

The overall objective of the assignment is complete a geographic and social mapping of DUs in the districts of Colombo, Gampaha, Kalutara, Kandy, Matale, Kurunegala, Puttalum, Galle, and Ratnapura.

The specific objectives are:

a) To complete a geographic mapping of the locations of the DUs in the respective districts
b) To provide information on the size and characteristics of the DUs in the respective districts.
c) To describe the operational typology, spot characteristics and analysis of profile of primary KIs among DUs in each location

3. Methodology

3.1 Method of investigation

Drug abuse can be defined as compulsive, excessive, and self-damaging use of habit forming drugs or substances (substance abuse). These drug abusers or substance abusers are considered as drug users in this mapping exercise. Very few of them are injecting drug users (national estimate is 400) and they have the direct risk of transmission and acquisition of HIV among IDUs. However, in general drug abusers are at higher risk of HIV due to their potential of switching to injecting drug use and not using protective methods under the influence of drugs.

This study has extensively used experience in conducting the Behavioural Surveillance Survey during the period from 2006 to 2008 and the expertise available within the research team in conducting sensitive research with hard-to-reach populations.

The mapping methodology is largely based on geographic approach, which identifies the key locations where the DUs can be found and quantified. DUs who are in most need of focused prevention services have high rates of partner change and therefore have specific locations where they meet new sexual partners (paying or non-paying). Therefore, the approach was to focus on identifying these locations, characterising each location in terms of specific "spots" within that location and the operational characteristics of the sexual networks there in. This approach also estimate the number of key population members that frequent the specific location and spots.

The mapping process consists of four main activities.

- Pre-mapping exercise
- Data collection
- Data processing
- Compilation of results

3.2 The pre-mapping exercise

The pre-mapping exercise served as a preparatory activity to establish the necessary logistical and conceptual foundation for the mapping data collection.

The Consultants conducted a comprehensive desk review of background material used in project preparation, approved project documents, progress reports, action plans and other

available information, which were useful for the study. The data and reports of the mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health in March 2010were also reviewed.

The data collecting tools used in the previous mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health were further improved in consultation with the steering committee members to collect the required data from the respondents. A considerable attention was given to develop simple, short, unambiguous and useful questionnaires. Wording of the questions was considered as fundamental.

The draft questionnaires were pre-tested in a preliminary survey to identify the lapses and irrelevant or inappropriate questions. The Consultants in consultation with the Client finalized the protocol and the questionnaires based on the experience of the preliminary survey and realities on the ground. The detailed field protocols and questionnaires were submitted for ethical review and clearance before proceeding with field data collection. The final versions of the questionnaires were translated, printed and copied to collect the data from the target respondents.

A skilled team consisting of 2 Field Supervisors and 8 FROs from both DU community and non-community with sociological background and prior experience of data collection were deployed for data collection. In addition, experience in working in relevant sensitive research and the geographical area was taken into consideration when selecting FROs. In order to facilitate collection of consistent and reliable data, a three-day training workshop was organized for the FROs in close collaboration with the Client. Module objectives of the training workshop were;

- to enable the participants to understand the need for collecting appropriate data for developing a comprehensive and useful database,
- to enable the participants understand the objectives of the study and steps in conducting the interviews and
- to provide hands-on experience to administer the questionnaires in the field situation.

The training programme was focused on reaching the appropriate respondents, explaining the objective of the study and responding to questions and queries made by the respondents. All aspects of the study and the interview guidelines were explained thoroughly and mock survey sessions were conducted in small groups until all FROs

understand all the questions and have no doubts. The FROs were briefed on the necessity of developing a good rapport with the respondents and on the duty of maintaining strict confidence. Moreover, the FROs were instructed as to how to interpret the answers of the respondents and to enter them in the interview formats.

The Consultants in collaboration with the Client had meetings with local officials and stakeholders, including law enforcement agencies to inform them about the purpose and nature of the mapping study and to garner their support. Discussions were carried out with networks working with the risk populations to get the support for data collection. Before commencing the work, permission was obtained from the Ministry of Health and the Police Department.

3.3 Data collection

3.3.1 Level 1 activity

Level 1 data collection was carried out to collect data on:

- Geographic locations where key population members congregate
- Spot name and typology
- Number of key population members who can be found there (minimum, maximum and usual)

The KIs for level 1 data collection were:

- NGOs, CBOs, Societies working with the risk populations
- Taxi / three-wheel drivers
- Pavement / street hawkers
- STD Clinics / health care providers
- Hotels / Clubs
- Tea stall owners
- DUs / DU Networks

The methodology adopted here was conducting face to face interviews with intended respondents. All the interviews with identified KIs were conducted by the FROs in actual locations or any other convenient place suggested by the respondents. The responsibility of collecting the data from the assigned KI and entering the data in interview formats (L1 data collection forms) lied with the respective FRO. Each day, the field team for each geographic zone convened to collate the data collected in the field to identify final spot list for the defined areas.

All respondents were explained of the need for such research and how the results would be used to develop HIV prevention programmes in Sri Lanka. They were ensured that all information collected will be treated with utmost confidence. All informants were further ensured about the sensitivity of some of the questions and informed that they have the right not to answer any specific question of their choice. After explaining the above their verbal consent was obtained. They were further informed that they have the right to withdraw their consent at any time during the interview. During the Level 1 data collection process, in collaboration with KIs, suitable DUs or persons who are closely associated with them were identified to assist the FROs.

3.3.2 Level 2 activity

Level 1 data collection was carried out:

- To ensure validity of the hotspot and its geographic locations
- To verify the spot name and typology
- To get more accurate values on size of the spot (e.g. minimum and maximum number of members on a usual day and on a peak day, etc.)

The methodology employed in this regard was conducting face to face interviews with intended respondents at the identified hotspots within each zone with the aim of validating the information collected and collated during level 1 data collection. The FROs visited the identified hotspots to verify the location and described the type of spot and get more information on the size of the key population. Where possible, the FROs were accompanied by the members of the target respondents as it had a positive effect on the accuracy of data. Beside the interviewing process, GPS data of each location was collected by a GIS assistant with the support of Field Supervisors and FROs.

A field monitoring process which was accompanied by the below mentioned quality assurance activities was followed during data collection.

- Summary reports from FROs on a daily basis
  Daily summary reports were obtained and daily progress reports were produced and circulated among the team
- Regular meetings with field staff / weekly review meetings
  Monitoring of data collection was accompanied with regular meetings with field staff, during which the FROs were encouraged to discuss the problems encountered during the data collection process

- Data cleaning / questionnaire quality checking
  All completed interview formats were checked for completeness by the Consultants. All questionnaires were given serial numbers (according to the sample list of institutions) to ensure the identification. Missing data and incompatible data were corrected when required by referring to the respective FROs. Data was cleaned and coded to ensure accuracy and efficiency in data entry process.
- Random field visits / live checks
  Live checks were conducted by the Consultants to ensure high quality of interview process and to assess the feedback of survey respondents. Immediate action was taken to improve the situation whenever necessary. The representatives of the TSC were also invited in these field visits.

3.4 Data processing

All the completed data formats were checked for completeness, clearness and accuracy and the responses for open-ended questions were coded before entering. In house data entry operators were assigned to enter collected data into databases which were developed using MS Access. The software was able to verify ranges and consistency of the data and generate reports. Data entry process was closely monitored and the database was randomly checked by the GIS / Data Management Specialist to compare the entered data with the filled interview formats.

Data screening, reviewing, digitizing and processing were matched with the scope of the study. The Consultants conducted exploratory data analysis (e.g. frequencies, percentage tabulations, cross tabulations and projections) of key study variables. The “Hot Spots” were mapped and presented using GIS applications. The ArcView software was used for this purpose. The maps were generated for each district with DSD layer to indicate the locations of hot spots. Different point layers for each hotspot typology and thematic maps for the number of HRGs were also created.

The estimate ranges for each site and location were rolled up for a DSD and city to produce minimum, maximum and median estimates and final estimates along with lists hot spots were generated finally in one database using ArcView and MS Access software.

3.5 Limitation of the study

Although the study made its full effort in gathering data from each district, it is quite important to note that frequent visits to identified hotspots were not possible due to time limitation of

the study and hence certain hotspots were not attended several times during the period of study.

It also appears that Non-governmental organizations in certain districts do not closely work with drug users and thus their assistance was not extended for the study. In this context, the study team had to employ different approaches to locate hotspots. However, there were few instances even few wheel drivers/Key informants misled the study team by providing false information and were not cooperative at all.

There can be differences in number of hotspot as well as the clients served by the spots in relation various previous studies, especially due to the change of mode of contacts to get in touch with the customers. The study found adaptation of modern technologies such as the use of mobile phones; facebook and emails were being frequently used particularly in the city/town areas. Consequently, such changing pattern of behaviours leads to diminishing of the number of hotspots that were previously available.

In normal setting, it is difficult to trace drug-users but the recent police raids have made it more difficult for the study team to collect precise information. At certain times, lack of trust prevented drug dealers to provide information on their partners. It was also difficult to determine accurate number of hot spots as drug-users do not have 'specific' spots and they are a highly mobile group. Most often, DUs do not want anyone to identify them as DUs and some even demanded money in turn to provide information for the study.

4. Results and Discussion

4.1 Profile of the Key Informants (KIs)

4.1.1 Age distribution of the KIs

Majority of the KI are aged between 25 and 29 years of age and followed by 30-34 year-age group.

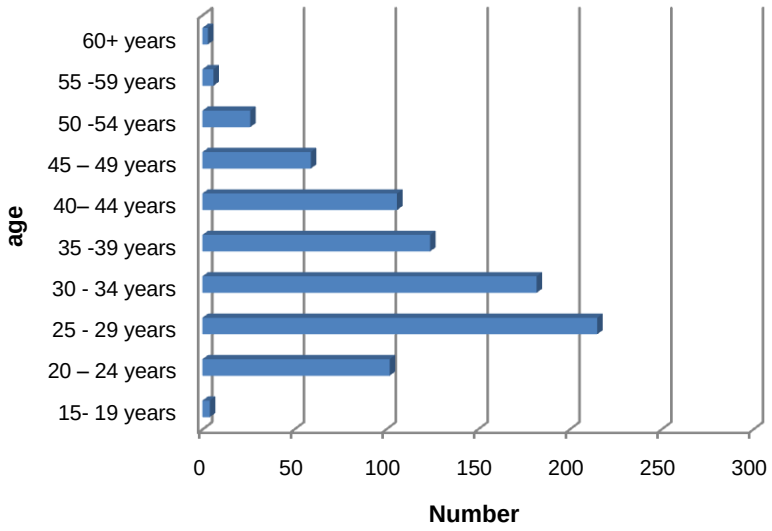


Figure 2: Age distribution of the KIs

4.1.2 Educational level of the KIs

It is quite clear from the following figure that the majority of the KIs were educated up to year 10 and thus suggests that there is a strong inverse relationship between the drug use and the educational attainment.

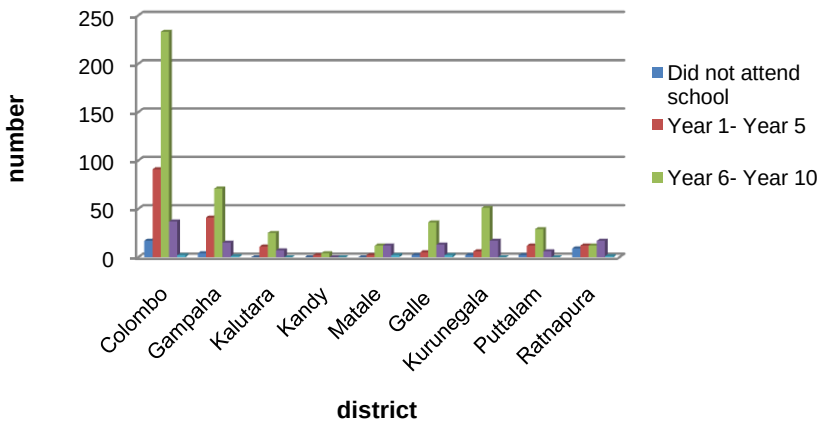


Figure 3: Educational level of the KIs

4.1.3 Marital status of the KIs

Married KIs are the dominant group although unmarried is also observed in all 9 districts. However, divorce or separated KIs can be especially seen in Colombo where most of the KIs and spots are reported.

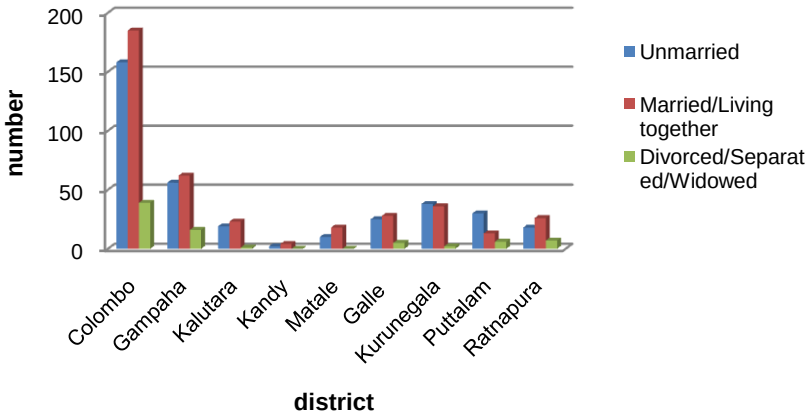


Figure 4: Marital status of the KIs

4.1.4 Main mode of income

It appears that most of the KIs are engaged in unskilled work, sales related work or unemployed. However, most of the other categories such as drivers, hospital workers, Municipal Council workers are available as KIs in Colombo district compared to other districts under study.

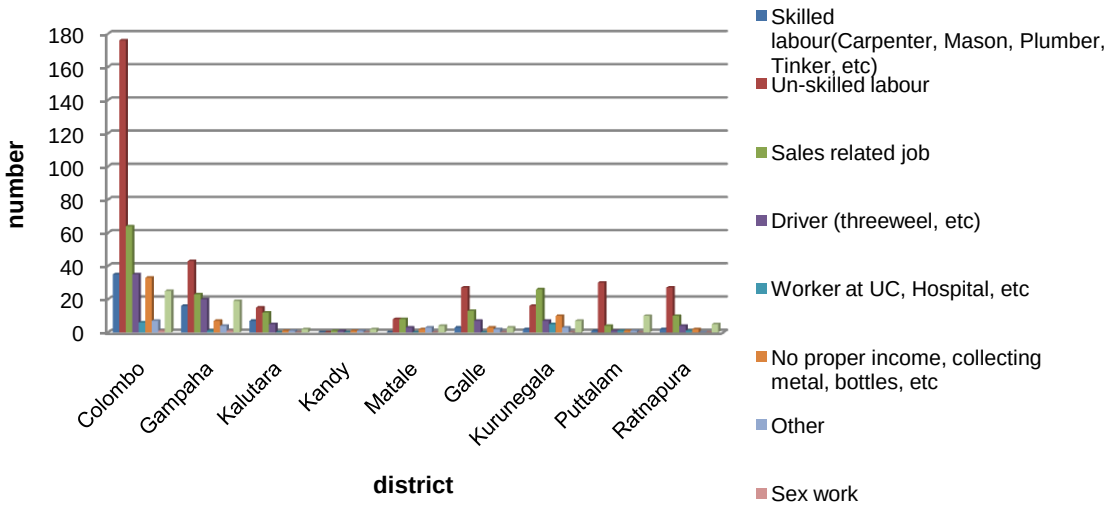


Figure 5: Main mode of income of the KIs

4.2 Distribution of spots

Colombo district has the highest number of spots (382) while least is observed in Kandy (6). Altogether, the number of spots observed was 827 and they are distributed over 9 districts.

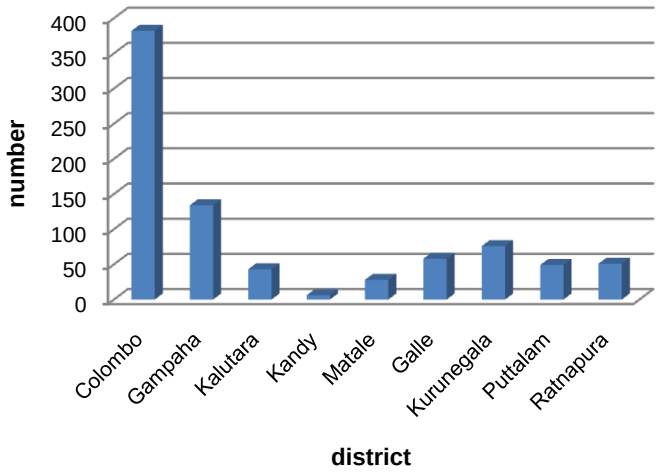


Figure 6: Distribution of spots

4.3 Number of DUs

Table 1 shows the distribution of DUs on a usual and a peak day. It also reveals that a higher percentage of DUs (46.5 percent) visit on a peak day than a usual day**.**

Table 1: Distribution of DUs on a usual and a peak day

Day	Colombo	Gampaha	Kalutara	Kandy	Matale	Galle	Kurunegala	Puttalam	Ratnapura	Total
On a usual Day	2488	702	287	22	172	263	291	494	226	4945
On a peak Day	3651	986	422	46	286	401	433	683	338	7243

4.4 Mean number of DUs visiting spot on a usual day

On a usual day, the highest average number of DUs visiting spots is found in Puttalam district while the least is recorded in Kandy and Kurunegala districts. The range is between 10 and 3 DUs on a usual day. The total number of DUs visiting spot on a usual day is 4945.

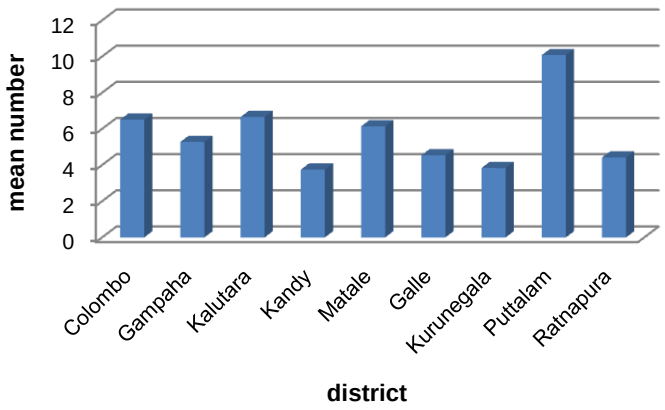


Figure 7: Mean number of DUs visiting spot on a usual day

4.5 Mean number of DUs visiting spot on a peak day

Even on a peak day, Puttalam recorded the highest average while Kurunegala showed the lowest number. However, on average about 8 DUs visit spot on a peak day across the island. Mean number of DUs visiting spots on a peak day is 7243.

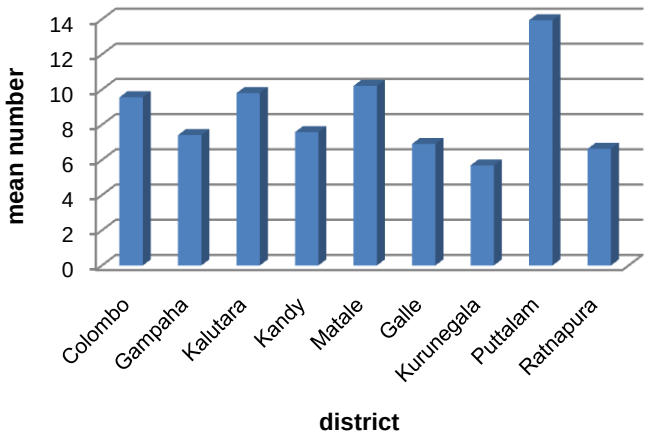


Figure 8: Mean number of DUs visiting spot on a peak day

4.6 Peak day for DUs to visit spot in a week

It appears from the following figure that the DUs are most active on weekends but majority of visits take place on Sunday.

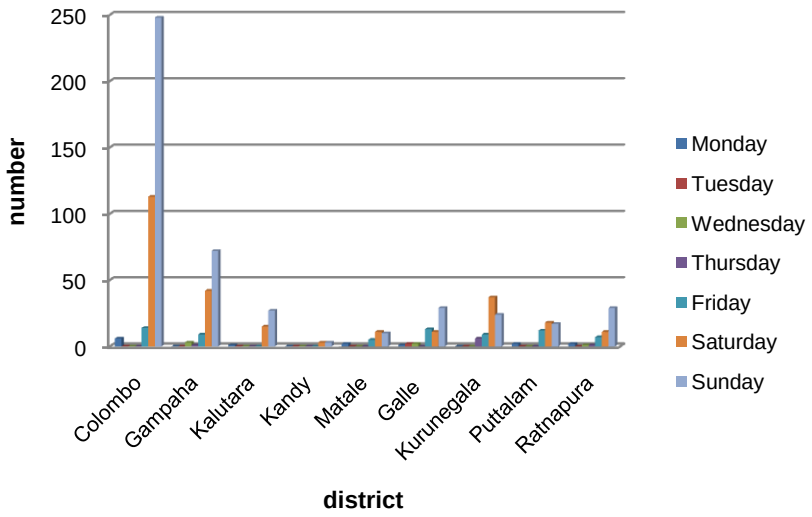


Figure 9: Peak day for DUs to visit the spot in a week

4.7 Peak time for DUs to visit the spot

Usually, peak time appears to be the time between 4.00pm and 8pm but in Colombo, a considerable number of DUs seem to be active after 8.00 pm too.

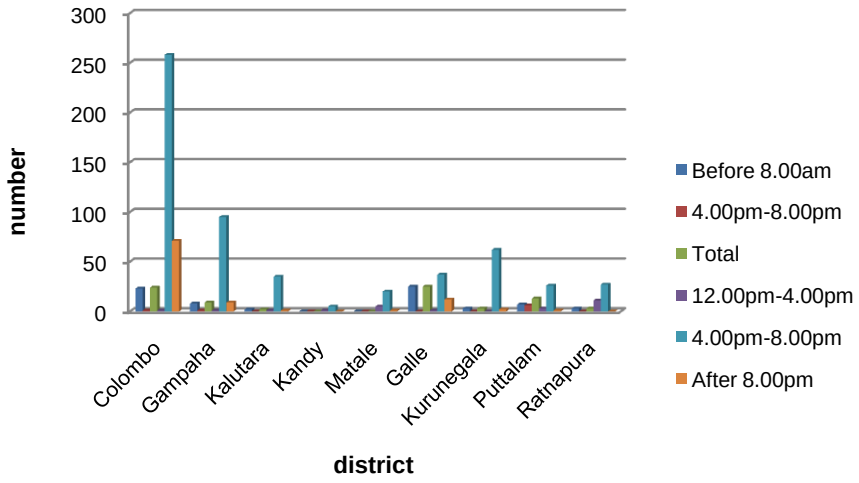


Figure 10: Peak time for DUs to visit the spot in a day

4.8 Mean number of opposite sex partners/clients

Ratnapura district records the highest average of opposite sex partners and both Kalutara and Puttalam districts showed the least. All other district reveal the same average, which is one partner.

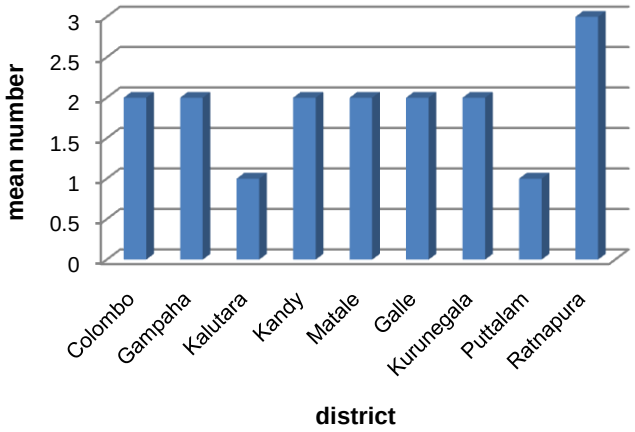


Figure 11: Mean number of opposite sex partners/clients

4.9 Number of same sex partners

Distribution of same sex partners by district reveals that it is clearly visible only in Colombo and Gampaha districts. This suggests that DUs prefer opposite sex than same sex, as indicated in previous figure.

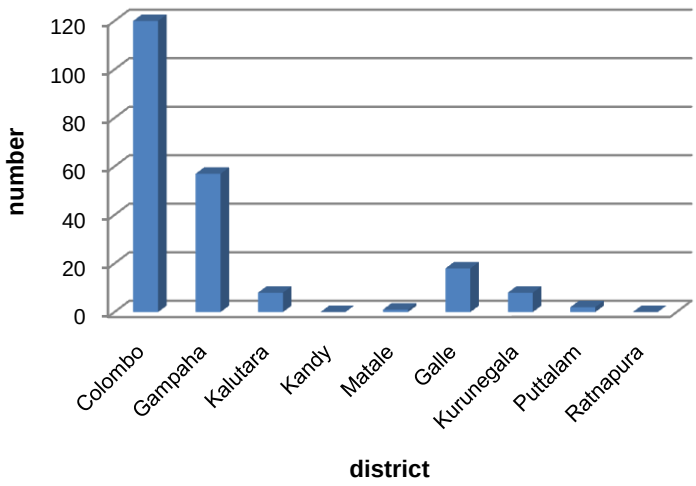


Figure 12: Number of same sex partners/clients

4.10 Use of condoms at last sex

Condom use by the DUs is relatively low as depicted in the following figure. This may mean that use of drug can have a negative effect on the use of condoms during sex.

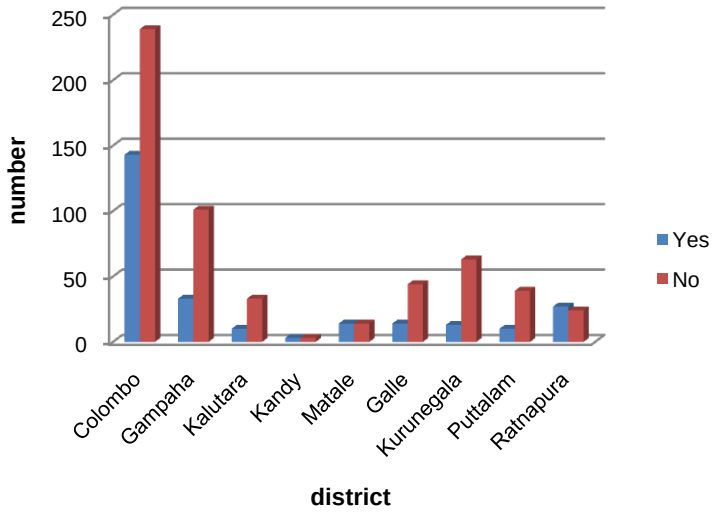


Figure 13: Use of condoms at last sex

4.11 Use of heroine during last three months

It is quite obvious to find that DUs to use drugs during the last three months and it is clearly visible in the following figure. However, it is also quite important to note that non-use of drugs even by a small minority in Colombo, Gampaha and Kandy districts.

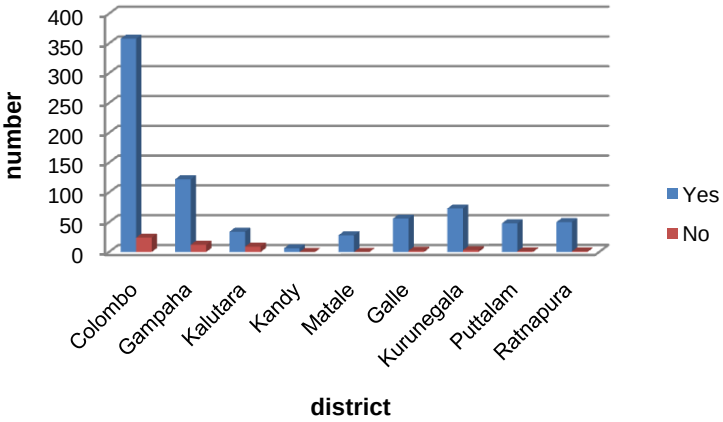


Figure 14: Use of heroine during last 3 months

4.12 Use of syringe for heroine during last three months

As mentioned in previous studies, injecting drug users are not common in Sri Lanka as shown in the following figure. However, Colombo district where majority of spots and drug users come from has shown a substantial minority of injecting drug users compared to all other districts under study.

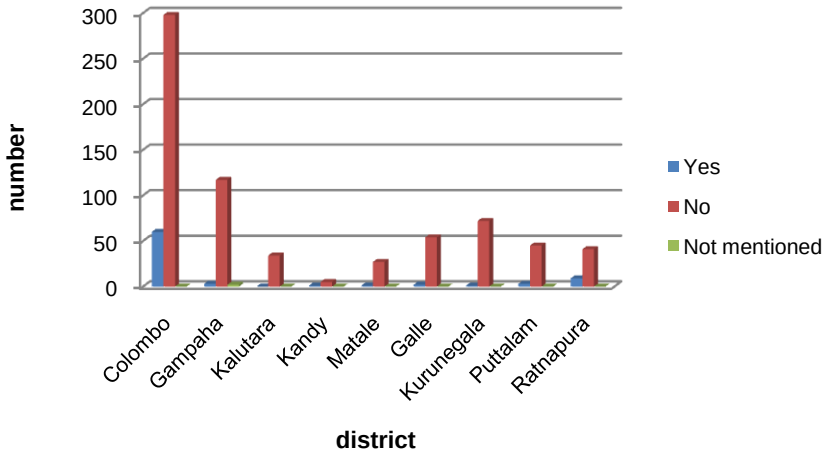


Figure 15: Use of syringe for heroine during last 3 months

4.13 Finding drugs from the spot

It is imperative to note here that the spots do not serve as selling centers of drugs as depicted in the following figure although few spots in Colombo district do so.

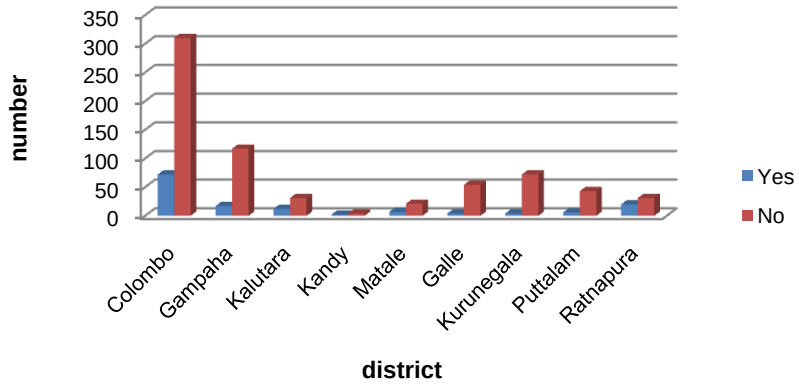


Figure 16: Finding drugs from the spot

5. Summary

The study revealed that majority of the KI are aged between 25 and 29 years of age and followed by 30-34 year-age group. When education level of the KIs are examined, we find that a greater part of the KIs were educated up to year 10 and thus suggests that there is a strong inverse relationship between the drug use and the educational attainment. Married KIs are the dominant group although unmarried is also observed in all 9 districts. However, divorce or separated KIs can be especially seen in Colombo where most of the KIs as well as hot-spots are reported. It appears that most of the KIs are engaged in unskilled work, sales related work or unemployed. In addition, most of the other categories such as drivers, hospital workers, Municipal Council workers are available as KIs especially in Colombo district compared to other eight districts.

Colombo district has the highest number of spots while the least is observed in Kandy. On the whole, the number of spots observed was 827 and they are distributed over 9 districts. On a usual day, the highest average number of DUs visiting spots is found in Puttalam district while the least is recorded in Kandy and Kurunegala districts. Even on a peak day, Puttalam recorded the highest average while Kurunegala showed the lowest number. However, on average about 8 DUs visit spot on a peak day across the island.

