Sierra Leone

HIV SERO-PREVALENCE STUDY FOR KEY POPULATIONS

MAY 2015

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Foreword

Sierra Leone Sero-Prevalence Study for Key Populations is central in providing relevant information for an updated Modes of Transmission Study which informs the next National Strategic Plan covering the period 2016-2020. Though the HIV epidemic in SL is considered to be generalized, yet current studies conducted have provided evidences on the burden of HIV infection and how it affects some groups within the society.

The 2010 (MOT) Study revealed that Key populations are at higher risk of contracting and transmitting HIV. The Population Size Estimation (2013) provided evidence that key populations such as Female Sex Workers (FSW), Men who have sex with men (MSM), People who inject drugs (PWID) reside in Sierra Leone. The systematic collection of data from four of the vulnerable sub-populations; MSM, FSW, PWID and Prisoners in Sierra Leone have provided an up to date information and systems for monitoring biological trends over time.

The findings of the Sero-prevalence Study on Key Populations presented in this report have further brought out that these populations carry the highest burden of HIV infection in Sierra Leone. It also brought out behavioural linkages of how one high risk groups' vulnerability could affect another.

With improved understanding of the linkages and findings of other national HIV/AIDS research such as Population Size Estimates and Modes of Transmission studies, redirection of efforts and appropriate planning of intervention strategies to break the transmission chains could be developed and implemented to reverse the trend of the epidemic. It is also hoped that the findings in this report will assist in advocacy and resource mobilization towards ending the epidemic by 2030 in Sierra Leone.

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ACKNOWLEDGEMENT

The National HIV/AIDS Secretariat acknowledges the efforts of all individuals and organizations that contributed to the successful conduct of this Sierra Leone Sero-Prevalence Study for Key Populations. The financing of this study was made possible under the HIV/AIDS prevention Programme III financed by the German Development Bank (KfW) is highly acknowledged. We are also grateful for the contribution from the National HIVAIDS Control Program (NACP), including staff at national, regional and district levels where the survey was conducted. The role of designated supervisors, peer counselors and data entry clerks, is also highly appreciated.

We also commend the efforts and cooperation of members of the Key populations studied and their organizations for the successful conduct of the survey. The Society for Women and AIDS -SL, Alliance for Women Development and Women in Crisis played an instrumental role in reaching commercial sex workers within the Western Area. The Dignity Association and the Sierra Leone Youth Development and Child Link helped to reach out to other target groups.

We would like to acknowledge the invaluable contribution of the management of the Sierra Leone Correctional Department for readily consenting to their inmates' participation in the survey.

Our sincere thanks and appreciation go to the staff of UNAIDS and in particular Ms Patricia Ongpin for providing the technical backstop during the entire process of conducting this study.

Finally I want to thank the M&E team of the National AIDS secretariat for their relentless effort in putting all the materials together on to the end.

EXECUTIVE SUMMARY

Introduction

A Population Size Estimation was conducted in 2013 to ascertain an estimate of the number of members within key populations (KP) as well as essential information on their behaviour and activities. It estimated that there were roughly 180,000 – 300,000 Female Sex Workers (FSW), 20,000 Men who have sex with men (MSM), and 1,500 People who inject drugs (PWID). These findings provided evidence that KPs do reside in Sierra Leone and thus require specific programs to prevent HIV transmission. Despite this awareness, only a handful of studies have been conducted in the past regarding behaviours and practices of FSW, MSM, PWID and prisoners, and a seroprevalence study has not been conducted in the past 5 years for any of these groups. The main objective of this Seroprevalence Study of Key Populations was to determine the HIV prevalence among Sierra Leone's key populations.

Methodology

An HIV Testing and Counselling campaign targeted towards key populations was launched by the National AIDS Secretariat and the National AIDS Control Programme in April 2015. This study took this as an opportune moment to gather critical data on key populations. The study sample size relied on the attendance to this study. The HIV Testing Campaign was open to the general population to access a free HIV test, but sensitization campaigns were specifically conducted for key populations in order to encourage them to come in for a test and to make them aware of the key population sensitive sites. A general call to members of key populations was sent out by the KP NGOs to encourage them to come to set testing sites.

Each client coming in for an HIV test was asked to answer a short questionnaire. They had an option to opt out of the questionnaire, but were highly encouraged from the beginning to participate in order to provide more information to support targeted HIV programming.

Data tables were created by NAS study project manager. Report writing and data analysis was completed by NAS and UNAIDS. The draft was shared with stakeholders involved with the study for feedback. The findings of the reported were validated by the Study Steering Committee on July 23rd. Once feedback was received, the report was finalized and submitted to NACP and NAS.

Ethics

A letter of request for approval was submitted to the Ethics Review Board. Verbal confirmation from board members was received. This study took place during an EVD outbreak in Sierra Leone; therefore significant considerations were made in order to abide the by-laws and national policies in place for the national Ebola response, such as provision and use of IPC materials.

Limitations and Challenges

Some limitations on the findings are the following:

1. Data representative for national average and not for regional level and rural environment

2. Study duration limited the sample size
3. Terminology confusion and level of comfort in responses altered data results

Some challenges of the study are the following:

1. EVD outbreak was still on-going causing hesitance in attendance
2. Extension was needed for study in order to reach an adequate sample size
3. Stigma and transport difficulties causing reluctance among participants
4. Delayed start date for prison settings due to protocol procedures for activities in prisons
5. Security concerns due to location of testing sites in familiar grounds for key populations which were unsecure

Findings

The distribution of respondents shows that many of the respondents are within the 20–24 year age group (34 percent). The distribution of respondents by regions shows that the highest number of respondents interviewed live in Freetown Urban (54 percent).

Most respondents have never been tested for HIV, the highest of which were PWID (75.5 percent), followed by clients of SW (63.5 percent), MSM (54.5 percent) then FSW (54.4 percent). Less than half of the prison population had never been tested for HIV (45.5 percent). Among the transgender, result shows that half of the male to female transgenders had never been tested (50.4 percent); female to male transgenders is the group with the least percentage of people who had never been tested (35.9 percent).

In comparison with the general population in which 50.1 percent of women and 82.2 percent of men have never been tested, it is encouraging to note that it seems key populations are more likely to go for an HIV test; however testing rates are still very low and more people are still needed to take regular HIV tests in order to understand their status and act accordingly.

There is a high degree of overlap between the key populations. The largest overlaps being 13.5 percent of SW also identifying as a PWID, 30.8 percent of MSM identified as a Transgender (Male to Female) and 6.8 percent identified as sex workers, and 84.2 percent of PWID identified as sex workers.

