POPULATION SIZE ESTIMATION OF KEY POPULATIONS
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ABBREVIATIONS

CBO	Community-based organization
CSO	Civil society organization
FDID	Foundation for Democratic Initiatives and Development
FSW	Female sex worker
HIV	Human Immunodeficiency Syndrome
LGBTQI	Lesbian, gay, bisexual, transgender, queer and intersex people
MOTS	Modes of Transmission Study
MSM	Men who have sex with men
NACP	National AIDS Control Program
NAS	National HIV and AIDS Secretariat
NGO	Non-governmental organization
PSE	Population size estimation
PWID	People who inject drugs
PWUD	People who use drugs
UNAIDS	Joint United Nations Program on HIV/AIDS
STI	Sexually transmitted infection
WICM	Women in Crisis Movement

DEFINITIONS

Key populations: Populations in whom there is a concentration of risk behaviours for HIV transmission (notably: unprotected sex with multiple partners, anal sex, needle-sharing) that may then drive the majority of new infections; may include sex workers and their partners, long distance truck drivers, fisher folk, uniformed services, men who have sex with men (MSM), people who inject drugs (PWID), and migrants.

Sex worker: person who exchanges sex for money or other items as an occupation

Transactional sex: is defined as sex in exchange for money or other items in which the person providing sex does not regard her/himself as a sex worker; it may involve exploitation when the sexual partner is in a vulnerable socio-economic situation

Transgender: an umbrella term for people whose gender identity and/or gender expression differs from the sex they were assigned at birth. Transgender people may define themselves as female-to-male or male-to-female. They may choose to alter their bodies or not through hormones or surgery. Transgender people may be heterosexual, lesbian, gay or bisexual.

1. EXECUTIVE SUMMARY

This population size estimation (PSE) was undertaken in order to inform HIV prevention programming for key populations in the fight against HIV in Sierra Leone. This PSE focused on female sex workers (FSWs), men who have sex with men (MSM) and people who inject drugs (PWID) because these groups are typically the first and hardest affected by HIV, and addressing their needs to prevent HIV can prevent or diminish the effect of HIV/AIDS on the general population. The information learned through this PSE is intended to be used to inform and improve HIV prevention programming throughout Sierra Leone.

Information was collected through interviews with members of each key population, and direct observation of the numbers of people at places where FSWs meet paying partners and where PWID purchase and/or use drugs. MSM were reached through partner organisation contact lists.

The demographics of FSWs, MSM and PWID reflect the demographics of Sierra Leone: the largest groups were between 25 and 49, most people were nationals of Sierra Leone with small numbers of people from Liberia and Guinea.

FSWS

Demographics

Majority of sex workers were between the ages of 15 – 24. It is alarming that children were also enumerated in this population; they are physically more vulnerable than others to HIV and STIs.

Numbers

The number of FSWs was enumerated by the research team in each location, with the proportion of FSWs calculated using data from the 2004 national census. Using only information from mining areas where mining had begun at the time of the previous census, the percentage of FSWs within the population ranges between 0.7% and 11.8%, with approximately 6% of the population (and therefore 12% of women) in mining areas and between 2% and 4% of general population (or 4% to 8% of women) in major cities. This estimate is between 4% and 5% of the total population of Sierra Leone, or approximately between 180,000 and 300,000 FSWs.

HIV testing

Among 1021 FSWs interviewed, 405 (40%) reported ever having been tested for HIV, but only 290 (72% of those reporting having been tested) reported getting the results of their tests. 228 FSWs reported having been tested in the previous year, among whom 172 (47%) knew their results. People under 25 years of age were more likely to have been tested recently and to know their results. Most people reported being tested in public facilities, with small numbers attending private clinics.

STI symptoms and condom use

Among the 1021 FSWs interviewed, 434 (43%) reported having had an STI in the previous year. 387 (38%) reported experiencing vaginal discharge and 384 (38%) reported experiencing a genital sore or ulcer.

Among the 1021 FSWs interviewed, 668 (68.7%) reported using a condom the last time they had sex with a client. To achieve universal access to HIV-prevention programmes by 2015, countries need to reach 60% coverage of key populations[Global Fund 2011:44], FSWs under 15 years of age were least likely to report condom use with their most recent client (35%), indicating that condom promotion is most critical with the youngest group involved in selling sex.

The high numbers of STIs reported and the relatively high numbers of reported condom use may indicate that FSWs are being infected with STIs by non-paying partners and/or that condom use is not consistent with paying partners.

Stigma, discrimination and violence

Sex workers reported experiencing stigma, discrimination and violence from community members, family members, paying partners and police. Among the 390 FSWs who reported being excluded from an event, 334 (86%) reported being excluded from a family event because of their sex work. FSWs under 15 years of age were most likely to report experiencing threats and insults from clients (85%) and colleagues (56%).

FSWs reported experiencing high rates of violence in the previous year. For example, 287 (28%) reported having been kicked, dragged or beaten up and 243 (24%) reported having been raped in the previous year. Among those reporting violence, 448 FSWs (77%) reported experiencing violence from a client and 249 (43%) reported experiencing violence from police in the previous year.

Other key findings

FSWs reported a lack of confidentiality at government health centres. Confidentiality policies are in effect, but seem to be violated in the case of these highly stigmatised women. MOH and HRC should enforce confidentiality for all medical records.

Reports of widespread antibiotic use among FSWs and MSM contribute to concerns about antibiotic resistance.

Programming recommendations for HIV prevention among FSWs

Considering the numbers of children selling sex and the numbers of requests for training to expand income generating opportunities, non-coercive and non-mandated skills training programmes are recommended for people who sell sex.

There is great need for enforcement of the confidentiality of health records for FSWs, which MOH can lead with support from the Human Rights Commission.

Considering the link between intoxication and violence, harm reduction programming particularly addressing alcohol use should be implemented.

Future research involving FSWs

A mapping exercise of sex work venues in Freetown would identify missed venues and permit the use of a multiplier method to estimate the numbers of FSWs in Freetown, and thereby adapt HIV programmes for FSWs to locations where they are most needed. This should be undertaken by organisations working with sex workers, and include hiring sex workers as part of the research team.

MSM

Demographics

MSM up to age 49 were interviewed, with 2 being under the age of 15. No MSM over 49 years of age were interviewed and 29 Interviewees did not know their age. Of the 247 MSM interviewed, 204 (83%) were male and 43 (17%) were male-to-female (M-t-F) transgender people. This ratio of transgender people among MSM may reflect a severe undercount of MSM in Sierra Leone, as MSM were reached through LGBTQI organisations.

Numbers

Enumeration was not possible because MSM do not congregate in public places in Sierra Leone, so a modified nomination method was used to estimate numbers of MSM. The PSE estimated that there are approximately 20,000 active MSM in Sierra Leone, and at least 4,693 MSM that could be reached through the networks of the two partner organisations with information and commodities to prevent HIV. This number may be an undercount of MSM in Sierra Leone, but it offers an estimate for initial programming, which can be adjusted based on field experiences and demand as programming expands.

HIV testing

Among 247 MSM interviewed, 117 (47%) reported ever having been tested for HIV, but only 84 (85% of those reporting having been tested) reported getting the results of their tests. Among these 117, 96 (47%) were male and 21 (49%) were transgender. 64 MSM reported having been tested in the previous year, among whom 49 (47%) knew their results. People under 25 years of age were more likely to have been tested in the past year and to know their results. Most people reported being tested in public facilities, with small numbers attending private clinics. M-t-F transgender people were most likely to report attending a private clinic, followed by MSM who reported being married.

STI symptoms and condom use

STIs and STI symptoms were reported by MSM at all sites. 87 men (43%) and 14 M-t-F transgender people (33%) reported having had an STI in the previous year. 70 men (35%) and 12 M-t-F transgender people (28%) reported abnormal discharge, and 79 men (39%) and 21 M-t-F transgender people (49%) reported having sores in their anal or genital area in the previous year.

MSM were asked if they had ever had anal sex with a man. 187 men (92%) and 43 M-t-F transgender people (100%) reported that they had engaged in anal sex with a man, which is 93% of the total sample of MSM. 74 (32%) reported that they had used a condom the last time they had anal sex. This is not high enough to disrupt an epidemic and so condom use should

be vigorously promoted among MSM. Married MSM were most likely to report having used a condom at last experience of anal sex (13 of 27, or 48%).

Stigma, discrimination and violence

Among MSMs interviewed, 60 (25%) reported having been excluded from a family, religious or social event. Among these 60, 55 were men and 5 were M-t-F transgender people. The most common exclusion was from family events, with 47 among these 60 (79%) reporting having been excluded from a family event.

Of the 247 MSM interviewed, 96 MSM also reported experiencing insults and threats. Among these 96, respondents, threats were reported from family (n=38 of 96, 40%), community (n=62 of 96, 35%), colleagues (n=21 of 96, 22%), police (n=13 of 96, 14%) and clients (n=8 of 96, 8%).

Physical violence, and particularly sexual violence, was reported by many MSM. Rape was reported by 62 men (31%) and 12 M-t-F transgender people (28%). 59 men (29%) and 11 M-t-F transgender people (26%) reported having been forced to do something sexual which the interviewee found degrading or humiliating.

54 men (64%) and 9 M-t-F transgender people (56%) reported experiencing violence from community members; more reported experiences of violence among MSM than from any other group. 28 (27%) MSM (24 men and 4 M-t-F transgender people) reported having been intoxicated at the time they were victimised. Alcohol intoxication was overwhelmingly the most commonly reported intoxicant.

Other key findings

151 MSMs (61%) reported selling sex, including 120 (59% of the 204 men interviewed) male and 31 (72% of the 43 M-t-F transgender people interviewed) M-t-F transgender people. The high proportions of MSM who reported selling sex implies that there may be many more men who purchase sex from MSMs who were not included in the interviews. During site visits, M-t-F transgender people who sell sex described indiscriminate use of antibiotics.

Police interference with the mobility of transgender women was noted during the pilot. This has implications for HIV programming for transgender people in Sierra Leone, including difficulty for transgender people to travel to clinics and other services.

Programming recommendations for HIV prevention among MSM

Considering the link between intoxication and violence, harm reduction programming particularly addressing alcohol use should be implemented.

PWID

Demographics

260 PWID were interviewed in major cities and Kono. PWID are a minority among people who use drugs, and the largest number of PWID (126) were interviewed in the Western Area (Freetown, with 4 interviewees in Western Area Rural District). The largest group among interviewees were adults age 25-49. Men, women and M-t-F and F-t-M transgender PWID

were interviewed. Men were the overwhelming majority of injectors, at 239 of 260 interviewees.

Numbers

It is estimated that there could be between 1200 and1500 PWID across Sierra Leone. Enumerators visited hideouts in four major cities and Kono. They counted 2709 people in 63 places where people use drugs in five cities. This is an average of 42.95 people at each location. Of the 2709 people observed at places where people use drugs, 260 were interviewed as self-identified PWID. This is 9.60% of the number of people observed in hideouts, close to ten percent. A mapping of hideouts conducted by GOAL, an NGO, estimated that there are 5000 people who use drugs in Freetown. If ten percent of people who use drugs (PWUD) inject, then there may be as many as 500 PWID in Freetown alone. Assuming similar proportions elsewhere, we estimate another 600 PWID across the other four locations (Bo, Kenema, Kono and Makeni) where the PWID team collected data. It is believed that injecting drug use is concentrated in these locations. A mapping of hideouts in other locations would contribute to a refined estimate of the numbers of PWID in Sierra Leone. It is clear that nearly 300 PWID could be reached by HIV prevention programming in tandem with partner organisations used for enumeration, and over 600 with more personnel from other NGOs that serve PWUD, such as GOAL.

HIV testing

47 people (38 men and 9 women) reported ever having been tested for HIV. However, only 2 reported having been tested in the past year, and both reported knowing their results.

STI symptoms and access to condoms

Among PWID, 48 men (25%) and 4 women (22%) reported having had an STI during the last year. Only men reported having experienced STI symptoms in the previous year, with 50 men (26%) reporting abnormal discharge and 31 men (16%) reporting a sore in the anal or genital region in the previous year. 41 of 260 interviewees (19%) reported having been offered condoms in the previous year. This indicates very low levels of access to condoms.

Use of sterile injecting equipment by PWID

Of the 209 interviewees, 53 (25%) reported having used a sterile needle and syringe the last time they injected drugs, including 48 (25%) men and 5 women (28%). None of the two transgender people reported using a sterile syringe the last time they injected. HIV prevalence has been found to be 1.43% among PWID in Sierra Leone (MOTS: 30) and the use of sterile syringes is not regular enough to prevent transmission.

Stigma, discrimination and violence

Among PWID, 80 people (40%) reported having been excluded from a family, religious or social event because of their drug use. Exclusion from a family event was most commonly reported; 71 (89%) of the 80 people reporting exclusion.

PWID reported experiencing insults and threats from police (n=85, 70%), family members (n=68, 56%) and colleagues (other people who use drugs, n=52, 43%). Variations by gender were pronounced. Women reported that clients threatened or insulted them more than any

other group (n=5, 63%) implying that many female PWID also sell sex. Men experienced far more insults and threats from police (n=83, 74%) than women (n=2, 25%).

PWID reported experiencing similar rates of physical violence as MSM or FSWs, but less sexual violence. PWID reported violence primarily from police (n_m=87, 76%; n_w=5, 42%). Male, female and the single M-t-F transgender PWID (n=1, 100%) reported violence from other PWUD (n_m=50, 44%; n_w=8, 67%). The context in which drugs are used is violent. 111 (89%) of PWID reported having been intoxicated the most recent time they were victimized. Heroin was the most commonly reported intoxicant at the last experience of violence.

PWID were asked if they were intoxicated the last time they had sex. 176 (82%) of interviewees reported that they had been intoxicated the last time they had sex. This included 162 men (83%) and 14 women (82%).

Other key findings

People who use drugs reported having been turned away from health services.

Job training and expanded income generating opportunities were the most requested services during site visits by the lead investigator.

Programming recommendations for HIV prevention among PWID

Distribution of safe injecting and safe sex materials are necessary. This should be undertaken by NAS in tandem with organisations that can reach PWID.

The Human Rights Commission and MOH should ensure access to health services for PWID.

Harm reduction services including opioid substitution therapy (OST) and overdose treatment (ODT) should be made available. If opiates are the intoxicant of choice, OST may remove the impulse to inject and thereby reduce HIV risk via injecting.

RECOMMENDATIONS FOR HIV PREVENTION PROGRAMMING OVERALL

Overall policy recommendations

Policy should be reformed to promote an enabling environment for HIV prevention. This could include reforming criminal penalties for sex work, sex between men, and use of drugs. This should also include preventing police interference with HIV programming for transgender people, which was seen when travelling with transgender people during the pilot; transgender people need to be able to go to clinics and other services.

Enforcement of policies regarding confidentiality and access to health services should be enforced including for members of key populations. The MOH and Human Rights Commission should work together to ensure enforcement of policies on confidentiality of medical records and access to services.

Overall programmatic recommendations

Condom distribution is desperately needed. Innovative distribution of safe sex materials such as male and female condoms, and personal lubricant that is appropriate for use with condoms is needed around the country. Innovative methods could include distribution to sex work venues and places where people meet, like bars and nightclubs. DJs could announce that

condoms are available for free. Okada motorcycle taxis could be employed to take condoms from NAS offices to hotspots. Sex worker mammy queens could be hired to distribute condoms at sex work venues. MSM and other organizations could be hired to distribute condoms to their contacts.

There is a great need for leadership against stigma and discrimination against key populations, which would improve access to services. For one example of discrimination against key populations, FSWs, MSM and PWID reported being turned away from health care services. Therefore, leadership from NAS and the MOH and the Human Rights Commission is necessary to respond to the need to make services accessible to key populations including FSWs, MSM and PWID.

When visiting sites, every key population described the need for employment opportunities, while sex workers and PWID described the need for job training. Sierra Leone has high unemployment rates and people without income sell sex and seek distractions from impoverished circumstances, sometimes including drug use.

Recommendations for future study

This PSE has only covered three key populations; others include migrants, fisherfolk, military and police. Research is needed to plan HIV interventions for them.

When the 2014 census is completed, this data could be used with the PSE data to determine more accurate ratios of populations, such as percentages of populations that may be FSWs in mining areas.

The indiscriminate use of antibiotics reported among FSWs and MSM points to a need for MOH leadership in surveillance on STI resistance to antibiotics in order to ensure that effective treatment is available and well implemented. This is particularly important because antibiotic resistant STIs have been documented in Asia, Europe and North America.

2. SUMMARY TABLE OF KEY FINDINGS

Table 1: Summary of findings from population size estimation study

Indicator	FSW	MSM	PWID
Number estimated	180,000-300,000	20,000	1,500
Number enumerated	19,904	--	--
Number estimated to be reached by HIV programs	25,000	5,000	1,200
Number interviewed	1021	247	260
Know where to go for an HIV test	54.0%	75.7%	60.0%
Received HIV test and know results	47.0%	46.7%	4.5%
Self-reported STI	43.3%	41.2%	24.1%
Condom use at last sex	68.7% (with most recent client)	32.2% (at last anal sex)	--
Experienced insults or threats due to practice	67.8%	40.2%	58.2%
Experienced violence	98.8%	100%	100%
Under the influence of alcohol or drugs last time suffered violence	37.7%	27.2%	88.8%
Exclusion from family/social/religious event	40%	25.1%	40.2%
Had anal sex	11.9%	93.1%	--
Use of sterile needle at last injection	--	--	25.2%

3. INTRODUCTION

This study is the outcome of close collaboration between the Government of Sierra Leone, the National AIDS Secretariat (NAS), and UNAIDS to combat the HIV epidemic in the country by initiating a Population Size Estimation (PSE) of key populations for Sierra Leone. The purpose of the PSE is to determine number of members of key populations, specifically female sex workers (FSWs), men who have sex with men (MSM) and people who inject drugs (PWID). This information will be used to better plan programmes. The PSE results, together with existing epidemiological data and the conclusions of recently completed studies on the factors driving Sierra Leone's HIV epidemic, are critical information for the development of recommendations for strengthening Sierra Leone's response to the HIV epidemic based on evidence.

BACKGROUND

Sierra Leone is a small country on the Atlantic coast of West Africa with approximately 5.6 million inhabitants. The population is 60% Muslim, 10% Christian, and 30% other religions, including animist religions. The country experienced a decade-long civil war that ended in 2002, and this post-conflict country remains one of the least developed nations in the world. Sierra Leone is bordered by Guinea to the north and Liberia to the south, which experienced a similarly long and brutal civil war. Both wars contributed to refugee populations in the region in camps as far away as Ghana and within Freetown, the capitol of Sierra Leone. Sierra Leone has many natural resources, particularly mineral resources including iron ore, gold and diamonds, as well as agricultural products like rubber plantations. However, nearly all mineral resources and agricultural resources are exported for processing. Coffee and fruit and food are grown, but rice, the staple of the local diet, is largely imported. Prostitution has become a major source of work for women [SLANGO 2007].

The Modes of Transmission (MOT) study sums up the situation of Sierra Leone explaining that the nation's natural wealth is undermined by the recent war and poor infrastructure. For example, one-third of people in urban areas have access to electricity, and fewer than 2% of households in rural areas have access to electricity [MOTS: 13]. The MOTS report goes on to say

> The Civil conflict that ended in 2002 may have increased the risk for human immunodeficiency virus (HIV) transmission through the sexual abuse of teenage girls and women, drug abuse, migration, and displacement of the population. In addition, the problem of the spread of HIV and AIDS was compounded by the low level of awareness and knowledge about HIV/AIDS, during and immediately after the cessation of war, particularly knowledge relating to its mode of transmission and methods of protection. [MOTS: 13]

OVERVIEW OF HIV/AIDS IN SIERRA LEONE

The Modes of Transmission study says,

> It is estimated that the overall national HIV prevalence rate was 1.54% in Sierra Leone in 2008, among men and women aged 15 – 49 years (SLDHS2008) and that there were a total of 49,000 people living with HIV and AIDS by December 2008 of whom 27,000 (55.1%) were women and 2,700 (5.5%) were children under 15 years (Spectrum model l. 2008). [MOTS: xv]

The MOT study documents prevalence from tests at urban antenatal clinics to be over 3% [MOTS: xv]. This would indicate that overall prevalence may be underestimated.

