

2012

Mapping of Female Sex Workers in South Sudan

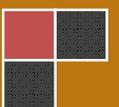
A GEOGRAPHICAL MAPPING APPROACH

Conducted by:

SOUTH SUDAN AIDS COMMISSION

in collaboration with:

WORLD HEALTH ORGANIZATION



Final DRAFT

October 2012

A Mapping report of Female Sex Workers in South Sudan



National AIDS Commission, South Sudan

In collaboration with the WORLD HEALTH ORGANIZATION



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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante Natal Clinics
CBOs	Community based Organization
CDC	Centre for Disease Control
CPA	Comprehensive Peace Agreement
CSW	Commercial sex workers
FHI	Family Health International
FSW	Female Sex Worker
GIS	Geographical Information system
HIV	Human Immunodeficiency Virus
HRA	High Risk Activity
HRG	High Risk Group
IDP	Internally Displaced persons
IOM	International organization for Migrants
KI	Key Informant
L1	Level 1
L2	Level 2
MARPs	Most at risk populations
MoH	Ministry of Health
NGO	Non-Governmental Organization
SDP	Service Delivery Program/Package
SSAC	South Sudan AIDS Commission
SSHAF	Southern Sudan HIV/AIDS Strategic Framework
STD	Sexually transmitted Diseases
STI	Sexually Transmitted Infection
SW	Sex Workers
UNAIDS	United Nations joint program on HIV and AIDS
UNFPA	United Nations Population fund
UNHCR	United Nations high Commissioner for Refugees
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

FOREWORD

To be written by the representative Health Directorate or National AIDS Commission

EXECUTIVE SUMMARY

Section 01 – INTRODUCTION

1.1 Background

South Sudan became an independent state in July 2011, ending years of civil war after the signing of the Comprehensive Peace Agreement (CPA) in January 2005. Consequently, the main focus of the government was shifted away from relief efforts and diverted towards the setting up of administrative entities and programs so that work on planning and the development and improvement of health indicators could be initiated. Among these programs was the establishment of the South Sudan AIDS Commission (SSAC) in 2006, with the mandate to provide leadership in coordination and management of the national multi-sectoral HIV/AIDS response through resource mobilization, advocacy, joint planning, monitoring and evaluation. Furthermore, in 2008, the Government set up the Directorate of HIV and AIDS in the Ministry of Health (MOH) to implement the HIV and AIDS programs, such as antiretroviral treatment, care and support, blood screening for HIV and sexually transmitted infections (STIs) and management and reporting of opportunistic infections. The Ministries of Health (MOH) in the ten states of Southern Sudan also set up focal offices for HIV to coordinate the activities of the MOH and monitor and report new cases of infections¹.

Years of war have affected every strata of life resulting in major development challenges ranging from peace and stability, weak economic growth, infrastructure and human resource development, governance, high levels of poverty, high disease

burden, poor health systems and low levels of education². Much of South Sudan is practically inaccessible both due to security issues and due to the sparse spread of its population³. As a result, a large proportion of its population cannot be captured in the surveillance conducted that could present a true picture of the health situation of the people of Southern Sudan. The poor socio-economic and health status of the people has further strained the growth and development of a budding country such as South Sudan.

Among the various health and diseases burden placed on the health infrastructure is the HIV/AIDS epidemic in the country. During times of war it was assumed that the restricted movement of labour and trade in and out of South Sudan would maintain a low HIV incidence and prevalence comparative to its neighboring countries. However, the large influx of returning refugees with high HIV prevalence from neighboring countries such as Ethiopia, Kenya, Uganda, Democratic republic of Congo and Central African Republic has placed South Sudan at a high risk for increase incidence of HIV. In addition to the returning refugees, poverty as well as poor access to health services for high incidences of STIs during the war has further exacerbated the HIV situation in the country. Furthermore, low school enrolment and the low status of girls and women are important factors that could contribute to an accelerated HIV epidemic. Only 6.6% of the primary school aged children and only 3% of secondary school aged children are in school, indicative of very poor education indicators. The adult literacy rate for

¹ World Bank. 2011. *Southern Sudan HIV epidemic and response review report, 2011*

² UNAIDS/ UNGASS. 2008. *Southern Sudan HIV/AIDS Integrated Report (2006-07)*

³ World Bank. 2011. *Southern Sudan HIV epidemic and response review report, 2011*

women 15- 24 years is 2.5%, being among the lowest figures for this indicator in the world⁴.

1.2 HIV in South Sudan

The exact HIV situation in South Sudan is unclear since a HIV assessment at the national level has not been conducted and there is no functioning epidemiological, surveillance, monitoring and evaluation system for the HIV epidemic in the country. However, the Ministry of Health has now decided to set up a surveillance system to periodically monitor the prevalence and trends of HIV/AIDS. In addition, the Government of South Sudan developed the Southern Sudan HIV/AIDS Strategic Framework (SSHASF 2008-2012) in 2007 which was finalized in mid-2008. The SSHASF clearly articulates the need for targeting specific populations in a multi-sectoral response: women and girls, youth, sex workers, orphans and vulnerable children. Also outlined in the SSHASF was an HIV policy for other specific vulnerable population settings such as the workplace, schools and prisons⁵.

1.2.1 Populations at risk

The HIV epidemic in South Sudan is characterized as a generalized low epidemic, spread among all population groups, most importantly among High Risk Groups (HRGs) including uniformed forces, internally displaced persons (IDPs), truck drivers, tea sellers, commercial sex workers (CSWs) and clients of sex worker etc. No structured surveillance has been conducted to collect HIV prevalence and related behavior and biological data, therefore launching HIV prevention and care campaign is greatly challenging. Furthermore, no clear evidence has been substantiated that can support the

inclusion of certain groups in the high risk or bridging population category.

One of the leading groups that have been highlighted has been that of female commercial sex workers. In a post conflict society of South Sudan, economic and social conditions have been identified to be basal reasons for propelling women into sex work as sources of income. In addition, the status of women as gauged by the standard indicators of women's status and health indicate them to be disadvantaged population, most notably related to their extremely low rate of literacy, poor access to health care services, elevated vulnerability towards violence and sexual abuse. The risks these women face get further translated into poor or limited use of condoms and other protective behaviors that will protect them from contracting HIV. The prevalence of STIs among women in South Sudan including CSWs is high, with poor care seeking behaviors prevalent.

With the establishment of peace and stability, the capital city of Southern Sudan, Juba, and a few other cities such as Yambio have become cities with large settlements, that has resulted in the rapid growth of the populations in these cities. Among the settlers are significant numbers of mobile populations, including transport workers and returnees, and internal displacement is high. The poverty and deprivation in which these populations live in these cities are considered to be a potential ground for commercial sex work. The mobile nature of these populations, especially those returning from neighboring countries with high HIV epidemics is a serious risk to being entry points from which the HIV epidemic can be established in these populations. Sex workers and their clients thus become central to the widespread of the HIV epidemic. Furthermore, the polygamous nature of marriages and relationships that the males of this area are a part of further increases the risks of an increased epidemic. Therefore, sex

⁴ *ibid*

⁵ *ibid*

workers are thus a critical part of the prevention response to HIV in Southern Sudan.

1.2.2 HIV prevalence & infection rates

There have been many studies in Sudan to assess the HIV situation among certain risk groups, however, only a limited number of the studies have been conducted in South Sudan. An assessment among female sex workers was conducted in Juba in 1995 that indicated an HIV prevalence of 16% among this group. In the same study, clients of sex workers were reported to have an HIV prevalence of 14%,^{6,7} conducted at STD clinic attendees in 2006 reported an HIV epidemic of 5.8%^{8,9}, whereas a VCT clinic attendee's study conducted in the same year indicated an HIV prevalence of 17%¹⁰.

An estimated 3.1% HIV prevalence in 2007 was derived from an ANC surveillance study conducted by US-CDC, with variability across sites ranging from 0% to 1% in Akobo, Cueibet and Leer to 6.7% in Maridi, 7.4% in Boma, 11.1% in Pacholla and 12.1% in Tambura. However, the epidemic while generalised is extremely heterogeneous. From the surveillance data provided by these limited sites, it is clear that the epidemic is more marked in the 20 – 34 year old, which is similar to data from other countries¹¹. Similar findings were reported in previous surveys conducted in various regions of South Sudan, with the Yei Region reporting an overall HIV prevalence of 2.7% in 2002, while

⁶ *ibid*

⁷ *McCarthy MC, Khalid IO, El Tigani A (1995) HIV-1 infection in Juba, southern Sudan. J Med Virol 46: 18-20*

⁸ *World Bank. 2011. Southern Sudan HIV epidemic and response review report, 2011*

⁹ *Sudan National AIDS Program, The New Sudan National AIDS Council, UNAIDS. (2006) Scaling-up HIV/AIDS Response in Sudan. National Consultation on the Road towards Universal Access to Prevention, Treatment, Care and Support*

¹⁰ *ibid*

¹¹ *UNAIDS/ UNGASS. 2008. Southern Sudan HIV/AIDS Integrated Report (2006-07)*

Rumbek reported an HIV prevalence of 0.4% in 2003. To further illustrate the heterogeneity of the situation, MSF-Switzerland has reported that the prevalence in blood donors in their two facilities ranges from 11% in Kajo Keji (Central Equatoria near Uganda) to 0% in the fairly remote areas of Bahr el Ghazal¹². Such disparate data indicates that the selected sites do not provide a representative picture of the HIV situation in the country.

1.2.3 Knowledge and behaviors

Knowledge and behaviors in South Sudan are also poor. The Sudan Household Survey Report 2006 indicates that the level of knowledge of methods of prevention of HIV transmission is staggeringly low among women in most States in Southern Sudan¹³. Only 9.8% of the women 15-49 reporting knowing about the three ways of preventing transmission of HIV (having only one faithful uninfected sex partner, always using a condom when having sex with anyone else, and abstaining from sex before finding a long term partner). 70% of the women in Southern Sudan are ignorant of the three main ways of preventing HIV transmission. Disturbingly, only 35% of the women know that HIV can be transmitted through sex intercourse, situation being worse in Jonglei and Warrap regions where it is 14%¹⁴.

Behavioral data from South Sudan were equally dismal. 11.7% of men and 2% of women had sex with a casual sex partner in the past 12 months. The mean number of casual sex partners in the last year was reported to be two. 50% of the men reported using a condom the last time they had sex with a casual sex partner, while less than 25%

¹² *Jervase A. 2011. HIV prevalence in South Sudan: data from the ANC sentinel surveillance 2009. South Sudan Medical Journal Vol. 4(3): 49- 56*

¹³ *Sudan Household Health Survey 2006, Ministry of Health GOSS*

¹⁴ *UNAIDS/ UNGASS. 2008. Southern Sudan HIV/AIDS Integrated Report (2006-07)*

reported consistently using a condom every time they had sex with a casual partner, in the last 12 months¹⁵. A study conducted in Juba indicated that prostitutes and their sexual partners represent a major reservoir of HIV infection in this population. This epidemiologic pattern resembles that seen in the African nations neighboring southern Sudan¹⁶.

1.2.4 Key Challenges

HIV in South Sudan provides a unique challenge for several reasons. Firstly, being a very young country ravaged by several decades of war, its people have been living with little or no health care provision for long periods of time. As published by UNHCR, even though the war provided a protective effects from the transmission of HIV due to refugees living in hard to access areas leading to poor mobility, or due to the high mortality rate due to war, the post war environment has enabled high population mobility and mixing of various sexual networks that has heightened risk of HIV exposure¹⁷. Additionally, displaced people from various regions of the country had moved cross borders to neighboring countries, where HIV prevalence were high that put these populations are risk, and were a source of HIV influx into South Sudan. Internal mobility of people since peace has prevailed has the potential for creating grounds for the spread of HIV as isolated communities open up to increased mobility within the country¹⁸. Immediate actions are therefore required to

¹⁵ UNAIDS/ UNGASS. 2008. *Southern Sudan HIV/AIDS Integrated Report (2006-07)*

¹⁶ McCarthy M, Khalid I, Tigani A. *HIV-1 Infection in Juba, Southern Sudan. J Med Virol 1995; 46: 18–20.*

¹⁷ Spiegel PB, Bennedsen AR, Claass J, Bruns L, Patterson N, Yiweza D, Schilperoord M. 2007. *Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review. Lancet; 369: 2187–95*

¹⁸ UNAIDS/ UNGASS. 2008. *Southern Sudan HIV/AIDS Integrated Report (2006-07)*

reverse HIV infection, to avoid further devastating negative development effects.