The DUs are most active on weekends but majority of visits take place on Sunday. Typically, peak time appears to be the time between 4.00pm and 8.00pm but in Colombo, a considerable number of DUs seem to be active even after 8.00pm.

Ratnapura district records the highest average of opposite sex partners whereas both Kalutara and Puttalam districts showed the least. Distribution of same sex partners by district reveals that this phenomenon is clearly visible only in Colombo and Gampaha districts.

Condom use by the DUs is relatively low as reported in this study. This may mean that use of drug can have a negative effect on the use of condoms during sex. It is quite obvious to find that DUs to use drugs during the last three months but it is also quite important to note that a small minority in Colombo, Gampaha and Kandy districts. As mentioned in previous studies, injecting drug users are not common in Sri Lanka but Colombo district where majority of spots and drug users come from has shown a substantial minority of injecting drug users compared to all other districts under study. It is imperative to note here that the spots do not serve as selling centers of drugs although few spots in Colombo district do so.

Annex 1 - Terms of References

Introduction

As yet, evidence suggests that the HIV epidemic in Sri Lanka remains at a relatively low level. However, experience from other countries in South Asia have shown that concentrated HIV epidemics involving vulnerable key populations can expand quickly within those sub-populations and affect the wider population through "bridge populations". Therefore, to prevent the establishment and potential expansion of an HIV epidemic in Sri Lanka a key strategy will be to reduce the potential for transmission in important networks of vulnerable key populations, particularly where such networks are large and dense and therefore prone to rapid HIV transmission within and from these networks. The first key step in developing targeted interventions for vulnerable key populations is assessing their location, size and basic operational characteristics. Experience in diverse settings of South Asia has shown that structured mapping can provide accurate estimates of the size and location of key populations and thereby provide guidance for the scoping and targeting of HIV prevention programs and services.

This is a set of guidelines for a mapping study of key populations in selected districts in Sri Lanka using a mapping methodology that has been developed and successfully applied in diverse urban areas in low prevalence settings, including in India, Pakistan and Afghanistan.

Goals and Objectives

The overall goal of the proposed study is to provide accurate information on the size and characteristics of Most at Risk Populations (MARPs) in selected districts of Sri Lanka. The key population groups include female sex workers (FSWs), Men who have Sex with Men (MSM), Drug Users (DUs) and Beach Boys.

The specific objectives are:

1. To complete a geographic mapping of the locations of the MARPs in Selected Districts of Sri Lanka.
2. Estimate the population sizes of the risk populations, and describe the operational typology and organization structures of each MARP in each location.

Mapping Approach and Methodology

The basic approach has two sequential steps:

1. Level 1 - Systematic information gathering from each MARP key informants .(KI) regarding the locations ("hot spots") where key population members congregate and/or meet casual or paying sexual partners or for drug use.
2. Level 2 -Site validation and profiling of identified "hot spots" to characterize and estimate the size of the key populations.

The mapping methodology is largely based on a geographic approach which identifies the key locations where key population members can be found and quantified. The rationale for this is based on the experience in diverse settings in Asia which has shown the following. Most FSWs with a relatively large number of clients congregate and/or meet clients in definable geographic locations. Similarly, MSM who are in most need of focused prevention services have high rates of partner change, and therefore have specific locations where they meet new sexual partners (paying and non-paying partners). DUs who participate in networks and share drugs with other DUs generally congregate in particular locations where they access to drugs. Beach Boys are basically gather in beaches and around tourist hotels to approach their clients. Accordingly, the approach was to focus on identifying these locations, characterizing each location in terms of specific "spots" within that location and the operational characteristics of the sexual or , drug-using networks there (i.e. how and where FSWs and MSM meet clients/partners and "where sexual transactions occur). This approach also estimate the number of key population members that frequent the specific locations and spots.

The mapping process incorporates four main activities:

1. Pre-mapping exercise
2. Level one (L1)
3. Level two (L2)
4. Compilation of results

The Pre-mapping exercise

The pre-mapping exercise serves as a preparatory activity to establish the necessary logistical and conceptual foundations for the mapping data collection. The key aspects of the pre-mapping exercise include:

- Acquisition and review of detailed maps of the target cities.
- Segmentation of each district (i.e. >250,000) into zones based on logical administrative and/or neighborhood units.

- Recruitment of local field team members based on their experience working with key populations and field research experience (the field team should be comprised of members of the specific target group).
- Training of field staff on the concepts and implementation of the mapping methodology, including defining key terms, concepts and definitions relevant to the local situation.
- Meetings with local officials and stakeholders, including law enforcement agencies, to inform them about the purpose and nature of the mapping study, and to garner their support.
- Development of a field monitoring process and a detailed work plan for the local mapping exercise.
- Obtaining ethical clearance from the relevant ethical sub committee

Level 1 Activity

Level 1 data collection focuses on collecting information from key informants about the geographic locations where key population members congregate, as outlined above. For each mentioned location, key informants are asked a small set of more specific questions about the characteristics of the spot (public place, brothel, lodge, etc.) and an estimate of the number of key population members who can be found there (minimum and maximum and usual). This information is gathered in a pre-designed format, finalized during the pre-mapping exercise. Each day, the field team for each geographic zone convenes to collate the data collected in the field. Data are manually edited and the information is further sorted into various tables which served as a foundation to for the next level of activity. Based on the information assembled in Level 1, spots are identified for detailed spot profiling in Level 2 data collection, described below.

Level 2 Activity

The final step in data collection involves conducting key informant interviews at the key identified hotspots within each zone. These interviews, called L2 interviews, involve primary key informants (key population members and those closely related; FSWs, DUs, MSM, Beach Boys pimps, madams, brokers, etc.) and is focused on validating the information collected and collated in the previous exercise. Field teams go the identified hotspots to verify the location, describe the type of spot, and get more specific information on the size of the key population that is there (minimum, maximum and median estimates).

Data Management

Pre-set data forms will be edited by a data management team and corrected for names of zones, missing KI typology, and any missing estimates of spots, (i.e. spot without any estimates of key sub-population size). The collected data should be entered into a computerized database specifically designed for the study and analyzed using an accepted computer package. The data is used for generating final estimates and lists of spots. To obtain this, the estimate ranges for each site and location can be rolled up for a zone and city to produce minimum and maximum estimates. To arrive at a single "best" estimate, the mid-point ("mean") of the minimum and maximum estimates is used.

Organization and Monitoring of Field Work

Although the number of field teams will vary in different cities and zones, a general team structure is proposed, consisting of senior and junior field workers/interviewers, working alongside key population community members who participate as social mobilizes and participate in the field work. The teams will be supervised by team supervisors, who reported to the local co-investigator or the site coordinator. In addition to the field teams, a data management team comprising of a data manager and data entry operators will be established.

Project Team

1. Technical Experts

The technical project team should be comprised of an expert team that can draw on the experience, materials and protocols.

Overall technical lead, project management and report generation

- Team Leader, demographer/public health expert with extensive design and implementation experience *for* mapping and survey studies with key population groups
- HIV Expert
- Sociologist
- GIS Expert
- Statistician
- Technical advisors (one - two) involved in the field monitoring, data analysis and report generation

2. Implementing Agency/Team

Field work, data collection and field supervision will be the responsibility of an implementation team. A technical steering committee consists of officials from PR2 and National STD AIDS Control programme will provide technical assistance and monitor the implementation to assure the quality of implementation.

Implementation Plans and Timelines

The implementation of the project will proceed in three phases: 1) Planning Meeting 2) preparation and training; 3) field work; 4) analysis and reporting. The total time period from the signing of the contract and submission of the final report will be 4 calendar months.

Planning Meeting

The technical study team should meet with the technical steering committee and plan out the methodology of the study. The main objective of the meeting is to finalize the protocol and obtain necessary approvals.

Protocol finalization and approvals - Based on methods and tools already developed, final protocols and tools (e.g. interview schedules and questionnaires) should be finalized, translated and piloted. In addition, the detailed field protocols should be finalized based on realities on the ground. The final protocols and instruments should be submitted for ethical review before proceeding.

Field Team Training

The technical team should carryout training for the field supervisors and interveners on the methodology, data collection tools and monitoring tools and processes. Training schedules should be approved by the steering committee before the training is started.

Field Work

Field work should be implemented by the local implementation teams, with supportive supervision from the technical team.

Analysis and Reporting

The following deliverables will be expected from the agency

- Detailed work plan for the assessment.
- Brief report of training workshop for the assessment team.
- Assessment tools based on agreed methodology.

- Brief report of pre-testing of the assessment tools.
- Regular at least 2 meetings with Assessment Core Team/Committee.

The first draft should be available for review within the given time period and it will be reviewed by a group experts. The structure of the report includes at least the following sections/elements in English language:

1. Background;
2. Objectives;
3. Methodologies and fieldwork;
4. Findings;
5. Conclusions and Recommendations;
6. Tables and Graphs;
7. Annex on data and documents; and
8. References, including secondary literature and a comprehensive listing of document obtained/reviewed.

- Second and the final report should be submitted within 2 weeks after providing comments by the expert team.
- The final report should be ready for printing with type set, edited for language with graphics and art work in 3 hard copies.
- The Electronic Database, data collection materials and an electronic copy of the final report should be handed over to Sarvodaya before the final payment.

Confidentiality and Safety of Information

The agency/agencies are responsible in maintaining confidentiality of the information gathered and assure the safety of information until they are handed over to Sarvodaya with the final report

Payment Scheme

- 25% will be paid with the signing of the contract
- 25% with the implementation of the study- Completion of tools and recruitment and training of full technical staff and field staff
- 25% with submission of the 1st draft.
- Final 25% with the submission of the final report in 3 hard copies, 3 soft copies and the data base

Topics to be covered in the Proposal

1. In the Technical Proposal
    - Agency profile
    - Research team with CVs
    - Previous experiences in similar activities including Budget
    - Proposal details
    - Sampling, Methodology, Analysis
    - Work Plan
2. Financial Proposal

Guidelines for Submission of Proposal

1. Proposals and financials proposals should be submitted separately for each Target Group -(Commercial Sex Workers, Men having Sex with Men, Drug Users, Beach Boys)
2. Technical Proposal and Financial Proposal for the mapping activity should be submit in 2 separate sealed envelops
3. The envelop should marked "Technical Proposal /Financial Proposal for Mapping of MARPs" and the specific target group on the top of left hand corner of the envelop
4. Proposal can be deposited in the box or can be sent by Registered post to reach Director, Sarvodaya Secretariat for GFATM Project, "Nagarodaya Centre", No, 155A, Dr. Danister De Silva Mw, Colombo 8.
5. Proposals should be reached before 5.00 pm on 14'' June 2011 to the above address.

Annex 2 - Data Collection Tools

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

DRUG USERS - LEVEL 1 FORM

A.1. District:					A.9. Key informant No	
A.2. DS/AGA Division					A.10.Key informant Name	
A.3. GN Division (Optional)					A.11. KI contact information	
A.4. FRO Name/Code					A.12. KI Type *(circle the relevant number)*	1. Primary 2. Secondary 3. Tertiary
A.5. FRS Name/Code					A.13. KI Gender *(circle the relevant number)*	1. Male 2. Female 3. Transgender
A.6. Date *(DD/MM/YYYY)*					A.14. KI Occupation	
A.7. Time started	H	H	M	M	Comments:	
A.8. Time end	H	H	M	M		

B.1. S. N	B.2. Name of the Spot	B.3. Type*	B.4. Contact for that spot	Number	
				B.5. Min	B.6. Max
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012
DRUG USERS - LEVEL 2 FORM

A.1. District:					A.9. Spot Code			
A.2. DS/AGA Division					A.10.Spot Type			
A.3. GN Division (Optional)					A.11. Spot Name			
A.4. FRO Name/Code					A.12. Spot currently active	1. Yes, 2. No		
A.5. FRS Name/Code					Comments:			
A.6. Date *(DD/MM/YYYY)*								
A.7. Time Started	H	H	M	M				
A.8. Time End	H	H	M	M				

B. SPOT PROFILE (SPOT INFORMATION)		Codes
B.1. **On a usual day**, how many **DUs** visit this spot *(min - max)*		
B.2. **On a peak day**, how many **DUs** visit this spot (min - max)		
B.4. What is the **peak day** for DUs to visit this spot in a week?		
B.5. What are the **peak time** for DUs to visit this spot in a day?		

C. INFOMATION ABOUT THE KI		Codes
C.1. What is your age at last birthday?		
C.2. How many years of education have you completed?		
C.3. What is your marital status?	1. Unmarried, 2. Married/Living together, 3. Divorced/separated/widowed	
C.4. How many **No of opposite sex partners /clients** with whom you have sex during the last 3 months?		
C.5. How many No of **same sex partners /clients** with whom you have sex during the last 3 months?		
C.6. Did you use a condom at last sex?	1. Yes 2. No	
C.7. Have you ever injected drugs?	1. Yes 2. No	
C.8. If yes; have you injected drugs during last 3 months?	1. Yes 2. No	
C.9. What is your main mode of income?		
C.10. Do you only find drugs from this spot?	1. Yes 2. No	

Lanka Jathika Sarvodaya Shramadana Sangamaya

GFATM Round 9 HIV / AIDS

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka

Men who have Sex with Men (MSM)

Final Report -September 2012

MG CONSULTANTS

Acknowledgement

We wish to acknowledge The Lanka Jathika Sarvodaya Shramadana Sangamaya for taking an initiative to conduct Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) for funding the programme.

We also take this opportunity to thank all institutions and individuals for their valuable contributions and assistance extended to us in successfully carrying out this assignment.

We thank Dr. Harischandra Yakandawala, Programme Manager, GFATM Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya for his professional support, technical guidance, encouragement and continuous feedback extended to us throughout the assignment.

We greatly appreciate the unstinted support given by Dr. Nimal Edirisinghe, Director, National STD AIDS Control Programme (NSACP) for the cooperation extended to complete this study successfully.

A special word of thanks goes to the Technical Steering Committee Members, Dr. K. M. A. Ariyaratne, Dr. Neelamani Punchihewa, Dr. Sriyakanthi Beneragama, and Dr. Ajith Karawita of NSACP and Dr. Dayanath Ranatunge of UNAIDS for their valuable contribution, technical assistance and feedback given to ensure the completion of this study in a highly satisfactory manner.

We also wish to thank the Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) which are working for the most at risk populations for their great contribution in field data collection by providing field staff.

The tertiary, secondary and primary key informants who assisted the field team to identify the “Hot Spots” and the primary key informants; Female Sex Workers, Men who have Sex with Men, Drug Users and Beach Boys who provided the information and responded to our questionnaire, undoubtedly served as the nucleus of this study. We sincerely thank all of them and highly appreciate their contribution towards this venture of national importance for HIV prevention in Sri Lanka.

STUDY TEAM

Programme Management Unit

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya

1. Dr. Harischandra Yakandawala, Programme Manager

MG Consultants (Pvt.) Ltd

Project Management Team

1. Dr. Manomi Perera – Chief Executive Officer
2. Mr. Amil Epa – Project Manager
3. Ms. Nadeesha Jayasena – Project Coordinator

Team on Consultants

1. Prof. Lakshman Dissanayake – Consultant / Project Advisor
2. Prof. M. W. Jayasundara – Project Consultant / Sociologist
3. Dr. Sunil Ratnayake – Project Consultant / Sociologist
4. Dr. Thiloma Munasinghe – Consultant / Human Immunodeficiency Virus (HIV) Specialist
5. Mr. Prassanna Lenadora – Geographic Information System (GIS) / Database Expert
6. Mr. Jaanaka Sanjeewa - GIS / Database Expert
7. Mr. Indika Siriwardana – Statistician
8. Dr. Inoka Suraweera – Technical Advisor / Consultant - Community Medicine
9. Dr. Gamini Jayakody - Technical Advisor / Consultant - Community Medicine

Technical Steering Committee

National STD AIDS Control Programme (NSACP)

1. Dr. Nimal Edirisinghe, Director, NSACP
2. Dr. K. M. A. Ariyaratne
3. Dr. Neelamani Punchihewa,
4. Dr. Sriyakanthi Beneragama
5. Dr. Ajith Karawita

United Nations Programme on AIDS (UNAIDS)

1. Dr. Dayanath Ranatunge

Supporting Organizations

1. Family Planning Association (FPA) of Sri Lanka
2. Community Strength Development Foundation (CSDF)
3. Alcohol and Drug Information Centre (ADIC)
4. Organization for Environment and Child Right Preservation (OECRP)
5. Community Oriented Resource Exchange (CORE)
6. Environment and Community Development Information Centre (ECDIC)
7. “Heart to Heart”
8. “Saviya” Foundation
9. “Seth Arana”
10. “Praja Diviya Padanama”
11. “Rajarata Gami Pahana”
12. “Sri Lanka Manawa Sanwardana Padanama”
13. “Wayamba Govi Sanwardana Padanama”

Acronyms

ADIC	Alcohol and Drug Information Centre
AGA	Assistant Government Agent
AIDS	Acquired Immunodeficiency Syndrome
BB	Beach Boy
CBO	Community Based Organization
CORE	Community Oriented Resource Exchange
CSDF	Community Strength Development Foundation
CV	Curriculum Vitae
DS	Divisional
DSD	Divisional Secretariat Division
DU	Drug User
ECDIC	Environment and Community Development Information Centre
FPA	Family Planning Association of Sri Lanka
FRO	Field Research Officer
FRS	Field Research Supervisor
FSW	Female Sex Worker
GCE O/L	General Certificate of Education Ordinary Level
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GIS	Geographic Information System
GN	Grama Niladari
GPS	Global Positioning System
HIV	Human Immunodeficiency Virus
KI	Key Informant
MARP	Most at Risk Population
MGC	MG Consultants
MSM	Men who have Sex with Men
NGO	Non Governmental Organization
NSACP	National STD AIDS Control Programme
OECRP	Organization for Environment and Child Right Preservation
PR	Principal Recipient
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection

TOR	Terms of Reference
TSC	Technical Steering Committee
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program

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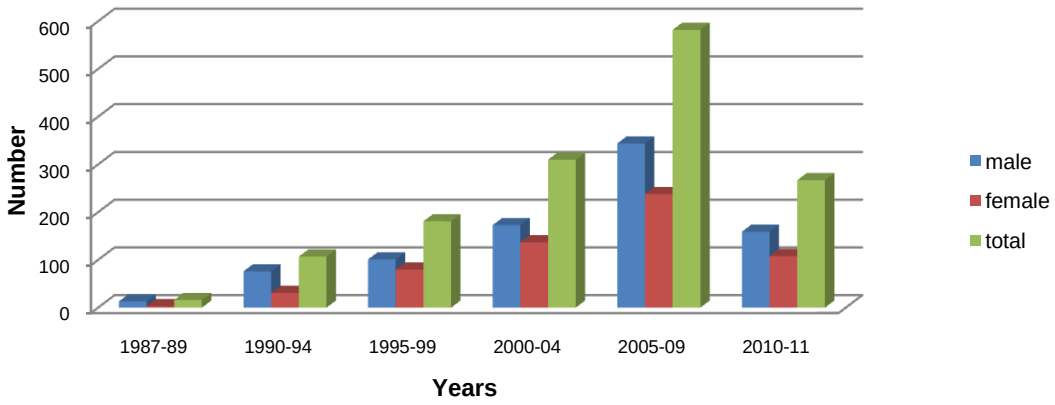
1. Introduction

The National Strategic Plan for Prevention and Control of HIV/AIDS 2002-2006 reported the first few cases of HIV in Sri Lanka and they were primarily among men having sex with men (MSM). To date there is no scientific determination of the MSM population in the country but Government official consensus based estimate reveals that there are about 12000 high risk MSM. The UNDP's estimates indicate that there about 30,000 'Beach Boys' who can be regarded as male sex workers[1].

The first HIV case in Sri Lanka was reported in 1987. There has been constant rise of the HIV and AIDS cases since then and hence HIV/AIDS can be regarded as a new epidemic emerging in Sri Lanka. Number of HIV cases has increased an exponential manner up to 2009 but a significant decline is seen during the period 2010-11 (Figure 1).



Source: National STD/AIDS Control Programme (NSACP), Sri Lanka

Figure 1: Number of HIV cases reported up to 2011

Available evidence suggests that Sri Lanka does not have a significant number of HIV/AIDS patients and thus the country is currently is not experiencing an epidemic in this regard. UNAIDS estimates based on a mapping exercise conducted in 2010, MSM were ranging between 24,000 and 37,000, respectively[2].Currently the HIV prevalence is below 1.0 percentand as at end December 2011, a cumulative total of 1463 HIV persons were reported to National STD/AIDS Control Programme of Sri Lanka (NSACP). The main mode of transmission is unprotected sex between men and women (83.8 percent) followed by the

1 aidsdatahub.org/.../MSM_Country_Snapshots_-_Sri_Lanka_online.p... &www.aidsdatahub.org/.../4824-sri-lanka-behavioural-surveillance-sur

2 www.unaids.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf

category of men who have sex with men (MSM) accounting for 12.3 percent. It has been claimed that unprotected paid sex, the sharing of contaminated needles and syringes by injecting drug users and unprotected sex between men seem to be the commonalities observed in Asia in relation to HIV transmission (UNAIDS, 2008). Therefore, it appears that prevention efforts are highly associated with dire reduction of HIV transmission among and between these three categories of most-at-risk populations. However, injecting drug use in Sri Lanka is not a widespread experience (0.5 percent). Nevertheless, some socio-economic and behavioral factors which are seen in Sri Lanka could ignite an epidemic in the future[3].The emerging trend of a large youth population entering into population structure of Sri Lanka, internal and external migration, underground but thriving sex industry, low level of condom use, concurrent sexual relationships among most-at-risk-populations (MARP) can be regarded as most influential factors which can future prevalence of HIV disease in Sri Lanka. In addition, low level of sexually transmitted infections (STI), availability and accessibility to free of charge health services from the state sector, high literacy rate, low level of drug injectors, are the factors which can be regarded as constraints to the spread of HIV.

However, Mahajan et al[4] have claimed that HIV-related stigma is associated with higher risk behaviors in a range of low and high prevalence scenarios[5].Only 6 of 10 countries in the world have laws and regulations that bar discrimination against people living with HIV, and even for the states that have antidiscrimination laws, major barriers persevere in implementation. It has also been pointed out that HIV spread can go out of control not because of the size of the high-risk population but once this virus gets out of high-risk population, and set off to spread in general populations, the risk for everybody who is sexually active goes up in a heterosexual epidemic[6]. In such a situation, every sexually active person is at risk-not just drug users, female sex workers, men who have sex with men, and promiscuous people.

The present study seems very significant in global as well as local context although Sri Lanka is currently regarded as a ‘low prevalent’ country. This mainly because when a ‘low

3www.unaids.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf

4Mahajan AP, Sayles JN, Patel VA, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. AIDS. 2008;22(Suppl 2):S67-S79.

5 Sayles JN, Hays RD, Sarkisian CA, et al. Development and psychometric assessment of a multidimensional measure of internalized HIV stigma in a sample of HIV-positive adults. AIDS Behav. 2008;12:748-758.

6Yoon C. AsiaSource interview with Chris Beyrer. 2002. Available at: http://www.asiasource.org/news/special_reports/beyrerinterview.cfm.

prevalence' label is applied to a country, it needs further clarification as 'low' is a relative measure in the global context when it comes to HIV epidemic. All countries, including those harshly affected in sub-Saharan Africa, have at some point in their epidemic histories been 'low-prevalence' countries. For instance, South Africa, which now has among the worst HIV epidemics in the world, was considered low prevalence about 10 years ago when other African epidemics were already well in progress. Current HIV prevalence assists to plan surveillance and interventions efficiently, but it is not predictive of the future of the epidemic. It is quite essential to note that the predicting the magnitude of future epidemics is challenging and has historically been extremely erroneous.

2. Objectives

The overall objective of the assignment is to provide accurate information on the size and characteristics of MSMs in the districts of Colombo, Gampaha, Kalutara, Galle and Anuradhapura.

The specific objectives are:

- To complete a geographic mapping of the locations of the MSM in the respective districts
- To estimate the population sizes of MSM population and describe the operational typology and organizational structures of MSM in each location

3. Methodology

3.1 Method of Investigation

MSM in the present study are defined as men who have sex with other men as a matter of preference or practice, regardless of their sexual identity or orientation. The term does not refer to those men who might have had sex with other men as part of sexual experimentations or very occasionally depending on special circumstances. This group is considered to be high risk group as they indulge in anal sex, which has got the highest potential of HIV transmission and acquisition. In this category there are three identified sub groups

- Nachchi: they are a group of effeminate males having sex with another male
- MSW: male who have got paid in cash or kind for having sex with another male at least once in the last month.
- Other MSM: group of males having sex with other males and who cannot be classified under above two categories (e.g. Gays etc)

This study has extensively used experience in conducting the Behavioural Surveillance Survey during the period from 2006 to 2008 and the expertise available within the research team in conducting sensitive research with hard-to-reach populations.

The mapping methodology was largely based on geographic approach, which identified the key locations where the MSM can be found and quantified. MSM who are in most need of focused prevention services have high rates of partner change and therefore have specific locations where they meet new sexual partners (paying or non-paying). Therefore, the approach was to focus on identifying these locations, characterising each location in terms of specific “spots” within that location and the operational characteristics of the sexual networks there in. The number of key population members that frequent the specific location and spots were also estimated.

The mapping process consisted of four main activities.

- Pre-mapping exercise
- Data collection
- Data processing
- Compilation of results

3.2 The Pre-mapping Exercise

The pre-mapping exercise served as a preparatory activity to establish the necessary logistical and conceptual foundation for the mapping data collection.

The Consultants conducted a comprehensive desk review of background material used in project preparation, approved project documents, progress reports, action plans and other available information, which were useful for the study. The data and reports of the mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health in March 2010were also reviewed.

The data collecting tools used in the previous mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health were further improved in consultation with the steering committee members to collect the required data from the respondents. A considerable attention was given to develop simple, short, unambiguous and useful questionnaires. Wording of the questions was considered as fundamental.

The draft questionnaires were pre-tested in a preliminary survey to identify the lapses and irrelevant or inappropriate questions. The Consultants in consultation with the Client finalized the protocol and the questionnaires based on the experience of the preliminary survey and realities on the ground. The detailed field protocols and questionnaires were submitted for ethical review and clearance before proceeding with field data collection. The final versions of the questionnaires were translated, printed and copied to collect the data from the target respondents.

A skilled team consisting of 2 Field Supervisors and 8 FROs from both MSM community and non-community with sociological background and prior experience of data collection were deployed for data collection. In addition, experience in working in relevant sensitive research and the geographical area was taken into consideration when selecting FROs. In order to facilitate collection of consistent and reliable data, a three-day training workshop was organized for the FROs in close collaboration with the Client. Module objectives of the training workshop were;

- to enable the participants to understand the need for collecting appropriate data for developing a comprehensive and useful database,
- to enable the participants understand the objectives of the study and steps in conducting the interviews and

- to provide hands-on experience to administer the questionnaires in the field situation.

The training programme was focused on reaching the appropriate respondents, explaining the objective of the study and responding to questions and queries made by the respondents. All aspects of the study and the interview guidelines were explained thoroughly and mock survey sessions were conducted in small groups until all FROs understand all the questions and have no doubts. The FROs were briefed on the necessity of developing a good rapport with the respondents and on the duty of maintaining strict confidence. Moreover, the FROs were instructed as to how to interpret the answers of the respondents and to enter them in the interview formats.

The Consultants in collaboration with the Client had meetings with local officials and stakeholders, including law enforcement agencies to inform them about the purpose and nature of the mapping study and to garner their support. Discussions were carried out with networks working with the risk populations to get the support for data collection. Before commencing the work, permission was obtained from the Ministry of Health and the Police Department.

3.3 Data Collection

3.3.1 Level 1 Activity

Level 1 data collection was carried out to collect data on:

- Geographic locations where key population members congregate
- Spot name and typology
- Number of key population members who can be found there (minimum, maximum and usual)

The KIs for level 1 data collection were:

- NGOs, CBOs, Societies working with the risk populations
- Taxi / three-wheel drivers
- Pavement / Street hawkers
- STD Clinics / health care providers
- Hotels / Clubs
- Tea stall owners
- MSM / MSM Networks

The methodology adopted here was conducting face to face interviews with intended respondents. All the interviews with identified KIs were conducted by the FROs in actual locations or any other convenient place suggested by the respondents. The responsibility of collecting the data from the assigned KI and entering the data in interview formats (L1 data collection forms) lied with the respective FRO. Each day, the field team for each geographic zone convened to collate the data collected in the field to identify final spot list for the defined areas.

All respondents were explained of the need for such research and how the results would be used to develop HIV prevention programmes in Sri Lanka. They were ensured that all information collected will be treated with utmost confidence. All informants were further ensured about the sensitivity of some of the questions and informed that they have the right not to answer any specific question of their choice. After explaining the above their verbal consent was obtained. They were further informed that they have the right to withdraw their consent at any time during the interview. During the Level 1 data collection process, in collaboration with KIs, suitable MSM or persons who are closely associated with them were identified to assist the FROs.

3.3.2 Level 2 Activity

Level 1 data collection was carried out:

- To ensure validity of the hotspot and its geographic locations
- To verify the spot name and typology
- To get more accurate values on size of the spot (e.g. minimum and maximum number of members on a usual day and on a peak day, etc.)

The methodology employed in this regard was conducting face to face interviews with intended respondents at the identified hotspots within each zone with the aim of validating the information collected and collated during level 1 data collection. The FROs visited the identified hotspots to verify the location and described the type of spot and get more information on the size of the key population. Where possible, the FROs were accompanied by the members of the target respondents as it had a positive effect on the accuracy of data. Beside the interviewing process, GPS data of each location was collected by a GIS assistant with the support of Field Supervisors and FROs.

A field monitoring process which was accompanied by the below mentioned quality assurance activities was followed during data collection.

- Summary reports from FROs on a daily basis
  Daily summary reports were obtained and daily progress reports were produced and circulated among the team
- Regular meetings with field staff / weekly review meetings
  Monitoring of data collection was accompanied with regular meetings with field staff, during which the FROs were encouraged to discuss the problems encountered during the data collection process
- Data cleaning / questionnaire quality checking
  All completed interview formats were checked for completeness by the Consultants. All questionnaires were given serial numbers (according to the sample list of institutions) to ensure the identification. Missing data and incompatible data were corrected when required by referring to the respective FROs. Data was cleaned and coded to ensure accuracy and efficiency in data entry process.
- Random field visits / live checks
  Live checks were conducted by the Consultants to ensure high quality of interview process and to assess the feedback of survey respondents. Immediate action was taken to improve the situation whenever necessary. The representatives of the TSC were also invited in these field visits.

3.4 Data Processing

All the completed data formats were checked for completeness, clearness and accuracy and the responses for open-ended questions were coded before entering. In house data entry operators were assigned to enter collected data into databases which were developed using MS Access. The software was able to verify ranges and consistency of the data and generate reports. Data entry process was closely monitored and the database was randomly checked by the GIS / Data Management Specialist to compare the entered data with the filled interview formats.

Data screening, reviewing, digitizing and processing were matched with the scope of the study. The Consultants conducted exploratory data analysis (e.g. frequencies, percentage tabulations, cross tabulations and projections) of key study variables. The “Hot Spots” were mapped and presented using GIS applications. The ArcView software was used for this

purpose. The maps were generated for each district with DSD layer to indicate the locations of hot spots. Different point layers for each hotspot typology and thematic maps for the number of HRGs were also created.

The estimate ranges for each site and location were rolled up for a DSD and city to produce minimum, maximum and median estimates and final estimates along with lists hot spots were generated finally in one database using ArcView and MS Access software.