The MOT study also addresses populations with very high incidence include fisher folk, traders, transportation workers and mining workers and others with incidence in of 10.8%, 7.6%, 3.5% and 3.2% respectively." [MOTS: xvi] The MOT study also reported that coverage for HIV prevention projects was poor, although extreme advances have recently been made regarding PMTCT in antenatal clinics from nearly no one receiving PMTCT in 2003 to 99,256 in 2009 [MOTS: xvii].

The three key populations within this PSE study were chosen because they are disproportionately affected by HIV in Sierra Leone. Sex workers and their clients and partners accounted for an estimated 39.7% of new infections [MOTS: xv]. The Modes of Transmission report stated, "MSM and IDU are slowly emerging where they had not been suspected to exist with incidence contribution of 2.4% and 1.4% in that order." [MOTS: xv]. Clearly, more HIV prevention, care and treatment is required. The MOT estimates that 3.5% of the population of Sierra Leone are sex workers, and that there are 2365 MSM in the country based on self-reports by survey responses [MOTS: 29]. The latter is likely to be an undercount due to social desirability. It has been found that many MSM have relationships with women and that over 10% reported being married to a woman [Ministry of Health and Sanitation, Nationals HIV/AIDS Secretariat, National HIV/AIDS Control Programme: 11].

HIV prevalence among sex workers is 8.5% [FSWS in Sierra Leone, 2005, quoted in MOTS: 40]; among MSM, HIV prevalence is 7.5% [MOTS: 39; Ministry of Health and Sanitation, Nationals HIV/AIDS Secretariat, National HIV/AIDS Control Programme: 5]. Incidence (rate of new infections) is estimated among PWID at 1.4% [MOTS: xv]. These three groups were selected for the PSE because they are typically the first groups affected in an HIV epidemic and can be used as indicators groups of the need to address HIV before it reaches the general population. When these groups experience concentrated epidemics of HIV in countries with emerging epidemics, it is time to act aggressively to prevent HIV with evidence-based and proven-effective programming. These kinds of HIV programmes can prevent more widespread prevalence and incidence. In Sierra Leone, another group experiencing concentrated epidemics include police, with HIV prevalence of 5.8%. Other populations to watch include fisher folk, the military and migrants with prevalence of 3.8%, 3.3% and 2.2% respectively [MOTS: 39].

LEGAL CONTEXT

All three key populations in this study engage in some sort of criminalized behaviour. Drug use and possession are criminalized under the Dangerous Drugs Act of 1926 and the National Drugs Control Act of 2008. Sexual activity between men is criminalized according to Section 61 and 62 of the Offences against the Person Act of 1861 (24 & 25 Vict. c. 100) with jail term not less than 10 years. Prostitution and brokering the sale of sex are criminalized in Sierra Leone; however, the laws against prostitution are not gender neutral and women are able to be charged for prostitution but men are not [SLANGO 2007]. It is now widely understood that criminalization is linked with a lack of access to HIV-related services and contributes to human rights abuses. The Global Commission on HIV and the Law has found that policies which criminalise sexual activity and drug use or possession of HIV prevention materials impede HIV prevention among sex workers, MSM and people who use drugs, all key populations in the fight against HIV, and recommends reforming law to create an enabling environment for HIV prevention.

4. STUDY OBJECTIVES AND RATIONALE

The purpose of the PSE is to determine numbers of members of key populations, specifically sex workers, men who have sex with men and people who inject drugs. Prior to this study, no baseline information existed about these key populations. For this reason, the PSE was undertaken to promote the development of evidence-based programming for key populations known to be experiencing a concentrated epidemic of HIV.

In order to reach these three key populations, partner organisations offering services to each of the included key populations were contracted (see Appendix I).

METHODOLOGY

Different methods were employed to estimate the size of these key populations, tailored to each population's circumstances. Partner organisations were instrumental in developing the methods for each population. A census enumeration was undertaken with PWID and FSWs, while a modified nomination method was used with MSM, who are more hidden than FSWs and PWID. In addition to the PSE, a short survey was conducted in order to collect information about global HIV and AIDS indicators. Interview questions were slightly different for each key population, reflecting the UNAIDS indicators for different activities. These surveys can be found in Appendices A, B and C.

Questionnaire

Questionnaires were developed by the entire team, ensuring to include UNAIDS indicators for each key population, as well as questions from the Bio-behavioural Surveillance Survey (BSS). Questions on STI symptoms, such as bad-smelling vaginal discharge, were taken from the BSS. Discharge was referred to in the local Krio language as /bad wata/, which was settled upon during the standardization process in order to develop language that all enumerators would use during the project. Questions from the Stigma Index were adapted for the survey to provide information on stigma and discrimination. The violence indicator included questions about physical and sexual violence during the previous year.

The sample frame for each population was tailored to the population. FSWs were visited at their workplaces, with the aim of reaching a sample size of 5%, or 1 in 20, of all the sex workers at the venue. The team surveying PWID went to hideouts where people use drugs to interview people there. A sample size of 20%, or 1 in 5, of all those present was attempted, asking about injecting behaviour at the beginning of the interview in order to identify and select PWID. The MSM partner organisations had no such identifiable venue where MSM congregate, so they called every fifth contact (20%, or 1 in 5).

All interviewees were given a resource sheet with contact information (see Appendix H) for the partner organizations (see Appendix I). Interview data was entered by NAS staff and analysed using SPSS.

Training

Enumerators were trained by the lead consultant, data analysis team and the national consultant, with assistance from NAS and UNAIDS. Training covered the need for systematic data collection, including standard phrasing of questions, interview techniques, active listening, methods for enumeration, and keeping track of data.

Population in study locations

The last census was undertaken in 2004. Major cities were sites for each of the three key populations included in the PSE. Other locations were chosen because they were sites of contacts or known to be hotspot of activity; for example, mining areas are typically hotspots of sex work.

Table 2: Locations, census data and population for each site

LOCATION	2004 CENSUS	RATIONALE	KEY POPULATION
BAUMAHUN	3,746	Mining	FSW
BO CITY	148,705	Major City	ALL
BUMBUNA	4051	Mining	FSW
FREETOWN	870,463	Major City	ALL
WESTERN AREA RURAL	169.807	Proximity to Major City	
KENEMA CITY	136,966	Major City	ALL
KONO DISTRICT	79,981	Drug use scene	PWID
LUNSAR	16,773	Mining	FSW
MAGBURAKA and BINKOLO	16,313	MSM contacts	MSM
MAKENI	80,840	Major City	ALL
TONGO	18,355	Mining	FSW

According to the 2004 census:

> Bo district had a population of 463,668, with 148,705 in the city of Bo. The mining community of Baumahun is in Bo district.
>
> Kenema district had a population of 497,945, with 136,966 in the city of Kenema. The mining town of Tongo is in Kenema district, and the 2004 census was undertaken after mining had begun.

Mining had not begun in Bumbuna at the time of the 2004 census.

Fieldwork

Every person surveyed was offered condoms, including people who declined to be interviewed. Every person surveyed was offered a resource sheet, with information about the partner organisations, which is included as Appendix I. More information about the partner organisations is offered in Appendix H.

A pilot of the survey was conducted in Freetown over two days, and interview protocols were adapted to reflect the experiences and information learned during the protocol. For example, diazepam was added to the list of drugs asked about. Data was collected for the main study

between 27 February and 10 March 2013. Data from the pilot study conducted on 21st and 22nd of February 2013 was included in the main study since minor changes were made to the protocol and questionnaires.

Locations for the study focused on major cities of Freetown, Bo, Kenema and Makeni, with other sites added because of their relevance for specific key populations. For example, sex worker teams visited the mining communities of Baumahun, Bumbuna, Lunsar and Tongo. PWID were sought in hideouts in Kono. MSM added the sites of Magburaka and Binkola because they had contacts there. The last census was conducted in 2004, prior to mining activity being undertaken at some sites, and prior to some refugee camps closing. While the population has changed, there is no newer uniform data about population across the country.

Table 3: Locations and dates of field work for each key population

LOCATION	RATIONALE	FEBRUARY				MARCH									
		21	22	27	28	1	2	3	4	5	6	7	8	9	10
FSW															
BAUMAHUN	Mining														
BO CITY	Major City														
BUMBUNA	Mining														
FREETOWN (URBAN)	Major City														
WESTERN AREA RURAL	Major City														
KENEMA CITY	Major City														
LUNSAR	Mining														
MAKENI	Major City														
TONGO	Mining														
MSM															
BINKOLO	Contacts														
BO CITY	Major City														
FREETOWN (URBAN)	Major City														
WESTERN AREA RURAL	Major City														
KENEMA CITY	Major City														
MAKENI	Major City														
MAGBURAKA	Contacts														
PWID															
BO CITY	Major City														
FREETOWN (URBAN)	Major City														
WESTERN AREA RURAL	Major City														
KENEMA CITY	Major City														
KONKOIDA, KONO	Contacts														
MAKENI	Major City														

Approach for methodology for Female sex workers

Female sex workers are the least hidden and the largest of the key populations, thus requiring the methodology to include the largest number of locations and the largest number of data collectors for this study. A team of two supervisors from Women In Crisis, the local partner organization, and two supervisors, one from the NAS and a local consultant, were on hand at each of the five sites in progress at any given time during the PSE. Three teams of two data collectors and one supervisor went to sites outside Freetown. One team went to the second

largest city of Sierra Leone, Bo, and the nearby Baumahun mining area. Another went to Kenema and the Tongo mining area. A third went to the smaller sites of the city of Makeni, and the mining areas of Bumbuna and Lunsar. A team of four data collectors and one supervisor remained in Freetown. Each team worked for ten days. Travel was timed to include the miners' payday and teams went to mining areas and the cities near the mining areas at the times when miners were expected.

Data collectors went to each identifiable venue in their area. A simple census was taken at each venue. Venues included street locations, brothels, bars and hotels in the cities of Freetown, Bo, Kenema and Makeni, and in the mining areas of Bumbuna, Baumahun, Tongo and Lunsar. In the mining areas and in the smaller cities of Bo, Kenema and Makeni, it is believed that all venues were identified and visited. In Freetown, locations were identified and noted in order to enable the use of multiplier methods to estimate the numbers of female sex workers.

While female sex workers were the target of the PSE of sex workers, male and transgender sex workers were included when they were obvious.

Teams aimed to interview at least one in 20 sex workers at each venue for a sample size of 5%. Interviews included a question about sex work right after informed consent in order not to interview people who were not selling sex. Questions included the UNAIDS indicators about condom use and STI symptoms, as well as questions about travel from home communities and sexual behaviour from the DHS. Interviews were conducted with 1021 FSWs.

Approach for methodology for Men who have sex with men (MSM)

MSM are the most hidden population in Sierra Leone. There is no local hangout to visit in order to estimate population size. For this reason, census enumeration was not possible, and therefore nomination methods were used. The two partner organizations, each of which has hundreds of contacts around the country, reached out to their contacts by telephone and in person. MSM were asked for the last 4 digits of their telephone numbers, and for the last four digits of the MSM among their contacts.

The partner organizations hosted three events in Freetown and at least one event in cities of Bo, Kenema, Makeni, and in the towns of Magburaka and Binkola. Everyone was invited to the events, and the aim was to interview one in every five people among the contacts, for a sample of at least 20%.

Interviews included a question about being MSM right after informed consent in order not to interview people who were not MSM, although this was unlikely considering the route of contact. Questions included the UNAIDS indicators about condom use during anal sex, and STI symptoms, as well as a question about selling sex. Transgender women were included and distinguished from among MSM within this sample.

Interviews were conducted with 247 MSM, which comprised of 204 men and 43 M-t-F transgender people.

Approach for methodology for People who inject drugs (PWID)

The PSE took advantage of a mapping exercise undertaken by the partner organization, FDID, in tandem with GOAL, a local NGO, which identified nearly 100 hideouts in Freetown. FDID, also has contacts in other cities, and thus allowed for the possibility to visit hideouts in Bo,

Kenema, Makeni and Kono. Four data collectors and two supervisors spent one week in Freetown and split up to visit the other cities during the second week.

The numbers of people who use drugs in each hideout were counted, and people who inject drugs were included in these numbers. It is not possible to distinguish people who inject from other users by sight, and injectors are a small minority among users in Sierra Leone. This meant that interviews were crucial to identifying people who inject drugs.

The aim was to interview at least one person from each hideout, and ideally to interview one in every five people at each hideout, for a sample of at least 20%. Interviews included a question about drug injecting very early in the interviews in order to identify injectors before undertaking the full interview. Interviews include questions about injecting and about STI symptoms.

Interviews were conducted with 260 PWID, comprised of 239 men, 19 women, 1 M-t-F transgender person and 1 F-t-M transgender person.

LIMITATIONS

There was no previous study upon which to base the accuracy of numbers found of each key population. The only mapping exercise to identify places to locate key populations had been undertaken regarding hideouts where people who use drugs congregate in Freetown. Time limitations prevented undertaking a mapping of sex work venues, instead opting to divide the city into sectors and to send people familiar with sex work venues to conduct the enumeration and interviews at each location, including new locations. One limitation is that beach resort areas south of urban Freetown were not included. Rural areas aside from mining areas and places chosen by partner organisations were not included. This is a limitation as most of the population lives in rural areas; however, the lack of inclusion of rural areas is justified by the concentrations of activities like sex work, sex between men and injecting drugs in major cities and mining areas.

In some locations, particularly near mining areas and where sex workers hustled drinks as well as selling sex, management were occasionally obstructionist regarding this study. In most cases, agreements were reached, and the enumeration and interviews were undertaken.

Census data from 2004 is nearly a decade old and in some cases pre-dates the onset of mining activities and the closure of refugee camps and camps for internally displaced persons established during the civil war. This makes generalization from this data difficult. This data could be revisited after next year's census.

Limitations related to specific key populations include that it was not possible to obtain the numbers of miners officially employed at any location, in order to determine how many sex workers per officially employed miner there were which would then enable extrapolation to other mining areas. However, even this would be limited: many mines are not officially employed by the mining companies. Another limitation was that it was unclear who in the hideouts where people use drugs were PWID. While people were asked if they injected drugs, this may have led to the inclusion of people who had not injected in the year prior to the survey.

5. LOCATIONS

The locations of the interviews are presented below, demonstrating concentrations of sex workers near mining locations and that MSM are not only found in major cities.

Table 4: Locations chosen for study

DISTRICT	Female Sex Worker (FSW)		Men who have Sex with Men (MSM)		People who Inject Drugs (PWID)	
	Number	Percentage	Number	Percentage	Number	Percentage
KENEMA	262	25.7	57	23.1	32	12.3
KONO	0	0.0	0	0.0	35	13.5
BOMBALI	140	13.7	29	11.7	39	15.0
PORT LOKO	71	7.0	0	0.0	0	0.0
TONKOLILI	52	5.1	8	3.2	0	0.0
BO	230	22.5	43	17.4	28	10.8
WESTERN RURAL	20	2.0	11	4.5	4	1.5
WESTERN URBAN	246	24.1	99	40.1	122	46.9
Total	**1021**	**100**	**247**	**100.0**	**260**	**100.0**

6. FEMALE SEX WORKERS

In total, 19,904 female sex workers were enumerated in ten locations around the country, among whom 1021 were interviewed (5.35%). All 1021 interviewees were female sex workers; no transgender or male sex workers were reported at the venues included. (While this study focused on FSWs, many MSM reported selling sex, demonstrating the need for services for male sex workers.) Based on the observation of nearly 20,000 FSWs, and the ratios of sex workers to the general population in these locations, it is estimated that there are between 180,000 and 300,000 FSWs in Sierra Leone.

DEMOGRAPHICS OF FEMALE SEX WORKERS

Age

Sex work was documented practically across the lifespan. Of the 1021 interviewed, 48 were under 15 years of age. The largest group by age was between the ages of 15 and 24, numbering 513. 323 sex workers between the ages of 25 and 49 were interviewed. Only 4 sex workers interviewed were 50 years or older and 133 did not know their age.

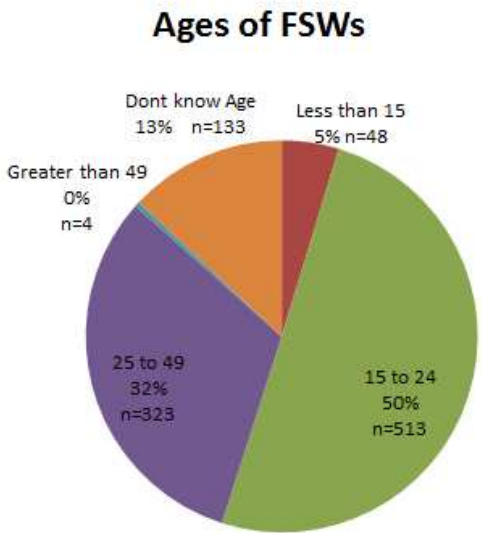


Figure 1: Ages of FSW

Nationality

Sex workers surveyed were overwhelmingly from Sierra Leone, with small numbers from Liberia and Guinea.

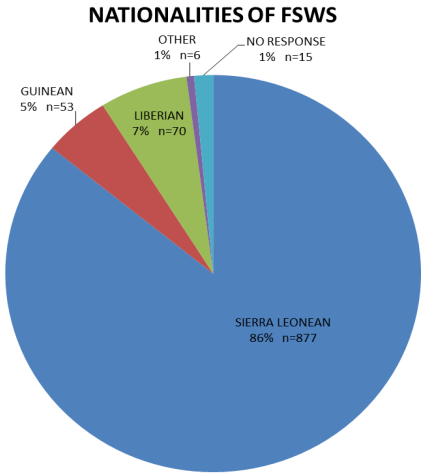


Figure 2: Nationalities of FSW

Location

The enumeration concentrated on urban and mining areas.

Table 5: Numbers of FWS by District

DISTRICT	Number of FSWs interviewed	Number of FSW Counted
Bo (Including Baumahun)	230 (6.00%)	3827 (2721 Bo City)
Bombali (Makeni)	140 (5.25%)	2666
Kenema (Including Tongo)	262 (5.72%)	4583 (3403 City)
Port Loko (Lunsar)	71 (7.83%)	907
Tonkolili (Bumbuna)	52 (5.86%)	887
Western Area (20 Rural)	266 (4.27%)	6224
TOTAL	**1021 (5.35%)**	**19,904**

Table 6: FSW Percentage of General Population (per 2004 census)

LOCATION	2004 Census	Number of FSW Counted	FSWs as a % of Population
BAUMAHUN	3,746	1106	29.5
BO CITY	148,705	2721	1.8
BUMBUNA	4051	887	21.9
FREETOWN	870,463	6204	0.7
WESTERN AREA RURAL	169.807	20	11.8
KENEMA CITY	136,966	3403	2.5
LUNSAR	16,773	907	5.4
MAKENI	80,840	2666	3.3
TONGO	18,355	1180	6.4
TOTAL	**1,280,069**	**19094**	**1.5**

Numbers of sex workers in urban areas

The largest numbers of sex workers were found in Freetown, especially eastern area, and Kenema. Freetown is the largest city, with over one million people. Kenema is a smaller city, but it is surrounded by mining areas and has some relatively prosperous people but also has large numbers of desperately poor people as well.