1.3 OBJECTIVES

South Sudan is a very young and newly independent country. No active surveillance system for HIV/AIDS has been set up in the country that identifies and monitors high risk groups. As a result, the HIV response designed in the country is unstructured and specific vulnerable populations have not been identified who are at the heart of the epidemic. South Sudan has a low prevalence general epidemic. However, surveillance and mapping of key populations will elucidate the nature of the spread of the epidemic from key population at risk to bridging and the general population. The epidemic in South Sudan, evidence suggests (CITE), will mirror similar epidemics as other countries in the African continent.

The key objectives of the mapping project were to:

1. *To complete a geographic mapping of the locations of female sex workers in the selected urban and semi-urban centers in South Sudan.*
2. *To develop local capacity for conducting mapping studies for key population groups in South Sudan*
3. *To develop National estimates of population sizes of risk populations, and describe the operational typology and organization structures of Key Populations in each location.*
4. *Disseminate the findings of the project to HIV programme managers and NGOs, to help develop a National HIV prevention response.*

To ensure that the epidemic progression is slowed comparative to South Sudan's neighboring countries, a key strategy will be to reduce the potential for transmission in important networks of vulnerable populations, such as the commercial sex workers. Information on the size of these populations needs to be collected so that targeted interventions for key populations at high risk can be designed keeping in view their locations, spread

and basic operational characteristics. For this purpose a mapping methodology needs to be implemented that maps populations at high risk. Findings from this research will therefore aid in developing a more focused national response, and can be used effectively in advocacy for policies needed to create an enabling environment for an effective response.

Section 02 – The DESIGN MISSION

A design mission was carried out by the WHO team (HIV prevention officer, consultant) in the last week of May 2012, to:

- review the scope of the research,
- understand and comprehend the mapping approach,
- contextualize the approach in context of South Sudan,
- review the field implementation capacity.
- identify implementation partners
- determine the various training needs for field implementation team.

Fig 2.1. A graphical presentation of the mapping approach in South Sudan

Phase	Phase - ONE	Phase - TWO	Phase - THREE
Technical Support	WHO	WHO	WHO
Financial Support field Implementation	WHO	To be decided	To be decided
Field sites	Juba & Yambio	12 – 15 cities	Data review and Analysis
Objectives	Field test and contextualize mapping approach Build local capacity for scaling up	Understand diversity of sex work across various states Develop data base for priority setting and national estimation	Generation of National estimates of sex workers Strategic direction for planning Targeted Interventions for FSWs

Based on various discussions held with the National AIDS Program and various other stakeholders, it was agreed that to provide accurate information on the size and characteristics of sex workers in South Sudan, a comprehensive mapping study will be initiated. However, the ministry of Health suggested increasing the geographical scope of the study and including more locations. Owing to the availability of resources and local capacity, it was decided that the mapping study can be conducted in a phase-wise approach, along with a process of developing local capacity for scaling up. A Three phased approach was suggested by the WHO technical team which was agreed upon by the ministry of Health. A graphical representation of the various phases planned for the study is shown in Fig 2.1

Phase One;

will focus on “Developing and field testing the mapping methodology in two cities in South Sudan” and also to “build the capacity of local human resource for scaling up the mapping studies in various other urban and semi-urban

locations” in Phase 02. Phase One will be supported by WHO.

Phase Two;

will encompass field implementation of mapping in another 12-15 urban and semi-urban locations, which will develop a broad based understanding to capture the diversity in sex work across various states and localities, and will provide data for developing national estimates. Financial resources for Phase two will be mobilized by the National AIDS Program, through engaging various donors willing to participate in this National initiative.

Phase Three:

During Phase three, the mapping data collected will be used to develop National estimates of sex workers in South Sudan and provide the program with a Strategic direction for Planning Targeted Interventions for Sex workers

This report discusses the activities conducted in Phase one of the mapping plan in South Sudan and provides recommendations for further action.

Section 03 – The METHODOLOGY

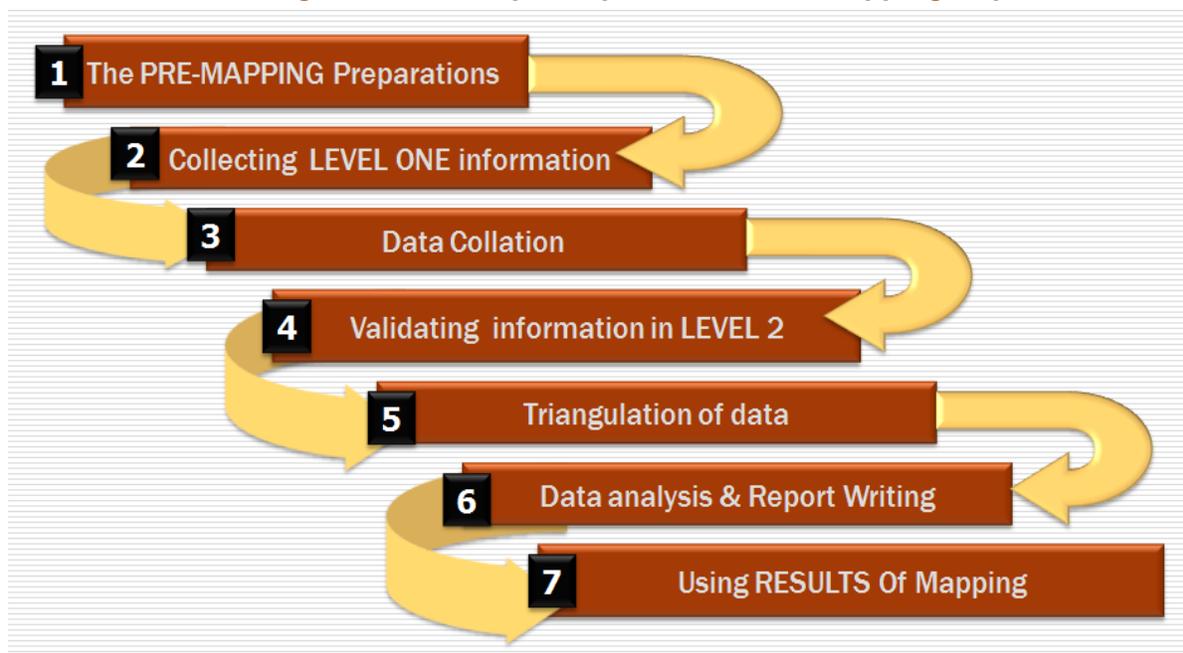
3.1 Geographical Mapping – Conceptual approach

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 basic approach includes the following two sequential steps:

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

The rationale for this approach is based on programmatic experience in diverse settings across the globe which has shown that most FSWs congregate and/or meet clients in definable geographic locations. Accordingly, the approach focuses on identifying these locations, characterizing each location in terms of specific “spots” within that location and the operational characteristics of the sexual networks there (i.e. how and where FSWs meet clients/partners and where sexual transactions occur). We also estimate the number of key population members that frequent the specific locations and spots.

Fig. 3.1 Graphical presentation of Mapping steps



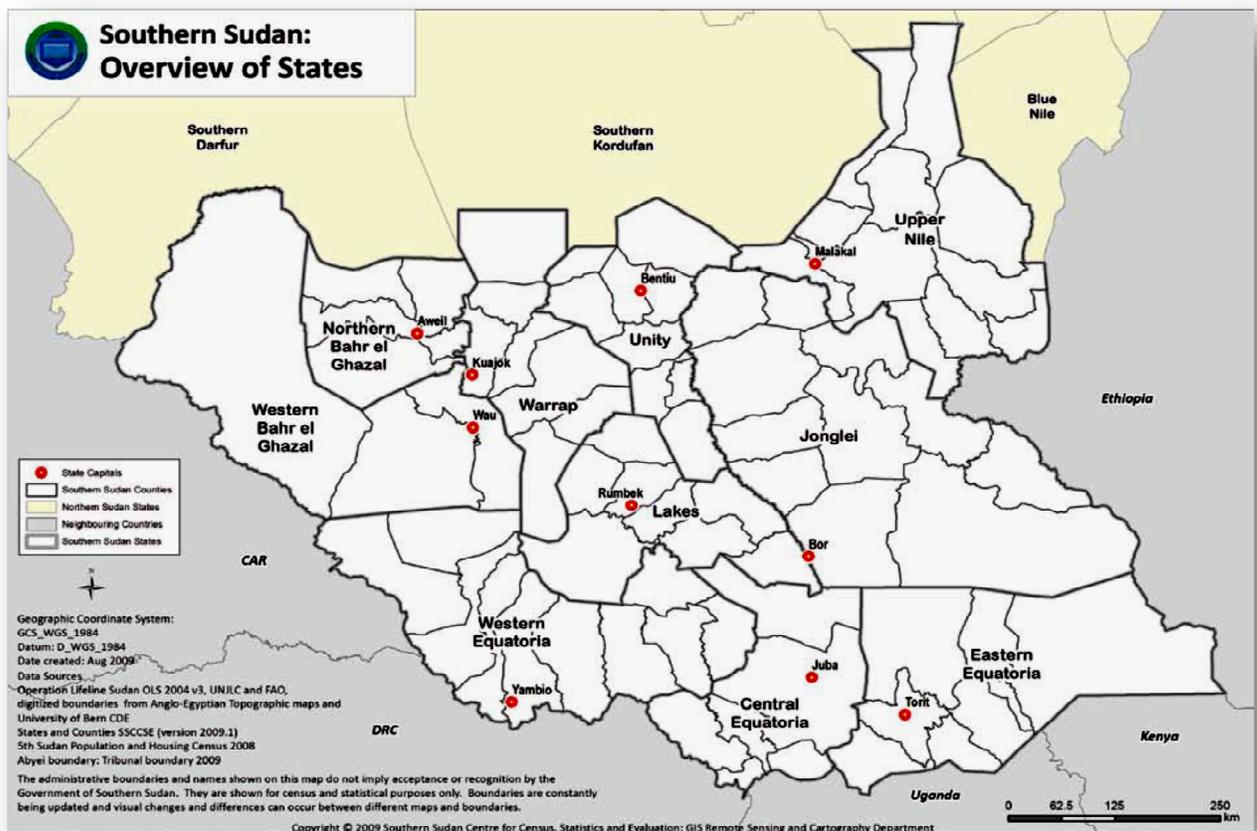
3.2 Study Subjects - Female sex workers (FSWs)

For the purposes of this study, female sex workers were defined as: *“Any female, who undertakes sexual activity with a man in return for money irrespective of site of operation i.e., street, bars, home, hotel etc.”* A number of typologies of sex workers e.g., street-based, hotel-based, home based, venues based (Bars/clubs/saloon based FSWs etc) brothel based FSWs etc., have been identified in the previous studies, and all of these typologies were included in the target population. A further description of various typologies of sex workers is provided later in this report.

3.3 Study Sites

As already mentioned this protocol (phase one) focused on “Developing and field testing the mapping methodology in two of the cities in South Sudan” and also to “build the capacity of local human resource for scaling up the mapping studies in various other urban and semi-urban locations”. Based on the discussions with the National AIDS Program and members of the National AIDS Commission, “Juba” and “Yambio” were mapped in Phase 01. Once a methodology is finalized, and more field capacity is developed, more cities and towns will be mapped in the next phase.

