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FORMATIVE ASSESSMENT OF MOST-AT-RISK POPULATIONS IN SOUTH SUDAN

REPORT OF FINDINGS

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ACRONYMS

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
ART	Anti-retroviral treatment
ARV	Antiretroviral
BBD	Boda boda driver
CBO	Community-based organization
CMMB	Catholic Medical Mission Board
FBO	Faith-based organization
FGD	Focus group discussion
FHI	Family Health International
FSW	Female sex worker
GBV	Gender-based violence
GH Tech	Global Health Technical Assistance Project
GOSS	Government of South Sudan
HIV/AIDS	Human immunodeficiency virus/acquired immune deficiency syndrome
IDI	In-depth interview
KI	Key informant
KII	Key informant interview
MARP	Most-at-risk population
MSM	Men who have sex with men
NGO	Non-governmental organization
PLWHA	People living with HIV/AIDS
SPLA	Sudan People's Liberation Army
STI	Sexually transmitted infection
SW	Sex worker
TD	Truck driver
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
VCT	Voluntary counseling and testing

EXECUTIVE SUMMARY

This formative assessment identifies and describes behavioral and structural factors affecting HIV risk and vulnerability among selected South Sudanese populations that are considered potentially at high risk for contracting HIV: commercial sex workers (SWs), long-distance truck drivers (TDs), boda boda drivers (BBDs), and motorcycle taxi drivers.

While SWs and TDs are generally considered most-at-risk groups, little robust information is actually documented about their specific risk context in South Sudan. The same applies to BBDs, who are recognized as a potentially vulnerable group. This assessment's purpose is to contribute information for the development of interventions to improve human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) prevention, care, and treatment programs among these groups and to inform the development and implementation of the South Sudan Integrated Bio-behavioral Surveillance Survey.

A mixed method approach integrating multiple qualitative techniques was used: 1) secondary data analysis/literature review; 2) social mapping; 3) key informant interviews; 4) in-depth interviews (IDIs); and 5) focus group discussions (FGDs). In all, 132 interviews were conducted and 90 maps collected during the fieldwork, which took place at five assessment sites: Yei, Nimule, Yambio, Kaya, and Juba. Data collection took place over a 3-week period between June 17, 2011, and July 6, 2011.

A purposive sampling strategy was used to select participants for the in-depth interviews (IDIs) and focus group discussions (FGDs). For IDIs, a wide range of participants representing the most-at-risk populations (MARPs) at the assessment sites were interviewed. SW participants came from different countries (Kenya, Uganda, South Sudan, and Congo), spoke different languages, and practiced sex work in different venues (lodges, hotels, clubs, homes, and street). Similarly, the TDs represented people of different nationalities (mostly Kenyan and Ugandan and one South Sudanese) while the BBDs were South Sudanese. Key informants were selected on the basis of their expert knowledge about HIV risk behaviors; services and programs in South Sudan; and policies, laws, and norms affecting MARPs, HIV risk behaviors, and access and use of HIV services.

Interviews were conducted by pairs, with one person acting as interviewer and the other as scribe, writing detailed notes of the interview. Interviews, whenever possible, were conducted in the participants' preferred language to facilitate communication and reduce misunderstandings. Once the data were collected, a grounded theory approach was used in the analysis.

Data reveal a high degree of mobility among the SWs and TDs in South Sudan. SWs and TDs identified their countries of origin as Kenya, Uganda, Congo, and South Sudan. Except for a few Ugandans, the BBDs were all from South Sudan. Nearly all TDs were married, while about half of the BBDs identified themselves as married. On the other hand, a majority of the SWs were either separated or divorced. There were anecdotal references to the existence of male SWs, but their number was reported to be very low and operating in secrecy. During this assessment, none of the male sex workers were reached for interview.

Among the three groups, the SWs were youngest. Their average age was 23 years (range 19-34 years), and the South Sudanese SWs were considerably younger than SWs from other countries (20 years vs. 27.5 years). The average age for BBDs was 25 years (range 19-45 years), while among the TDs the average age was 30 years (range 18-54 years). These age differences between SWs (particularly for the relatively younger South Sudanese) on one

hand and the TDs and BBDs on the other within the context of South Sudan may contribute to a power balance tilted against SWs. The SWs reported cases of gender-based violence (GBV) perpetrated by male clients, which leads to gender-based power differences. These differences further tilt the power balance against the SWs. Cumulatively, the power imbalance puts the SWs at a disadvantage when negotiating for safe sex. It likely is also associated with higher rates of reported GBV. This violence was manifested in various forms, including refusal to pay for sex services, refusal to use a condom, and physical violence against the SWs. The perpetrators of violence were often identified as uniformed officers (the soldiers and the police), and the incidents often involved the use of alcohol. Inability to negotiate for safe sex and gender-based violence are both proximal determinants of risk of HIV infection. To counter this aggression, the women sometimes banded together to protect themselves.

The findings validate the claim that BBDs are a potentially vulnerable group. Their work exposes them to risks they might not otherwise face. They meet young women on a regular basis, some of whom are willing to exchange sex for rides. They have the resources to pay for sex and admit to frequently visiting SWs, a claim validated by the SWs in this study. A high number of SWs are having unprotected sex at least some of the time with clients and frequently (if not always) with personal partners, whom they trust are being faithful. Similarly, the TDs reported engaging in multiple sexual relations with (casual) partners, who are sometimes located along the routes they operate. Peer pressure and alcohol consumption were identified as factors driving TDs toward high-risk behaviors.

Among SWs in South Sudan, economics plays a role in choosing to practice unprotected sex with clients, with poorer women and those with children said to be more likely to sell sex without condoms. In addition, those with children were likely to sell sex for less compared with those who did not have any children to support.

With the exception of one commonly cited misconception – that mosquitoes transmit HIV – knowledge about modes of HIV transmission and types of high-risk behavior is high among TDs, BBDs, and SWs; however, other worries/beliefs mitigate the fear of HIV acquisition/transmission. Among BBDs, these worries/beliefs include fatalism, availability (or lack) of antiretrovirals (ARVs), road accidents, robbery, and insufficient earnings. SWs' need for money, competition for clients, and the pressure to support their children take precedence over their concern about contracting HIV and explain why they are willing to have unprotected sex with clients. Mother-to-child transmission was less likely to be mentioned by any of the groups.

On a scale of high, moderate, or low, *self-perception of HIV/AIDS risk* among BBDs is low to moderate. In contrast, many SWs and TDs were aware that they were potentially at high risk for HIV if they engaged in unprotected sex. A few SWs and TDs thought they were not at risk because they were married or had a partner to whom they were faithful – even though they were still selling/buying sex. *Risky behavior* by BBDs, SWs, and TDs is high. Most of the respondents for all three study populations reported engaging in one or more of the most commonly cited high-risk behaviors. The two most commonly cited risk behaviors were unprotected sex and multiple sexual partners.

SWs, BBDs, and TDs reported condom breakage as a risk for acquisition of HIV. Incorrect condom usage and expired condoms were mentioned by BBDs as possible explanations for the frequent breakage, whereas SWs cited forced or rough sex and the small size of the condoms. Some SWs also reported use of two condoms at once, which might also contribute to condom breakage. The breakages have led to mistrust of condoms among the TDs. In addition, heavy alcohol consumption by male clients and a few SWs inhibits condom use and encourages acts of violence.

There is a general lack of *knowledge on policies* guiding the implementation of HIV-related services in South Sudan. Frequently, the MARPs interviewed were not aware or were misinformed about available services, and there was even unfounded fear of possible deportation in case of a positive test result. Such fears hinder the utilization of HIV services and drive people away from seeking health care services, including counseling, testing, and treatment. The SWs frequently reported getting their ARVs from Uganda. For their part, the TDs generally were not aware of HIV services available within South Sudan. Key informants reported that the HIV-related services are not specific to MARPs. These services are provided as part of HIV programs targeting the general population, so the specific and special needs of MARPs are not consistently addressed.

On a scale of good, mixed, or poor, BBDs appear to have a good level of knowledge about both the *types and location of local HIV services*. Although additional data are necessary to determine the accuracy of this information, one would expect BBDs to be more knowledgeable than the average individual about service locations, given their mobility and the information they gather during their work. In comparison, SWs tended to have a mixed level of knowledge of HIV services, with some knowing where to access local services and many others unaware. The TDs were least likely to identify a place where HIV-related services are located or obtained within South Sudan, which could be explained by the fact that they were not local.

There are gaps in knowledge among the various MARPs in South Sudan regarding the type of services available and where those services might be obtained. These gaps in knowledge should be addressed, as increase in the use of services will depend on the level of information available to the MARPs, as well as a perception that the services will meet their particular needs and be offered in a nonjudgmental way. Interviewees frequently requested more information about HIV and HIV-related services within their locations.

There is a need to target the TDs more specifically. Of the three groups targeted in this assessment, the TDs were the least knowledgeable of the services available as well as their locations. Policies, and outreach and messaging should specifically target this highly transient group as a way of reducing transmission of HIV in South Sudan.

The high rate of reported GBV calls for programs to address this specific aspect of risk. In order to reduce the risk of infection as a result of partner violence, programs aimed at empowering women should be put in place. At the same time, those programs should also focus on educating men, who are the perpetrators of violence. This double-pronged approach will reduce the risk of being violated as well as the likelihood of being a perpetrator of violence. As part of empowering the SWs, the women pointed to their need for support to start earning alternative sources of income.

There is demand for counseling and testing services among the three groups, as well as the need for distribution of condoms in places where these groups operate. The supply and pricing of the condoms will have to be carefully weighed in order to encourage demand and sustain use among these three groups. Currently there is no consistent supply of HIV-related services to these groups apart from services already in place for the general populations.

Recommendations: The findings from this assessment indicate that a number of pertinent issues should be addressed in order to provide more effective services to MARPs in South Sudan. Clearly, there is need for accurate information to reach the MARPs to increase their level of trust in local HIV counseling and testing systems. Delivery of culturally appropriate information using various media could be highly effective in reaching these groups. The information provided should address topics relating to the transmission of HIV, prevention and treatment, and support.

As evidenced in BBD responses, the definition of “fidelity” in relationships may vary from individual to individual (e.g., a man may be married *and* faithful if he does not have more than two girlfriends). A few SWs thought they were at low risk because their male (nonclient) partners were faithful. Interventions that include “be faithful” components must address this issue of the risks around “trusted partners.”

GBV against female SWs is rampant and is strongly associated with risky sex. Steps should be taken to change attitudes and norms around GBV, especially among South Sudanese soldiers, and link survivors of violence to comprehensive services. The emergence of loosely organized groups of SWs who are protecting each other from GBV may serve as an entry point for HIV prevention services and referrals to care and support services. It is an opportunity that should be investigated more thoroughly.

Though very little information about men who have sex with men (MSM) workers was collected, there is evidence to suggest they do exist and are deeply hidden due to stigma and fear. More research will be needed to assess the size of this population, their risks and their clients’ risks for HIV infection, and their knowledge of modes of HIV transmission.

While some SW are accessing HIV services in South Sudan, many, especially HIV-infected SWs, are seeking services in their home countries, mostly due to lack of HIV treatment and care services in South Sudan. This situation could have serious implications for adherence and the continuum of care. Bringing HIV services to SWs where they practice and addressing SWs’ fears about possible victimization would improve access to and use of HIV-related prevention, care and support, and treatment services.

Prevention, care and support, and treatment intervention programs for BBDs should be established to provide HIV services tailored to and focused on this group. Our data validate the claim that BBDs are a vulnerable group in South Sudan. They have access to potential multiple sexual partners, many of whom are willing to exchange sex for free rides. They also have regular access to disposable income, and they consider paying for sex less expensive than maintaining a steady sexual partner.

Finally, HIV-related services specially designed to focus on MARPs are needed. The services will tailor programs that cater to the unmet needs of these groups as opposed to services provided through outlets for the general public. The unmet needs include establishment of programs addressing GBV, mobile counseling and testing services, and access to information relating to HIV infection prevention and treatment.

I. INTRODUCTION

South Sudan comprises an estimated area of 640,000 square kilometers divided into 10 states, 80 counties, and 514 *payams* or districts. The country gained its independence on July 9, 2011, after more than 20 years of civil conflict that caused 2 million deaths and the displacement of millions. The result was massive social, economic, and political upheaval and the further disintegration of already fragile systems of health care, education, and water and sanitation.¹ South Sudan faces a host of major development challenges, including sustaining peace and stability; governance and human resource development; provision of education; water and sanitation; and health, including human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). The South Sudan Household Survey,² conducted in 2010, found consistently poor health outcomes: low average life expectancy (59 years); high infant mortality (10% for children under 5 years); poor child nutritional status; and low rates of immunization. At the same time, the birth rate is high – women have an average of seven children and only 1.4% use a modern form of contraception. Literacy is also low. South Sudan has the second lowest literacy rate in the world (27%), with 35.4% of men and only 14% of women able to read and write.

HIV/AIDS IN SOUTH SUDAN

The current shortage of epidemiological and behavioral data on HIV in South Sudan makes it difficult to obtain a clear picture of the state of the epidemic. Administrative structures have been established to facilitate systematic data collection, processing, and reporting. Despite the lack of national data, however, it is possible to create a general description of HIV transmission patterns on the basis of smaller and more specific population samples. The discussion below is derived from recent surveillance surveys conducted in South Sudan and epidemiological data from other African countries.

HIV transmission patterns in South Sudan more closely resemble those found in Sub-Saharan Africa than those in the Middle East and North Africa, where HIV is typically concentrated among people who inject drugs (IDUs), men who have sex with men (MSM), and sex workers (SWs) and their clients. As of 2009, HIV prevalence among pregnant women exceeded 3%, representing a generalized epidemic similar to early stages of the HIV epidemic in sub-Saharan Africa.³ In comparison with other East African countries, the 3% prevalence rate is relatively low. It has been speculated that years of armed conflict, massive exodus of people out of the region, and isolation due to disruptions in trade and transportation had the unexpected benefit of hindering the spread of HIV from its neighbors with higher rates of HIV, such as Kenya (6.3%) and Uganda (6.5%). However, now that the conflict has ceased and refugees are returning to South Sudan from countries with higher HIV prevalence, there is concern that HIV rates will rise. In combination with pervasive poverty, low levels of education, and poor medical infrastructure, an increase in HIV prevalence seems almost inevitable.

While overall HIV prevalence in South Sudan is estimated at 3%, this varies considerably by region. Gelmon, in his 2011 situational analysis of HIV in South Sudan,⁴ reported prevalence

¹ Southern Sudan HIV/AIDS Policy (2008) GOSS.

² Gelmon, L. HIV Epidemiological and Response Situation Analysis for South Sudan (draft document) Feb. 2011.

³ United Nations Development Programme Report, 2009.

⁴ Gelmon, L. HIV Epidemiological and Response Situation Analysis for Southern Sudan (draft document) Feb. 2011.

ranging from 0% at Awiel in Northern Bahr el Ghazal to 15.5% at Yambio in Western Equatoria. As would be expected, the rates of HIV are highest in Juba and in the southern border states near Uganda, Kenya, and the Democratic Republic of Congo, and lowest in the north and west of the country.⁵ A recent study at Nimule, a town in Eastern Equatoria bordering Uganda, showed a higher prevalence of HIV (7.2%) than the South Sudanese national average.⁶ The higher incidence of HIV in Nimule may be due to its status as a border crossing and major truck stop along the Kampala-Juba highway, where transactional sex between long-distance truck drivers (TDs) and SWs and high rates of sexually transmitted infections (STIs) are common.⁷ Gelmon also reported variations in HIV rates among sites that are geographically close, suggesting concentrated epidemics among most-at-risk populations (MARPs) such as SWs and TDs, existing within a generalized epidemic, a pattern common in other East African countries.

HIV RISK, BEHAVIORS, KNOWLEDGE, ATTITUDES, AND PRACTICES

A number of behavioral and social factors may contribute to the spread of HIV in South Sudan. According to Gelmon, the high rates of STIs among both men and women could facilitate the transmission of HIV.⁸ A 2010 surveillance survey of the Sudan People's Liberation Army (SPLA) found a 19% infection rate among SPLA personnel.⁹ Syphilis prevalence among antenatal care (ANC) clients was also relatively high, with an average of 9.9% of pregnant women testing positive. Rates of infection ranged from 4.7% in Northern Bahr al Ghazal to more than 13% in Western Equatoria.¹⁰

While an elevated rate of STI does not always indicate high HIV prevalence, it does suggest that people are engaging in risky behaviors, such as unprotected sex, sex with multiple partners, and/or sex with partners with multiple sex partners, all of which increase their chances of becoming infected. Several recent studies on HIV risk produced similar findings of risky behaviors, including low condom use. Among SPLA personnel, only 44% had ever used condoms and, of those, only 50% had used a condom in the last year.¹¹ Another study showed that 39% of male respondents in Juba who had more than one sex partner in the last year used a condom in their last sexual encounter.¹² The 2010 Household Health Survey also found low levels of condom use¹³; early sexual debut (50% of youth reported having first sex before the age of 16 years)¹⁴; and multiple sex partners.¹⁵ These last two practices are heavily influenced by traditional beliefs and traditions of polygamy and early marriage of girls. The mean age of marriage for girls is 16 years, and 40% of women are in polygamous marriages. The same survey showed that 75% of men surveyed have more than one wife. Twenty-seven percent of men said they had sex with more than one partner in the last year, with almost 50%

⁵ Ibid.

⁶ Sudan HIV and AIDS Program Situational Analysis Report, Eastern Equatoria State, (Nimule Border Town) SHAP, 2011.

⁷ Ibid.

⁸ Gelmon, L. HIV Epidemiological and Response Situation Analysis for South Sudan (draft document) Feb. 2011.

⁹ Chen, H. SPLA 2010 HIV seroprevalence behavioral survey. U.S. Department of Defense, 2011.

¹⁰ Government of South Sudan (GOSS). South Sudan Antenatal Care Clinics Sentinel Surveillance Report, Sept-Dec. 2009.

¹¹ Ibid.

¹² South Sudan HIV/AIDS Integrated Report (2006-2007) GOSS-UNGASS. Jan. 2008.

¹³ Summary Findings of the South Sudan Household Survey, 2010. South Sudan Commission for Census, Statistics and Evaluation and MOH. April 2011.

¹⁴ Ibid.

¹⁵ Ibid.

of these men reporting three or more partners.¹⁶ While polygamy alone is not a high-risk behavior, there is some evidence that polygamy, at least for women, can increase risk for STIs, including HIV.¹⁷ Along with high-risk behaviors, other structural and attitudinal factors may also add to the dynamics of HIV risk in South Sudan. Although most South Sudanese have heard of HIV, few have even a basic understanding of its transmission and prevention. Only 36% of women could name the main ways to prevent HIV transmission.¹⁸ Knowledge rates were reported as low as 8.9%.¹⁹ Along with low knowledge of HIV, misconceptions such as witchcraft causing HIV and the transmission of the virus by mosquitoes were commonly expressed by respondents.²⁰

MOST-AT-RISK POPULATIONS

This assessment focuses on three groups: SWs, TDs, and BBDs. Currently very little research exists about these groups in South Sudan, although inferences can be made about them from studies of similar MARP groups in neighboring countries. For BBDs, however, there is almost no information, except for one study conducted in Kampala, which will be discussed below. There is substantially more information about HIV risk and prevalence among SWs and TDs; however, almost all of these studies have been done in other East African countries, and while it can be expected that many of the same behavioral and attitudinal characteristics are shared between South Sudanese SWs and their East African counterparts, there could be differences related to the South Sudanese context of risk that should be identified and documented.

LONG-DISTANCE TRUCK DRIVERS

Currently, much attention is being focused on HIV risk and prevalence among long distance TDs and their assistants, known as turn boys. TDs have been linked to the spread of HIV throughout East Africa since the earliest days of the epidemic. Studies mapping the incidence of HIV show concentrations along roads heavily trafficked by commercial vehicles, particularly the network of large interstate highways crosscutting East, South, and Central Africa. As commerce and trade continue to increase in South Sudan and barriers hindering the transport of goods across borders diminish, concern about the spread of HIV along these corridors has increased. This network of highways, however, links South Sudan, with a relatively low HIV prevalence, to a region that has the second highest prevalence of HIV in the world.²¹ HIV risk among TDs is of particular concern because they travel frequently from areas of high HIV and are away from home for long periods, during which they have sex with multiple partners, including SWs.²² Infected TDs and their assistants have also been linked with the spread of the virus to their regular partners in their home communities.²³ One study on TDs conducted along the Kampala-Juba transport route found that TDs, and the SWs who service them, are at particularly high risk for HIV due to the lack of HIV services, especially prevention and

¹⁶ Gelmon, 2011.

¹⁷ South Sudan Household Survey 2011.

¹⁸ Sudan Household Survey (SHHS) Report. 2006, in Gelmon, 2011.

¹⁹ Ibid.

²⁰ South Sudan Household Survey, 2011.

²¹ IOM/UNAIDS. Long-distance Truck Drivers' Perceptions and Behaviors Towards STI/HIV/TB and Existing Health Services in Selected Truck Stops of the Great Lakes Region: A Situation Assessment. Final Report April, 2006. IOM/UNAIDS.

²² Ibid.