All sites but Freetown are believed to be accurate with regard to the numbers of sex workers because enumerators were able to visit every local venue. However, Freetown is much larger and considering the population and the 60% unemployment levels among youth [World Bank 2012], the number of sex workers identified is believed to be low.

One question in the protocol asks where sex workers seek clients ("ousie u da hursle?" in Krio) and their answers were used to identify places to canvass for this study. However, no mapping of sex work venues has been conducted anywhere in Sierra Leone. While in smaller cities and mining areas, it was possible for the team to visit every venue, guided by local sex workers and the leaders of organized sex worker committees, called mammy queens. A cartographical exercise plotting venues visited by the team in Freetown and identifying missed venues would permit the use of a multiplier method to estimate the number of sex workers in Freetown.

Freetown is in the Western district, which is divided into urban and rural areas. 6224 female sex workers were enumerated during the exercise, with only 20 in Western District Rural. Considering 6204 sex workers enumerated in the urban district, which had a population of 870,463 reported at the last census in 2004, this means that .71% of people in Freetown were identified as sex workers during this study. This is very low compared to other locations in the country, and so this may be an undercount as described above. However, at this time, it is clear that planning for peer education and outreach programs for HIV prevention, including condom distribution, is necessary for the over 6000 sex workers identified in Freetown.

Makeni had over 80,000 people according to the 2004 census, among whom 2,666 female sex workers were identified. This number is believed to be close to the actual number of sex workers, based on the exhaustion of sites by enumerators and that nearly 3 percent of the population (and nearly 6 percent of women) is a high but believable amount in a post-conflict location with few options for income generation. This is also in line with the MOT study estimate of 3.5% of the population selling sex [MOTS 28].

Bo district has a population of 463,668, with 148,705 in the city of Bo. The team enumerated 2721 sex workers in Bo city, or 1.8% of Bo city residents. This may be 3.5% of women. Bo is known as the party city of Sierra Leone with a wide variety of nightclubs, disproportionate to its population.

Kenema district has a population of 497,945, with 136,966 in the city of Kenema and 18,335 at Tongo. With 3403 FSWs enumerated in Kenema city, that is 2.5% of the population and approximately 5% of women.

Numbers of sex workers in mining communities

In the mining community of Baumahun in Bo District, 1106 sex workers were identified, and this is believed to be close to the total population of sex workers. Baumahun had 3,746 residents at the time of the last census, prior to the commencement of mining activities. The population at Baumahun has expanded but more recent population numbers are not available. Using the numbers available, if the population of Baumahun were 3,746, then 30% of residents would be sex workers, but this may not be the case as the population would be expected to increase due to mining activity.

In the mining community of Bumbuna in Tonkolili District, 887 sex workers were identified, and this is believed to be close to the total population of sex workers. The 2004 census identified 4051 residents of Bumbuna, prior to the commencement of mining and other industrial and infrastructure activities there. Using the numbers available, 22% of the population of Bumbuna would be FSWs; however, the population is believed to have grown since the last census. The percentage could be revised with next year's census.

In the mining community of Tongo in Kenema District, 1180 sex workers were identified, and this is believed to be close to the total population of sex workers. In Tongo, with 1180 sex workers identified, and with mining commencing before the 2004 census, finding 6.4% of residents to be FSWs is not unexpected; this is a mining community to which men migrated for work and women migrated to seek work from the miners. As the mining there has wound down, still more women may have turned to sell sex as other work such as cooking for the miners has ended with the mining work. Alternatively, the number may be slightly inflated

because surveillance was undertaken at the end of the month to coincide with the miners' payday, and women may have come to the area for this reason.

In the mining community of Lunsar in Port Loko District, 907 sex workers were identified, and this is believed to be close to the total population of sex workers. Lunsar had 16,773 residents in 2004, and 907 FSWs were enumerated there, or 5.4% of the population. Lunsar is in the Port Loko district and is quite rural with little work outside agriculture. Considering this, these numbers are credible.

Considering only the locations where mining predated the most recent census, mining communities could be expected to have approximately 6% of the population to be FSWs. This estimated percentage and census data can be used to estimate the numbers of sex workers in mining areas where mining was undertaken before the 2004 census.

It is more difficult to estimate the percentage of FSWs among the population of mining areas for which the census data predates mining activity.

HIV TESTING, STIS AND SYMPTOMS, CONDOM USE, AND SYRINGES

Among the 1021 FSWs interviewed, 405 (40% of interviewees) reported having ever been tested for HIV, but only 290 (72% of those who reported having ever been tested) got the results of their tests. 228 FSWs reported having been tested in the previous year, among whom 172 (47%) knew the results. Youth (<25 years of age) were more likely to have been tested recently and to know their results.

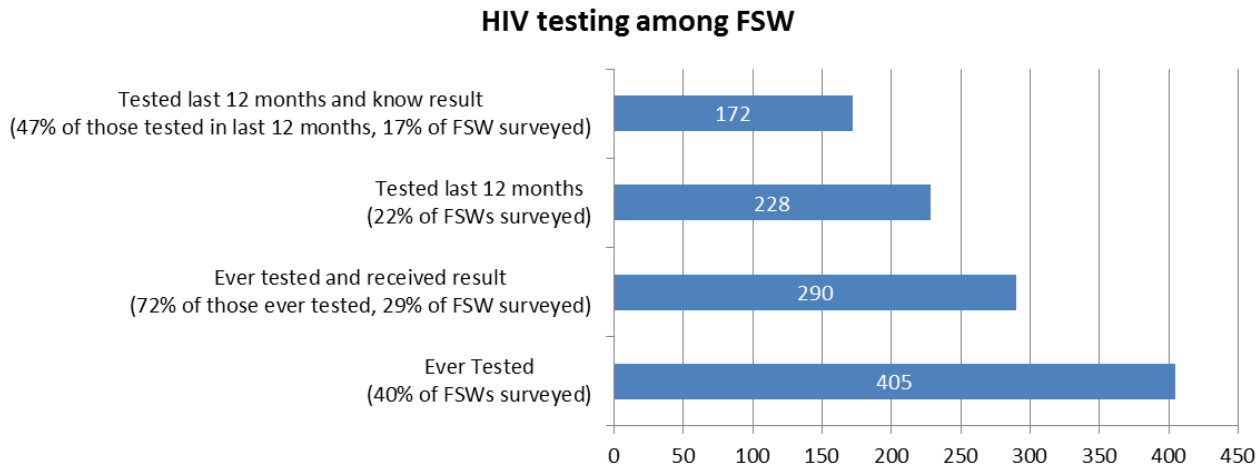


Figure 3: FSWs reporting having ever been tested, tested within past year, and who know results

Most sex workers who reported having been tested said that they had gone to public facilities, versus very small numbers who went to private facilities.

Table 7: Location that FSW was tested for HIV

BACKGROUND CHARACTERISTICS	Female Sex Worker (FSW)		
	Public Facility (%)	Private Facility (%)	Others (%)
Less than 15	8.3	0.0	91.7
15 to 24	33.5	1.0	65.5
25 to 49	49.8	2.2	48.0
Greater than 49	75.0	0.0	25.0
Don't know Age	21.1	0.0	78.9

STIS AND SYMPTOMS

Among the 1021 FSWs interviewed, 434 (43%) reported having had an STI in the previous year. 387 (38%) reported experiencing vaginal discharge and 384 (38%) reported experiencing a genital sore or ulcer.

Table 8: Self-reported STIs and Symptoms among FSWS

Female Sex Workers who reported having experienced STIs in the past twelve months						
BACKGROUND CHARACTERISTICS	Disease through sexual contact		Bad smelling abnormal genital discharge		Genital sore or ulcer	
	Number	Percentage	Number	Percentage	Number	Percentage
AGE GROUP						
Less than 15	13	27.1	11	22.9	11	22.9
15 to 24	232	45.6	206	40.6	204	40.1
25 to 49	135	43.1	123	39.5	125	40.3
Greater than 49	2	50.0	2	50.0	3	75.0
Don't know Age	52	40.6	45	35.4	41	32.3
DISTRICT						
KENEMA	164	63.1	153	59.1	173	66.8
BOMBALI	27	20.8	10	7.8	1	0.8
PORT LOKO	8	11.4	6	8.7	3	4.3
TONKOLILI	11	21.6	7	13.7	0	0.0
BO	112	49.8	117	52.2	113	50.4
WESTERN RURAL	5	25.0	4	20.0	5	25.0
WESTERN URBAN	107	43.5	90	36.7	89	36.2
Total	**434**	**43.3**	**387**	**38.8**	**384**	**38.5**

Condom use

Among the 1021 FSWs interviewed, 668 (68.7%) reported using a condom the last time they had sex with a client. This is relatively high and is close to the coverage necessary to turn around an HIV epidemic, but there is still more to be done. FSWs under 15 years of age were least likely to report condom use with their most recent client (35%), indicating that condom

promotion is most important with the youngest and newest people involved in selling sex. This demonstrates that it is critical to reach the newest arrivals in sex work venues with active outreach promoting safe sex and opportunities for other work.

Table 9: Condom Use with Most Recent Client

Female Sex Workers who used condom the last time they had sex with their most recent client by background characteristics		
BACKGROUND CHARACTERISTICS	**Condom use with most recent client**	
	Number	Percentage
Less than 15	16	34.8
15 to 24	337	67.9
25 to 49	223	73.4
Greater than 49	3	75.0
Don't know Age	89	73.0
Total	**668**	**68.7**

The high numbers of STIs reported and the relatively high numbers of reported condom use may indicate that FSWs are being infected with STIs by non-paying partners, which has been found elsewhere in Africa [Kayembe, Mapatano, Busangu, Nyandew, Musema, Kibungu et al]. It may also indicate that condom use is not consistent with paying partners. This could be influenced by a lack of condoms (seen in the field in Kenema) and in some places, a lack of understanding about the need and ways to prevent HIV and STIs (seen in the field in Baumahun).

STIGMA, DISCRIMINATION AND VIOLENCE AGAINST FSWS

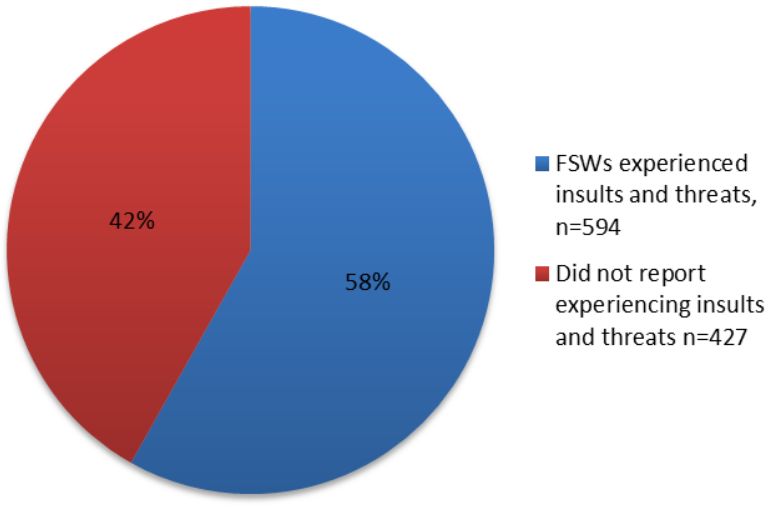
390 (40%) of FSWs reported having been excluded from a family, religious or social event because they sell sex. Among these women, 334 (86%) reported having been excluded from a family event, 35 (9%) reported having been excluded from a religious event, and 102 (27%) reported having been excluded from a social event.

Exclusion was not correlated with age, nationality, or marital status. Exclusion from social events was reported in major cities, perhaps because few such social events may occur in mining areas where sex workers travel to work.

Table 10: FSWs Self-reported Exclusion from a family, social or religious event

Female Sex Worker self-reported exclusion								
BACKGROUND CHARACTERISTICS	**Excluded from a family, social or religious event**		**Excluded from Family**		**Excluded from religious Group**		**Excluded from Social Event**	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
AGE								
Less than 15	20	41.7	19	95	3	15	5	25
15 to 24	210	42	188	89.5	18	8.7	46	22.1
25 to 49	107	35.2	86	82.7	11	10.8	33	32.4
Greater than 49	1	25	1	100	0	0	0	0
Don't know Age	52	44.1	40	76.9	3	5.8	18	34.6
DISTRICT								
KENEMA	139	54.3	115	82.7	3	2.2	62	44.9
BOMBALI	30	26.1	24	80	8	26.7	0	0
PORT LOKO	13	18.8	9	69.2	5	38.5	0	0
TONKOLILI	14	31.8	11	84.6	2	16.7	0	0
BO	82	36.6	78	96.3	8	10.3	16	20.3
WESTERN RURAL	8	40	7	87.5	0	0	1	12.5
WESTERN URBAN	104	42.3	90	87.4	9	8.7	23	22.3
Total	**390**	**40**	**334**	**86.3**	**35**	**9.2**	**102**	**26.6**

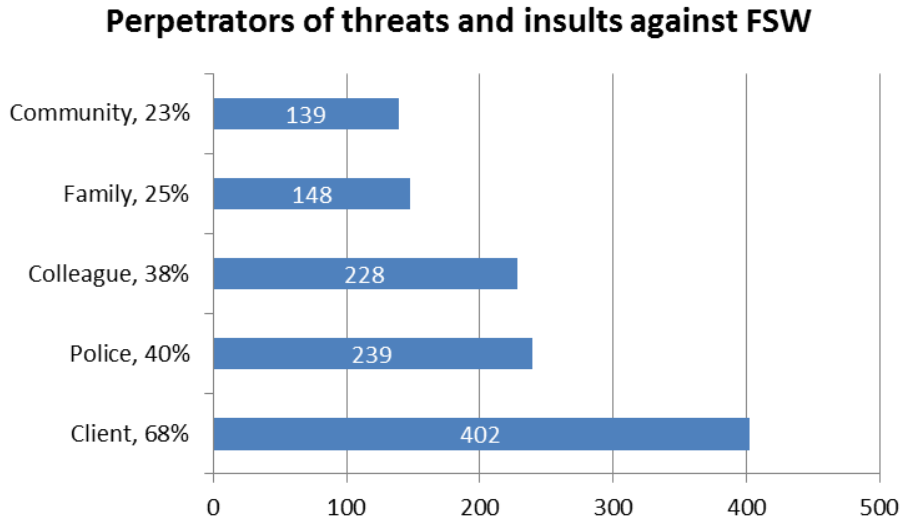
Figure 4: Numbers of FSWs reporting experiences of threats and insults



Over half of the FSWs interviewed reported experiencing threats and insults.

Among those sex workers who reported experiencing insults and threats, perpetrators included community members (n=139, 23%), clients (n=402, 68%), police (n=239, 40%), colleagues (n=228, 38%) and family members (n=148, 25%). Rates of discrimination were not related to nationality, age, marital status or location. Threats and insults from clients and colleagues were associated with youth, particularly being under 15 years of age.

Figure 5: FSWs Self-reported Experiences of Threats and Insults by perpetrator



Physical Violence against FSWs

Nearly all, of female sex workers interviewed reported having experienced violence in the previous year. Only two of 1021 interviewees reported not experiencing violence in the previous year.

Figure 6: Proportion of FSWs reporting violence against them in the previous year

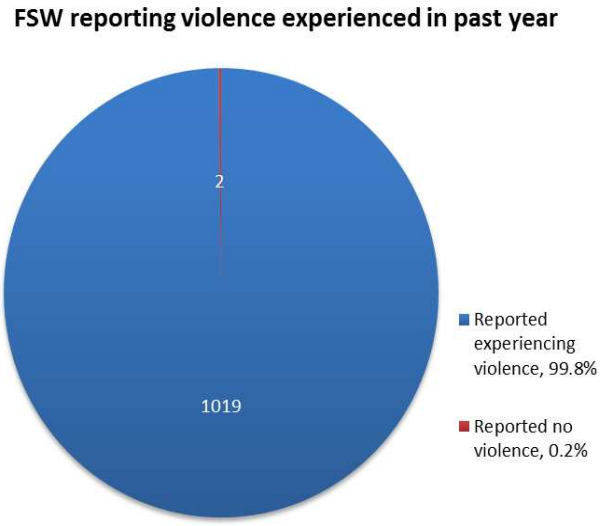


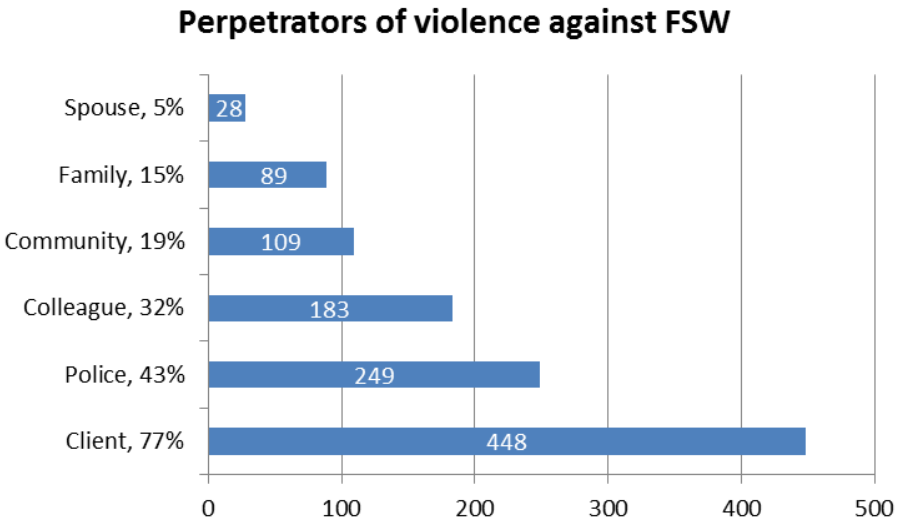
Table 11: Physical violence against FSWs in the previous year

FSWs were asked "In the past 12 months, has anyone …"	Number reporting YES	Percentage of FSWs
Slapped you or threw something at you that could hurt you	408	40.0%
Pushed you or shoved you	301	29.5%
Hit you with a fist or something else that could hurt	277	27.1%
Kicked you, dragged you or beat you up	287	28.1%
Choked or burned you	224	21.9%
Threatened you with or used a gun, knife or other weapon against you	248	24.3%
Physically forced you to have sexual intercourse against your will	243	23.8%
Forced you to do something sexual you found degrading or humiliating	244	23.9%
Made you afraid of what this person would do if you did not have sexual intercourse with him/her	223	21.8%
Total number of FSWs reporting experiencing physical violence	**1019**	**99.8**

Perpetrators of violence against FSWs

Clients were the main perpetrators of violence reported by FSWs. 448 FSWs (77% of those who reported having experienced violence in the previous year) reported having experienced violence from a client in the previous year. Sex workers also reported high rates of violence from police. 249 (43%) reported having experienced violence from police in the previous year. 183 (32%) sex workers reported experiencing violence from their sex work colleagues in the previous year. 109 (19%) reported having experienced violence from community members. 89 (15%) reported experiencing violence from family members, and 28 (5%) reported experiencing violence from a spouse.

Figure 7: Physical violence against FSWs in the previous year



Intoxication and violence

214 (38%) sex workers reported having been intoxicated at the most recent time they were victimized.

Drug use most frequently reported at the time of most recent victimization was alcohol, with some people reporting the use of other drugs, including heroin and cocaine. Considering that many sex workers meet their clients in bars and nightclubs, alcohol use is not surprising.

KEY LESSONS FROM SURVEY QUESTIONS

Need for alternatives to sex work and HIV prevention for children who sell sex

The presence of very young people selling sex demonstrates a great need for economic alternatives for children. However, even when alternatives for income generation exist, youth who sell sex or who are sexually active need HIV prevention education and commodities. As youth are associated with vulnerability to HIV and STIs and were linked to less reported condom use with their last client, these services are urgently needed by young people who sell sex.