3.5 Limitations of the study

Although the study made its full effort in gathering data from each district, it is quite important to note that frequent visits to identified hotspots were not possible due to time limitation of the study and hence certain hotspots were not attended several times during the period of study.

It also appears that Non-governmental organizations in certain districts do not closely work with MSM and thus their assistance was not extended for the study. In this context, the study team had to employ different approaches to locate hotspots. However, there were few instances even few wheel drivers/Key informants misled the study team by providing false information and were not cooperative at all.

There can be differences in number of hotspot as well as the clients served by the spots in relation various previous studies, especially due to the change of mode of contacts to get in touch with the customers. The study found adaptation of modern technologies such as the use of mobile phones; facebook and emails were being frequently used particularly in the city/town areas. Consequently, such changing pattern of behaviours leads to diminishing of the number of hotspots that were previously available.

The study found that MSM are highly mobile population and thus they do not stay at a place for a long duration of time. It appears that this can affect the number of hotspots recorded in the present study to deviate from previous studies on this subject. In addition, there is very limited access to MSM who are belonged to affluent classes of the society as they have different types of social contacts rather than meeting at a given hot spot like MSM who are from lower socio-economic categories.

4. Results and Discussion

4.1 Spot Information

4.1.1 Distribution of spots

Although previous mapping studies were confined to two districts[7], the present study is extended to five districts in terms of hot spots as shown in Figure 2.Therefore; this study will provide a wider coverage on the distribution of hot spots than the previous mapping studies of MARP in the country. The total number of hot spots identified in these five districts is 381.Majority of the spots are seen in Colombo district while the least is observed in Galle district. It is quite important to note that Anuradhapura district which is commonly known as sexually active district for the soldiers during the war time has shown a significant number of MSM.

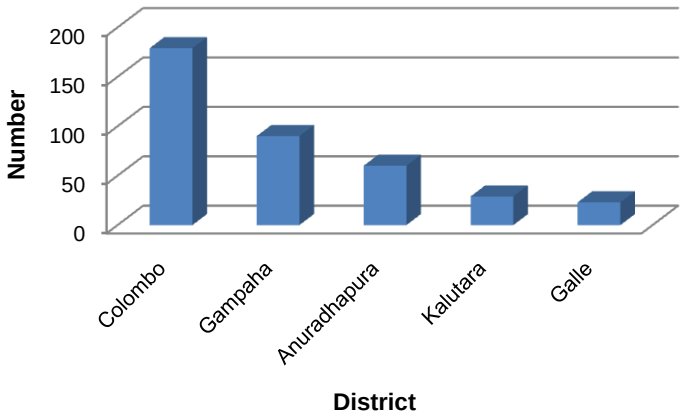


Figure 2: Distribution of spots

4.1.2 Mean number of MSM visiting spot on a usual day

The total number of MSM visiting spot on a usual day in the five districts under study is 1399. Majority (53.6 percent)of the MSM are seen in Colombo. Although the distribution of spots has a wide variation as shown in Figure 2, mean number of MSM visiting spot on a usual day does not show any significant difference by district. In this regard, however, the lowest average is observed in Anuradhapura district.

[7] *aidsdatahub.org/...key-populations-for-hiv-prevention-in-sri-lanka-n...*

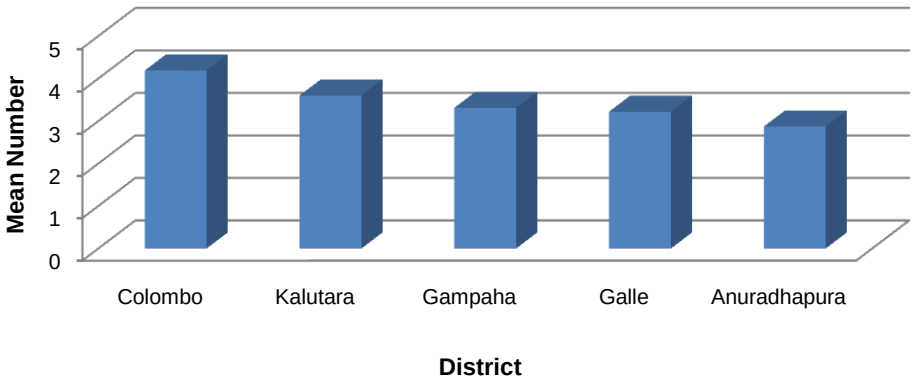


Figure 3: Mean number of MSM visiting spot on a usual day

4.1.3 Mean number of MSW visiting spot on a usual day

It was found that the total number of MSW visiting spots in the five districts were 747. This was 46.6 percent less than the visit of MSM on a usual day. Galle district appears to be the most attractive district for MSW visiting spot on a usual day while Kalutara district shows the least appeal. Altogether, the Western province is not very attractive for MSW to visit spot on a usual day.

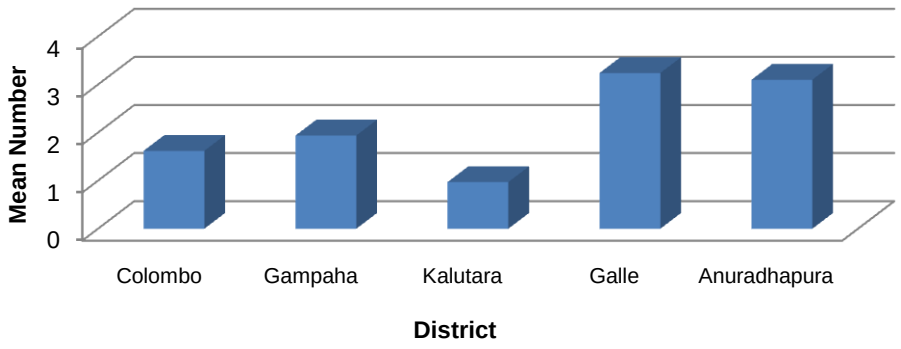


Figure 4: Mean number of MSW visiting spot on a usual day

4.1.4 Nachchis visiting spot on a usual day

Highest mean number of Nachchis visiting spots was recorded in Galle while the least was reported for Kalutara district. It is also imperative to note that the North-Central province's capital also shows a significant number of Nachchis visiting spot on a usual day compared to Colombo and Gampaha district.

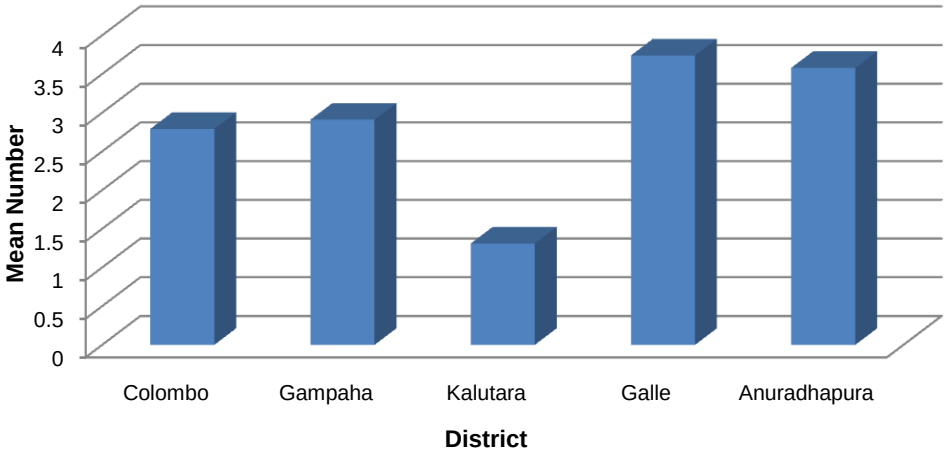


Figure 5: Mean number of Nachchis visiting spot on a usual day

4.1.5 Other MSM visiting spot on a usual day

It is recorded that 1564 of other MSM are visiting spots on a usual day which is the highest category among the three groups which were investigated in the present study. Although Kalutara was the least active district in terms of MSW and Nachchis, it records the highest average for other MSM visiting spot on a usual day.

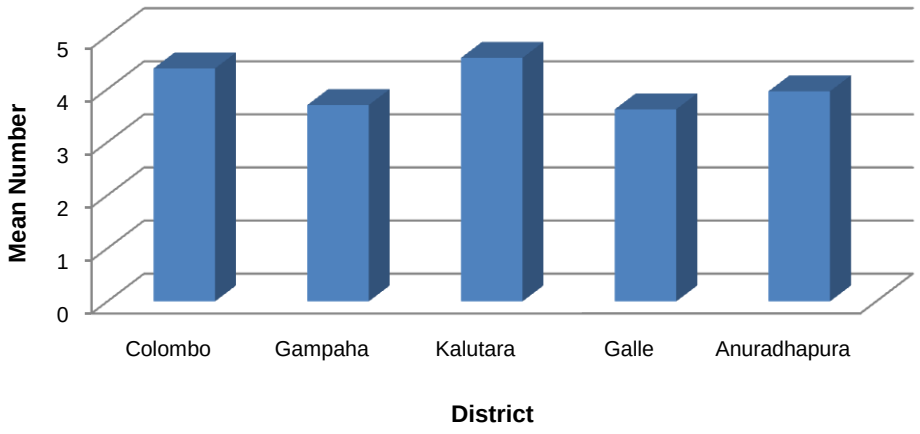


Figure 6: Mean number of other MSM visiting spot on a usual day

4.1.6 MSM visiting spot on a peak day

The total number of MSM visiting spots on a peak day was 2200. All the districts report at least 4 MSM visiting spot on a peak day but Colombo and Anuradhapura district seem to be the most attractive district for MSM (Figure 7).

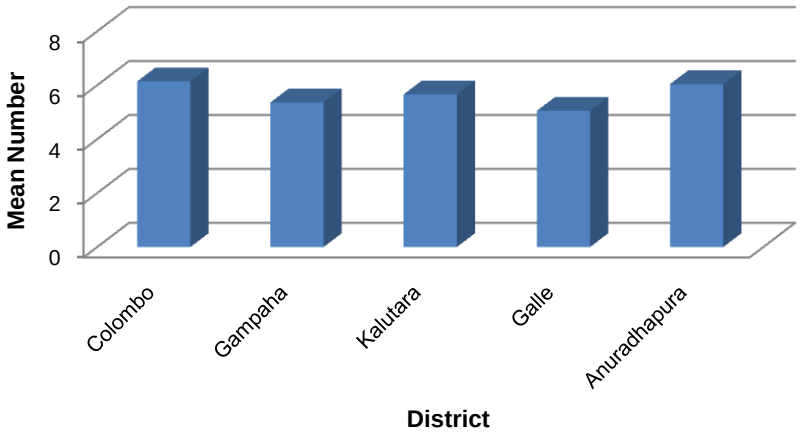


Figure 7: Mean number of MSM visiting spot on a peak day

4.1.7 Number of MSM

Table 1 exhibits the distribution of MSM in the five districts under study. It reveals that a significantly higher percentage of MSM (57.2 percent) visit spots on a peak day than on a usual day.

Table 1: Distribution of number of MSM in the five districts under study

Day	Colombo	Gampaha	Kalutara	Galle	Anuradhapura	Total
On a usual day	751	298	104	74	172	1399
On a peak day	1098	482	164	111	344	2200

4.1.8 Peak month for MSM to visit spot

The months of April, May, June and December seem to be the peak month for MSM to visit spot in a given year. Among these months, April is the most attractive month for the MSM in Colombo district while MSM in Gampaha district are most active during the months of April, May and December. It is quite exciting to note that MSM in Anuradhapura district are mostly active in June compared to all other district which are least active in that month (Figure 8).

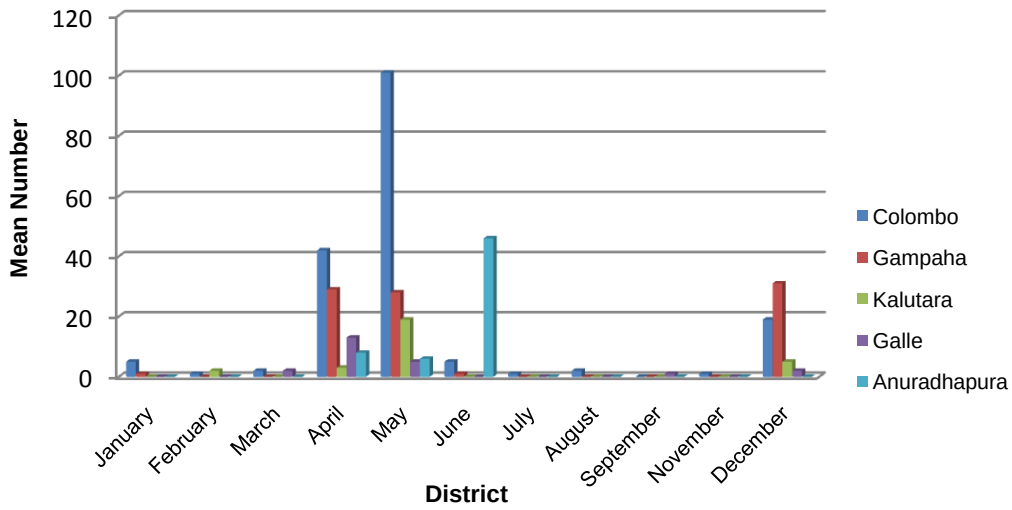


Figure 8: Peak month for MSM to visit spot in a year by district

4.1.9 Peak day for MSM to visit spot

Peak days for MSM to visit hot spots are mostly weekends but MSM in Colombo and Gamapaha are more dynamic on Sundays. Anuradhapura again shows a deviation from the general pattern as its MSM are most active on Saturdays.

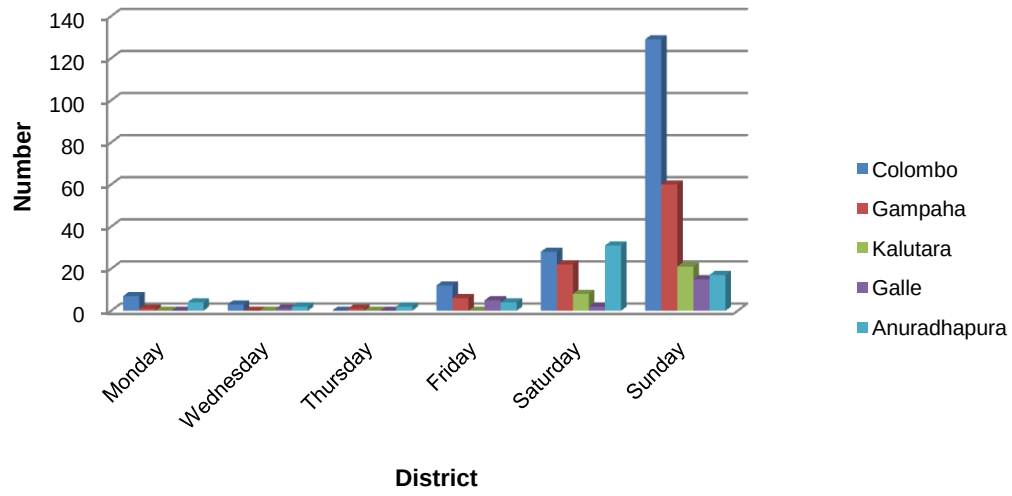


Figure 9: Peak day for MSM to visit spot in a week by district

4.1.10 Peak time for MSM to visit spot

MSM seem to be most active in all districts between 4.00 and 8.00 pm in a day followed by after 8.00 p.m. involvement.

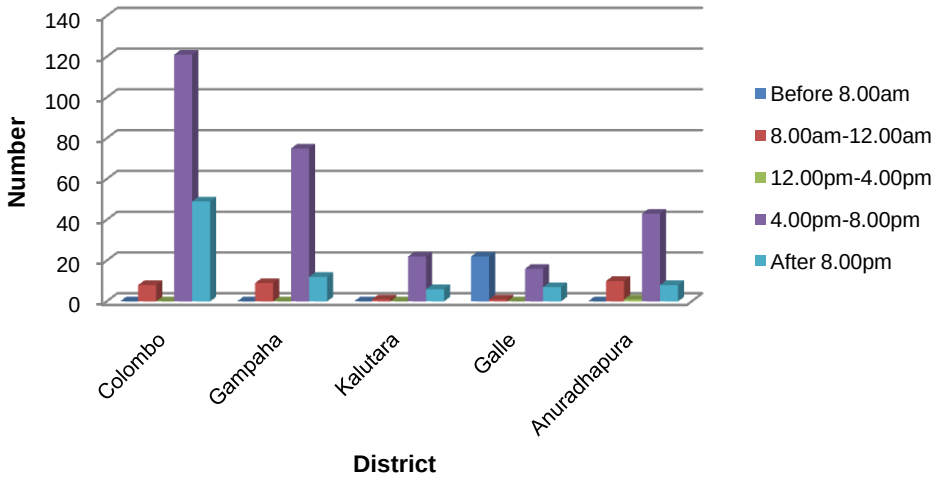


Figure 10: Peak time for MSM to visit the spot in a day by district

4.1.11 Mean number of clients visiting spot

The study reported that 1704 and 2688 clients were visiting spots on a usual and peak day, respectively. On average, Colombo district has the highest number of clients visiting spot on a usual or a peak day while all other districts show the same frequency on both days but at a lower level (Figure 11).

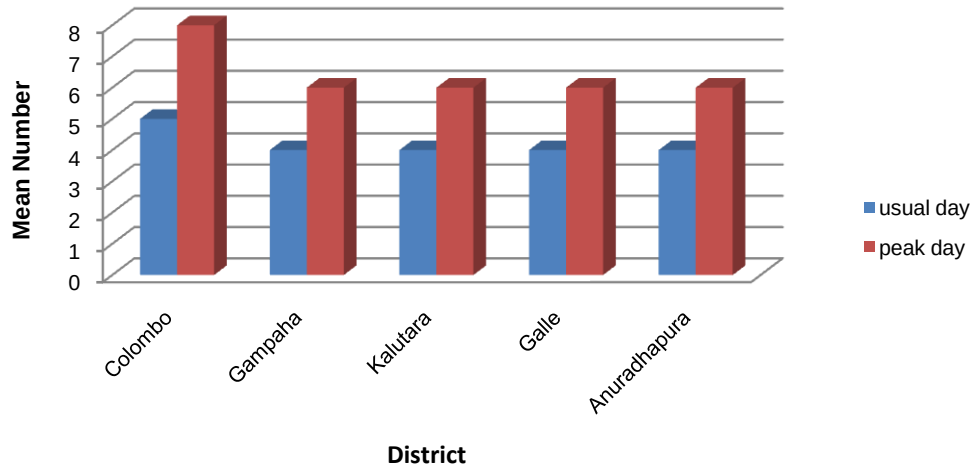


Figure 11: Mean number of clients visiting spot on a usual/peak day by district

4.1.12 Risk status of spot

Figure 12 reveals that the risk is most prevalent in Colombo while the least is recorded in Galle district. In general, taking risk is higher than seeking risk in all districts under investigation.

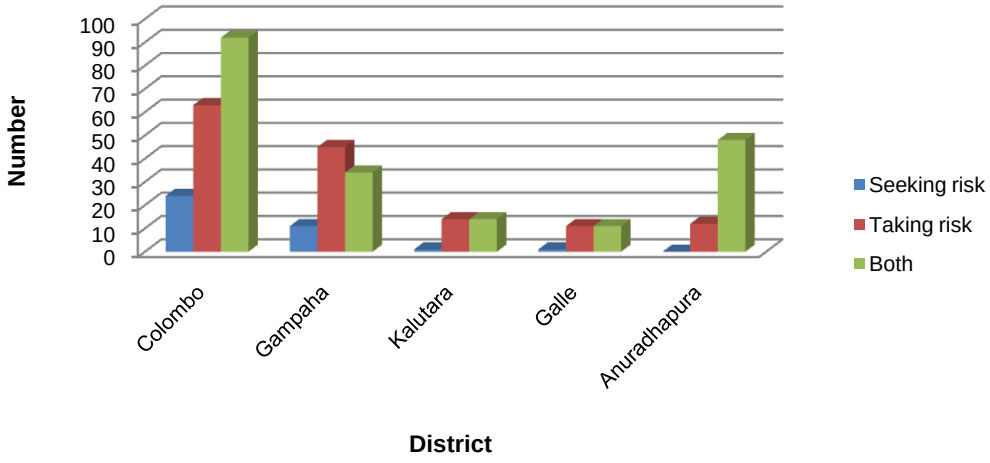


Figure 12: Risk status of spot by district

4.2 Profile of key informants (KIs)

4.2.1 Type of key informants

The key informants of the study are mostly Nachchis and other MSM in all districts but few male sex workers are also included as depicted in Figure 13.

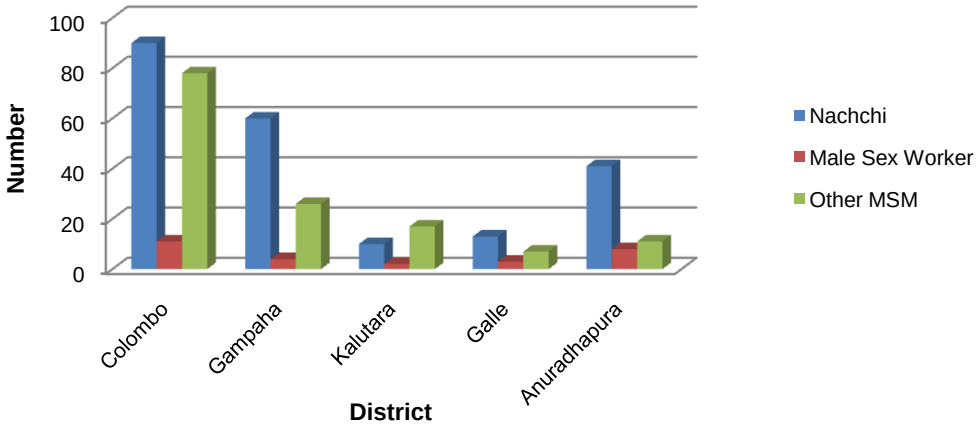


Figure 13: Type of Key Informants by District

4.2.2 Age distribution of key informants

Figure 14 illustrates that the most key informants are belonged to the ages between 20 to 34 years. This is not very different to the age distribution of the MSM found in Mapping of Key Populations for HIV Prevention in Sri Lanka by the NSACP[8]. However, a significant number of key informants who are aged 15 to 19 years are found in Colombo district.

[8] *aidsdatahub.org/**...key-populations-for-hiv-prevention-in-sri-lanka-n...***

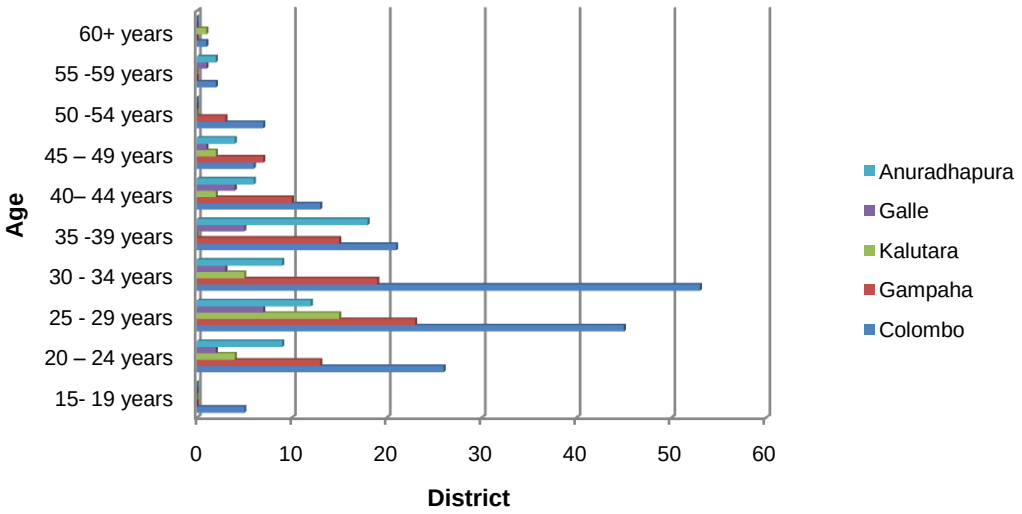


Figure 14: Age distribution of key informants by district

4.2.3 Education level of key informants

The highest level of education of the key informants recorded for all the districts is between year 6 and year 10 (Figure 15). Nevertheless, a significant number of key informants who have educated up to A/L are also reported.

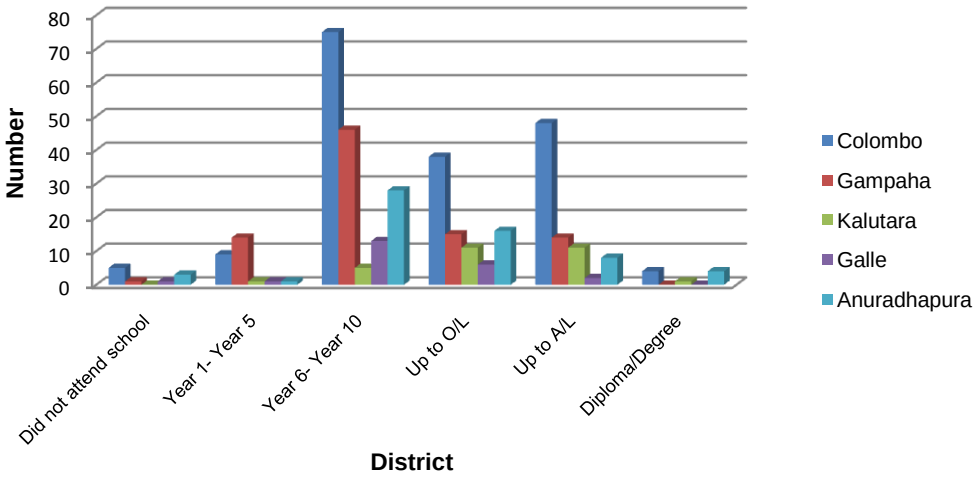


Figure 15: Education level of key informants by district

4.2.4 Marital status of key informants

Most of the key informants in all the districts are unmarried men but Colombo and Gampaha districts show a substantial minority of MSM living with a male partner (Figure 16).

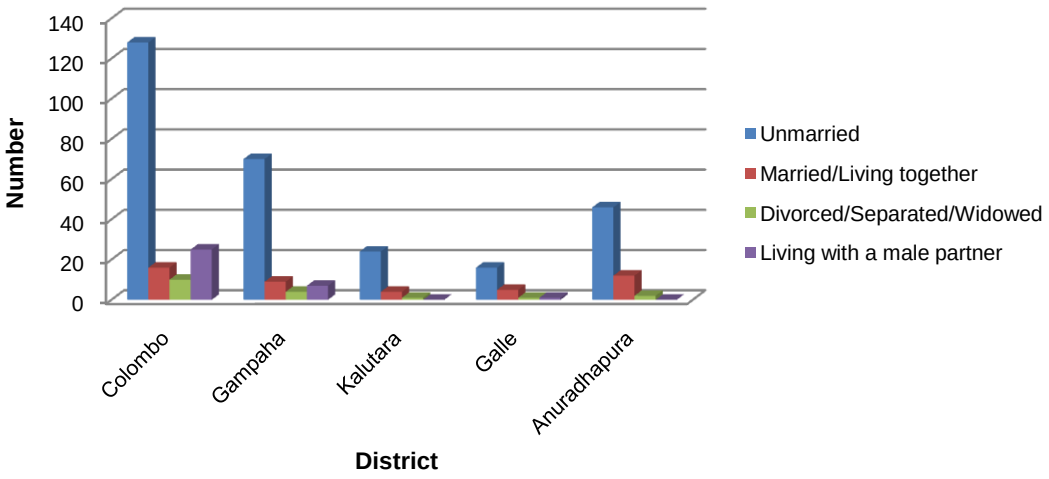


Figure 16: Marital status of key informant by district

4.2.5 Exchanging money or benefits for sex

It is found that MSM exchange money or benefits for sex occasionally although majority in Colombo district and few in other districts have indicated that they do not do so.

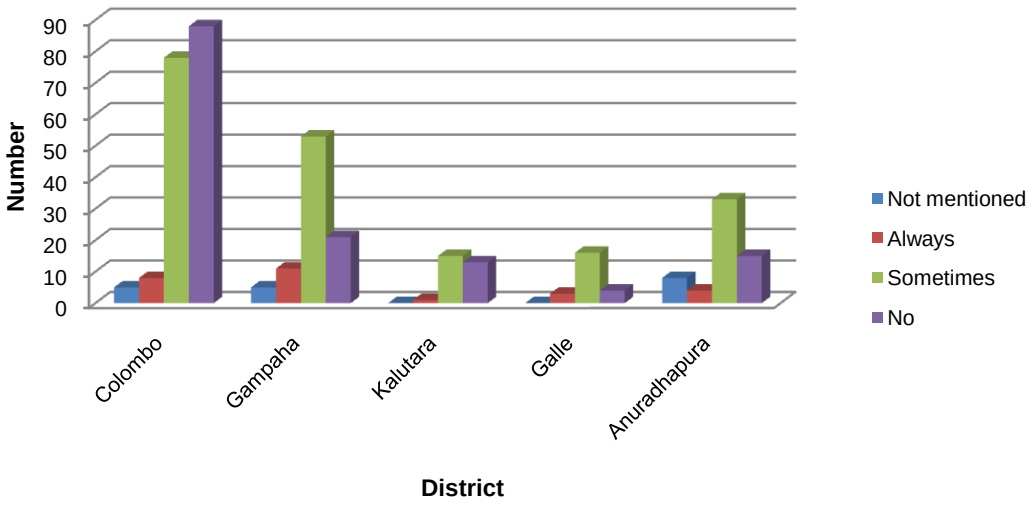


Figure 17: Exchanging money or benefits for sex

4.2.6 Number of same sex partners

Number of same sex partners/ clients having sex per day is highest in Anuradhapura district (3 per day) while Kalutara district shows the least number (1 per day). All other districts have the same level (2 per day) but lower than Anuradhapura district.

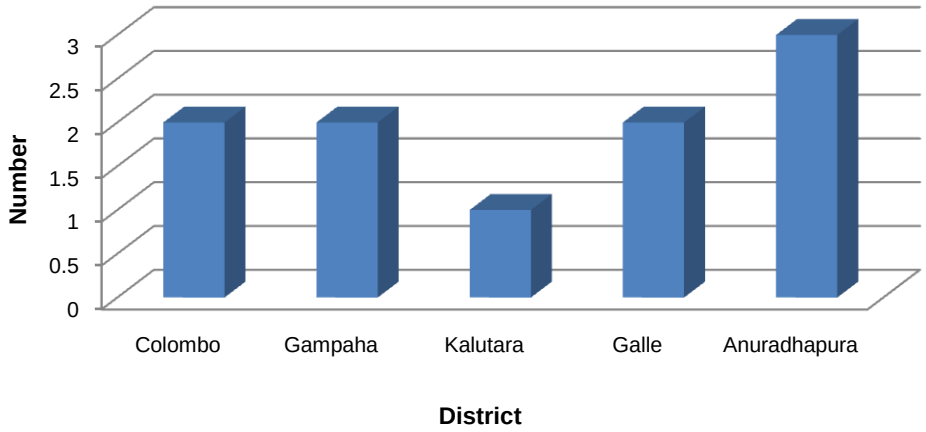


Figure 18: Number of same sex partners/clients having sex per day

4.2.7 Number of opposite sex partners/clients

It is quite important to note that MSM in all the districts show at least one opposite sex partner with whom they had sex during the last three months. In Galle and Anuradhapura districts this number is three times higher than all other districts.