²³ Ibid.

counseling and testing; sex with multiple partners; low condom use; and high levels of STIs.²⁴ One recent behavioral monitoring study conducted in Juba, Rumbek, and Morobo in 2008 and 2009 found that slightly more than 37% of TDs had had sex with multiple paid partners in the previous six months and had little knowledge about HIV: 36% were familiar with ABC²⁵ methods of HIV prevention, but only 3% had comprehensive knowledge of HIV. Truckers knew little about STIs, with only 3% able to name three STI symptoms. Despite their elevated risk, only 26% had been tested for HIV.²⁶

FEMALE COMMERCIAL SEX WORKERS

Commercial sex work is common in South Sudan and is practiced in both rural and urban areas throughout the country. It is especially concentrated in border towns, larger cities such as Juba, and at truck stops along the Kampala-Juba transport corridor. One study estimates the number of SWs in Juba to be between 2,000 and 2,800, with 400, or between 15% and 20%, underage.²⁷ According to this study, almost all underage SWs in Juba are South Sudanese. Though SW risk behaviors have been well studied and understood globally, few studies have investigated the dynamics of HIV risk among SWs in South Sudan. Several political and historical factors unique to the South Sudanese context may have shaped the epidemiological profile of the epidemic in ways that differ from other East African countries. For example, the decades of war and the massive movement of refugees back and forth across the border may have facilitated the spread of the virus to areas of low HIV prevalence. Deep poverty and the disintegration of traditional family and social structures may have encouraged the practice of “survival sex” among South Sudanese women and girls. According to Gelmon, one study on South Sudanese SWs found that two-thirds of the respondents in Juba were either divorced, single, or widowed, and that most were the primary breadwinners in their families.²⁸ Only 25% reported using condoms with clients because they feared that insisting on condom use would result in the loss of customers.²⁹

Not all SWs in South Sudan are local citizens. In fact, one study found that the majority of SWs came from Uganda, Kenya, Ethiopia, and Eritrea.^{30,31} One not yet published case study of sex work in South Sudan paints a dark picture of sexual exploitation and abuse among young SWs, some as young as 13 to 15 years, who are prone to alcohol abuse and often are victims of sexual violence. The author estimates that 2,000 SWs currently sell sex in the city of Juba, mostly from lodges and brothels located in markets and near large truck stops. The report gives a vivid, detailed account of how poverty, conflict, and disease intertwine to create an environment that encourages the spread of HIV.

In South Sudan, gender-based violence (GBV) is common and widespread. The ROADS II Behavioral Monitoring Survey for MARPs in South Sudan found that 37% of female respondents

²⁴ Ibid.

²⁵ Abstinence, be faithful, use a condom.

²⁶ Kitungulu, B., Tegang, S.P. et al. Behavioral Monitoring Survey for HIV/STI/RH/FP Malaria and GBV in Juba, Morobo, and Rumbek, Southern Sudan 2009: Family Health International.

²⁷ Groenendijk, C. “Behind the Papyrus and Mabati”: Sexual Exploitation and Abuse in Juba, South Sudan An action research, carried out in 2010. Unpublished report, May 2011.

²⁸ Gelmon, 2011.

²⁹ Ibid.

³⁰ Ibid.

³¹ Groenendijk, C. “Behind the Papyrus and Mabati”: Sexual Exploitation and Abuse in Juba, South Sudan An action research, carried out in 2010. Unpublished report, May 2011.

in Juba and Morobo reported experiencing at least one form of GBV.³² Another study found that 51% of women had experienced GBV, including physical (40%) and sexual (20%) abuse.³³ These relatively high rates of GBV in South Sudan may be related to cultural beliefs and norms that sanction and reinforce gender inequality. One study found that more than half of both male and female survey participants agree that men were justified in beating their wives if they argue or refuse to have sex with their husbands.³⁴ GBV in the form of rape, physical abuse, and sexual exploitation is also strongly associated with sex work in South Sudan, both as a “driver of prostitution”³⁵ and as an occupational hazard. Groenendijk, in her study of SWs in Juba, found that almost all of the women she interviewed had been subjected to sexual assault, and many had past histories of sexual abuse that began before they started selling sex.³⁶

BODA BODA DRIVERS

Motorcycle taxi drivers are ubiquitous in sub-Saharan Africa. As in most other places, South Sudan’s version of motorcycle taxi operators, called boda boda drivers, are mostly young, active males who share a set of high-risk behaviors, including multiple sex partners, low condom use, and low levels of knowledge about HIV and STIs that clearly identify them as a most-at-risk population. Despite their large numbers, few studies (none in South Sudan) have investigated these factors that put BBDs at risk for contracting HIV. One study conducted in Kampala showed that 10% bought sex from a sex worker in the last 6 months, and of those, 78% bought sex at least twice. Only 33% used a condom at last sex. HIV prevalence among this group of BBDs was 7.5%, with BBDs 25 years of age and older having significantly higher rates (10.9%) than those under 25 years (3%).³⁷

³² ROADS II Behavioral Monitoring Survey for MARPs in South-Sudan Juba, Rumbek and Morobo 2008–2009 Family Health International.

³³ Kitugulu et al. 2009.

³⁴ Summary Findings from the Southern Sudan Household Survey, 2010. South Sudan MOH, April 2011.

³⁵ Groenendijk, 2010.

³⁶ Ibid.

³⁷ The Crane Report: High-risk group surveys conducted in 2008/2009, Kampala, Uganda. 2010. CDC, Makerere University School of Public Health, Uganda Ministry of Health.

II. THE ASSESSMENT

The primary objective of this formative assessment is to identify and describe behavioral and structural factors affecting HIV risk and vulnerability among selected populations considered at high risk for contracting HIV. Its purpose is to contribute information for the development of interventions to improve HIV/AIDS prevention, care, and treatment programs for MARPs in South Sudan and to inform the development and implementation of the upcoming South Sudan Integrated Bio-behavioral Surveillance Survey. Using a rapid assessment approach that employs an “integrated suite” of qualitative research methods, the assessment seeks to increase understanding of the dynamics and context of HIV risk and vulnerability among MARPs as well as to ascertain the current status of HIV services, policies, and other resources, or lack thereof, for these at-risk groups. The assessment was carried out over 3 months, including approximately 5 weeks of fieldwork in country.

The assessment’s specific objectives are as follows:

1. Describe the geographical, sociodemographic, and subgroup characteristics of HIV risk among MARPs, including commercial sex workers, boda boda drivers, long-distance truck drivers, and motorcycle taxi drivers in five sites of South Sudan (Yei, Nimule, Kaya, Juba, and Yambio)
2. Identify and explain the extent and nature of HIV risk behaviors in MARPs
3. Determine the types of programs and services currently in place, their level of use by MARPs, and their effects on HIV risk behaviors in MARPs
4. Ascertain the unmet HIV-related service needs of the MARPs for development of evidence-guided policies, programs, and interventions

The assessment’s purpose is to contribute information for the development of interventions to improve HIV/AIDS prevention, care, and treatment programs among these groups and to inform the development and implementation of the upcoming South Sudan Integrated Bio-behavioral Surveillance Survey.

A participatory rapid assessment approach was employed in which the assessment team worked collaboratively with community stakeholders, implementers, the South Sudan Ministry of Health, funders, and other partners to develop and review data collection instruments, identify and recruit interview participants, review and interpret findings, and participate in the dissemination of findings. This approach ensured wide participation to increase the validity of results as well as to assure the integration and use of findings into HIV programs to reach and serve MARPs.

STUDY POPULATIONS AND SAMPLING STRATEGY

The study populations constituted two distinct groups: 1) those recruited from the three most-at-risk populations, and 2) key informants, or individuals with expert knowledge about an aspect of the study.

A purposive, nonrandom sampling strategy was used to select MARP participants for in-depth interviews (IDIs) and focus group discussions (FGDs). Purposive sampling was justified since time constraints limited the number of interviews that could be conducted and analyzed during the assessment. Participants were selected based on their availability, openness, and ability to give clear and articulate responses to interview questions. While nonrandom sampling has its drawbacks, the benefit is that the team was able to obtain a large amount of detailed information about HIV risk behaviors, attitudes, and knowledge in a short time.

MARP participants were recruited from the geographic locations where the study took place: Yei, Nimule, Yambio, Kaya, and Juba. When recruiting interview participants, the assessment team developed sampling frames based on information gleaned from key informant interviews conducted at the start of the assessment. Participants represented the full range of variation within a particular risk group. For example, SW participants represented all relevant categories of commercial sex work (i.e., brothel-based, lodge-based, street-based, home-based) and transactional, came from different countries (Kenya, Uganda, South Sudan, Congo), and spoke different languages.

Key informants were selected based on their expert knowledge about HIV risk behaviors; services and programs in South Sudan; and policies, laws, and norms affecting MARPs, HIV risk behaviors, and access to and use of HIV services. Those interviewed included officials of the Ministry of Health, County AIDS Coordinators, and HIV/AIDS program managers.

METHODS, DATA COLLECTION, AND DATA ANALYSIS

A mixed method approach integrating multiple qualitative techniques was used for the assessment: 1) secondary data analysis/literature review; 2) mapping; 3) key informant interviews (KIIs); 4) IDIs; and 5) FGDs. Information from the literature, presented in the introduction, was also used to inform the development of IDIs, FGD guides, and KII checklists. All together, the assessment team conducted 132 interviews (89 IDIs, 21 FGDs, and 22 KIIs) and collected 90 maps during the field work, which took place at the five study sites between June 17, 2011, and July 6, 2011 (see Table 1).

A total of 89 IDIs were conducted by teams of two—an interviewer and a scribe—using semi-structured interview guides (see appendices B through E). Each interview lasted 1½ hours. Interviews were conducted whenever possible in the participants’ preferred language to facilitate communication and reduce misunderstandings. During the interview, the scribe took detailed notes, which afterward were summarized and typed into electronic text files on MS Word. At the beginning of each interview, participants took part in a mapping exercise in which they were asked to pinpoint on a map “hot spots,” or locations where high-risk activity takes place (e.g., truck stops, markets), and places they knew where HIV services could be accessed.

Table 1: MARP Assessment Interviews³⁸

	Yei	Nimule	Yambio	Kaya	Juba	Total
In-depth interviews						
SW	11	6	7	7	11	42
TD		6		8	7	21
BBD	10		5		11	26
Sub-Total: 89						
Focus Group Discussions						
SW	2	2	2	2	1	9
TD		2		2	2	6
BBD	2		2		2	6
Sub-Total: 21						
Key Informant Interviews						
	6	3	4	6	3	22
Sub-Total: 22						
Total: 132						

³⁸ Truck drivers were not interviewed in Yei and Yambio because the drivers were found either in Kaya, or Nimule and Juba. The drivers pass through these towns into other towns of the Western, Eastern, Central, and Eastern Equatoria. In addition, the boda boda drivers were not interviewed in Nimule and Kaya (both border towns) in order to allow for a focus on the south.

Twenty-one FGDs were carried out at the five sites by teams of three, including a facilitator and two scribes who took detailed notes of the conversation. The purpose of the FGDs was to gather information about group norms related to HIV attitudes and behaviors. For example, in FGDs with BBDs, participants were asked to talk about the various behaviors and partners that could potentially put them at risk for HIV. When paired with semi-structured IDIs, which reveal individual perceptions, actions, and beliefs, these two data sources can provide different yet complementary perspectives. Each FGD, which lasted about 1½ hours, consisted of six to eight participants selected with the help of local key informants. Mapping was also done during the sessions, and participants worked together to create a single map of hot spots and HIV service locations.

Prior to data collection, the interview team was trained for a week in the skills they would need for this type of study.³⁹ The training focused on the specific methodology that was going to be used in data collection. The interview team learned how to organize and conduct focus group discussions, conduct in-depth and key informant interviews, and obtain social maps. They were also trained on research ethics.

Field teams also conducted 22 KIIs. The format was the same as for IDIs except that, before the interview, teams created individual checklists of topics to cover during the session that reflected the key informant's specific area of expertise. Typically, KIIs were shorter than IDIs and FGDs, lasting between 20 and 40 minutes.

Data collection took place over a 3-week period between June 17 and July 6, 2011, at the five study sites. Once the data were collected and electronic files created, the field team coded the data into Excel spreadsheets. This process, which took place in Juba from July 23 to August 4, 2011, facilitated the further synthesis and comparison of responses. Maps constructed during the interview process were digitally photographed and saved as JPEG files. Data from the maps, including HIV service delivery sites and hot spots, were identified, cross-referenced, and consolidated into a set of five master maps, or one map per study site. Map narratives collected during the interviews were entered into Word files and analyzed in the same manner as interview summaries.

³⁹ At the request of the Ministry of Health, a pool of 19 interviewers was trained, out of whom we selected the 10 who conducted the interviews.

III. STUDY FINDINGS

This section presents findings of the assessment of the most-at-risk groups, namely sex workers, boda boda drivers, and long-distance truck drivers in South Sudan. The research team analyzed the text data and coded the interviews and FGDs from which these findings are drawn.

The findings have been grouped by risk population and are presented using the four specific objectives as a guide:

Objective 1. Describe the geographical, sociodemographic, and subgroup characteristics of HIV risk among MARPs

Objective 2. Identify and explain the extent and nature of HIV risk behaviors in MARPs

Objective 3. Determine the types of programs and services currently in place, their level of use by MARPs, and their effects on HIV risk behaviors in MARPs

Objective 4. Ascertain the unmet HIV needs of the MARPs for development of evidence-guided policies, programs, and interventions

SEX WORKERS

Description of Sex Workers

All together, 42 female SWs participated in IDIs. Respondents who named their countries of origin were Sudanese, Ugandans, Kenyans, and Congolese; eight women declined to name their home countries. Ages ranged from 19 to 34 years, with an average age of 23 years. The Sudanese SWs were considerably younger than their non-Sudanese counterparts (20 vs. 27.5 years). Among those who provided information on their marital status, a majority said they were separated or divorced (15), while 10 were single, 3 widowed, and 2 married. Most report having four to seven clients per night; a few said they had two to three clients on average per night. Weekly incomes ranged widely, from 15 to 400 SDGs (~\$5-\$135), depending on whether the SW worked full or part time.⁴⁰ The length of time in sex work varied from 2 weeks to 5 years. Most women (23) reported having children; 9 women reported having none.

Overall, the majority of the SWs' clients were local Sudanese men. Local clients came from a variety of backgrounds and professions, including BBDs, soldiers, police, immigration officers, and other government officials. SWs in Yambio and Juba also reported serving clients from other parts of East Africa and Ethiopia. In Nimule and Yei, many clients were TDs from Kenya, Uganda, and Congo.

Only SWs in Juba reported knowing about male sex workers in Juba. One participant said that because the practice was highly stigmatized, the one male sex worker operated out of his home and had his male clients come to him, while another had relocated from Juba.

⁴⁰ 1 USD was approximately 2.95 SDG at the time of the assessment.

Knowledge of Modes of HIV Transmission

SW informants were asked to identify risky behaviors that make people more likely to get infected with HIV. Overall, the level and accuracy of SW knowledge about HIV was mixed. The most commonly mentioned mode of transmission was sex without a condom (unprotected sex); however, informants also identified exposure to infected blood by sharing razor blades, using contaminated syringes, and exposure to wounds of HIV-infected people as possible ways to become infected with HIV. Other modes of transmission mentioned were vertical transmission (from mother to child), multiple sex partners, unfaithfulness, and breaking condoms. A few even mentioned the relationship between substance abuse and risky sex. This was aptly summarized by one of the sex workers in Juba, who said,

One can get infected through many different ways: Sex without using protection, using drugs to an extent you do not know yourself, taking too much alcohol can lead to unsafe sex, one can get infection as a result of sharing injections, and one can also get infected from cuts. (IDI SW#11, 34 yrs, Kenyan, Juba.)

While a 20-year-old SW in Yambio reported that having multiple sexual partners could lead to infection, she also reported that women in the area preferred sex without condoms so as to conceive children and enjoy sex better.

I could say having many sexual partners like one woman have four to five men they are sleeping with. Men and even women in Yambio like having sex without condom, they say they want to have children and feel each other well during sexual intercourse. (IDI SW#4, 20 yrs, South Sudanese, Yambio.)

SWs also expressed misconceptions about HIV, citing transmission through mosquito bites and kissing. One said that a SW could be protected from getting HIV if her blood was “incompatible” with her partner’s blood. Another said that a mother could be infected by her HIV-infected infant through breast feeding. Below are two examples of erroneous beliefs obtained from IDIs with SWs in two locations: Kaya and Yei.

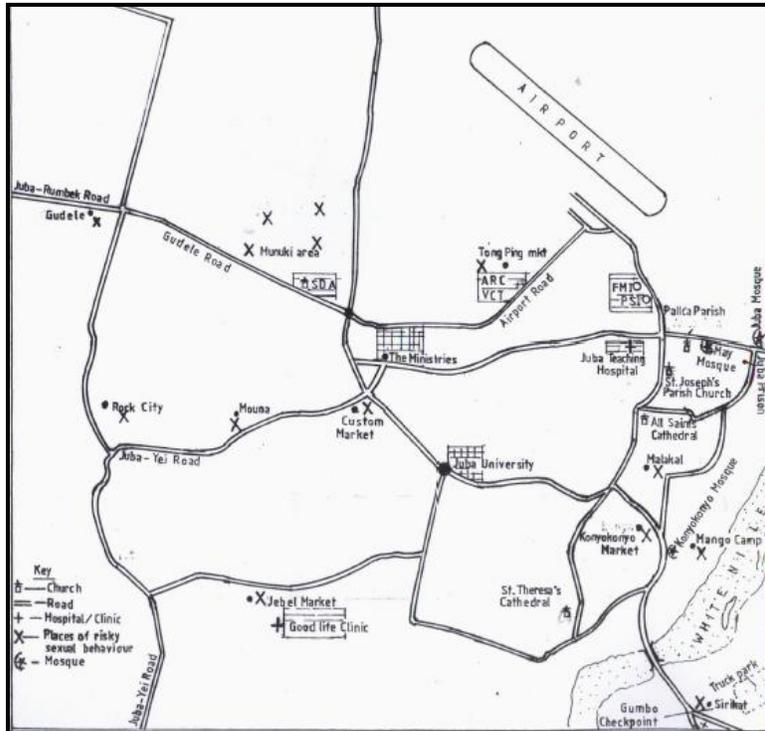
Yes, mosquito can infect, when you get into the room where you don’t have [a] mosquito net, especially we who live in the lodges. If the mosquito [bites] somebody who is affected and [bites] you, you will be infected. (IDI SW#3, 28 yrs, Ugandan, Kaya.)

Mosquitoes can transmit malaria. What I know is when hot blood is mixed with another blood, it can infect, but if the blood stays outside the body for some time, the virus will die. But in case of a mosquito I don’t know. Also, sharing of sharp objects can make people to get infected. (IDI SW#7, 28 yrs, Ugandan, Yei.)

Knowledge of Location/Types of HIV/AIDS Services

Respondents were asked to identify the location and types of HIV/AIDS services available in the local area, as well as how they found out about the services. Most SWs knew of HIV services in their area, but of those women, about half had only general, vague, and/or incomplete information about the services, while the other half said they had received HIV services at the local HIV service site. Yambio was an exception in that five out of seven SWs interviewed said that antiretroviral treatment (ART) and testing could be obtained at Yambio hospital and that free condoms were available at the Catholic Medical Mission Board (CMMB) clinic. Other organizations providing HIV services that were mentioned by participants were Merlin, UNICEF, and South Sudan Women Effort to Fight HIV/AIDS (SWEFA).

Social Map I: Juba

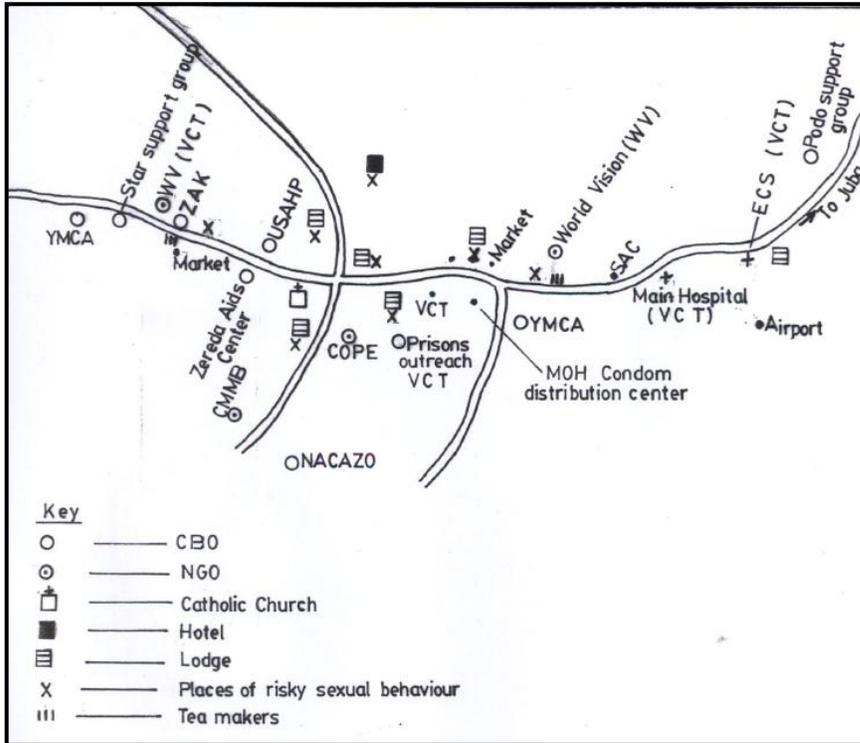


These places are indicated on the social maps⁴¹ (1-5) generated through interviews with SWs, BBDs, TDs, and key informants.