Data on key populations is only recently being gathered in Sierra Leone, and as research partners plan to conduct studies, it would be important to know whether certain sampling methodology would work given the hidden nature of the key populations and their own networks. When respondents identified as being a member of a certain key population, they were also asked whether they could estimate how many people they personally knew within that key population as well. On average, those that identified as being an FSW knew 8 other FSW, those that identified as a client of an SW know 11 others who are clients, those that identified as an MSM know 39 other MSMS, those that identified as a PWID knows 76 other PWIDs, those who identified as a transgender male-to-female know 33 others in this group, and those who identified as transgenders female-to-male know 10 other TG F to M.

Respondents were asked regarding their engagement in behaviours that would leave respondents vulnerable to transmission of HIV in order to help identify whether key populations are involved in the behaviours to which are usually attributed to them. FSW were most likely to report having exchange sex for incentives in the past 12 months (94 percent), MSM were most likely to report having anal sex in the past 12 months (92.9 percent), TG – F to M were most likely to report having used a syringe to inject drugs in the past 12 months (49.5 percent), followed by prisoners (42.5 percent), then PWID (41.5 percent).

STIs are closely associated with HIV because they increase the likelihood of contracting HIV and share similar risk factors. STI tests were not available during this study, however respondents were asked whether they experienced symptoms of STIs.

Among the respondents, FSW were most likely to report having a bad-smelling or abnormal genital discharge (63 percent) and a genital sore or ulcer in the 12 months before the study (54.4 percent). Overall, 70.2 percent of FSW, 53.8 percent of Client of FSW and 42.8 percent of MSM had symptoms of an STI in the 12 months preceding the study. 97 percent of PWID, 54.6 percent of prisoners and 50 percent of TG (M to F) had symptoms of an STI. Seventy-three percent of TG (F to M) reported having symptoms of an STI.

Due to the Ebola Virus Disease (EVD) outbreak in Sierra Leone, it was also of interest of the study to see how key populations were affected by Ebola. TG – F to M respondents had the highest number of EVD survivors with 15.1 percent reporting that they had tested positive for EVD. MSM and Clients of FSW both had 5 percent of its respondents report having tested positive for Ebola while FSW had 3.2 percent of its respondents report having tested positive for Ebola. Nearly 2 percent of prisoners reported having tested positive for Ebola and 1.2 percent of PWID had tested positive for Ebola. None of the TG – M to F reported having tested positive for Ebola.

The highest HIV prevalence among KPs was found among Transgender (M to F) with 22.4 percent and MSM with 14.0 percent, followed by PWID (8.5 percent) and FSW (6.7 percent). The prison population records the lowest prevalence among the Key populations with 2.2 percent followed by Clients of Sex Workers with 2.9 percent. In general, HIV prevalence among each of the Key Population is higher than the prevalence in the general population of 1.5 percent (SLDHS 2013).

Analysis and Lessons

The following are the key discussion points garnered from the findings:

- Youths are present among KP
- Most key populations have never been tested for HIV
- MSM and FSW are the main key populations
- Many individuals within the key populations are well networked
- Almost half of prisoners engage in sex work, anal sex and injecting drug use
- All key populations have members that engage in anal sex

- Transgender population are present and equally require interventions to address their needs
- Most key populations report having an STI
- EVD survivors can be found among key populations
- All key populations have an HIV prevalence higher than that of the general population

The following are the key lessons learned from this study:

- Encouraging KP attendance to fixed health facility sites was a harder than mobile outreach
- Studies involving KP that offer no participation incentives need to have longer durations in order to ensure adequate participant size
- Key populations have a very positive reaction to HIV service staff who are trained to address their needs

Recommendations

Although the key objective of the study was to determine the HIV prevalence within key populations, the report is also an opportune moment to draw from the findings and lessons learned from this study in order to recommend a set of activities in order to adequately address the needs of key populations and reducing HIV transmission.

- Key populations must be included and prioritized in all HIV interventions and programs
- Prioritize FSW and MSM populations in order to access majority of key populations
- Strengthen STI prevention and treatment
- Strengthen understanding on transgender
- Open and strengthen HTC sites within NGOs that support key populations

INTRODUCTION

Background

Sierra Leone has a stabilised HIV prevalence of 1.5 percent among its general population; however based on the 2010 Modes of Transmission (MoT) report, there are certain populations that are at higher risk of contracting and transmitting HIV. These populations are known as "key populations" (KP), and in Sierra Leone, these are Female Sex Workers (FSW), Men who have sex with men (MSM),People who inject drugs (PWID) and prisoners. The criminalization of their activities contributes to the group's inability to access HIV-related services and to cases of human rights abuses.

A Population Size Estimation was conducted in 2013 to ascertain an estimate of the number of members within KP as well as essential information on their behaviour and activities. It estimated that there were roughly 180,000 – 300,000 FSW, 20,000 MSM, and 1,500 PWID. The findings provided evidence that KPs do reside in Sierra Leone and thus require specific programs to prevent HIV transmission. These findings were presented to the National AIDS Commission which comprised of representatives from public/private sectors, civil society groups such as faith based organizations, and various levels of government; it was chaired by the Head of State, President Koroma. The presentation and ensuing debate resulted in the President urging Commission members to implement specific interventions to reduce the HIV-infection risk among the KPs.

The 2014-15 Ebola Virus Disease (EVD) epidemic in West Africa is unprecedented in scale and duration, and continues in the three most highly affected countries (Guinea, Liberia and Sierra Leone), with 23,332 cases and 9,426 deaths as of February 20th 2015 . Recently, case incidence has been falling in all three countries, but transmission and new cases continue to occur. The precise number of survivors is unknown, but is estimated to be in the thousands.

Rationale

Several studies have been conducted in past years regarding behaviours and practices of Female Sex Workers (FSW), Men who have sex with men (MSM),People who inject drugs (PWID) and prisoners, however a seroprevalence study has not been conducted in the past 5 years for any of these groups. In order to update the MoT in preparation for the upcoming development of the National Strategic Plan and the Concept Note submission to Global Fund, it was critical that a more recent and accurate measurement of key population HIV prevalence be determined. Since a testing campaign took place in April which focused on key populations, this study took advantage of the opportunity in order to gather very basic information for a seroprevalence study which will inform the MoT indicator requirements.

Similarly, it is unknown whether being positive for HIV or an STI is associated with a higher risk of acquiring EVD. Due to the behaviours of key populations that place them at a higher risk of STI and HIV infection, the unknown connection with EVD may also leave them at a higher risk of acquiring Ebola and transmitting Ebola post recovery. However, no evidence exists on the hypothetical additional vulnerability of key-populations.

As an HIV testing and counselling campaign for key populations was taking place in April 2015, this was an opportune moment to include a simple seroprevalence study within the campaign to update information regarding the HIV prevalence rates of key populations.

