

CRANE SURVEY REPORT

BIO-BEHAVIOURAL SURVEYS AMONG GROUPS AT INCREASED RISK FOR HIV¹ IN KAMPALA, UGANDA



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¹Men who have sex with men (MSM), Female sex workers (FSW), Drug users (DUS), Congolese refugees (REF), Trans gender women (TG), Persons with multiple concurrent partnerships (NET)

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EXECUTIVE SUMMARY

Uganda's HIV epidemic, as in all countries, consists of a myriad of localized, overlapping epidemics among distinct social and sexual networks. Some populations are at increased risk of HIV infection, and key populations are among the highest groups at risk: sex workers, men who have sex with men, people who inject drugs, and transgender women. Other populations find themselves at potentially increased risk, including vulnerable populations due to impeded access to services or power inequities, such as refugees, or persons with disabilities.

This report summarizes the main findings of a series of bio behavioural surveys in Kampala, Uganda, conducted by the Crane Survey, a collaborative activity of Makerere University's School of Public Health, the Centres for Disease Control and Prevention, and the Ministry of Health. Funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Crane Survey conducted surveys among several key and vulnerable populations in Uganda's capital.

These surveys were conducted between 2012 and 2013. The Crane Survey used advanced methods to improve data quality: Respondent driven sampling (for most surveys), a sampling design that addresses the lack of proper sampling frames for the surveyed populations, audio computer assisted self-administered interviews in order to elicit more candid responses from survey participants, as well as capture recapture to estimate the sizes of some of these populations. The main survey results are as follows:

| Survey population | Survey Sample Size | Estimated HIV Prevalence | Estimated Syphilis Prevalence |
|--|--------------------|--------------------------|-------------------------------|
| Men who have sex with men | 595 | 12.7% | 2.8% |
| Female sex workers | 1,487 | 31.3% | 6.3% |
| People who used drugs | 1,172 | 17.0% | 23.5% |
| Transgender women | 45 | 20.0% | N/A |
| People with multiple concurrent partnerships | 1,320 | 25.0% | 4.4% |
| Refugees (DR Congo) | 1,337 | 6.1% | 0.7% |

These surveys show that several distinct populations continue to be at very high risk of HIV infection, with the exception of DR Congolese refugees whose HIV infection risk is similar to that of Kampala's general population. All of these populations interact and have sex also with general population members who act as 'bridging populations'. These populations require special attention and tailored interventions to address their peculiar needs, vulnerabilities, and challenges, in order to control the HIV epidemics in these networks and among Kampala's population at large.

ACRONYMS

| | |
|--------|--|
| ACASI | Audio-computer assisted self-completed interview |
| AIDS | Acquired Immunodeficiency Syndrome |
| ART | Anti-retroviral treatment |
| BCC | Behaviour change and communication |
| CAPI | Computer-assisted personal interview |
| CASI | Computer-assisted self-interview |
| CBO | Community-based organization |
| CDC | Centres for Disease Control and Prevention |
| CI | Confidence interval |
| CSW | Commercial Sex Workers |
| CM | Coupon manager |
| DU | Drug users |
| EIA | Enzyme immune-assay |
| FPM | Female partners of MSM |
| FSW | Female sex workers |
| FTF | Face-to-face interview |
| HIV | Human immunodeficiency virus |
| ID | Identification number |
| IT | Information technology |
| MARP | Most-at-risk population |
| MOH | Ministry of Health |
| MSM | Men who have sex with men |
| NET | Network (survey group) |
| NGO | Non-Governmental Organization |
| PASI | Palm-assisted self-completed interview |
| PEPFAR | President's Emergency Plan for AIDS Relief |
| PLHA | People living with HIV/AIDS |
| PSW | Partners of sex workers |
| QDS | Questionnaire Design Studio |
| RDS | Respondent-driven sampling |
| REF | Refugees |
| STI | Sexually transmitted infection |
| VCT | Voluntary Counselling and Testing |
| WB | Western blot |

INTRODUCTION

This report presents findings from the Crane Survey, a collaborative activity between Makerere University School of Public Health, the Centres for Disease Control and Prevention, and the Ministry of Health (STD Clinic, AIDS Control Programme), Kampala, Uganda.