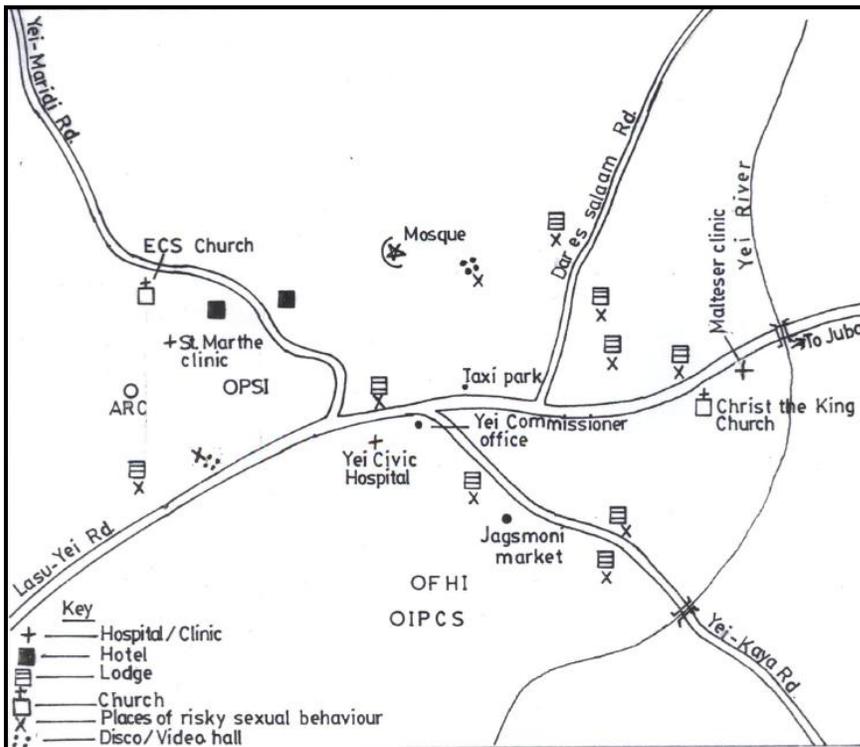
Participants learned about available HIV services on the radio (Nimule), through friends (Kaya, Nimule), through the antenatal clinic (Kaya), and by visiting the hospital for non-HIV services (Yambio).

⁴¹ The social maps have been compiled from a total of 90 maps generated by informants at the five locations.

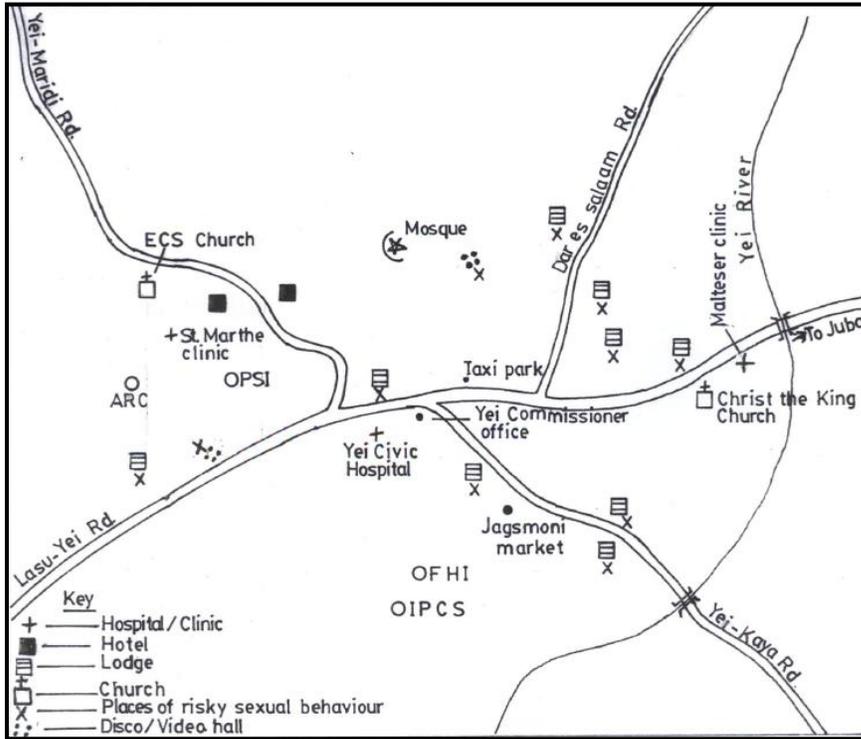
Social Map 2: Yambio



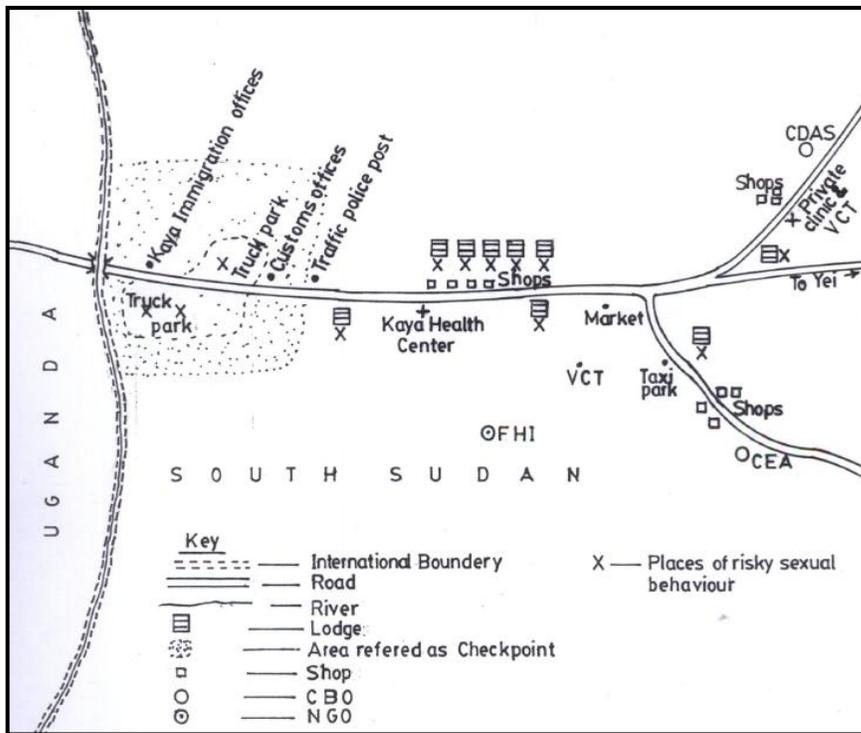
Social Map 3: Nimule



Social Map 4: Yei



Social Map 5: Kaya



Locations Where Risky Sex Takes Place

SWs reported working in a wide range of venues, including lodges, hotels, rented houses, video halls and discos, border checkpoints, and truck parks. A few women reported working from the streets in Juba and Kaya, although respondents said they were not aware of street sex work in Yei and Nimule. These locations are indicated in the social maps generated by the participants in the in-depth interviews and in the focus group discussions (Social Maps 1-5).

Lodges are often found within markets, and near truck parks and border crossings. They can range in size from a few “houses,” or rooms that SWs rent and work from, to several hundred rooms (for example, in Customs in Juba, which was recently shut down). A typical lodge has one common entrance with a series of small rooms (about 10 in all) slightly bigger than the size of a single bed. These rooms have no windows, dirt floors, and doors consisting of curtains drawn across the entrance. Each of these small rooms is occupied by one SW who pays a daily rent to the owner of the lodge.

SWs from the same country and/or ethnic group tend to live and work together in the same lodges (e.g., in Juba). Ethnicity and class are linked in that Kenyan SWs are considered higher class than Ugandans and so can charge more for sex; Congolese and Sudanese are regarded as lower class and therefore earn less. As one SW put it,

...most of us [at this lodge] are Ugandans and from northern Uganda and few Congolese, but Kenyans usually stay in an isolated area from the rest of us. (IDI SW#6, 20 yrs, Ugandan, Juba.)

In Nimule, an informant reported these perceived class differences more succinctly. She identified places where certain groups of women are likely to be found and the type of clients who are likely to visit such places. For example, in lodges where Kenyans reside, the clients are more likely to be wealthy. This view is captured below⁴²:

In ___ [name of bar], where you find only Kenyans and it is only the rich men who go there, the men from Ethiopia, Kenyan and some Ugandan. They [the Kenyan sex workers] don't like Sudanese men unless you have a lot of money because they take themselves as being of high class. There is ___ [a second bar], here there are only Langi and Acholi from Uganda. Every man goes here and they are not expensive. You can pay 10 or even five (5) Sudanese Pounds and you get a “shot.” But ours [the bar the informant operates from] here has no name, but the customers know that we are here. (IDI, SW#2, 25 yrs, Ugandan, Nimule.)

SWs are also found at discos and bars with dance floors, where they solicit clients. Once they have agreed with a client, they take them elsewhere (lodge, private home) for sex, whereas at lodges, clients come directly to the SW's room for services.

Condom Use

SWs reported that condoms were plentiful and inexpensive. No one reported not using a condom because of cost or availability. In places like Juba, SWs reported that they bought condoms from government facilities. Although condoms were said to be readily available, SWs at all the sites emphasized that clients did not like using them, especially Sudanese clients. SWs at all the sites reported that Sudanese clients were highly resistant to using condoms. An example of this attitude is given below:

Participant #9: Yeah, it is easy [to get a client to use a condom] but sometimes it is very difficult especially with the Dinkas.

⁴² For ethical reasons, the specific names of places where risky activities occur are not identified. The points on the social maps only indicate the general and not specific locations.

Participant #2: It is true most of the Dinka men don't want to use condoms and even some of them don't know condoms. (FGD SW#1, Juba.)

Although it is difficult to determine the thinking or beliefs about condoms from the perspective of the male clients, the SWs reported that the (Dinka) men believed that because they were married, they were at low risk of getting infected with HIV. They perceived that protection was designed to protect those who were not married and by extension, who are likely to have many partners.

... Many Sudanese men don't understand safe sex. There are people who can tell you they are not sick. "Ana ma ayan" (I am not sick). They will tell you, "I have a wife at home, so I am ok." How can you be ok when you have many women out there? (IDI SW#11, 34 yrs, Kenyan, Juba.)

SWs provided reasons for not using condoms. These reasons, as will be seen later, are distinct from those advanced by clients. The SWs reported that condom use causes stomach aches, vaginal pain, and permanent infertility; the use of condoms was associated with lack of pleasure; they trusted their partners; and having sex without a condom fetched more money.

Condoms are good because you cannot get HIV, sometime people said that the oil will make pain in the vagina. (IDI SW#10, 21 yrs, Ugandan, Yei.)

One comment by SWs that was echoed frequently during IDIs was the financial incentive for not using condoms. Although most SWs reported they always used condoms with clients, they also said that many other SWs will agree to sell sex without condoms because they can get more clients and charge more money. The quotes below illustrate this issue:

When a man comes to have sex without a condom, one would think, "if I can get this amount in one day, why shouldn't I accept?" So she can accept because the main objective of doing this job is to get and save money. [They] can just think that, "let me just do it without for today I may not get infected." (IDI SW#2, 21 yrs, Ugandan, Yei.)

Participant #1: Sometimes I use but at other times I don't, because if they use me [have sex with me] without condom I get more money.

Participant #2: But for me, as I said earlier I don't feel like playing [having] sex when using condom, it does not satisfy me. (FGD SW#2, Kaya.)

Selling unprotected sex can be highly lucrative. Some SWs reported getting 200 SDG [\$69] for "skin-to-skin" sex,⁴³ as opposed to 10–20 SDGs for a single "shot"⁴⁴ with a condom. Women supporting children were said to be more willing to sell sex without a condom, and so could be more vulnerable to HIV infection, as one SW explains:

Initially we were together near Customs (a well-know red light district that was destroyed by the City Council of Juba to make way for new development) but when we moved here, the Kenyans went on their own. The Congolese give birth to many children because they do not use protection. That makes them cheap. "When the child wants something, they take anything [i.e., whatever the clients can offer them], even very little they can take." (IDI SW#11, 34 yrs, Kenyan, Juba.)

Another reason for not using condoms was simply because SWs ran out, especially if they were with clients for a long time, as illustrated by the following account by an FGD participant:

⁴³ Skin-to-skin sex refers to having sex without using a condom.

⁴⁴ Single shot refers to one round of intercourse.

Participant #2: ... for me there was a time when my client came and we used all the three condoms in the same box and he spend the night with me and when it came to morning at around 5.00 a.m. he ask for “morning glory” but I had no any other condom with me. Since he had been with me all night, I had to give him without a condom. (FGD SW#1, Kaya.)

There are other SWs who reported that they do refuse to have sex without a condom. One married SW indicated that she feared she might get infected and shame her husband, who she described as very faithful. Here is what she reported:

I use condom every time am having sex with them. If you refuse, I don't give you because I don't want to get sicknesses and shame my husband because he is very faithful man. I am only doing this because the money he sends is very little. (IDI SW#6, 27 yrs, South Sudanese, Yambio.)

Condom Failure

Another problem related to nonuse of condoms is condom failure. Condom breakage was mentioned often by sex workers, and was attributed to accidents, rough sex, or the condom being too small. This is captured by the following excerpts from IDIs with SWs in Yei and Juba. Similar comments were made by SWs at the other three study sites.

Th[ere] are cases of condoms breaking where the body of the lady is dry and there are no secretions to contribute the vaginal passage thus causing friction. It can also happen because the man has more energy, thus making the condom too dry thus breaking. Some clients accept to use the condoms while others use two condoms at the same time. (IDI SW#1, 26 yrs, Congolese, Yei.)

At times my clients refuse condoms but I don't accept to have sex without a condom and if they want I tell them to go to those who can do without condoms; so it also makes me keep losing my clients to other ladies, but at times the customers can accept to use condom but when you are in for the action the condom can burst and end up doing without it. (IDI SW#2, 28 yrs, Ugandan, Juba.)

The frequent mention of condom breakage may suggest a much bigger issue. It may point to improper storage of the condoms or use of expired condoms. Those interviewed gave instances of incorrect condom use leading to breakage. For example, informant IDI SW#1, 26 yrs, Congolese, Yei, reported that clients sometimes used two condoms at the same time in order to prevent HIV. This was also reported by focus group participants in Yei:

Participant #1: There are those men who come with [punctured] condoms ... but I put my own condom on that one. (FGD SW#2, Yei.)

Anal Sex

Sex between SWs and clients is almost exclusively heterosexual and vaginal (“man to woman”), with only two reporting they, or someone they knew, had anal sex with clients. Two women said some clients (Ethiopian, Eritrean, Somalia, and Indian) requested anal and oral sex but were refused.

Participant #5: There are different types of sexual services, it depends on what the clients like most. For example, the Sudanese customers like vaginal sex while the Eritreans, Ethiopians, and Somalis like anal sex, that is to say sex from behind, but also they are charged

different because from behind it is so painful, so it can be 50 SDG per “shot” or round. (FGD SW#1, Kaya.)

Sex with Nonclient Partners

Most SWs have nonclient partners (husbands, boyfriends, friends) with whom they have sex. Almost all said they did not use condoms with these partners because they trust them. Of those women who reported not using condoms with nonclient partners, all said they trusted their partners and so were not at risk, or at low risk, of contracting HIV from them.

Participant #1: For me only my husband is the one that I don’t use condoms with.

Participant #6: You cannot use condoms with a person you have been with for a long time and you even trust him. (FGD SW#2, Nimule.)

Alcohol and Drug Use

SWs reported that they did not abuse alcohol and drugs. However, they did associate client alcohol use with demands for unprotected sex, forced sex, and physical violence. For example, when an informant in Kaya was asked whether alcohol consumption might affect their risk, she reported in the affirmative:

Yes, because sometimes, when you drink, you will not remember that a man is not safe, even if you’ve heard or you knew before that he is affected, you would not mind if you are drunk. You will just have sex with him. (IDI SW#3, 28 yrs, Ugandan, Kaya.)

About half of the SWs interviewed said they did not drink or use drugs, while the other half said they drank beer occasionally. Almost all SWs said that alcohol and drug use did not affect their risk for HIV. Only one woman said her desire for sex increased when drunk and she was more likely to have sex, but did not connect this activity with higher risk for HIV. Only a few said they used any type of drug, which included *bhang*,⁴⁵ *marungi*⁴⁶ (*khat*), *kwete*,⁴⁷ and “Red Bull.” Only one reported that she had observed people using opium and marijuana at the lodge where she worked in Yei.

Gender-based Violence and Sex Risk

Acts of violence associated with sex work were mentioned frequently by SW participants, who reported either being witnesses or victims. These acts included forced sex and rape without a condom and beatings for insisting on condom use or because the client refused to pay. Acts of GBV are described by three SWs in in-depth interviews:

[This is] what happened to me one time. I was coming from the disco and going to the lodge where I sleep, and the power went off, I met a number of boys who wanted to rape me, they took all my money and the phone, they were about to remove my clothes, then a certain watchman came and rescued me. It happened to me just that time, since, then, I don’t move at night. (IDI SW#10, 21 yrs, Ugandan, Yei.)

Yes, it happened once to me when two people come to me one forced me into sex, but the other went back. (IDI SW#7, 19 yrs, South Sudanese, Kaya.)

⁴⁵ Bhang is a mild preparation of marijuana made from young leaves and stems of *Cannabis sativa* smoked for its hallucinogenic effects.

⁴⁶ *Marungi* (or *khat*) is a highly addictive drug categorized as a stimulant that creates feelings of euphoria.

⁴⁷ *Kwete* is a local brew made out of fermented maize, malt, and yeast.

Yeah, several times. There is a day a customer came and we agreed on 10 SDG for a “shot,” so he went for [many] “shots” and refused to pay the money and also went to police claiming that I had stolen his 200 SDG. The police forced me to pay back his money otherwise [they would take me] to prison. So I had to make a loss and pay for something I had not taken. So he slept with me “ya bure” [without paying]. (IDI SW#2,

28 yrs, Ugandan, Juba.)

Experiences of sexual violence against SWs were also reported by women in the focus group discussions. In Juba, Nimule, and Kaya, for instance, women reported forced sexual intercourse by an armed client. These experiences were reported in Yei and Yambio as well.

Participant #1: Yes, we experience [violence] because these men come and say that they only want one “shot” but they can stay on you for very long. In this time you would have even got another customer but if you try to complain they will start to fight and they will not pay you. They will just go and if you make alarm, they will say that “I am going to kill you.” (FGD SW#1, Juba.)

Participant: One time another man got me at night when I was going to the lodge, he threatened me until he slept with me. (FGD SW#2, Kaya.)

Key informants also mentioned the pervasiveness of sexual violence perpetrated on SWs. One HIV project manager in Juba described such an incident in the following passage:

They (SWs) usually face sexual violence, for example in Jebel market last week one man violently had sex with a female client. I am told that the way the man was having sex was for violence, not enjoyment. (KII 1, Juba.)

Soldiers, especially, were identified as perpetrating violence. Several women told of how they or someone they knew had been threatened with a gun by a soldier wanting sex without a condom or refusing to pay for services.

You will agree with them on a price before you go but when they get to their house, they will remove a pistol and tell you they now want it without a condom. When one is faced with a situation like that you admit and have it without a condom. (IDI SW#1 1, 34 yrs, Kenyan, Juba.)

Yes, there was an army man who came to me and said he wanted a shot, then I said okay, we went I told him the price and he also agreed to use condom, so he went for three rounds and continued without a condom for the whole night and ended up not paying my money so I cried but no one came to my help. (IDI SW#2, 28 yrs, Ugandan, Juba.)

Sometimes violence can be perpetrated in a group setting. The following detailed account also illustrates how, in spite of real or potential violence, one ranking officer can make a big difference.

*Okay there are some friends of mine, in room ** and another in room **, a soldier came to her, they negotiated. [However], he is like he cannot sleep without gun, it is like he is some big person or he has a rank. He called someone to bring for him a gun, so after using that girl, you know he wanted to leave. So, the girl asked him for her money. The soldier called these soldiers in the barracks at around 11:00 pm. So they came around ten of them and they wanted to take that lady to the barracks. Just scaring her so that she should not ask for her money; ... among the soldiers who were taking “busi” there is also another soldier whose rank is more than that man, he is like a manager/Major. So, he came in, he was like you people cannot do anything to this lady. He is the one who helped that lady but she still was not paid. (IDI SW#9, 22 yrs, Ugandan, Yei.)*

Some women reported that they had banded together to protect each other from violent clients by driving them off. Some of the bigger lodges employed guards to reduce incidents of violence. This is captured by an informant from Yambio:

I have been threatened by a soldier who wanted to play sex without a condom when I refused he wanted to beat me up but I had to shout for help. (IDI SW#2, 20 yrs, South Sudanese, Yambio.)