Objectives

The main objective of this study was to determine the HIV prevalence among Sierra Leone's key populations. More specifically, this study aimed to:

1. Determine the HIV prevalence among FSW, MSM, PWID and Prisoners
2. Determined STI prevalence via self-reported STI symptoms among FSW, MSM, PWID and Prisoners
3. Determine individual network size within key populations to ascertain whether RDS is viable sampling methodology for future IBBSS
4. Determine prevalence of past Ebola infection amongst key population

METHODOLOGY

The HTC Testing Campaign

An HIV Testing and Counselling campaign targeted towards key populations was launched by the National AIDS Secretariat and the National AIDS Control Programme in April 2015. The main objective of this campaign is to create testing sites that are sensitive to the needs of key populations. More specifically, this campaign has the following objectives:

1. Engage key populations in HIV interventions planning and implementation

2. Create stationary and mobile testing centers throughout the main cities of every region that are available for the general population to receive pre-test counselling, and HIV test, and post-test counselling

3. Train counsellors on proper methods of addressing key populations and their needs

4. Encourage members of the key population to attend a key population friendly testing site

5. Provide targeted testing, counselling, and treatment (if needed) for FSW, MSM, PWID and Prisoners who test positive for HIV

6. Provide referral to EVD support groups for those who test positive for EVD

Campaign Restrictions

Due to the hidden nature of the key populations within Sierra Leonean population and the timing of the campaign during an EVD outbreak, the campaign approach was been built around certain restrictions.

- The hidden nature of the key populations necessitates a close collaboration with NGOs working with members of the key population in order to encourage the members to come for an HIV test in order to gain their trust and participation. Due to this, testing sites will be created within the confines of the organization's building and in select neutral locations.

- The use of test kits that are set to expire in April 2015 would significantly reduce the budget and create more efficient use of current resources

- The hesitance of the general population to approach health facilities and health workers during the EVD outbreak

Sensitization Approach

Although the HIV Testing Campaign will be open to the general population to access a free HIV test, sensitization campaigns were specifically conducted for key populations in order to encourage them to come in for a test and to make them aware of the key population sensitive sites. A general call to members of key populations will be sent out by the KP NGOs to encourage them to come to set testing sites.

Testing Locations

Based on the suggestions of the NGOs working with the KP, a testing scheduled was created which incorporated both static and mobile sites. See Annex for detailed schedule.

Sampling

Sampling Size

This study relied on the sample size that attended the key population sensitive testing sites during the April 2015 testing campaign which targeted key populations. For this reason, there was no specific sample size as it was determined by the number of people who come into the testing centres. However, in order to ensure validity of results, NGOs were encouraged to ensure that at least the following numbers per key population were able to receive an HIV test during the HIV testing campaign. These targets were selected based on the estimated population size per key population as per the Population Size Estimation study conducted in 2013.

Population	Estimated Population Size	Target Size
FSW	180,000 – 300,000	1,000
MSM	20,000	500
PWID	1,500	50
Prisoners	3,000	100

Sampling Time Frame

The testing campaign took place between April 15 and May 27, 2015.

Data

Questionnaire

Each client coming in for an HIV test was asked to answer a short questionnaire. They had an option to opt out of the questionnaire, but were highly encouraged from the beginning to participate in order to provide more information to support targeted HIV programming. The questionnaire was very short comprising of questions related to their demographics, practice as a key population member, and self-reporting of STI. See Annex for this questionnaire.

Supervision and Data Collection

Supervision and data collection was conducted by NGO Supervisors, NAS, and UNAIDS. Collection of questionnaires was completed by NGOs and NAS.

Data Entry

NAS Project manager for this study created with database in SPSS and the data was entered into SPSS by NACP M&E team. All data was entered by May 8th. The database was cleaned and validated by NAS and UNAIDS.

Analysis and Writing

Data Analysis and Report Writing

Data tables were created by NAS study project manager. Report writing and data analysis was completed by NAS and UNAIDS. The draft was shared with stakeholders involved with the study for feedback. The findings of the reported were validated by the Study Steering Committee on July 23rd. Once feedback was received, the report was finalized and submitted to NACP and NAS.

ETHICS AND EBOLA CONTEXT

Ethical Considerations

A letter of request for approval was submitted to the Ethics Review Board. Verbal confirmation from board members was received.

The study data shows that it has captured respondents below the age of 18. Age of consent in Sierra Leone is 18, however HTC protocol indicates that if minors are sexually active, they are not refused an HIV test if they request it in facilities. As the study stemmed from the HTC campaign, if a respondent was captured in the campaign, they were also captured in the seroprevalence study.

Ebola Outbreak Context

This study took place during an EVD outbreak in Sierra Leone; therefore significant considerations were made in order to abide the by-laws and national policies in place for the national Ebola

response. Infection Prevention and Control (IPC) arrangements were in place in the HIV facilities as per Ministry of Health protocol for all health facilities. This included ensuring refresher training of protocol during Ebola outbreak and use of IPC equipment (ie: gloves, sanitizers). Additionally, NAS received approval from National Ebola Response Centre (NERC) to conduct the study as it is a portion of regular HTC activities.

LIMITATIONS AND CHALLENGES

Limitations

Some limitations to the study and the findings are noted below.

i. Data representative for national average and not for regional level and rural environment: Due to the reliance of the study on the HTC campaign, the study could only collect data in sites that were funded for the HTC campaign. This meant that outreach into rural Sierra Leone was not possible since these areas could not be reached due to financial limitations in the HTC campaign. Therefore, although a statement can be made for a national average of the data, it may be difficult to provide regional breakdowns and representation of rural versus urban.

ii. Study duration limited sample reached:
As no incentives were used for participation to the study, the study fully relied on the work that KP NGOs did on sensitization and advocacy to get an HIV test. The NGOs performed well in reaching out to their populations to ensure that they participated, however as word-of-mouth is a stronger communication and advertising tool, having the HTC campaign occur for a longer period of time would have allowed for the snowball effect of the information to encourage even more members to attend the testing sites.

iii. Terminology confusion and level of comfort in responses altered data results:
For many KP members, the study may have been the first time they would have heard some of the terminology used in the questionnaire, such as transgender. This would have resulted in inconsistencies in answering repeated verification questions which were placed in the questionnaire. Additionally, the level of comfort of the respondent to the interviewer would have altered in the duration of the HTC visit and questionnaire. This has been addressed in the Findings section of this document.