Fig. 3.2 Map of South Sudan, providing an overview of various states



3.4 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 included:

3.4.1 Involvement of Local stakeholders & Community

The population under study are difficult to reach, and in order to get meaningful cooperation from them, it is crucial to develop strong rapport. This study focused on involvement of the target community individuals and peer group members at every stage, thus gaining their support and endorsement. A number of these individuals (peers) were hired for the research activities, and this helped to open doors to the more hidden segments of these populations. Similarly, key persons in different governmental departments and other gatekeepers of information were identified, and were involved in the study from its

initial phases. A number of meetings were conducted 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.

3.4.2 Acquisition of Maps and Zone formation

The next step in the process was to divide the target area under study into smaller data collection geographical units referred to as “zones”. Zones are smaller geographical segments of the target area, which form the basis of data collection. Both district and town level maps were acquired for the purpose of planning. GIS maps were downloaded from Google maps and were enlarged to provide detailed imaging of the target area. The “zones” were demarcated on the maps for comprehension of the target areas and spot identification.

Fig 3.3 Zone wise distribution of Juba and Yambio, South Sudan



3.4.3 Recruitment of local field team members and training

The local field teams were recruited by the technical team of WHO and National AIDS Control Program, based on their experience working with key populations and field research experience.

The Field team was trained on the various aspects of field work in a 4 day training workshop held in Juba, at the Ministry of Health. The training focused on clarifying concepts and implementation of the mapping methodology, including defining key terms, concepts and definitions relevant to the local situation and providing information and clarifications on issues like:

- Most at risk populations specifically FSWs
- Understanding mapping and basic concepts of geographic mapping
- Mapping methodology and the concept of Level 1 mapping (L1), and Level 2 mapping (L2)
- Data collation
- Identification of individuals/subjects
- Key Informant identification and developing rapport
- Communication skills; Values and attitudes
- Ethical issues
- Various aspects of field work
- Data Entry System.

The participants included members of data collection teams (including interviewers and peer group members) data management personnel, field supervisors as well as members of the National AIDS Control Program and development partners.

3.4.4 Other activities

In addition to the a.m., activities various other activities conducted in the pre-mapping phase included:

- Development and finalization of data collection instruments
- Finalization of Key Informants lists for L1 data collection
- Understanding of case definition of FSWs and typologies of FSWs.
- Development of a field monitoring process and quality assurance system
- Finalization of a detailed work plan for the local mapping exercise.

3.5 Level 1 Activity

Level 1 was the first step of field data collection, and focused on collecting information from key informants about the geographic locations where key population members congregate, as outlined above. For each mentioned location, key informants were asked a small set of 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 was gathered in a pre-designed format (ANNEX 01) called the level one form. Each day, the field team for each geographic zone convened to collate the data collected in the field. Data were manually edited and the information was 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 were identified for detailed spot profiling in Level 2 data collection, described below.

3.6 Level 2 Activity

The final step in data collection involved conducting key informant interviews at the key identified hotspots within each zone. These

interviews, called L2 interviews, involved primary key informants (key population members i.e., FSWs and those closely related i.e., pimps, madams, brokers, etc.) and focused on validating the information collected and collated in the previous exercise. Field teams went to 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 estimates on usual and peak days). In addition some demographic and operational information was collected, which was noted down on a structured format known as Level 02 form (ANNEX 02).

3.7 Data management

Pre-set data forms were field edited by the field team on a daily basis and corrected for any missing information. Field edited forms were then transported to the data management unit in Juba, where entire data set was entered in a database with inbuilt quality checks was developed for each data capturing tool developed. A Database manager was hired who was responsible for managing the entire database for this study, including data editing, data entry and data management. Data entry operators were hired, who were trained by the data manager on quality and consistency of data, data entry and data management.

The data entry was carried out at the National AIDS Program under the guidance/supervision of the data manager, and supported by the research consultants. The final analysis was conducted by the research consultant, with close coordination and inputs from the local team. The data set after entering was edited and cleaned, duplicates were removed and final data was used for generating final estimates and lists of locations. To obtain this,

the estimate ranges for each site and location were rolled up for a zone and finally added up produce estimates for each city.

3.8 Field Implementation

3.8.1 Technical support

To oversee the research study and support technical and operational guidance for field implementation, a Technical Resource Group (TRG) was set up. The TRG consisted of members from the National AIDS Program, members of UN agencies e.g., UNAIDS, WHO, UNFPA, IOM etc., members of Lead NGOs working with MARPs in South Sudan e.g., FHI , chaired by the National AIDS Commission in South Sudan.

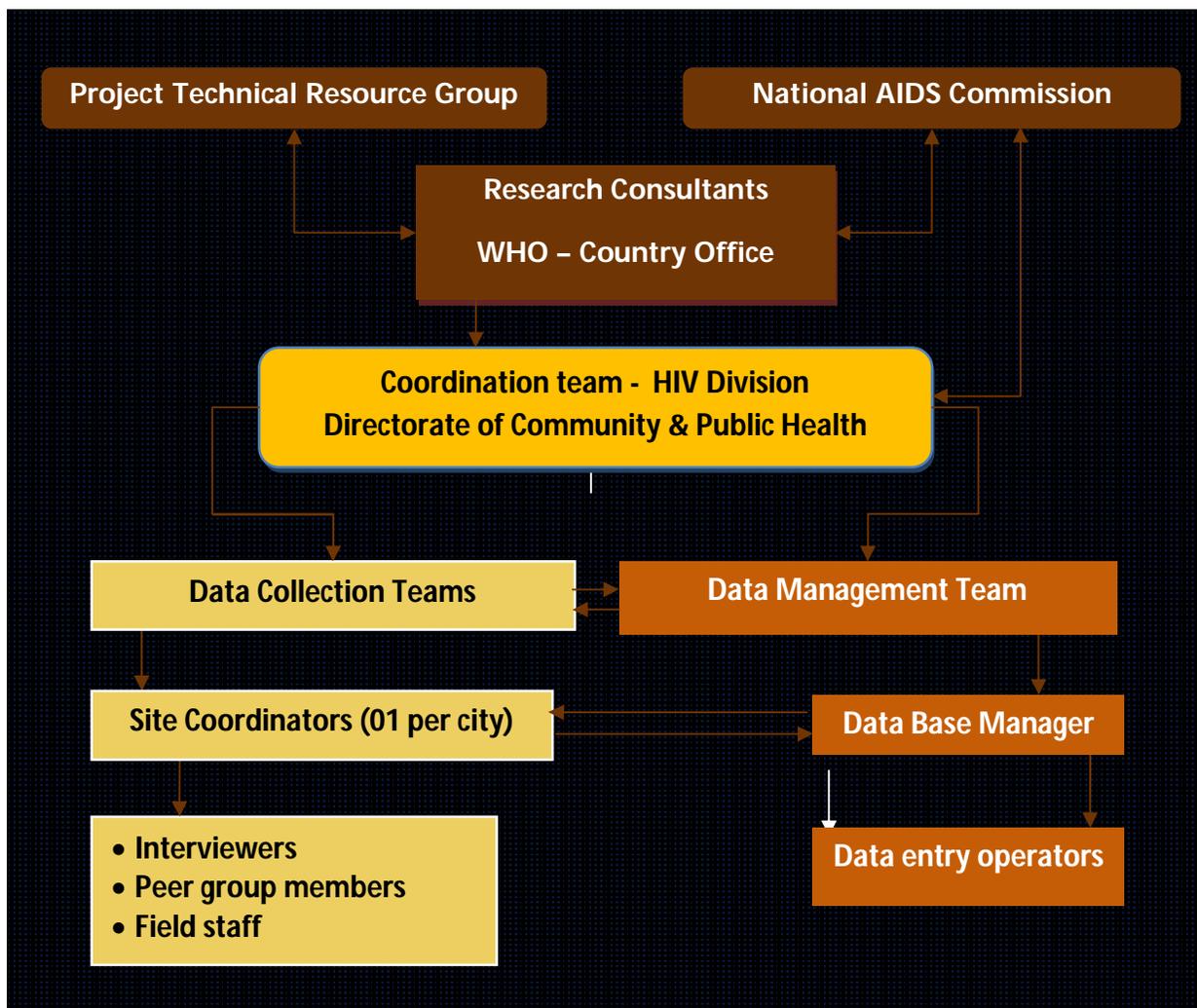
The TRG provided overall technical support in conducting this research, and identified the research team as well. The specific roles of the Technical Resource Group are as described below;

- Provide inputs in Developing protocol/instruments for the study
- Facilitate the implementation of the research study by developing liaison within various government departments and law enforcement agencies
- Orient the research team on research protocol and tools
- Guide the research team on planning, managing and quality assurance of data collection
- Monitor the technical aspects of field work
- Report writing and dissemination workshop
- Managing the future research needs in the country

3.8.2 Field Teams

The technical supervision for the mapping study as well as support for local capacity development was provided by the WHO local office, through consultants hired for this study. For implementation of this project, we draw on the experience, materials and protocols produced by the WHO local office and consultant's team in agreement with the National AIDS Program.

Fig 3.4 Field implementation structure of the Mapping teams



In addition to the technical team, field data collection was done by local implementation

team19. As mentioned earlier, the entire approach

focused around involvement of the target community individuals, peer groups and key stakeholders of the project. Although data was collected by an independent research team, a strong involvement of the peer group members and local NGOs and CBOs having experience working with the key populations was ensured. A site supervisor was hired who was responsible for the overall data collection process in his/her respective city. The site supervisor worked in the field with 3 to 5 smaller data collection teams each comprising of interviewers and a peer group member. The data management team included a data manager, and data entry staff who punched data in the data entry software.

3.9 Ethical Consideration

This survey was designed to meet international ethical guidelines, specifically addressing the following ethical issues:

- **Safety of researchers:**

Meetings were held with the police and law enforcement agencies in each district before the project started to inform them of the nature and the purpose of the survey, so that any queries from the local police during the project could be addressed.

- **Informed consent & participation:**

Recruitment of participants was conducted only after describing the study procedures and obtaining informed consent. During the process of obtaining informed consent, prospective participants were clearly informed that participation was voluntary, and that non-participation would have no negative consequences in terms of access to programs or services.

- **Confidentiality:**

Considerable effort was taken to maintain the confidentiality of participants. This included non-disclosure of participants' identity and the use of a non-identifying coding system to track study data. The final report does not contain information which can lead to identification of spots and places where MARPs congregate.

¹⁹ *The Job descriptions for field teams are provided in annex 03.*

3.10 Study Timeline

Date	Activity
29 th May to 1 st June	Design Mission
5 th to 15 th June	Protocol Development
10 th to 20 th June	Finalization of field teams
21 st & 23 rd June	Training of the Field Workers in L1 and L2
24 th June	Development of Monitoring Tools Development of Field Work Plan
25 th June to 1 st July	Field Work of Level 1 in Juba
27 th to 30 th June	Field Work of Level 1 in Yambio
2 nd & 4 th July	Level 1 Data entry
3 rd – 5 th July	Data Cleaning
6 th July	Refresher of Level 2 in Juba Initiation of Field work in Juba
7 th July	Refresher of Level 2 in Juba Initiation of Field work in Juba
6 th to 18 th July	Level Two Data Collection in Juba
7 th to 10 th July	Level Two Data Collection in Yambio
11 th July to 1 st Aug	Data entry and cleaning
10 th to 25 th Aug	Data analysis
September	Development of spot maps (hard copies)
October	Report writing Development of GIS maps

Section 04 – The RESULTS

A total number of 1,225 Level One interviews were conducted both in Juba and Yambio. 755 interviews were conducted in Juba, while 421 interviews were conducted in Yambio. At Level one, almost all interviews were conducted with secondary key informants to gather information about the various specific places (spots) where sex workers congregate, solicit clients or provide sexual services.