One unexpected finding from the interviews and FGDs was frequent mention of men from one specific ethnic group as perpetrators of sexual violence.⁴⁸ In fact, eight interview participants from four of the five assessment sites, including SWs, key informants, and BBDs, independently named this ethnic group, more than any other, as either threatening or committing sexual assault. Below are a few examples:

Participant: Yah! The *** mostly do that. Like I had one who came to me and asked me to sleep with him without condom and he removed a pistol and [said] he will finish me if I don't allow him, so it happened. (FGD SW#2, Nimule.)

The same Juba HIV project manager quoted above made a similar comment:

*Some male clients have been reported not to want to pay CSW for services rendered—especially *** who usually “have protectors” from higher places in government. The CSW cannot refuse their sexual demands, because first prostitution is illegal and secondly, *** people are power into themselves. (FGD SW#2, Nimule.)*

The fine line between forceful sex, or sex that is rough but consensual, and forced sex, or sex against someone's will, is often hard to distinguish. In some cases, as in the one described below, forceful sex can turn into violent sexual assault.

*So early that morning, this *** man who had sex with the Ugandan sex worker, really hammered the lady seriously until the lady was bleeding and on top of that he didn't use condom with her, so the lady tried to sound for help, but no one responded. (SW Kaya I.)*

Participants also mentioned that men from this group did not like using condoms. As one SW pointed out,

*Most of the clients are ***, [and] many ladies say they don't accept them. They just send [these men] out of their rooms because they prefer to have sex without [a] condom (IDI SW Yei 7.)*

While these passages alone should not be taken to mean that one ethnic group in South Sudan is more prone to sexual violence than another, they do suggest a pattern of sex risk (noncondom use) and GBV that should be investigated more thoroughly in order to determine if behavioral interventions to curtail these practices are warranted and how such programs could be effectively implemented.

HIV/AIDS Risk Perceptions

Sex worker participants were asked to report on their HIV/AIDS risk perceptions. About half the women responding to this question said they considered themselves to be at high risk for HIV because of their profession. Two said they were at no risk and several said they were at

⁴⁸ The name of the ethnic group has been omitted from this report to avoid misinterpretation. While it is true that the particular ethnic group was repeatedly reported to have been involved in perpetrating GBV, more research is needed to verify this finding as well as to determine its generalizability.

low risk because they used condoms. One SW said she was at low risk because she recently got married (though she still practices sex work).

Contrary to the perception expressed by one of the SWs that being married reduces one's risk of infection, other SWs identified married life as a risk factor. One 28-year-old SW from Uganda reported that she had been infected through her driver husband. She learned that she had been infected after she separated from him.

I was married to a driver [from] whom I am separated because he had a lot of other women. I have one baby girl 5 years old who stays with my mother in Uganda. After leaving my husband I came to realize I was infected. I got tested at the Juba Teaching Hospital. (IDI SW#7, Ugandan, Juba.)

Some SWs expressed fatalistic attitudes about their risk for HIV, saying that “death is normal” and that contracting the virus was the “nature of the work.”

When a man comes to have sex without condom, so one would think if I can get this amount in one day, why shouldn't I accept, so she can accept because the main objectives of doing this job is get and save money, and can just think that let me just do it without for today I may not get infected. (IDI SW#1, 26 yrs, Congolese, Yei.)

Drinking alcohol, you know it happens when someone drinks a lot he/she will always feel like sleeping with a man or woman and for women if [you are] drunk you can be raped. Having many sexual partners whom you don't know their [HIV] status, having unprotected sex (non use of condoms), mostly drinking alcohol/smoking bhang, [drinking] local brews, sharing of sharp instruments like syringes, and razor blades. You can even get HIV through kissing when one has wounds on the lips. (IDI SW#3, 27 yrs, Ugandan, Nimule.)

Utilization of HIV Services, Testing, and Counseling

A major objective of this assessment was to explore the utilization of HIV services in the five sites. In Yei, SWs said that while they could be tested for HIV at the Yei Civic Hospital, they could not get HIV-related drugs. Some participants said that HIV-infected Ugandans living in South Sudan accessed HIV services and got their ARVs in Uganda. SWs in Nimule named Nimule Hospital, operated by Merlin, as the place to obtain HIV testing and counseling, free condoms, and food for people living with HIV/AIDS (PLWA). In Juba, 3 of 11 SWs named Juba Teaching Hospital as a place to get condoms, HIV testing, and ART.

Seven respondents commented on their experiences with local HIV services. Most (five of seven) said they were satisfied with the services they received. Those who reported that they were not happy specified their reason(s) as lack of food support for the infected, lack of ARVs and other medications, and lack of free medications.

Twenty-nine SWs reported that they had been tested for HIV. The overwhelming majority of these (86%, 25 of 29) said they had been tested for HIV at least once. In fact, it was the most commonly named HIV service received by participants. But of those who said they were tested, most were tested outside of South Sudan (in Uganda and Kenya):

Yes I have been tested three times in Kenya. First [time] because I was pregnant, second was when I was sick, and the third time I made a decision to do it. I got the results for test. (IDI SW#1, 30 yrs, Kenyan, Kaya.)

Others chose to test in other countries because they said they did not trust the accuracy and integrity of the testing process in South Sudan, as one FGD participant explains:

Participant #2: You see here in Nimule in most cases when we go to test they tell us that we have typhoid and yet sometimes we are sure that we are positive. Then when you go to Uganda they tell you that you are positive, so I don't know what is wrong with the machine of these people [referring to a testing facility in Nimule]. (FGD SW#1, Nimule.)

Eight of the 29 women who reported that they had been tested self-identified as HIV positive,⁴⁹ and all but two received ART in Uganda rather than in South Sudan. They feared that there might be reprisals, such as being put in prison, if they sought services in South Sudan. In spite of their fear of reprisals, there is no government policy of punishment of HIV-positive persons.

Interviewer: What would encourage people to use available services for HIV?

Informant: Those ladies will not accept to test from Sudan, ... even for free they will not accept. There was a time we heard all the ladies in the hotels [were to be] tested, and those found positive were to be taken or put in prison. Most of them went into Uganda. (IDI SW#10, 21 yrs, Ugandan, Yei.)

An informant in Juba talked about where she got tested the first time and said that she was on treatment. She reported that she got her monthly supply of HIV medication from South Sudan, rather than in Uganda, like the majority of those who reported that they are HIV positive.

[I got tested] in Uganda, but now I go to the big barrack behind there [she is trying to describe Bilfam] where they've put me on ARV treatment. I go there monthly to collect my drugs. (IDI, SW#4, 28 yrs, South Sudanese, Juba.)

Another SW reported that she had been tested six times. The last time she tested, she reported that she had been found to be HIV positive:

[I have been tested] six times, the sixth time was that when they found me infected. (IDI SW#8, 20 yrs, Ugandan, Yei.)

Of the five women who specifically said they had not been tested, three said they have not been tested for HIV because of fear of the outcome of the test. In addition to fear, two respondents mentioned stigma as a reason for not testing. For example, stigma as an issue that discourages HIV testing was reported in Yambio by a 20-year-old SW from South Sudan [IDI SW#2, 20 yrs, South Sudanese, Yambio]. They feared that some people will expose their HIV status to others, which would put their business at risk. The fear that their HIV status might be revealed by the service provider was expressed both in the IDIs as well as in the FGDs, as shown below:

I fear because some people already if you go for testing the results of the test will be exposed, that is why I am afraid, but if there is a place that the results is not exposed by the doctor I can go and test for my status. (IDI SW#3, 28 yrs, Ugandan, Kaya.)

Participant #2: The areas where they test from are well known so by the time you get out people already know that you were there. (FGD SW#1, Yambio.)

⁴⁹ None of the participants in this study were asked to disclose their HIV status; however, some voluntarily offered that information during interviews. Once they self-identified, interviewers were allowed to probe them about their care and treatment, and where they accessed services.

SW Suggestions for HIV Prevention, Care, and Treatment Programming

When asked the questions “What would encourage SWs to avoid getting infected?” and “What programs are most needed?” SWs suggested the following: mobile testing and counseling services to lodges and other places where SWs sell sex to customers; free condoms; jobs and education so that SWs can find other ways to support themselves and their families; more awareness campaigns to help teach SWs how to protect themselves from HIV; and support for food, school fees, and HIV testing for children of HIV-positive SWs.

In Yei, for instance, an SW indicated the need for conducting HIV awareness campaigns targeting all SWs. She indicated that the campaigns should focus on preventing new infections as well as positive living for those already infected. Here is what she said:

There is need for awareness campaigns on HIV to all the sex workers, that is those who are HIV positive and those who are HIV negative, such that the positive ones will not continue re-infecting themselves and the HIV-negative ones can protect themselves from infection. (IDI SW#3, 20 yrs, Ugandan, Yei.)

The campaigns should include aspects of income-generating activities as a way of empowering the women to become economically independent. The following excerpts from a sex worker in Nimule and Juba capture what other sex workers wanted to have.

For sex workers to avoid getting HIV organizations should provide women with capital or loans to start business (IDI SW#5, Ugandan, Nimule.)

We need counseling. We also want free distribution of condoms and many other programs to help us to stop sex work and engage in other activities that bring money for our living. (IDI SW#2, 28 yrs, Ugandan, Juba.)

Even if HIV testing and counseling were to be made available, some SWs would still refuse these services because of fear of punishment. One rumor circulating in Yei was that SWs found to be HIV positive would be put in prison. These rumors, however, were not corroborated from other sources.

BODA BODA DRIVERS

Description of BBDs

Data in this section come from individual interviews conducted with 26 boda boda drivers in Juba (11), Yambio (5), and Yei (10). Almost all of the BBDs are from South Sudan; the few who are not come from Uganda. The ages ranged between 19 to 45 years, with an average of 25 years. Half of the BBDs report being married; the other half report being single (11) or divorced (1). A majority have a secondary or higher education.

BBDs work very long hours, generally 12 to 14 hours per day. Most BBDs do not view their work as permanent, nor do they characterize it as a chosen occupation. There is a wide variance in daily salary (15 to 400 SDG), although the most commonly reported daily earning was in the 50 to 90 SDG range. In Juba, the range was between 40 and 400 SDG, the highest of the three sites. This was followed by Yambio, where the BBDs reported collecting between 25 and 150 SDG per day, while Yei BBDs reported that they collected between 15 and 90 SDG per day. BBDs who do not own their bike pay 30 SDG daily to the owner of the bike. Length of employment among respondents varied from 3 months to 6 years.

Knowledge of Modes of HIV Transmission

Respondents were asked to identify risky behaviors that make people more likely to get infected with HIV. A majority accurately identified the primary routes of transmission; however, a common misconception is that mosquitoes can infect an individual with the HIV virus.

... having unprotected sex; use of sharp objects like razor blades, needles; drugs and alcohol can make one to be attracted to women and the level of decision making deteriorates thus one cannot make the right decision on whether or not to use a condom; having many partners is also risky, however mosquitoes cannot transmit HIV but just malaria. (IDI BB#1, 21 yrs, Yei.)

Through sexual intercourse with many other partners especially if you are not faithful to your wife and you don't use condoms because you cannot know what they do. Through razor blade, when someone with HIV cuts himself and you also cut yourself immediately you can get HIV. Through needle when you use unsterilized needles for injection you can also get the disease. Another one I had forgotten is through delivery. If a nurse has wounds and she does not wear gloves and the woman she is delivering is infected, she can also get the disease. (IDI BB#3, 27 yrs, Yambio.)

Knowledge of Location/Types of HIV/AIDS Services

Respondents were asked to identify the location and types of HIV/AIDS services available in the local area, as well as how they found out about the services. The types of services most frequently mentioned are counseling and testing for HIV (half of the respondents identified at least one location for counseling and testing); provision of food to infected persons; provision of ARVs to infected individuals; distribution of condoms to BBDs; and general HIV education. Other services mentioned less frequently include care for HIV-infected persons and training to create awareness of HIV/AIDS. The places identified are shown in Social Maps 1-5.

Almost all of the BBDs were able to identify by name at least one local hospital, clinic, or non-governmental organization (NGO) that provides HIV/AIDS services. When asked how they knew about these services, the most common answers were radio announcements, community outreach (mobile testing, drama/skits, and Ministry of Health street outreach), personal interest in getting tested, infected family members, talk among BBDs, and dropping off and picking up customers from HIV service locations. The places identified by the informants are shown in the social maps presented earlier.

HIV/AIDS Risk Behaviors

Each BBD was asked to identify the kinds of risky behavior he engages in that put him at risk of acquiring HIV. Alcohol consumption combined with risky behaviors, preference for skin-to-skin sex, and multiple sex partners with high-risk behavior are the most commonly cited high-risk behaviors. Most of the respondents reported engaging in one or more of these behaviors.

We don't have time for getting girlfriends If you get a girlfriend she can consume a lot of money but a prostitute will consume only 10 SDG. (IDI BB#6, 26 yrs, Juba.)

Yes there are many girlfriends, it is a risk because, sometimes you can find a boda boda guy can impregnate like three to four girls in two months or three. In most cases, they just leave them and children can be taken care of by the [grand]parents ..., because who did that [made the girl pregnant] is not a responsible person. (IDI BB#3, 22 yrs, Yei.)

HIV/AIDS Risk Perceptions

Only a few BBDs reported that they are at high risk for or are worried about getting HIV, despite the fact that they acknowledge engaging in high-risk behavior. The most frequently cited reasons for not being worried about HIV acquisition include a negative test result, the existence of ARVs, and trust in sexual partners. For some, it appears that a negative test result is sufficient to assuage fears of getting HIV, even when the status of their sexual partners is unknown. Below are some of the reasons advanced by informants for regarding themselves as being at low or no risk of infection.

No I don't worry [about getting infected] because it was only when there was no medicine [when] people when tested positive [said] things like "Oh God I am finished." But nowadays there are drugs. (IDI BB#4, 27 yrs, Yambio.)

I'm somehow at risk because I am not yet married but when I get married I will most likely be at no risk. But then women in Juba go for sex out of marriage so still that can put me to a risk. (IDI BB#7, 24 yrs, Juba.)

Utilization of HIV/AIDS Services

A majority of BBDs reported accessing HIV/AIDS services to either get tested or pick up condoms (no other reasons were cited). A large number of the respondents (16) have tested for HIV at least once. BBDs were not asked to disclose their status, and none volunteered this information.

BBDs in Yambio, for example, identified a number of places such as the CMMB, which provides HIV testing and counseling. The Yambio Civil Hospital was also identified as a place where HIV-related services are sought. In general, from the three sites where BBDs were interviewed, places operated by NGOs were more likely to be mentioned than government health facilities.

BBD Suggestions for Prevention Programming

When asked the questions "What would encourage BBDs to avoid getting infected?" and "What programs are most needed?" BBDs suggested the following⁵⁰: mobile HIV testing services; free HIV testing; free condoms; services for people living with HIV/AIDS (PLWHA); job opportunities; train BBDs to be peer educators; form a BBD HIV association; organize BBD football clubs; organize BBD agricultural projects; avoid SWs; provide jackets to protect BBDs in accidents; and fidelity in marriage.

LONG-DISTANCE TRUCK DRIVERS

Description of TDs

A total of 23 truck drivers (15 Ugandan, 7 Kenya, and 1 South Sudanese) participated in IDIs. Their ages ranged from 18 to 54; the average age was 30 years. Almost all TDs (20 out of 23) reported being married; three were single. Nineteen were employed as drivers, while one truck driver reported owning the truck he was driving. Drivers reported they had worked for between 6 months and 24 years, with an average of 8 years. The majority of TDs reported having a secondary education, while one had attended university and another had a primary

⁵⁰ It should be noted that the authors of this report were not able to determine what programs already exist in the study locations. These suggestions may validate the need for existing programs, provide ideas for future programming, or indicate the need for further investigation to determine the feasibility and desirability of implementation.

education. Although five drivers did not report whether they had children, the remaining TDs reported an average of 3 children (ranging from 1 to 10 children).

Knowledge of Modes of HIV Transmission

Respondents were asked to identify risky behaviors that make people more likely to get infected with HIV. In general, TDs are knowledgeable about the modes of HIV transmission. They identified several ways through which HIV could be transmitted from one infected person to another, including having sex without protection, nonconsensual sex, and having multiple sexual partners.

Having unprotected sex; coming into contact with the blood of an infected person for instance in blood transfusion; sharing sharp objects like razor blades or needles with infected persons; having sex under the influence of excessive alcohol or drugs abuse; peer group pressure; however mosquitoes cannot transmit HIV. (IDI TD#1, 28 yrs, Kenyan, Kaya.)

Having unprotected sex (with the SWs), having multiple partners (wives), if you take alcohol your thinking changes – you can begin to talk something that you cannot talk when you are not drunk, maybe one can also get other diseases not only the (through) anal sex due to friction. (IDI TD#6, 32 yrs, Ugandan, Kaya.)

Other ways through which HIV could be transmitted were identified as sharing needles, razor blades, during accidents if the blood of an infected accident victim comes into contact with another person, and during circumcision. These modes of transmission are captured in the quotes below:

Sharing needles, razor blades like we used to share needles to remove jiggers; accidents do occur and we sometimes help out brothers who get into an accident by trying to give first aid, and this might be risky. (IDI TD#4, 40 yrs, Ugandan, Nimule.)

Interviewer: What are some of the ways through which HIV/AIDS is transmitted?

Participant #3: Having sex with an infected person.

Participant #5: Through accidents also, when your blood gets mixed up with the other people's blood, you can get infected.

Participant #2: You can also get HIV through sharing of needles and razor blades.

Participant #6: Through circumcision also one can get infected. For me I am a Mgishu from Uganda and in our culture we circumcise men, so if the person circumcising gets infected, he can cut himself and if cut your penis and mix the blood while pretending to be sorry. (FGD TD#1, Juba.)

Some TDs were worried that barber shops/hair salons, where they go for shaving, could provide an avenue for HIV transmission as a result of sharing the hair-cutting machines and razor blades. For example, a TD who is Nimule reported that he normally goes to the salon for a haircut but that he is always worried about the instruments they use. (IDI TD#6, 25 yrs, Ugandan, Nimule.)

Knowledge of Location/Types of HIV/AIDS Services

Respondents identified the location and types of HIV/AIDS services available in the local area, as well as how they found out about the services. TDs were not able to name HIV service

locations at the study sites, most likely because drivers are in transit. However, they could name clinic sites for HIV counseling, testing, and treatment in their countries of origin. The one South Sudanese driver interviewed in Kaya was able to identify Merlin Nimule Hospital as a place to get HIV services.

In Nimule I know, Merlin, Nimule hospital. There is voluntary counseling and testing. Once you are [a] victim (HIV infected), you are given ARV drugs. (IDI TD#2, 32 yrs, South Sudanese, Kaya.)

The majority reported that they had no knowledge of organizations that provided HIV-related services in South Sudan. In Kaya, one truck driver reported that they had seen billboards by Family Health International (FHI).

I know only the drug shops because I have gone to buy drugs for minor ailments/aches. I also can see the FHI billboard on the prevention and testing of HIV. (IDI TD#1, 28 yrs, Kenyan, Kaya.)

Locations Where Risky Sex Takes Place

TDs reported they engaged in sex in lodges/bars, truck parking yards, toilets, and along the road.

Also my lorry here is a risky place because I can decide to have sex in the truck. Other one is in the lodges, toilets, bar, and in any dark corner place outside (IDI TD#2, 32 yrs, South Sudanese, Kaya.)

In bars and lodges. Like ... lodge just next to the immigration office you can get every time the services you want. The ladies just sit there waiting for men, you select the one you want at anytime of the day or night. There is also ..., it was the first place here in Nimule to have SWs but now, it has only Kenyans. (IDI TD#1, 30 yrs, Ugandan, Nimule.)

A whole range of people from businessmen to drivers, to other identified people are some of the patrons in the club. There will be Ugandans, Kenyans, Ethiopians, Eritreans, and Sudanese citizens in the club. (IDI TD#1, 28 yrs, Kenyan, Kaya.)

The areas around or near customs checkpoints at the borders and within the country, such as in Juba, were identified as places where risky sex took place. SWs lease rooms from lodges/bars where they service clients. However, in general, TDs reported having limited knowledge of local risky locations as they are often in transit or were visiting [the study sites] for the first time.

Condom Use

Most TDs reported they used condoms with casual partners; however, for wives or steady partners they did not use condoms because they trusted them. In response to a question on how many sexual partners he has had over the last one month, a TD reported the following:

Informant: I have had sex with three women – one my wife and a girlfriend in Arua and a girlfriend in Kampala but the girlfriends are just (one for the road) meaning had sex with them and forget them.

Interviewer: Do you use a condom with them?

Informant: Yes, because these are people I meet for the first time I don't trust them but for my wife I don't use a condom. (IDI TD#6, 25 yrs, Ugandan, Nimule.)

A response to the effect that they do not use condoms with their wives was a typical one for most of the drivers.

Although most TDs said they used condoms to protect against HIV, some of them mistrusted the use of condoms. They cited the possibility of condoms bursting, which could lead to infection. Some TDs reported experiencing condom breakage during sex.

May be one experience, I had a lady, while having sex with her I discovered the condom already released, because I loved her I didn't mind. (IDI TD#4, 27 yrs, Ugandan, Juba.)