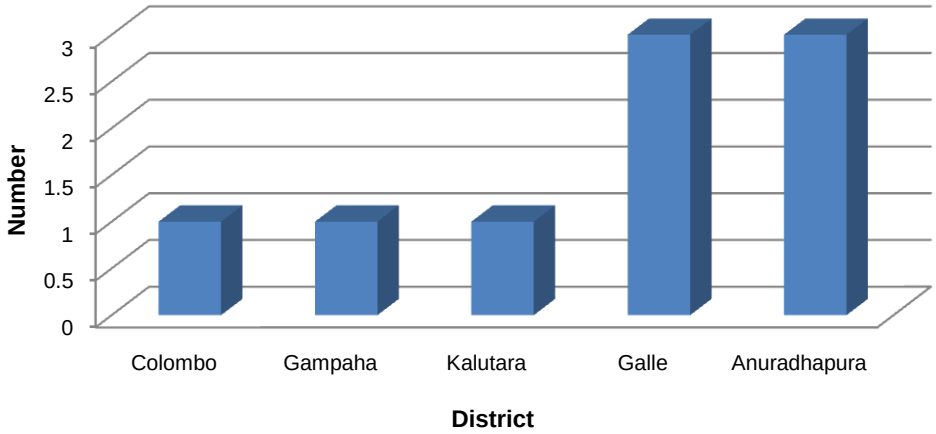


Figure 19: Number of opposite sex partners/clients having sex during last three months

4.2.8 Use of condom at last sex

From the responses of the key informants, 57 percent have used condoms at last sex which is very much higher than the value found in the Behavioral Surveillance Survey of 2006/7.Except those MSM in Galle district, majority in all others have used condoms during last sex. However, Colombo and Gampaha districts show significantly higher number of MSM not using condoms compared to all other district under study.

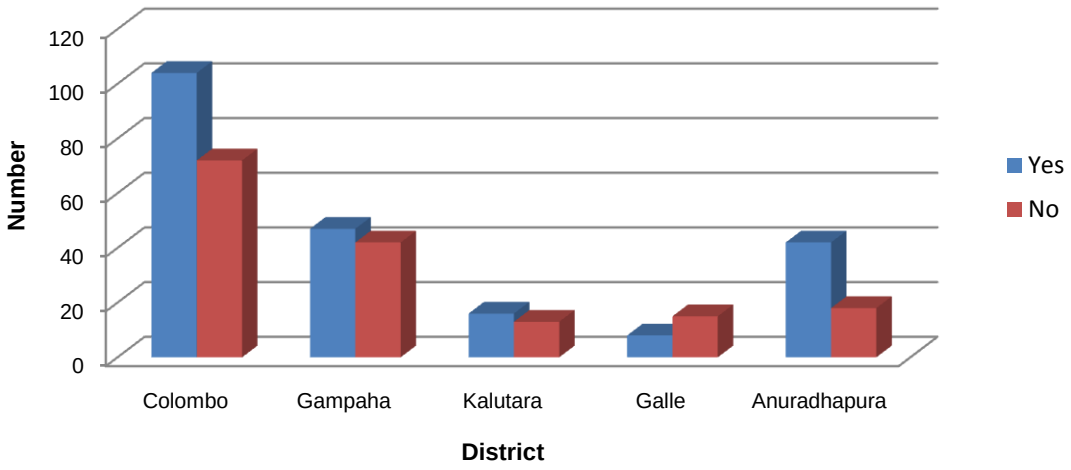


Figure 20: Use of condom at last sex by district

4.2.9 Main mode of income of key informants

Sex work does not appear to be the main mode of income of the key informants in all the districts and they are usually employed in other occupations. This may be the reason why majority of them have informed that they are not doing sex for money or benefits as shown earlier. Few also do not have any fixed mode of income as depicted in Figure 21.

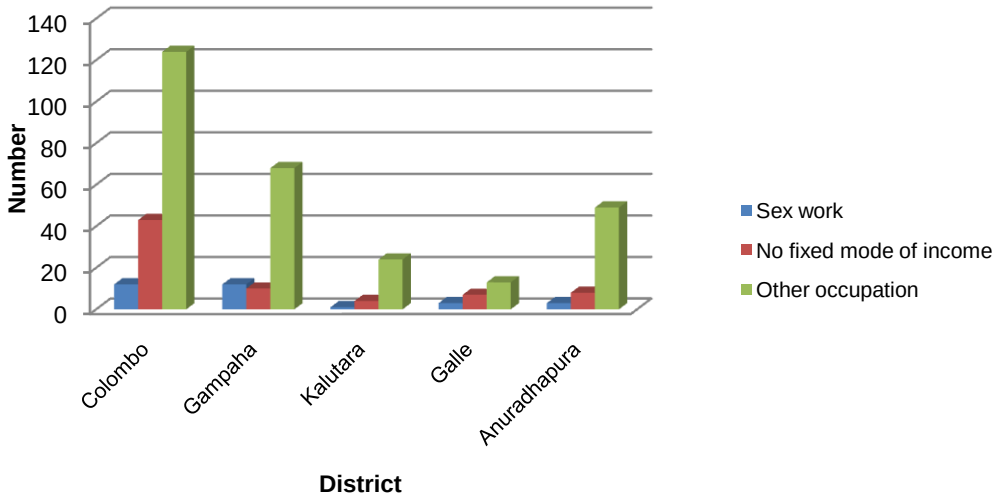


Figure 21: Main mode of income of key informant by district

4.2.10 Finding a partner/client from the spot

Figure 22 indicates that hotspots in all the districts under investigation do not often provide partners or clients and thus they cannot be regarded as 'pick-up' points.

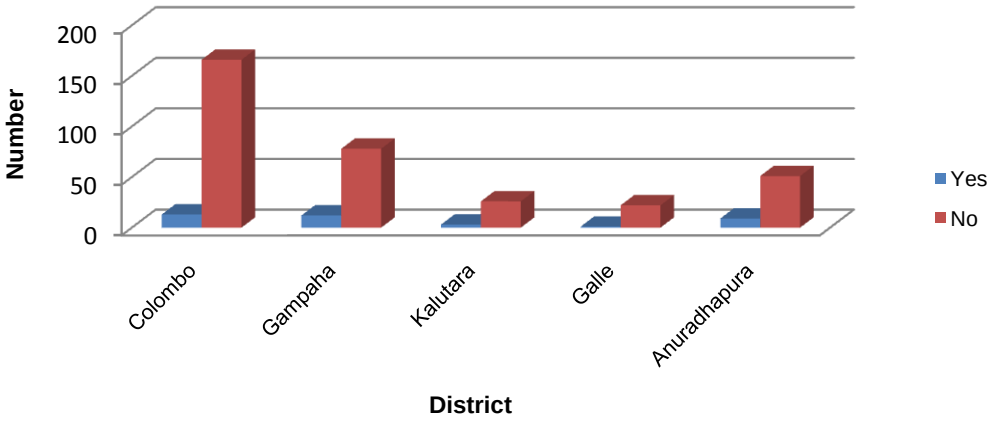


Figure 22: Finding a partner/client from the spot

4.2.11 Use of heroine during last three months

It seems that no one in any of the districts has used heroine with or without a syringe during the last three months. This suggests that these MSM are free from drugs.

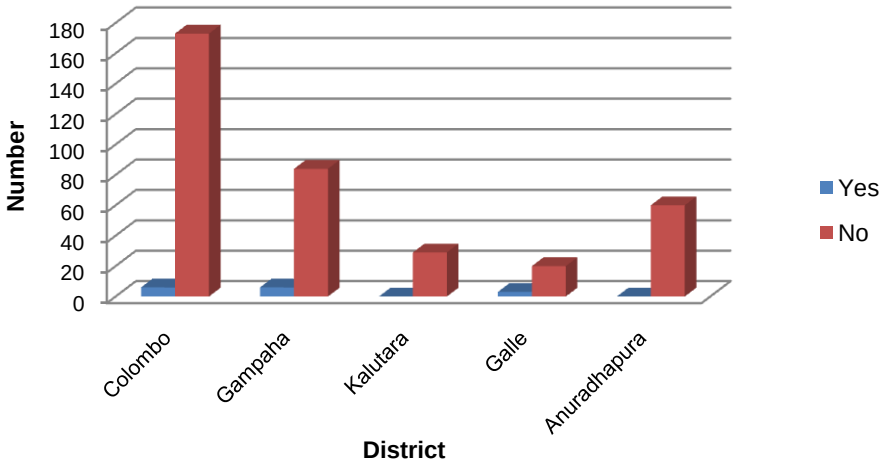


Figure 23: Use of heroine during last three months

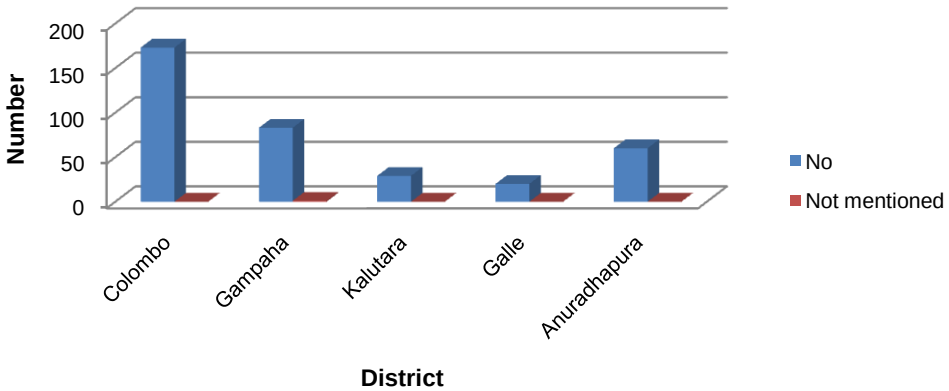


Figure 24: Use of heroine by using a syringe during last three months

Evidence elsewhere suggests that there is a close association between injecting drug-users and the spread of HIV. For instance, in 1982, when HIV was first detected in Brazil, the epidemic initially spread rapidly among men who have sex with men and then among injecting drug users after which a wave of heterosexual transmission exploded[9].However, it appears that there is no such association in Sri Lanka as depicted in Figure 23and 24.

[9]Beyrer C, Gauri V, Vaillancourt D. Evaluation of the World Bank's Assistance in Responding to the AIDS Epidemic: Brazil Case Study. Washington, DC: The World Bank; 2005

5. Summary

The key informants of the study were mostly Nachchis and other MSM in all districts but few male sex workers are also included. The most key informants were belonged to the ages between 20 to 34 years but a significant number of key informants who are aged 15 to 19 years were found in Colombo district. The key informants seem to be not well-educated as majority has completed their education between year 6 and year 10. They are mostly unmarried men. However, Colombo and Gampaha districts reveal a substantial minority of MSM living with a male partner.

The total number of hot spots identified in these five districts is 381.Majority of the spots are seen in Colombo district while the least is observed in Galle district. It is quite important to note that Anuradhapura district which is commonly known as sexually active district for the soldiers during the war time has shown a significant number of MSM.

Although the distribution of spots has a wide variation, mean number of MSM visiting spot on a usual day does not show any significant difference by district. In this regard, however, the lowest average is observed in Anuradhapura district. It was found that the total number of MSW visiting spots was 46.6 percent less than the visit of MSM on a usual day. Galle district appears to be the most attractive district for MSW visiting spot on a usual day while Kalutara district shows the least appeal.

Nachchis consist of 56.2 percent of the total MSM categories. Nachchis are most active in Galle district while the least was reported for Kalutara district. It is recorded that other MSM visiting spots on a usual day is the highest category among the three groups which were investigated in the present study. All the districts report at least 4 MSM visiting spot on a peak day but Colombo and Anuradhapura district seem to be the most attractive district for MSM. The distribution of MSM in the five districts under study reveals that a significantly higher percentage of MSM visit spots on a peak day than on a usual day.

The months of April, May, June and December seem to be the peak month for MSM to visit spot in a given year. It is quite exciting to note that MSM in Anuradhapura district are mostly active in June compared to all other district which are least active in that month.

Peak days for MSM to visit hot spots are mostly weekends but MSM in Colombo and Gamapaha are more dynamic on Sundays. Anuradhapura again shows a deviation from the

general pattern as its MSM are most active on Saturdays. MSM seem to be most active in all districts after 4.p.m.

On average, Colombo district has the highest number of clients visiting spot on a usual or a peak day while all other districts show the same frequency on both days but at a lower level.

The risk status of spot reveals that it is most prevalent in Colombo while the least is recorded in Galle district.

It is found that MSM exchange money or benefits for sex occasionally although majority in Colombo district and few in other districts have indicated that they do not do so.

Number of same sex partners/ clients having sex per day is highest in Anuradhapura district while Kalutara district shows the least number. All other districts have the same level but lower than Anuradhapura district.

It is quite important to note that MSM in all the districts show at least one opposite sex partner with whom they had sex during the last three months. In Galle and Anuradhapura districts this number is three times higher than all other districts.

From the responses of the key informants, 57 percent have used condoms at last sex which is very much higher than the value found in the Behavioral Surveillance Survey of 2006/7. Except those MSM in Galle district, majority in all others have used condoms during last sex. However, Colombo and Gampaha districts show significantly higher number of MSM not using condoms compared to all other district under study.

Sex work does not appear to be the main mode of income of the key informants in all the districts and they are usually employed in other occupations. This may be the reason why majority of them have informed that they are not doing sex for money or benefits as shown earlier. Few also do not have any fixed mode of income.

The hotspots in all the districts under investigation do not often provide partners or clients and thus they cannot be regarded as ‘pick-up’ points.

It seems that no one in any of the districts has used heroine with or without a syringe during the last three months. This suggests that these MSM are free from drugs.

Annex 1- Terms of References

Guidelines

Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention in Sri Lanka

Introduction

As yet, evidence suggests that the HIV epidemic in Sri Lanka remains at a relatively low level. However, experience from other countries in South Asia have shown that concentrated HIV epidemics involving vulnerable key populations can expand quickly within those sub-populations and affect the wider population through "bridge populations". Therefore, to prevent the establishment and potential expansion of an HIV epidemic in Sri Lanka a key strategy will be to reduce the potential for transmission in important networks of vulnerable key populations, particularly where such networks are large and dense and therefore prone to rapid HIV transmission within and from these networks. The first key step in developing targeted interventions for vulnerable key populations is assessing their location, size and basic operational characteristics. Experience in diverse settings of South Asia has shown that structured mapping can provide accurate estimates of the size and location of key populations and thereby provide guidance for the scoping and targeting of HIV prevention programs and services.

This is a set of guidelines for a mapping study of key populations in selected districts in Sri Lanka using a mapping methodology that has been developed and successfully applied in diverse urban areas in low prevalence settings, including in India, Pakistan and Afghanistan.

Goals and Objectives

The overall goal of the proposed study is to provide accurate information on the size and characteristics of Most at Risk Populations (MARPs) in selected districts of Sri Lanka. The key population groups include female sex workers (FSWs), Men who have Sex with Men (MSM), Drug Users (DUs) and Beach Boys.

The specific objectives are:

1. To complete a geographic mapping of the locations of the MARPs in Selected Districts of Sri Lanka.

2. Estimate the population sizes of the risk populations, and describe the operational typology and organization structures of each MARP in each location.

Mapping Approach and Methodology

The basic approach has two sequential steps:

1. Level 1 - Systematic information gathering from each MARP key informants .(KI) regarding the locations ("hot spots") where key population members congregate and/or meet casual or paying sexual partners or for drug use.

2. Level 2 -Site validation and profiling of identified "hot spots" to characterize and estimate the size of the key populations.

The mapping methodology is largely based on a geographic approach which identifies the key locations where key population members can be found and quantified. The rationale for this is based on the experience in diverse settings in Asia which has shown the following. Most FSWs with a relatively large number of clients congregate and/or meet clients in definable geographic locations. Similarly, MSM who are in most need of focused prevention services have high rates of partner change, and therefore have specific locations where they meet new sexual partners (paying and non-paying partners). DUs who participate in networks and share drugs with other DUs generally congregate in particular locations where they access to drugs. Beach Boys are basically gather in beaches and around tourist hotels to approach their clients. Accordingly, the approach was to focus on identifying these locations, characterizing each location in terms of specific "spots" within that location and the operational characteristics of the sexual or , drug-using networks there (i.e. how and where FSWs and MSM meet clients/partners and "where sexual transactions occur). This approach also estimate the number of key population members -that frequent the specific locations and spots.

The mapping process incorporates four main activities:

1. Pre-mapping exercise
2. Level one (L1)
3. Level two (L2)
4. Compilation of results

The Pre-mapping exercise

The pre-mapping exercise serves as a preparatory activity to establish the necessary logistical and conceptual foundations for the mapping data collection. The key aspects of the pre-mapping exercise include:

- Acquisition and review of detailed maps of the target cities.

- Segmentation of each district (i.e. >250,000) into zones based on logical administrative and/or neighborhood units.
- Recruitment of local field team members based on their experience working with key populations and field research experience (the field team should be comprised of members of the specific target group).
- Training of field staff on the concepts and implementation of the mapping methodology, including defining key terms, concepts and definitions relevant to the local situation.
- Meetings with local officials and stakeholders, including law enforcement agencies, to inform them about the purpose and nature of the mapping study, and to garner their support.
- Development of a field monitoring process and a detailed work plan for the local mapping exercise.
- Obtaining ethical clearance from the relevant ethical sub committee

Level 1 Activity

Level 1 data collection focuses on collecting information from key informants about the geographic locations where key population members congregate, as outlined above. For each mentioned location, key informants are asked a small set of more specific questions about the characteristics of the spot (public place, brothel, lodge, etc.) and an estimate of the number of key population members who can be found there (minimum and maximum and usual). This information is gathered in a pre-designed format, finalized during the pre-mapping exercise. Each day, the field team for each geographic zone convenes to collate the data collected in the field. Data are manually edited and the information is further sorted into various tables which served as a foundation to for the next level of activity. Based on the information assembled in Level 1, spots are identified for detailed spot profiling in Level 2 data collection, described below.

Level 2 Activity

The final step in data collection involves conducting key informant interviews at the key identified hotspots within each zone. These interviews, called L2 interviews, involve primary key informants(key population members and those closely related; FSWs, DUs, MSM, Beach Boys pimps, madams, brokers, etc.) and is focused on validating the information collected and collated in the previous exercise. Field teams go the identified hotspots to verify the location, describe the type of spot, and get more specific information on the size of the key population that is there (minimum, maximum and median estimates).

Data Management

Pre-set data forms will be edited by a data management team and corrected for names of zones, missing KI typology, and any missing estimates of spots, (i.e. spot without any estimates of key sub-population size). The collected data should be entered into a computerized database specifically designed for the study and analyzed using a accepted computer package. The data is used for generating final estimates and lists of spots. To obtain this, the estimate ranges for each site and location can be rolled up for a zone and city to produce minimum and maximum estimates. To arrive at a single "best" estimate, the mid-point ("mean") of the minimum and maximum estimates is used.

Organization and Monitoring of Field Work

Although the number of field teams will vary in different cities and zones, a general team structure is proposed, consisting of senior and junior field workers/interviewers, working alongside key population community members who participate as social mobilizes and participate in the field work. The teams will be supervised by team supervisors, who reported to the local co-investigator or the site coordinator. In addition to the field teams, a data management team comprising of a data manager and data entry operators will be established.

Project Team

1. Technical Experts

The technical project team should be comprised of an expert team that can draw on the experience, materials and protocols.

Overall technical lead, project management and report generation

- Team Leader, demographer/public health expert with extensive design and implementation experience *for* mapping and survey studies with key population groups
- HIV Expert
- Sociologist
- GIS Expert
- Statistician
- Technical advisors (one - two) involved in the field monitoring, data analysis and report generation

2. Implementing Agency/Team

Field work, data collection and field supervision will be the responsibility of a implementation team. A technical steering committee consists of officials from PR2 and National STD AIDS Control programme will provide technical assistance and monitor the implementation to assure the quality of implementation.

Implementation Plans and Timelines

The implementation of the project will proceed in three phases: 1) Planning Meeting 2) preparation and training; 3) field work; 4) analysis and reporting. The total time period from the signing of the contract and submission of the final report will be 4 calendar months.

Planning meeting

The technical study team should meet with the technical steering committee and plan out the methodology of the study. The main objective of the meeting is to finalize the protocol and obtain necessary approvals.

Protocol finalization and approvals - Based on methods and tools already developed, final protocols and tools (e.g. interview schedules and questionnaires) should be finalized, translated and piloted. In addition, the detailed field protocols should be finalized based on realities on the ground. The final protocols and instruments should be submitted *for* ethical review before proceeding.

Field team training

The technical team should carryout training for the field supervisors and interveners on the methodology, data collection tools and monitoring tools and processes. Training schedules should be approved by the steering committee before the training is started.

Field Work

Field work should be implemented by the local implementation teams, with supportive supervision from the technical team.

Analysis and Reporting

The following deliverables will be expected from the agency

- Detailed work plan for the assessment.
- Brief report of training workshop for the assessment team.

- Assessment tools based on agreed methodology.
- Brief report of pre-testing of the assessment tools.
- Regular at least 2 meetings with Assessment Core Team/Committee.

The first draft should be available for review within the given time period and it will be reviewed by a group experts. The structure of the report includes at least the following sections/elements in English language:

1. Background;
2. Objectives;
3. Methodologies and fieldwork;
4. Findings;
5. Conclusions and Recommendations;
6. Tables and Graphs;
7. Annex on data and documents; and
8. References, including secondary literature and a comprehensive listing of document obtained/reviewed.

- Second and the final report should be submitted within 2 weeks after providing comments by the expert team.
- The final report should be ready for printing with type set, edited for language with graphics and art work in 3 hard copies.
- The Electronic Database, data collection materials and an electronic copy of the final report should be handed over to Sarvodaya before the final payment.

Confidentiality and safety of information

The agency/agencies are responsible in maintaining confidentiality of the information gathered and assure the safety of information until they are handed over to Sarvodaya with the final report

Payment Scheme

- 25% will be paid with the signing of the contract
- 25% with the implementation of the study- Completion of tools and recruitment and training of full technical staff and field staff
- 25% with submission of the 1^{st} draft.
- Final 25% with the submission of the final report in 3 hard copies, 3 soft copies and the data base

Topics to be covered in the Proposal

1. In the Technical Proposal
    - Agency profile
    - Research team with CVs
    - Previous experiences in similar activities including Budget
    - Proposal details
    - Sampling, Methodology, Analysis
    - Work Plan
2. Financial Proposal

Guidelines for submission of Proposal

1. Proposals and financials proposals should be submitted separately for each Target Group -(Commercial Sex Workers, Men having Sex with Men, Drug Users, Beach Boys)

2. Technical Proposal and Financial Proposal for the mapping activity should be submit in 2 separate sealed envelops

3. The envelop should marked "Technical Proposal /Financial Proposal for Mapping of MARPs" and the specific target group on the top of left hand corner of the envelop

4. Proposal can be deposited in the box or can be sent by Registered post to reach Director, Sarvodaya Secretariat for GFATM Project, "Nagarodaya Centre", No, 155A, Dr. Danister De Silva Mw, Colombo 8.

5. Proposals should be reached before 5.00 pm on 14'' June 2011 to the above address.

Annex 2 - Data Collection Tools

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

MEN WHO HAVE SEX WITH MEN - LEVEL 1 FORM

A.1. District:					A.9. Key informant No	
A.2. DS/AGA Division					A.10.Key informant Name	
A.3. GN Division (Optional)					A.11. KI contact information	
A.4. FRO Name/Code					A.12. KI Type *(circle the relevant number)*	1. Primary 2. Secondary 3. Tertiary
A.5. FRS Name/Code					A.13. KI Gender *(circle the relevant number)*	1. Male 2. Female 3. Transgender
A.6. Date *(DD/MM/YYYY)*					A.14. KI Occupation	
A.7. Time started	H	H	M	M	Comments:	
A.8. Time end	H	H	M	M		

B.1. S. N	B.2. Name of the Spot	B.3. Type*	B.4. Contact for that spot	Number	
				B.5. Min	B.6. Max
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

** MSM TYPES: 1-Nachchis 2-MSWs 3-Other MSM*

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

MEN WHO HAVE SEX WITH MEN - LEVEL 2 FORM

A.1. District:					A.9. Spot code		
A.2. DS/AGA Division					A.10.Spot type		
A.3. GN Division (Optional)					A.11. Spot name		
A.4. FRO Name/Code					A.12. Spot currently active	1. Yes, 2. No	
A.5. FRS Name/Code					Comments:		
A.6. Date *(DD/MM/YYYY)*							
A.7. Time started	H	H	M	M			
A.8. Time end	H	H	M	M			

B. SPOT PROFILE (SPOT INFORMATION)		Codes
B.1. **On a usual day**, how many **MSM** visit this spot *(min - max)*		
B.2. **On a usual day**, how many **MSWs** visit this spot *(min - max)*		
B.3. **On a usual day**, how many **Nachchis** visit this spot *(min - max)*		
B.4. **On a usual day**, how many **Other MSM** visit this spot *(min - max)*		
B.5. **On a peak day**, how many **MSM** visit this spot (min - max)		
B.6. What is the **peak month** for MSM to visit this spot in a year?		
B.7. What is the **peak day** for MSM to visit this spot in a week?		
B.8. What are the **peak time** for MSM to visit this spot in a day?		
B.9. **On a usual day,** how many clients are served from this spot		
B.10. **On a peak day**, how many clients are served from this spot		
B.11. Risk status of the spot. (Seeking risk or taking risk or both)	1. Seeking risk 2. Taking risk 3. Both	

C. INFOMATION ABOUT THE KI		Codes
C.1. How do you identify yourself?	1. Nachchi, 2. Male Sex Worker 3. Other MSM	
C.2. What is your age at last birthday?		
C.3. How many years of education have you completed?		
C.4. What is your marital status?	1. Unmarried, 2. Married to a woman, 3. Married previously, 4. Living with a male partner	

C.5. Do you exchange money for sex	1. Always, 2. Sometimes, 3. No	
C.6. How many No of **same sex partners /clients** with whom you have sex per day? (approximate week average)		
C.7. How many No of **opposite sex partners /clients** with whom you have sex during last 3 months?		
C.8. Did you use a condom at last sex	1. Yes 2. No	
C.9. What is your main mode of income (profession)	1. Sex work 2. No fixed mode of income, 3. Other occupation	
C.10. Do you find a client/partner only from this spot?	1. Yes 2. No	
C11. Did you use Heroine within last 3 months?	1. Yes 2. No	
C12. If Yes, have you injected Heroine within last 3 months?	1. Yes 2. No	

Lanka Jathika Sarvodaya Shramadana Sangamaya

GFATM Round 9 HIV / AIDS

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka

Beach Boys

Final Report -September 2012

MG CONSULTANTS

Acknowledgements

We wish to acknowledge The Lanka Jathika Sarvodaya Shramadana Sangamaya for taking an initiative to conduct Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) for funding the programme.

We also take this opportunity to thank all institutions and individuals for their valuable contributions and assistance extended to us in successfully carrying out this assignment.

We thank Dr. Harischandra Yakandawala, Programme Manager, GFATM Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya for his professional support, technical guidance, encouragement and continuous feedback extended to us throughout the assignment.

We greatly appreciate the unstinted support given by Dr. Nimal Edirisinghe, Director, National STD AIDS Control Programme (NSACP) for the cooperation extended to complete this study successfully.

A special word of thanks goes to the Technical Steering Committee Members, Dr. K. M. A. Ariyaratne, Dr. Neelamani Punchihewa, Dr. Sriyakanthi Beneragama, and Dr. Ajith Karawita of NSACP and Dr. Dayanath Ranatunge of UNAIDS for their valuable contribution, technical assistance and feedback given to ensure the completion of this study in a highly satisfactory manner.

We also wish to thank the Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) which are working for the most at risk populations for their great contribution in field data collection by providing field staff.

The tertiary, secondary and primary key informants who assisted the field team to identify the “Hot Spots” and the primary key informants; Female Sex Workers, Men who have Sex with Men, Drug Users and Beach Boys who provided the information and responded to our questionnaire, undoubtedly served as the nucleus of this study. We sincerely thank all of them and highly appreciate their contribution towards this venture of national importance for HIV prevention in Sri Lanka.

STUDY TEAM

Programme Management Unit

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya

1. Dr. Harischandra Yakandawala, Programme Manager

MG Consultants (Pvt.) Ltd

Project Management Team

1. Dr. Manomi Perera – Chief Executive Officer
2. Mr. Amil Epa – Project Manager
3. Ms. Nadeesha Jayasena – Project Coordinator

Team on Consultants

1. Prof. Lakshman Dissanayake – Consultant / Project Advisor
2. Prof. M. W. Jayasundara – Project Consultant / Sociologist
3. Dr. Sunil Ratnayake – Project Consultant / Sociologist
4. Dr. Thiloma Munasinghe – Consultant / Human Immunodeficiency Virus (HIV) Specialist
5. Mr. Prassanna Lenadora – Geographic Information System (GIS) / Database Expert
6. Mr. Janaka Sanjeewa - GIS / Database Expert
7. Mr. Indika Siriwardana – Statistician
8. Dr. Inoka Suraweera – Technical Advisor / Consultant - Community Medicine
9. Dr. Gamini Jayakody - Technical Advisor / Consultant - Community Medicine

Technical Steering Committee

National STD AIDS Control Programme (NSACP)

1. Dr. Nimal Edirisinghe, Director, NSACP
2. Dr. K. M. A. Ariyaratne
3. Dr. Neelamani Punchihewa,
4. Dr. Sriyakanthi Beneragama
5. Dr. Ajith Karawita

United Nations Programme on AIDS (UNAIDS)

1. Dr. Dayanath Ranatunge

Supporting Organizations

1. Family Planning Association (FPA) of Sri Lanka
2. Community Strength Development Foundation (CSDF)
3. Alcohol and Drug Information Centre (ADIC)
4. Organization for Environment and Child Right Preservation (OECRP)
5. Community Oriented Resource Exchange (CORE)
6. Environment and Community Development Information Centre (ECDIC)
7. “Heart to Heart”
8. “Saviya” Foundation
9. “Seth Arana”
10. “Praja Diviya Padanama”
11. “Rajarata Gami Pahana”
12. “Sri Lanka Manawa Sanwardana Padanama”
13. “Wayamba Govi Sanwardana Padanama”

Acronyms

ADIC	Alcohol and Drug Information Centre
AGA	Assistant Government Agent
AIDS	Acquired Immunodeficiency Syndrome
BB	Beach Boy
CBO	Community Based Organization
CORE	Community Oriented Resource Exchange
CSDF	Community Strength Development Foundation
CV	Curriculum Vitae
DS	Divisional
DSD	Divisional Secretariat Division
DU	Drug User
ECDIC	Environment and Community Development Information Centre
FPA	Family Planning Association of Sri Lanka
FRO	Field Research Officer
FRS	Field Research Supervisor
FSW	Female Sex Worker
GCE O/L	General Certificate of Education Ordinary Level
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GIS	Geographic Information System
GN	Grama Niladari
GPS	Global Positioning System
HIV	Human Immunodeficiency Virus
KI	Key Informant
MARP	Most at Risk Population
MGC	MG Consultants
MSM	Men who have Sex with Men
NGO	Non Governmental Organization
NSACP	National STD AIDS Control Programme
OECRP	Organization for Environment and Child Right Preservation
PR	Principal Recipient
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TOR	Terms of Reference
TSC	Technical Steering Committee
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program

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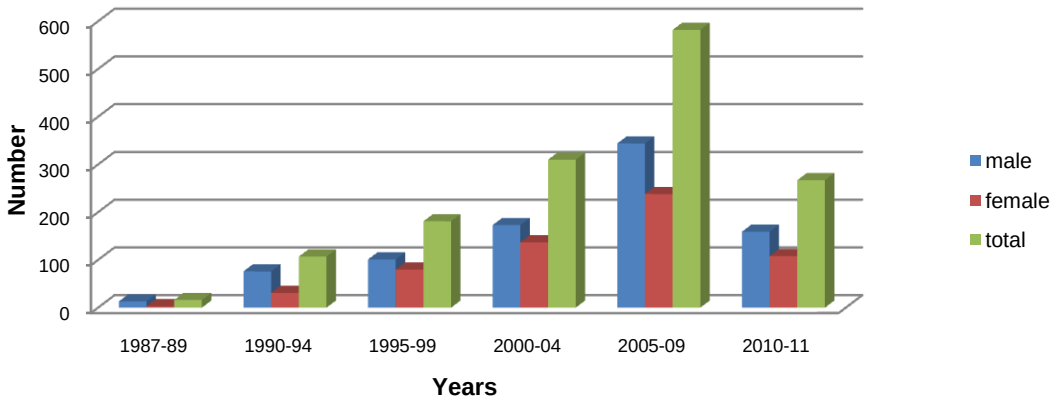
1. Introduction

The National Strategic Plan for Prevention and Control of HIV/AIDS 2002-2006 reported the first few cases of HIV in Sri Lanka and they were primarily among men having sex with men (MSM). To date there is no scientific determination of the MSM population in the country but Government official consensus based estimate reveals that there are about 12000 high risk MSM. The UNDP's estimates indicate that there about 30,000 'Beach Boys' who can be regarded as male sex workers[1].