Female sex work is at the heart of the HIV epidemic in South Sudan, largely due to the expansive networks and size of this group. As mentioned earlier, for the purposes of this mapping exercise, a female sex worker was defined as :

‘any female, who undertakes sexual activity with a man in return for money irrespective of site of operation i.e., street, bars, home, hotel etc.’

The description of the main typologies of FSWs is given in Box 4.1 The main typologies that have been reported in the course of this

Table 4.1 Total Number of Interviews conducted

	Juba	Yambio	TOTAL
Level One	755	421	1252
Level Two	477	137	558

BOX 4.1 Various typologies of FSWs in South Sudan

Street-based FSWs: solicit clients on the street or in public places such as major transactions, parks, bus stops, market places etc.,

Brothel based FSWs: are those who live in the brothel house – a place where a small group of FSWs is managed by a Madam (auntie) or an agent. These FSWs do not go out of the brothel to solicit their clients; instead the clients come to them at the brothel.

Home based FSWs: usually operate from their homes, contacting their clients on the phone or through word of mouth, or through network operators and pimps. The family might or might not be involved in the sex work business.

Venue based FSWs: are those who are based at various venues including bars/casinos/nightclub/massage parlours etc., Not all, but most of the women working in these venues provide sexual services to clients. This typology also includes Lodge-based FSWs who operate in a similar fashion as brothel based FSWs. However since most of the bars and lodges operate in unison, these typologies are put together in one categories. These FSWs do not solicit publicly for clients, as clients themselves visit these venues and solicit these sex workers either directly or through the venue managers.

Hotel Based FSWs: also operate in various hotels and are solicited either by the client directly, or the solicitation is mediated by some hotel staff; usually waiters

Saloon based FSWs: work in various saloons and are approached in the saloon by the client either directly, or through the saloon owner.

mapping exercise have been venue based, street based, home based, hotel and saloon based female sex workers. Typologies with limited numbers were accumulated and reported as 'others'. Among the sex workers interviewed, 84% were full time sex workers, whereas in Yambio, half of the key informants interviewed were full time sex workers. Full time sex workers are defined as sex workers, who are do not take up any other profession than sex work, and completely rely on sex work income to maintain their living.

4.1 Estimated Number of FSWs in Juba

An average number of 2,511 (ranged between 2,013 to 3,008) female sex workers were identified in Juba across 513 spots. The largest typology identified was venue based female sex workers, which included bars, night clubs, lodges etc ., The total number of FSWs attached to this typology was reported to be 1234, which made approximately half of the total sex workers in Juba.

This was followed by street based female sex workers (n= 509, 20%) and home based sex workers (n= 264, 10%) respectively. The average number of female sex workers per brothel and saloons was reported to be 3 per spot, while an average number of 5 FSW were reported to be operating from each venue, hotel and home spots. The number of FSWs per street pot were found to be 8. The details are provided in Table 4.2.

Table 4.2 Estimated numbers of FSWs on a usual day in Juba by typology, 2012

Typology	No. of spots	FSW (min)	FSW (max)	FSW (avg.)	Avg. no. of FSW / spot	% FSW
Brothel	49	112	186	149	3	5.9
street	64	421	597	509	8	20.3
venue	267	968	1499	1234	5	49.1
hotel	47	219	287	253	5	10.1
saloon	33	63	107	85	3	3.4
home	48	216	311	264	5	10.5
other	5	15	21	18	4	0.7
Total	513	2,013	3,008	2,511	5	100

4.2 Estimated Number of FSWs in Yambio:

The numbers of FSWs on a usual day in Yambio were estimate at 378 (the numbers ranged between 316 to 439), of which 36% were hotel based, 29% were Venue-based and 24% were street based sex workers. The proportion of saloon and home based sex workers were even lower. A total of 129 spots were identified in Yambio, which

made approximately an average number of 3 FSWs per spot. Although the number of FSWs in Yambio are many times lower than those reported from Juba, however looking at the adult population in Yambio, the absolute numbers does not clearly explain the prevalence of sex work in Yambio. Further details are provided in table 4.3.

Table 4.3: Estimated number of FSWs in Yambio by typology, 2012

Typology	No. of spots	FSW (min)	FSW (max)	FSW (avg.)	Avg. no. of FSW / spot	% FSW
Street	29	72	110	91	3	24.0
Venue	28	97	125	111	4	29.4
Hotel	51	115	160	137	3	36.4
Saloon	8	12	16	14	2	3.8
Home	12	19	27	23	2	6.1
Other	1	1	2	2	2	0.4
Total	129	316	439	378	3	100

Fig 4.1 & 4.2 shows the distribution of FSWs in both Juba and Yambio by typology. As already mentioned, the largest typology of sex workers in Juba was reported to be venue based, which formed nearly half of the sex worker volume. In comparison hotel based FSWs formed the largest typology in Yambio, closely followed by venue based sex work. While approximately 6% of FSWs were reported to be attached with brothels, in Juba, no brothels were reported from Yambio. An almost equal proportion of FSWs who work through saloons were reported from both cities.

Fig 4.1 - Distribution of FSW typology in Juba

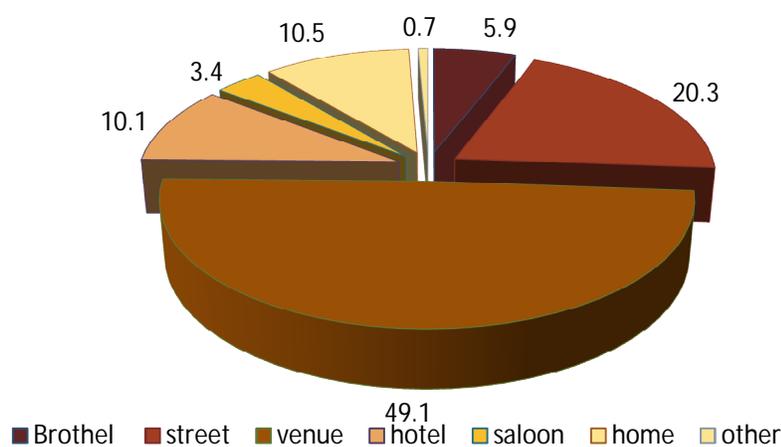
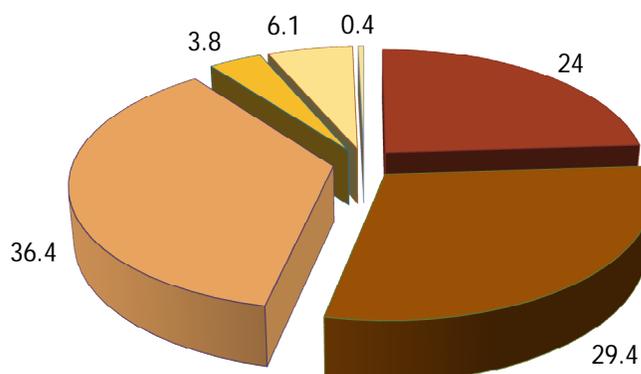


Fig 4.2 - Distribution of FSW typology in Yambio



4.3 Peak days Estimates

Table 3.2 shows the estimated number of FSW on a peak day in Juba in 513 spots. *Peak days were defined to be days when the number of sex workers are slightly higher than the usual numbers e.g., on weekends etc.*, The reason for this increased number could be due to an influx of sex workers from nearby communities or could also be because of various part time sex workers

function through the existing spots. From a program perspective, developing estimates reported on a peak day are important, since the services for sex worker community should be planned for this higher number in terms of providing better coverage rates for a comprehensive control of HIV and STI spread.

Table 4.4 Estimated number of FSWs on a peak day in Juba, 2012

Typology	No. of spots	FSW (min)	FSW (max)	FSW (avg.)	Avg. no. of FSW / spot	% FSW
Brothel	49	312	420	366	7	9.9
Street	64	589	874	732	11	19.8
Venue	267	1444	2069	1757	7	47.5
Hotel	47	302	388	345	7	9.3
Saloon	33	118	182	150	5	4.1
Home	48	268	362	315	7	8.5
Other	5	29	39	34	7	0.9
Total	513	3,063	4,334	3,699	7	100.0

Our results show that on peak days, the estimated number of FSWs increase to 3,699 FSWs (3,063 to 4,334) with an average of 07 FSWs per spot in Juba, and to 532 FSWs (439 to 625) peak day, with

4 FSWs per spot in Yambio. Even on peak days, venue based female sex workers continue to be the largest typology in Juba and hotel based FSWs in Yambio respectively.

Table 4.5 Estimated number of FSWs on a peak day in Yambio by typology, 2012

Typology	No. of spots	FSW (min)	FSW (max)	FSW (avg.)	Avg. no. of FSW / spot	% FSW
Street	29	110	161	135	5	25.4
Venue	28	125	159	142	5	26.7
Hotel	51	160	232	196	4	36.8
Saloon	8	16	29	22	3	4.2
Home	12	27	42	34	3	6.5
Other	1	2	2	2	2	0.4
Total	129	439	625	532	4	100

4.4 Zone wise distribution of FSWs

Table 4.6 and 4.7 present the zone wise distribution of FSWs within Juba and Yambio.

Table 4.6 Estimates of FSW by zone in Juba, 2012

zone	No. of spots	Estimates on usual day			Estimates on peak day		
		min	max	avg	min	max	avg
1	20	74	113	93	123	177	150
2	31	152	216	184	207	279	243
3	51	135	176	156	207	290	248
4	84	400	583	491	593	798	696
5	36	110	187	149	152	256	204
6	15	58	89	73	102	135	119
7	44	94	152	123	213	299	256
8	21	168	240	204	198	273	235
9	13	69	100	84	99	135	117
10	65	264	395	329	406	568	487
11	36	131	196	164	197	294	246
12	10	44	70	57	58	89	73
13	66	258	399	329	396	590	493
14	21	56	93	74	112	151	131
Total	513	2,013	3,008	2,511	3,063	4,334	3,699

Table 4.7: Estimates of FSW by zone in Yambio, 2012

Zone	No. of spots	Estimates on usual day			Estimates on peak day		
		min	max	avg	min	max	avg
1	28	97	115	106	137	167	152
2	26	56	96	76	79	119	99
3	24	55	83	69	84	123	104
4	14	27	39	33	32	53	43
5	6	26	34	30	31	47	39
6	3	3	4	3	4	6	5
7	3	6	10	8	10	14	12
8	25	46	59	53	62	96	79
Total	129	316	439	378	439	625	532

Figure 4.3 and 4.46 show zone wise distribution maps of FSWs in Juba and Yambio respectively. The density of FSWs in each zone is illustrated according to the depth of the color each zone is given. For example, in Juba, zone 4 and zone 13 have the largest population of FSWs, while zone 12 has the smallest population of FSWs.