TDs reported they had easy access to condoms. One driver reported buying in shops and not necessarily at health facilities.

Alcohol and Drugs

Most TDs reported that alcohol use is rampant among truck drivers; however, only 7 of the 23 interviewed admitted to using alcohol. The commonly mentioned alcoholic drinks were beer and spirits.

It is also these alcohol, when you drink your body [penis] becomes active and erect, when you drink you don't mind of anything you just have sex whether with condom or not. (IDI TD#2, 32 yrs, South Sudanese, Kaya.)

The use of drugs was reported much less than alcohol use. Four TDs reported they use drugs, such as *khat* (*marungi*) and marijuana.

HIV/AIDS Risk Perceptions

About half of TDs reported they had had sex with a wife and with at least one other casual partner within the previous 30 days. They also perceived themselves to be at risk because they were usually away from home for long periods and were often influenced by peers to engage in casual sex.

My girlfriend is in Juba, am on the road so I don't know what she is doing, her behavior, yet I "go life" [have sex without condom] with her. She might have a boyfriend who I don't know. My madam [wife] can also have another partner because I don't know what she tells me is true. (IDI TD#2, 18 yrs, Kenyan, Nimule.)

Being in company with people can change your mind and you will do other things that you usually don't do, also staying with people who drink can corrupt your mind too. (IDI TD#1, 22 yrs, Kenyan, Kaya.)

Peer pressure was one of the key factors that influence TDs to engage in risky sexual behaviors. A risky engagement often starts with drinking beer with friends and culminates in having sex with a sex worker.

Utilization of HIV/AIDS Services

Only 2 of the 23 truck drivers interviewed reported that they had used HIV services, one in Nimule and the other at the Juba Teaching Hospital. The rest of the drivers have used HIV services such as testing, but in their countries of origin. While some of the drivers disclosed that they had suffered from a sexually transmitted disease (only syphilis was identified by name), none disclosed their HIV status.

Testing and Counseling

A majority of the truck drivers (18 of 23) reported having been tested for HIV. All except one indicated being tested outside of South Sudan. This lone TD was tested in Nimule at the hospital run by Merlin.

TDs often were motivated to get tested by their wives. Others said they decided to get tested because they did not trust condoms to protect them from infection and wanted to confirm that they were still HIV negative. Most of the TDs reported testing only once, although two reported that they test every 3 months.

I don't think because I trust myself and my wife, we have tested for several times with her and at last every 3 months we have to go to test. (IDI TD#7, 36 yrs, Ugandan, Kaya.)

One of the reasons given by TDs for going to test is mistrust of condoms. A number of TDs cited this as a reason they go for testing. They indicated that condoms are not 100% safe because they can burst during use, leading to potential infection.

I use the condoms, but what am not sure is that maybe the condom will burst, or maybe its manufacture defects. (IDI TD#8, 54 yrs, Kenyan, Juba.)

The truck drivers who had not tested cited lack of time due to their busy itineraries as the reason for not testing or because they feared that they might test positive.

TD Suggestions for HIV Prevention, Care, and Treatment Programming

When asked “What would encourage TDs to avoid getting infected?” and “What programs are most needed?” TDs suggested the following: programs to help distribute condoms to places where risk behaviors may be occurring, such as lodges and bars; training people on the proper use of condoms; and counseling and testing services.

The drivers are also cognizant of time limitations on their part. They are concerned that they usually operate under tight timelines, which makes it difficult for them to find time to access HIV services, especially when they are in transit.

KEY INFORMANTS

Twenty-two KIs were interviewed from the five sites (Yei – 6, Nimule – 3, Yambio – 4, Kaya – 6, and Juba - 3). Those interviewed included officials of the Ministry of Health, county AIDS coordinators, and HIV/AIDS program managers. The information presented here focuses on HIV infection risk, South Sudanese HIV-related policies and programs, and KI suggestions for interventions.

Perceived Challenges Facing Men and Women

The KIs were asked to reflect on the challenges faced by men and women in dealing with HIV and AIDS. There is no general agreement among the KIs as to who is facing greater challenges. From the responses, the challenges appear to face both groups equally.

Challenges are faced more by men, for instance it is difficult for men to abstain. The case is not different for women either. Women also need money and sex from men. Women, like men, also mess around – they might not be in a position to control themselves. Some women might not allow men to use condoms because they think the risk of condoms could also put them at risk. (IDI KI#1, Kaya.)

... sometimes you will find that women are more vulnerable than men, sometimes when a man want to have sex with a woman, without a condom, a woman will have no say, she will just

accept. Two, the economic situation of women also dictates there, in case she is ready to have sex with a man who has money, the woman will not have power to negotiate condom use. (IDI KI#2, Yei.)

These challenges are based on the different circumstances under which men and women operate. Some of the KIs felt that the women were more vulnerable compared with men because the women are thought to be more economically disadvantaged. Their weaker economic position created a situation that leaves them disempowered. The women were also perceived to be less likely to resist if a man wanted to engage in unprotected sex. Collectively, these forces act to increase the vulnerability of women to HIV infection.

Policies and Guidelines

Most of the KIs reported that there is a lack of specific policies and guidelines focused on BBDs, TDs, and SWs. None of the KIs was able to point to a specific policy targeting one of these three groups. Instead, they indicated that these groups were often provided services within the general population.

In Yambio, for example, it was reported that the government did not have any specific policies. Nonetheless, it was pointed out that organizations working in the area also provide services sometimes targeting the MARPs. Two KIs in Yambio had the following to say:

At the level of government we have no clear work on that front [i.e., policies targeting SWs, BBDs] but at the level of organizations we have groups involved in say condom distribution. (IDI KI#2, Yambio.)

This is not the case [referring to whether there are policies targeting SWs], but various partners are on the ground working on HIV-related programs but these are not targeting on any particular group of the general population. (IDI KI#3, Yambio.)

While in Nimule, the KIs reported thus: *I am not sure we have any (IDI KI#1, Nimule), and*

No, I don't think we ever have one for the state. (IDI KI#2, Nimule.)

Types of Services Available

A number of facilities and organizations offer services at the five assessment sites. These facilities and organizations provide services such as HIV testing, counseling, and treatment, as well as condom distribution. However, the services are not uniformly available at all the sites. In Juba, the Juba Teaching Hospital provides HIV testing, counseling, and testing services (Social Map 1). Other facilities that provide HIV-related services include the American Refugee Committee (ARC), located in the Tong Ping area. The ARC facility provides VCT services. The Good Life Clinic, which also provides HIV-related services, is located in the Jebel Market area. Services are also located at the SPLA headquarters, as captured by a KI below:

Key Informant: (We have services at the) SPLA Secretariat Headquarter, then we have the Customs Market and the military training centers. ... then we have Juba Teaching Hospital.

Interviewer: What services are offered in these places?

Key Informant: Most of them provide counseling and ARVs for those infected with HIV/AIDS. (IDI KI#1 Juba, Project Manager Mudidiroon.)

A number of facilities in Yambio provide services. The main hospital, located on the Yambio – Juba road, provides a number of services such as HIV counseling and testing. Other facilities also provide VCT services, such as the Evangelical Church of Sudan and Prisons Outreach, which

provides VCT services to those in prisons. The Ministry of Health runs a condom distribution center within the town. Unlike the other sites, KIs in Yambio reported that there are active HIV/AIDS support groups, which include the Star Support Group, Podo Support Group, and Zereda AIDS Center, among others. The service delivery points are shown in Social Map 2. International organizations such as CMMB and World Vision also provide VCT-related services. The following excerpt from a KI vividly captures the services available in Yambio:

Key Informant: We have counseling and testing at the VCT and PMTCT centers. We also have a health center near town (primary health care center), we have VCT and PMTCT both run by CMMB. At the main hospital we have PMTCT but because of some problems of staff shortage, I am not sure it is currently working. CMMB has outreach programs like, for instance, we can go to prisons to sensitize them on HIV prevention We have outreach VCT services for the prisoners, but we specifically work to raise their awareness on HIV prevention and treatment.

Interviewer: Do you offer any support to PLWHAs?

Key Informant: Yes, we have a Catholic Church at St. Mary's that supports PLWHAs through a group called "Star [Support] Group". Along this road [Yambio – Juba road] they have a group called USAHP – Union of Sudanese Against AIDS Poverty – and others are outside Yambio town in places like Podo (Podo Support Groups), Nzara (Rainbow Support), which is one of the most powerful support group we have around.

Key Informant: We have CMMB which is located somewhere around town, World Vision also has a VCT facility ... and another VCT at a refugee center just outside this town. (IDI KI#1 Yambio, Programme Officer.)

In Yei, the Yei Civic Hospital provides HIV services (Social Map 4). These services are supported by other clinics such as the Malteser and St. Martha Clinics. FHI provides additional support services such as distribution of condoms. Not far from Yei town is Kaya (Social Map 5). The Kaya Health Center provides HIV services as well as other private clinics that provide VCT services. A KI in Kaya had this to say:

Locally we have CDAS and CEAS who get support from an international NGO FHI. CEAS is also supported by SSAC (South Sudan AIDS Commission). Funding for FHI is mainly from USAID. FHI runs services on HIV and AIDS in Kaya but the regional offices are in Yei and the head office for Southern Sudan at Juba. SSAC, however, doesn't have an office in Kaya. (IDI KI#1 Kaya.)

In the town of Nimule in Eastern Equatoria, Merlin provides services at the Merlin Nimule Hospital (Social Map 3). A KI reported that Merlin provides 100% support to the Merlin Nimule Hospital. Other organizations also provide HIV-related services in Nimule and in the greater Eastern Equatoria state. This is captured by a KI as follows:

We have a number of organizations working within Nimule but Merlin makes the greatest contribution. We have the Diocese of Torit and American Refugee Council who work especially in rural areas. (IDI KI#2 Nimule.)

Access to and Availability of HIV Services

Consistent with the lack of MARP-specific policies and guidelines, key informants noted that programs and services do not specifically focus on MARPs. For example, in Nimule no specific programs target MARPs. Instead, HIV services are provided to the general population. In fact, in Yambio state health officials advised FHI not to target BBDs for HIV prevention services. Opportunities to reach BBDs exist in Yambio through groups that have formed to support fellow BBDs living with HIV. However, they are not receiving any support.

The ability to reach and serve high-risk groups is severely limited by the lack of resources, as one state official in Yambio reports:

Another problem is limited resources to enable our staff to organize more outreach programs. There is also the problem of condoms shortage meaning that we have to wait until supplies come—you know sex does not stop because of lack of condoms. (KII, Yambio 4.)

Key informant interviews with HIV program managers, providers, and public health staff at the assessment sites revealed a number of challenges associated with the delivery and use of HIV services, including shortages of drugs, test kits, and food for PLWHAs, clinic staff shortages, and lack of money for transport to HIV clinics. For example, one key informant in Juba said that frequent health worker strikes at local hospitals prevented their clients from accessing ARV drugs and other HIV services. Another HIV program manager in Juba said that SWs complained of being harassed at public health clinics. This theme was repeated by an HIV program manager in Yei who said,

Not all people are benefiting from it (HIV services) At times we have to get money from our pockets to assist desperate cases. The majority of the people are actually not benefiting because they are in hiding because of stigma and the lack of money.

The instability of funding and shifting of services from one provider to another has also been cited as a problem resulting in the loss of critical treatment and care services, as one HIV program manager in Juba described:

. . . the health center initially it was being supported by ARC and it was doing very wonderful. [At one] time they had a full list of PLWHA they could provide with food, ARVS, etc. But when ARC went off, funding for drugs and transport went off. Accommodation problems for those who depended on the ARC and the health center became too much, so [clients] even went to Uganda [for treatment]. Whereas ARC was providing ARVs and food, FHI only provides counseling services not food and transport. We got lots of complaints from the populations. (KII Juba 1.)

Other challenges facing SWs and BBDs in accessing existing HIV/AIDS services were identified by the KIs as inadequate and/or lack of qualified staff; lack of transportation money for home-based care providers; poor road networks; shortages of vital equipment such as test kits and functioning CD4 machines; and lack of HIV services integration. When asked about HIV programs in Kaya, the Director General for Health in Western Equatoria said,

We have a number of them, but they do not have a comprehensive package. You find some providing condoms, others running VCT centers, while others only provide PMCT. This is not good . . . We need to integrate most of these services so that we can have a comprehensive package. (KII, Yambio 2.)

The lack of integration has also led to uneven distribution of HIV services. The Director General for Health pointed out that:

The provision of HIV services here at the Western Equatoria state are still at the level of projects. To me the HIV prevention programs have not been well integrated. At the moment we have few VCT centers . . . We have areas of high population like ESO, which is considered an area of high HIV prevalence, but only places like Nzara, Yambio, Mariri have a functioning VCT center and have PMCT services. . . this means there are a lot of mothers in the state who are yet to benefit from PMCT services. (KI, Yambio I.)

In short, then, access to and availability of HIV services are hampered by inadequate funding, staff, and resources; and equipment shortages. The lack of service integration and coverage has also been cited as a critical issue by key informants, especially for VCT and PMCT in more remote areas where transportation is a major problem. With respect to HIV services for MARPs, so far no programs have been specifically targeted for these populations. This omission is especially problematic for SWs, who are likely to avoid accessing services for the general population for fear of stigma and harassment, and TDs, who may be unaware of local HIV prevention, testing, and treatment services.

Proposed Interventions

The KIs proposed interventions aimed at influencing behavior change. These activities would focus, for instance, on creating more HIV awareness and designing HIV/AIDS prevention strategies targeting MARPs in communities.

IV. DISCUSSION AND CONCLUSIONS

This assessment was carried out with four objectives: (1) Describe the geographical, sociodemographic, and subgroup characteristics of HIV risk among MARPs, including SWs, BBDs, and TDs in five sites in South Sudan; (2) identify and explain the extent and nature of HIV risk behaviors in MARPs; (3) determine the types of programs, and services currently in place, their level of use by MARPs, and their effects on HIV risk behaviors in MARPs; and (4) ascertain the unmet HIV needs of the MARPs for development of evidence-guided policies, programs, and interventions. Each of these broad areas is briefly discussed and conclusions drawn.

The findings from this assessment reinforce those of previous studies of HIV risk behaviors, knowledge, perceptions, and attitudes among MARPs in South Sudan. Interviews with SWs and KIs suggest that condom use is low. While many SWs report using condoms with their clients, they also said that some SWs agree to have unprotected sex for more money or to get more customers. Some SWs also report that some clients will force them to have unprotected sex by threatening violence. BBDs also do not use condoms regularly yet report having multiple partners, including SWs. TDs reported using condoms with their casual partners but not with wives and girlfriends. Some TDs did express mistrust of condoms because of the potential for breakage.

Overall, most MARP interview participants had general knowledge about HIV transmission and risk behaviors, which differed somewhat from the findings of previous studies. However, while general knowledge was high, participants also had misconceptions about HIV, such as transmission through mosquito bites, kissing, and witchcraft; that a mother could be infected by her infant through breast feeding; and that HIV could be passed through “hot blood.”

The pervasiveness of GBV and its implications for HIV transmission that were noted in earlier studies, especially Groenendijk’s study of Sudanese SWs, was also documented in this assessment. SWs frequently mentioned forced sex as an occupational hazard, with some clients using guns to coerce them to have sex without condoms. Rough sex resulting in broken condoms and bleeding was also mentioned. Men from one particular ethnic group were named by several participants as perpetrators of GBV, and while this information alone does not imply that one ethnic group is more likely to commit acts of GBV than others, it does call for further investigation of the linkages among sex risk, violence, and HIV in South Sudan.

DESCRIPTION OF MARPS IN SOUTH SUDAN

The SWs in the five locations identified their countries of origin as Kenya, Uganda, Congo, and South Sudan. The Ugandan SWs especially reported frequent movement between South Sudan and Uganda in order to access HIV-related services such as testing and, in some cases, obtaining ARVs. The TDs come from Kenya, Uganda, and South Sudan (only one), and nearly all reported that they were married. The BBDs were all from South Sudan except for a few Ugandan BBDs, with about 50% of them reporting themselves as married. No male SWs were reached for interview during this assessment.

The differences among the MARPs with respect to age, marital status, number of children, and length of employment are summarized in the Table 2 below. Among the three groups, the SWs were youngest, with an average age of 23 years (age range 19 to 34). Among the SWs, the South Sudanese SWs were considerably younger than SWs from other countries. The average age for BBDs was 25 years (age range 19 to 45 years), while among the TDs the average age was 30 years (age range 18 to 54 years).

Table 2: Summary Characteristics of MARPs in South Sudan

	Sex Workers	Boda Boda	Truck Drivers
Average age (range) in yrs	23 yrs (19 to 34 yrs)	25 yrs (19 to 45 yrs)	30 yrs (18 to 54 yrs)
Proportion married	Almost all single (2 married, 15 divorced, 10 single, 3 widowed)	About half (50%, 14 of 26)	Nearly all (>90%) (20 of 23)
Proportion with children	>50% (23 of 42 SWs)	-	18 of 23 (5 did not report)
Length of employment	2 months to 5 yrs	3 months to 6 yrs	6 months to 24 yrs
Place of origin	Kenya, Uganda, Congo, and South Sudan	South Sudan, some Ugandans	Most Ugandans, Kenyans, one South Sudanese

These age differences (particularly for the relatively younger South Sudanese) between SWs on one hand and the TDs and BBDs on the other within the context of South Sudan may reflect a power balance heavily weighted against SWs. This negative power balance likely puts the SWs at a disadvantage in terms of negotiating for safe sex. It is also likely to lead to higher number of cases of GBV. Inability to negotiate for safe sex and GBV have been shown in other contexts, such as in South Africa (for example Dunkle et al.⁵¹), to approximate the risk of HIV infection.

The data gathered in this study affirm the findings from Gelmon⁵² and Groenendijk,⁵³ which showed a strong connection between gender inequality, sexual violence, and HIV risk. This assessment also suggests that the relatively older ages of SWs, the large number of migrant women selling sex, and their lack of education, lack of spousal support, and their need to support children may push them into “survival sex,” which gives them little power to negotiate safer sex with clients and exposes them to pervasive sexual violence. The Congolese women – who are near the bottom of the SW hierarchy in South Sudan, get the cheapest prices for sex, and have the largest number of children – could be at extremely high risk for HIV and should be investigated more closely. The negative effects of GBV came out in some of our interviews.

HIV RISK BEHAVIORS

The assessment investigated the range of risky behaviors among BBDs, SWs, and TDs. Using a scale of high, moderate, or low, risky behavior by BBDs, SWs, and TDs is high. Most of the respondents for all three study populations reported engaging in one or more of the most commonly cited high-risk behaviors. However, the groups had various assessments of their risk of infection. Using a scale of high, moderate, or low, self-perception of HIV/AIDS risk among BBDs is low to moderate. In contrast, many SWs and TDs were aware that they were potentially at high risk for HIV if they engaged in unprotected sex. A few SWs and TDs thought

⁵¹ Dunkle, K.L., Jewkes, R.K., Brown, H.C., Gray, G.E., McIntyre, J.A., and Harlow S.D. (2004). Transactional sex among women in Soweto, South Africa: prevalence, risk factors and association with HIV infection. *Social Science and Medicine*, Vol. 59: 1581 – 1592, 2004.

⁵² Gelmon, L. HIV Epidemiological and Response Situation Analysis for South Sudan (draft document) Feb. 2011.

⁵³ Groenendijk, C. “Behind the Papyrus and Mabati”: Sexual Exploitation and Abuse in Juba, South Sudan An action research, carried out in 2010. Unpublished report, May 2011.

they were not at risk because they were married or had a partner to whom they were faithful – even though they were still selling/buying sex.

Findings from this assessment validate the claim that BBDs are potentially a vulnerable group and are in support of other studies.⁵⁴ The nature of their work exposes them to risks they might not otherwise face. They meet young women on a regular basis, some of whom are willing to exchange sex for rides. They have the resources to pay for sex and admit to frequently visiting SWs, a claim validated by the SWs in this study.

SWs are a most-at-risk population in that they are having sex with multiple partners who, based on these partners' behaviors, are themselves at high risk for HIV. Interviews suggest that a significant number of SWs are having unprotected sex at least some of the time with clients and frequently (if not always) with personal partners, whom they trust are being faithful, a situation linked to less likelihood of using condoms. Similarly, the TDs reported engaging in multiple sexual relations with partners, who are sometimes located along the routes they operate. However, often the partners are casual. The drivers point to peer pressure and alcohol consumption as factors driving them toward high-risk behaviors.

Using a scale of good, mixed, or poor, BBDs and SWs have a mixed knowledge about the modes of HIV transmission, while the TDs have a good knowledge about the modes of transmission. However, some reported a misconception that mosquitoes can transmit the HIV virus. None of the BBDs and TDs mentioned mother-to-child transmission; however, some of the SWs did.

With the exception of one commonly cited misconception, knowledge about modes of HIV transmission and types of high-risk behavior is high among both BBDs and SWs. However, responses to various probes indicate that other worries/beliefs mitigate the fear of HIV acquisition/transmission. Among BBDs, these worries/beliefs include fatalism, availability (or lack) of ARVs, road accidents, robbery, and insufficient earnings. SWs' need for money, competition for clients, and the pressure to support their children take precedence over their concern about contracting HIV and explain why they are willing to have unprotected sex with clients. In sum, people seem to have a superficial understanding about HIV. The many misconceptions seem to indicate they are most likely learning about HIV from informal and unreliable sources rather than more formal communications from the government or NGOs. In order to address these information gaps, South Sudan really needs a large HIV prevention mass media campaign targeted to both MARPs and the general population.