Financial support was provided by President's Emergency Fund for AIDS Relief-Uganda through Makerere University School of Public Health.

1.1 BACKGROUND

Uganda faces a generalized HIV epidemic, with a national adult HIV prevalence estimated at 6.2%. With national HIV prevention activities focused on the general population, relatively little attention is given to key populations, their contribution to the HIV epidemic, and their needs for HIV prevention and care.

Men who have sex with men (MSM), transgendered women (TG), female sex workers (FSW), and drug users (PWID) are known to be high risk groups for HIV infection in all settings, including generalized HIV epidemics. Key populations and their linked bridging populations are also important contributors to the HIV epidemic in the general population. Bridging populations may be seen as sex partners of key populations who then may interact with people at lower HIV acquisition risk in the general population, increasing the likelihood for the HIV epidemic to spread from high-risk populations to the general population (UNAIDS/WHO 2010). Key populations (KP) are likely to have specific needs for HIV prevention, care, and treatment. In Uganda there remains a dearth of HIV prevention activities tailored to KP-specific needs and risk factors. As in many other countries, in Uganda, many key populations and associated behaviours are highly stigmatized. Homosexuality, sex work, as well as illegal drug use are also punishable by Ugandan law.

1.2 CRANE SURVEY

The Crane Survey is a collaborative activity between Makerere University's School of Public Health (SPH), Ministry of Health, and the Centers for Disease Control and Prevention. It is funded by the US Government's President's Emergency Plan for AIDS Relief, or PEPFAR. Crane Survey maintains an office in Kampala, where it predominantly uses respondent-driven sampling to survey key populations and other purported high risk groups. The Crane Survey conducted its 1st survey in 2008 and should be seen as a standing, permanent survey activity, thus contributing greatly to MakSPH's and Uganda's capacity to conduct complex HIV-related surveys. Crane Survey employs nurse counsellors, data managers, coupon managers, as well as managerial and administrative staff.

1.3 GOALS

The goals of the Crane Survey are to describe specific high-risk groups, including their HIV specific behaviours, their prevention care and treatment needs, as well as their burden of HIV disease. Additional data related activities included population size estimation, mapping, and estimating the social visibility of some of these high risk groups.

1.4 OBJECTIVES

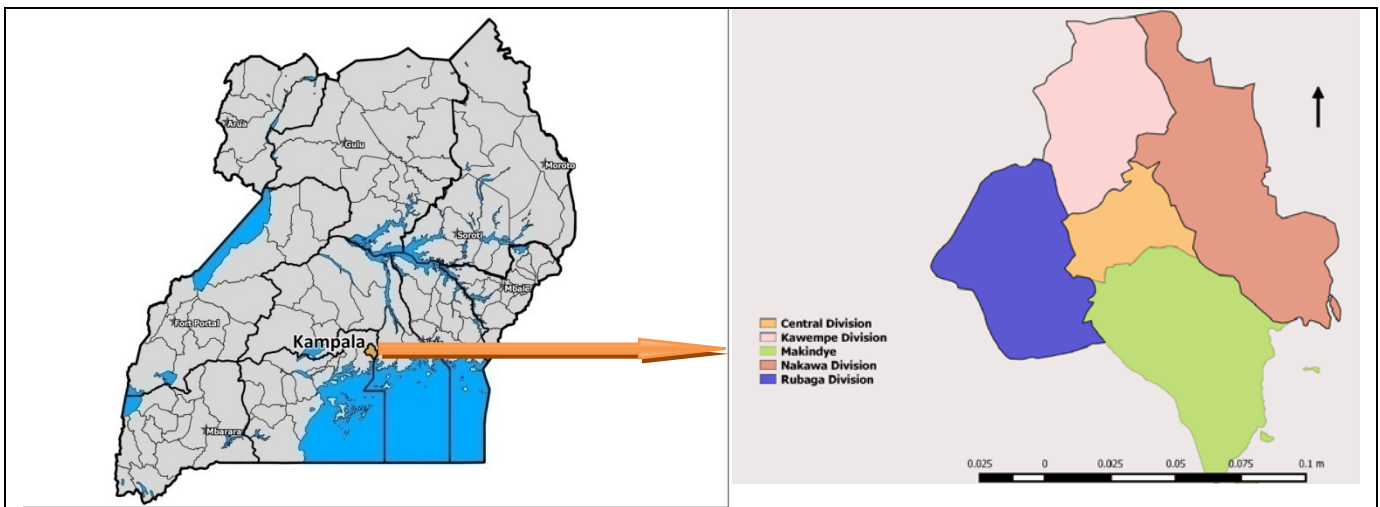
The Crane Survey aims to facilitate, inform, and evaluate the impact of preventive interventions for key populations in Uganda. Specifically, the primary objectives are to