Need for condom promotion is indicated

Condom promotion and distribution is urgently needed at sex work venues throughout the country. Innovative condom promotion could include distribution to mammy queens, *okadas*, DJs, and other key personnel with access to sex work venues and sex workers.

Anti-violence programming is needed

FSWs suffer high levels of violence from a variety of people. The Human Rights Commission of Sierra Leone could demonstrate leadership in a campaign against such violence, and sex work projects could work with others to promote anti-violence campaigns. The link between HIV exposure and violence makes violence against key populations a concern of NAS and the NACP, which could prove to be valuable partners in an anti-violence campaign.

Need for promoting the safe use of alcohol is indicated

The link between intoxication and violence implied by the data indicates a need for the promotion of safe alcohol use education and planning.

KEY LESSONS FROM FIELD VISITS

Indiscriminate use of antibiotics

During interviews, female sex workers described indiscriminate use of antibiotics. It is recommended that the Ministry of Health undertake periodic monitoring of anti-biotic effectiveness, that every step is taken to ensure that antibiotics are properly used, and that the antibiotics of the highest level of efficacy are made available.

Condoms re-use by impoverished female sex workers

During the pilot, condom re-use by impoverished female sex workers was reported, indicating an extreme need for improved distribution of condoms. Demand for condoms was seen at all

locations except Baumahun mining district; distribution among FSWs in Kenema was especially in demand.

Sex workers report a lack of confidentiality of their medical records

Sex workers reported a lack of confidentiality about their medical records, specifically HIV testing and diagnosis. Sex workers reported seeking and paying for private treatment rather than attending government facilities because of the lack of confidentiality and the deep stigmatization and discrimination they experienced at government facilities. This could lead to a lack of reporting and underreporting of HIV prevalence and incidence in NAS data. For this reason, it is possible that HIV prevalence within the FSW population could be much higher than the 8 percent currently reported.

SUGGESTED FUTURE RESEARCH

It would be possible to determine the ratio of FSWs to official mining employees at mining locations included in this study with information from the mining companies. This ratio could then be extrapolated for use in HIV prevention programming in other mining areas.

Monitoring effectiveness of antibiotics is important considering the reports of indiscriminate use of antibiotics and discoveries of antibiotic resistant strains of STIs around the world.

7. MSM

DEMOGRAPHICS

Gender: Numbers of transgender people among MSM

Most MSM are male, and this was reflected in the observation of 204 males out of 247 interviewees (82.60). 43 MSM interviewed through LGBTQI organization contacts described themselves as male-to-female transgender people, also known as transgender women (17.41%). Transgender people may be overrepresented, as this seems high compared to other countries. However, this may be explained by the fact that many MSM hide their status and it may be more difficult for transgender women to hide that they are MSM. They may be more likely to reach out to LGBQTI organizations. It may not be that transgender women are actually 17.41% of MSM in Sierra Leone but that this is a severe undercount of MSM in Sierra Leone.

Age

MSM also spanned the spectrum of ages. 2 MSM under 15 years of age were interviewed. The largest age groups represented were youths from 15 to 24 years, with 99 interviewed, and 118 adults from 25 to 49 years. No MSM interviewees were older than 50 years old, and 29 interviewees did not know their age.

Figure 8: Ages of MSM

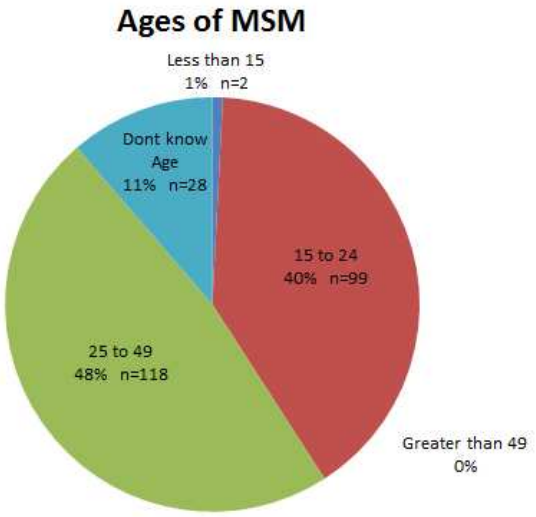
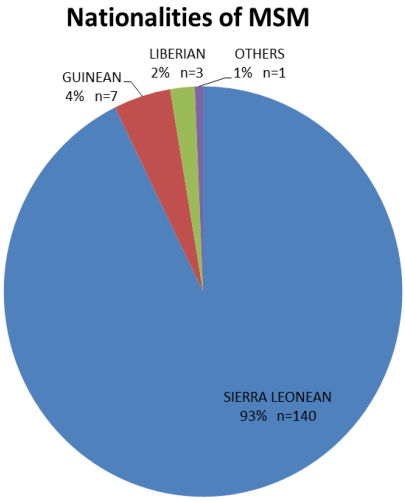


Figure 9: Nationalities of MSM



Nationality of MSM

MSM were mostly Sierra Leonean with small numbers from Liberia and Guinea and one person from another location.

Location

Sites were Freetown, Binkolo, Bo, Kenema, Magburaka, and Makeni. Every fifth contact was approached by telephone or in person in order to set up an appointment for the interview.

In Freetown (Western Area Rural and Urban), 110 interviews were conducted. In Bo, 43 interviews were conducted out of a total of 230 contacts. In Kenema, 57 interviews were conducted from a list of 310 contacts. In Magburaka, in Tonkolili District, 9 interviews were conducted. In Binkolo, and in Makeni, in Bombali District, 28 interviews were conducted.

Table 12: District and numbers of interviews with MSM

District	Number of interviews with MSM	Percentage of MSMs interviewed
Bo	43	17.4
Bombali (Makeni and Binkolo)	140	11.3
Kenema	57	23.1
Tonkolili (Magburaka)	9	3.6
Western Area (6 Rural)	110	44.5
Total	**247**	**100.0**

Binkolo and Magburaka are small towns, therefore the fact that MSM were reached in these locations demonstrates that MSM are everywhere in the country despite widespread stigma and discrimination against them.

INTERPRETATIONS, EXPLANATION AND EXTRAPOLATION OF POPULATION COUNTED

Numbers of active MSM is recognised to be an undercount in part because MSM is a hidden group in Sierra Leone. This estimate is according to what was observed through this study; however it is by no means indicative of the final number due to the emphasis on urban populations and that this study relied on networks of only two organisations in select areas where they had contacts. It was clear that each organisation could expand its contact network through the study. Finally, this study relied on the contacts reached in one wave; efforts to reach another wave of contacts would have increased the numbers found. For these reasons, it is recommended that further study be undertaken regarding MSM.

A modified nomination method was used to estimate the number of MSM that could be reached, starting with the contacts of the two partner organizations, Dignity and Pride Equality. The total number of contacts between the two organizations is 1100. All contacts were invited to events in their locations. Those who attended were asked to share the last 4 digits of their numbers and the last 4 digits of the numbers of their contacts. The last four digits were chosen because they prevent identification (numbers are three digits for the local carrier, then six digits for the individual number) and could offer 9,999 combinations, limiting the numbers of duplicates, even considering the fact that two companies are very common and a third is less common.

The following formula was used in the northern region and the people from Freetown

$$N \text{ initial contacts} + (N \text{ their contacts} - N \text{ duplicates})$$

The number of initial contacts in this case is the number of people interviewed, and the N their contacts – N duplicates was derived using the last four digits of MSM contacts in their mobile phone address books.

Extrapolation based on numbers of contacts

MSM were asked about their contacts in their mobile phones, to share the last four digits of their number and the last four digits of MSM contact phone numbers in their mobile phone address books. Only 98 people interviewed (39.68%) shared information for their contacts this way. Numbers not shared but counted were recorded as dashes. There were 50 instances of withheld numbers, in addition to 405 four-digit sequences collected.

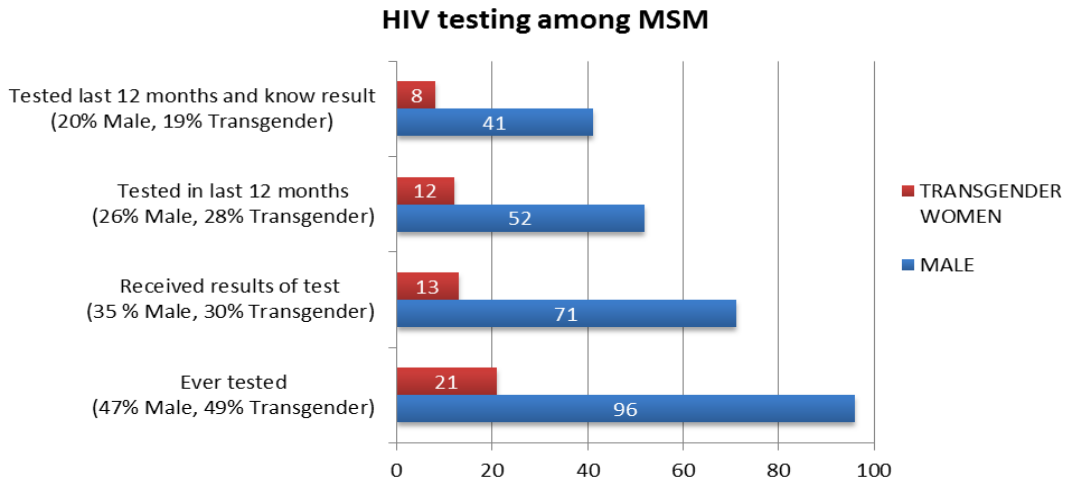
MSM had an average of 3.65 contacts in their mobile phone address books. The number of contacts people shared ranged from one to eight contacts. Among the numbers shared, 46 were duplicated, some up to three times, leading to 71 instances of duplication among the numbers shared, or 17.5 percent of numbers shard being duplications. Two of the four-digit sequences were repeated among 98 interviewees who shared these four-digit sequences. These are four distinct people who were interviewed, demonstrating that of the nearly ten thousand possible sequences, among three mobile telephone providers, duplication is possible. This means that a small number of the 71 instances of duplication among the 405 four-digit sequences, including those of both interviewees and their contacts, may be in fact distinct individuals.

Considering that we had 50 four-digit sequences that were not shared, and 17.5 percent duplication rate among the 405 four-digit sequences shared, we can presume that there were 9 duplicates among the 50 withheld four-digit sequences. Therefore of 455 contacts, considering a duplication rate of 17.5, we would actually have 375 contacts. As only 20 percent of each organization's contacts were reached out to, we can multiply 375 contacts by 5, for 1875 MSM who could be reached by direct outreach at this point in time. As only 40% of interviewees shared their information this way, we can multiply this amount by 2.5 to estimate 4688 MSM that could be reached through their networks with information and commodities to prevent HIV. This number is an undercount of MSM in Sierra Leone, but offers an estimate to work with for initial programming, to be followed up on and adjusted based on field experiences and demand as programming expands.

HIV testing among MSM

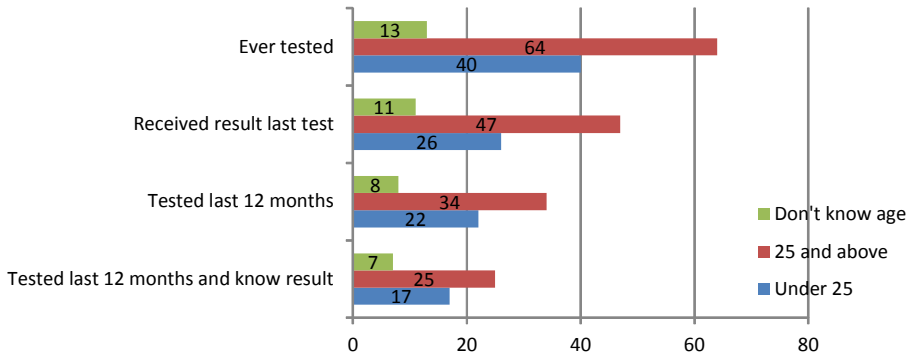
Among MSM, 96 men and 21 transgender women reported ever being tested for HIV (total 117). 64 (52 male, 12 transgender women) reported being tested in the previous year, and 49 (41 male, 8 transgender women) reported knowing the results of their tests. 27 reported having been tested in the year prior to last, and 25 reported having been tested more than two years ago.

Figure 10: HIV testing among MSM



No one under 15 years of age reported being tested, but 40 youths between the ages of 15 and 24 reported having ever been tested, and 64 people between the ages of 25 and 49 reported ever being tested, while 13 people who did not know their age reported ever being tested for HIV.

Figure 11: HIV testing among MSM by age



Most MSM reported attending public facilities for HIV testing, with a small percentage attending private facilities. While the numbers are small, transgender women and married men were most likely to report attending private clinics.

Table 13: Location MSM was tested for HIV (by percentage)

BACKGROUND CHARACTERISTICS	Men Sex Men (MSM)			
	Public Facility	Private Facility	Others	Number of MSM
GENDER				
MALE	44.6	0.5	54.9	204
TRANSGENDER (M to F)	44.2	4.7	51.2	43
AGE GROUP				
Less than 15	0.0	0.0	100.0	2
15 to 24	37.4	2.0	60.6	99
25 to 49	50.8	0.8	48.3	118
Greater than 49	0.0	0.0	0.0	0
Don't know Age	46.4	0.0	53.6	28
Total	**44.5**	**1.2**	**54.3**	**247**

STIs and symptoms among MSM

Among MSM, 87 men (43%) and 14 transgender women (33%) reported having had an STI in the previous year. STIs and STI symptoms were reported by MSM at all sites. Transgender women were more likely than other MSM to report sores in the anal or genital area.

Table 14: Self-reported STIs and symptoms among MSM

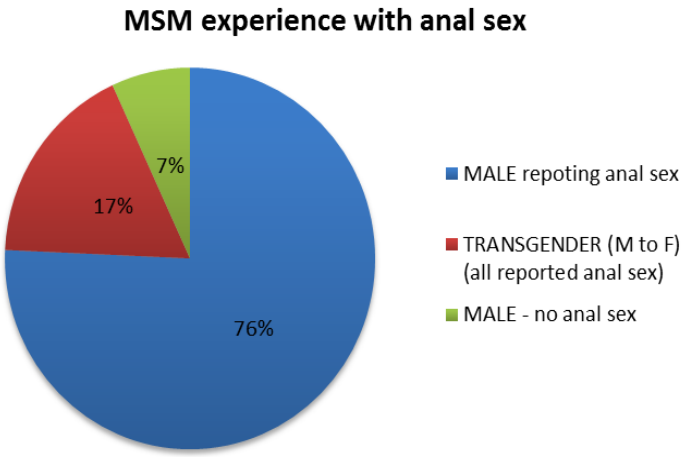
Men who have sex with men who reported having experienced STIs in the past twelve months						
BACKGROUND CHARACTERISTICS	Having an STI		Abnormal discharge from penis		Ulcer near your penis or anus	
	Number	Percentage	Number	Percentage	Number	Percentage
GENDER						
MALE	87	43.1	70	34.7	79	39.3
TRANSGENDER (M to F)	14	32.6	12	27.9	21	48.8
AGE GROUP						
Less than 15	1	50	1	50	1	50
15 to 24	39	39.8	35	35.7	38	38.4
25 to 49	47	39.8	38	32.2	44	37.6
Greater than 49	0	0	0	0	0	0
Don't know Age	14	51.9	8	29.6	17	65.4
DISTRICT						
KENEMA	25	44.6	22	39.3	28	50
BOMBALI	15	51.7	7	24.1	15	51.7
TONKOLILI	6	75	5	62.5	5	62.5
BO	16	38.1	17	40.5	14	32.6
WESTERN RURAL	3	27.3	4	36.4	4	36.4
WESTERN URBAN	36	36.4	27	27.3	34	35.1
Total	**101**	**41.2**	**82**	**33.5**	**100**	**41**

70 men (35%) and 12 transgender women (28%) reported abnormal discharge, and 79 men (39%) and 21 transgender women (49%) reported having sores in the anal or genital area in the previous year.

Condom use among MSM

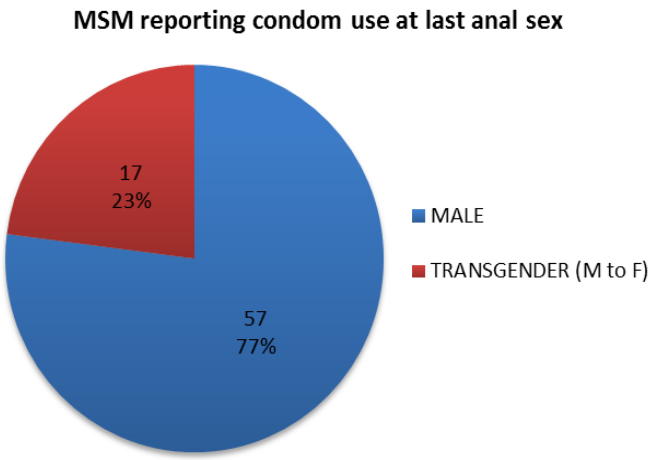
MSM and transgender women were asked if they had ever had anal sex with a man. 187 men (92%) and 43 transgender women (100%) reported yes, that they had engaged in anal sex with a man. This is 92% of the total sample of 230 interviewees.

Figure 12: Self-reported experience of anal sex with a male partner



MSM and transgender women were asked if they had used a condom the last time they engaged in anal sex. 74 (32%) reported yes, they had used a condom the last time they had anal sex, comprised of 57 men (30%) and 17 transgender women (40%). This is not high enough to disrupt an epidemic and so condom use should be vigorously promoted among MSM and transgender women.

Figure 13: Condom use during anal sex among MSM, by gender



The highest proportion of condom use during the last experience of anal sex was reported by married men, at 48.1%.

STIGMA, DISCRIMINATION AND VIOLENCE

Among MSM, 60 (25%) reported having been excluded from a family, religious or social event. Among these 60, 55 were men and 5 were transgender women. 47 (79%) reported having been excluded from a family event, 1 (18%) reported having been excluded from a religious event, and 18 (30%) reported having been excluded from a social event.

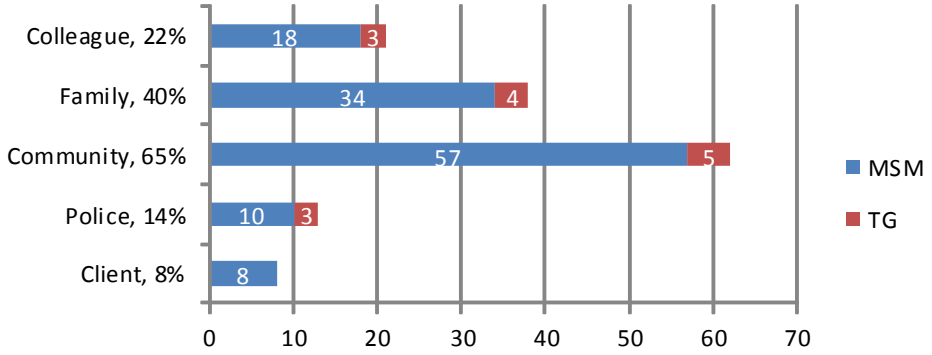
Table 15: Self-reported exclusion of MSM from family, social and religious events

Men who have sec with men self-reported exclusion								
BACKGROUND CHARACTERISTICS	**Excluded from a family, social or religious event**		**Excluded from Family**		**Excluded from religious Group**		**Excluded from Social Event**	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
GENDER								
MALE	55	27.5	43	78.2	10	18.2	17	30.9
TRANSGENDER (M to F)	5	12.8	4	80	1	20	1	20
AGE GROUP								
Less than 15	0	0	0	0	0	0	0	0
15 to 24	26	27.4	22	84.6	4	15.4	9	34.6
25 to 49	26	22.6	17	65.4	7	26.9	8	30.8
Greater than 49	0	0	0	0	0	0	0	0
Don't know Age	8	29.6	8	100	0	0	1	12.5
DISTRICT								
KENEMA	16	28.6	13	81.2	5	31.2	1	6.2
BOMBALI	10	34.5	10	100	0	0	2	20
TONKOLILI	3	37.5	3	100	0	0	0	0
BO	12	27.9	7	58.3	0	0	9	75
WESTERN RURAL	1	9.1	1	100	0	0	0	0
WESTERN URBAN	18	19.6	13	72.2	6	33.3	6	33.3
Total	**60**	**25.1**	**47**	**78.3**	**11**	**18.3**	**18**	**30**

Regarding family and religious events, the percentages of men and transgender women who reported being excluded from family and religious events were similar. Regarding social events, 17 men (31%) and 1 transgender woman (20%) reported having been excluded from a social event in the previous year because of their being MSM.