The first HIV case in Sri Lanka was reported in 1987. There has been constant rise of the HIV and AIDS cases since then and hence HIV/AIDS can be regarded as a new epidemic emerging in Sri Lanka. Number of HIV cases has increased an exponential manner up to 2009 but a significant decline is seen during the period 2010-11 (Figure 1).



Source: National STD/AIDS Control Programme (NSACP), Sri Lanka

Figure 1: Number of HIV cases reported up to 2011

Available evidence suggests that Sri Lanka does not have a significant number of HIV/AIDS patients and thus the country is currently is not experiencing an epidemic in this regard. UNAIDS estimates based on a mapping exercise conducted in 2010, MSM were ranging between 24,000 and 37,000, respectively[2]. Currently the HIV prevalence is below 1.0 percent and as at end December 2011, a cumulative total of 1463 HIV persons were reported to National STD/AIDS Control Programme of Sri Lanka (NSACP). The main mode of transmission is unprotected sex between men and women (83.8 percent) followed by the category of men who have sex with men (MSM) accounting for 12.3 percent. It has been claimed that unprotected paid sex, the sharing of contaminated needles and syringes by

[1] *aidsdatahub.org/.../**MSM**_Country_Snapshots_-_**Sri_Lanka**_online.p... & www.**aids**datahub.org/.../4824-**sri-lanka-behavioural-surveillance-sur***
[2] *www.un**aids**.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf*

injecting drug users and unprotected sex between men seem to be the commonalities observed in Asia in relation to HIV transmission (UNAIDS, 2008). Therefore, it appears that prevention efforts are highly associated with dire reduction of HIV transmission among and between these three categories of most-at-risk populations. However, injecting drug use in Sri Lanka is not a widespread experience (0.5 percent). Nevertheless, some socio-economic and behavioral factors which are seen in Sri Lanka could ignite an epidemic in the future[3]. The emerging trend of a large youth population entering into population structure of Sri Lanka, internal and external migration, underground but thriving sex industry, low level of condom use, concurrent sexual relationships among most-at-risk-populations (MARP) can be regarded as most influential factors which can future prevalence of HIV disease in Sri Lanka. In addition, low level of sexually transmitted infections (STI), availability and accessibility to free of charge health services from the state sector, high literacy rate, low level of drug injectors, are the factors which can be regarded as constraints to the spread of HIV.

However, Mahajan et al[4] have claimed that HIV-related stigma is associated with higher risk behaviors in a range of low and high prevalence scenarios[5]. Only 6 of 10 countries in the world have laws and regulations that bar discrimination against people living with HIV, and even for the states that have antidiscrimination laws, major barriers persevere in implementation. It has also been pointed out that HIV spread can go out of control not because of the size of the high-risk population but once this virus gets out of high-risk population, and set off to spread in general populations, the risk for everybody who is sexually active goes up in a heterosexual epidemic[6]. In such a situation, every sexually active person is at risk-not just drug users, female sex workers, men who have sex with men, and promiscuous people.

The present study seems very significant in global as well as local context although Sri Lanka is currently regarded as a 'low prevalent' country. This mainly because when a 'low prevalence' label is applied to a country, it needs further clarification as 'low' is a relative measure in the global context when it comes to HIV epidemic. All countries, including those harshly affected in sub-Saharan Africa, have at some point in their epidemic histories been

[3]www.un**aids**.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf

[4]Mahajan AP, Sayles JN, Patel VA, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS*. 2008;22(Suppl 2):S67-S79.

[5]Sayles JN, Hays RD, Sarkisian CA, et al. Development and psychometric assessment of a multidimensional measure of internalized HIV stigma in a sample of HIV-positive adults. *AIDS Behav*. 2008;12:748-758.

[6]Yoon C. AsiaSource interview with ChrisBeyrer. 2002. Available at: http://www.asiasource.org/news/special_reports/beyrerinterview.cfm.

'low-prevalence' countries. For instance, South Africa, which now has among the worst HIV epidemics in the world, was considered low prevalence about 10 years ago when other African epidemics were already well in progress. Current HIV prevalence assists to plan surveillance and interventions efficiently, but it is not predictive of the future of the epidemic. It is quite essential to note that the predicting the magnitude of future epidemics is challenging and has historically been extremely erroneous.

Definition of beach boys and size of the beach boy population

The Beach Boys (BBs) in this study are defined as a group of males (homo, hetero or bisexual) cruising in and around beach areas, who associate with tourists as a guide, animator or provider of any form of entertainment including insertive or receptive sex.

The term 'beach boys' refers to young men who work near or on the beaches, typically tourist beaches, and who offer sexual services in exchange for some form of payment. These young men may also work as tourist guides and may not all identify as 'beach boys'. Beach boys may also be working in restaurants, hotels, guest houses and boat-related tourism[7]. The United Nations Development Program (UNDP) estimates that there are 30,000 beach boys in tourist resorts. They are at risk of HIV infection due to low levels of condom use and having unprotected sex with male and female sexual partners including tourists from high HIV prevalence countries[8]. In a study done in 1999, it was estimated that 7% of tourists come to Sri Lanka for sex, mostly with young men[9].

Even though the UNDP estimates there to be 30,000 beach boys in tourist resorts[10], they admit that some may have lost their lives during the 2005 tsunami. However, the mapping activities done in Sri Lanka revealed that the 'beach boy' sub-population was considerably smaller than indicated by previous studies. The reason for the over estimation of size of this sub-population is unclear.

High levels of partner change with both male (local and foreign) and female casual partners and very low levels of condom use for anal and vaginal intercourse, as well as relatively high

[7]Buddhakorala, K. (1996). Preventive aspect of sexual transmission of sexually transmitted diseases and Acquired Immune Deficiency Syndrome in a high risk population. Unpublished Doctor of Medicine in Community Medicine thesis, University of Colombo

[8]Rawstorne, P., & Worth, H. (2007).*Sri Lanka Behavioural Surveillance Survey: First Round Survey Results 2006 - 2007*. Colombo: National STD/AIDS Control Programme, Ministry of Healthcare and Nutrition.

[9]Ratnapala, N. (1999). *Sex workers of Sri Lanka.* Sarvodaya Vishva Lekha: Colombo. UNDP(2006)

[10]UNDP (2006). 'Sri Lanka's beach boys: soft targets for HIV' *YOUANDAIDS: the HIVAIDS portal for Asia Pacific* (www.youandaids.org/Features/SriLanka.asp)

levels of regular female partners puts this group and their partners at high risk of HIV and other sexually transmissible infections. There needs to be a specifically targeted HIV-prevention program for this group which focuses on these risks and promotes condom use for vaginal and anal intercourse.

Commercial sex workers in Sri Lanka have high rates of STIs, which increase vulnerability to HIV. Many male sex workers are “beach boys,” male children and adolescents who provide commercial sex services to mainly foreign, but increasingly local, paedophiles on Sri Lanka’s beaches and in the main tourist areas. Beach boys often are not gay, but very poor, and they view sex work as the only way to get money to feed their families. They typically earn US$2‑3 a day and rarely use condoms. No specific HIV/AIDS prevention or other related services targeting male sex workers can be found in Sri Lanka[11].

[11] *www.amfar.org/.../**MSM**%20and%20**HIV**%20**AIDS**%20**Risk**%20in%...*

2. Objectives

The overall objective of the assignment is complete a geographic and social mapping of BBs in the districts of Colombo, Gampaha, Kalutara, Puttalum, Galle, Matara and Hambantota.

The specific objectives are:

a) To complete a geographic mapping of the locations of the BBs in the respective districts
b) To provide information on the size and characteristics of the BBs in the respective districts.
c) To describe the operational typology, spot characteristics and analysis of profile of primary KIs among BBs in each location

3. Methodology

3.1 Method of Investigation

The study is based on the experience in conducting the behavioural surveillance survey during the period from 2006 to 2008 and expertise in conducting sensitive research with hard-to-reach populations. The mapping methodology is largely based on geographic approach, which identifies the key locations where the BBs can be found and quantified. BBs basically gather in beaches and around tourist hotels to approach their clients. Therefore, the approach is to focus on identifying these locations, characterising each location in terms of specific “spots” within that location and the operational characteristics of the sexual networks there in. This approach also estimate the number of key population members that frequent the specific location and spots.

The mapping process consisted of four main activities.

- Pre-mapping exercise
- Data collection
- Data processing
- Compilation of results

3.2 The Pre-mapping Exercise

The pre-mapping exercise served as a preparatory activity to establish the necessary logistical and conceptual foundation for the mapping data collection.

The Consultants conducted a comprehensive desk review of background material used in project preparation, approved project documents, progress reports, action plans and other available information, which were useful for the study. The data and reports of the mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health in March 2010were also reviewed.

The data collecting tools used in the previous mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health were further improved in consultation with the steering committee members to collect the required data from the respondents. A considerable attention was given to develop simple, short, unambiguous and useful questionnaires. Wording of the questions was considered as fundamental.

The draft questionnaires were pre-tested in a preliminary survey to identify the lapses and irrelevant or inappropriate questions. The Consultants in consultation with the Client

finalized the protocol and the questionnaires based on the experience of the preliminary survey and realities on the ground. The detailed field protocols and questionnaires were submitted for ethical review and clearance before proceeding with field data collection. The final versions of the questionnaires were translated, printed and copied to collect the data from the target respondents.

A skilled team consisting of 2 Field Supervisors and 8 FROs from both BB community and non-community with sociological background and prior experience of data collection were deployed for data collection. In addition, experience in working in relevant sensitive research and the geographical area was taken into consideration when selecting FROs. In order to facilitate collection of consistent and reliable data, a three-day training workshop was organized for the FROs in close collaboration with the Client. Module objectives of the training workshop were;

- to enable the participants to understand the need for collecting appropriate data for developing a comprehensive and useful database,
- to enable the participants understand the objectives of the study and steps in conducting the interviews and
- to provide hands-on experience to administer the questionnaires in the field situation.

The training programme was focused on reaching the appropriate respondents, explaining the objective of the study and responding to questions and queries made by the respondents. All aspects of the study and the interview guidelines were explained thoroughly and mock survey sessions were conducted in small groups until all FROs understand all the questions and have no doubts. The FROs were briefed on the necessity of developing a good rapport with the respondents and on the duty of maintaining strict confidence. Moreover, the FROs were instructed as to how to interpret the answers of the respondents and to enter them in the interview formats.

The Consultants in collaboration with the Client had meetings with local officials and stakeholders, including law enforcement agencies to inform them about the purpose and nature of the mapping study and to garner their support. Discussions were carried out with networks working with the risk populations to get the support for data collection. Before commencing the work, permission was obtained from the Ministry of Health and the Police Department.

3.3 Data Collection

3.3.1 Level 1 Activity

Level 1 data collection was carried out to collect data on:

- Geographic locations where key population members congregate
- Spot name and typology
- Number of key population members who can be found there (minimum, maximum and usual)

The KIs for level 1 data collection were:

- Taxi / Three-wheel drivers
- Hotels / Restaurants / Clubs
- Hotel Waiters
- Hotel Managers
- Hawkers
- BBs

The methodology adopted here was conducting face to face interviews with intended respondents. All the interviews with identified KIs were conducted by the FROs in actual locations or any other convenient place suggested by the respondents. The responsibility of collecting the data from the assigned KI and entering the data in interview formats (L1 data collection forms) lied with the respective FRO. Each day, the field team for each geographic zone convened to collate the data collected in the field to identify final spot list for the defined areas.

All respondents were explained of the need for such research and how the results would be used to develop HIV prevention programmes in Sri Lanka. They were ensured that all information collected will be treated with utmost confidence. All informants were further ensured about the sensitivity of some of the questions and informed that they have the right not to answer any specific question of their choice. After explaining the above their verbal consent was obtained. They were further informed that they have the right to withdraw their consent at any time during the interview. During the Level 1 data collection process, in collaboration with KIs, suitable BBs or persons who are closely associated with them were identified to assist the FROs.

3.3.2 Level 2 Activity

Level 1 data collection was carried out:

- To ensure validity of the hotspot and its geographic locations

- To verify the spot name and typology
- To get more accurate values on size of the spot (e.g. minimum and maximum number of members on a usual day and on a peak day, etc.)

The methodology employed in this regard was conducting face to face interviews with intended respondents at the identified hotspots within each zone with the aim of validating the information collected and collated during level 1 data collection. The FROs visited the identified hotspots to verify the location and described the type of spot and get more information on the size of the key population. Where possible, the FROs were accompanied by the members of the target respondents as it had a positive effect on the accuracy of data. Beside the interviewing process, GPS data of each location was collected by a GIS assistant with the support of Field Supervisors and FROs.

A field monitoring process which was accompanied by the below mentioned quality assurance activities was followed during data collection.

- Summary reports from FROs on a daily basis
  Daily summary reports were obtained and daily progress reports were produced and circulated among the team
- Regular meetings with field staff / weekly review meetings
  Monitoring of data collection was accompanied with regular meetings with field staff, during which the FROs were encouraged to discuss the problems encountered during the data collection process
- Data cleaning / questionnaire quality checking
  All completed interview formats were checked for completeness by the Consultants. All questionnaires were given serial numbers (according to the sample list of institutions) to ensure the identification. Missing data and incompatible data were corrected when required by referring to the respective FROs. Data was cleaned and coded to ensure accuracy and efficiency in data entry process.
- Random field visits / live checks
  Live checks were conducted by the Consultants to ensure high quality of interview process and to assess the feedback of survey respondents. Immediate action was taken to improve the situation whenever necessary. The representatives of the TSC were also invited in these field visits.

3.4 Data Processing

All the completed data formats were checked for completeness, clearness and accuracy and the responses for open-ended questions were coded before entering. In house data entry operators were assigned to enter collected data into databases which were developed using MS Access. The software was able to verify ranges and consistency of the data and generate reports. Data entry process was closely monitored and the database was randomly checked by the GIS / Data Management Specialist to compare the entered data with the filled interview formats.

Data screening, reviewing, digitizing and processing were matched with the scope of the study. The Consultants conducted exploratory data analysis (e.g. frequencies, percentage tabulations, cross tabulations and projections) of key study variables. The “Hot Spots” were mapped and presented using GIS applications. The ArcView software was used for this purpose. The maps were generated for each district with DSD layer to indicate the locations of hot spots. Different point layers for each hotspot typology and thematic maps for the number of HRGs were also created.

The estimate ranges for each site and location were rolled up for a DSD and city to produce minimum, maximum and median estimates and final estimates along with lists hot spots were generated finally in one database using ArcView and MS Access software.

3.5 Limitations of the study

Although the study made its full effort in gathering data from each district, it is quite important to note that frequent visits to identified hotspots were not possible due to time limitation of the study and hence certain hotspots were not attended several times during the period of study.

It also appears that Non-governmental organizations in certain districts do not closely work with beach boys and thus their assistance was not extended for the study. In this context, the study team had to employ different approaches to locate hotspots. However, there were few instances even few wheel drivers/Key informants misled the study team by providing false information and were not cooperative at all.

The number of BBs and their activities can be severely affected by the determination of time of the year to carry out the study as BBs are positively associated with the tourism and its defined seasons. Although November to March is the main tourist season in Sri Lanka, the

study was carried out during the period of February – August which basically off season for tourism. Therefore, it can have a negative effect on the no of BBs spots covered in the study as most of the beach boys had left coastal area looking for alternative job opportunities.

4. Results and Discussion

4.1 Profile of the Key Informants (KIs)

4.1.1 Age distribution

Age distribution of the KIs is skewed and most of them are belonged to the ages between 20 to 29 years. Although this category is called Beach Boys, there is a substantial minority who are aged 40 years and above and in real sense not 'boys' as depicted in Figure 2.

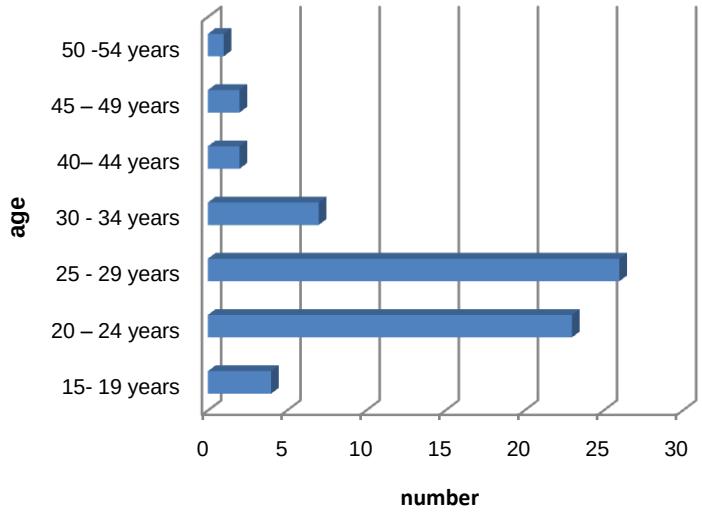


Figure 2: Age Distribution of the KIs

4.1.2 Education

Majority of the KIs are literate and most of them in Kalutara and Galle districts have studied up to GCE (O.L). However, few illiterate KIs were available in Kalutara, Galle, Colombo and Gampaha districts as seen in Figure 3.

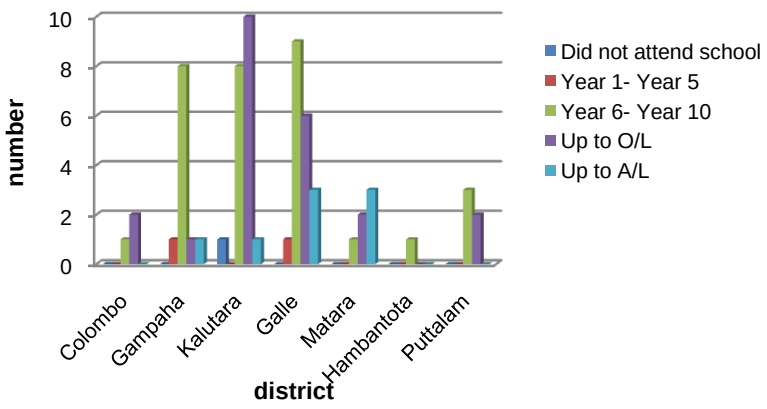


Figure 3: Educational level of the KIs

4.1.3 Marital status

According to Figure 4, majority of the KIs in Kalutara, Galle, Gampaha, Colombo and Hambantota districts are unmarried men while both Kalutara and Galle districts demonstrate a significant number of married men.

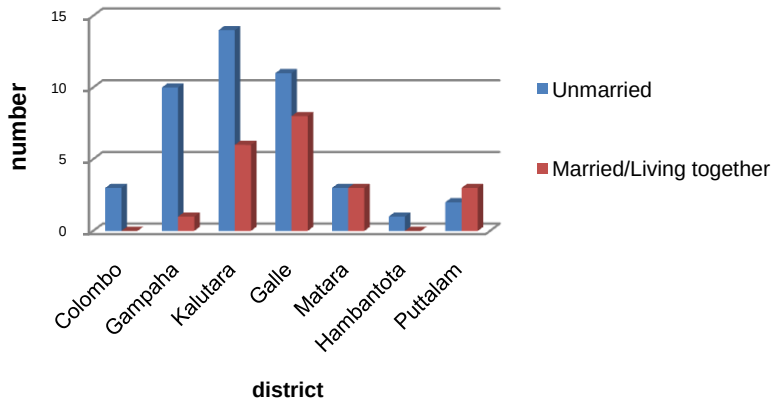


Figure 4: Marital status of the KIs

4.2 Distribution of spots

Kalutara district has the highest number of spots while Hambantota shows the least. Overall, Colombo, Matara, Puttalam and Hambantota demonstrate less number of spots.

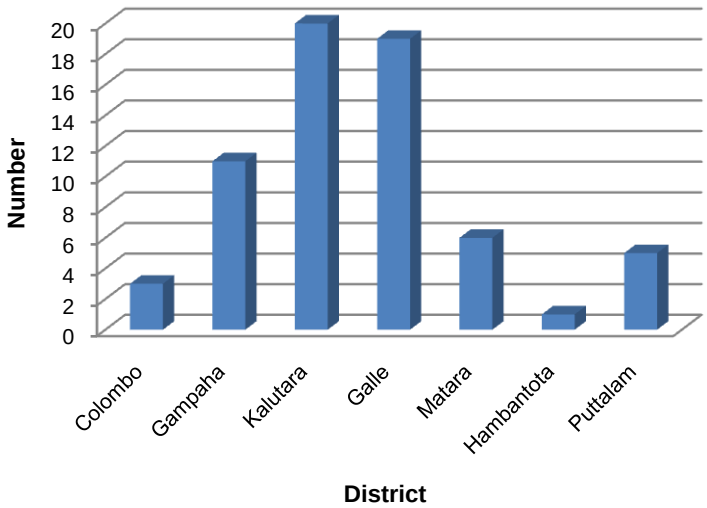


Figure 5: Distribution of spots

4.3 Mean number of BBs visiting spot on a usual day

The total number of BBs visiting spot on a usual day in the seven districts under study is 644. Majority (62.6 percent) of the BBs are seen in Kalutara and Galle districts while the lowest average is observed in Hambantota district.

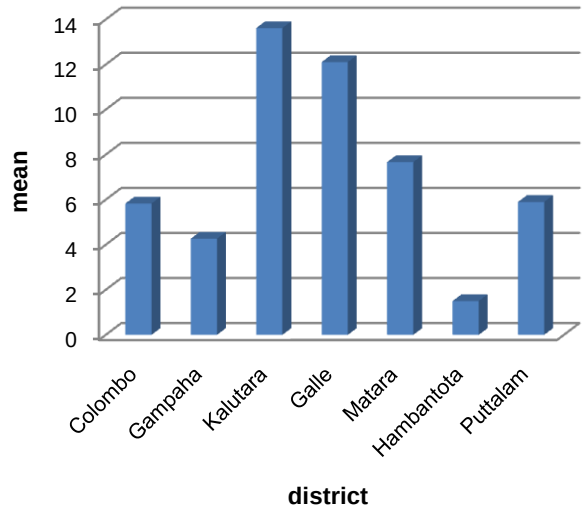


Figure 6: Mean number of BBs visiting spot on a usual day

4.4 Mean number of BBs visiting spot on a peak day

The total number of BBs visiting spots on a peak day was 1525. All the districts except Hambantota report at least 5 BBs visiting spot on a peak day but Galle district seem to be the most attractive district for BBs (Figure 7).

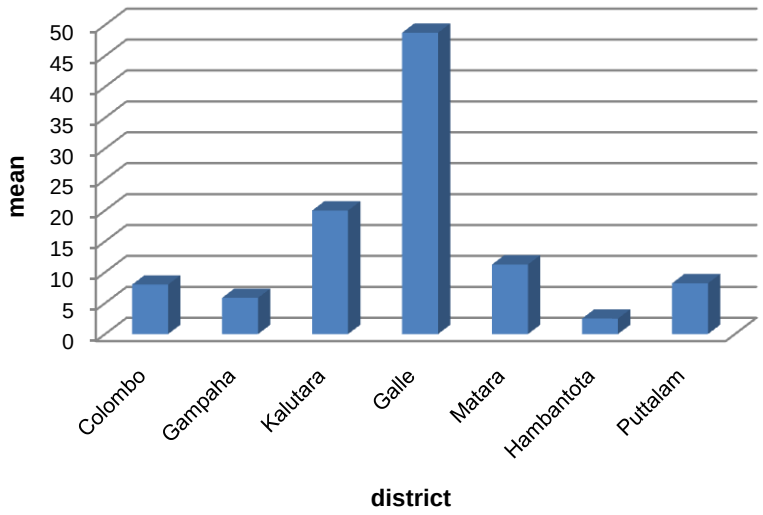


Figure 7: Mean number of BBs visiting spot on a peak day

4.5 Number of BBs

Table 1 illustrates the distribution of BBs in the seven districts under study. It reveals that a significantly higher percentage of BBs (136.8 percent) visit spots on a peak day than on a usual day.

Table 1: Distribution of number of BBs in the seven districts under study

Day	Colombo	Gampaha	Kalutara	Galle	Matara	Hambantota	Puttalam	Total
On a usual Day	18	47	272	230	46	2	29	644
On a peak Day	24	65	399	926	67	2	41	1525

4.6 Peak month for BBs to visit spot

The months of December and January which are regarded as peak tourist months seem to be the peak month for BBs to visit spot in a given year (Figure 8). However, Kalutara appears to be more active in the months February and April as well when compared to all the other districts under study.

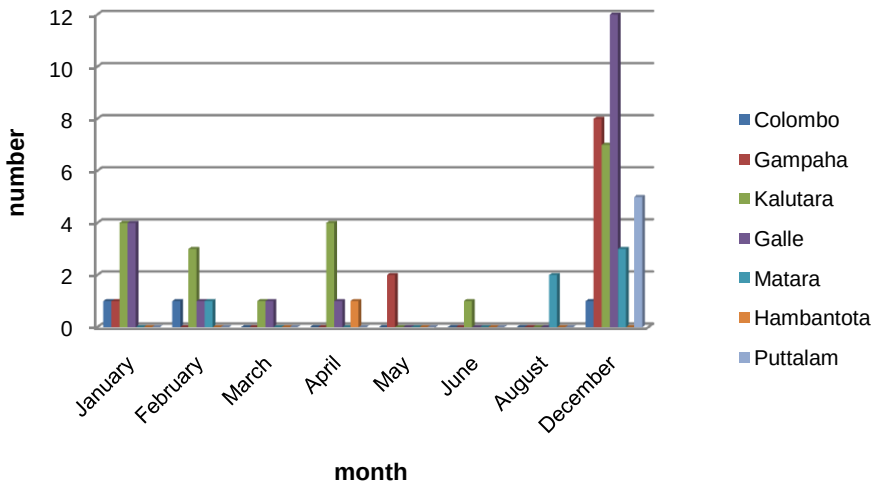


Figure 8: Peak month for BBs to visit spot in a year

4.7 Peak day for BBs to visit spot

Peak days for BBs to visit hot spots are mostly Sundays but BBs in Kalutara and Galle seem to be active even on Saturdays. Puttalam district shows a deviation from the general pattern as its BBs are most active on Thursdays.

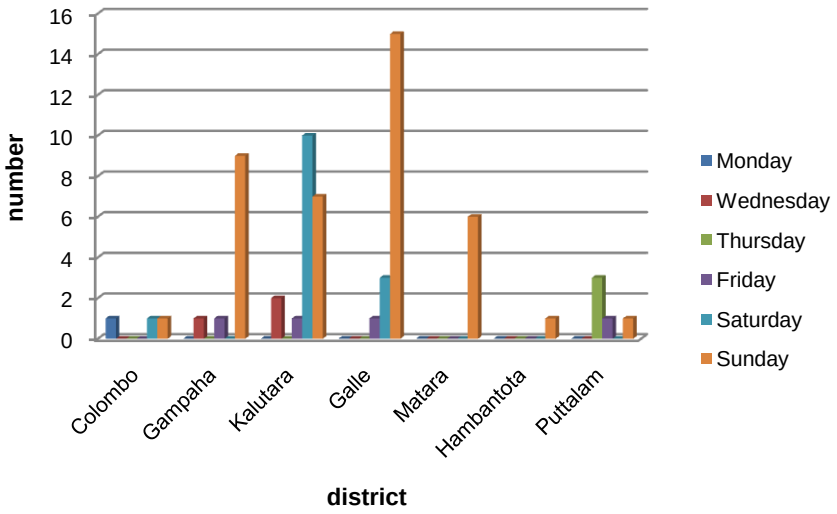


Figure 9: Peak day for BBs to visit spot in a week

4.8 Peak time for BBs to visit spot

BBs appear to be most active in all districts between 8.00 am and 8.00 pm in a day. However, Kalutara which is the most active district among all seems to be active even before 8 am and after 8 pm to a lesser extent.

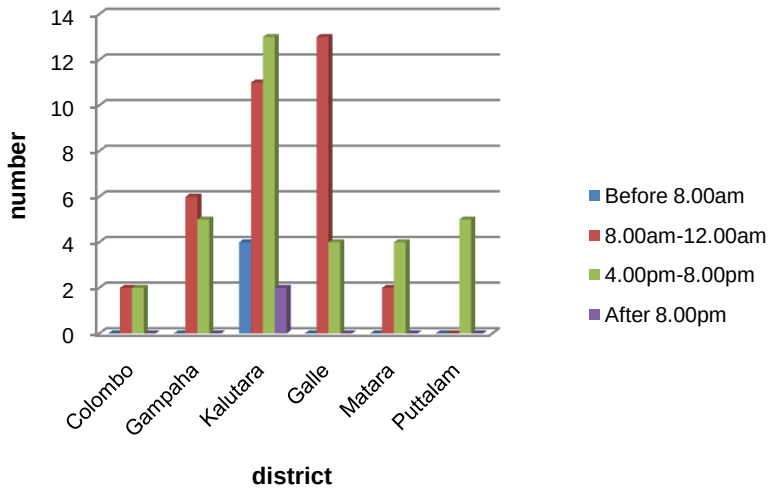


Figure 10: Peak time for BBs to visit spot in a day

4.9 Mean number of clients visiting spot

The study reported that 607 and 1267 clients were visiting spots on a usual and peak day, respectively. On average, Galle district has the highest number of clients visiting spot on a usual or a peak day while all other districts show the same frequency on both days but at a lower level (Figure 11).