Figure 4.3 Zone wise distribution map of FSWs in Juba, 2011

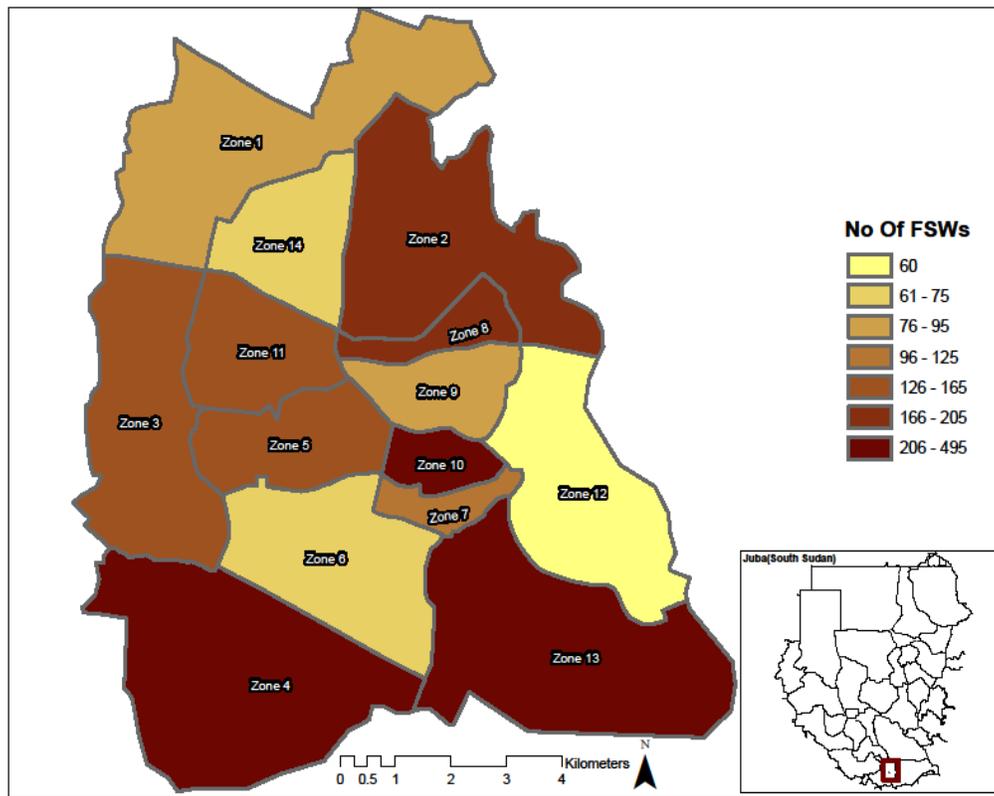
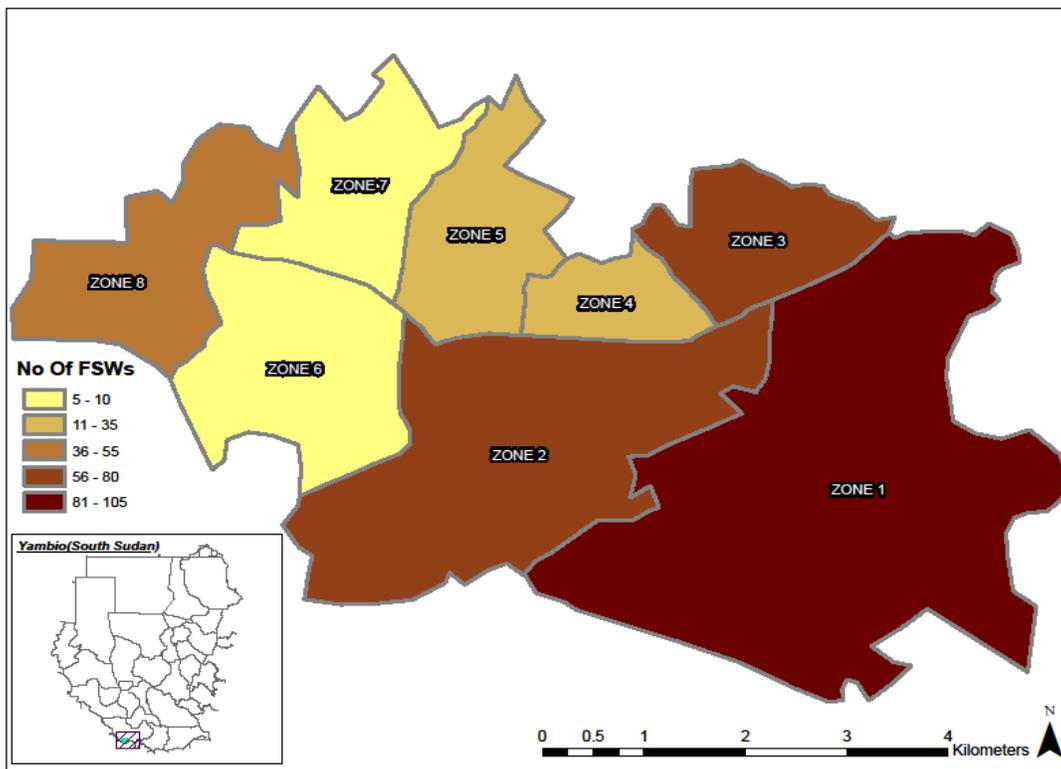


Figure 4.4 Zone wise distribution map of FSWs in Yambio, 2011



4.5 Zone wise distribution of FSWs typologies

Figure 4.5 shows the zone wise FSW typology map of FSWs in Juba. The predominant typology of FSWs in most zones in Juba apart from zone 2 had predominantly venue based FSWs. Zone 2 had a predominant proportion of home based FSWs. A few zones such as 9, 1, 6, 12, had almost only venues where sex work was happening, while zones such as 2, 4, 11 had various other typologies as well. This information is extremely important for planning of prevention activities and services, as different typologies necessitate different outreach plans and henceforth careful planning and crafting of targeted interventions,

Figure 4.5 Zone wise distribution typologies of FSWs in Juba, 2011

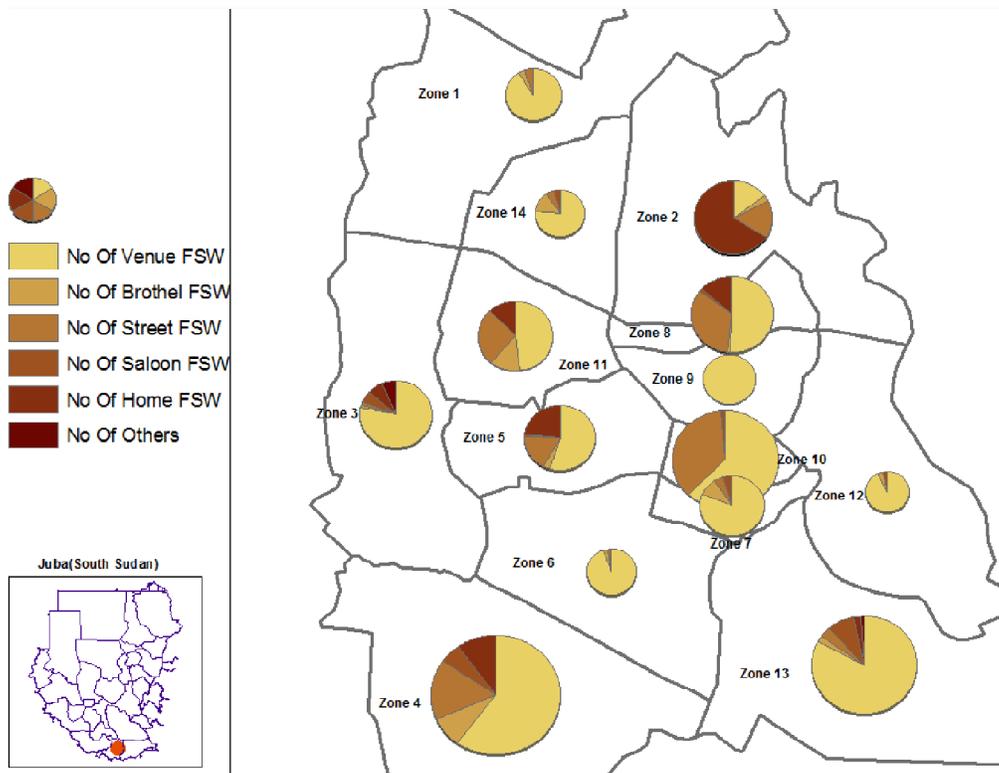
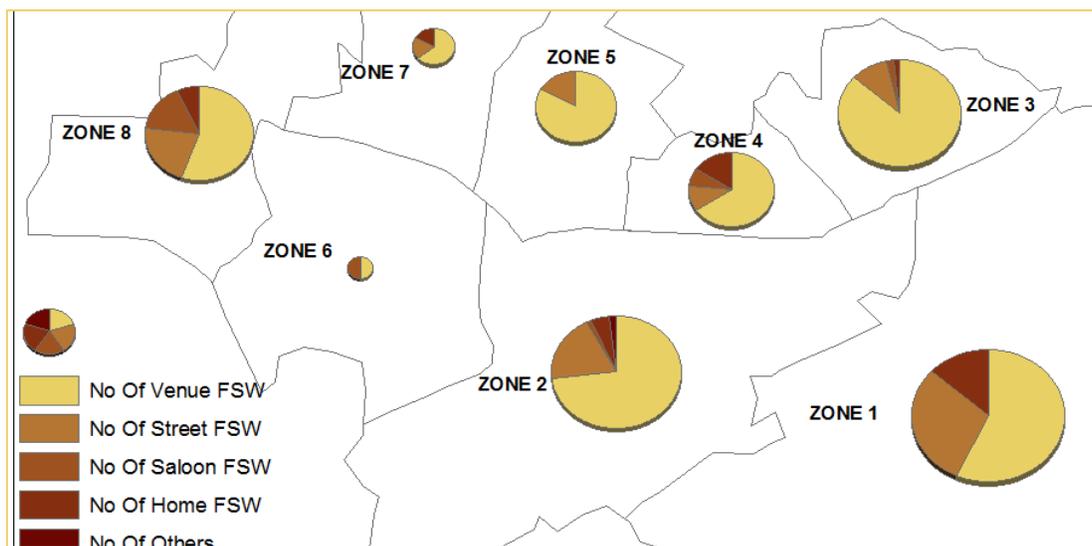


Fig. 4.6 likewise provides Zonal distribution of FSW typologies in Yambio, where the predominant typology of FSWs was venue based in nearly all zones.

Figure 4.6 Zone wise distribution typologies of FSWs in Yambio, 2011

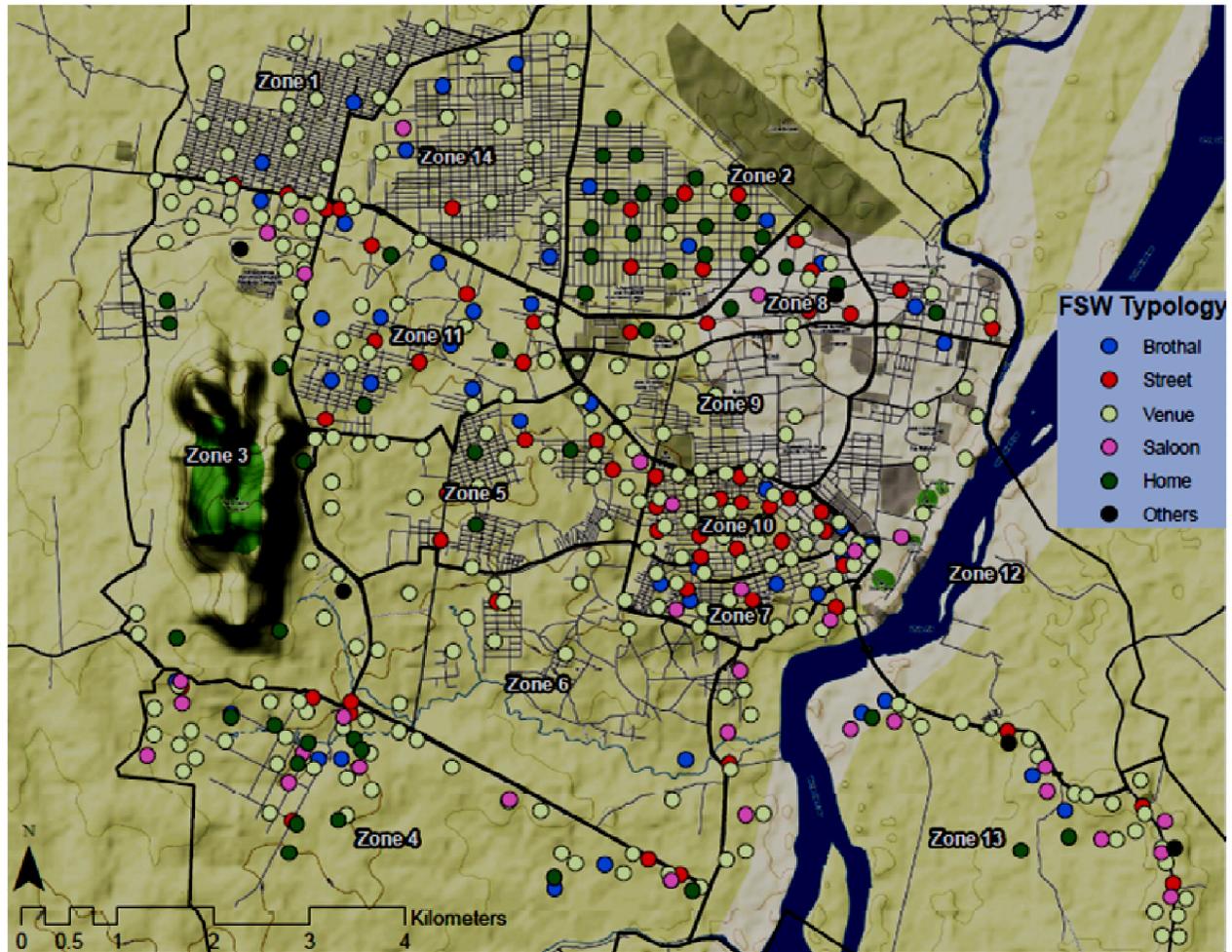


Zones 1, 2 and 8 also showed a large proportion of street based sex work.