MSM reported experiencing insults and threats from family (n=38, 40%), community (n=62, 35%), colleagues (n=21, 22%), police (n=13, 14%) and clients (n=8, 8%). Proportionately more transgender women reported insults and threats from community (n=5, 50%), family (n=4, 40%) and police (n=3, 30%). Men reported experiencing the most insults and threats from community members (n=57, 67%) and family (n=34, 40%).

Figure 14: MSM self-reported experiences of threats and insults



In addition to threats and insults, all but 1 MSM interviewed reported experiencing physical violence in the previous year.

Figure 15: Proportion of MSM reporting physical violence against them in the previous year

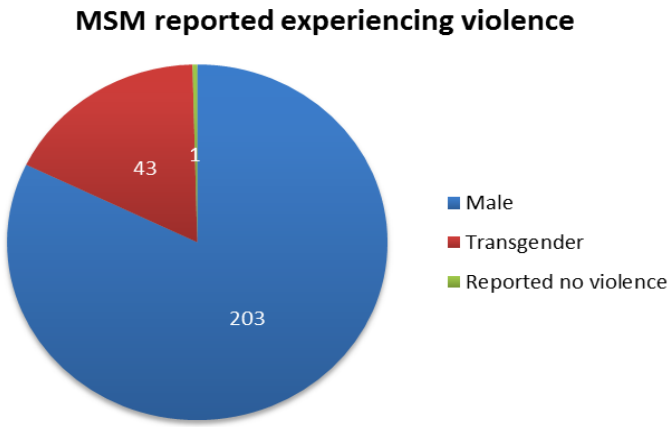


Table 16: Physical violence against MSM in the previous year

MSM were asked "In the past 12 months, has anyone …"	Number reporting Yes	Percentage of MSM
Slapped you or threw something at you that could hurt you	62	25.1%
Pushed you or shoved you	64	25.9%
Hit you with a fist or something else that could hurt	61	24.7%
Kicked you, dragged you or beat you up	60	24.3%
Choked or burned you	52	21.1%
Threatened you with or used a gun, knife or other weapon against you	61	24.7%
Physically forced you to have sexual intercourse against your will	74	30.0%
Forced you to do something sexual you found degrading or humiliating	70	28.3%
Made you afraid of what this person would do if you did not have sexual intercourse with him/her	68	27.5%
Total reporting having experienced any violence in previous year	**246**	**99.6%**

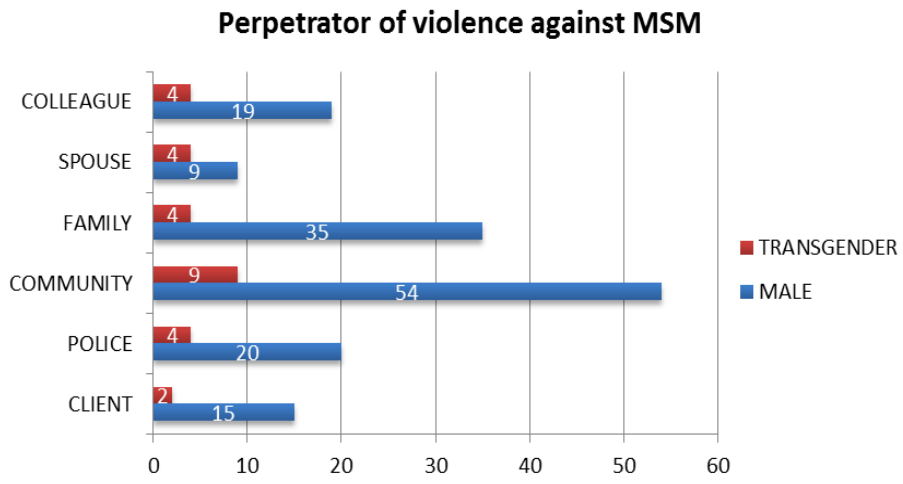
Rates of sexual violence reported were very high, and similar among men and transgender women. Rape was reported by 62 men (31%) and 12 transgender women (28%). 59 men (29%) and 11 transgender women (26%) reported having been forced to do something sexual which the interviewee found degrading or humiliating. 59 men (29%) and 9 transgender women (21%) reported having been made afraid of what a person would do to them if they did not have sexual intercourse with that person.

Men reported experiencing non-sexual physical violence at higher proportions than transgender women. 58 men (29%) and 4 transgender women (9%) reported having been slapped or having had something thrown at them. 59 men (29%) and 5 transgender women (12%) reported having been pushed or shoved. 56 men (28%) and 5 transgender women (12%) reported having been hit. 55 men (27%) and 5 transgender women (12%) reported having been kicked, dragged or beaten up. While these numbers remained similar for men describing escalating violence, smaller proportions of transgender women reported experiencing escalating violence. For example, 51 men (25%) and 1 transgender woman (2%) reported having been choked or burned. 57 men (28%) and 4 transgender women (9%) reported having been threatened with a weapon or had a weapon used on them.

Perpetrators of violence against MSM

More MSM reported experiencing violence more from community members than violence from any other group. 54 men (64%) and 9 (56%) transgender women reported experiencing violence from community members. 35 men (41%) and 4 transgender women (25%) reported experiencing violence from family members. 20 men (24%) and 4 (25%) transgender women reported experiencing violence from police. 19 men (23%) and 4 (25%) transgender women reported experiencing violence from other MSM. 9 men (11%) and 4 (25%) transgender women reported experiencing violence from a spouse. 15 men (18%) and 2 (13%) transgender women reported experiencing violence from a client.

Figure 16: Perpetrators of Violence against MSM and Transgender Women



Intoxication and violence

28 (27%) MSM (24 men and 4 transgender women) reported having been intoxicated the most recent time they were victimized. Drug use reported at the time of victimization by MSM was overwhelmingly alcohol.

Table 17: Intoxication at last experience of violence

BACKGROUND CHARACTERISTICS	Under the influence of alcohol or drugs	
	Number	Percentage
GENDER		
MALE	24	27.9
TRANSGENDER (M to F)	4	23.5
AGE GROUP		
Less than 15	0	0
15 to 24	11	25
25 to 49	14	29.2
Greater than 49	0	0
Don't know Age	3	30
DISTRICT		
KENEMA	6	20
BOMBALI	4	40
TONKOLILI	2	28.6
BO	5	29.4
WESTERN RURAL	0	0
WESTERN URBAN	11	30.6
Total	**28**	**27.2**

SPECIFIC QUESTIONS FOR MSM

Sex work by MSM

Many MSM reported selling sex. When asked, "Have you had sex with a man in exchange for money in the last twelve months?" 151 interviewees (61% of the 247 interviewed) reported yes. Among these 151 MSM who sell sex, 120 (59% of the 204 men interviewed) were men and 31 (72% of the 43 transgender women interviewed) were transgender women.

Table 18: Characteristics of MSM who reported selling sex

BACKGROUND CHARACTERISTICS	Man Having Sex with a man in exchange for money in the last *12 months*	
	Number	Percentage
GENDER		
MALE	120	59.1
TRANSGENDER (M to F)	31	72.1
AGE GROUP		
Less than 15	1	50
15 to 24	50	50.5
25 to 49	84	71.2
Greater than 49	0	0
Don't know Age	16	59.3
Total	**151**	**61.4**

The proportion of MSM interviewed who reported selling sex is very high. MSM in general, and especially MSM who sell sex, should have access to condoms and lubricant, as well as education about their proper use. The numbers of people selling sex implies that there may be many more men who purchase sex who were not included in the PSE interviews. MSM who sell sex may be ideal outreach workers to reach this especially hidden population.

KEY LESSONS FROM SURVEY QUESTIONS

Need for condom promotion is indicated

Condom promotion and distribution is urgently needed. Innovative condom promotion could include distribution through organizations serving LGBTQI people in Sierra Leone.

Anti-violence programming is needed

MSM suffer high levels of violence from a variety of people. The Human Rights Commission of Sierra Leone could demonstrate leadership in a campaign against such violence, and organizations serving LGBTQI people could work with others to promote anti-violence campaigns. The link between HIV exposure and violence makes violence against key populations a concern of NAS and the NACP, which could prove to be valuable partners in an anti-violence campaign.

Need for safe alcohol use

The link between intoxication and violence, particularly alcohol intoxication among MSM, indicates a need for safe alcohol harm reduction programming.

KEY LESSONS FROM FIELD VISITS

Police interactions with transgender women

Police interference with the mobility of transgender women was noted during the pilot. While transgender women were traveling to the event held at the office of one of the local MSM partner organizations, the car in which they were traveling was frequently stopped. This demonstrates the ability of uniformed armed personnel to interfere not only with HIV prevention efforts but also with the everyday lives of Sierra Leoneans who are discriminated against and stigmatized.

Indiscriminate use of antibiotics

During interviews, transgender women sex workers in this sample described indiscriminate use of antibiotics. Considering this, it is recommended that the Ministry of Health undertake periodic monitoring of anti-biotic effectiveness and that every step be taken to ensure that antibiotics are properly used and that the antibiotics of the highest level of efficacy are made available.

SUGGESTED FUTURE RESEARCH STUDIES

Monitoring effectiveness of antibiotics in use is important considering the reports of indiscriminate use of antibiotics and discoveries of antibiotic resistant strains of STIs around the world.

This PSE was the first examination of transgender people in Sierra Leone. More research is needed to understand how to implement effective HIV prevention programming.

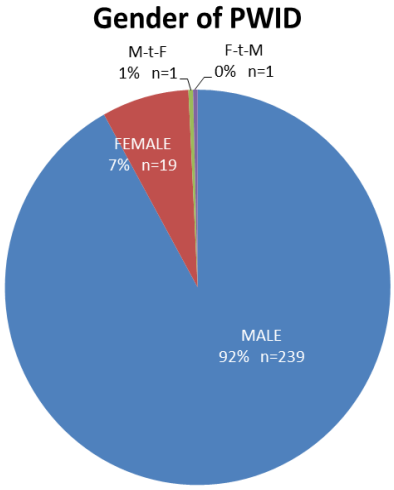
8. PWID

DEMOGRAPHICS

Gender

Among the 260 interviews conducted, 239 were with men, 19 with women, and 1 with a female-to male transgender person and 1 with male-to-female transgender person.

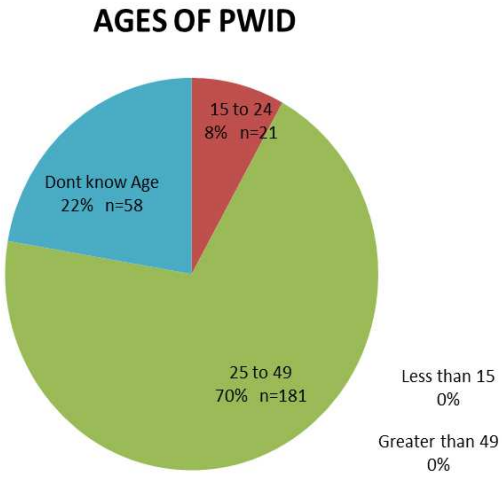
Figure 17: Gender of PWID



Age

The largest group of PWID by age were adults 25 to 49, with 181 interviewees. 58 PWID interviewees did not know their age. Among the age group 15-24, 21 PWID were interviewed. No PWID interviewed were less than 15 years of age or over 49 years of age.

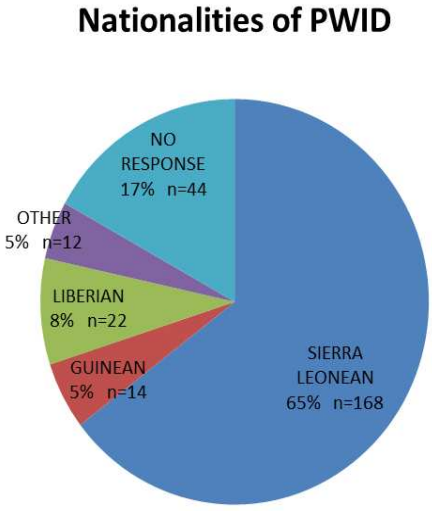
Figure 18: Age of PWID



Nationality

Most PWID were from Sierra Leone. Small numbers reported being from Liberia and Guinea and other locations, and 44 (17%) did not respond to the question.

Figure 19: Nationalities of PWID



Locations

Table 19: *Districts and numbers of interviews*

District	Number of interviews	Percentage of PWID

Bo	28	10.8
Bombali (Makeni)	39	15
Kenema	32	12.3
Kono	35	13.5
Western Area (4 Rural)	126	48.5
Total	**260**	**100**

NUMBERS OF PWID

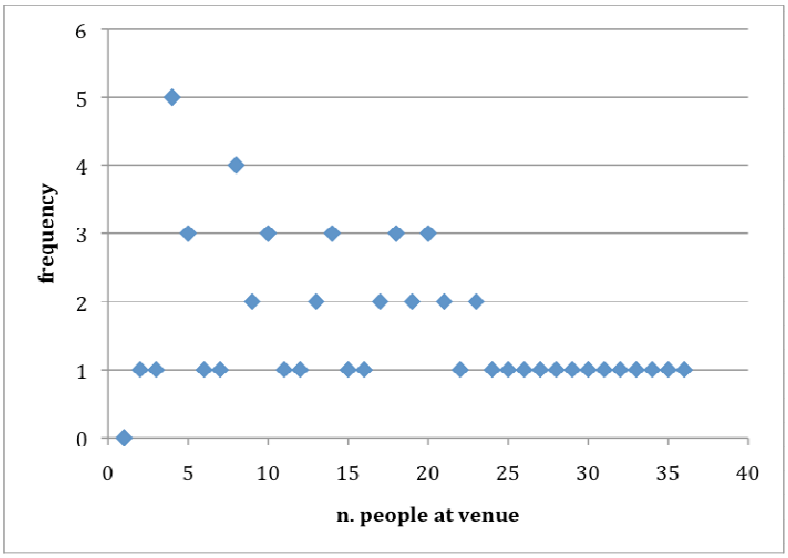
Numbers of PWID were the hardest to estimate because people at hideouts where people use drugs include many people who use drugs but do not inject drugs. For this reason, interviewees were asked right away whether they inject drugs. Interviews were conducted with 260 PWID in five cities (Bo, Freetown, Kenema, Kono, and Makeni). Enumerators visited hideouts where drug users congregate. FDID was well placed to implement this as no other organisation reaches out to users in the hideouts. Hideouts are frequented by people who use drugs in a variety of ways. Injecting is only one way that drugs can be used; drugs can also be inhaled, snorted, smoked, and ingested.

It seems that PWID are a small minority among people who use drugs, but 126 PWID were identified and interviewed in Freetown.

FDID worked with GOAL, another organization in Freetown, and together they verified the existence of 99 hideouts where people use drugs. Using the numbers of people at each hideout, GOAL estimated approximately 5000 people who use drugs in Freetown in 2012, some of whom were young, many of whom were female [GOAL 2013]. GOAL's efforts focus on vulnerable youth, many of whom are overwhelmingly poor, homeless, and live without adult care and supervision. This means that upper class people who use drugs are underrepresented in their mapping exercise; many PWID are wealthy enough to purchase needles therefore this group is underrepresented. Enumerators reported difficulty accessing some hideouts in Kono, particularly homes of affluent people; this group may require specific approaches in order to provide them with information about HIV prevention.

While visiting each hideout, the PWID data collection team also noted how many people were in each location. They counted 2709 people in 63 places where people use drugs in five cities. This is an average of 42.95 people at each location. Locations included hideouts, streets, bars, parks, hotels, and houses. Numbers recorded from each location ranged from 5 to 280. The mode was 8, with a frequency of 5. The second most common number of people at a single venue was 12, with a frequency of 4.

Figure 20: Frequencies of the numbers of people at places where drugs are sold and/or used



Scatter chart: X=number of people at venue, Y=frequency

If there were 99 hideouts verified in Freetown, when multiplied by the average number of people at the hideouts (42.95), 4252 PWUDs would be estimated. GOAL's estimate of 5000 people who could be reached by outreach programs is reasonable but may under-represent PWID and the more affluent community among PWUD.

Of the 2709 people observed at places where people use drugs, 260 were interviewed as self-identified PWID. This is 9.60% of the number of people observed in hideouts. If ten percent of PWUD inject then there may be as many as 500 PWID in Freetown alone who could be reached by HIV prevention programmes, with another 600 total across the other four locations (Bo, Kenema, Kono and Makeni) where the PWID team collected data.

HIV TESTING, STIS AND SYMPTOMS, CONDOM USE, AND SYRINGES

HIV testing among PWID

47 people, (38 men and 9 women; neither of the transgender interviewees) reported ever having been tested for HIV. They were distributed in each of the locations visited by the data collecting team, with 20 in Freetown, 8 each in Kenema and Bo, 7 in Makeni in Bomboli District and 4 in Kono. However, only two people reported being tested in the past year, one each in Freetown and Bo. Both of these individuals reported knowing their results. 11 people reported having been tested between 12 and 23 months ago, and 30 reported having been tested more than two years ago.

Figure 21: Location PWID was tested for HIV (percentage)

BACKGROUND CHARACTERISTICS	People who Inject Drugs (PWID)			
	Public Facility	Private Facility	Others	Number of PWID
GENDER				
Male	15.5	0.0	84.5	239
Female	42.1	0.0	57.9	19
Transgender (M To F)	0.0	0.0	100.0	1
Transgender (F To M)	0.0	0.0	100.0	1
AGE GROUP				
Less than 15	0.0	0.0	0.0	0
15 to 24	14.3	0.0	85.7	21
25 to 49	21.0	0.0	79.0	181
Greater than 49	0.0	0.0	0.0	0
Don't know Age	6.9	0.0	93.1	58
Total	**17.3**	**0.0**	**82.7**	**260**

Condom access among PWID

41 people reported having been offered condoms in the past year, 39 men and 2 women. Neither of the transgender people interviewed reported having been offered condoms. People 25 years and older were more likely to report having been offered condoms than younger people. The number of people offered condoms in each location was 10 in Freetown, 7 in Bo, 12 in Makeni, 7 in Kono and 5 in Kenema.

Table 20: Characteristics of PWID reporting having been offered condoms in the previous year

PWID who were offered condoms in the last twelve month		
BACKGROUND CHARACTERISTICS	Offered condoms in the last twelve months	
	Number	Percentage
GENDER		
Male	39	20.2
Female	2	11.8
Transgender (M To F)	0	0.0
Transgender (F To M)	0	0.0
AGE GROUP		
Less than 15	0	0.0
15 to 24	2	10.0
25 to 49	34	19.1
Greater than 49	0	0.0
Don't know Age	5	35.7
DISTRICT		
Kenema	5	16.7
Kono	7	20.6
Bombali	12	30.8
Bo	7	31.8
Western rural	2	66.7
Western urban	8	9.5
Total	**41**	**19.3**

STI symptoms among PWID

Among PWID, 48 men (25%) and 4 women (22%) reported having had an STI during the last year. Only men reported having experienced STI symptoms in the previous year, with 50 men (26%) reporting abnormal discharge and 31 men (16%) reporting a sore in the anal or genital region in the previous year. PWID reporting STIs and symptoms were concentrated in Bo, Freetown and Kenema.