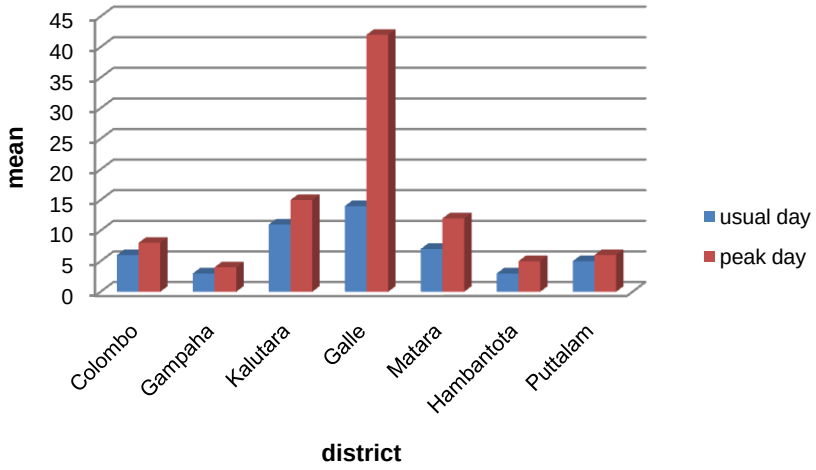


Figure 11: Mean number of clients served on a usual / peak day

4.10 Risk status of spot

Figure 12 exhibits that the risk is most prevalent in Kalutara and Galle districts while the least is recorded in Hambantotota district. In general, taking risk is higher than seeking risk in all districts under investigation.

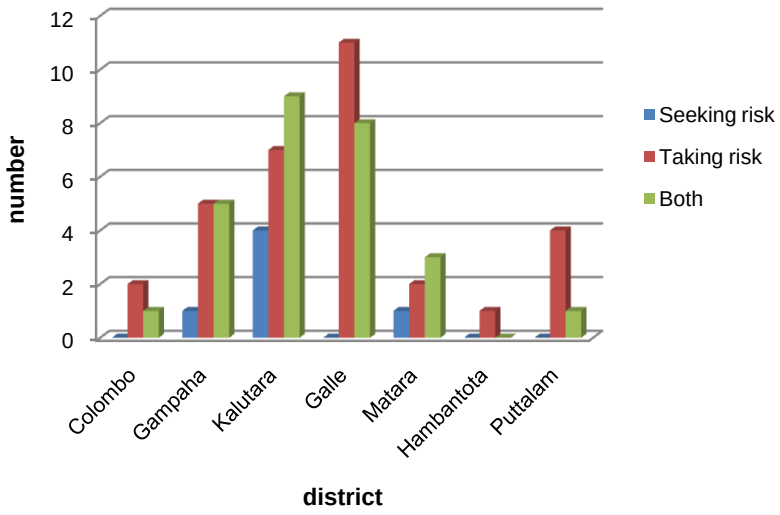


Figure 12: Risk status of the spot

4.11 Exchanging money or benefits for sex

It is found that BBs always exchange money or benefits for sex. It is not surprising because majority of them are related to tourism industry and involved for money or other benefits.

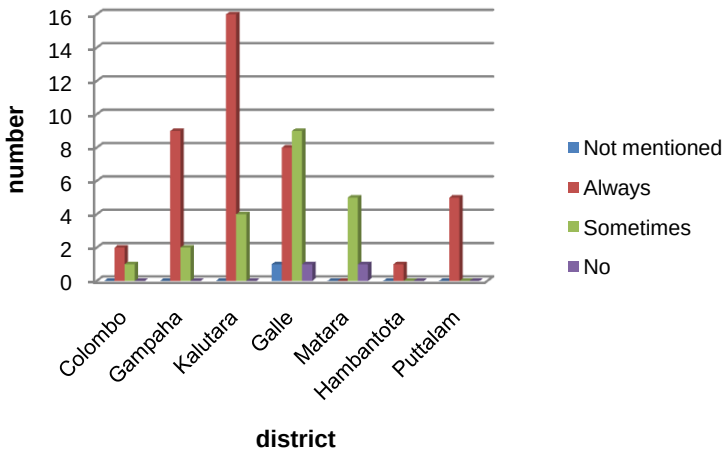


Figure 13: Exchange money or benefits for sex

4.12 Number of opposite sex partners/clients

It is quite important to note that BBs in all the districts show at least one opposite sex partner with whom they had sex during the last three months. Matara district shows the highest number in this regard followed by Kalutara district.

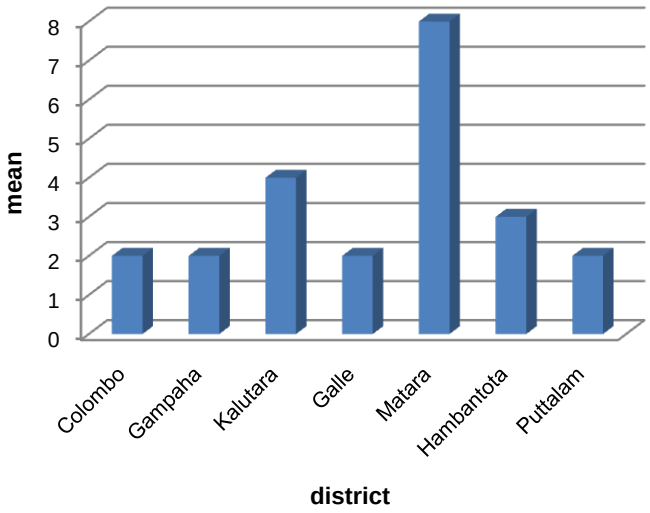


Figure 14: Mean number of opposite sex partners/clients

4.13 Number of same sex partners

Number of same sex partners/ clients having sex per day is highest in Hambantota district (10 per day) while Galle and Matara district show the least number (1 per day).

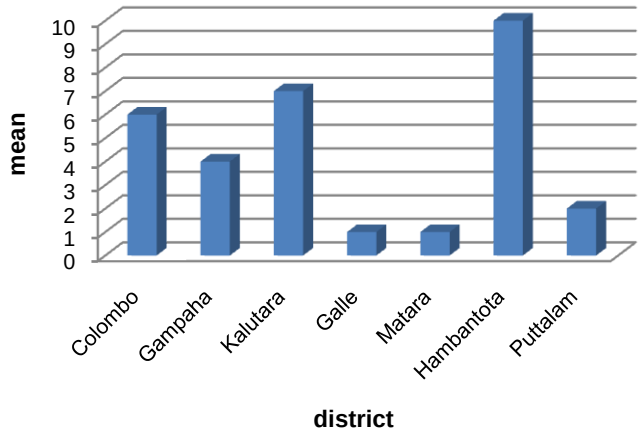


Figure 15: Mean number of same sex partners/clients

4.14 Use of condom at last sex

From the responses of the key informants, 78.5 percent have used condoms at last sex. However, Galle, Kalutara and Gampaha districts show significantly higher number of BBs not using condoms compared to all other district under study.

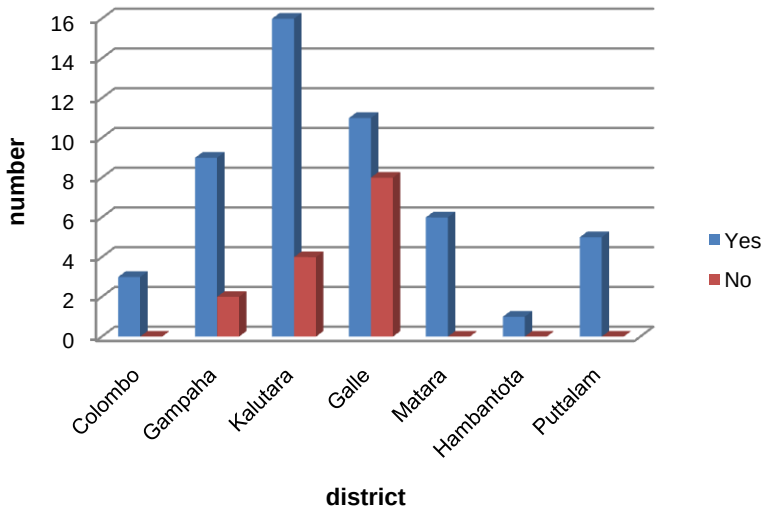


Figure 16: Use of condom at last sex

4.15 Main mode of income of key informants

Main mode of income appears to be tourism related activities in all districts. However, Beach Boy as the main type of occupation outnumber all other occupational categories in Kalutara district followed by 'tourist guide' category in Gampaha, Galle and Matara districts. In fact most of the BBs like to identify them as tourist guides.

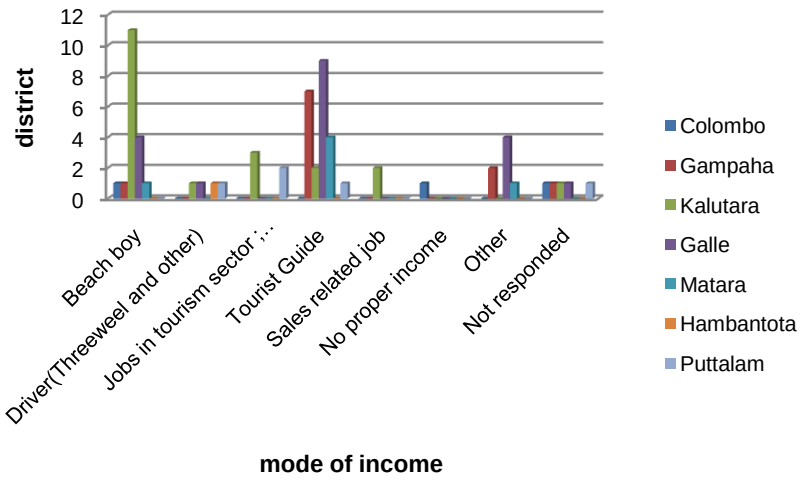


Figure 17: Main mode of income

4.16 Finding a partner/client from the spot

Figure 18 indicates that hotspots in all the districts under investigation do not often provide partners or clients and thus they cannot be regarded as sole 'pick-up' points.

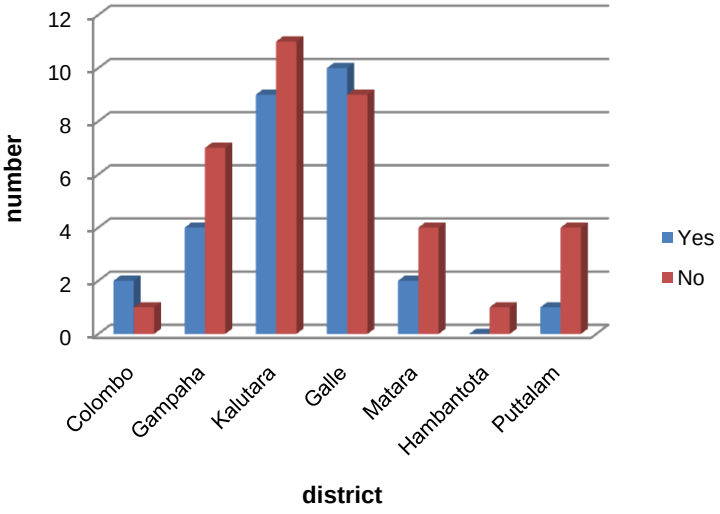


Figure 18: Finding a partner/client from the spot

4.17 Use of heroine during last three months

It seems that very few in Galle and Kalutara districts have used heroine during the last three months but all other districts appear to be drug-free districts in terms of BBs behaviour. The evidence gathered in this study suggests that no district showed the use of heroine with a syringe. Evidence elsewhere suggests that there is a close association between injecting drug-users and the spread of HIV. For instance, in 1982, when HIV was first detected in Brazil, the epidemic initially spread rapidly among men who have sex with men and then among injecting drug users after which a wave of heterosexual transmission exploded[12]. However, it appears that there is no such association in Sri Lanka.

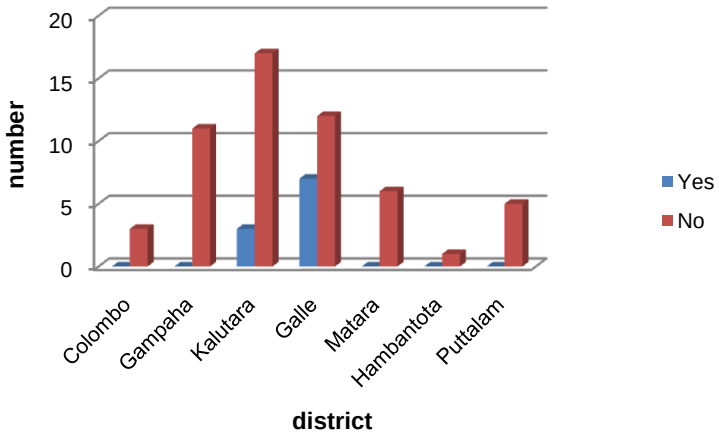


Figure 19: Used heroine during last three months

[12]Beyrer C, Gauri V, Vaillancourt D. *Evaluation of the World Bank's Assistance in Responding to the AIDS Epidemic: Brazil Case Study*. Washington, DC: The World Bank; 2005

5. Summary

Age distribution of the KIs is skewed and most of them are belonged to the ages between 20 to 29 years. Majority of the KIs are literate and most of them in Kalutara and Galle districts have studied up to GCE (O.L). Most of the KIs in Kalutara, Galle, Gampaha, Colombo and Hambantota districts are unmarried men while both Kalutara and Galle districts demonstrate a significant number of married men.

Kalutara district has the highest number of spots while Hambantota shows the least. The total number of BBs visiting spot on a usual day in the seven districts under study is 644. Majority (62.6 percent) of the BBs are seen in Kalutara and Galle districts while the lowest average is observed in Hambantota district. The total number of BBs visiting spots on a peak day was 1525. All the districts except Hambantota report at least 5 BBs visiting spot on a peak day but Galle district seem to be the most attractive district for BBs. It appears that a significantly higher percentage of BBs (136.8 percent) visit spots on a peak day than on a usual day. The months of December and January which are regarded as peak tourist months seem to be the peak month for BBs to visit spot in a given year. BBs appear to be most active in all districts between 8.00 am and 8.00 pm in a day.

The study reported that 607 and 1267 clients were visiting spots on a usual and peak day, respectively. On average, Galle district has the highest number of clients visiting spot on a usual or a peak day while all other districts show the same frequency on both days but at a lower level.

The risk is most prevalent in Kalutara and Galle districts while the least is recorded in Hambantototа district. In general, taking risk is higher than seeking risk in all districts under investigation.

It is found that BBs always exchange money or benefits for sex. It is quite important to note that BBs in all the districts show at least one opposite sex partner with whom they had sex during the last three months.

Number of same sex partners / clients having sex per day is highest in Hambantota district (10 per day) while Galle and Matara district show the least number (1 per day).

From the responses of the key informants, 78.5 percent have used condoms at last sex. Main mode of income appears to be tourism related activities in all districts.

Hotspots in all the districts under investigation do not often provide partners or clients and thus they cannot be regarded as sole ‘pick-up’ points.

It seems that very few in Galle and Kalutara districts have used heroine during the last three months but all other districts appear to be drug-free districts in terms of BBs behaviour.

Annex 1- Terms of References (TOR)

Introduction

As yet, evidence suggests that the HIV epidemic in Sri Lanka remains at a relatively low level. However, experience from other countries in South Asia have shown that concentrated HIV epidemics involving vulnerable key populations can expand quickly within those sub-populations and affect the wider population through "bridge populations". Therefore, to prevent the establishment and potential expansion of an HIV epidemic in Sri Lanka a key strategy will be to reduce the potential for transmission in important networks of vulnerable key populations, particularly where such networks are large and dense and therefore prone to rapid HIV transmission within and from these networks. The first key step in developing targeted interventions for vulnerable key populations is assessing their location, size and basic operational characteristics. Experience in diverse settings of South Asia has shown that structured mapping can provide accurate estimates of the size and location of key populations and thereby provide guidance for the scoping and targeting of HIV prevention programs and services.

This is a set of guidelines for a mapping study of key populations in selected districts in Sri Lanka using a mapping methodology that has been developed and successfully applied in diverse urban areas in low prevalence settings, including in India, Pakistan and Afghanistan.

Goals and Objectives

The overall goal of the proposed study is to provide accurate information on the size and characteristics of Most at Risk Populations (MARPs) in selected districts of Sri Lanka. The key population groups include female sex workers (FSWs), Men who have Sex with Men (MSM), Drug Users (DUs) and Beach Boys.

The specific objectives are:

1. To complete a geographic mapping of the locations of the MARPs in Selected Districts of Sri Lanka.
2. Estimate the population sizes of the risk populations, and describe the operational typology and organization structures of each MARP in each location.

Mapping Approach and Methodology

The basic approach has two sequential steps:

1. Level 1 - Systematic information gathering from each MARP key informants .(KI) regarding the locations ("hot spots") where key population members congregate and/or meet casual or paying sexual partners or for drug use.
2. Level 2 -Site validation and profiling of identified "hot spots" to characterize and estimate the size of the key populations.

The mapping methodology is largely based on a geographic approach which identifies the key locations where key population members can be found and quantified. The rationale for this is based on the experience in diverse settings in Asia which has shown the following. Most FSWs with a relatively large number of clients congregate and/or meet clients in definable geographic locations. Similarly, MSM who are in most need of focused prevention services have high rates of partner change, and therefore have specific locations where they meet new sexual partners (paying and non-paying partners). DUs who participate in networks and share drugs with other DUs generally congregate in particular locations where they access to drugs. Beach Boys are basically gather in beaches and around tourist hotels to approach their clients. Accordingly, the approach was to focus on identifying these locations, characterizing each location in terms of specific "spots" within that location and the operational characteristics of the sexual or , drug-using networks there (i.e. how and where FSWs and MSM meet clients/partners and "where sexual transactions occur). This approach also estimate the number of key population members that frequent the specific locations and spots.

The mapping process incorporates four main activities:

1. Pre-mapping exercise
2. Level one (L1)
3. Level two (L2)
4. Compilation of results

The Pre-mapping exercise

The pre-mapping exercise serves as a preparatory activity to establish the necessary logistical and conceptual foundations for the mapping data collection. The key aspects of the pre-mapping exercise include:

- Acquisition and review of detailed maps of the target cities.
- Segmentation of each district (i.e. >250,000) into zones based on logical administrative and/or neighborhood units.

- Recruitment of local field team members based on their experience working with key populations and field research experience (the field team should be comprised of members of the specific target group).
- Training of field staff on the concepts and implementation of the mapping methodology, including defining key terms, concepts and definitions relevant to the local situation.
- Meetings with local officials and stakeholders, including law enforcement agencies, to inform them about the purpose and nature of the mapping study, and to garner their support.
- Development of a field monitoring process and a detailed work plan for the local mapping exercise.
- Obtaining ethical clearance from the relevant ethical sub committee

Level 1 Activity

Level 1 data collection focuses on collecting information from key informants about the geographic locations where key population members congregate, as outlined above. For each mentioned location, key informants are asked a small set of more specific questions about the characteristics of the spot (public place, brothel, lodge, etc.) and an estimate of the number of key population members who can be found there (minimum and maximum and usual). This information is gathered in a pre-designed format, finalized during the pre-mapping exercise. Each day, the field team for each geographic zone convenes to collate the data collected in the field. Data are manually edited and the information is further sorted into various tables which served as a foundation to for the next level of activity. Based on the information assembled in Level 1, spots are identified for detailed spot profiling in Level 2 data collection, described below.

Level 2 Activity

The final step in data collection involves conducting key informant interviews at the key identified hotspots within each zone. These interviews, called L2 interviews, involve primary key informants (key population members and those closely related; FSWs, DUs, MSM, Beach Boys pimps, madams, brokers, etc.) and is focused on validating the information collected and collated in the previous exercise. Field teams go the identified hotspots to verify the location, describe the type of spot, and get more specific information on the size of the key population that is there (minimum, maximum and median estimates).

Data Management

Pre-set data forms will be edited by a data management team and corrected for names of zones, missing KI typology, and any missing estimates of spots, (i.e. spot without any estimates of key sub-population size). The collected data should be entered into a computerized database specifically designed for the study and analyzed using an accepted computer package. The data is used for generating final estimates and lists of spots. To obtain this, the estimate ranges for each site and location can be rolled up for a zone and city to produce minimum and maximum estimates. To arrive at a single "best" estimate, the mid-point ("mean") of the minimum and maximum estimates is used.

Organization and Monitoring of Field Work

Although the number of field teams will vary in different cities and zones, a general team structure is proposed, consisting of senior and junior field workers/interviewers, working alongside key population community members who participate as social mobilizes and participate in the field work. The teams will be supervised by team supervisors, who reported to the local co-investigator or the site coordinator. In addition to the field teams, a data management team comprising of a data manager and data entry operators will be established.

Project Team

1. Technical Experts

The technical project team should be comprised of an expert team that can draw on the experience, materials and protocols.

Overall technical lead, project management and report generation

- Team Leader, demographer/public health expert with extensive design and implementation experience *for* mapping and survey studies with key population groups
- HIV Expert
- Sociologist
- GIS Expert
- Statistician
- Technical advisors (one - two) involved in the field monitoring, data analysis and report generation

2. Implementing Agency/Team

Field work, data collection and field supervision will be the responsibility of an implementation team. A technical steering committee consists of officials from PR2 and

National STD AIDS Control programme will provide technical assistance and monitor the implementation to assure the quality of implementation.

Implementation Plans and Timelines

The implementation of the project will proceed in three phases: 1) Planning Meeting 2) preparation and training; 3) field work; 4) analysis and reporting. The total time period from the signing of the contract and submission of the final report will be 4 calendar months.

Planning Meeting

The technical study team should meet with the technical steering committee and plan out the methodology of the study. The main objective of the meeting is to finalize the protocol and obtain necessary approvals.

Protocol finalization and approvals - Based on methods and tools already developed, final protocols and tools (e.g. interview schedules and questionnaires) should be finalized, translated and piloted. In addition, the detailed field protocols should be finalized based on realities on the ground. The final protocols and instruments should be submitted for ethical review before proceeding.

Field Team Training

The technical team should carryout training for the field supervisors and interveners on the methodology, data collection tools and monitoring tools and processes. Training schedules should be approved by the steering committee before the training is started.

Field Work

Field work should be implemented by the local implementation teams, with supportive supervision from the technical team.

Analysis and Reporting

The following deliverables will be expected from the agency

- Detailed work plan for the assessment.
- Brief report of training workshop for the assessment team.
- Assessment tools based on agreed methodology.
- Brief report of pre-testing of the assessment tools.
- Regular at least 2 meetings with Assessment Core Team/Committee.

The first draft should be available for review within the given time period and it will be reviewed by a group experts. The structure of the report includes at least the following sections/elements in English language:

1. Background;
2. Objectives;
3. Methodologies and fieldwork;
4. Findings;
5. Conclusions and Recommendations;
6. Tables and Graphs;
7. Annex on data and documents; and
8. References, including secondary literature and a comprehensive listing of document obtained/reviewed.

- Second and the final report should be submitted within 2 weeks after providing comments by the expert team.
- The final report should be ready for printing with type set, edited for language with graphics and art work in 3 hard copies.
- The Electronic Database, data collection materials and an electronic copy of the final report should be handed over to Sarvodaya before the final payment.

Confidentiality and Safety of Information

The agency/agencies are responsible in maintaining confidentiality of the information gathered and assure the safety of information until they are handed over to Sarvodaya with the final report

Payment Scheme

- 25% will be paid with the signing of the contract
- 25% with the implementation of the study- Completion of tools and recruitment and training of full technical staff and field staff
- 25% with submission of the 1st draft.
- Final 25% with the submission of the final report in 3 hard copies, 3 soft copies and the data base

Topics to be covered in the Proposal

1. In the Technical Proposal
    - Agency profile
    - Research team with CVs

- Previous experiences in similar activities including Budget
- Proposal details
- Sampling, Methodology, Analysis
- Work Plan

2. Financial Proposal

Guidelines for Submission of Proposal

1. Proposals and financials proposals should be submitted separately for each Target Group -(Commercial Sex Workers, Men having Sex with Men, Drug Users, Beach Boys)
2. Technical Proposal and Financial Proposal for the mapping activity should be submit in 2 separate sealed envelops
3. The envelop should marked "Technical Proposal /Financial Proposal for Mapping of MARPs" and the specific target group on the top of left hand corner of the envelop
4. Proposal can be deposited in the box or can be sent by Registered post to reach Director, Sarvodaya Secretariat for GFATM Project, "Nagarodaya Centre", No, 155A, Dr. Danister De Silva Mw, Colombo 8.
5. Proposals should be reached before 5.00 pm on 14" June 2011 to the above address.

Annex 2 - Data Collection Tools

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

BEACH BOYS - LEVEL 1 FORM

A.1. District:					A.9. Key informant No		
A.2. DS/AGA Division					A.10.Key informant Name		
A.3. GN Division (Optional)					A.11. KI contact information		
A.4. FRO Name/Code					A.12. KI Type *(circle the relevant number)*	1. Primary 2. Secondary 3. Tertiary	
A.5. FRS Name/Code					A.13. KI Gender *(circle the relevant number)*	1. Male 2. Female 3. Transgender	
A.6. Date *(DD/MM/YYYY)*					A.14. KI Occupation		
A.7. Time started	H	H	M	M	Comments:		
A.8. Time end	H	H	M	M			

B.1. S. N	B.2. Name of the Spot	B.3. Type*	B.4. Contact for that spot	Number	
				B.5 Min	B.6 Max
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

BEACH BOYS - LEVEL 2 FORM

A.1. District:					A.9. Spot Code	
A.2. DS/AGA Division					A.10.Spot Type	
A.3. GN Division (Optional)					A.11. Spot Name	
A.4. FRO Name/Code					A.12. Spot Currently Active	1. Yes, 2. No
A.5. FRS Name/Code					Comments:	
A.6. Date *(DD/MM/YYYY)*						
A.7. Time Started	H	H	M	M		
A.8. Time End	H	H	M	M		

B. SPOT PROFILE (SPOT INFORMATION)		Codes
B.1. **On a usual day**, how many **BBs** visit this spot *(min - max)*		
B.2. **On a peak day**, how many **BBs** visit this spot (min - max)?		
B.3. What is the **peak month** for BBs to visit this spot in a year?		
B.4. What is the **peak day** for BBs to visit this spot in a week?		
B.5. What are the **peak time** for BBs to visit this spot in a day?		
B.6. **On a usual day,** how many clients are served from this spot?		
B.7. **On a peak day**, how many clients are served from this spot		
B.8. Risk status of the spot. (Seeking risk or taking risk or both)	1. Seeking risk 2. Taking risk 3. Both	

C. INFOMATION ABOUT THE KI		Codes
C.1. What is your age at last birthday?		
C.2. How many years of education have you completed?		
C.3. What is your marital status?	1. Unmarried, 2. Married/Living together 3. Divorced/Separated/Widowed	
C.4. Do you exchange money or benefits for sex	1. Always 2. Sometimes 3. No	
C.5. How many No of **opposite sex partners /clients** with whom you have sex during the last 3 months?		
C.6. How many No of **same sex partners /clients** with whom you have sex during the last 3 months?		
C.7. Did you use a condom at last sex	1. Yes 2. No	
C.8. What is your main mode of income		
C.9. Do you only find a client/partner only from this spot?	1. Yes 2. No	
C10. Did you use Heroine in last 3 months?	1. Yes 2. No	
C11. If Yes, have you injected Heroine in last 3 months?	1. Yes 2. No	

Lanka Jathika Sarvodaya Shramadana Sangamaya

GFATM Round 9 HIV / AIDS

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka

Female Sex Workers(FSW)

Final Report -September 2012

MG CONSULTANTS

Acknowledgements

We wish to acknowledge The Lanka Jathika Sarvodaya Shramadana Sangamaya for taking an initiative to conduct Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) for funding the programme.

We also take this opportunity to thank all institutions and individuals for their valuable contributions and assistance extended to us in successfully carrying out this assignment.

We thank Dr. Harischandra Yakandawala, Programme Manager, GFATM Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya for his professional support, technical guidance, encouragement and continuous feedback extended to us throughout the assignment.

We greatly appreciate the unstinted support given by Dr. Nimal Edirisinghe, Director, National STD AIDS Control Programme (NSACP) for the cooperation extended to complete this study successfully.

A special word of thanks goes to the Technical Steering Committee Members, Dr. K. M. A. Ariyaratne, Dr. Neelamani Punchihewa, Dr. Sriyakanthi Beneragama, and Dr. Ajith Karawita of NSACP and Dr. Dayanath Ranatunge of UNAIDS for their valuable contribution, technical assistance and feedback given to ensure the completion of this study in a highly satisfactory manner.

We also wish to thank the Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) which are working for the most at risk populations for their great contribution in field data collection by providing field staff.

The tertiary, secondary and primary key informants who assisted the field team to identify the “Hot Spots” and the primary key informants; Female Sex Workers, Men who have Sex with Men, Drug Users and Beach Boys who provided the information and responded to our questionnaire, undoubtedly served as the nucleus of this study. We sincerely thank all of them and highly appreciate their contribution towards this venture of national importance for HIV prevention in Sri Lanka.

STUDY TEAM

Programme Management Unit

Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) Round – 9, Lanka Jathika Sarvodaya Shramadana Sangamaya

1. Dr. Harischandra Yakandawala, Programme Manager

MG Consultants (Pvt.) Ltd

Project Management Team

1. Dr. Manomi Perera – Chief Executive Officer
2. Mr. Amil Epa – Project Manager
3. Ms. Nadeesha Jayasena – Project Coordinator

Team on Consultants

1. Prof. Lakshman Dissanayake – Consultant / Project Advisor
2. Prof. M. W. Jayasundara – Project Consultant / Sociologist
3. Dr. Sunil Ratnayake – Project Consultant / Sociologist
4. Dr. Thiloma Munasinghe – Consultant / Human Immunodeficiency Virus (HIV) Specialist
5. Mr. Prassanna Lenadora – Geographic Information System (GIS) / Database Expert
6. Mr. Janaka Sanjeewa - GIS / Database Expert
7. Mr. Indika Siriwardana – Statistician
8. Dr. Inoka Suraweera – Technical Advisor / Consultant - Community Medicine
9. Dr. Gamini Jayakody - Technical Advisor / Consultant - Community Medicine

Technical Steering Committee

National STD AIDS Control Programme (NSACP)

1. Dr. Nimal Edirisinghe, Director, NSACP
2. Dr. K. M. A. Ariyaratne
3. Dr. Neelamani Punchihewa,
4. Dr. Sriyakanthi Beneragama
5. Dr. Ajith Karawita

United Nations Programme on AIDS (UNAIDS)

1. Dr. Dayanath Ranatunge

Supporting Organizations

1. Family Planning Association (FPA) of Sri Lanka
2. Community Strength Development Foundation (CSDF)
3. Alcohol and Drug Information Centre (ADIC)
4. Organization for Environment and Child Right Preservation (OECRP)
5. Community Oriented Resource Exchange (CORE)
6. Environment and Community Development Information Centre (ECDIC)
7. “Heart to Heart”
8. “Saviya” Foundation
9. “Seth Arana”
10. “Praja Diviya Padanama”
11. “Rajarata Gami Pahana”
12. “Sri Lanka Manawa Sanwardana Padanama”
13. “Wayamba Govi Sanwardana Padanama”

Acronyms

ADIC	Alcohol and Drug Information Centre
AGA	Assistant Government Agent
AIDS	Acquired Immunodeficiency Syndrome
BB	Beach Boy
CBO	Community Based Organization
CORE	Community Oriented Resource Exchange
CSDF	Community Strength Development Foundation
CV	Curriculum Vitae
DS	Divisional
DSD	Divisional Secretariat Division
DU	Drug User
ECDIC	Environment and Community Development Information Centre
FPA	Family Planning Association of Sri Lanka
FRO	Field Research Officer
FRS	Field Research Supervisor
FSW	Female Sex Worker
GCE O/L	General Certificate of Education Ordinary Level
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GIS	Geographic Information System
GN	Grama Niladari
GPS	Global Positioning System
HIV	Human Immunodeficiency Virus
KI	Key Informant
MARP	Most at Risk Population
MGC	MG Consultants
MSM	Men who have Sex with Men
NGO	Non Governmental Organization
NSACP	National STD AIDS Control Programme
OECRP	Organization for Environment and Child Right Preservation
PR	Principal Recipient
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TOR	Terms of Reference
TSC	Technical Steering Committee
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program

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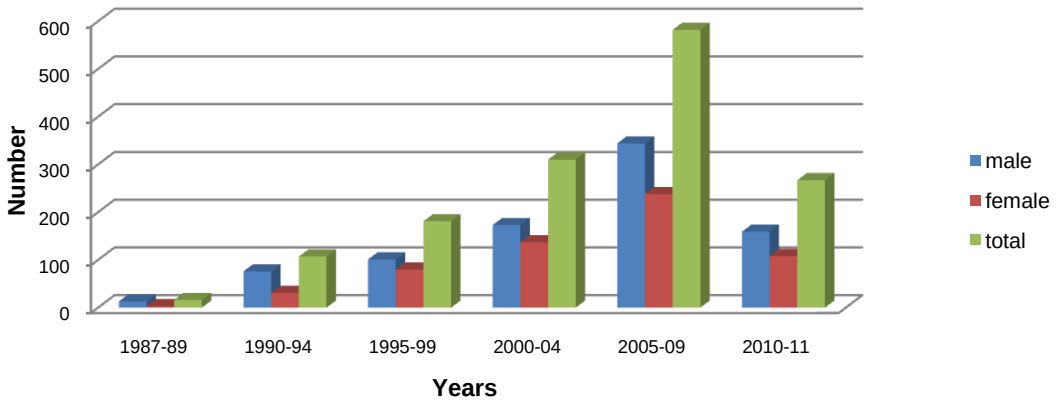
1. Introduction

The National Strategic Plan for Prevention and Control of HIV/AIDS 2002-2006 reported the first few cases of HIV in Sri Lanka and they were primarily among men having sex with men (MSM). The first HIV case in Sri Lanka was reported in 1987. There has been constant rise of the HIV and AIDS cases since then and hence HIV/AIDS can be regarded as a new epidemic emerging in Sri Lanka. Number of HIV cases has increased an exponential manner up to 2009 but a significant decline is seen during the period 2010-11 (Figure 1).