Challenges

Several challenges were faces by this study.

i. EVD Outbreak:

Throughout the duration of the HTC campaign and thus the study, Sierra Leone was experiencing an EVD outbreak. The presence of these EVD cases meant that the State of Emergency was still in effect, thus movement was restricted in some areas of the country, and gatherings were not permitted. This prevented the HTC campaign, and thus the study, from reaching out to rural areas of the country.

ii. Extension needed for study:

The protocol of the study was reliant on the implementation plan of the HTC Campaign for KPs. However, as the end of the Campaign drew near, it was observed by the study supervisors that the numbers hoped to be reached for the study viability were falling short, therefore a request was made to NAS to prolong the HTC campaign by an additional week in order to give more time for members of KPs to participate in the study.

iii. Stigma and transport difficulties causing reluctance:

Reasons for KPs not attending the HTC campaign was difficulty in getting transport to the sites, lack of interest due to unavailability of incentives to participate in the study, and general hesitance due to previous treatment in health facilities or stigma and discrimination faced. NGOs working with the key populations worked hard to encourage their attendance, especially in the final weeks.

iv. Delayed start date for prison settings:

Unexpected additional negotiations and clearance in prisons resulted in the prison KP having a later start date to the HTC campaign and the study as compared to the other KP.

v. Security issues:

Some testing sites encountered security issues due to its location (ie: mobile testing sites in high risk areas of the town) or members of the key populations feared that law authorities could access the site and apprehend them. These deterred some from attending some outreach testing sites.

FINDINGS

Demographics

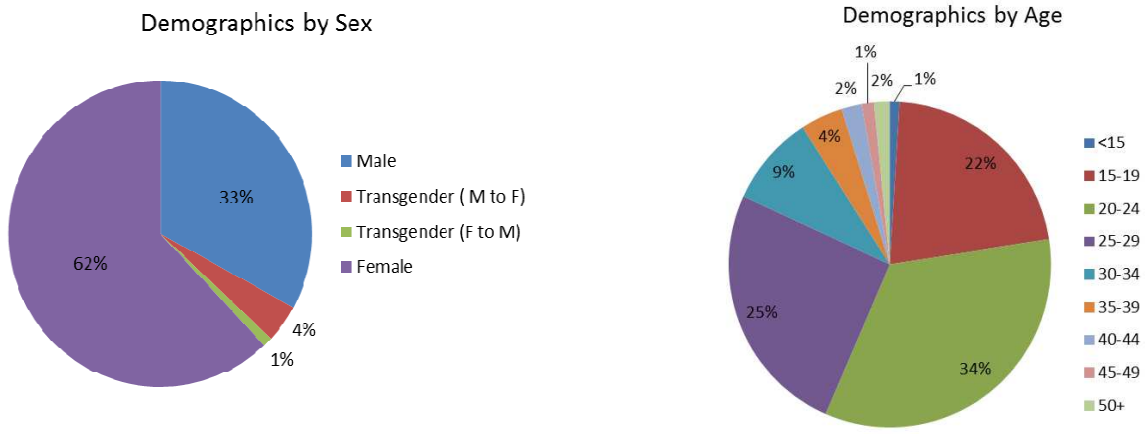
Table 1 shows the percent distribution of the respondents' population by sex according to age groups and location. The distribution of respondents in the five year age group shows that more respondents are within the 20–24 year age group (34 percent). The distribution of respondents by regions shows that the highest number of respondents interviewed live in Freetown Urban (54 percent) while the lowest number lives in Makeni (9 percent). The distribution of respondents by sex shows that the highest percentage KPs interviewed are female (62 percent) followed by male (33.4 percent), Transgender M to F (4.1 percent) and Transgender F to M (0.5 percent).

It must be noted that the number of clients who identified as a transgender in this portion of the questionnaire (question 3) is different from those that identified as a belonging to the transgender population (question 5). This may be attributed to level of understanding about transgenders (as this is a new term in Sierra Leone) or the level of comfort of the respondent as they progressed through the study questionnaire.

Table 1: Background characteristics of respondents, by percentage

Background characteristics	Male	Transgender (Male to Female)	Female	Transgender (Female to Male)	Sample size (n)
Age Group					
<25	30.5	3.6	65.4	0.5	1870
25+	37.3	4.7	57.4	0.6	1438
<15	25.0	0.0	71.9	3.1	32
15-19	30.0	1.1	68.0	0.8	713
20-24	30.9	5.3	63.6	0.2	1125
25-29	35.6	5.8	58.1	0.5	838
30-34	35.1	3.7	60.9	0.3	299
35-39	40.4	2.8	55.3	1.4	141
40-44	44.8	6.0	49.3	0.0	67
45-49	48.8	0.0	48.8	2.4	41
50+	51.9	0.0	48.1	0.0	52
City					
Freetown Urban	36.5	3.6	59.8	0.1	1802
Freetown Rural	17.4	1.8	78.0	2.8	396
Bo	31.8	2.6	65.6	0.0	302
Makeni	31.3	18.0	50.7	0.0	300
Kenema	37.2	0.4	61.6	0.8	521
Total	33.4	4.1	62.0	0.5	3321

Figure 1: Background characteristics of respondents by age, sex and city



Previous HIV Test

Knowledge of HIV status helps people who are HIV-negative make specific decisions to reduce risk and practice safer sex so that they can remain disease-free. Similarly, knowledge of HIV status helps people who are HIV-positive take action to protect their sexual partners, access treatment, and plan for the future. To assess the awareness and coverage of HIV testing services, respondents in the study were asked when they last had an HIV test.

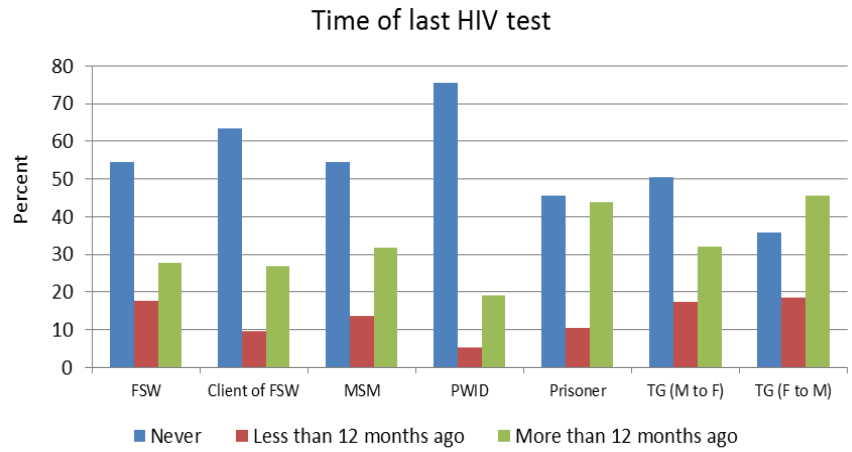
Table 2 shows KPs who recently accessed HIV test among the respondents. Most respondents have never been tested for HIV, the highest of which were the People who inject drugs (PWID) with 75.5 percent. However, 5.3 percent of PWID had an HIV test in the last 12 months while 19.1 percent had an HIV test more than 12 months ago. Among the Client of Sex Worker, 63.5 percent reported that they had never been tested for HIV while 9.6 percent were tested in the past 12 months and 26.9 percent had their test more than 12 months ago. MSM and FSW almost carry the same weight of never tested (54.5 percent and 54.4 percent) respectively. Nonetheless, 13.7 percent of MSM were tested in the last 12 months and 31.8 percent were tested in more than 12 months ago. Among FSW, 17.8 percent were tested in the past 12 months and 27.7 percent more than 12 months ago. Less than half of the prison population had never been tested for HIV (45.5 percent); 10.5 percent of them was tested within the past 12 months and 44 percent were tested more than 12 months ago. Among the transgender, result shows that half of the male to female transgenders had never been tested (50.4 percent); female to male transgenders is the group with the least percentage of people who had never been tested (35.9 percent).