Table 21: Self-reported STIs and symptoms among PWID

Self-reported STI and STI Symptoms Among People who Inject Drugs										
BACKGROUND CHARACTERISTICS	All		Women				Men			
	Disease through sexual contact		Bad smelling abnormal genital discharge		Genital sore or ulcer		Abnormal discharge		Sore or ulcer	
	#	%	#	%	#	%	#	%	#	%
GENDER										
Male	48	24.5	0	0	0	0	50	25.9	31	15.8
Female	4	22.2	5	27.8	3	17.6	0	0	0	0
Transgender (M To F)	0	0	0	0	0	0	0	0	0	0
Transgender (F To M)	0	0	0	0	0	0	0	0	0	0
AGE GROUP										
Less than 15	0	0	0	0	0	0	0	0	0	0
15 to 24	5	23.8	1	4.8	1	4.8	5	25	2	9.5
25 to 49	40	22.1	3	1.7	2	1.1	37	20.6	26	14.4
Greater than 49	0	0	0	0	0	0	0	0	0	0
Don't know Age	7	50	1	1.8	0	0	8	61.5	3	21.4
DISTRICT										
Kenema	11	34.4	3	9.4	0	0	11	34.4	7	21.9
Kono	4	11.8	0	0	0	0	5	14.7	2	5.9
Bombali	2	5.1	0	0	0	0	2	5.1	1	2.6
Bo	11	47.8	1	3.6	1	3.6	11	50	8	34.8
Western rural	0	0	0	0	0	0	0	0	0	0
Western urban	24	28.2	1	0.8	2	1.7	21	25.3	13	15.3
Total	**52**	**24.1**	**5**	**1.9**	**3**	**1.2**	**50**	**23.5**	**31**	**14.4**

Use of sterile injecting equipment by PWID

PWID were asked if they had injected drugs in the past 12 months. 209 of 260 interviewees reported that they had injected drugs in the previous year. As questions about injecting were asked earlier, it is understood that these individuals had ever injected, but not recently. These included 189 men, 18 women, 1 F-t-M transgender person and 1 M-t-F transgender person.

Rates of the use of sterile equipment were low, at 25.3% among men and 27.8% among women PWID. The greatest percentages of PWID reporting the use of sterile equipment were from the Western Area Rural and Urban districts.

Table 22: Sterile needle and syringe use among PWID

Injecting Drug Users who injected drugs in the last twelve months and used sterile needle and syringe the last time they injected drugs by background characteristics				
BACKGROUND CHARACTERISTICS	**Drug injectors in the last twelve months**		**PWIDs who use sterile needle and syringe**	
	Number	Percentage	Number	Percentage
GENDER				
MALE	189	96.9	48	25.3
FEMALE	18	100	5	27.8
TRANSGENDER (M to F)	1	100	0	0
TRANSGENDER (F to M)	1	100	0	0
AGE GROUP				
Less than 15	0	0	0	0
15 to 24	21	100	6	28.6
25 to 49	176	97.8	46	26
Greater than 49	0	0	0	0
Don't know Age	12	85.7	1	8.3
DISTRICT				
KENEMA	29	90.6	6	20
KONO	33	97.1	3	9.1
BOMBALI	38	100	8	21.1
BO	23	100	2	8.7
WESTERN RURAL	3	100	2	66.7
WESTERN URBAN	83	97.6	32	38.6
Total	**209**	**97.2**	**53**	**25.2**

These 209 interviewees were asked if they used a sterile needle and syringe the last time they injected drugs. 53 (25%) reported having used a sterile needle and syringe the last time they injected drugs, including 48 (25%) men and 5 women (28%) None of the two transgender people reported using a sterile syringe the last time they injected.

The most popular drugs reported among PWID were heroin and cocaine. Heroin use was reported by 188 PWID (88%) and cocaine use was reported by 82 (40%).

Table 23: Self-reported drug use among PWID

Injecting Drug Users the last twelve months reported using (not necessarily injecting)						
BACKGROUND CHARACTERISTICS	**Heroin**		**Cocaine**		**Marijuana**	
	Number	Percentage	Number	Percentage	Number	Percentage
GENDER						
MALE	170	88.1	79	42.2	10	5.3
FEMALE	16	88.9	3	17.6	1	5.9
TRANSGENDER (M to F)	1	100	0	0.0	0	0.0
TRANSGENDER (F to M)	1	100	0	0.0	0	0.0
AGE GROUP						
Less than 15	0	0.0	0	0.0	0	0.0
15 to 24	16	76.2	0	0.0	2	10.5
25 to 49	162	90.5	78	44.6	9	5.1
Greater than 49	0	0.0	0	0.0	0	0.0
Don't know Age	10	76.9	4	33.3	0	0.0
DISTRICT						
KENEMA	25	80.6	7	24.1	0	0.0
KONO	33	100	23	69.7	0	0.0
BOMBALI	37	97.4	22	57.9	0	0.0
BO	20	87.0	3	13.0	2	8.7
WESTERN RURAL	3	100	0	0.0	2	66.7
WESTERN URBAN	70	82.4	27	33.8	7	8.8
Total	**188**	**88.3**	**82**	**39.8**	**11**	**5.3**

Among other drugs used by PWID, 11 interviewees (5%) reporting using marijuana. All other drugs reported used were reported by only one or two interviewees. Many other drugs are available, including valium (called "blue boat"), diazepam, and gunpowder. However, use of these has been reported more among youth and the poor [GOAL].

Intoxication and sexual activity among PWID

PWID were asked if they were intoxicated the last time they had sex. 176 (82%) of interviewees reported that they had been intoxicated the last time they had sex. This included 162 men (83%) and 14 women (82%). No substantial differences were evident across age, nationality, marital status or location.

Table 24: Intoxication at last sexual activity

BACKGROUND CHARACTERISTICS	Injecting drug user who was intoxicated the last time they had sex with their most recent client by background characteristics	
	Number	Percentage
GENDER		
Male	162	83.1
Female	14	82.4
Transgender (M To F)	0	0.0
Transgender (F To M)	0	0.0
AGE GROUP		
Less than 15	0	0.0
15 to 24	15	75.0
25 to 49	151	83.9
Greater than 49	0	0.0
Don't know Age	10	71.4
DISTRICT		
Kenema	23	71.9
Kono	28	82.4
Bombali	38	100
Bo	16	69.6
Western rural	3	100
Western urban	68	81.0
Total	**176**	**82.2**

Stigma, discrimination and violence against PWID

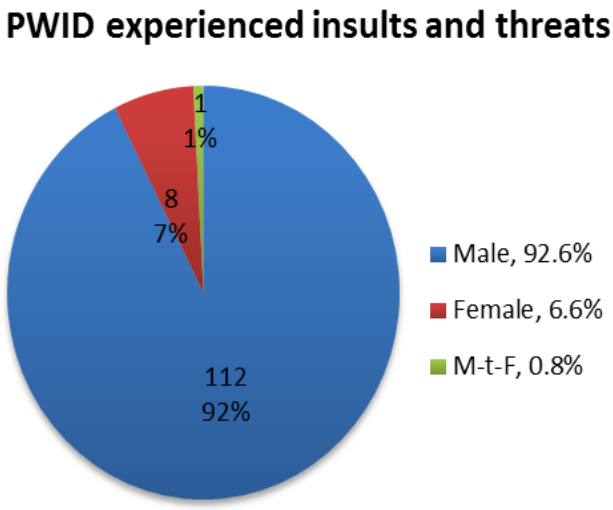
Among PWID, 80 people (40%) reported having been excluded from a family, religious or social event because of their drug use. Among the people reporting such exclusion, 71 (89%) reported having been excluded from a family event, 8 (10%) reported having been excluded from a religious event, and 14 (18%) reported having been excluded from a social event. Among PWID, gender variations emerge with regard to exclusion. Of the 80 PWID who reported having experienced exclusion in the previous year, 75 were male, 4 were female and 1 was an M-t-F transgender person.

Table 25: Self-reported exclusion of PWID from family, religious or social events

BACKGROUND CHARACTERISTICS	Excluded from a family, social or religious event		Excluded from Family		Excluded from religious Group		Excluded from Social Event	
	#	%	#	%	#	%	#	%
GENDER								
Male	75	41.2	67	89.3	8	10.7	11	14.7
Female	4	26.7	4	100	0	0	2	50
Transgender (M To F)	1	100	0	0	0	0	1	100
Transgender (F To M)	0	0	0	0	0	0	0	0
AGE GROUP								
Less than 15	0	0	0	0	0	0	0	0
15 to 24	7	41.2	7	100	2	28.6	0	0
25 to 49	70	41.4	62	88.6	5	7.1	13	18.6
Greater than 49	0	0	0	0	0	0	0	0
Don't know Age	3	23.1	2	66.7	1	33.3	1	33.3
DISTRICT								
Kenema	9	28.1	8	88.9	2	22.2	3	33.3
Kono	21	61.8	21	100	0	0	0	0
Bombali	20	51.3	20	100	0	0	0	0
Bo	5	21.7	2	40	2	40	3	60
Western rural	1	50	1	100	0	0	0	0
Western urban	24	34.8	19	79.2	4	16.7	8	33.3
Total	**80**	**40.2**	**71**	**88.8**	**8**	**10**	**14**	**17.5**

All 4 women reported being excluded from family events and 2 (50%) of the women reported having been excluded from social events. The M-t-F transgender person interviewed reported having been excluded only from social events. Among the 75 men PWID who reported experiencing exclusion, 67 (89%) reported having been excluded from family events, 8 (11%) reported having been excluded from religious events, and 11 (15%) reported having been excluded from social events. The F-t-M transgender person interviewed among PWID did not report exclusion of any sort.

Figure 22: PWID self-reported experiences of insults and threats



121 PWID reported experiencing insults and threats, which is 46.5% of the 260 PWID interviewed. Men were most likely to report experiencing insults and threats.

PWID reported experiencing insults and threats from police (n=85, 70%), family members (n=68, 56%) and colleagues (other people who use drugs, n=52, 43%). Variations by gender were pronounced. Women reported that clients threatened or insulted them more than any other group (n=5, 63%) implying that many female PWID also sell sex. Men experienced far more insults and threats from police (n=83, 74%) than women (n=2, 25%). Women PWID reported proportionally more harassment from other users (n=6, 75%; men: n=46, 41%). While men and women reported insults and threats from family (men: n=65, 58%; women: n=3, 38%). Men also reported proportionally more harassment from police. The M-t-F transgender interviewee among PWID reported insults and threats from community members only.

Violence against PWID

PWID reported experiencing similar rates of physical violence as MSM or FSWs, but less sexual violence.

Figure 23: PWID self-reported experiences of insults and threats by perpetrator

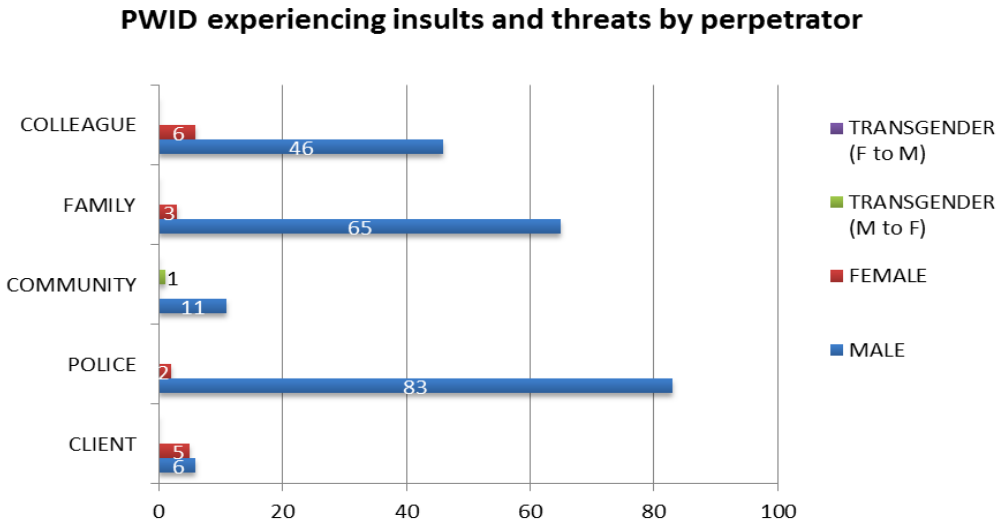


Figure 24: Proportion of PWID reporting physical violence against them in the previous year

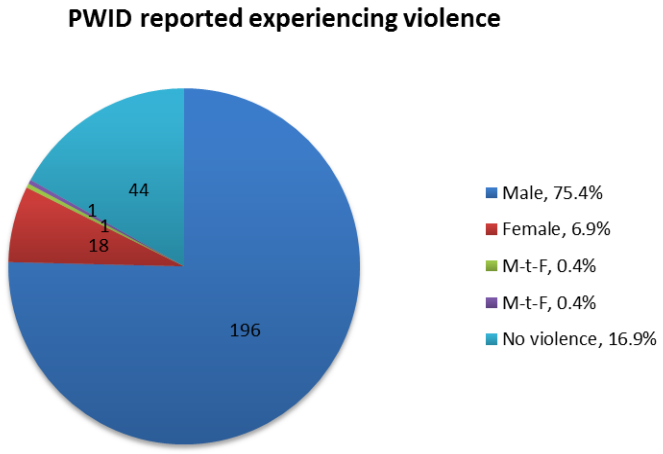


Table 26: Physical violence against PWID in the previous year

PWID were asked "In the past 12 months, has anyone …"	Number reporting Yes	Percentage of PWID
Slapped you or threw something at you that could hurt you	114	43.8%
Pushed you or shoved you	65	25.0%
Hit you with a fist or something else that could hurt	58	22.3%
Kicked you, dragged you or beat you up	92	35.3%
Choked or burned you	20	7.7%
Threatened you with or used a gun, knife or other weapon against you	6	%
Physically forced you to have sexual intercourse against your will	4	1.5%
Forced you to do something sexual you found degrading or humiliating	4	1.5%
Made you afraid of what this person would do if you did not have sexual intercourse with him/her	3	1.1%
Total reporting having responded YES to at least one of the above	**215**	**82.7**

Gender differences were prominent among PWID reporting having experienced sexual violence. While the numbers of men and women reporting having been raped or forced to do something humiliating or degrading were the same (2 men, 2 women) the proportions were very different. 2 men are 1% of the sample reporting having experienced any violence (n_m=102), and 11% of the 11 women PWID reporting having experienced any violence. 2 men (1%) and 1 woman (6%) reported having been made afraid of what someone would do if they did not have sex with that person. The M-t-F transgender person interviewed among PWID reported having experience being pushed or shoved and hit.

6 men (3%) reported having been threatened with a weapon. No women reported being threatened with a weapon. Men were far more likely to have been beaten up (n_m=87, 44%; n_w=5, 28%) or pushed (n_m=62, 32%; n_w=2, 11%), but men and women described being slapped (n_m=102, 52%; n_w=11, 261%) or hit in similar proportions (n_m=52, 27%; n_w=5, 28%).

It is apparent that the environment in which drug use occurs is violent. One of the PWID data collectors was attacked after conducting an interview. The enumerators were extremely familiar with the locations and people, but were still in danger. This demonstrates the need for great safety precautions in potentially volatile situations, and the need for resources to address anything that happens to workers in the field. (The enumerator received medical attention the following day and all costs were paid for the National AIDS Secretariat. No injuries were sustained.)

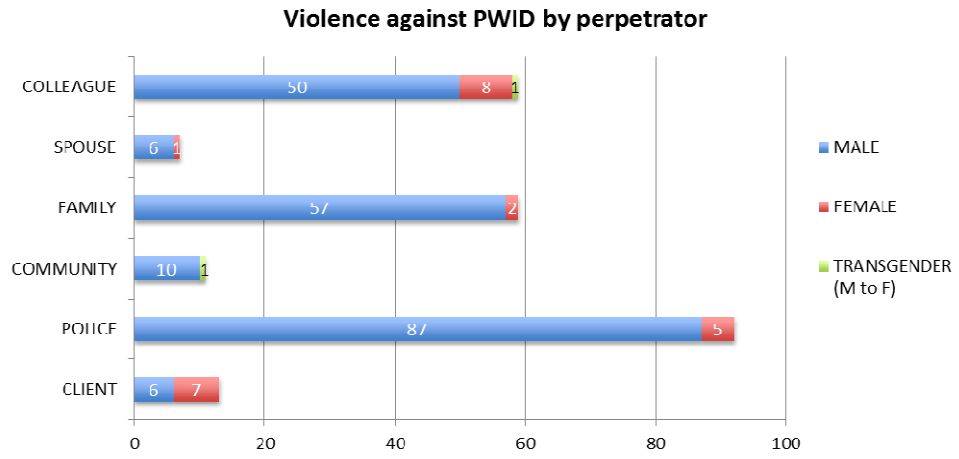
Perpetrators of violence against PWID

PWID reported violence primarily from police (n_m=87, 76%; n_w=5, 42%). Male and female PWID reported violence from clients (n_m=6, 5%; n_w=7, 58%) implying that PWID may also sell sex.

Male, female and the single M-t-F transgender PWID (n=1, 100%) reported violence from other PWUD (n_m=50, 44%; n_w=8, 67%). The field team explained that people sometimes fight over who will inject first when they share needles.

Men were more likely than women to report violence from family members (n_m=57, 50%; n_w=2, 17%) or a spouse (n_m=6, 5%; n_w=1, 8%). Men also reported experiencing violence from community members (n=10, 9%).

Figure 25: Violence against PWID by Perpetrator



Intoxication and violence

89% of PWID reported having been intoxicated the most recent time they were victimized.

Table 27: Intoxication at last victimization

BACKGROUND CHARACTERISTICS	Under the influence of alcohol or drugs	
	Number	Percentage
GENDER		
Male	105	92.9
Female	6	54.5
Transgender (M To F and F to M)	0	0
AGE GROUP		0
Less than 15	0	0
15 to 24	8	66.7
25 to 49	96	91.4
Greater than 49	0	0
Don't know Age	7	87.5
DISTRICT		0
Kenema	13	59.1
Kono	24	92.3
Bombali	21	100
Bo	13	92.9
Western rural	1	100
Western urban	39	95.1
Total	**111**	**88.8**

While nearly all of the men (n=105, 93%) reported having been intoxicated at the time, only about half of the women (n=6, 55%) reported having been intoxicated when they were most recently victimized. Drug use reported at the time of victimization was foremost heroin, followed by alcohol and cocaine.

KEY LESSONS FROM SURVEY QUESTIONS

Large numbers of PWID report using opiates. For this reason, opiate substitution therapy (OST) is recommended for inclusion in public health facilities. For those for whom injecting is exclusively undertaken with opiates, their HIV risk would be reduced or eliminated if OST is successful.

As opiates are injected in Sierra Leone, distribution of overdose prevention (ODP) and treatment medicine (naloxone) is recommended. Training organizations working with people who use drugs to train users in implementation of ODP is the most common way ODP is implemented.

KEY LESSONS FROM FIELD VISITS

During visits to hideouts where people who use drugs congregate, the research team heard reports that people who use drugs had been turned away from health care services, including government health care services.

During visits to hideouts, people who use drugs reported that they strongly wanted job training and expanded opportunities for work.

SUGGESTED FUTURE RESEARCH STUDIES

NGO mapping exercises by NGOs in Freetown were successful. This could be expanded to other locations included in this study in order to expand HIV prevention programmes for PWID in other parts of the country.