Source: National STD/AIDS Control Programme (NSACP), Sri Lanka

Figure 1: Number of HIV cases reported up to 2011

Available evidence suggests that Sri Lanka does not have a significant number of HIV/AIDS patients and thus the country is currently is not experiencing an epidemic in this regard. Currently the HIV prevalence is below 1.0 percent and as at end December 2011, a cumulative total of 1463 HIV persons were reported to National STD/AIDS Control Programme of Sri Lanka (NSACP). The main mode of transmission is unprotected sex between men and women (83.8 percent) followed by the category of men having sex with men (MSM) accounting for 12.3 percent. It has been claimed that unprotected paid sex, the sharing of contaminated needles and syringes by injecting drug users and unprotected sex between men seem to be the commonalities observed in Asia in relation to HIV transmission (UNAIDS, 2008). Therefore, it appears that prevention efforts are highly associated with dire reduction of HIV transmission among and between these three categories of most-at-risk populations. However, injecting drug use in Sri Lanka is not a widespread experience (0.5 percent). Nevertheless, some socio-economic and behavioral factors which are seen in Sri Lanka could ignite an epidemic in the future[1]. The emerging trend of a large youth population

[1] *www.un**aids**.org/en/dataanalysis/.../ce_LK_Narrative_Report[1].pdf*

entering into population structure of Sri Lanka, internal and external migration, underground but thriving sex industry, low level of condom use, concurrent sexual relationships among most-at-risk-populations (MARP) can be regarded as most influential factors which can future prevalence of HIV disease in Sri Lanka. In addition, low level of sexually transmitted infections (STI), availability and accessibility to free of charge health services from the state sector, high literacy rate, low level of drug injectors, are the factors which can be regarded as constraints to the spread of HIV.

However, Mahajan et al[2] have claimed that HIV-related stigma is associated with higher risk behaviors in a range of low and high prevalence scenarios[3]. Only 6 of 10 countries in the world have laws and regulations that bar discrimination against people living with HIV, and even for the states that have antidiscrimination laws, major barriers persevere in implementation. It has also been pointed out that HIV spread can go out of control not because of the size of the high-risk population but once this virus gets out of high-risk population, and set off to spread in general populations, the risk for everybody who is sexually active goes up in a heterosexual epidemic[4]. In such a situation, every sexually active person is at risk-not just drug users, female sex workers, men who have sex with men, and promiscuous people.

The present study seems very significant in global as well as local context although Sri Lanka is currently regarded as a 'low prevalent' country. This mainly because when a 'low prevalence' label is applied to a country, it needs further clarification as 'low' is a relative measure in the global context when it comes to HIV epidemic. All countries, including those harshly affected in sub-Saharan Africa, have at some point in their epidemic histories been 'low-prevalence' countries. For instance, South Africa, which now has among the worst HIV epidemics in the world, was considered low prevalence about 10 years ago when other African epidemics were already well in progress. Current HIV prevalence assists to plan surveillance and interventions efficiently, but it is not predictive of the future of the epidemic. It is quite essential to note that the predicting the magnitude of future epidemics is challenging and has historically been extremely erroneous.

[2]Mahajan AP, Sayles JN, Patel VA, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS*. 2008;22(Suppl 2):S67-S79.
[3]Sayles JN, Hays RD, Sarkisian CA, et al. Development and psychometric assessment of a multidimensional measure of internalized HIV stigma in a sample of HIV-positive adults. *AIDS Behav*. 2008;12:748-758.
[4]Yoon C. AsiaSource interview with Chris Beyrer. 2002. Available at: http://www.asiasource.org/news/special_reports/beyrerinterview.cfm.

Global HIV incidence

Globally, the annual number of people newly infected with HIV continues to decline, although this varies strongly between regions. In 2010, an estimated 2.7 million [2,400,000–2,900,000] people were newly infected with HIV, 15 percent fewer than the 3.1 million [3,000,000–3,300,000] people newly infected in 2001 and more than one fifth (21%) fewer than the estimated 3.4 million [3,100,000–3,600,000] in 1997, the year when the number of people newly infected with HIV peaked[5].

Between 2001 and 2009, the incidence of HIV infection has declined in 33 countries, 22 of them in sub-Saharan Africa. In that region, which continues to have the majority of the people newly infected with HIV, an estimated 1.9 million [1,700,000–2,100,000] people became infected in 2010. This was 16 percent fewer than the estimated 2.2 million [2,100,000 – 2,400,000] people newly infected with HIV in 2001 and 26 percent fewer than the annual number of people newly infected in 1997 (when the overall HIV incidence in sub-Saharan Africa peaked).

In South and South-East Asia, the estimated 270,000 [230,000–340,000] people newly infected with HIV in 2010 were 40 percent fewer than the 470,000 [410,000– 530,000] people estimated to have acquired HIV infection in 1996, when the epidemic in that sub region peaked.

UNAIDS estimates that 34 million [31,600,000– 35,200,000] people were living with HIV globally at the end of 2010 versus 28.6 million [26,700,000– 30,900,000] in 2001 – a 17 percent increase.

In several regions, significantly higher rates of sexually transmitted infections (STIs) and HIV infection are found among sex workers and their clients in comparison to other population groups. HIV infection has been found to spread among sex workers before it spreads into the general population. Given the role of STIs as a factor in HIV transmission, high rates of STIs among sex workers are indicators of the potential for rapid spread of HIV among sex workers, their clients, families and extended sexual networks. High rates of infection among sex workers may not be due to the fact that they have multiple partners but rather due to a combination of factors that compound this risk. These factors include poverty, low educational level and consequent levels of knowledge about HIV/AIDS and prevention means; limited access to healthcare services and prevention commodities, such as

[5] World AIDS Day Report 2011

condoms; gender inequalities and limited ability to negotiate condom use; social stigma and low social status; drug or substance abuse and compromised sexual interactions[6].

Female sex workers in low- and middle-income countries are nearly 14 times more likely to be infected by HIV compared to the rest of country's population, according to an analysis by researchers at the Johns Hopkins Bloomberg School of Public Health[7].

For the study, Johns Hopkins conducted a meta-analysis of 102 previous published studies representing almost 100,000 female sex workers in 50 countries. Overall, HIV prevalence in female sex workers in low- and middle-income countries was found to be about 12 percent, which equated to an increased risk of infection for sex workers 14 times that of other women in these countries. In 26 countries where background levels of HIV were considered "medium" to "high," approximately 31 percent of the female sex workers were found to have HIV and were 12 times more likely to be infected compared with women from the general population. Sex workers in Asia had a 29 percent increased risk for HIV infection compared to other women, which was the greatest disparity among the regions studied. Sex workers in Africa and Latin America were 12 times increased risk compared to other women in these regions.

HIV and FSW in South East Asia

The majority of HIV infections in the South-East Asia Region are due to unsafe sex between female sex workers and their clients. More than 20 years later, after the commencement of the epidemic in South-East Asia, HIV infection rates among female sex workers remained very high and are still increasing. HIV surveillance conducted among sex workers at 84 sites in India, in 2005, showed a prevalence of above 10 percent in 30 sentinel sites and above 25 percent in six sites. Maharashtra state in India has the highest rates of HIV among sex workers, ranging from 11 percent to 50 percent across 12 surveillance sites. In Mumbai, the commercial capital of Maharashtra and India, HIV prevalence among sex workers remained consistently high (40–50%) in the past five years. In Myanmar, although HIV prevalence is showing a decreasing trend in some population groups it remains high among sex workers—one-third to half of the sex workers in Yangon and Mandalay are infected. Several areas in Indonesia are showing an increasing trend in HIV infection among sex workers. In Sorong District in Papua Province of Indonesia, HIV prevalence among direct sex workers increased from 0.5 percent in 1998 to 23 percent in 2005[8].

[6]UNAIDS Report on the Global HIV/AIDS Epidemic 2002
[7]HIV AIDS in the South- East Asia Region 2007
[8] UNAIDS (2004) *Fact Sheet- Sri Lanka* UNAIDS: Geneva.

HIV and Sri Lanka

Sri Lanka continues to have very low HIV prevalence. In low prevalence settings, the focus of HIV prevention programs should be the most-at-risk populations (MARPs). Data on HIV prevalence amongst MARPs in Sri Lanka is limited, with the exception of female sex workers. However the prevalence amongst the latter is also low. As of March 2010, 1223 HIV positive persons have been reported in the country out of which 208 have died.

UNAIDS estimates that about 3,000 Sri Lankans were living with HIV at the end of 2009, yielding a prevalence of less than 0.1 percent among 15 to 49 year olds. Survey data observes that even among individuals considered at higher risk of infection on the basis of their occupation, behaviors and practices, HIV prevalence is below 1 percent through the end of 2009. The main mode of transmission is unprotected sex between men and women (82.8percent). Despite the low HIV prevalence, important risk factors exist in Sri Lanka. Commercial sex is identified as one of the key risk factors. Using the recently concluded geographic mapping of FSWs and MSMs, the estimates of the number of female sex workers in Sri Lanka vary from 35,000 to 47,000. Preliminary findings from the 2006 BSS suggest that STIs and HIV among female sex workers are relatively low and seem to have relatively high condom use[9].

Female sex workers can be defined as women who exchange sex for money or goods. However, some female sex workers are more visible and identifiable than others. Sri Lankan sex workers work at a range of venues: there are street workers, those who work in brothels or from home, and workers in massage parlours, casinos, karaoke bars and hotels. According to a World Bank report, the risk of HIV spreading among sex workers is heightened by low levels of condom use and high prevalence of sexually transmitted infections[10]. HIV prevalence has been estimated to be between 1 percent and 4 percent among this group of women. According to a study done by Ratnapala[11] in it has been estimated that there were 3,500 female street sex workers and 4500 brothel workers in Colombo alone. In another survey identified that the most prevalent risky sexual act was unprotected vaginal sex involving female sex workers. Brothel workers had between 7 to 14 clients per week. Thirty-eight per cent of brothel and street sex workers and 19 percent of clients reported consistent condom use[12]. Three Sri Lankan-based studies have collected

[9] World Bank (2005). *HIV/AIDS in Sri Lanka.* World Bank: Colombo.
[10] Ratnapala, N. (1999). *Sex workers of Sri Lanka.* Sarvodaya Vishva Lekha: Colombo.
[11] Ratnapala, N. (1999). *Sex workers of Sri Lanka.* Sarvodaya Vishva Lekha: Colombo.
[12] Priyadharshani, T. S. (2002). *Estimation of HIV infection utilising the sexual behavioural pattern among selected high vulnerable groups in Colombo District and the explanation for the gap*

data on consistent condom use among female sex workers attending the STD clinic in Colombo.

Defining Female Sex Workers (FSWs)

FSWs are women who sell sex for cash, kind or favour. A woman will only be considered to be a FSW if she has sold sex at least once in the last month. In this category there are sub groups:

- Brothel based sex worker
- Street-based sex workers
- Home/Shanty-based sex worker
- Lodge/Hotel-based sex workers
- Massage parlours
- Karaoke/Night club-based sex workers
- Vehicle-based sex workers

2. Objectives

The overall objective of the assignment is complete a geographic and social mapping of FSWs in the districts of Colombo, Gampaha, Kalutara, Galle, Matara, Hambanthota, Kandy, Matale, Nuwara Eliya, Kurunegala, Puttalum, Anuradhapura, and Polonnaruwa.

The specific objectives are:

a) To complete a geographic mapping of the locations of the FSWs in the respective districts
b) To provide information on the size and characteristics of the FSWs in the respective districts.
c) To describe the operational typology, spot characteristics and analysis of profile of primary KIs among FSWs in each location

3. Methodology

3.1 Method of investigation

The study is based on the experience in conducting the behavioural surveillance survey during the period from 2006 to 2008 and expertise in conducting sensitive research with hard-to-reach populations. The mapping methodology is largely based on geographic approach, which identifies the key locations where the FSWs can be found and quantified. FSWs basically gather in beaches and around tourist hotels to approach their clients. Therefore, the approach is to focus on identifying these locations, characterising each location in terms of specific "spots" within that location and the operational characteristics of the sexual networks there in. This approach also estimate the number of key population members that frequent the specific location and spots.

The mapping process consists of four main activities.

- Pre-mapping exercise
- Data collection
- Data processing
- Compilation of results

3.2 The pre-mapping exercise

The pre-mapping exercise served as a preparatory activity to establish the necessary logistical and conceptual foundation for the mapping data collection.

The Consultants conducted a comprehensive desk review of background material used in project preparation, approved project documents, progress reports, action plans and other available information, which were useful for the study. The data and reports of the mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health in March 2010were also reviewed.

The data collecting tools used in the previous mapping exercise carried out by UNAIDS, World Bank and Centre for Global Public Health were further improved in consultation with the steering committee members to collect the required data from the respondents. A considerable attention was given to develop simple, short, unambiguous and useful questionnaires. Wording of the questions was considered as fundamental.

The draft questionnaires were pre-tested in a preliminary survey to identify the lapses and irrelevant or inappropriate questions. The Consultants in consultation with the Client finalized the protocol and the questionnaires based on the experience of the preliminary survey and realities on the ground. The detailed field protocols and questionnaires were submitted for ethical review and clearance before proceeding with field data collection. The final versions of the questionnaires were translated, printed and copied to collect the data from the target respondents.

A skilled team consisting of 2 Field Supervisors and 8 FROs from both DU community and non-community with sociological background and prior experience of data collection were deployed for data collection. In addition, experience in working in relevant sensitive research and the geographical area was taken into consideration when selecting FROs. In order to facilitate collection of consistent and reliable data, a three-day training workshop was organized for the FROs in close collaboration with the Client. Module objectives of the training workshop were;

- to enable the participants to understand the need for collecting appropriate data for developing a comprehensive and useful database,
- to enable the participants understand the objectives of the study and steps in conducting the interviews and
- to provide hands-on experience to administer the questionnaires in the field situation.

The training programme was focused on reaching the appropriate respondents, explaining the objective of the study and responding to questions and queries made by the respondents. All aspects of the study and the interview guidelines were explained thoroughly and mock survey sessions were conducted in small groups until all FROs understand all the questions and have no doubts. The FROs were briefed on the necessity of developing a good rapport with the respondents and on the duty of maintaining strict confidence. Moreover, the FROs were instructed as to how to interpret the answers of the respondents and to enter them in the interview formats.

The Consultants in collaboration with the Client had meetings with local officials and stakeholders, including law enforcement agencies to inform them about the purpose and nature of the mapping study and to garner their support. Discussions were carried out with networks working with the risk populations to get the support for data collection. Before

commencing the work, permission was obtained from the Ministry of Health and the Police Department.

3.3 Data collection

3.3.1 Level 1 activity

Level 1 data collection was carried out to collect data on:

- Geographic locations where key population members congregate
- Spot name and typology
- Number of key population members who can be found there (minimum, maximum and usual)

The KIs for level 1 data collection were:

- Taxi / three-wheel drivers
- Hotels / Restaurants / Clubs
- Hotel Waiters
- Hotel Managers
- Hawkers
- FSWs

The methodology adopted here was conducting face to face interviews with intended respondents. All the interviews with identified KIs were conducted by the FROs in actual locations or any other convenient place suggested by the respondents. The responsibility of collecting the data from the assigned KI and entering the data in interview formats (L1 data collection forms) lied with the respective FRO. Each day, the field team for each geographic zone convened to collate the data collected in the field to identify final spot list for the defined areas.

All respondents were explained of the need for such research and how the results would be used to develop HIV prevention programmes in Sri Lanka. They were ensured that all information collected will be treated with utmost confidence. All informants were further ensured about the sensitivity of some of the questions and informed that they have the right not to answer any specific question of their choice. After explaining the above their verbal consent was obtained. They were further informed that they have the right to withdraw their consent at any time during the interview. During the Level 1 data collection process, in collaboration with KIs, suitable FSWs or persons who are closely associated with them were identified to assist the FROs.

3.3.2 Level 2 activity

Level 1 data collection was carried out:

- To ensure validity of the hotspot and its geographic locations
- To verify the spot name and typology
- To get more accurate values on size of the spot (e.g. minimum and maximum number of members on a usual day and on a peak day, etc.)

The methodology employed in this regard was conducting face to face interviews with intended respondents at the identified hotspots within each zone with the aim of validating the information collected and collated during level 1 data collection. The FROs visited the identified hotspots to verify the location and described the type of spot and get more information on the size of the key population. Where possible, the FROs were accompanied by the members of the target respondents as it had a positive effect on the accuracy of data. Beside the interviewing process, GPS data of each location was collected by a GIS assistant with the support of Field Supervisors and FROs.

A field monitoring process which was accompanied by the below mentioned quality assurance activities was followed during data collection.

- Summary reports from FROs on a daily basis
  Daily summary reports were obtained and daily progress reports were produced and circulated among the team
- Regular meetings with field staff / weekly review meetings
  Monitoring of data collection was accompanied with regular meetings with field staff, during which the FROs were encouraged to discuss the problems encountered during the data collection process
- Data cleaning / questionnaire quality checking
  All completed interview formats were checked for completeness by the Consultants. All questionnaires were given serial numbers (according to the sample list of institutions) to ensure the identification. Missing data and incompatible data were corrected when required by referring to the respective FROs. Data was cleaned and coded to ensure accuracy and efficiency in data entry process.

- Random field visits / live checks
  Live checks were conducted by the Consultants to ensure high quality of interview process and to assess the feedback of survey respondents. Immediate action was

taken to improve the situation whenever necessary. The representatives of the TSC were also invited in these field visits.

3.4 Data processing

All the completed data formats were checked for completeness, clearness and accuracy and the responses for open-ended questions were coded before entering. In house data entry operators were assigned to enter collected data into databases which were developed using MS Access. The software was able to verify ranges and consistency of the data and generate reports. Data entry process was closely monitored and the database was randomly checked by the GIS / Data Management Specialist to compare the entered data with the filled interview formats.

Data screening, reviewing, digitizing and processing were matched with the scope of the study. The Consultants conducted exploratory data analysis (e.g. frequencies, percentage tabulations, cross tabulations and projections) of key study variables. The “Hot Spots” were mapped and presented using GIS applications. The ArcView software was used for this purpose. The maps were generated for each district with DSD layer to indicate the locations of hot spots. Different point layers for each hotspot typology and thematic maps for the number of HRGs were also created.

The estimate ranges for each site and location were rolled up for a DSD and city to produce minimum, maximum and median estimates and final estimates along with lists hot spots were generated finally in one database using ArcView and MS Access software.

3.5 Limitations of the study

Although the study made its full effort in gathering data from each district, it is quite important to note that frequent visits to identified hotspots were not possible due to time limitation of the study and hence certain hotspots were not attended several times during the period of study.

It also appears that non-governmental organizations in certain districts do not closely work with sex workers and thus their assistance was not extended for the study. In this context, the study team had to employ different approaches to locate hotspots. However, there were few instances even few wheel drivers/Key informants misled the study team by providing false information and were not cooperative at all.

There can be differences in number of hotspot as well as the clients served by the spots in relation to various previous studies, especially due to the change of mode of contacts to get in touch with the customers. The study found adaptation of modern technologies such as the use of mobile phones; facebook and emails were being frequently used particularly in the city/town areas. Consequently, such changing pattern of behaviours leads to diminishing of the number of hotspots that were previously available.

Limited time availability to carry out the study barred the investigators to convince the real nature and the importance of the study. This has resulted in suspecting the investigators and prevented getting reliable information. Frequent police raiding of the hotspots also made it difficult to trace few hotspots while FSW have confined to various other methods described above with the use of modern telecommunication technologies. Such cases were traced through some hotspots but over Rs. 1000 had to be paid for each FSW to obtain information. Sometime the FSW provide services at home or their boarding places instead of serving at hot spots. It should be noted that the police raids appeared to have had significant impact on the information collected on hot spots in Kandy since the study carried out during the *perehara season*. In addition, researchers were suspected most of the times as spies and thus they were threatened. The study team also found difficult to trace FSW who serve in the big hotels as there is limited access to some hotels.

4. Results and Discussion

4.1 Profile of the Key Informants (KIs)

4.1.1 Age distribution of the KIs

It is important to note here that the majority of the KIs are belonged to the age group of 35-39 years. However, a substantial minority is seen in the age groups, 15-19 and 50 years and over. The age distribution is not skewed like other categories of MARP but very close to a normal distribution.

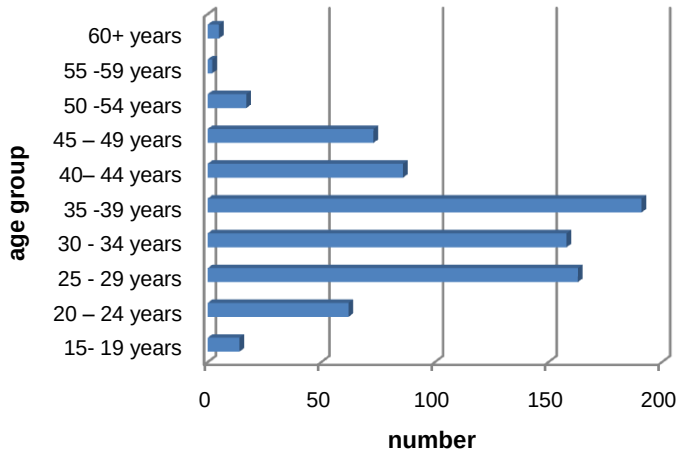


Figure 2: Age distribution of the KIs

4.1.2 Educational level of the KIs

Although the majority of the KIs have education up to year 10, a substantial proportion is also having studied up to O/L and A/L as depicted in the following figure.

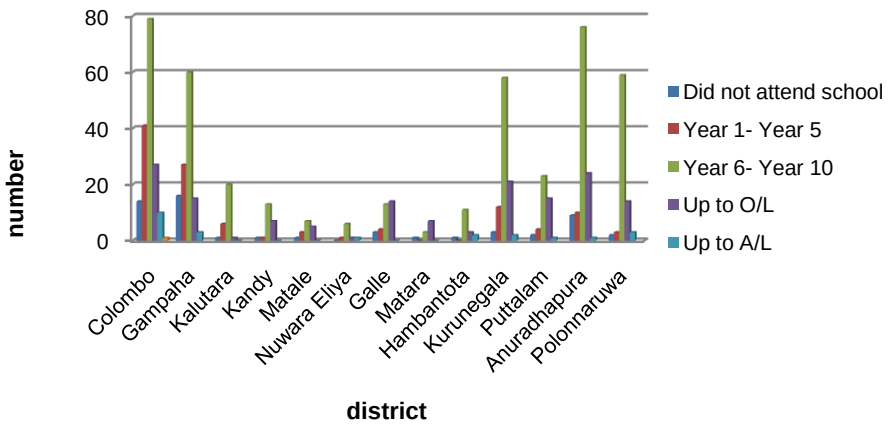


Figure 3: Educational level of the KIs

4.1.3 Marital status of the KIs

It is apparent from the following figure that all marital status categories are prevalent among the KIs although divorced/separated group is dominant in all the districts except where married women are the majority in Gampaha district.

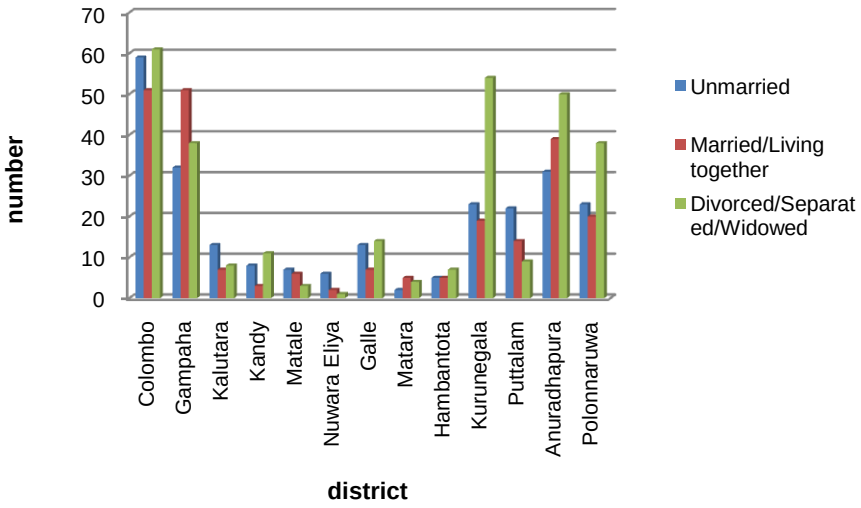


Figure 4: Marital status of the KIs

4.2 Distribution of spots

Distribution of the hot spots is uneven and majority of the spots are located in Colombo, Gampaha, Anuradhapura, Kurunegala and Polonnaruwa districts. The most FSW active district is Colombo while Nuwara Eliya reported the least number of spots.

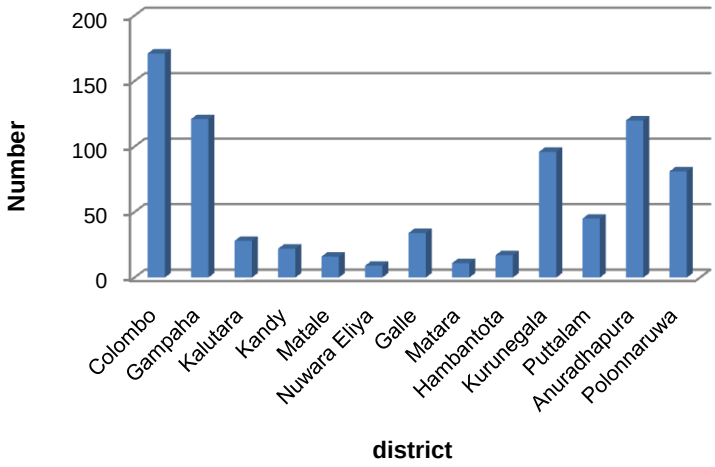


Figure 5: Distribution of spots

4.3 Mean number of FSW working at a spot on a usual day

Mean number of FSW working at a spot on a usual day is ranging between 1.68 in Matara district and 4.73 in Colombo district. On average 3.09 FSW working across all 13 districts on a usual day.

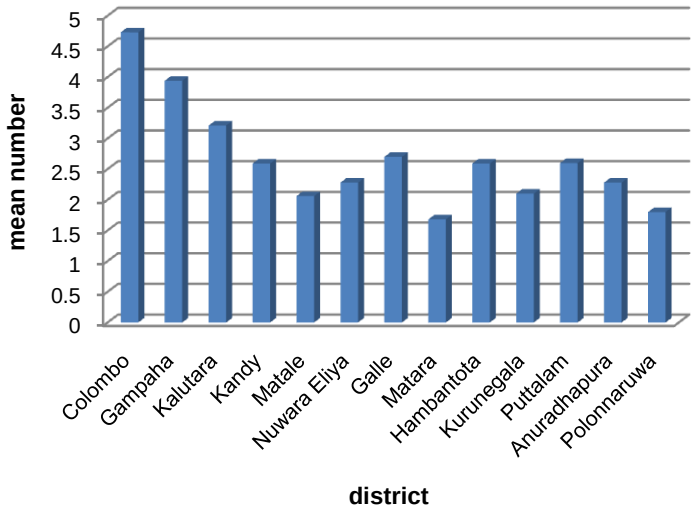


Figure 6: Mean number of FSW working at spot on a usual day

4.4 Mean number of FSW working at spot on a peak day

Mean number of FSW working at spot on a peak day is roughly 2 persons higher than the usual day. Colombo district again shows the highest FSW working at spots while the least is recorded in Polonnaruwa district. Overall, Western Provincial districts record the highest average in this regard.

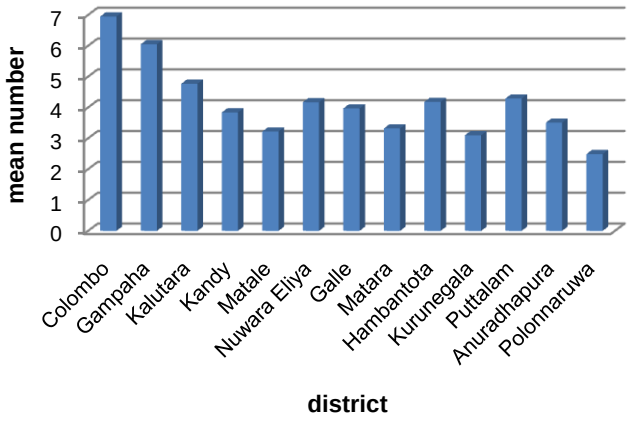


Figure 7: Mean number of FSW working at spot on a peak day

4.5 Peak day for FSW to work at spot

Peak days for FSW to work at spot appears to be Friday, Saturday and Sunday in all districts with the exception of Wednesday as an additional day in Polonnaruwa and Anuradhapura districts.

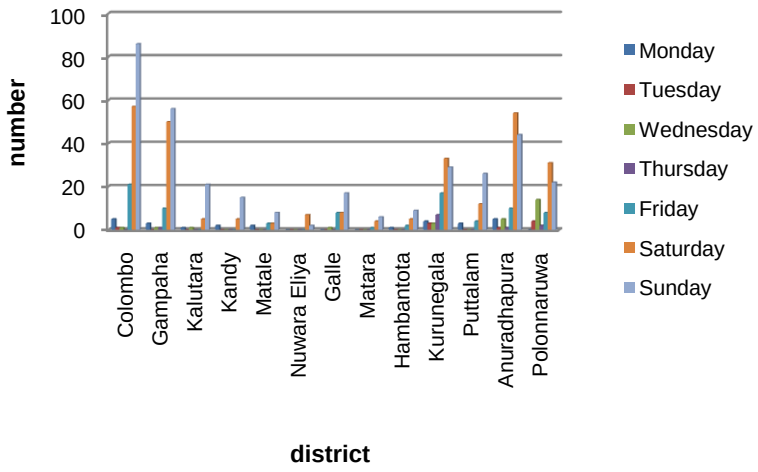


Figure 8: Peak day for FSW work at spot in a week

4.6 Peak time for FSW to visit spot in a day

Following figure demonstrates that FSW are active throughout the day but more active after 4 pm.