BBDs frequently blamed women for inciting and practicing high-risk behavior that exposes men to HIV. According to the BBDs in this assessment, women are sexually promiscuous and cannot be trusted outside the home. They wear reckless clothing, refuse to use condoms, expect to pay for rides with sex, provoke drivers by rubbing up against them on the bike, and demand too much money as girlfriends (i.e., SWs are much less expensive than girlfriends).

SWs, BBDs, and TDs reported *condom breakage* as a risk for acquisition of HIV. Incorrect condom usage and expired condoms were mentioned by BBDs as possible explanations for the frequent breakage, whereas SWs cited forced or rough sex and the small size of the condoms. Some SWs also reported use of two condoms at once, which might be contributing to reports of TDs. The implication of this finding is that people need immediate information about how to use condoms. Such information should prioritize the MARPs. In addition, there is a need to evaluate the existing supply of condoms and check how they are being stored and their expiry dates.

⁵⁴ The Crane Report: High risk group surveys conducted in 2008/2009, Kampala, Uganda. 2010. CDC, Makerere University School of Public Health, Uganda Ministry of Health.

ECONOMICS AND GENDER-BASED VIOLENCE

Economics plays a big role in SWs choosing to practice unprotected sex with clients, with poorer women and those with children said to be more likely to sell sex without condoms. In addition, those with children were likely to sell sex for less compared with those who did not have any children to support. Less pay for services received perpetuates the SWs' continued economic disempowerment and their inability to climb out of this situation. A more focused study is required to tease out the dynamics of gender and HIV in the South Sudan context.

Studies on GBV have established the link to a tendency not to use condoms during coitus.^{55,56} Violence perpetrated against SWs was frequently reported, with South Sudanese soldiers most often named as perpetrators. Violence, including beatings, forced sex, and threats with guns, revolved around perpetrators' use of alcohol, refusal to use condoms, and/or refusal to pay for services received. Heavy alcohol consumption by male clients and a few SWs is a factor inhibiting condom use and encouraging acts of violence. To counter this aggression, some women had banded together to protect themselves from attacks, while some lodge owners pay police to guard their establishments.

PROGRAMS AND SERVICES

Information from MARPs and key informants points a lack of programs that specifically target SWs, BBDs, and TDs. These groups currently receive services aimed at the general population. In some of the sites, SWs were reluctant to go for counseling and testing because they feared victimization. The women resorted to testing in their home countries in order to avoid deportation. They also get HIV services in their home countries because there are no drugs, or at least few drugs available in South Sudan. They are much better off in Kenya and Uganda, where they can get free ART at government facilities and the infrastructure is much more extensive. These fears of victimization were, however, unfounded, as government policy does not include deportation of HIV-positive persons. Nonetheless, the fact that women had such fears, along with the lack of programs to address these fears, point to lack of a clear communication strategy targeting these groups.

Using a scale of good, mixed, or poor, BBDs appear to have a good level of knowledge about both the types and location of local HIV services. Although additional analysis is necessary to determine the accuracy of this information, one would expect BBDs to be more knowledgeable than the average individual about service locations, given their mobility and the information they gather during their work. In comparison, SWs tended to have a mixed level of knowledge of HIV services, with some knowing where to access local services, but many being unaware. Also, a substantial number of SWs and TDs reported getting HIV services (testing, counseling, and treatment) outside South Sudan. On the other hand, most of the TDs, particularly non-Sudanese, tended not to know where to obtain HIV services within South Sudan.

Key informants reported that the services provided are not specific to MARPs. For example, there are no specific testing and counseling services designed to encourage SWs, BBDs, and TDs. TDs, for example, needed to have services close to the truck stops, where they wait for immigration and customs documents to be processed. These are also the places most

⁵⁵ Neila, A., Anneb, C. and Bevb, S. (2008). Gender-based Violence and HIV: Relevance for HIV Prevention in Hyperendemic Countries of Southern Africa. *AIDS*, Vol. 22: S73-S86.

⁵⁶ Townsend, L., Jewkes, R., Mathews, C., Johnston, L.G., Flisher, A. J., Zembe, Y., and Chopra, M. (2011). HIV Risk Behaviours and Their Relationship to Intimate Partner Violence (IPV) Among Men Who Have Multiple Female Sexual Partners in Cape Town, South Africa. *AIDS and Behavior*, Vol. 15(1): 132-141.

frequented by the SWs. Instead, the HIV testing services are provided as part of programs aimed at the general population. Consequently, the specific and special needs of MARPs are not consistently addressed.

UNMET HIV NEEDS FOR MARPS IN SOUTH SUDAN

This assessment reveals a number of unmet needs – including lack of information, programs addressing GBV, mobile testing services, and condom distribution programs. The most-at-risk groups in South Sudan require access to information relating to HIV services. Nonetheless, this information is unavailable or inadequate, as shown by various misconceptions held by those interviewed.

The high rate of reported GBV calls for programs to address this specific aspect of risk. As indicated earlier, studies have shown a clear link between violence and HIV risk. Thus, in order to reduce the risk of infection as a result of partner violence and potentially the risk of infection, programs aimed at empowering women should be put in place. At the same time, those programs should also focus on educating men, who are the perpetrators of violence.

The SWs, BBDs, and TDs asked that mobile counseling and testing services be set up to target MARPs in lodges and other places where sex work occurs. Participants in Yambio frequently mentioned the need for nutritional support to those infected by HIV.

The SWs, BBDs, and TDs also requested condom distribution programs as well as education on their proper use. Using BBD peer-educators is one potentially effective method of reaching more BBDs. Support to PLWHA is less frequently mentioned by any of the groups assessed. Only a few places, such as Yambio, mentioned support to PLWHAs.

The majority of TDs reported that they did not know where to access services. Programs to reach this group are also needed.

V. RECOMMENDATIONS

The following recommendations are based on the assessment findings, which will need to be further discussed and refined with the South Sudan Ministry of Health and other policy makers, as well as with health sector donors and implementing partners:

- Nonuse or reluctance to use condoms is quite pervasive among some groups. More research is needed on why some groups are more averse to condom use.
- Radio communications and targeted diffusion of HIV information – especially information tailored to the specific risk factors of SWs, BBDs, and TDs – channeled through SW, BBD, and TD networks could be highly effective in increasing knowledge of HIV risk and access to HIV services among these at-risk populations.
- Campaigns to encourage HIV testing and counseling are especially needed and, in fact, requested by the three target groups. Training and sensitization of HIV testing and counseling personnel in/through risk group-friendly service sites/approaches is recommended.
- BBDs and SWs frequently cited razor blades as a source of HIV infection. The use of razor blades for personal hygiene (or other uses) needs further investigation to determine appropriate intervention responses. TDs, on the other hand, were less likely to mention razor blades, although a few of them identified concerns about HIV infection from barbershop/hair salon razor blades and shaving machines.
- More analysis is needed to address issues related to condom breakage and to determine appropriate interventions. At this point, responses suggest training on correct condom usage is needed. Officials ordering condoms for South Sudan need to ensure that condom sizes appropriate to the population are ordered. In addition, more research is needed to determine if environmental factors such as exposure to prolonged, excessive heat and distribution/use of expired condoms is contributing to a reportedly high incidence of condom breakage.
- There is some evidence in BBD responses to indicate that the definition of “fidelity” in relationships may vary from individual to individual (e.g., a man may be married *and* faithful if he does not have more than two girlfriends). A few SWs thought they were at low risk because their male (nonclient) partners were faithful. Interventions that include “be faithful” components must address this issue of the risks around “trusted partners.”
- Prevention messaging must emphasize the importance of *partner* testing. HIV testing messaging and HTC services also need to reinforce the need for persons, once tested as negative, to develop plans to maintain that HIV-negative status by developing personal plans to reduce risk behaviors.
- GBV against female SWs is rampant and is strongly associated with risky sex. Steps should be taken to change attitudes and norms around GBV, especially among South Sudanese soldiers, and to link survivors to comprehensive services.
- The emergence of loosely organized groups of SWs who are protecting each other from GBV may serve as an entry point for HIV prevention services and referrals to care and support services. It is an opportunity that should be investigated more thoroughly.
- Though very little information about MSM SWs was collected, there is enough evidence to suggest they do exist and are deeply hidden due to stigma and fear. More research will be needed to assess the size of this population, their risks and their clients’ risks for HIV infection, and their knowledge of modes of HIV transmission.

- While some SW are accessing HIV services in South Sudan many, especially HIV-infected SWs, are accessing services in their home countries, mostly due to the lack of HIV treatment and care services in South Sudan. This situation could have serious implications for adherence and continuum of care. Bringing HIV services to SWs where they practice would go far to increase HIV access and use.
- Prevention, care and support, and treatment intervention programs for BBDs should be established to provide HIV services tailored to and focused on this group. Our data validate the claim that BBDs are a vulnerable group in South Sudan.

APPENDIX A. SCOPES OF WORK FOR PHASE I AND PHASE II

Global Health Technical Assistance Project

GH Tech GHS-I-00-05-00005-00

SCOPE OF WORK

(Revised 5/31/11)

Amendment #2 for Phase II

I. TITLE

Activity: **GH/OHA – Southern Sudan Surveillance Technical Advisor** Contract: Global Health Technical Assistance Project (GH Tech), Task Order No. 01

II. PERFORMANCE PERIOD

The consultancy describes in further detail the second phase of a two phase investigation of groups in Southern Sudan that have been identified as being at high risk for HIV infection, to be referred to as most-at risk populations, or MARPs. The study will take place over a four month period beginning o/a the third week of May and ending in October, 2011.

III. FUNDING SOURCE

Phase I of the assignment was supported by OHA through GHCS-USAID funds via the GH Tech project.

USAID/Juba requests that GH/OHA also provide funding for the implementation of Phase II.

IV. OBJECTIVES AND PURPOSE OF THE ASSIGNMENT

The primary objective of this formative assessment is to identify and describe behavioral and structural factors affecting HIV risk and vulnerability among selected populations considered at high risk for contracting HIV. Its purpose is to contribute information for the development of interventions to improve HIV/ AIDS prevention, care, and treatment programs for most-at-risk populations (MARPs) in Southern Sudan and to inform the development and implementation of the upcoming Sudan Integrated Bio-behavioral Surveillance Survey. Using a rapid assessment approach that employs an ‘integrated suite’ of qualitative research methods, the assessment will increase understanding of the dynamics and context of HIV risk and vulnerability among MARPs as well as ascertain the current status of HIV services, policies and other resources, or lack thereof, for these at-risk groups. The assessment will be carried out over approximately three months, including approximately five weeks of field work in country.

The assessment’s specific objectives are to:

1. Describe the historical, geographical, socio-demographic, and sub-group characteristics of HIV risk among most-at-risk populations (MARPs), including commercial sex workers, boda-boda drivers and long-distance truck drivers, in five regions of Southern Sudan (Yei, Nimule, Kaya, Juba and Yambio).
2. Identify and explain the extent and nature of HIV risk behaviors in MARPs.
3. Determine the types of policies, programs, and services currently in place, their level of use by MARPs, and their effects on HIV risk behaviors in MARPs.

4. Ascertain the unmet HIV needs of the most-at-risk populations for development of evidence-guided policies, programs, and interventions.

V. BACKGROUND

Southern Sudan has an estimated area of 640,000 square kilometers and a population of 10 million people. After more than twenty years of civil conflict, the nation is facing major development challenges ranging from peace and stability, infrastructure and human resource development, governance, provision of education, water and sanitation and health, including HIV/AIDS. Although in most of Northern Africa, HIV prevalence remains low, Southern Sudan and Djibouti are exceptions. In Southern Sudan HIV prevalence among pregnant women now exceeds 1%, representing a generalized epidemic similar to early stages of epidemic in Sub-Saharan Africa. While epidemics in the Middle East and North Africa are typically concentrated among people who inject drugs (IDUs), men who have sex with men (MSM), and sex workers and their clients, in Southern Sudan transmission is also occurring in the general population, especially among people moving back to their homelands from neighbouring HIV-endemic countries, which could potentially lead to increased incidence of HIV. Current program data suggest that there may be concentrated epidemics among certain groups and locales, including border regions; therefore there is a need to identify and to rapidly monitor HIV prevalence in these groups and areas. Such surveillance data is needed to better understand the epidemic in Sudan, feed into the surveillance information system, and advocate for HIV programming to focus on these groups and locales.

In Sudan, the overall lack of health care also reflects the current state of HIV/AIDS services and represents a critical development challenge for HIV treatment, prevention and care. Social, political and economic instability caused by decades of civil war have decimated the medical infrastructure of Southern Sudan, and explains the overall lack of resources including clinics and hospitals, trained staff, and medical supplies. This, along with substantial structural barriers such as HIV stigma, denial, gender disparities, and cultural beliefs and practices governing sexual behaviours could potentially hinder HIV prevention efforts.

Status of HIV/AIDS in Southern Sudan

Currently, there is a shortage of epidemiological and behavioural data on HIV in Southern Sudan making it difficult to obtain a clear picture of the state of the epidemic. Until just recently, there has been no functional national HIV/AIDS program so that the HIV/AIDS surveillance systems are not well developed. At present, there is no organized system for collecting and analyzing HIV test results, thereby limiting the ability to identify most-at-risk populations (MARPs) and risk factors for contracting the virus. What data that do exist show that nationally, a low proportion of people have ever received an HIV test (estimated at 1%). One study conducted in Juba in 2007 found HIV rates of 10.5% (15% male, 7% female) among people 1549.

Due to limited availability of HIV statistical data, a conclusive picture of HIV prevalence in Southern Sudan has not yet been established. In 2000, a survey built on sleeping sickness survey conducted in Tambura, Ezo, and Yambio estimated HIV prevalence to be 1.6%, 2%, and 7.2% respectively. The prevalence was found to be higher in villages near a main road (3.2%) as compared to be those away from main road (1.1%). The prevalence in Yambio differed markedly in town residents (8.7%) and residents of peri-urban areas (3.0%). A survey in Yei (2002) and Rumbek (2003) showed HIV prevalence to be 2.7% and 0.4% respectively. In 2003 the Sudan's HIV prevalence was estimated to be 2.6%, the epidemic was perceived to be generalized. In 2007, SSAC and MoH estimated the HIV prevalence to be 3.1% in Southern Sudan. ANC surveillance for HIV, which has been conducted in a limited number of health facilities in Southern Sudan between late 2005 and the end of August 2007, reported that overall HIV prevalence among the ANC respondents tested was 3.7% (95% CI 3.2-4.3). Site specific HIV

prevalence ranged from 0.8% (95% CI 0.3-1.6) in Leer-MSF Holland to 11.5% (95% CI 9.1-14.4) in Tambura Hospital. MSF attempted to estimate HIV prevalence in blood donors and found marked difference in HIV prevalence; 11% in Kajo Keji (near Uganda) to 0% in remote areas in Bahr el Ghazal. The HIV prevalence rate among blood donors based on findings from Juba Hospital is estimated to be 4.2%. An estimated 155,000 people are living with HIV/AIDS (PLWHA) with 15% (23,250) in need HIV treatment.

Most-at-risk Populations

In Sudan, most-at-risk populations include sex workers, truck drivers and members of the uniformed armed services; however, no epidemiological data exist to substantiate their levels of risk. In 2002, a survey among tea sellers in Juba estimated HIV prevalence to be 12%. While little data exist to substantiate HIV rates among MARPs, a recently series of behavioural surveys undertaken in Southern Sudan showed that 39% of truck drivers have had paid for sex in preceding 6 months and that in Juba, 15% of out of school youth have had sex for money. Other surveys related to knowledge regarding HIV/ AIDS and risk behaviours showed that knowledge regarding HIV AIDS is poor; only 45.1% of women aged 15-49 have ever heard of HIV while only 9.8% know the 3 main ways of preventing HIV transmission. In addition, 35.4% of women could correctly identify sexual intercourse as a mode of transmission.

Given the general lack of information about HIV prevalence in Southern Sudan; evidence that high risk sexual behaviours are common among some populations; and concerns that HIV may be defusing into Southern Sudan from neighbouring high prevalence countries, there is a strong need for further bio-behavioural research be carried out to establish the current status of HIV in the country. A first step will be to carry out a rapid formative assessment to provide contextual data on which to base larger epidemiological and bio-behavioural studies. This assessment will serve that purpose.

VI. WORK PLAN

A participatory rapid assessment approach will be employed in which the assessment team will work collaboratively with community stakeholders, Implementers, the Sudan MOH, funders and other partners to develop and review data collection instruments, identify and recruit interview participants, review and interpret findings and participate in the dissemination of findings. The purpose is to involve participation in order to increase the validity of results as well as to assure the integration and use of findings into HIV programs to reach and serve MARPs.

Methods

Rapid assessments typically use a mix of both qualitative and quantitative methods; however this assessment is more formative in nature and will rely on qualitative techniques such as mapping, in-depth and key informant interviews and focus group discussions (FGDs). It will also include a desk review and analysis of secondary data sources such as recent reports, published articles, surveys, and other relevant documents related to epidemiology of HIV in Southern Sudan. This analysis may include a review of statistical information from surveys, such as the Sudan Behavioral Monitoring Survey and other similar reports. In addition to the desk review, a full description of the methods, sampling strategy and data collection instruments will be given in the protocol; however below is a tentative matrix listing the methods and number of participants and interviews:

Proposed Interview Matrix

	Yei	Nimule	Yambio	Kaya	Juba
FGDs					
CSW	2 (6-8 participants)	2 (6-8 participants)	2 (6-8 participants)	2 (6-8 participants)	2 (6-8 participants)
Truck drivers		1 (6-8 participants)		1 (6-8 participants)	
Boda-boda Drivers			1 (6-8 participants)		1 (6-8 participants)
Sub-Total				14 (84-112 participants)	
In-depth Interviews					
	Yei	Nimule	Yambio	Kaya	Juba
CSW	8-10	8-10	8-10	8-10	8-10
Truck drivers		4-5	4-5	4-5	
Boda-boda Drivers					4-5
Sub-Total				56-70 participants	
Key Informant Interviews					
	2-3	4-6	4-6	4-6	4-6
Sub-Total				18-27 participants	
Total				158-209 participants	
				92-115 sessions	

Procedures and Timeline

The assessment will be carried out over a period of four months beginning in late May 2011, and be led by Principle Investigator (PI), along with USAID/Washington Senior M&E Advisor, Dr. Lorie Broomhall, who will oversee the project and collaborate with the PI on the protocol and instrument site preparation, training, and data analysis and reporting (see below for a more detailed description of roles and responsibilities). The assessment will begin with the PI revising the original project protocol, data collection instruments and consent forms. An initial 1 week site visit by the PI and Broomhall, was conducted in late May to determine the current state of the project, which had begun earlier and been postponed. The PI attempted to reconnect with stakeholders, especially those community participant groups that had been previously formed, to review data collection instruments and gather lists of potential interviewees. S/he also met with implementing partners, MOH and USG PEPFAR staff to discuss data needs. The PI met with the field team to assess training needs, and make final preparations for the field work.

Prior to the start of field work, a full protocol with a timeline, work plan and data analysis and use plans will be finalized. Also, the PI will develop a mapping strategy for locating and mapping 'hot spots' for high risk activity, HIV services and other resources and programs for MARPs in the study catchment areas, and complete a secondary data analysis and summary of relevant

documents and data so that results from the analysis will be used to develop and adapt interview and FGD guides. The PI will also work closely with the in-country team to arrange travel schedules and interview appointments.

Data collection, analysis and the dissemination of preliminary results will be done in Sudan over four weeks in mid-June to early July. The PI will direct the field team consisting of eight interviewers and two supervisors. Included in that time frame will be a training of the in-country field team with a brief pilot to be carried out in Juba, to be carried out at the end of the training. Field work will be carried out in the remaining four sites over the following two weeks. The field work will be conducted by two teams of four interviewers and one supervisor. Each team will collect data from two sites; both teams will collect data concurrently. At the end of fieldwork, both teams will return to Juba during the fourth week to synthesize field data under the direction of the PI.

Roles and Responsibilities

The Principle Investigator will be responsible for the following:

1. Provide overall study management and technical leadership.
2. Finalize the data collection plan, including:
 - Conduct preparatory visit to meet with in-country stakeholders, including USAID Sudan Mission staff, Ministry of Health, and PEPFAR partner organizations, to finalize operational planning and visit select target population sites to inform the finalization of the materials and overall plan. (This visit was completed in May 2011.)
 - Revise the protocol (as needed), operational manual, interview guides (for key informant and in-depth interviews and focus group discussions), consent forms, and training materials.
 - Review field team members' skills against language and other technical, management and logistical needs, and make adjustments as necessary to ensure effective structure is in place for quality data collection.
3. Design, manage, and analyze mapping exercises for locating 'hot spots' and sites providing HIV services.
4. Develop and implement a rapid analysis of summaries of interviews from field sites
5. Train and Manage data collection team
 - All team members will receive training before starting fieldwork. The minimal content of training program will include:
 - i. Purpose and Rationale of RARE study
 - ii. RARE Protocol and Operational Plan
 - iii. Key informant recruitment
 - iv. Interview Tool/Guide
 - v. Interviewing Techniques, including developing rapport and prompting
 - vi. Note taking and summary writing
 - vii. Data Handling and overview of qualitative data analysis
 - viii. Research ethics and confidentiality of study data
 - ix. Safety
 - x. Pilot exercise
6. Coordinate with team regarding organization and logistics of fieldwork
 - Provide overall leadership and guidance to ensure high quality data is collected.