4.6 Spot map of Juba

The various key spots where FSWs congregate, solicit clients are plotted on the map of Juba using GIS coordinates. The various spots are differentiated by color codes, each used differently for separate typologies of FSWs as shown in the map's legend.

Figure 4.7 Key FSW Spots, based on typologies in Juba, 2011



4.7 Spot Analyses

This section presents a few characteristics of the spots in both Juba and Yambio, to understand more about sex work and its dynamics. The results of spot analysis are provided in Table 4.8. In Yambio more than three quarters (77.6%) and in Juba, almost half (47.5%) of the key informants would solicit clients at more than one spot. In Juba, a little less than half (47.5%) of the key informants would operate at two spots other than the interview spot making their total spots of work, three in all. In Yambio, roughly 29% to 33% of FSWs solicit clients from two spots (33%), three spots (28.7) or more than three spots (33%), with only 5% operating from a single spot. However, in Juba, almost half of the FSWs interviewed use 02 spots to pick up clients from three

spots. The results show that the FSWs in both cities are very mobile and are not attached to a specific venue or a spot to solicit or pick up clients. Moreover, while doing the final estimation of the FSW population size, this high movement was also taken into account.

We also note from this study, that the spot sizes are not very large, and most spots have less than 5 FSWs attached to it. This again is to be kept in consideration, when services are being planned for this group, and more emphasis should be laid on outreach.

The most popular day of the week for FSWs to visit a spot in Yambio was Saturday (94.4%) and Sunday (93.4%). In Juba however, spots were equally frequented on Friday, Saturday and Sunday, with Saturday being the most frequently visited day of the week (66.5%).

Afternoon was the peak time of the day for key informants to visit a spot in Juba (97.9%), followed by 88.6% and 82.3% of the KIs reported peak times as evenings and nights respectively. However, in Yambio, evenings (94.1%) continuing into the night (96.6%) were the only peak times when most of the key informants visited a

Table 4.8 Spot information in Juba and Yambio, South Sudan, 2012

Variables	Juba % (n)	Yambio % (n)
Solicit clients at more than one spot	47.5 (225)	77.6 (97)
▪ One spot	18.4 (40)	5.3 (5)
▪ Two spots	47.5 (103)	33.0 (31)
▪ Three spots	23.0 (50)	28.7 (27)
▪ More than three spots	11.0 (24)	33.0 (31)
Average FSWs per spot (Spot size)		
▪ 1-2	17.3	17.6
▪ 3-4	31.1	36.1
▪ 5-6	14.9	17.6
▪ 7-8	12.7	5.2
▪ 9-10	8.2	8.4
▪ 11-12	8.8	4.2
▪ 13 and above	7.0	10.9
Peak Days for a spot		
▪ Friday	54.4 (258)	42.7 (53)
▪ Saturday	66.5 (315)	94.4 (117)
▪ Sunday	46.2 (219)	93.4 (114)
Peak time for a spot		
▪ Morning (before 12 noon)	12.7 (60)	2.5 (3)
▪ Afternoon (12 pm-5pm)	97.9 (464)	13.3 (16)
▪ Evening (5pm-9pm)	88.6 (420)	94.1 (112)
▪ Night (9 pm-late night)	82.3 (390)	96.6 (115)

spot for sex work related practices. Conversely, afternoons in Yambio comparative to Jambio were not reported to be peak times (13.1%) and mornings in both cities were the least frequented time for spots.

4.8 Socio-demographic Characteristics

4.8.1 Age

The mean age of FSWs in Key informants in Juba was reported to be 26.26 years (SD=4.36) in comparison 23.37 years (SD=6.8) in Yambio. FSWs in Yambio were slightly older in age in Juba in comparison to those in Yambio. Approximately two thirds of the FSWs in Yambio were less than 25yrs of age in comparison to approximately one third FSWs younger than 25 yrs in Juba. Table shows the details

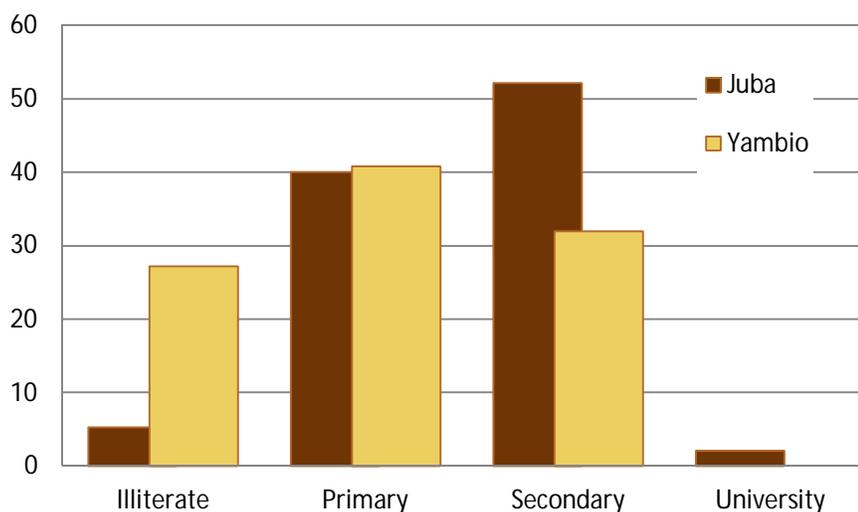
Table 4.9 Age distribution of FSWs in Juba and Yambio, 2012

Variables	Juba % (n)	Yambio % (n)
15-19 years	5.7 (27)	32.0 (40)
20-24 years	29.2 (138)	34.4 (43)
25-29 years	43.6 (206)	12.0 (15)
30-34 years	18.4 (87)	13.6 (17)
35+ years	3.2 (15)	8.0 (10)
Mean age ± SD (in years)	26.26 ± 4.36	23.37± 6.8

4.8.2 Education level

A much higher proportion of FSWs (27%) in Yambio were illiterate, as compared to only 5% in Juba as illustrated in Figure 2. While in both Juba and Yambio, the percentage of key informants who had received any primary education was comparable at approx 40%, the education levels of secondary or high school and above were at a much higher

Figure 4.8. Education level of FSWs in Juba and Yambio, 2012



rate in Juba than in Yambio.

4.8.3 Country of Origin

Figure 3 shows the varying nationalities of the KIs in Juba and Yambio. The South Sudanese comprised of only 8% of key informants' nationality in Juba, even lesser than the Eriterian (9.9%). The Ugandan (45.4%) made up majority of key informants in Juba owing to the close geographical proximity, as well as transportation links between Uganda and Juba. The second dominant nationality in Juba was Kenyan (26.8%) possibly due to Kenya having active highway and railway links with Juba. In Yambio however, 45.2% of the key informants were South Sudanese, followed by Congolese (29%) as Yambio shares a border with the Democratic Republic of Congo.

Figure 4.9. Countries of origin reported by FSWs in Juba, 2012

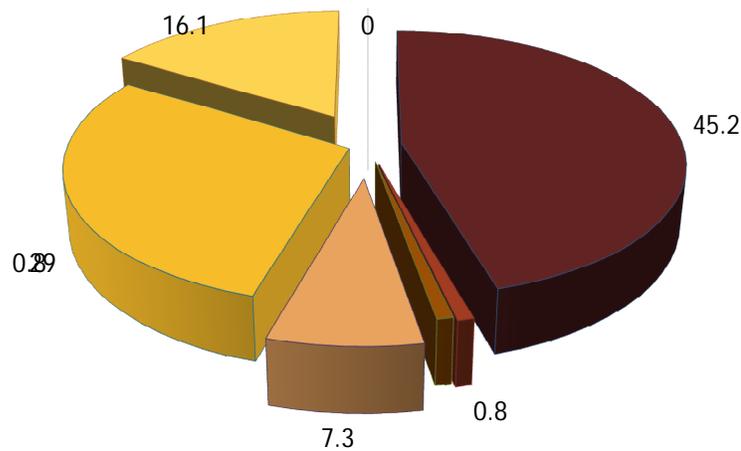
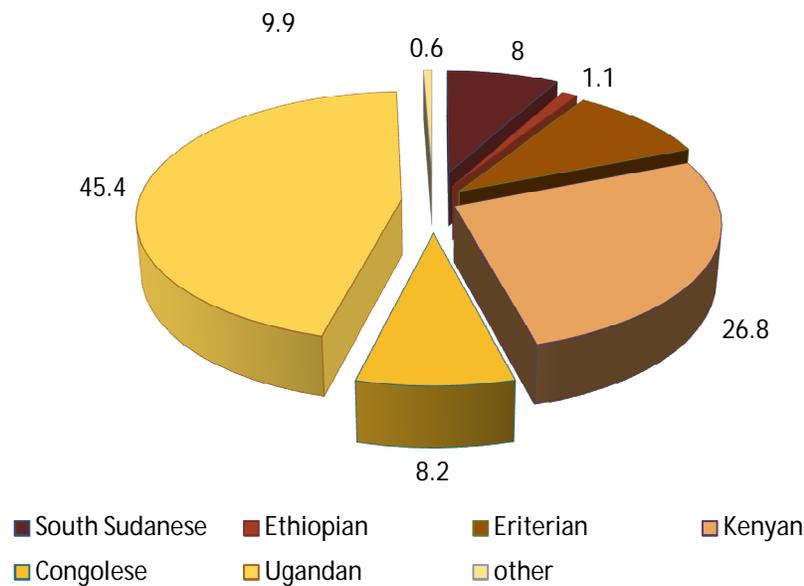
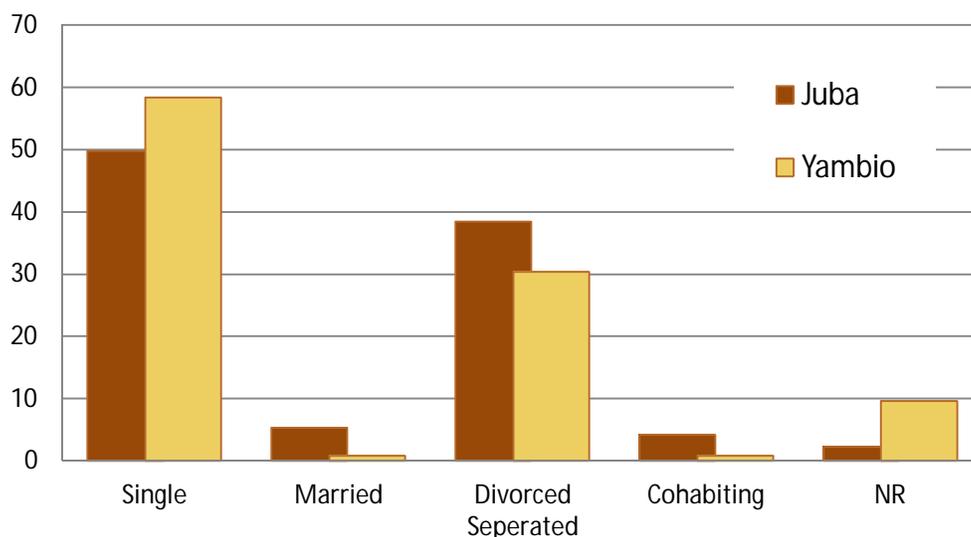


Figure 4.10. Countries of origin reported by FSWs in Yambio, 2012

4.8.4 Marital status

In Juba, approximately half of the key informants were single, 38.4% were both divorced/ widowed/ separated, 5.3% were currently married and 4.2% were cohabiting (Figure 4). Similarly in Yambio 58.4% of the key informants were single and 30.4% were divorced/widowed/separated. Very few key informants in Yambio were currently married or in a cohabiting relationship.