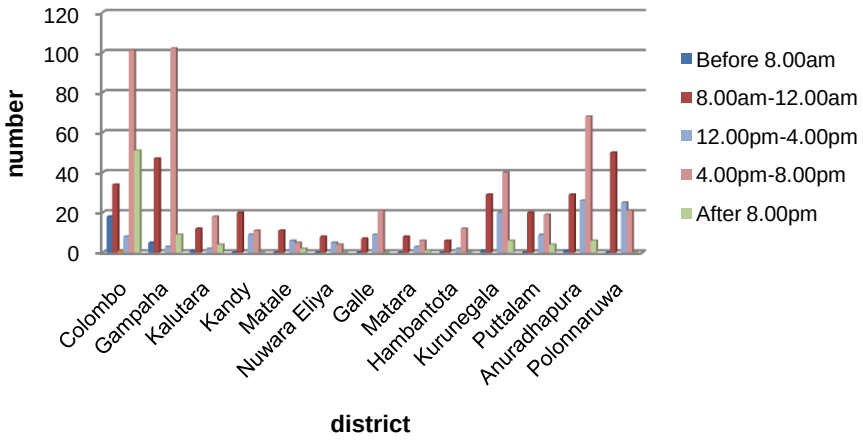


Figure 9: Peak time for FSW to visit spot in a day

4.7 Mean number of clients serving from the spot on a usual/peak day

On average, 7 clients are being served by a spot in a day. However, this number is ranging between 3 in Polonnaruwa district and 12 in Colombo district.

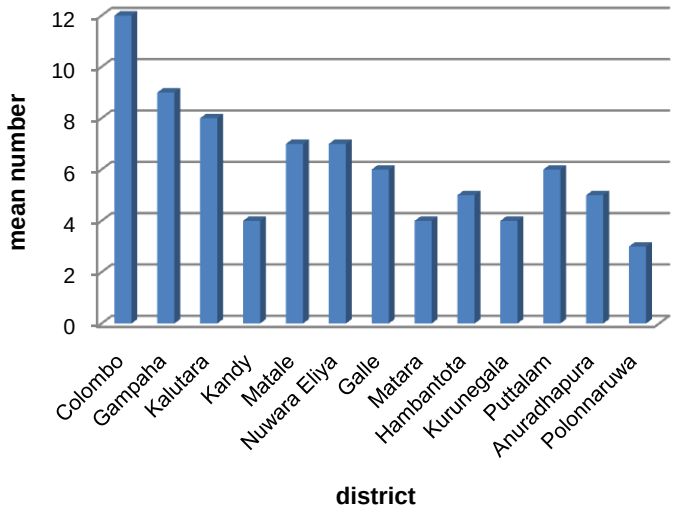


Figure 10: Mean number of clients serving from the spot on a usual/peak day

4.8 Risk status of the spot

Taking risk seems to be higher at spots in Colombo and Gampaha districts but Anuradhapura, Kurunegala, Puttlam and Polonnauruwa, it is seeking risk seems to be the dominant character.

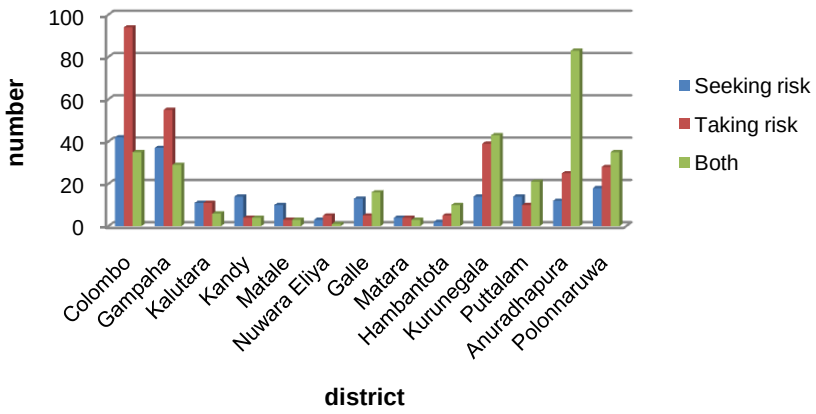


Figure 11: Risk status of the spot

4.9 Mean number of clients visiting the spot

On average, 3 clients visit spot on a usual day in the country but it ranges between 4 in Colombo and in most other districts except, Kalutara, Kandy and Matale districts where 3 clients are being reported.

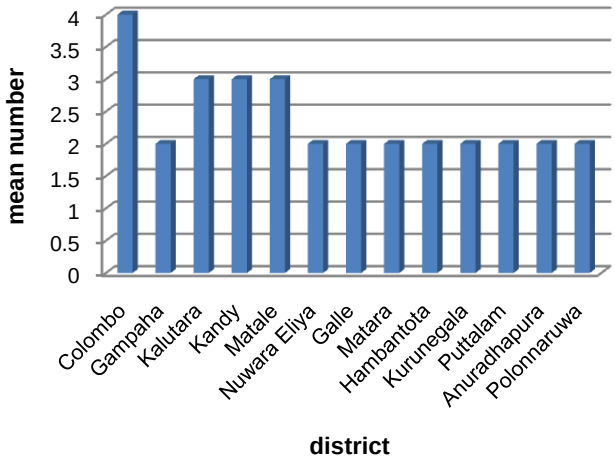


Figure 12: Mean number of clients visiting the spot

4.10 Use of condoms

Although most of the FSW used condoms at last sex, a significant proportion in Colombo, Gampaha and Anuradhapura have indicated non-use of condoms.

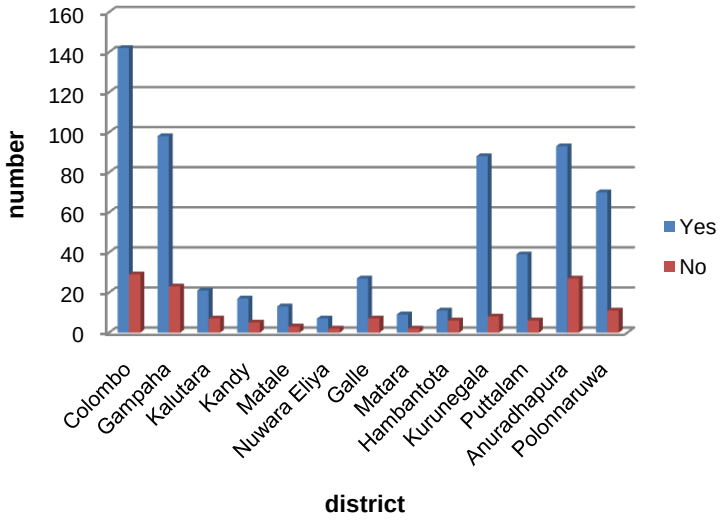


Figure 13: Use of condom at last sex

4.11 Whether engaged in work other than sex work

Almost all the FSW are engaged in sex work but a few, especially those who work in Colombo, Kurunegala and Anuradhapura are engaged in other type of work as well. The latter group is mostly sales-workers or self-employed people.

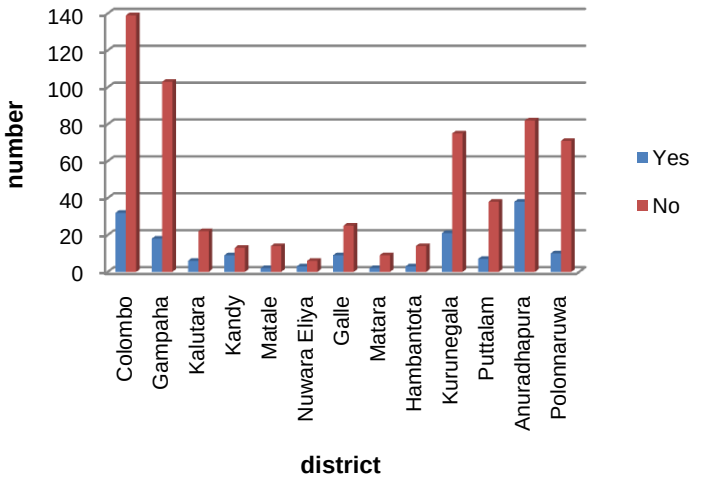


Figure 14: Whether engaged in work other than sex work

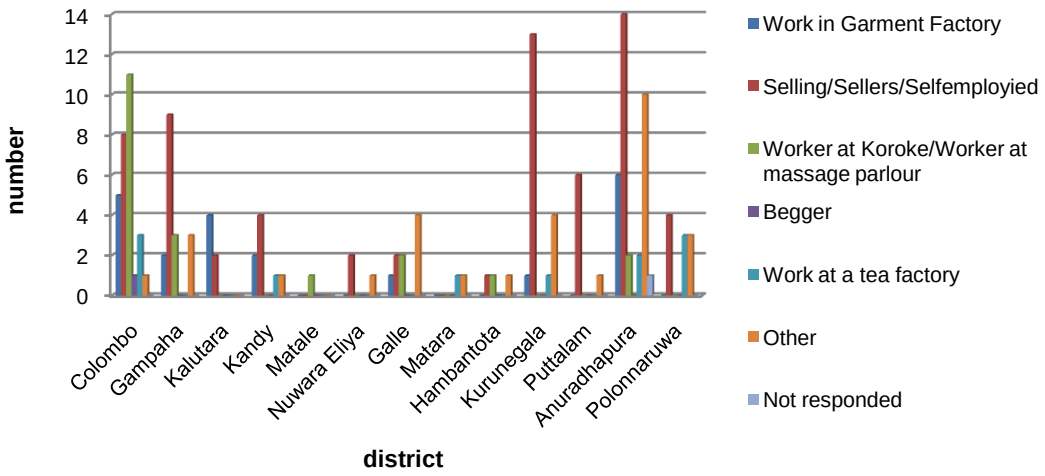


Figure 15: Type of work other than sex work

4.12 Usual way of getting a client

Most of the clients in Colombo and Gampaha where majority of the spots are located appear to be found on streets but in Anuradhapura, Polonnaruwa and Kurunegala districts, clients are being found from houses or shanties.

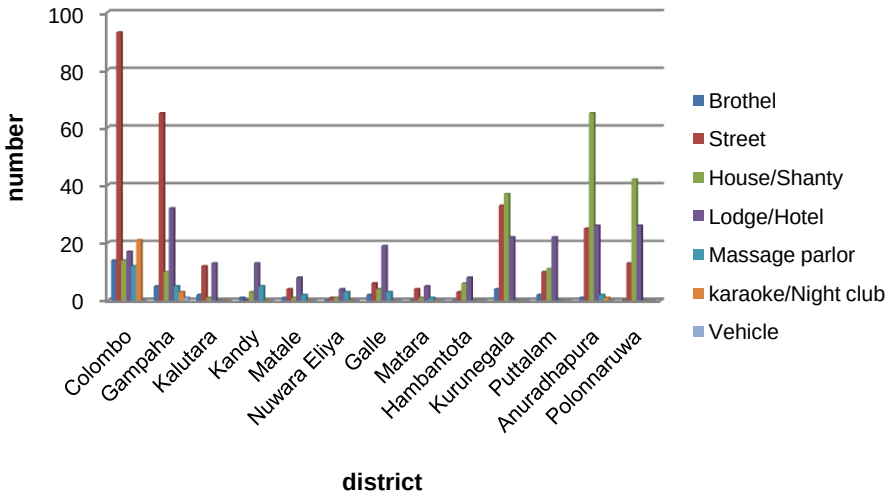


Figure 16: Usual way of getting a client

4.13 Whether working only at this spot

Following figure reveals that majority of the FSW usually work at the spots where they were found, especially in Colombo and Gampaha. However, Majority in Kurunegala, Anuradhapura and Plonnaruwa work at places like lodge or hotel.

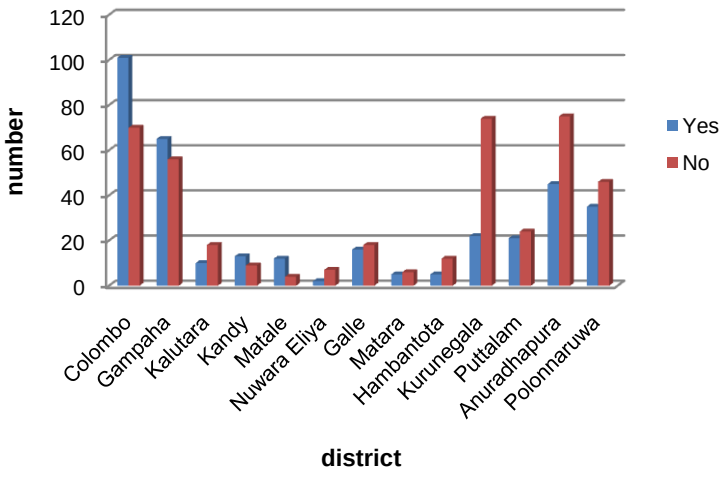


Figure 17: Whether working only at this spot

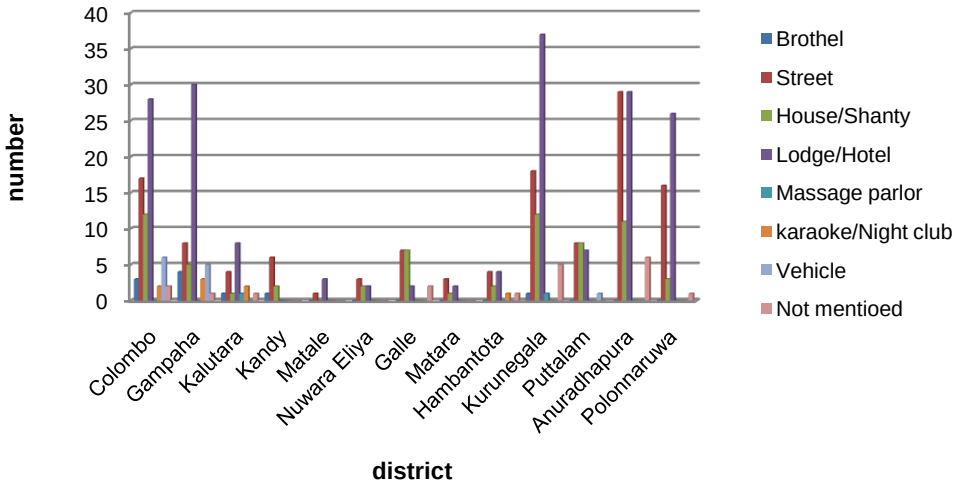


Figure 18: Type of other spots that clients are found

4.14 Use of heroine during last 3 months

With the exception of very few in Colombo district, FSW in all other districts have not used heroine during last three months.

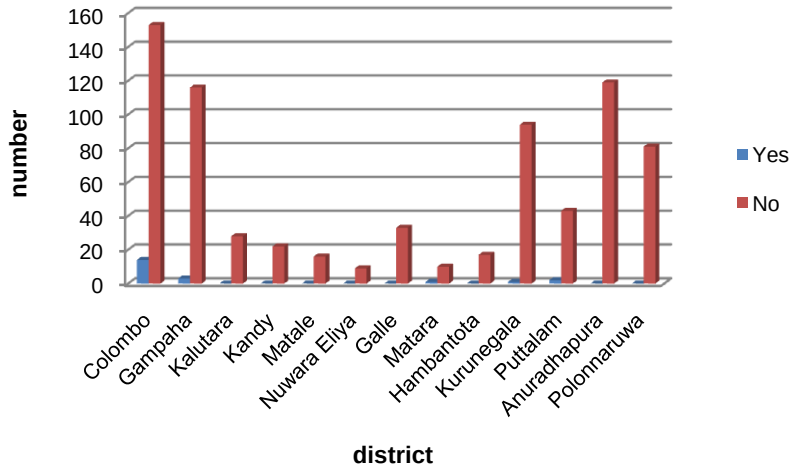


Figure 19: Use of heroine during last three months

5. Summary

Majority of the KIs are belonged to the age group of 35-39 years of age. However, a substantial minority is seen in the age groups, 15-19 and 50 years and over. Although the majority of the KIs have education up to year 10, a substantial proportion is also having studied up to O/L and A/L. All marital status categories are prevalent among the KIs although divorced/separated group is dominant in all the districts except where married women are the majority in Gampaha district.

Distribution of the hot spots is uneven and majority of the spots are located in Colombo, Gampaha, Anuradhapura, Kurunegala and Polonnaruwa districts. The most FSW active district is Colombo while Nuwara Eliya reported the least number of spots. Mean number of FSW working at a spot on a usual day is ranging between 1.68 in Matara district and 4.73 in Colombo district. On average 3.09 FSW working across all 13 districts on a usual day. Mean number of FSW working at spot on a peak day is roughly 2 persons higher than the usual day. Colombo district again shows the highest FSW working at spots while the least is recorded in Polonnaruwa district. Overall, Western Provincial district record the highest average in this regard.

Peak days for FSW to work at spot appear to be Friday, Saturday and Sunday in all districts with the exception of Wednesday as an extra day in Polonnaruwa and Anuradhapura districts. FSW are active throughout the day but are more active after 4 pm.

On average, 7 clients are being served by a pot in a day. However, this number is ranging between 3 in Polonnaruwa district and 12 in Colombo district.

Seeking risk seems to be higher at spots in Colombo and Gampaha districts but Anuradhapura, Kurunegala, Puttlam and Polonnauruwa, taking risk is the dominant character when analyzing the risk status of the spot.

On average, 3 clients visit spot on a usual day in the country but it ranges between 4 in Colombo and in most other district except, Kalutara, Kandy and Matale districts where 3 clients are being reported.

Although most of the FSW used condoms at last sex, a significant proportion in Colombo, Gampaha and Anuradhapura have indicated non-use of condoms.

Almost all the FSW are engaged in sex work but a few especially those who work in Colombo, Kurunegala and Anuradhapura are engaged in other type of work as well. The latter group is mostly sales-workers or self-employed people.

Most of the clients in Colombo and Gampaha where majority of the spots are located appear to be found on streets but in Anuradhapura, Polonnaruwa and Kurunegala districts, clients are being found from houses or shanties. Majority of the FSW usually work at the spots where they were found, especially in Colombo and Gampaha. However, Majority in Kurunegala, Anuradhapura and Plonnaruwa work at places like lodge or hotel.

With the exception of very few in Colombo district, FSW in all other districts have not used heroine during last three months.

Annex 1- Terms of References (TOR)

Guidelines

Social Mapping of Most at Risk Populations in selected Districts for HIV Prevention in Sri Lanka

Introduction

As yet, evidence suggests that the HIV epidemic in Sri Lanka remains at a relatively low level. However, experience from other countries in South Asia have shown that concentrated HIV epidemics involving vulnerable key populations can expand quickly within those sub-populations and affect the wider population through "bridge populations". Therefore, to prevent the establishment and potential expansion of an HIV epidemic in Sri Lanka a key strategy will be to reduce the potential for transmission in important networks of vulnerable key populations, particularly where such networks are large and dense and therefore prone to rapid HIV transmission within and from these networks. The first key step in developing targeted interventions for vulnerable key populations is assessing their location, size and basic operational characteristics. Experience in diverse settings of South Asia has shown that structured mapping can provide accurate estimates of the size and location of key populations and thereby provide guidance for the scoping and targeting of HIV prevention programs and services.

This is a set of guidelines for a mapping study of key populations in selected districts in Sri Lanka using a mapping methodology that has been developed and successfully applied in diverse urban areas in low prevalence settings, including in India, Pakistan and Afghanistan.

Goals and Objectives

The overall goal of the proposed study is to provide accurate information on the size and characteristics of Most at Risk Populations (MARPs) in selected districts of Sri Lanka. The key population groups include female sex workers (FSWs), Men who have Sex with Men (MSM), Drug Users (DUs) and Beach Boys.

The specific objectives are:

1. To complete a geographic mapping of the locations of the MARPs in Selected Districts of Sri Lanka.
2. Estimate the population sizes of the risk populations, and describe the operational typology and organization structures of each MARP in each location.

Mapping Approach and Methodology

The basic approach has two sequential steps:

1. Level 1 - Systematic information gathering from each MARP key informants .(KI) regarding the locations ("hot spots") where key population members congregate and/or meet casual or paying sexual partners or for drug use.
2. Level 2 -Site validation and profiling of identified "hot spots" to characterize and estimate the size of the key populations.

The mapping methodology is largely based on a geographic approach which identifies the key locations where key population members can be found and quantified. The rationale for this is based on the experience in diverse settings in Asia which has shown the following. Most FSWs with a relatively large number of clients congregate and/or meet clients in definable geographic locations. Similarly, MSM who are in most need of focused prevention services have high rates of partner change, and therefore have specific locations where they meet new sexual partners (paying and non-paying partners). DUs who participate in networks and share drugs with other DUs generally congregate in particular locations where they access to drugs. Beach Boys are basically gather in beaches and around tourist hotels to approach their clients. Accordingly, the approach was to focus on identifying these locations, characterizing each location in terms of specific "spots" within that location and the operational characteristics of the sexual or , drug-using networks there (i.e. how and where FSWs and MSM meet clients/partners and "where sexual transactions occur). This approach also estimate the number of key population members that frequent the specific locations and spots.

The mapping process incorporates four main activities:

1. Pre-mapping exercise
2. Level one (L1)
3. Level two (L2)
4. Compilation of results

The Pre-mapping exercise

The pre-mapping exercise serves as a preparatory activity to establish the necessary logistical and conceptual foundations for the mapping data collection. The key aspects of the pre-mapping exercise include:

- Acquisition and review of detailed maps of the target cities.

- Segmentation of each district (i.e. >250,000) into zones based on logical administrative and/or neighbourhood units.
- Recruitment of local field team members based on their experience working with key populations and field research experience (the field team should be comprised of members of the specific target group).
- Training of field staff on the concepts and implementation of the mapping methodology, including defining key terms, concepts and definitions relevant to the local situation.
- Meetings with local officials and stakeholders, including law enforcement agencies, to inform them about the purpose and nature of the mapping study, and to garner their support.
- Development of a field monitoring process and a detailed work plan for the local mapping exercise.
- Obtaining ethical clearance from the relevant ethical sub committee

Level 1 Activity

Level 1 data collection focuses on collecting information from key informants about the geographic locations where key population members congregate, as outlined above. For each mentioned location, key informants are asked a small set of more specific questions about the characteristics of the spot (public place, brothel, lodge, etc.) and an estimate of the number of key population members who can be found there (minimum and maximum and usual). This information is gathered in a pre-designed format, finalized during the pre-mapping exercise. Each day, the field team for each geographic zone convenes to collate the data collected in the field. Data are manually edited and the information is further sorted into various tables which served as a foundation to for the next level of activity. Based on the information assembled in Level 1, spots are identified for detailed spot profiling in Level 2 data collection, described below.

Level 2 Activity

The final step in data collection involves conducting key informant interviews at the key identified hotspots within each zone. These interviews, called L2 interviews, involve primary key informants (key population members and those closely related; FSWs, DUs, MSM, Beach Boys pimps, madams, brokers, etc.) and is focused on validating the information collected and collated in the previous exercise. Field teams go the identified hotspots to verify the location, describe the type of spot, and get more specific information on the size of the key population that is there (minimum, maximum and median estimates).

Data Management

Pre-set data forms will be edited by a data management team and corrected for names of zones, missing KI typology, and any missing estimates of spots, (i.e. spot without any estimates of key sub-population size). The collected data should be entered into a computerized database specifically designed for the study and analyzed using an accepted computer package. The data is used for generating final estimates and lists of spots. To obtain this, the estimate ranges for each site and location can be rolled up for a zone and city to produce minimum and maximum estimates. To arrive at a single "best" estimate, the mid-point ("mean") of the minimum and maximum estimates is used.

Organization and Monitoring of Field Work

Although the number of field teams will vary in different cities and zones, a general team structure is proposed, consisting of senior and junior field workers/interviewers, working alongside key population community members who participate as social mobilizes and participate in the field work. The teams will be supervised by team supervisors, who reported to the local co-investigator or the site coordinator. In addition to the field teams, a data management team comprising of a data manager and data entry operators will be established.

Project Team

1. Technical Experts

The technical project team should be comprised of an expert team that can draw on the experience, materials and protocols.

Overall technical lead, project management and report generation

- Team Leader, demographer/public health expert with extensive design and implementation experience *for* mapping and survey studies with key population groups
- HIV Expert
- Sociologist
- GIS Expert
- Statistician
- Technical advisors (one - two) involved in the field monitoring, data analysis and report generation

2. Implementing Agency/Team

Field work, data collection and field supervision will be the responsibility of an implementation team. A technical steering committee consists of officials from PR2 and National STD AIDS Control programme will provide technical assistance and monitor the implementation to assure the quality of implementation.

Implementation Plans and Timelines

The implementation of the project will proceed in three phases: 1) Planning Meeting 2) preparation and training; 3) field work; 4) analysis and reporting. The total time period from the signing of the contract and submission of the final report will be 4 calendar months.

Planning Meeting

The technical study team should meet with the technical steering committee and plan out the methodology of the study. The main objective of the meeting is to finalize the protocol and obtain necessary approvals.

Protocol finalization and approvals - Based on methods and tools already developed, final protocols and tools (e.g. interview schedules and questionnaires) should be finalized, translated and piloted. In addition, the detailed field protocols should be finalized based on realities on the ground. The final protocols and instruments should be submitted for ethical review before proceeding.

Field Team Training

The technical team should carryout training for the field supervisors and interveners on the methodology, data collection tools and monitoring tools and processes. Training schedules should be approved by the steering committee before the training is started.

Field Work

Field work should be implemented by the local implementation teams, with supportive supervision from the technical team.

Analysis and Reporting

The following deliverables will be expected from the agency

- Detailed work plan for the assessment.
- Brief report of training workshop for the assessment team.
- Assessment tools based on agreed methodology.

- Brief report of pre-testing of the assessment tools.
- Regular at least 2 meetings with Assessment Core Team/Committee.

The first draft should be available for review within the given time period and it will be reviewed by a group experts. The structure of the report includes at least the following sections/elements in English language:

1. Background;
2. Objectives;
3. Methodologies and fieldwork;
4. Findings;
5. Conclusions and Recommendations;
6. Tables and Graphs;
7. Annex on data and documents; and
8. References, including secondary literature and a comprehensive listing of document obtained/reviewed.

- Second and the final report should be submitted within 2 weeks after providing comments by the expert team.
- The final report should be ready for printing with type set, edited for language with graphics and art work in 3 hard copies.
- The Electronic Database, data collection materials and an electronic copy of the final report should be handed over to Sarvodaya before the final payment.

Confidentiality and Safety of Information

The agency/agencies are responsible in maintaining confidentiality of the information gathered and assure the safety of information until they are handed over to Sarvodaya with the final report

Payment Scheme

- 25% will be paid with the signing of the contract
- 25% with the implementation of the study- Completion of tools and recruitment and training of full technical staff and field staff
- 25% with submission of the 1st draft.
- Final 25% with the submission of the final report in 3 hard copies, 3 soft copies and the data base

Topics to be covered in the Proposal

1. In the Technical Proposal
    - Agency profile
    - Research team with CVs
    - Previous experiences in similar activities including Budget
    - Proposal details
    - Sampling, Methodology, Analysis
    - Work Plan
2. Financial Proposal

Guidelines for Submission of Proposal

1. Proposals and financials proposals should be submitted separately for each Target Group - (Commercial Sex Workers, Men having Sex with Men, Drug Users, Beach Boys)
2. Technical Proposal and Financial Proposal for the mapping activity should be submit in 2 separate sealed envelops
3. The envelop should marked "Technical Proposal /Financial Proposal for Mapping of MARPs" and the specific target group on the top of left hand corner of the envelop
4. Proposal can be deposited in the box or can be sent by Registered post to reach Director, Sarvodaya Secretariat for GFATM Project, "Nagarodaya Centre", No, 155A, Dr. Danister De Silva Mw, Colombo 8.
5. Proposals should be reached before 5.00 pm on 14" June 2011 to the above address.

Annex 2 - Data Collection Tools

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

FEMALE SEX WORKERS - LEVEL 1 FORM

A.1. District:					A.9. Key informant No		
A.2. DS/AGA Division					A.10.Key informant Name		
A.3. GN Division (Optional)					A.11. KI contact information		
A.4. FRO Name/Code					A.12. KI Type *(circle the relevant number)*	1. Primary 2. Secondary 3. Tertiary	
A.5. FRS Name/Code					A.13. KI Gender *(circle the relevant number)*	1. Male 2. Female 3. Transgender	
A.6. Date *(DD/MM/YYYY)*					A.14. KI Occupation		
A.7. Time started	H	H	M	M	Comments:		
A.8. Time end	H	H	M	M			

B.1. S. N	B.2. Name of the Spot	B.3. Type*	B.4. Contact for that spot	Number	
				B.5. Min	B.6. Max
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

** FSW TYPES:* ***1****-Brothel* ***2****-Street* ***3****-Home/Shanty* ***4****-Lodge/Hotel* ***5****-Massage parlor* ***6****- Karaoke/Night clubs* ***7****- Vehicle based*

Social Mapping of Most at Risk Populations in Selected Districts for HIV Prevention in Sri Lanka 2012

FEMALE SEX WORKERS - LEVEL 2 FORM

A.1. District:					A.9. Spot Code		
A.2. DS/AGA Division					A.10.Spot Type		
A.3. GN Division (Optional)					A.11. Spot Name		
A.4. FRO Name/Code					A.12. Spot currently active	1. Yes, 2. No	
A.5. FRS Name/Code					Comments:		
A.6. Date *(DD/MM/YYYY)*							
A.7. Time started	H	H	M	M			
A.8. Time end	H	H	M	M			

B. SPOT PROFILE		**Codes**
B.1. **On a usual day**, how many FSWs work here *(min - max)*		
B.2. **On a peak day**, how many FSWs work here (min - max)		
B.3. What is the peak working day in a week?		
B.4. What are the peak working hours in a day?		
B.5. **On a usual day,** how many clients are served from this spot		
B.6. **On a peak day**, how many clients are served from this spot		
B.7. Risk status of the spot. (Seeking risk or taking risk or both)	1. Seeking risk 2. Taking risk, 3. Both	

C. INFOMATION ABOUT THE KI		**Codes**
C.1. What is your age at last birthday?		
C.2. How many years of education have you completed?		
C.3. What is your marital status?	1. Unmarried, 2. Married/living together, 3. W/S/D	
C.4. How many clients do you usually have in a day? (approximate week average)		
C.5. Did you use a condom at last sex	1. Yes 2. No	
C.6 Do you do any work other than sex work?	1. Yes 2. No	
C.7. If yes, what work you do?		
C.8 What is the usual way you get your client? ***Instruction: Circle one only from the code list given***	*1. Brothel* *2. Street* *3. House/Shanty* *4. Lodge/Hotel* *5. Massage parlor* *6. karaoke/Night club* *7. Vehicle*	
C.9. Do you work only at this spot/place?	1. Yes 2. No	
C.10. If No, what are the various other places that you get your clients? ***Instruction: Maybe more than one, Select from the code list given***	*1. Brothel* *2. Street* *3. House/Shanty* *4. Lodge/Hotel* *5. Massage parlor* *6. karaoke/Night club* *7. Vehicle*	
C11. Did you use Heroine within last 3 months?	1. Yes 2. No	
C12. If Yes, have you injected Heroine within last 3 months?	1. Yes 2. No	