In comparison with the general population in which 50.1 percent of women and 82.2 percent of men have never been tested, it is encouraging to note that it seems key populations are more likely to go for an HIV test; however testing rates are still very low and more people are still needed to take regular HIV tests in order to understand their status and act accordingly.

Table 2: Time of last HIV test

Key Population	Sample Size (n)	When was the last time you had an HIV test? Never (%)	Less than 12 months ago (%)	More than 12 months ago (%)
FSW	1586	54.4	17.8	27.7
Client of SW	197	63.5	9.6	26.9
MSM	393	54.5	13.7	31.8
PWID	246	75.5	5.3	19.1
Prisoner	352	45.5	10.5	44.0
Transgender M to F	137	50.4	17.5	32.1
Transgender F to M	92	35.9	18.5	45.7

Figure 2: Time of last HIV test



Mutual Inclusiveness

Respondents were identified as a member of a key population based on their response to the question "Do you belong to any of these categories", during which they could self-identify as belonging to at least one category. This method allowed this study to not only report on the behaviours of a key population, but also note the mutual inclusivity of the groups and how one group's vulnerability could affect another's.

Table 3 shows the mutual inclusiveness, or the overlap, between the key populations. Among the 1657 respondents who identified as a SW, 2.1 percent identified as also being a client of sex workers, 1.7 percent are also MSM, 13.5 percent are PWID, 0.5 percent are currently prisoners, 0.5 percent are transgenders M to F and 0.5 percent are transgenders F to M. Among the 210 respondents who identified as a client of a sex worker, 16.2 percent are also sex workers themselves, 8.6 percent are MSM, 5.2 percent are PWID, 1.4 percent are currently prisoners, 2.4 percent are TG (M to F), and none are TG (F to M). Among the 413 respondents who identified as a MSM, 6.8 percent are also sex workers, 4.4 percent are clients of sex workers, 3.9 percent are PWID, 1 percent are currently prisoners, 30.8 percent are TG (M to F) and none are TG (F to M). Among the

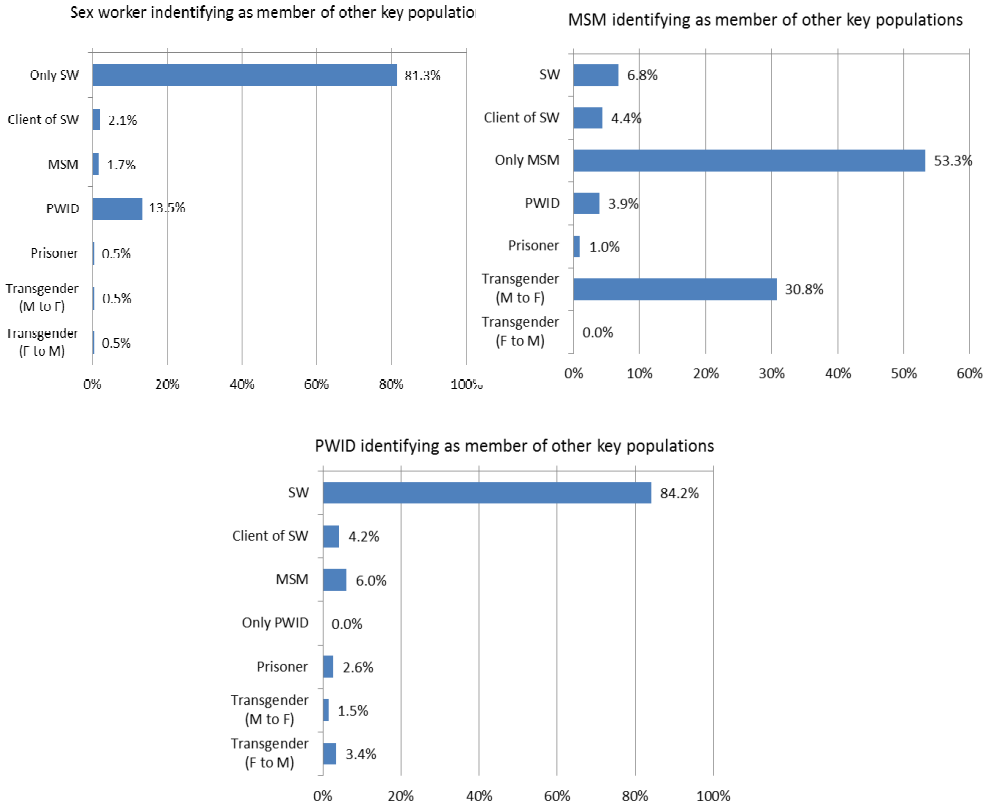
265 respondents who identified as a PWID, 84.2 percent are also sex workers, 4.2 percent are clients of sex workers, 6 percent are MSM, 2.6 percent are currently prisoners, 1.5 percent are TG (M to F), and 3.4 percent are TG (F to M). Among the 370 respondents who were prisoners at the time of the study, 2.2 percent identified as a sex worker, 0.8 percent as clients of sex workers, 1.1 percent as MSM, 1,9 percent as PWID, none as TG (M to F), and 0.3 percent as TG (F to M). Among the 145 respondents who identified as a transgender male-to-female, 6.2 percent are SW, 3.4 percent are clients of sex workers, 87.6 percent are MSM, and 2.8 percent are PWID. Among the respondents that identified as a transgender female-to-male, 8.6 percent are also SW, 9.7 percent are also PWID, and 1.1 percent is currently prisoners.

Note that for this portion of the report, male and transgender respondents have been included into the SW population in order to highlight that it is not only females that engage in sex work.