Fig 4.11 Marital Status of KIs Juba and Yambio, 2012



4.9 Client information

4.9.1 Number of clients on a usual and peak day

We further looked at the number of clients entertained by each sex worker on a usual as well as a peak day. The sex workers in Juba had a many fold higher number of clients on a usual day, which was reported to be 7.4 ± 8.5 in comparison to 2.7 ± 1.3 in Yambio. The number of clients on a busy day in Juba would increase to 8.6 ± 3.9 and 4.2 ± 1.9 in Yambio.

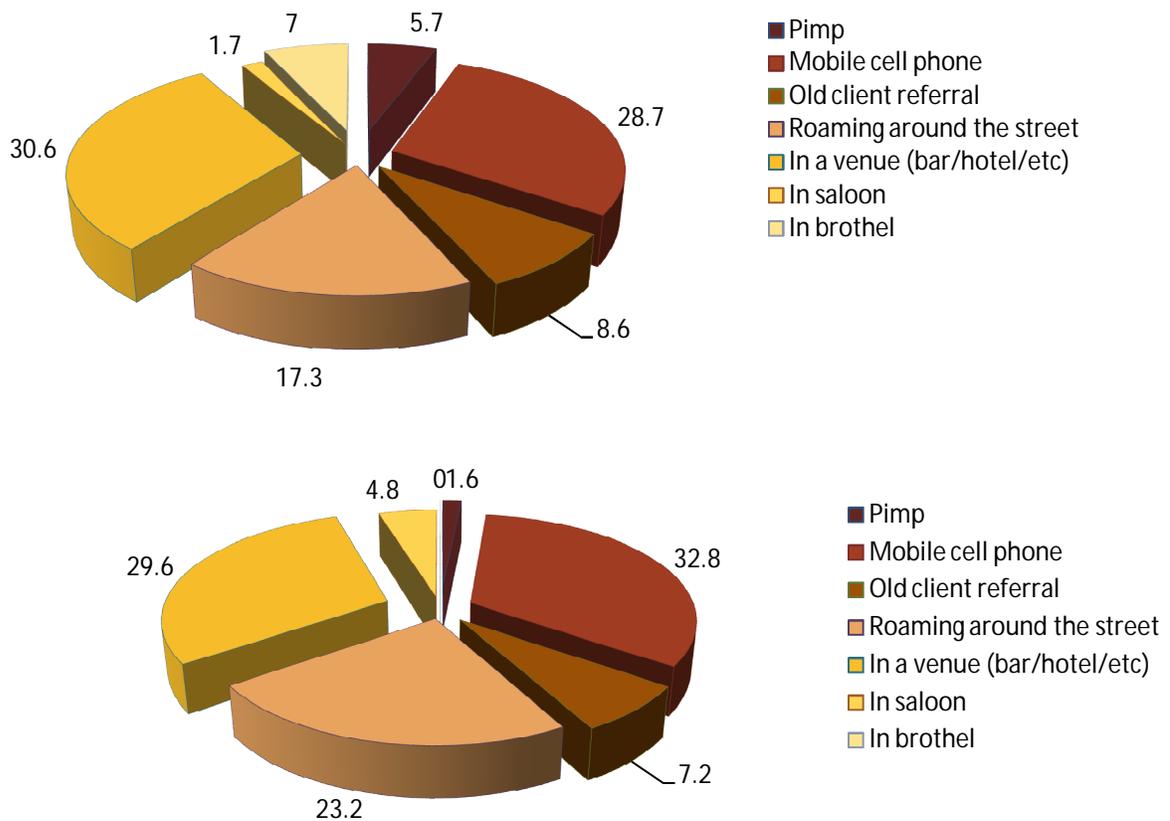
Table 4.9 Age distribution of FSWs in Juba and Yambio, 2012

No. of clients	Juba	Yambio
Avg. # of clients/ usual day \pm SD (mode)	7.7 ± 8.5 (3)	2.7 ± 1.3 (2)
Avg. # of clients/ busy day \pm SD (mode)	8.6 ± 3.9 (10)	4.2 ± 1.9 (3)

4.9.2 The Number of clients on a usual and peak day

Our further analysis looked at the way sex work is being practiced in both Juba and Yambio to understand the dynamics of sex work as well as to know and how client-sex worker interactions take place. Surprisingly, the influence of network operators is almost negligible in South Sudan, and sex workers mostly work independently through street spots, various venues or more recently through mobile phones. Sex workers working through Saloons or hotels may have mediators such as saloon owners, hotel staff, but still the dependency on network operators as seen in many other countries is much lesser.

Fig 4.11 Ways used by FSWs to get clients in Juba and Yambio



Both in Juba as well as in Yambio, contacting clients via a venue, such as a bar or a hotel, etc. was roughly around 30% although the most common method of contacting clients in Yambio was through the use of a cell phone (32.8%). In Juba, the cell phone was the second most popular method of reaching clients (28.7%), according to key informants. Informal contacts for sex work related practices are also made by roaming around the streets with 23.2% key informants operating thus in Yambio and 17.3% in Juba. Referrals from other, older clients were also practiced in Juba (8.6%) and Yambio (7.2%) by key informants. In Yambio, saloons were also a location from where key informants worked (4.8%) as opposed to Juba, where brothels were more commonly used (7%). Only 1.6% FSWs did pick up their last client through 'pimps,' however in Juba 5.7% of interviewed key informants contacted clients through a 'pimp'.

Section 05 – Conclusions

5.1 Number of FSWs per adult men population

After producing absolute numbers for both Juba and Yambio, additional analysis was undertaken to calculate the ratios of FSWs per 1000 adult males for each city. The adult male population²⁰ of each city area was used as a denominator, while the estimated total number of FSWs within that city area was used as the numerator. Ratios of the number of FSWs per 1,000 adult male populations in each city are indicated in the table below to provide an understanding of the concentration of the FSW population in proportion to the adult male population to whom they cater.

Calculating ratio of FSWs per 1000 adult male population is a more explanatory way of comparing sex work volume across study sites as well as with other cities. Thus when we looked at the absolute number of FSWs, Juba appeared to have a much larger volume of sex work, but when number of sex workers were compared using adult male population as denominators, FSWs to male adult population does not appear very different.. Hence, the ratio of female sex workers per 1000 adult male population in Juba was 24.3 FSWs per 1000 adult males, while in Yambio it was 25.7 per 1000 adult males.

Table 4.10 Ratio of FSWs per 1000 adult male population, 2012

City	Total population	Estimated Adult Male Population	Average No. of FSWs on a usual day	FSWs per 1000 adult males
Juba	382,410	103,250	2,511	24.3
Yambio	54,400	14,688	378	25.7

5.2 Key Conclusions

Because of the clandestine nature of the sex industry, and also because of the wide varieties and geographical distribution of sex workers, it is extremely difficult to obtain an accurate estimate of their number. This mapping project has however significantly enhanced our understanding of the female sex work in South Sudan. It has helped us to produce estimates of FSWs within the two cities, based on primary data collected in the field, validated and triangulated against multiple, independent sources of information. We followed a simple and straightforward community-based approach, ensuring active involvement of the high risk groups

²⁰ *Estimated Population in 2011. Wolframalpha.com.*

http://www.wolframalpha.com/input/?i=Juba&lk=1&a=ClashPrefs_*City.*Juba.CentralEquatoria.Sudan--.

themselves in validating estimates. ***Not only has the study helped estimate population sizes, it also led to a better understanding of the geographical distribution of sex workers, and recognition of the various operational typologies and dynamics of these populations, which is the key first step in developing effective HIV prevention strategies.***

Sex work in South Sudan has not been legalized and a heavy penalty is prescribed for those involved in the solicitation, procuring and facilitation of sex work. The law further criminalizes the act of deliberate infection of another person with sexually transmitted infections such as HIV²¹. However, commercial sex work thrives in parts of the country, especially the cities studied under this research irrespective of the legal implications associated with it. In addition to excessive poverty, sex work in South Sudan is thought to be fueled further by the presence of significant numbers of mobile populations, including transport workers and returnees, and internal displaced populations. It is interesting to note that ***the majority of the sex workers seen in Juba and Yambio come from Uganda, Kenya, D.R. Congo, Ethiopia and Eritrea.*** This has been seen in previous studies also and this report verifies the same²². It was however interesting to note that most sex workers in Juba were predominantly from other neighboring countries. This could be due to the fact that Juba being the center of trade and economic growth has attracted large scores of sex workers from neighboring countries. However, there is very limited movement of people inside and outside of Yambio, and due to much lesser economic opportunities, is not a very attractive destination for sex workers and as a result, sex work there is largely conducted by South Sudanese women. However the possibility that local FSWs in Juba, due to the highly stigmatized and clandestine nature of work were missed out, although the likelihood of this was kept to a bare minimum through inclusion of local community members.

Female sex work in South Sudan is extremely diverse, and highly secretive. There are a number of typologies involved, each having its own operational dynamics and prevention needs. Sex work is more established and sex workers are greater in absolute number in Juba than in Yambio, with Juba having more than 6 times the Female sex workers than Yambio. However, the relative number of sex workers calculated per adult males for both Juba and Yambio are not very different. On the other hand, the dynamics and operational characteristics in both cities appear to be similar. Similarly, the average number of clients per female sex works in Juba is also far greater than that in Yambio, indicating an elevated risk for STI, HIV, violence, forced sex etc. Another important feature which is specific to South Sudan is ***“the limited dependence of FSWs on network operators/pimps, with a larger reliance on cell phones or directly soliciting clients from venues”***. Street-based and venue based sex workers in particular, operate independently and have less reliance on other mediators, such as network operators or pimps. The influence of network operators and pimps predominates only around brothels and saloons, and to a very limited extent in venues such as bars, night clubs and lounges. In brothels and saloon, the owner mostly serves as the network operator, and they help the sex workers solicit clients. The fulltime sex workers working in brothels are mainly Ugandans, Congolese, Sudanese and Kenyans²³. In some cases, brothels are closely associated with bars and lodges making access for customers

21 Ramadhan A A. Rapid assessment and situation analysis on commercial sex workers in eastern and central equatorial states of South Sudan. International HIV/AIDS Alliance

22 World Bank. 2011. Southern Sudan HIV epidemic and response review report, 2011

23 Groenendijk C and Veldwijk J. 2011. Behind the Papyrus and Mabaati: Sexual Exploitation and Abuse in Juba, South Sudan. Confident Children out of Conflict

easier^{24,25}. In bars and lounges, there may be pimps involved in the soliciting of clients, however, it isn't a wide spread occurrence. It is important to re-stress here that brothels were only found in Juba in this mapping round. In home, street and hotel based sex work; the clients are mostly solicited independently, either by directly making contact in public places, or through cell phones.