- a) Examine the trends of prevalence and risk factors for HIV and other selected STIs;
- b) To inform HIV control activities for selected key populations;
- c) To build local capacity to conduct HIV surveillance among high-risk groups

Secondary objectives of this study include:

- d) To estimate population sizes of certain key populations,
- e) To collect mapping information related to high-risk behaviours/groups,
- f) To introduce and evaluate the use of information technology (IT) for surveillance.

Figure 1: Map of Uganda showing the study area



METHODS

2.1 SURVEY DESIGN

We conducted cross-sectional surveys which utilized the respondent-driven sampling (RDS) method. Previous formative research suggested that sampling at venues may put both venue staff and venue guests at risk, and that venue owners may not cooperate with survey staff. RDS is a variant of chain referral sampling method designed to reduce the biases usually associated with chain referral methods in order to yield a probability-based sample. It uses a distinct statistical process involving social network sizes and recruitment patterns to produce representative estimates and confidence intervals. RDS is well suited to sample hard-to-reach but networked populations such as MSM, FSWs, and DUs and was chosen as the sampling method because it is was shown to be effective in enrolling MSM, FSW, and several other target populations in the Crane 1 (2008/9) surveys in Kampala, and has successfully been used elsewhere for a wide range of key and other survey populations.

2.2 SETTING

The surveys were administered at the Crane Survey office in Wandegaya, Kampala, Uganda's capital and largest city with approximately 2 million residents.

2.3 SURVEY PARTICIPANT ELIGIBILITY

General inclusion criteria were

- Age greater than or equal to 18years (FSW: ≥ 15 years)
- Resident in greater Kampala
- Able to understand one of the interview languages offered
- Having received a coupon from a peer they personally know (except for seeds)

Group-specific criteria included:

- a) MSM (Men who have sex with men): had anal sex with a male in the last 6 months;
- b) FSW (Female sex worker): sold sex to men in last 6 months;
- c) DUS (Drug user): consumed illicit drugs 3 or more times in the last 6 months, such as: glue (sniffing), petrol (sniffing), marijuana, heroin, cocaine, crack, buprenorphine, pentazocine and tranquilizers, for drug users;
- d) NET (Sexual network survey): seeds' eligibility included adults who reported 2 or more ongoing sexual relationships, referred peers' eligibility included having a current or recent sex relationship with the recruiter;
- e) REF (Refugees): being a foreign national (DR Congo) who is recognised as a refugee in Uganda by the Government of Uganda, and had self-settled in Kampala for more than 1 year;
- f) TG (Transgender women): born male, self-identifies as female

Exclusion criteria included language barriers, having enrolled in the survey previously (duplicate respondent), coupon receipt from a stranger, or unable to understand the informed consent language.

2.4 SAMPLING

2.4.1 Sampling design.

For the surveys among MSM, FSW, DUS, and REF, we employed respondent-driven sampling (RDS). For the NET group, we employed network directed sampling, akin to RDS however, the number of coupons varied depending on the number of reported sexual relationships.