9. RECOMMENDATIONS

POLICY LEVEL RECOMMENDATIONS

Law reform creating an enabling environment

Law reform to foster an enabling environment for HIV prevention should be undertaken. This could include decriminalizing sex work, homosexual activity and the use of drugs and possession of paraphernalia for drug use. In a statement to the International AIDS Conference, UN Secretary General Ban-Ki Moon said ''In countries without laws to protect sex workers, drug users, and MSM, only a fraction of the population has access to prevention. Conversely, in countries with legal protection and the protection of human rights for these people, many more have access to services. As a result, there are fewer infections, less demand for anti-retroviral treatment, and fewer deaths. Not only is it unethical not to protect these groups; it makes no sense from a health perspective. It hurts all of us.'' [UNAIDS 2009]

The Global Commission on HIV and the Law recommends reforming law to including decriminalization of homosexual activity, sex work and drug use and possession in order to promote HIV prevention. Drug-use and sex-related offenses are associated with jails, prisons, drug detention centres and rehabilitation centres for people involved with the sex trade and PWUD. Criminalization leads to increased prison populations, and while prisoners were not included in this study, prisoners are another key population and are highly vulnerable to HIV, STIs, TB and other infections. The criminalization of drug use and possession, the sale of sex, and same-sex sexual activity in Sierra Leone has public health implications for the entire country.

Protecting the human rights of all people

The Human Rights Commission of Sierra Leone should protect the human rights of all people in Sierra Leone, including members of key populations. The Human Rights Commission should accept reports from all key populations about violence committed against them in order to facilitate and improve the government's response to such violence. Public awareness campaigns should be undertaken to explain that violence and stigma and discrimination against key populations is not acceptable; this could be undertaken by the Human Rights Commission.

EVIDENCE-BASED PLANNING AND DECISION MAKING

Strategic funding

More funding is clearly needed for programmes working with key populations. It has been found that dedicating resources to key populations can and has successfully addressed the transmission of HIV in LMIC [Hecht R, Stover J, Bollinger L, Muhib F, Case K & di Ferranti D]. This is the reason for the GFATM's implementation of earmarked spending dedicated to key populations. Considering this, it is advisable that Sierra Leone prioritize sex workers, MSM and PWID in their HIV strategies and spending allocation.

Strategic allocation of resources should support community mobilization among key populations. Community mobilization interventions have been effective preventing violence against sex workers in southern India [Beattie T, Bhattacharjee P, Ramesh BM, Gurnani V, Anthony J, Isac S et al] and this may be an effective strategy in Sierra Leone. Community mobilization has also been effective to promote health-seeking behaviour and consistent condom use among MSM, transgender people and sex workers in central India [Saggurti N, Mishra RM, Proddutoor L, Tucker S, Kovvali D, Parimi P, et al].

PROGRAMMATIC RECOMMENDATIONS

Condom distribution

NAS offices should develop a distribution strategy for condoms. As people are not coming to the government office to ask for them, distribution to the field must be undertaken by the government, preferably in tandem with NGOs and CBOs, to ensure that condoms reach the people who need them most. This could include innovative condom distribution systems not limited to peer educators but also with nightclub DJs announcing free condoms available, and to *okadas* (motorcycle taxis), who typically transport sex workers, MSM and PWID where they are going.

Responding to violence

Key populations reported experiencing extraordinarily high levels of violence, committed by police, community members, family members and others. Violence has been linked to HIV, particularly among sex workers. Anti-violence programming should be undertaken. This should include training police not to commit abuses, which is key to creating an enabling environment for HIV prevention. Reports of violence committed against key populations should be investigated and restitution should be sought for victims.

Considering the association of alcohol use with violence against sex workers and MSM, and the use of alcohol in venues where sex workers meet clients and where MSM and transgender people socialize, education about alcohol consumption and safety should be undertaken by organizations working with sex workers of all genders and MSM and transgender people.

Family strengthening and reunification services are needed

Members of each of these key populations reported experiencing high rates of stigmatization and discrimination, and that exclusion is primarily from families. Family is a major source of social support, and so this exclusion may affect many more aspects of people's lives than simply the events from which they have been excluded. Programmatic efforts are needed to prevent stigma and discrimination in the form of exclusion, particularly from family.

Protect the confidentiality of medical records

Sex workers in particular reported a lack of confidentiality of their medical records, including a report from one woman that when she was tested for STIs at a government clinic, people in her village knew her results before she got home. NACP should implement training for health care personnel about voluntary and confidential STI and HIV testing and treatment. Those

health care service providers who cannot respect confidentiality and the need for truly voluntary testing and treatment should not work with patients or have access to patient records.

Stigma and discrimination in health-care settings

All three key populations surveyed reported stigma and discrimination including being turned away from services in health care settings. Sensitivity training is recommended for health professionals who work with key populations. This could include health care professionals in all cities and mining areas across Sierra Leone. It is recommended that any future survey examining stigma and/or discrimination include a question about health care settings; this is especially important considering that all three key populations in this study reported experiencing stigma and discrimination from family and other members of civil society indicating that these key populations need health and social support for harm reduction programming.

Hire members of key populations and train them to deliver health services

As stigma and discrimination within health care services were reported by all key populations surveyed, it is highly recommended that a mobile clinic be made available to offer STI and HIV testing and treatment. Training members of key populations and hiring them to work with key populations as health care service providers, within NACP and NGOs and CBOs, is strongly recommended in light of the levels of stigma and discrimination reported. Community members working for the community has been found to be effective in a variety of situations [Beattie T, Mohan HL, Bhattacharjee P, Chandrashekar S, Isac S, Wheeler T, et al Sarkar; Ditmore]. In this way, all the partner organisations are models as they hire from the key populations. For example, everyone with FDID, Dignity and Pride Equality have experience as members of the key populations they address. Some of the outreach workers with Women In Crisis Movement have experience in sex work. More such hiring from the key population targeted will promote the effectiveness of programmes with key populations.

Services for youth

Young girls selling sex, including pre-adolescents, were found in mining areas and cities. Young people are at higher risk of HIV than others for physical reasons, and should be encouraged to pursue education. A program, not in a detention centre, should be developed to support and emphasize education for girls. This would have many benefits, as investing in girls' education has been shown to increase overall productivity in other nations, and could reduce the risk of these girls for HIV. Even while promoting education, as some girls are selling sex, it is imperative that they receive services including condom distribution, STI diagnosis and treatment, and education in the proper use of condoms.

Youth were included among MSM interviewed and they require HIV prevention programmes. Youth is the age at which sexual activity is first undertaken and so training about condom use and HIV and STI prevention should be started early enough to predate sexual activity.

While children were not included among PWID and youth were not as strongly represented among PWID as they were among sex workers, children and youth were present at hideouts and other venues where people use drugs. Drug use by youth has been reported [GOAL] although youth were not as prominent among PWID.

Make overdose treatment and prevention available

NACP and the government health services should make naloxone available. Naloxone reverses opioid overdose. PWUD should be trained to administer naloxone to people who overdose on opiates. Naloxone should be distributed among PWUD who frequent hideouts and other venues where opiates are injected and otherwise consumed. While the PWID questionnaire did not include questions about overdose, people met described overdose deaths.

Job training is needed

Sierra Leone has high unemployment and some people without income sell sex and some seek distractions from impoverished circumstances, including drug use. Sex workers and PWUD described a strong desire for job training and work opportunities. Successful programmes for girls and young women in Sierra Leone have included schools that teach math and English alongside trades. These programmes should be further supported and expanded to include training for men and transgender people. Transgender people in some places including Sierra Leone have found success in beauty services. Any training programme will be enhanced by job placement assistance and support to help people who have not held jobs in the past to be able to success in a structured environment.

RECOMMENDATIONS FOR STRATEGIC INFORMATION NEEDS

Assess antibiotic effectiveness

As the widespread use of antibiotics described could lead to resistance, periodic monitoring of the efficacy of antibiotics against STIs is recommended. This should be undertaken by the Ministry of Health in their clinics and in all private clinics.

Learning the numbers of officially employed miners in Baumahun, Bumbuna and Tongo

The average number of sex workers per 100 mining workers employed by the companies at the locations included in the PSE can be used to predict the numbers of sex workers at other mining sites around the country (Baumahun, Bumbuna and Tongo). If other mining communities are assumed to be like these mining communities, then the number of miners officially working in each location, obtained from the mining companies, could be used to determine the average number of sex workers per 100 miners working for the companies at each location. This is imperfect; there are informal mining workers, but their number is not known. However, this ratio could then be extrapolated to other mining sites in order to plan and implement HIV prevention programmes with FSWs and miners.

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11. APPENDICES

APPENDIX A. SEX WORKER INTERVIEW PROTOCOL

POPULATION SIZE ESTIMATION (PSE) **FEBRUARY 21, 2013**

NATIONAL HIV/AIDS SECRETARIAT (NAS)

IDENTIFICATION	For Official use only
LOCALITY NAME _____ (CITY, TOWN OR VILLAGE NAME)	
DISTRICT _____	
SITE NUMBER	
RESPONDENT NUMBER	
INTERVIEWER'S NAME _____	

COMMERCIAL SEX WORKERS (CSW) PROTOCOL

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with National HIV/AIDS Secretariat (NAS) and Women In Crisis. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes between 10 and 15 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED ..... 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ..... 2 → END

ARE YOU A COMMERCIAL SEX WORKER (CSW) ? YES 1 NO 2 → END

Section 1: Background characteristics

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
Q101	What is your gender? **Transgender:** Male who feels like a woman Female who feels like a man	MALE ..... 1 FEMALE ..... 2 TRANSGENDER (M to F)..... 3 TRANSGENDER (F to M)..... 4	
Q102	In what month and year were you born?	MONTH ..... [ ][ ] DON'T KNOW MONTH..... 98 YEAR ..... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
Q103	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
Q104	What is your Nationality?	SIERRA LEONEAN ..... 1 GUINEAN ..... 2 LIBERIAN ..... 3 OTHERS (SPECIFY)..... 4 _____ (SPECIFY)	
Q105	Have you *ever* been married? **Married:** Any ceremony(religious/traditional) or legal act that join together a man and woman as husband and wife.	YES..... 1 NO..... 2 NO RESPONSE..... 9	→ Q107
Q106	What is your current marital status?	MARRIED OR LIVING TOGETHER..... 1 DIVORCED/SEPARATED..... 2 WIDOWED..... 3 NEVER-MARRIED AND NEVER LIVED TOGET? 4	
Q107	What is your Occupation/Other work or Job? (For CSWs ask about other work/job other than CSW)	NONE..... 0 TRADER..... 1 HAIR DRESSER..... 2 STUDENT..... 3 HOUSE WIFE..... 4 FARMER..... 5 POLICE..... 6 NURSE..... 7 TEACHER..... 8 MINER..... 9 CIVIL SERVANT ..... 10 OTHERS (SPECIFY)_____ 11	

Population Size Estimation (PSE) 2013

CSW - 1

Section 1: Background characteristics (Cont.)			
Q108	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS ____ NONE ... 00	→ Q201
Q109	In the last 12 months, have you been away from your home community for more than one month at a time?	YES ... 1 NO ... 2	
Section 2: HIV Testing			
Q201	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES ... 1 NO ... 2	→ Q206
Q202	When was the last time you were tested?	LESS THAN 12 MONTHS AGO ... 1 12 - 23 MONTHS AGO ... 2 2 OR MORE YEARS AGO ... 3	
Q203	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST ... 1 OFFERED AND ACCEPTED ... 2 REQUIRED ... 3	
Q204	I don't want to know the results, but did you get the results of the test?	YES ... 1 NO ... 2	
Q205	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ... 11 GOVT. HEALTH CENTER ... 12 STAND-ALONE VCT CENTER ... 13 FAMILY PLANNING CLINIC ... 14 MOBILE CLINIC ... 15 FIELDWORKER ... 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ... 21 STAND-ALONE VCT CENTER ... 22 PHARMACY ... 23 MOBILE CLINIC ... 24 FIELDWORKER ... 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
Q206	Do you know of a place where people can go to get tested for the AIDS virus?	YES ... 1 NO ... 2	→ Q301
Q207	Where is that? Any other place? **PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).** IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ... A GOVT. HEALTH CENTER ... B STAND-ALONE VCT CENTER ... C FAMILY PLANNING CLINIC ... D MOBILE CLINIC ... E FIELDWORKER ... F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ... H STAND-ALONE VCT CENTER ... I PHARMACY ... J MOBILE CLINIC ... K FIELDWORKER ... L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER _____ X (SPECIFY)	
Section 3: Sexually Transmitted Infections (STIs)			
Q301	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES ... 1 NO ... 2 DON'T KNOW ... 8	
Q302	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge? **(U DON GET BAD WATA SICK?** **WHEN U GET DISCHARGE, I SMELL?)**	YES ... 1 NO ... 2 DON'T KNOW ... 8	
Q303	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer? **(U DON GET WOND OR SOFUT NA U TINN OR U WES?)**	YES ... 1 NO ... 2 DON'T KNOW ... 8	

Section 4: Stigma, Domestic and Sexual Violence

Q401	In the last 12 months, have you been excluded from a family, social or religious event because you are a sex worker? **(HAVE THEY TURN THEIR BACK ON YOU?)**	YES 1 NO 2 DON'T KNOW 8	→ Q403
Q402	If yes, from which groups: **CIRCLE THE APPROPRIATE CODE(S).**	FAMILY A RELIGIOUS GROUP B SOCIAL C	
Q403	In the past 12 months, have you experienced insults and threats because of your practice?	YES 1 NO 2	→ Q405
Q404	If yes, from whom did you receive the insults and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT A POLICE B COMMUNITY C FAMILY D COLLEAGUE E	
Q405	In the past 12 months, has anyone	YES / NO	If "No" to all go to Q501
	A) Slapped you or threw something at you that could hurt you	1 / 2	
	B) Pushed you or shoved you	1 / 2	
	C) Hit you with a fist or something else that could hurt	1 / 2	
	D) Kicked you, dragged you or beat you up	1 / 2	
	E) Choked or burned you	1 / 2	
	F) Threatened you with or used a gun, knife or other weapon against you	1 / 2	
	G) Physically forced you to have sexual intercourse against your will	1 / 2	
	H) Forced you to do something sexual you found degrading or humiliating	1 / 2	
	I) Made you afraid of what this person would do if you did not have sexual intercourse with him/her	1 / 2	
Q406	If yes to any of the above, who did this to you? and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT A POLICE B COMMUNITY C FAMILY D SPOUSE E COLLEAGUE F	
Q407	The last time you suffered violence were you under the influence of alcohol or drugs?	YES 1 NO 2 NO RESPONSE 9	→ Q501
Q408	What did you use? WETIN U TAKE? **CIRCLE THE APPROPRIATE CODE(S).**	HEROIN A COCAINE B ALCOHOL C OTHER D SPECIFY _____	
Q409	How did you do the drugs? HOW U TAKE AM? **CIRCLE THE APPROPRIATE CODE(S).**	DRINK IT A SMOKE IT B ALCOHOL C SHOOT IT D OTHER E SPECIFY _____	

Section 5: For CSWs

Q501	How many client did you have the last day you worked?	**NO OF CLIENTS** [__|__] DON'T KNOW 98 NO RESPONSE 99	
Q502	How much did your most recent/last client pay you?	LE [___|___|___|___|___|___|___|___|___]	
Q503	The last time you had sex with your most recent client, did you and your client used a condom?	YES 1 NO 2 DON'T REMEMBER 8 NO RESPONSE 9	→ Q 505
Q504	Why didn't you and your client use a condom that time? **DO NOT READ ANSWERS** **PROBE AND RECORD ALL ANSWERS MENTIONED.**	NOT AVAILABLE A TOO EXPENSIVE B PARTNER OBJECTED C DON'T LIKE THEM D USED OTHER CONTRACEPTIVE E DIDN'T THINK IT WAS NECESSARY F DIDN'T THINK OF IT G OTHER_____ X OTHER_____ XX DON'T KNOW Y NO RESPONSE Z	

Section 5: For CSWs (Cont.)

Q505	The last time you had sex with your most recent client were you under the influence of alcohol or drugs? (High or on or feeling fine?)	YES ... 1 NO ... 2 NO RESPONSE ... 9	→ Q508
Q506	What did you use? WETIN U TAKE? **CIRCLE THE APPROPRIATE CODE(S).**	HEROIN ... A COCAINE ... B ALCOHOL ... C OTHER ... D SPECIFY _____	
Q507	How did you do the drugs? HOW U TAKE AM? **CIRCLE THE APPROPRIATE CODE(S).**	DRINK IT ... A SMOKE IT ... B ALCOHOL ... C SHOOT IT ... D OTHER ... E SPECIFY _____	
Q508	In the last 12 months, have you been offered condoms?	YES ... 1 NO ... 2 NO RESPONSE ... 9	→ Q510
Q509	If yes, from where did you get the offer of condoms? Any other? **PROBE AND RECORD ALL ANSWERS MENTIONED.**	THROUGH AN OUTREACH SERVICE ... A DROP-IN CENTRE ... B SEXUAL HEALTH CLINIC ... C OTHERS (SPECIFY) ... D _____ Specify	
Q510	How many dependants do you have?	☐☐	
Q511	Who are your dependents? **PROBE AND RECORD ALL ANSWERS MENTIONED.**	PARENTS OR GUARDIANS ... A CHILDREN ... B SISTERS AND BROTHERS ... C SPOUSE ... D OTHERS (SPECIFY)_____ E	
Q512	Where do you usually do your business? **PROBE AND RECORD ALL ANSWERS MENTIONED.** OSIE DA HURSLE?	HOTEL ... A BEACH ... B CLUB ... C BROTHEL ... D OTHERS (SPECIFY)_____ E	
Q513	What is/are the name(s) of the main place(s) you usually do your business/sex work (list begining with the most important/freequent)	1st _____ 2nd _____ 3rd _____ 4th _____	
Q514	Have you ever had anal sex?	YES ... 1 NO ... 2	→ END
Q515	The last time you had anal sex, did you and your partner use a condom?	YES 1 NO 2 DON'T REMEMBER 8 NO RESPONSE 9	

WHATEVER INFORMATION YOU HAVE PROVIDED WILL BE KEPT STRICTLY CONFIDENTIAL AND WILL NOT BE SHOWN TO OTHER PERSONS.
THANK YOU FOR YOUR PARTICIPATION.
WE WOULD LIKE TO OFFER YOU THIS LIST OF RESOURCES WHERE YOU CAN GET SERVICES.