Venue based sex work has seen a rise in Southern Sudan since the signing of the CPA, with the widespread proliferation of bars, lodge facilities and other entertainment outlets such as night clubs. These facilities have been set up at different places along the major transport corridors and destination towns in response to a shortage of accommodation and leisure facilities for the rapidly growing population²⁶. The proximation of lodges, bars, saloons and clubs to market areas and the predomination of sex work in these areas only was noted during the mapping exercise, which was because of the availability of generators and hence electricity. This trend was seen both in Juba and Yambio, and areas where electricity was available at night were regarded as hot spots for sex work. Lodge facilities (categorized within the venue based sex workers) have been found to range in size from a few houses or rooms that FSWs can rent and work from. Each of these small rooms are occupied by sex workers who pay a daily rent to the owner of the lodge as shown by previous research^{27 28}. As a result, women employed at these facilities, augment their income by partaking in sex work. Overtime, these women either leave their day jobs to conduct sex work in the day time as well—such as street and home based sex workers—or use those jobs such as working at bars, saloons and hotels to solicit clients²⁹.

5.3 Limitations

Potential limitations of the geographic mapping approach that we used should be acknowledged. First, because the methodology initially identifies spots frequented by FSWs through secondary key informants, there is the possibility of missing some spots and either over- or under-estimating some FSWs typologies depending on the extent of their invisibility. However, the methodology compensates for this limitation to an extent during the spot validation stage, where new spots are generated through primary key informant interviews. Second, the geographic mapping methodology relies on numeric estimates rather than a count of FSWs at the spots identified, which may lead to variability in the estimates derived. The methodology addresses this limitation through averaging estimates for spots identified by a large number of secondary key informants, and validating estimates for spots identified by the least number of secondary key informants through interviews with the FSWs themselves. It is possible, however, that some secondary and primary key

24 Ramadhan A A. Rapid assessment and situation analysis on commercial sex workers in eastern and central equatorial states of South Sudan. International HIV/AIDS Alliance

25 USAID. 2011. Formative Assessment of Most-At-Risk Populations in South Sudan

26 Ramadhan A A. Rapid assessment and situation analysis on commercial sex workers in eastern and central equatorial states of South Sudan. International HIV/AIDS Alliance

27 Groenendijk C and Veldwijk J. 2011. Behind the Papyrus and Mabaati: Sexual Exploitation and Abuse in Juba, South Sudan. Confident Children out of Conflict

28 USAID. 2011. Formative Assessment of Most-At-Risk Populations in South Sudan

29 Groenendijk C and Veldwijk J. 2011. Behind the Papyrus and Mabaati: Sexual Exploitation and Abuse in Juba, South Sudan. Confident Children out of Conflict

informants may still over- or under-estimate MARPs numbers depending on their numeric orientation and competence. Finally, since the method relies on finding MARPs through locations, it can miss those who do not primarily operate at locations. For example, sex workers who primarily contact clients through cell phones are likely to be underrepresented in geographically based mapping. However, it should be noted that in the context of planning HIV prevention programs for MARPs, individuals that are disconnected from larger networks or congregations of other MARPs (e.g. solitary IDUs or MSM with low rates of partner change) tend to be at lower risk and less strategically important for HIV prevention. It should be noted that this method is meant primarily to: 1) identify key locations where MARPs congregate and can be reached for HIV prevention, 2) describe the typology of MARPs (e.g. brothel, street and bar-based FSWs) and, 3) estimate the size of MARPs populations. In this regard, it is meant to be an important starting point for macro-level planning of MARPs programs (FSWs in our instance), including the prioritization of cities/towns and locations for establishing targeted interventions and determining the initial volume of services required.

5.4 The way forward

To conclude, this study has identified a large number of FSWs within the two targeted districts in South Sudan, and has provided valuable information on high-risk activities related to sex work in these locations. It is important to note that there is still much left to learn about other geographical settings, and to extend this research to other cities and towns in the country, during the Phase II and Phase III of this study. The approach used has been shown to work exceedingly well in the cultural context of South Sudan, and should be utilized within other cities of the country to estimate population sizes, understand geographical distribution of FSWs, and recognize the various operational typologies and dynamics of these populations for developing effective HIV prevention strategies.

The insights provided by this mapping exercise could be used to design “evidence-based approaches” towards high-impacting prevention programs for sex workers in South Sudan, principally in the cities where this research has been conducted. The geographical distribution of FSWs within these cities would help identify zones/spot where HIV prevention programs and outreach services need be focused. In addition, information provided on the operational dynamics could further augment the designing risk group centered HIV response in the country, making sure to address structural and operational dynamics for optimal success of the programs. With limited funding and resources, this approach would be most effective, providing optimal coverage and cost effectiveness.

Section 06 – ANNEXURES



Mapping of Female Sex Workers

Division of HIV/AIDS, South Sudan

LEVEL 1 Form

FORM NO DATE: / /

TOWN/VILLAGE ZONE:

FW NAME: _____ FW2 NAME: _____

SUPERVISOR NAME: _____

S. N	Spot name and address	Type of spot	Contact for that spot	Time of Operation	Number of FSW's	
					Min	Max
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

KI NAME & CONTACT INFORMATION (optional):

SEX: M = 1 F = 2 EDUCATION

PROFESSION: _____

Type of spot: 1-Booth; 2-Street; 3-Venue (bar/night club/booth); 4-Hotel/Inn; 5-Salon Booth; 6-Home based; 7-Other _____

Time of Operation: A-Morning; B-Afternoon; C-Evening; D-Night; E-Whole Day/24 Hours

Education: 0-None; 1-Primary; 2-Secondary; 3-High School; 4-College/University



Mapping of Female Sex Workers

National AIDS Control Program, South Sudan

LEVEL 2 Form

FORM NO	<input type="text"/>	DATE:	<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	<input type="text"/>
TOWN/VILLAGE	_____						ZONE:	<input type="text"/>	<input type="text"/>
FW NAME:	_____			PEER'S NAME:	_____				

Spot Name	_____	Type of SPOT	<input type="text"/>	Spot Active	Yes <input type="checkbox"/>	No <input type="checkbox"/>
*Type of spot: 1-Brothel; 2-Street; 3-Venue (bar/night club/beach); 4-Hotel/ Lodge; 5-Massage parlor; 6-Home based; 7-Beach (cell girls/mobile); 8-Other _____						

SNo	INFO ABOUT THE KI	
1	How old are you?	<input type="text"/> YRS
2	What is the highest level of education you received?	PRIMARY1 SECONDARY/VOCATIONAL2 TERTIARY3 QURANIC EDUCATION4 NONE5
3	What is your marital status?	SINGLE1 MARRIED2 DIVORCED/WIDOWED/SEPARATED3 COHABITING4
4	What is your Nationality?	SUDANESE1 ETHIOPIAN2 ERITERIAN3 KENYAN4 CONGOLESE5 OTHER (SPECIFY)
5	How many clients do you usually have in a day?	NORMAL DAY <input type="text"/> BUSY DAY <input type="text"/>
6	Do you do any work other than sex work?	YES1 NO2
7	If yes, what other work do you do?	_____
8	Do you solicit clients at any other places than this?	YES1 NO2
9	If yes, other than this place, how many different places do you seek clients?	<input type="text"/>

SNo	SPOT PROFILE	
9	Code the venue with the response which best describes it.	BROTHEL1 STREET2 VENUE (BAR/NIGHT CLUB)3 HOTEL/ LODGE4 MASSAGE PARLOUR5
Type of spot: 1-Brothel; 2-Street; 3-Venue (bar/night club/beach); 4-Hotel/ Lodge; 5-Massage parlor; 6-Home based; 7-Beach (cell girls/mobile); 8-Other _____		



		OTHERS10
10	Where did you get your last client?	PIMP.....1 PHONE.....2 OLDER CLIENT.....3 STREET4 VENUE (BAR/HOTEL/ETC).....5 OTHERS.....6
11	Which day/s of the week is the total number of FSWs visiting this spot more than usual (Peak Day)? CIRCLE AS APPLICABLE	MONDAYA TUESDAYB WEDNESDAYC THURSDAYD FRIDAYE SATURDAYF SUNDAY.....G
12	What time of the day do more FSWs visit this venue (Peak Time)? CIRCLE AS APPLICABLE	MORNING (BEFORE 12 NOON)A AFTERNOON (12 PM-5 PM)B EVENING (5 PM-9 PM).....C NIGHT (9 PM-LATE NIGHT)D
13	On a usual day, how many FSW work/visit here (min – max)	MIN <input type="text"/> <input type="text"/> <input type="text"/> MAX <input type="text"/> <input type="text"/> <input type="text"/>
14	On a peak day, how many FSW work/visit here (min – max)	MIN <input type="text"/> <input type="text"/> <input type="text"/> MAX <input type="text"/> <input type="text"/> <input type="text"/>
15	Do FSWs solicit clients at this spot?	YES1 NO.....2
16	Does sex take place at this venue?	YES1 NO.....2

16	Do you know any other place like this, where sex work happens?		
S.N	SPOT NAME	ESTIMATES (MIN)	ESTIMATES (MAX)
A			
B			
C			
D			
E			

JOB DESCRIPTIONS OF FIELD STAFF for EPIDEMIC APPRAISAL

SITE COORDINATOR

The site coordinator is responsible for all field activities taking place in the target sites including all logistic and management supervision, managing human resource, supervision and quality assurance of field work, data collation, data editing and data management.

- Maintain liaison between the field teams, WHO and the National Program
- Planning of all field activities and ensuring logistic and communication support for the field teams.
- Assist the Technical team in developing and training the field team
- Finalizing plans of data collection process.
- To ensure the data collection process according to given protocol and assure the quality of data.
- Conduct regular meetings with the teams to highlight field problems and provide solutions.
- Arrange for social mobilizers, and introduce team members to the various social mobilizers in order to facilitate the field work/interviewing process
- Apply codes/serial number and issue questionnaires in the morning
- Maintain close contact with team members in order to closely monitor and support data collection at each stage including sampling specifications (sampling points, selection of respondents), and interviewing specifications. This is necessary to ensure quality and consistency throughout the data collection process
- Supervision of interviews being conducted on regular basis
- Become a liaison between the data management and data collection team
- Provide regular updates to WHO, NAP and technical team on weekly basis.

DATA MANAGER

- Receive all questionnaires from site coordinator supervisors and maintaining a log of all questionnaires received.
- Hand questionnaires over to data entry operators for entry
- After entry receive all questionnaires from data entry and log them appropriately
- Provide feedback to team supervisor/interviewers based on errors done in forms during data recording.
- Maintain records of error check list
- Record keeping of questionnaires
- Manage data entry process including the software
- Prepare and submit report on the quality of form filling, interview conducted and issues (if any) to Site coordinator on a weekly basis.

INTERVIEWER

- To conduct interviews according to the provided training and guidelines
- To be prepared, and have all the necessary supplies: e.g. questionnaires, guidelines, a pen or pencil, required administrative forms (such as log books which may vary from one setting to another)
- To ensure confidentiality of information, and eliminate any apprehensions and fears from the mind of the study subjects
- Field edit and complete all questionnaires
- To hand over completed questionnaires to the team supervisors after field editing.
- To develop a strong working relationship with the social mobilizers and provide them any field assistance if required.

SOCIAL MOBILIZERS

- Social Mobilizers are members of the peer group
- To facilitate the data collection process, and develop close contact with the community for a successful implementation of the study
- To garner support and cooperation from the community for the mapping study
- Facilitate spot validation process as per the protocol