2.4.2 Seeds.

Seeds are individuals who mark the beginning of each referral chain. A seed is a respondent that is recruited not by peers but by the investigators. Seeds met the respective eligibility criteria and were given coupons and instructions for peer recruitment. Seeds were selected to be diverse with regard to education, socioeconomic status, age, and place of residence (Kampala Division).

2.4.3 Sampling.

Table 2.1 provides sampling characteristics for each group sampled. Sampling began with 36 seeds for MSM, 4 seeds for FSW, 32 seeds for DUS, and 2 seeds for REF. We issued 3,318 coupons for MSM, 4,018 coupons for FSW, 3900 coupons for DU, and 1871 coupons for the REF group. Of the coupons issued, 989 (29.81%) were redeemed for MSM, 1,915 (47.66%) redeemed for FSW, 1,974 (50.62%) redeemed for DUS, and 1,459 (77.98%) coupons redeemed for REF. Seeds were issued 3 coupons. Recruits received 3 coupons at the beginning of survey and as time progressed, the number of coupons given to recruits per survey group varied, depending on the proportion of coupons redeemed, to facilitate continued waves and reaching desired sampling size.

Table 2.1. Crane Survey sampling characteristics, Kampala, Uganda, 2011-2013

| | MSM | FSW | DUS | REF | NET | TG |
|--|------------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|
| No. of month for Sampling (Sampling period) | 16 (5/2011-11/2013) | 10 (5/2011-7/2013) | 9 (5/2011-7/2013) | 4 (8/2011-7/2013) | 23 (5/2011-4/2013) | 4 (7/2011-10/2013) |
| No. of Original seeds | 2 | 4 | 1 | 1 | N/A (not RDS) | 2 |
| Total No. of seeds at end | 36 | 4 | 32 | 2 | 189 | 2 |
| No. of coupons issued | 3350 | 4018 | 3922 | 2051 | 5258 | 145 |
| No. of coupons redeemed n (%) | 1035(31) | 1916(48) | 1981(51) | 1560(76) | 1985 (38) | 74(51) |
| No. Recruits screened | 1035 | 1916 | 1981 | 1560 | 1985 | 74 |
| No. of ineligible recruits | 423 | 415 | 802 | 223 | 665 | 26 |
| No. of premature leave | 2 | 4 | 0 | 0 | 3 | 0 |

| | | | | | | |
|---------------------------------|-----|------|------|------|------|----|
| from office | | | | | | |
| No. of Eligible recruits | 612 | 1501 | 1179 | 1337 | 1320 | 48 |

2.5 SURVEY OFFICE PROCEDURES

The Survey involved two visits and during the **first visit**, coupons were validated by the survey staff. Information was provided to participants at the waiting room on MP3 players and hard paper copies translated into the different survey languages. This included informed consent, pre-test counselling, interview measures, tests to be performed and peer recruitment information. Thereafter, in the coupon manager's office, recruits underwent eligibility screening and verbal informed consent was obtained. This was followed by an audio-computer-assisted self-interview (ACASI) in a separate room. Specimens were then collected by nurse counsellors in a designated room.

Second visit: Recruits were asked to return to the survey office in three weeks to: provide information about the number and characteristics of peers they approached, collect compensation for peer recruitment, learn their test results and receive treatment for STIs as appropriate, and be referred for further care and treatment (HIV-infected recruits).

Peer referral occurred between these two visits, as well as off-site laboratory HIV, STI, and drug testing. Staff followed CDC guidelines for HIV counselling, testing and referral services in non-traditional settings and relevant Ugandan Ministry of Health (MOH) as appropriate.

2.6 DATA MEASURES

Data

The main survey interview format was audio computer assisted self-interview (ACASI). Some participants used computer-assisted personal interviews (CAPI), administered by survey staff, if needed. QDS software was used to administer standardized instruments. The data instrument collected data on demographics, HIV-relevant behaviours, symptoms of STDs, as well as on HIV-related knowledge, attitude, practices, stigma, perceptions, and questions related to mental health or other health-related domains. Refugee respondents were also asked a set of questions related to trauma experience and post-traumatic stress disorder. The survey consisted of approximately 200 questions with a total duration of 45-90 minutes, depending on the answering speed of the recruits and the number of questions skipped.