INTERVIEWERS COMMENTS

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APPENDIX B. MSM INTERVIEW PROTOCOL

POPULATION SIZE ESTIMATION (PSE) **FEBRUARY 21, 2013**

NATIONAL HIV/AIDS SECRETARIAT (NAS)

IDENTIFICATION	For Official use only
LOCALITY NAME _____ (CITY, TOWN OR VILLAGE NAME)	
DISTRICT _____	☐☐
SITE NUMBER ☐☐	
RESPONDENT NUMBER ☐☐	
INTERVIEWER'S NAME _____	

MEN HAVING SEX WITH MEN (MSM) PROTOCOL

INTRODUCTION AND CONSENT —

INFORMED CONSENT

Hello. My name is _____ and I am working with National HIV/AIDS Secretariat (NAS) and Women In Crisis. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes between 10 and 15 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED ..... 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ..... 2 → END

ARE YOU A MAN WHO HAVE SEX WITH A MAN (MSM) YES 1 ↓ NO 2 → END

Section 1: Background characteristics

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
Q101	What is your gender? Transgender: Male who feels like a woman	MALE ..... 1 TRANSGENDER 2	
Q102	In what month and year were you born?	MONTH ..... ☐☐ DON'T KNOW MONTH ..... 98 YEAR ..... ☐☐☐☐ DON'T KNOW YEAR 9998	
Q103	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS ☐☐	
Q104	What is your Nationality?	SIERRA LEONEAN ..... 1 GUINEAN ..... 2 LIBERIAN ..... 3 OTHERS (SPECIFY) ..... 4 _____ (SPECIFY)	
Q105	Have you *ever* been married? **Married:** Any ceremony(religious/traditional) or legal act that join together a man and woman as husband and wife.	YES ..... 1 NO ..... 2 NO RESPONSE 9	→ Q201
Q106	What is your current marital status?	MARRIED OR LIVING TOGETHER ..... 1 DIVORCED/SEPARATED ..... 2 WIDOWED ..... 3 NEVER-MARRIED AND NEVER LIVED TOGET 4	

Section 2: HIV Testing

Q201	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES ..... 1 NO 2	→ Q206
Q202	When was the last time you were tested?	LESS THAN 12 MONTHS AGO ..... 1 12 - 23 MONTHS AGO ..... 2 2 OR MORE YEARS AGO 3	
Q203	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST ..... 1 OFFERED AND ACCEPTED ..... 2 REQUIRED 3	
Q204	I don't want to know the results, but did you get the results of the test?	YES ..... 1 NO 2	
Q205	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ..... 11 GOVT. HEALTH CENTER ..... 12 STAND-ALONE VCT CENTER ..... 13 FAMILY PLANNING CLINIC ..... 14 MOBILE CLINIC ..... 15 FIELDWORKER ..... 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... 21 STAND-ALONE VCT CENTER ..... 22 PHARMACY ..... 23 MOBILE CLINIC ..... 24 FIELDWORKER ..... 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
Q206	Do you know of a place where people can go to get tested for the AIDS virus?	YES ..... 1 NO 2	→ Q301
Q207	Where is that? Any other place? **PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).** IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ..... A GOVT. HEALTH CENTER ..... B STAND-ALONE VCT CENTER ..... C FAMILY PLANNING CLINIC ..... D MOBILE CLINIC ..... E FIELDWORKER ..... F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... H STAND-ALONE VCT CENTER ..... I PHARMACY ..... J MOBILE CLINIC ..... K FIELDWORKER ..... L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER _____ X (SPECIFY)	

Section 3: Sexually Transmitted Infections (STIs)

Q301	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
Q304	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis? **(U DON EVER GET TUFF KOMOT NA U TIN?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	
Q305	Sometimes men have a sore or ulcer near their penis or anus. During the last 12 months, have you had a sore or ulcer near your penis? **(U DON GET WOND OR SOFUT NA U TINN OR U WES?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	

Section 4: Stigma, Domestic and Sexual Violence

Q401	In the last 12 months, have you been excluded from a family, social or religious event because you are a sex worker? **(HAVE THEY TURN THEIR BACK ON YOU?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ Q403
Q402	If yes, from which groups: **CIRCLE THE APPROPRIATE CODE(S).**	FAMILY ..... A RELIGIOUS GROUP ..... B SOCIAL C	
Q403	In the past 12 months, have you experienced insults and threats because of your practice?	YES ..... 1 NO 2	→ Q405
Q404	If yes, from whom did you receive the insults and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT ..... A POLICE ..... B COMMUNITY ..... C FAMILY ..... D COLLEAGUE ..... E	
Q405	In the past 12 months, has anyone A) Slapped you or threw something at you that could hurt you B) Pushed you or shoved you C) Hit you with a fist or something else that could hurt D) Kicked you, dragged you or beat you up E) Choked or burned you F) Threatened you with or used a gun, knife or other weapon against you G) Physically forced you to have sexual intercourse against your will H) Forced you to do something sexual you found degrading or humiliating I) Made you afraid of what this person would do if you did not have sexual intercourse with him/her	YES NO 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	If "No" to all go to Q501
Q406	If yes to any of the above, who did this to you? and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT ..... A POLICE ..... B COMMUNITY ..... C FAMILY ..... D SPOUSE ..... E COLLEAGUE ..... F	
Q407	The last time you suffered violence were you under the influence of alcohol or drugs?	YES 1 NO 2 NO RESPONSE 9	→ Q501
Q408	What did you use? WETIN U TAKE? **CIRCLE THE APPROPRIATE CODE(S).**	HEROIN ..... A COCAINE ..... B ALCOHOL ..... C OTHER ..... D SPECIFY _____	
Q409	How did you do the drugs? HOW U TAKE AM? **CIRCLE THE APPROPRIATE CODE(S).**	DRINK IT ..... A SMOKE IT ..... B ALCOHOL ..... C SHOOT IT D OTHER ..... E SPECIFY _____	

Section 5: For MSM

Q501	Have you ever had anal sex with a man?	YES ..... 1 NO 2	→ Q504
Q502	The last time you had anal sex with a man, did you and your partner used a condom?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 8 NO RESPONSE 9	→ Q504
Q503	Why didn't you and your partner use a condom that time? **DO NOT READ ANSWERS** **PROBE AND RECORD ALL ANSWERS MENTIONED.**	NOT AVAILABLE ..... A TOO EXPENSIVE ..... B PARTNER OBJECTED ..... C DON'T LIKE THEM ..... D USED OTHER CONTRACEPTIVE ..... E DIDN'T THINK IT WAS NECESSARY ..... F DIDN'T THINK OF IT ..... G OTHER _____ X OTHER _____ XX DON'T KNOW ..... Y NO RESPONSE ..... Z	

Section 5: For MSM (Cont.)

Q504	The last time you had sex with your most recent client/male partner were you or your client/male partner under the influence of alcohol or drugs?	YES ..... 1 NO ..... 2 NO RESPONSE 9	→ Q507
Q505	What did you use? WETIN U TAKE? **CIRCLE THE APPROPRIATE CODE(S).**	HEROIN ..... A COCAINE ..... B ALCOHOL ..... C OTHER ..... D SPECIFY _____	
Q506	How did you do the drugs? HOW U TAKE AM? **CIRCLE THE APPROPRIATE CODE(S).**	DRINK IT ..... A SMOKE IT ..... B ALCOHOL ..... C SHOOT IT D OTHER ..... E SPECIFY _____	
Q507	In the last 12 months, have you been offered condoms?	YES ..... 1 NO ..... 2 NO RESPONSE 9	→ Q509
Q508	If yes, from where did you get the offer of condoms? Any other? **PROBE AND RECORD ALL ANSWERS MENTIONED.**	THROUGH AN OUTREACH SERVICE ..... A DROP-IN CENTRE ..... B SEXUAL HEALTH CLINIC ..... C OTHERS (SPECIFY) ..... D _____ Specify	
Q509	How many male client have you had sex with in the last 7 days (1 week)?	**NO OF CLIENTS** [__|__] DON'T KNOW 98 NO RESPONSE 99	
Q510	Have you had sex with a man in exchange for money in the last 12 months?	YES ..... 1 NO 2	
Q511	Has your family or community or religious group turned their back on or shunned you because of your sexual orientation?	YES ..... 1 NO 2	
Q512	**Check Q108:** Ask only if MARRIED OR LIVING TOGETHER with a woman Do your spouse know that you are having sex with men?	YES ..... 1 NO 2	→ END
Q513	If yes, does she agree/accept you having sex with a man?	YES ..... 1 NO 2	

WHATEVER INFORMATION YOU HAVE PROVIDED WILL BE KEPT STRICTLY CONFIDENTIAL AND WILL NOT BE SHOWN TO OTHER PERSONS.
THANK YOU FOR YOUR PARTICIPATION.
WE WOULD LIKE TO OFFER YOU THIS LIST OF RESOURCES WHERE YOU CAN GET SERVICES.

INTERVIEWERS COMMENTS

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APPENDIX C. PWID INTERVIEW PROTOCOL

POPULATION SIZE ESTIMATION (PSE) **FEBRUARY 21, 2013**

NATIONAL HIV/AIDS SECRETARIAT (NAS)

IDENTIFICATION	For Official use only
LOCALITY NAME _____ (CITY, TOWN OR VILLAGE NAME)	
DISTRICT _____	
SITE NUMBER	
RESPONDENT NUMBER	
INTERVIEWER'S NAME _____	

INJECTION DRUGS USERS (IDUs)

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with National HIV/AIDS Secretariat (NAS) and Women In Crisis. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes between 10 and 15 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED ..... 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ..... 2 → END

ARE YOU AN INJECTION DRUG USER (IDU) ? YES [1] NO [2] → END

Section 1: Background characteristics

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
Q101	What is your gender? Transgender: Male who feels like a woman Female who feels like a man	MALE ..... 1 FEMALE ..... 2 TRANSGENDER (M to F)..... 3 TRANSGENDER (F to M)..... 4	
Q102	In what month and year were you born?	MONTH ..... [ ][ ] DON'T KNOW MONTH..... 98 YEAR ..... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
Q103	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
Q104	What is your Nationality?	SIERRA LEONEAN ..... 1 GUINEAN ..... 2 LIBERIAN ..... 3 OTHERS (SPECIFY)..... 4 _____ (SPECIFY)	
Q105	Have you *ever* been married? **Married:** Any ceremony(religious/traditional) or legal act that join together a man and woman as husband and wife.	YES..... 1 NO..... 2 NO RESPONSE..... 9	→ Q201
Q106	What is your current marital status?	MARRIED OR LIVING TOGETHER..... 1 DIVORCED/SEPARATED..... 2 WIDOWED..... 3 NEVER-MARRIED AND NEVER LIVED TOGE 4	

Population Size Estimation (PSE) 2013 IDU - 1

Section 2: HIV Testing

Q201	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES ..... 1 NO 2	→ Q206
Q202	When was the last time you were tested?	LESS THAN 12 MONTHS AGO ..... 1 12 - 23 MONTHS AGO ..... 2 2 OR MORE YEARS AGO 3	
Q203	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST ..... 1 OFFERED AND ACCEPTED ..... 2 REQUIRED 3	
Q204	I don't want to know the results, but did you get the results of the test?	YES ..... 1 NO 2	
Q205	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ..... 11 GOVT. HEALTH CENTER ..... 12 STAND-ALONE VCT CENTER .. 13 FAMILY PLANNING CLINIC ..... 14 MOBILE CLINIC ..... 15 FIELDWORKER ..... 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... 21 STAND-ALONE VCT CENTER .. 22 PHARMACY ..... 23 MOBILE CLINIC ..... 24 FIELDWORKER ..... 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY)	
Q206	Do you know of a place where people can go to get tested for the AIDS virus?	YES ..... 1 NO 2	→ Q301
Q207	Where is that? Any other place? **PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S).** IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL ..... A GOVT. HEALTH CENTER ..... B STAND-ALONE VCT CENTER . C FAMILY PLANNING CLINIC ..... D MOBILE CLINIC ..... E FIELDWORKER ..... F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... H STAND-ALONE VCT CENTER..... I PHARMACY ..... J MOBILE CLINIC ..... K FIELDWORKER ..... L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER _____ X (SPECIFY)	

Section 3: Sexually Transmitted Infections (STIs)

Q301	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
Q302	**FOR WOMEN** Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge? **(U DON GET/EXPERIENCE BAD WATA SICK? WHEN U GET BAD WATER, I SMELL?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	
Q303	**FOR WOMEN** Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer? **(U DON GET WOND OR SOFUT NA U TINN OR U WES?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	

Section 3: Sexually Transmitted Infections (STIs) (Cont.)

Q304	**FOR MEN** Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis? **(U DON GET WOND OR SOFUT NA U TINN OR U WES?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	
Q305	**FOR MEN** Sometimes men have a sore or ulcer near their penis or anus. During the last 12 months, have you had a sore or ulcer near your penis or anus? **(U DON GET WOND OR SOFUT NA U TINN OR U WES?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	

Section 4: Stigma, Domestic and Sexual Violence

Q401	In the last 12 months, have you been excluded from a family, social or religious event because you are a sex worker? **(HAVE THEY TURN THEIR BACK ON YOU?)**	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ Q403
Q402	If yes, from which groups: **CIRCLE THE APPROPRIATE CODE(S).**	FAMILY ..... A RELIGIOUS GROUP ..... B SOCIAL C	
Q403	In the past 12 months, have you experienced insults and threats because of your practice?	YES ..... 1 NO 2	→ Q405
Q404	If yes, from whom did you receive the insults and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT ..... A POLICE ..... B COMMUNITY ..... C FAMILY ..... D COLLEAGUE ..... E	
Q405	In the past 12 months, has anyone	**YES** **NO**	If "No" to all go to Q501
	A) Slapped you or threw something at you that could hurt you	1 2	
	B) Pushed you or shoved you	1 2	
	C) Hit you with a fist or something else that could hurt	1 2	
	D) Kicked you, dragged you or beat you up	1 2	
	E) Choked or burned you	1 2	
	F) Threatened you with or used a gun, knife or other weapon against you	1 2	
	G) Physically forced you to have sexual intercourse against your will	1 2	
	H) Forced you to do something sexual you found degrading or humiliating	1 2	
	I) Made you afraid of what this person would do if you did not have sexual intercourse with him/her	1 2	
Q406	If yes to any of the above, who did this to you? and threats? **CIRCLE THE APPROPRIATE CODE(S).**	CLIENT ..... A POLICE ..... B COMMUNITY ..... C FAMILY ..... D SPOUSE ..... E COLLEAGUE ..... F	
Q407	The last time you suffered violence were you under the influence of alcohol or drugs?	YES 1 NO 2 NO RESPONSE 9	→ Q501
Q408	What did you use? WETIN U TAKE? **CIRCLE THE APPROPRIATE CODE(S).**	HEROIN ..... A COCAINE ..... B ALCOHOL ..... C OTHER ..... D SPECIFY _____	
Q409	How did you do the drugs? HOW U TAKE AM? **CIRCLE THE APPROPRIATE CODE(S).**	DRINK IT ..... A SMOKE IT ..... B ALCOHOL ..... C SHOOT IT D OTHER ..... E SPECIFY _____	

Section 5: For IDUs

Q501	Some people have tried injecting drugs using a syringe. Have you injected drugs in the last 12 months? **READ: DRUGS INJECTED FOR MEDICAL PURPOSES OR TREATMENT OF AN ILLNESS DO NOT COUNT**	YES 1 NO 2 DON'T REMEMBER 8 NO RESPONSE 9	→ Q504
Q502	The last time you injected drugs, did you use a sterile needle and syringe? **New needle which was opened from the packet before use?**	YES..... 1 NO..... 2	
Q503	Which drugs did you inject? **READ LIST** MAY CHOOSE MORE THAN 1 ANSWER	**Yes No DK** HEROIN..... 1 2 8 COCAINE..... 1 2 8 BLUE BOAT(VALIUM10MG)..... 1 2 8 CAPSULE(E.G.F40)..... 1 2 8 GUNPOWDER..... 1 2 8 MARIJUANA..... 1 2 8 DIAZEPAN..... 1 2 8 NONE OF THE ABOVE..... 1 2 8 OTHER (SPECIFY)..... 1 2 8 SPECIFY	
Q504	The last time you had sex were you or your partner under the influence of alcohol or drugs?	YES..... 1 NO..... 2 NO RESPONSE..... 9	
Q505	In the last 12 months, have you been offered condoms?	YES..... 1 NO..... 2 NO RESPONSE..... 9	→ END
Q506	If yes, from where did you get the offer of condoms? Any other? **PROBE AND RECORD ALL ANSWERS MENTIONED.**	THROUGH AN OUTREACH SERVICE..... A DROP-IN CENTRE..... B SEXUAL HEALTH CLINIC..... C OTHERS (SPECIFY)..... D Specify	

WHATEVER INFORMATION YOU HAVE PROVIDED WILL BE KEPT STRICTLY CONFIDENTIAL AND WILL NOT BE SHOWN TO OTHER PERSONS.
THANK YOU FOR YOUR PARTICIPATION.
WE WOULD LIKE TO OFFER YOU THIS LIST OF RESOURCES WHERE YOU CAN GET SERVICES.

INTERVIEWERS COMMENTS

APPENDIX D: PARTICIPANTS IN THE 2013 POPULATION SIZE ESTIMATION

Study Team:
Melissa Hope Ditmore, Ph.D.,[a] Wogba Kamara,[b] Nyuma James,[c] Kemoh Mansaray,[d] Victor Kamara,[d] Julianna Konteh,[e] Kalilu Kamara[e], Hindowa E. Saidu[e], Habib T. Kamara[e], George Freeman[e], Hudson Tucker[e], Dr. Francis Nylander[f], Patricia Ongpin[g] and Abdul Rahman Sessay[h]

[a] Lead Consultant,
[b] Consultant, Data Analyst,
[c] Consultant, Data Analyst,
[d] Senior M&E Officer, NAS,
[e] Partner organization representative
[f] National Consultant,
[g] Strategic Information Advisor, UNAIDS, Sierra Leone and
[h]Deputy Director, NAS and PSE Study Coordinator

Enumerators:

For PWID:

Edward N. Blake, Joe Kamanda Stephen Kandeh, and Matthew Kenneh

For MSM:

Mamadu Jalloh, Francis Bangura, Senesie Margao and Michael Davies

For sex workers:

Sylvester Dauda, Hawa Gbomassi, Abibatu Kargbo, Florence Kessebeh, Temor Mammy, Tamba Moinjeh, Musu Sellu, Tommy Tucker, David Vandi, and Juliana Vandi

APPENDIX E. ABOUT THE PARTNER ORGANISATIONS

Dignity is the first organization for the gay and lesbian community in Sierra Leone.

Foundation for Democratic Initiatives and Development (FDID) is an independent peace-building organization that works to enhance children's and youths' active participation and involvement in upholding and promoting a sustainable development culture and participatory governance at the grassroots levels through effective information dissemination, advocacy, lobbying, dialogue forums, civic education and community-driven activities.

4 River Side Drive, off Kingharman Road, Brookfields
P.O. Box 1133, Freetown, Sierra Leone
Tel: +23276804066.
Email: fdidsl@gmail.com

Pride Equality's mission is to work together to reduce discrimination, stereotype, homophobia, trans-phobia and patriarchal norms for the attainment of equal rights for all.

Pride Equality, Rainbow House
15 John Lane, Freetown, Sierra Leone
Tel: +232 33844310 / +232 77 383761 / +232 78 349866
Email: info@prideequality.org
Website: www.prideequality.org

Women in Crisis Movement

Women in Crisis Movement (WICM) deals with girls and young women who were affected by the war. WICM included HIV/AIDS and STI sensitization in its programmes in support of the government's commitment to mitigate the spread of the epidemic. The goal is to reduce women and girls' vulnerability to HIV through information, education and communication (IEC), services for early diagnosis and treatment of STIs, prevention of STIs including HIV, and the promotion of reproductive health literacy.

Website: http://www.wicmovement.org/

Correspondence Details: National HIV and AIDS Secretariat, 15A Kingharman Road, Brookfields, Freetown, Sierra Leone
Tel: +232-22-242202/235804
Email: secretariat@nas.gov.sl
Website: http://www.nas.gov.sl

APPENDIX F. RESOURCE SHEET PROVIDED TO PEOPLE INTERVIEWED

Women in Crisis offers health services and has a women's shelter.

137 B Hospital Road, Kissy Dockyard, Freetown

GOAL offers programs for youths in Freetown and Kenema.

Brima Lane Field Office

5 Davies Lane Brima Lane, Freetown

Telephone: 077-395-792

E-mail: mslahai@sl.goal.ie

Dignity offers referrals to HIV services for men who have sex with men.

79 Pademba Rd, Freetown

033 15 53 91

Pride Equality advocates and provides services for Lesbian, Gay, Bisexual, Transgender, Queer and Intersex (LGBTQI)/MSM human rights and access to sexual reproductive health (SRH) services including HIV counseling, testing with care and support for LGBTQI/MSM youth.

15 John Lane, Off Campbell Street Freetown

Hotlines: 078 349866 / 033 844310 / 077 383761 / 079 755502

Email: info@prideequality.org

Website: www.prideequality.org