Table 3: Mutual inclusiveness of key populations

	Mutual inclusivity: Percentage of population within key population noted on row heading							
	SW	Client of SW	MSM	PWID	Prisoner	TG (M to F)	TG (F to M)	Sample Size (n)
SW	n/a	2.1	1.7	13.5	0.5	0.5	0.5	1657
Client of SW	16.2	n/a	8.6	5.2	1.4	2.4	0.0	210
MSM	6.8	4.4	n/a	3.9	1.0	30.8	0.0	413
PWID	84.2	4.2	6.0	n/a	2.6	1.5	3.4	265
Prisoner	2.2	0.8	1.1	1.9	n/a	0.0	0.3	370
TG (M to F)	6.2	3.4	87.6	2.8	0.0	n/a	0.0	145
TG (F to M)	8.6	0.0	0.0	9.7	1.1	0.0	n/a	93

Figure 3: Mutual inclusiveness of SW, MSM and PWID



Network Sizing

Data on key populations is only recently being gathered in Sierra Leone, and as research partners plan to conduct studies, it would be important to know whether certain sampling methodology would work given the hidden nature of the key populations and their own networks. When respondents identified as being a member of a certain key population, they were also asked whether they could estimate how many people they personally knew within that key population as well.

On average, those that identified as being an FSW knew 8 other FSW, those that identified as a client of an SW know 11 others who are clients, those that identified as an MSM know 39 other MSMS, those that identified as a PWID knows 76 other PWIDs, those who identified as a transgender male-to-female know 33 others in this group, and those who identified as transgenders female-to-male know 10 other TG F to M.

The prisoner key population was omitted from this question as this group is in a closed setting environment and thus the population of the prison would be the maximum sample size possible to reach.

Table 4: Mean network sizes of members within a key population

	Mean number of people known in key population group by respondent
FSW	8
Clients of SW	11
MSM	39
PWID	76
TG M to F	33
TG F to M	10

High Risk Behaviours

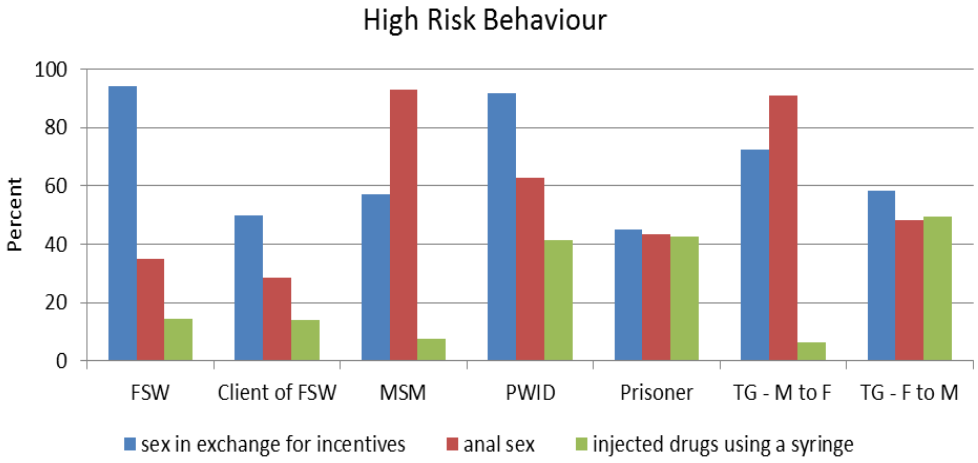
As a confirmatory question to engagement of behaviours that would leave respondents vulnerable to transmission of HIV, they were also asked whether they engaged in sex in exchange for incentives, anal sex, or used a syringe for injecting drugs; this would help identify whether they key population are involved in the behaviours to which are usually attributed to them.

FSW were most likely to report having exchange sex for incentives in the past 12 months (94 percent), followed by PWID (91.7 percent), then TG - M to F (72.2 percent). MSM were most likely to report having anal sex in the past 12 months (92.9 percent), followed by TG – M to F (91 percent), then prisoners (62.7 percent). TG – F to M were most likely to report having used a syringe to inject drugs in the past 12 months (49.5 percent), followed by prisoners (42.5 percent), then PWID (41.5 percent).

Table 5: High Risk Behaviour

Key Population	In the last 12 months, have you … Had sex in exchange for incentives (%)	Had anal sex (%)	Injected drugs using a syringe (%)
FSW	94.1	34.8	14.3
Client of SW	50.0	28.4	13.9
MSM	56.9	92.9	7.4
PWID	91.7	62.7	41.5
Prisoner	45.0	43.2	42.5
Transgender M to F	72.2	91.0	6.4
Transgender F to M	58.1	48.4	49.5

Figure 4: High Risk Behaviour



Self-reported STI symptoms

STIs are closely associated with HIV because they increase the likelihood of contracting HIV and share similar risk factors. The presence of ulcerative STI is known to increase the potential for HIV transmission substantially. STI tests were not available during this study, however respondents were asked whether they experienced symptoms of STIs; these indicators are used proxies for self-reported STIs. Respondents were asked if they had an STI or symptoms of an STI (including bad-smelling/abnormal genital discharge and genital sore or ulcer) in the previous 12 months. Those members of KPs who are having at least one of these STIs in the previous 12 months were computed.

Table 4 shows that among the respondents, 63.0 percent of FSW, 37.6 percent of Client of FSW, and 28.2 percent of MSM had a bad-smelling or abnormal genital discharge. 85.9 percent of PWID, 50.9 percent prisoners and 34 percent TG (M to F) had a bad-smelling or abnormal genital discharge. 71 percent TG (F to M) had a bad-smelling or abnormal genital discharge. On the other hand, 54.4 percent of FSW, 36.7 percent of Client of FSW, 32 percent of MSM reported having a genital sore or

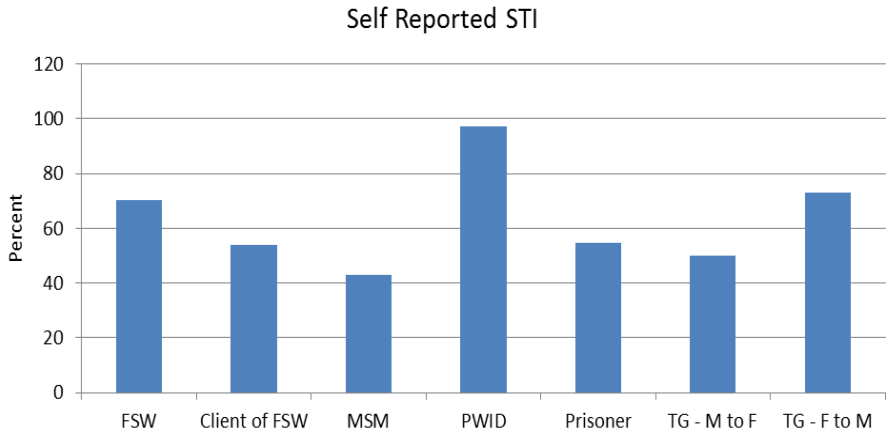
ulcer in the 12 months before the study. Eighty nine percent of PWID, 50.5 percent of prisoners and 35.9 of percent TG (M to F) had genital sore or ulcer. 72 percent TG (F to M) also had genital sore or ulcer in the 12 months before the study.