- Oversee translation as necessary
 - Maintain security of study documents in accordance with Ministry of Health ERB regulations.
7. Develop report dissemination plan, based on in-country consultations with MoH and USAID
 8. Manage data analysis
 9. Develop Final Report

VII. TEAM COMPOSITION/SKILLS AND LEVEL OF EFFORT

The team will be lead by a Principal Investigator. S/he will work closely with Dr. Broomhall from USAID Washington, who will serve as Co-Investigator. A representative from the Southern Sudan Ministry of Health will be a third Principal Investigator. Apart from being the lead technical expert, the PI should have excellent oral and written communication skills. S/he will be responsible for the overall planning, design and implementation of phase II activities described in this Scope of Work and be responsible for the coordination among team members. The PI will be responsible for report writing and the organization of the debriefing presentations, if necessary. S/he will have the overall responsibility for management of the team and finalization of the delivery to USAID/Juba.

The PI will have a combination of these skills: at least the equivalent of a Masters degree in Public Health, preferably a Ph.D. in Epidemiology or Anthropology, and have significant experience (minimum 5 years) in qualitative assessment, protocol development and implementation. Consultants should possess skills in qualitative methodology, including focus group interviews, in-depth interviews, mapping, and experience with at least one type of qualitative software. Knowledge of use of qualitative data to inform HIV programming and Surveillance Strategies is preferred. Experience working in sub-Saharan Africa or post-conflict settings is also preferred. Consultants should be skilled at summarizing data and preparing written reports of findings.

In addition to the Principle Investigator, this Phase II SOW will require the following team members to perform the following roles:

2 Supervisors (1 supervisor per interview team)

- Liaise with community
- Manage logistics associated with data collection, including venues for interviews, scheduling and confirming interviews and coordinating transportation and other logistics with MSI
- Ensure that all participants are consented properly, consent forms are signed and collected and stored, confidentiality procedures are followed and data are securely stored, and any potential confidentiality breeches are dealt with immediately in accordance with IRB regulations.
- Lead the logistical organization of fieldwork for data collection, data management of summaries and recordings
- Ensure that all equipment is operational, and arrange for transport of interview tapes to Juba.
- Oversee data collection and conduct interviews
- Participate in rapid on-site data analysis of interviews with interviewers and PI
- Ensure the smooth and efficient day-to-day operation of data collection activities
- Report back to community study findings
- Provide regular updates to PI about the data collection progress and any issues

- Assist the Principle Investigator with other tasks as necessary

8 Interviewers (4 interviewers per team)

- Liaise with community
- Report to Supervisors
- Arrange and conduct Interviews
- For each interview, one will serve as interviewer and another will serve as scribe and write detailed notes which will be used in the rapid data analysis. The scribe will also be responsible for digitally recording the interview for possible future in-depth analysis of transcripts.
- Participate in rapid on-site data analysis of interviews with supervisor and Team Leaders
- Provide regular updates to Supervisor the data collection progress and any issues

VIII. LEVEL OF EFFORT

It is estimated that the team members will each require the following LOE:

Task	Team Leader	2 Supervisors	8 Interviewers
Finalize training materials, operational plan, questionnaires, mapping procedures, and data analysis and use plan. Conduct team planning meeting.	10 days	2 days	
Travel to Juba	1 day	1 day	1 day
Training Interviewers	5 days	5 days	5 days with 16 trainees – only 8 will be selected as interviewers
Pilot Juba Site	5 days	5 days	5 days
Manage Data Collection, 4 sites	14 days	14 days	14 days
Return travel home	1 day	1 day	1 day
Return travel to Juba	1 day	1 day	
Analyze data and draft initial report and present to USAID and other stakeholders	5 days	5 days	
Return travel home	1 day	1 day	
Draft final report	20 days		
Travel to Juba	1 day		
Data use working session with Basilica, PEPFAR, MoH, SSAC, GF and other partners	3 days		
Return travel home	1 day		

Task	Team Leader	2 Supervisors	8 Interviewers
Total days	68 days	35 days each	26 days each for 8 interviewers (5 days each for other 8 trainees)

IX. LOGISTICS

The team will be provided with workspace in Juba, South Sudan. Exact location is TBD (either in mission space or in contract space outside mission).

GH Tech will provide for international transportation to and from Sudan and cover costs of local lodging and per diem for the PI and 2 Supervisors. Housing space will be coordinated with the mission.

MSI will provide support for trainings and local travel. MSI will cover all costs of local travel and cover per diems for interviewers.

X. DELIVERABLES AND PRODUCTS

Phase II

1. Final protocol
2. Detailed work plan
3. Interview guides for each type of interview, target population and key informant
4. Information sheet outlining the objectives of the RARE to be provided to / read to respondents, consent form
5. Materials for training of local staff in rapid data collection, interviewing techniques, note taking and summary writing, and analysis
6. PowerPoint Presentation(s) and a 10-15 page summary, including maps, of preliminary findings to be distributed at the dissemination at the end of the field work.
7. Final report based upon both initial findings and final analysis of data within 45 days of the dissemination

Once the report has been approved it will be professionally edited and formatted. Please note that this process takes approximately 30 days. Once the final edited and formatted version is approved, it will be posted to the GH-Tech website and the Development Experience Clearinghouse (DEC).

XI. RELATIONSHIPS AND RESPONSIBILITIES

Consultant team will work closely with the GoSS Ministry of Health, USAID Washington RARE Technical Advisor, USAID Sudan Health Advisor.

Consultant team will receive technical direction from Hanh La and Lorie Broomhall.

XII. MISSION AND/OR WASHINGTON CONTACT PEOPLE/PERSON

1. Anna Williams, USAID Sudan Health Advisor
2. Lorie Broomhall Senior M&E Advisor, USAID/OHA.
3. Basilica Modi: HIV Advisor, USAID/Sudan
4. Elisa Ballard: Sudan SI Advisor, USAID/OHA.
5. Hanh La: Senior Surveillance Advisor, USAID/OHA.

XIII. COST ESTIMATE—TBD

XIV. ATTACHMENT

Study implementation plan

APPENDIX B. IDI GUIDE—SEX WORKERS

IN-DEPTH INTERVIEW GUIDE FOR SEX WORKERS (BROTHEL-BASED, LODGE-BASED, STREET-BASED, HOME-BASED, TRANSACTIONAL)

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] Be sure that consent forms are signed and dated and placed in consent folder.

1. **Mapping exercise: I would like to start off this interview with a mapping exercise:** I'm going to ask you to locate, on this map, all the places you know where sex work is taking place, such as streets, markets, brothels, bars/clubs, private homes, hotels, barracks, etc. For each location can you tell me more about the sex workers: **[Prompt: for each location ask the following questions:]**
 - What kind of sex workers works there? How many work at this location?
 - Where do they come from (country of origin) and what is their tribe/ethnic group?
 - What are their ages, Are they are considered high class/low class?
 - What types of clients go here **[soldiers, businessmen, boda boda drivers, etc.]?**
 - What kinds of sexual services are sold, and how much those services generally cost?
 - Please show my any other places you know of where risky sex takes place?
2. Let's now talk about risky sexual behavior. To make sure we all understand the topic, can you tell me what kinds of risky behaviors make people more likely to get infected with HIV? **[Be sure that all modes of transmission are mentioned (i.e. multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, if any), and capture any wrong responses (mosquitoes, etc.) as well.]**
 - a. In your opinion, what kinds of risky sexual behaviors are sex workers engaging in?
 - b. Can you give me some examples, or scenarios, of risky sexual practices between sex workers and clients? **[Prompt: 'Can you think of any other examples?' Keep asking until there are no more responses.]**
 - c. Let me now ask the same question about sex between sex workers and their other sex partners, nonpaying partners (husbands, boyfriends, etc.) **[Prompt: 'Can you think of any other examples?' Keep asking until there are no more responses.]**
[Prompt: be sure to ask about male sex work.]
3. Now I would like to ask you to tell me your story:
 - a. Where do you practice sex work around here? Can you tell me about that?
 - b. Can you tell me about yourself? How old are you? How long have you been a sex worker? Where are you from? What is your ethnic group?
 - c. Are you married, single? Do you have a regular partner? If yes, how long have you been together? Do you have any children? If yes, how many?
 - d. How long have you been practicing sex work here?
 - e. Where do you practice sex work? **[brothel, lodge, home, street, market, etc.]**
Does the place have a name?
4. What kinds of clients do you usually have sex with? [boda boda drivers, long-distance truck drivers, police/military/customs officials, community leaders, business men, laborers] How often do you use condoms with these clients? **[Prompt: if she doesn't use condoms with some clients, ask:]** Can you explain why you don't use condoms with these clients?

5. Do you have sex partners who are not clients? Who are they? What is your relationship to them? **[Prompt: husband, boyfriend, friend, etc.]** Do you use condoms with these partners? If not, why not?
6. Are you having sex with men who give you things besides money **[e.g., food, clothes, alcohol/drugs etc.]**? Can you tell me about that?
7. Do you have any other jobs or ways of making money besides sex work? [e.g., food/tea selling] What are they?
8. We would like to understand a little more about your job as a sex worker. Who gets the money? On a typical night, how much money does a sex worker make? How many clients do you usually have? What clients do you use condoms with? (all, some, none) and why? Who provides the condoms? Can you refuse to have sex with a client without a condom? Why or why not? Explain. What kind of sex (oral vs. vaginal, vs. rectal) do you usually have with clients?
9. I would now like to ask about alcohol and drug use.
 - a. How often do you drink alcohol? What kind of alcohol do you drink? (beer, Kwete, siko, hard liquor etc.)
 - b. Do you use any drugs? If so what kind of drugs do you use? How often [prompt:
 - c. Every day, few times a week, rarely, etc.]
 - d. Have you ever sold sex for alcohol or drugs? If yes, when was the last time you exchanged sex for alcohol or drugs? Can you tell me about that?
 - e. Do you think your drug and/or alcohol use affects your risk for HIV? Could you tell me about that?
10. Can you please describe any situations in which you experience physical and/or sexual violence or coercion when having sex with clients or other sex partners? How often has this happened to you? If you feel comfortable talking about it, can you tell me about your most recent experience with sexual and/or physical violence?
 Now I'd like to go back to the map. Could you show me the places that you know of here in this area that provide HIV services? I'd like you to mark these places on the map and then tell me about each place **[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; care and support for PLWHA] For each place, ask:]** What services are available here? How did you find out about these services? Have you ever used this service? Were you happy with the service you got? Why or why not? Do you think other sex workers know about this service? Do they use this service? Why or why not?
11. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask:]** How do you get in contact with this group?
12. How much do you know about HIV/AIDS? [Prompt: What risk behaviors do you know? How can you protect yourself against getting HIV?]
13. Have you ever been tested for HIV? Where did you go to get tested and how many times have you been tested and received your test results? How often do you talk with other sex workers talk about HIV?
 - a. What do you talk about?
 - b. What do they think about their risk for becoming infected with HIV?
[Prompt: think they are at high risk, somewhat at risk, not at risk]

- c. Do sex workers know where to get tested for HIV around here? How many do you think get tested and know their HIV status? [Prompt: most, some, few, none. Prompt: If few women are getting tested, ask:] Why do you think sex workers are not getting tested for HIV? [Prompt: lack of testing services, dislike of service providers, fear of HIV, etc.?]
14. What do you think about condoms? How often do you use them with clients? With personal partners?
 - a. How easy is it to get partners to agree to use condoms?
 - b. Who provides the condom? Where can you get condoms around here? How much do they cost?
15. How many people do you know who are infected with HIV? How often do talk to your friends about HIV? What do you talk about? What do think about your own risk for getting infected with HIV? **[Prompt: high risk, somewhat at risk, not at risk. DON'T ASK PARTICIPANT IF SHE IS HIV POSITIVE, but if she freely reveals she is HIV+, ask]:** Can you tell me about how you got infected? How long ago was that? Are you currently getting treatment? What other support services are you getting? What do you think of the services? What other kinds of support do you need?
16. In your opinion, what do you think would be the best way to help sex workers avoid getting infected with HIV?
 - a. What kinds of programs do you think are most needed? [Probe: prevention outreach, condoms, care and support for PLWHA, treatment, etc.]
 - b. What would encourage sex workers to use these services?
17. Before we end this session, do you have any questions or comments about anything we discussed during this discussion?

Thank you so much for giving us your time and expert knowledge about HIV risk among sex workers. The information you provided will greatly help us develop effective programs to help people avoid getting infected with HIV.

APPENDIX C. IDI GUIDE—BODA BODA DRIVERS

IN-DEPTH INTERVIEW GUIDE FOR BODA BODA DRIVERS

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] This is done immediately before the IDI. **Be sure that consent form is signed and dated and placed in consent folder.**

1. To make sure we all understand the topic, let's first discuss what risky behaviors are.
Can you tell me what kinds of risky behaviors make people more likely to get infected with HIV? [Be sure that all modes of transmission are mentioned (e.g., multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, anal sex if any) and that any wrong responses (e.g., mosquitoes, etc.) are addressed].
Mapping exercise: OK, I'd like to start by asking you to do a mapping exercise with me. I'm going to ask you to locate, on this map, all the places you know where risky sexual behaviors take place [Prompt: bars, clubs, street, market, truck stop, etc.
2. For each risk location, ask: Tell me about this risk location (bar, club, street, etc.). Can you tell me about this place and who goes there? What kinds of risky behaviors go on at this location? Ask for examples.
[Prompt: repeat for each of the risk locations identified on the map]
3. Now I'd like you to show me the places that you know of that provide HIV services in this area. I'd like you to mark these places on the map and then tell me about each place
[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; care and support for PLWHA. For each place, ask:] What services are available here? How did you find out about this service? Have you ever used this service?
4. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask:]** How do you know this group? How do you get in contact with this group?
5. OK, now I would like to know a little about you. **[Probe for: age, marital status, highest level of education, residence, how long they one has worked as a boda boda driver, etc.]**
6. Think of your typical day as a boda boda driver. Can you tell me all about it? **Probe:** When **they** start the day, what **they** do the whole day from start, when **they** close business for the day; what **they** do after closing business. How much money do they make during a typical day?
7. Now, think about your customers. How often do you take them to places where they are likely to meet with a sex worker? Do you have regular customers you take to sex workers? How often do you take sex workers to their customers? Do you have sex workers you regularly take to customers? Tell me about these sex workers: who are they?
8. In your opinion, what kinds of risky behaviors are boda boda drivers engaging in? Can you give me some examples, or scenarios, in which you may have put yourself at risk?
[Prompt: 'Can you think of any other examples?' Keep asking until there are no more responses.]
9. 9. What kinds of partners have you had sex with in the last month? **[Prompt: casual, regular, wives, CSWs]** Are these people likely to be at high risk for HIV, and if so how? Think back over the last one month: how often have you had sex? Can you give me

some examples? Can you tell me about your sex partners? **[Prompt: were they sex workers, friends, wives, girlfriends, etc.]** Which of these partners did you use condoms with? **[Prompt: If participant used condoms with some partners but not all, ask:]** Why did you/didn't you use condoms with that partner?

10. As a boda boda driver, have you had sex with a woman (other than your regular partner) for which you gave things besides money **[e.g., free rides, food, clothes, alcohol/drugs etc.]** Can you tell me about that?
11. Can you tell me about boda boda drivers and their use of alcohol and drugs? How common is drug and alcohol use among boda boda drivers? Have you engaged in any of these activities? If so, tell me about your drinking/drug taking **[Prompt: what are they drinking/ drugs they are taking?]**. Do you think drinking and/or drug taking increases your risk for HIV? How so/why not?
12. Now I'd like to ask you about your own risk for HIV. Do you think you are at risk of contracting HIV? **[Prompt: think you are at high risk, somewhat at risk, not at risk]** Do you worry about getting infected with HIV? **[Prompt: if worried, ask:]** How worried are you? Have you been tested for HIV? Why or why not? **[Prompt: if participant has been tested, ask:]** Where did you go to get tested?
13. How often do you talk about HIV with other boda boda drivers? What do you talk about? In your opinion, do you think other boda boda drivers are worried about getting infected? Why or why not?
14. What kinds of AIDS services are there around here? **[Prompt: prevention, counselling and testing, treatment, care. For each service mentioned, ask for details about where the service is located, who are using the services, and what people in general think about the services.]**
15. In your opinion, what do you think would be the best way to help boda boda drivers avoid getting infected with HIV? What kinds of programs do you think are most needed?
16. Before we end this session, do you have any questions or comments about anything we discussed during this interview?

Thank you so much for giving us your time and expert knowledge about HIV risk. The information you have provided will greatly help us develop effective programs to help people avoid getting infected with HIV. Thank you.

APPENDIX D. IDI GUIDE—LONG-DISTANCE TRUCK DRIVERS

IN-DEPTH INTERVIEW GUIDE FOR LONG-DISTANCE TRUCK DRIVERS

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] This is done individually immediately before the IDI. Be sure that consent forms are signed and dated and placed in consent folder.

1. To make sure we all understand the topic, let's first discuss what risky behaviors are.
Can you tell me what kinds of risky behaviors make people more likely to get infected with HIV? [Be sure that all modes of transmission are probed (i.e., multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, anal sex, if any), and that any wrong responses (mosquitoes, etc.) are addressed.]
Mapping exercise: OK, I'd like to start by asking you to do a mapping exercise with me. I'm going to ask you to locate, on this map, all the places you know where risky sexual behaviors take place. [Prompt: bars, clubs, street, market, truck stop, etc.]
2. For each risk location, ask: Tell me about this risk location (bar, club, street, etc.). Can you tell me about this place and who goes there? What kinds of risky behaviors go on at this location? Ask for examples.
[Prompt: repeat for each of the risk locations identified on the map.]
3. Now I'd like you to show me the places that you know of that provide HIV services in this area. I'd like you to mark these places on the map and then tell me about each place
[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; Care and support for PLWHA. For each place, ask:] What services are available here? How did you find out about this service? Have you ever used this service?
4. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask]** How do you know this group? How do you get in contact with this group?
5. I would like to know a little about you. **[Probe for:** Age, marital status, highest level of education, where are you from? How long have you been a long-distance truck driver? Do you own your own truck, or are you hired to drive it? How much time do you spend on the road? **[Prompt: most, half, some]** Do you have a family [wife, children]? If so, where does your family live? Do you have more than one family? **[Prompt:]** If yes, could you tell me about them?
6. Think of your typical trip as a long-distance truck driver. Can you tell me all about it?
Probe: Where does the trip start? Where do you stop along the way? Where do you sleep? Where do you go to relax? Socialize? Meet with women or girlfriends?
7. Do you have female friends along the route you follow? If yes, **[probe]:** what type of female friends are these? Drinking partners? Sex partners? How often do you get together with them?
8. Thinking about yourself, what kinds of risky behaviors are you most likely to engage in? Can you give me some examples, or scenarios, in which you have put yourself at risk?

[Prompt: ‘Can you think of any other examples?’ Keep asking until there are no more responses.]

9. What kinds of partners have you had sex with in the last month? **[Prompt: casual, regular, wives, CSWs]** Are these people likely to be at high risk for HIV, and if so how? Think back over the last one month: how often have you had sex? Can you give me some examples? Can you tell me about your sex partners? **[Prompt: were they sex workers, friends, wives, girlfriends, etc.]** Which of these partners did you use condoms with? **[Prompt: if participant used condoms with some partners but not all, ask:]** Why did you/didn't you use condoms with that partner?
10. How often do you have sex with sex workers? Where do you go in this town to have sex with sex workers? **[Prompt: if they are having sex with sex workers, ask:]** Can you tell me about your experiences with sex workers in this town? Where are you going to have sex with sex workers? Do you use condoms when you have sex with sex workers? If so, how often, if not why not?
11. As a truck driver, have you had sex with partners (other than your regular partner) for which you gave things besides money **[e.g., free rides, food, clothes, alcohol/drugs etc.]** Can you tell me about that?
12. In your work as a long-distance truck driver have you had sex with women whom you give things besides money **[e.g., food, clothes, alcohol/drugs, etc.]** Can you tell me about that? How do you find these women? Where do you have sex with them? How frequently do you do this? Do you have any regular women that you see every time you are in their town?
13. Can you tell me about long-distance truck drivers and the use of alcohol and drugs? How common is drug and alcohol use among truckers and turn boys? Have you engaged in any of these activities? If so, tell me about your drinking/drug taking **[Prompt: what are they drinking/ drugs they are taking?]**. Do you think drinking and/or drug taking increases your risk for HIV? How so/why not?
14. Now I'd like to ask you about you're your own risk for HIV. Do you think you are at risk of contracting HIV? **[Prompt: think you are at high risk, somewhat at risk, not at risk]** Have you been tested for HIV? Why or why not? **[Prompt: if participant has been tested, ask:]** Where did you go to get tested?
15. How often do you talk about HIV with other truck drivers and turn boys? What do you talk about? In your opinion, do you think other truckers are worried about getting infected? Why or why not?
16. In your opinion, what do you think would be the best way to help long-distance truck drivers avoid getting infected with HIV?
 - a. What kinds of programs do you think are most needed?
 - b. How would programs encourage truck drivers to participate?
17. Before we end this session, do you have any questions or comments about anything we discussed during this interview?