Overall, 70.2 percent of FSW, 53.8 percent of Client of FSW and 42.8 percent of MSM had symptoms of an STI in the 12 months preceding the study. 97 percent of PWID, 54.6 percent of prisoners and 50 percent of TG (M to F) had symptoms of an STI. Seventy-three percent of TG (F to M) reported having symptoms of an STI.

Table 6: Self-reported prevalence of sexually-transmitted infections (STIs) and STIs symptoms

	During the last 12 months, have you …		
Key Population	had a bad smelling abnormal genital discharge (%)	had a genital sore or ulcer (%)	bad smelling abnormal genital discharge OR genital sore or ulcer (%)
FSW	63.0	54.4	70.2
Client of SW	37.6	36.7	53.8
MSM	28.2	32.0	42.8
PWID	85.9	89.0	97.0
Prisoner	50.9	50.5	54.6
Transgender M to F	34.0	35.9	50.0
Transgender F to M	71.0	72.0	73.1

Figure 5: Self-Reported STI



EVD Survivors

Due to the Ebola Virus Disease (EVD) outbreak in Sierra Leone, it was also of interest of the study to see how key populations were affected by Ebola. TG – F to M respondents had the highest number of EVD survivors with 15.1 percent reporting that they had tested positive for EVD. MSM and Clients of FSW both had 5 percent of its respondents report having tested positive for Ebola while FSW had 3.2 percent of its respondents report having tested positive for Ebola. Nearly 2 percent of prisoners

reported having tested positive for Ebola and 1.2 percent of PWID had tested positive for Ebola. None of the TG – M to F reported having tested positive for Ebola.

Among the key populations, Transgender female-to-male and PWID had the largest number of members who were both EVD survivors and HIV positive with 1.1 percent and 0.8 percent, respectively. FSW had 0.4 percent of its population as both EVD survivor and HIV positive, followed by prisoners (0.3 percent) and MSM (0.2 percent).

Table 7: EVD Survivors among Key Populations

	Tested positive for EVD (%)		HIV+ and EVD survivor (%)	
Key Population	Percentage	Number	Percentage	Number
SW	3.2	53	0.4	6
Client of SW	5.0	1	0.0	0
MSM	5.0	2	0.2	1
PWID	1.2	3	0.8	2
Prisoner	1.9	7	0.3	1
Transgender M to F	0.0	0	0.0	0
Transgender F to M	15.1	14	1.1	1

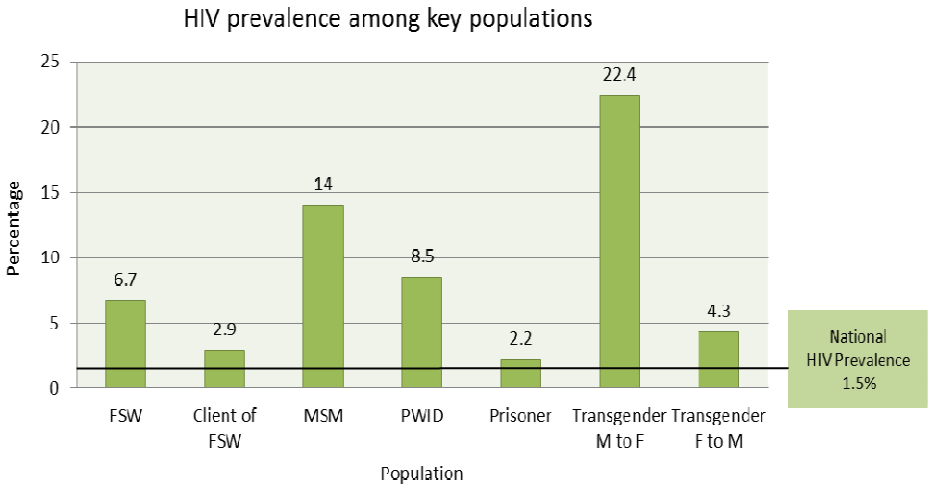
HIV Prevalence

Table 6 and Figure 4 present information on the HIV prevalence among those tested. The highest HIV prevalence among KPs was found among Transgender (M to F) with 22.4 percent and MSM with 14.0 percent, followed by PWID (8.5 percent) and FSW (6.7 percent). The prison population records the lowest prevalence among the Key populations with 2.2 percent followed by Clients of Sex Workers with 2.9 percent. In general, HIV prevalence among each of the Key Population is higher than the prevalence in the general population of 1.5 percent (SLDHS 2013).

Table 8: HIV Prevalence among Key Populations

Key Population	Sample Size (n)	HIV Prevalence
FSW	1490	6.7
Client of SW	209	2.9
MSM	408	14.0
PWID	258	8.5
Prisoner	369	2.2
Transgender M to F	143	22.4
Transgender F to M	93	4.3

Figure 6: HIV Prevalence among Key Populations



ANALYSIS AND LESSONS

Analysis

Youths are present among KP

Based on the attendance of youths below 18 years of age at the HTC sites, it is evident that there are key populations among youths and there is a demand among them for HIV services.

Most key populations have never been tested for HIV

Although key populations engage in activities that leave them vulnerable to HIV transmission, most do not regularly get themselves tested for HIV.

MSM and FSW are the main key populations

Findings show that many members of key populations identify as sex workers or men who have sex with men. This indicates that these two key population groups have a majority of the population who engages in activities that leave them vulnerable to STIs and transmission of HIV.

Many individuals within the key populations are well networked

The connections that members of key populations have within their cohort allow interventions to expand scope and reach out to peers. This also means that study methodologies which require snowball or RDS approach is feasible. It is noted that SW may not have been forthcoming in revealing how many other SW they personally know due to the rivalry among them. Reciprocally, members of PWID, MSM and Transgender (M to F) may be report high numbers due to the very closed and hidden networks within which they operate.

Almost half of prisoners engage in sex work, anal sex and injecting drug use

Ninety-seven percent of prisoners reported having an STI and 92 percent reported exchanging sex for incentive. The closed setting of prisons has made its population vulnerable to a mixture of activities that leave prisoners vulnerable to transmission of STIs, including HIV.

All key populations have members that engage in anal sex

Interventions that address anal sex are often delineated solely for MSM; however evidence shows that all key populations require these harm reductions interventions such as distribution of lubricants.

Transgender population are present and equally require interventions to address their needs

The term “transgender”, both male –to-female and female-to-male, is new in Sierra Leone. Despite its novelty, individuals do identify with its definition and its term, yet very little is known about this population in Sierra Leone.