Thank you so much for giving us your time, for telling us about yourself and your expert knowledge about HIV risk. The information you provided will greatly help us develop effective programs to help people avoid getting infected with HIV.

APPENDIX E. IDI GUIDE—KEY INFORMANTS

IN-DEPTH INTERVIEW GUIDE FOR KEY INFORMANTS

HIV/AIDS Situation

Let's start out by doing a mapping exercise. I'm going to ask you to locate, on this map, all the places you know where risky sexual behaviors take place **[prompt: bars, clubs, street, market, etc.]**

1. **[Prompt: For each risk location, ask:]** Tell me about this risk location (bar, club, street, etc.) Can you tell me about this place and who goes there? What kinds of risky behaviors go on at this location?

[Prompt: repeat for each of the risk locations identified on the map]

Now I'd like you to show me the places that provide HIV services in this area. I'd like you to mark these places on the map and then tell me about each place **[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; Care and support for PLWHA]**. For each place, ask: What services are available here? Do you think Boda Boda drivers know about this service? Do they use this service? Why or why not?

2. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask]** How do you get in contact with this group?
3. What is the HIV/AIDS situation in __area? **[identify area by name]**
 - a. Who is affected? (**prompt** for commercial sex workers, tea sellers, boda boda drivers, truck drivers)
 - i. In what ways are these groups (commercial sex workers, tea sellers, boda boda drivers, long-distance truck drivers) affected?
 - ii. Do women face any challenges that are different than those of men? What are they?
 - b. Are the affected groups changing their sexual behavior? If so, how have they changed? If not, why are they not changing?
 - c. What are the impacts of AIDS in your district?
4. Can you tell me more about the following groups and describe behaviors that affect their risk of HIV? **Prompt for each group:** Commercial sex workers, tea sellers, boda boda drivers, truck drivers
 - a. What are subgroups within each group?
 - b. Where do they reside?
 - c. Where do they work?
 - d. Could you describe for me their typical daily activity?
 - e. How do they meet partners?

Policies and Programs on HIV/AIDS

1. Are there HIV/AIDS services and activities that are accessible by the following groups in your district? commercial sex workers, boda boda drivers, truck drivers
 - a. What are the services/ activities? Where are they? How long have they been in existence?

- b. Who participates in developing and implementing these activities?
 - c. How do these programs reach out to these populations?
 - d. What constraints are these programs facing? – **Probe:** financial, dealing with stigma from the general population, dealing with stigma from the service providers, etc
2. Does the district have policies or guidelines that specifically address commercial sex workers, boda boda drivers, truck drivers?
 - a. What are they? Who sets these policies?
 - b. What interaction do these groups have with society?
 - c. What interaction with PLWHA do you yourself have?
 3. Thinking about this district as a whole, who are the organizations carrying out programs on HIV/AIDS and where are they operating? **Probe:** What services are they providing?
 4. What additional programs are needed?
 5. What specific types of interventions do you think would be more effective than others?
 6. Why?

Other

1. Could you tell me any other HIV-related issues that are important to you that we haven't talked about?

Thank you very much for your participation in this interview

APPENDIX F. FGD GUIDE—SEX WORKERS

FOCUS GROUP DISCUSSION GUIDE FOR SEX WORKERS (BROTHEL-BASED, LODGE-BASED, STREET-BASED, HOME-BASED, TRANSACTIONAL)

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] This is done individually immediately before the FGD. Be sure that consent forms are signed and dated and placed in consent folder.

1. **Mapping exercise: I would like to start off this focus group discussion with a mapping exercise:** I'm going to ask you to locate, on this map, all the places you know where sex work is taking place, such as streets, markets, brothels, bars/clubs, private homes, hotels, barracks, etc. For each location can you tell me more about the sex workers? **[Prompt: for each location ask the following questions:]**
What kind of sex worker works there? How many work at this location?
 - a. Where do they come from (country of origin) and what is their tribe/ethnic group?
 - b. What are their ages, Are they are considered high class/low class?
 - c. What types of clients go here? [soldiers, businessmen, boda boda drivers, etc.]
 - d. What kinds of sexual services are sold, and how much do those services generally cost?**[Prompt: be sure to ask about male sex work.]**
2. We have learned that many sex workers come from different countries and areas of Sudan. What are their reasons for coming to South Sudan to work?
3. Let's now talk about risky sexual behavior. To make sure we all understand the topic, can you tell me what kinds of risky behaviors make people more likely to get infected with HIV? **[Be sure that all modes of transmission are mentioned (i.e. multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, if any), and capture any wrong responses (mosquitoes, etc.) as well.**
4. In your opinion, what kinds of risky sexual behaviors are sex workers engaging in?
 - a. Can you give me some examples, or scenarios, of risky sexual practices between sex workers and clients? **[Prompt: Can you think of any other examples? Keep asking until there are no more responses.]**
Let me now ask the same question about sex between sex workers and their other sex partners, nonpaying partners (husbands, boyfriends, etc.)
[Prompt: Can you think of any other examples? Keep asking until there are no more responses.]
5. Are sex workers having sex with men who give them things besides money **[e.g., food, clothes, alcohol/drugs etc.]?** Can you tell me about that?
6. We would like to understand a little more about the economics of sex work. Who gets the money? On a typical night, how much money does a sex worker make? How many clients does she usually have? What clients does she use condoms with? **(all, some none)** and why? Who provides the condoms? Can she refuse to have sex with a client without a condom? Why or why not? Explain. What kind of sex (oral vs. vaginal, vs. rectal) does she usually have with clients?
7. Do sex workers have any other jobs or money-making strategies? What are they? Can you give some examples?

8. Tell me about sex workers and alcohol and drugs. What do they drink? What kinds of drugs do they take? Is alcohol abuse a problem among sex workers? What about drug abuse? If so, can you tell me about that? Are sex workers selling sex for alcohol or drugs? Could you tell me how that happens?
 - a. Do you think drug and/or alcohol use could affect people's risk for HIV? If so, how?
 - b. Can you describe some situations in which drugs and/or alcohol use could contribute to HIV risk among sex workers?
9. Can you please describe any situations you know of in which sex workers ever experience violence directed at them by their clients, regular partners, or others? How often do you think sex workers suffer from physical and or sexual abuse?
10. How much do you think sex workers know about HIV/AIDS?
[Prompt: What risk behaviors do you think they know?]
11. How often do sex workers talk about HIV (i) among themselves, (ii) with other people?
 - a. What do they talk about?
 - b. What do they think about their risk for becoming infected with HIV?
[Prompt: think they are at high risk, somewhat at risk, not at risk]
12. What are sex workers' attitudes about condoms and other ways to prevent getting infected with HIV? **[Prompt: partner reduction, abstinence, being faithful, etc.]**
 OK, let's go back to our map. This time, I would like you to point out all the places you know of that provide HIV-related (or AIDS-related) services around here? **[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; care and support for PLWHA. For each place, ask:]** What services are available here? Do you think sex workers know about this service? Do they use this service? Why or why not?
13. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services to sex workers in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask:]** How did you learn about this group, and how do you get in contact with them?
14. In general, how much do you think sex workers know about HIV/AIDS? [Prompt: what risk behaviors do you think they know?] How many of you know someone with HIV? [Prompt: ask them to raise their hands if they know 5 or more people with HIV; more than 3 people; at least 1 person] How many of these people that you know with HIV are sex workers?
15. In your opinion, do sex workers know where they can get tested for HIV around here? How many do you think get tested and know their HIV status? [Prompt: most, some, few, none [Prompt: if few women are getting tested ask:] Why do you think sex workers are not getting tested for HIV? [Prompt: lack of testing services, dislike of service providers, fear of HIV, etc.?]
16. How often do sex workers talk to each other about HIV? What do they say? What do they think about their risk for becoming infected with HIV? **[Prompt: think they are at high risk, somewhat at risk, not at risk]**
17. What are sex workers' attitudes about condoms and other ways to prevent getting infected with HIV? **[Prompt: partner reduction, abstinence, being faithful, etc.]** In your opinion what are the reasons that sex workers might not use condoms with clients? Why would they not use condoms with their regular partners? **[Prompt: clients refuse to use them; nonpaying partners refuse to use them, coercion, trust, access to condoms?]**

18. In your opinion, what do you think would be the best way to help sex workers avoid getting infected with HIV?

- a. What kinds of programs do you think are most needed? [Probe: prevention outreach, condoms, care and support for PLWHA, treatment, etc.]
- b. What would encourage sex workers to use these services?

Before we end this session, do you have any questions or comments about anything we discussed during this focus group discussion?

Thank you so much for giving us your time and expert knowledge about HIV risk among sex workers. The information you provided will greatly help us develop effective programs to help people avoid getting infected with HIV. Thank you.

APPENDIX G. FGD GUIDE—BODA BODA DRIVERS

FOCUS GROUP DISCUSSION GUIDE FOR BODA BODA DRIVERS

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] This is done individually immediately before the FGD. Be sure that consent forms are signed and dated and placed in consent folder.

1. To start, I would like to know more about BBDs in general. Could you tell me where BBDs come from (e.g., from the local community, other places in Sudan, Kenya, Uganda, etc.), level of education; marital status, whether they have children or not, etc. Do you own the motor bike you use? If employed, how often do they get paid? About how much money do you make per day? Do you live in your own house? When not at work where do you like hanging out?
2. To make sure we all understand the topic, can you tell me what kinds of risky sexual behaviors make people more likely to get infected with HIV? **[If the participants do not mention any of the major modes of transmission, be sure to probe (multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, if any), and be sure that that any wrong responses (mosquitoes, etc.) are addressed.]**
3. In your opinion, what kinds of behaviors are boda boda drivers most likely to engage in that might put them at risk for HIV?
 - a. Can you give me some examples, or scenarios, in which boda boda drivers are likely to have sex with a nonregular/casual partner?? **[Prompt: ‘Can you think of any other examples?’ Keep asking until there are no more responses.]**
 - b. Where do boda boda drivers find these sex partners? **[Probe: bars, clubs, other venues, etc.]**
 - c. How often do they use condoms with these non H regular/casual partners?
4. What kinds of partners are boda boda drivers having sex with [Prompt: casual, regular, wives, CSWs? Then ask about each category with the following questions:]
 - a. What kind of regular partners do BBDs have **[Prompt: wives, girlfriends, friends etc.]** Do you think that BBDs with wives and girlfriend are faithful or do they have other partners? **[Prompt: if other partners, ask:]** Who else are they having sex with?
 - b. Are boda boda drivers using condoms with these regular partners? Why or why not?
 - c. Let’s talk about casual partners. What kind of casual sexual partners do BBDs have? **[Prompt: sex workers, girls in bars, clubs]**
 - d. Can you describe for me the kind of sexual relationships a typical boda boda driver might have? Give me some examples.
 - e. Where and how do they meet sex partners?
 - f. Are BBDs having sex with sex workers? **[if yes:]** Can you tell me about that? **[Prompt: Where are they having sex with sex workers (markets, brothels, lodges, etc.)]**
 - g. Are BBDs involved in commercial sex work? **[Prompt: pimps, transporters, etc.]** If so, can you explain, give examples?
 - h. Are BBDs using condoms when they have sex with casual partners? With sex workers? Why/why not?

5. Are boda boda drivers having sex with women who give them sex for things besides money **[e.g., food, clothes, alcohol/drugs etc?]** Can you tell me about that? **[Probe for: networks among boda boda drivers? links with pimps?]**
6. Here's a sensitive question – are BBds having sex with other men? **[Prompt; if no – skip, if yes:]** Can you tell me about that? How common is it for BBDs to have sex with other men? Are they using condoms?
7. Can you tell me about boda boda drivers and their use of alcohol and drugs?
[Prompt: what kinds of alcohol (beer, local stuff, hard liquor); what kinds of drugs?]
 - a. How often do they drink alcohol, take drugs? How much do they drink? How much drug use are they engaging in?
 - b. How do you think their alcohol/drug use affects their risk for HIV?
[Prompt: not at all—a lot] If so, how? Can you give me some examples?

Mapping exercise: OK, now I would like to ask you to do something else: a mapping exercise. I'm going to ask you to locate, on this map, all the places you know where risky sexual behaviors take place
[Prompt: bars, clubs, street, market, etc.]
8. For each risk location, ask: Tell me about this risk location (bar, club, street, etc.). Can you tell me about this place and who goes there? What kinds of risky behaviors go on at this location? Ask for examples.
[Prompt: repeat for each of the risk locations identified on the map]
Now I'd like you to show me the places that provide HIV services in this area. I'd like you to mark these places on the map and then tell me about each place **[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; care and support for PLWHA; for each place, ask:]** What services are available here? Do you think boda boda drivers know about this service? Do they use this service? Why or why not?
9. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask:]** How do you get in contact with this group?
10. In general, how much do you think boda boda drivers know about HIV/AIDS? **[Prompt: risk behaviors do you think they know?]** How many of you know someone with HIV? **[Prompt: ask them to raise their hands if they know 5 or more people with HIV; more than 3 people; at least 1 person]** How many of these people that you know with HIV are BBds?
11. In your opinion, do boda boda drivers know where they can get tested for HIV around here?
How many do you think get tested and know their HIV status? **[Prompt: most, some, few, none]**
12. How often do boda boda drivers talk to each other about HIV? What do they say? What do they think about their risk for becoming infected with HIV?
[Prompt: think they are at high risk, somewhat at risk, not at risk]
13. What are boda boda drivers' attitudes about condoms and other ways to prevent getting infected with HIV? **[Prompt: partner reduction, abstinence, being faithful, etc.]** In your opinion what are the reasons that boda boda drivers don't use condoms?
[Prompt: size, pleasure, pressure, trust, mood, money, access?]

14. In your opinion, what kinds of HIV/AIDS programs and services do you think are most needed and why? **[Prompt: prevention? treatment? care and support?]**
 - a. What would encourage boda boda drivers to use these HIV services/programs?
15. Before we end this session, do you have any questions or comments about anything we discussed during this focus group discussion?

Thank you so much for giving us your time and expert knowledge about HIV risk among boda boda drivers. The information you provided will greatly help us develop effective programs to help people avoid getting infected with HIV. Thank you.

APPENDIX H. FGD GUIDE—LONG-DISTANCE TRUCK DRIVERS

FOCUS GROUP DISCUSSION GUIDE FOR LONG-DISTANCE TRUCK DRIVERS AND TURN BOYS

[ADMINISTER AND RECEIVE CONSENT BEFORE PROCEEDING] This is done individually immediately before the FGD. Be sure that consent forms are signed and dated and placed in consent folder.

1. To start, I would like to know more about long-distance truck driving by getting some general information. Could you tell me where most of the truck drivers that pass through here are from? Are they locals, or from other places? **[Prompt: if from other places, ask where]** Do most truckers own their trucks, or are they hired to drive them? Tell me about turn boys. Who are they and what do they do? How much time do truckers and turn boys spend on the road? **[Prompt: most, half, some]** Are most truckers married? If so, where do their families live? What about turn boys?
Since this assessment is about HIV risk I'll be asking you about the kinds of sexual behaviors that can put truckers and turn boys at risk for contracting HIV. To make sure we all understand the topic, let's first discuss what risky sexual behaviors are. Can you tell me what kinds of risky behaviors make people more likely to get infected with HIV? **[Be sure that all modes of transmission are mentioned (i.e. multiple sex partners, nonuse of condoms, sex under influence of drugs/alcohol, injection drug use, if any), and that any wrong responses (mosquitoes, etc.) are addressed.]**
2. In your opinion, what kinds of risky sexual behaviors do long-distance truck drivers and turn boys engage in?
 - a. Can you give me some examples, or scenarios, in which long-distance truck drivers are engaging in risky behaviors? **[Prompt: 'Can you think of any other examples?' Keep asking until there are no more responses.]**
3. Since truckers are often away from home for long periods of time, are they having sexual relations with other partners besides their wives or girlfriends at home? If so, how common is it for truckers to have other sex partners?
[Prompt: very common, not very common, etc.]
 - a. In your opinion, what kinds of behaviors are truck drivers and turn boys most likely to engage in that might put them at risk for HIV?
 - b. Can you give me some examples, or scenarios, in which truck drivers and turn boys are having risky sex? **[Prompt: Can you think of any other examples? Keep asking until there are no more responses.]**
4. What kinds of partners are truck drivers and turn boys having sex with [Prompt: casual, regular, wives, CSWs? Then ask about each category with the following questions:]
 - a. What kind of regular partners do truckers and turn boys have **[Prompt: wives, girlfriends, friends etc.]** Where do these regular partners live? **[Prompt: in other countries, towns, etc.]** How many regular partners do truckers generally have? Can you give me a typical example?
 - b. How often are truckers and turn boys using condoms with these regular partners? **[Prompt: all the time, sometimes, never, etc.]** Why or why not?
5. Let's talk about casual partners. What kind of casual sexual partners do truckers have?

[Prompt: sex workers, girls in bars, clubs]

- a. Can you describe for me the kind of casual sexual relationships a typical truckers and turn boys might have? Can you give me some examples?
- b. Where and how do they meet casual sex partners?

[Prompt: bars, markets, truck stops, other places]

- c. Can you tell me about truck stops? Is this a popular place to have sex? Can you tell me about the truck stops around here?
- d. What kind of sex do truckers and turn boys have with their casual partners?

[Prompt; vaginal, oral, anal]

- e. Are truckers and turn boys using condoms when they have sex with casual partners?

[Prompt: all the time, sometimes, never, etc.] Why or why not?

6. Are truckers and turn boys having sex with sex workers? **[if yes:]** Can you tell me about that? Where do they go around here to have sex with sex workers? **[Prompt: brothels, market, truck stops, etc.]**

- a. What kinds of sex are they having with sex workers?

- b. **[Prompt: vaginal, oral, anal]** Are they using condoms? Why or why not?

7. Are long-distance truck drivers having sex with women who give them sex for things besides money? **[e.g., food, clothes, alcohol/drugs, transportation, etc.]** Can you tell me about that?

8. Here's a sensitive question – are truckers and turn boys having sex with other men?

[Prompt; if no – skip, if yes:] Can you tell me about that? How common is it for truckers and turn boys to have sex with other men? Where does this take place?

9. Can you tell me about truck drivers and turn boys and their use of alcohol and drugs?

[Prompt: what kinds of alcohol (beer, local stuff, hard liquor); what kinds of drugs?]

- a. How often do they drink alcohol or take drugs? How much do they drink? How much drug use are they engaging in?

- b. How do you think their alcohol/drug use affects their risk for HIV? **[Prompt: not at all – a lot]** If so, how? Can you give me some examples?

Mapping exercise: OK, now I would like to ask you to do something else: a mapping exercise. I'm going to ask you to locate, on this map, all the places you know where risky sexual behaviors take place. **[Prompt: bars, clubs, street, market, truck stops etc.]**

10. **[For each risk location, ask:]** Tell me about this risk location (bar, club, street, etc.) Can you tell me about this place and who goes there? What kinds of risky behaviors go on at this location? Ask for examples.

[Prompt: repeat for each of the risk locations identified on the map]

Now I'd like you to show me the places that you know of here in this area that provide HIV services. I'd like you to mark these places on the map and then tell me about each place **[Prompt: HIV prevention information/condoms; counseling and testing; HIV treatment; care and support for PLWHA; for each place, ask:]** What services are available here? Do you think truckers and turn boys know about this service? Do they use this service? Why or why not?

11. Do you know of any other organizations or groups (NGOs, FBOs, CBOs) that provide HIV services in this area? If so, where are they on the map? **[Prompt: if an organization or group doesn't have a physical location, ask:]** How do you get in contact with this group?

12. In general, how much do you think truckers and turn boys know about HIV/AIDS?
[Prompt: risk behaviors do you think they know?] How many of you know someone with HIV? [Prompt: ask them to raise their hands if they know 5 or more people with HIV; more than 3 people; at least 1 person] How many of these people that you know with HIV are truckers or turn boys?
13. In your opinion, do truckers and turn boys know where they can get tested for HIV around here? How many truckers do you think have been tested for HIV and know their HIV status?
[Prompt: most, some, few, none]
14. What are truck drivers' attitudes about condoms and other ways to prevent getting infected with HIV?
[Prompt: partner reduction, abstinence, being faithful, etc.] In your opinion what are the reasons that truckers don't use condoms?
[Prompt: size, pleasure, pressure, trust, mood, money, access?]
15. In your opinion, what kinds of HIV/AIDS programs and services do you think are most needed and why?
[Prompt: prevention? treatment? care and support?]
What would encourage truckers and turn boys to use these HIV services/programs?
16. Before we end this session, do you have any questions or comments about anything we discussed during this focus group discussion?

Thank you so much for giving us your time and expert knowledge about HIV risk among truck drivers. The information you provided will greatly help us develop effective programs to help people avoid getting infected with HIV. Thank you.

For more information, please visit
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