Most key populations report having an STI

The prevalence of self-reported STIs infers that key populations are very sexually active and thus vulnerable to sexually transmitted infections such as HIV. Due to this vulnerability, more interventions are needed in order to mitigate the presence of STIs among key populations.

EVD survivors can be found among key populations

It is important to note that members of key populations are also EVD survivors. Note that this study did not request confirmation of EVD survivor status through the demonstration of a Discharge Certificate, therefore these values can only be used as an indicative figure.

All key populations have an HIV prevalence higher than that of the general population

In Sierra Leone, the 2013 DHS indicated that the general population has an HIV prevalence of 1.5 percent; this HIV prevalence is stable since the 2008 DHS. The higher HIV prevalence infers that key populations are more vulnerable to HIV transmission and therefore need more targeted interventions in order to address their HIV prevention and treatment needs.

Lessons

Encouraging KP attendance to fixed health facility sites was a harder than mobile outreach

Despite efforts and various approaches to encouraging key populations to go to health facilities for an HIV test, key populations were more willing to receive an HIV test in outreach sites that were closest to their activities (such as for sex work activity) or in buildings that were familiar and comfortable to them (such as the PWID and MSM).

Studies involving KP that offer no participation incentives need to have longer durations

Due to the hidden nature of the key populations, the most successful communication media that resulted in participation to an intervention, in this case HIV testing and counselling, was by word of mouth. This meant that the study had to reach enough of a population to garner their trust and snowball into a receptive reaction. In the past, other interventions gained faster traction due to the incentives that was offered, however without incentives, this study relied solely on the key populations understanding the intervention as a valuable service for their health and wellbeing.

Key populations have a very positive reaction to HIV service staff who are trained to address their needs

Members of the key populations were very receptive to the staff involved in the HTC campaign; the KP members indicated that they felt comfortable to approach the counsellors and discuss their issues. HIV counsellors involved with the HTC campaign also indicated that they liked the campaign and encouraged management to continue it as an on-going activity.

RECOMMENDATIONS

Key populations must be included and prioritized in all HIV interventions and programs

Key populations have a higher HIV prevalence than the general population; therefore this higher vulnerability to the disease means that key populations have prevention and treatment needs that have not been adequately reached through past interventions, and if these are not addressed, the epidemic will continue to burgeon from the key populations.

Prioritize FSW and MSM populations in order to access majority of key populations

Members of key populations often overlap between the key population groups, and evidence shows that most identify themselves as either a SW or a MSM. Given resource limited environments, it would be most efficient to prioritize interventions for both SW and MSM in order to reach the maximum number of key populations. This also means that interventions that target SW and MSM should have within them a component that provides harm reduction efforts for other high-risk activities, such as injecting drug use.

Strengthen STI prevention and treatment

The high prevalence of self-reported STI among all key populations indicates that all groups are vulnerable to contracting an STI and therefore even more vulnerable to contracting HIV. For this reason, it is imperative that STI prevention and treatment is addressed within interventions and programming related to key populations in order to mitigate not only contraction of STIs but also ensuring general well-being of the members. STI testing and referral systems are in place within some NGOs that support harm reduction among key populations, and this model should be replicated to reach out to all other key population groups.

Strengthen understanding on transgender

The novelty of the term has not precluded individuals from identifying themselves as a transgender, however very little is known about this group in the country. More information needs to be gathered about transgender in order to optimally address their concerns in the Sierra Leonean context.

Open and strengthen HTC sites within NGOs that support key populations

Key populations are fearful of health facilities due to the stigma and discrimination they face, therefore offering HTC services in structures that are both known and comfortable to them is an optimal way to encourage them to improve their health seeking behaviours.

Annex – Suggested Timeline and Activities

Activity	Feb	March				April					May				June		Responsible
by week	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	
Protocol Preparation																	
Draft of protocol, budget and timelines	27																UNAIDS SIA
Second stakeholder meeting to validate protocol and budget					30												NAS M&E
Finalization of questionnaire, timeline, budget, and methodology						2											UNAIDS, NAS M&E
Fund raising for campaign		March 2 to April 7															UNAIDS
Write letter to Ethics Review Board				21													NAS M&E, METWG Co-chair
Printing of questionnaires							14										NAS
Campaign																	
Testing Campaign. Refer to "Test Campaign Schedule"								April 15 – May 27									NACP HCT Coord.
Supervisors collect questionnaires on weekly basis (every Monday)								April 15 – May 27									NAS M&E
Data entry and Report writing																	
Develop data entry sheets / database								14									UNAIDS
Sample data entry with completed forms to date from Freetown sites									20								UNAIDS
Survey sheets provided to data entry personnel												10					NACP M&E
Data Entry												May 11 to June 8					See "Data Entry Schedule"
Data cleaning and validation																10	UNAIDS SIA, NAS M&E
Report Writing															July 10 - 20		UNAIDS SIA, NAS M&E
Report draft shared with partners for feedback															July 23		NAS M&E
Feedback deadline															July 24		Stakeholders
Final report submitted to NACP and NAS															July 27		UNAIDS
Wrap Up																	
"Planning Way Forward" meeting															TBD		NAS

Annex – PreTest Questionnaire

Counsellor #		Client #		Day		Month	

Consent Provided for Survey	◯1 Yes ◯2 No

City	◯1 Freetown (Urban) ◯2 Freetown (Rural)	◯3 Bo ◯4 Makeni	◯5 Kenema ◯6 Other: _____
Age			
Sex	◯1 Male ◯2 Female	◯3 Transgender (Male to Female) ◯4 Transgender (Female to Male)	
When was the last time you had an HIV test?	◯1 Never	◯2 Less than 12 months ◯3 More than 12 months	◯ Campaign Participant

Do you belong to any of these categories	If so, how many other people do you know in this category
◯1 Men who has sex with a men	
◯2 Sex Worker	
◯3 Client of a sex worker	
◯4 Person who injects drugs	
◯5 Prisoner	
◯6 Transgender (Male to Female)	
◯6 Transgender (Female to Male)	
◯7 I don't belong to any of these groups	

Have you had sex in exchange for incentives in the last 12 months?	◯1 Yes	◯2 No	◯3 I don't know
Have you had anal sex in the last 12 months?	◯1 Yes	◯2 No	◯3 I don't know
Have you injected drugs using a syringe in the last 12 months?	◯1 Yes	◯2 No	◯3 I don't know
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?*	◯1 Yes	◯2 No	◯3 I don't know
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?*	◯1 Yes	◯2 No	◯3 I don't know
During the last 12 months, have you tested positive for EVD?	◯1 Yes	◯2 No	◯3 I don't know
If yes, when did you test positive for EVD?	◯1 within the last 3 months	◯2 more than 3 months ago	

HIV Test Result	◯1 HIV Positive	◯2 HIV Negative