Qualitative interview data was collected for DUS, REF, and TG, in addition to the main, quantitative interview to better understand and describe surrounding HIV and HIV risk, including practices, perceptions, stigma, and violence. Qualitative data collection occurred either at the initial, return or at interim visit, based on convenience for respondents and the interviewing staff. Respondents were purposively selected for qualitative interviews using their answers in the main quantitative interview. Recruits were 'flagged' immediately after the main interview and offered participation for qualitative study. Such "flags" included HIV status, sexual violence, or injecting drug use. Qualitative interview topics included experiences and perceptions about survey participation, ACASI use, key population related characteristics, stigma and violence, health seeking behaviour, as well as risk practices and perceptions. For TG, the qualitative interview findings were the main outcomes of interest.

Biomarkers

Table 2.2.summarizes the biomarkers collected during the surveys. In the appendix, an overview is shown of the biomarker related survey characteristics. All survey groups were screened for Human Immunodeficiency Virus (HIV) and Treponema pallidum (TP). In some survey groups we also measured CD4 and viral load (VL) for HIV-positive respondents. Drug users' urine samples were tested for drug classes of cannabinoids, cocaine, amphetamines, opiates, phencyclidine (PCP), methadone, and MDMA (Ecstasy) with commercially available drug testing panels.

Table 2.2 number of participants who provided blood and urine specimens

| Group | MSM | FSW | DUS | TG | REF | NET |
|---------------------------|-----|-------|-------|----|-------|-------|
| No. provided venous blood | 596 | 1,487 | 1,172 | 41 | 1,298 | 1,305 |
| No. provided Urine | | | 1,172 | | | |

2.7 LABORATORY PROCEDURES

All participants had venous blood drawn. Blood was stored at 2-8 C on site and transported daily to the CDC laboratory in Entebbe. Specimens were tested on site for HIV and CD4+ T cell counts. Specimen (serum/plasma, urine) were also prepared and transported to UVRI for storage at -20°C or lower with consent of participants to allow future testing. Specimen storage conditions in Entebbe met standard conditions, including daily monitoring of temperature and ensure lasting specimen quality.

Syphilis

Screening: We used anti-syphilis IgG ELISA (Biotec Laboratories, Suffolk, UK; detects life-long exposure) to detect life time exposure to TP infection. For confirmation we used the Rapid Plasma Reagin Syfacard-R Test (Murex Biotech, Dartford, UK;) to detect acute syphilis infection.

HIV testing

HIV testing was conducted either by rapid testing or automated EIA (Table 2.3). For **serial rapid testing**, we used the Alere Determine HIV- 1/2 rapid test. Reactive specimens were further tested (confirmed) with HIV 1/2 Stat-Pak assay. Specimens with discordant Determine – Statpak reactivity were further tested with the Uni-Gold Recombigen HIV 1/2 test (tie breaker).

Table 2.3. HIV result classification (rapid testing)

| Determine | Statpak | Unigold | Classification |
|-------------|-------------|-------------|----------------|
| Nonreactive | N/A | N/A | HIV-negative |
| Reactive | Nonreactive | Nonreactive | HIV-negative |
| Reactive | Nonreactive | Reactive | HIV-Positive |
| Reactive | Reactive | N/A | HIV-Positive |

For **automated EIA testing** we used a parallel algorithm using Vironostika® Uniform II plus O2, 3rd generation (bioMérieux, Marcy l'Etoile, France) and Murex HIV Ab, 3rd generation (Abbott Laboratories, Abbott Park, Illinois, U.S.A.). For discordant results we used as a tie breaker STAT-PAK (Inverness medical, Princeton, New Jersey, U.S.A.)

CD4+ T cell counts

Using EDTA blood stored at room temperature, cells were stained within 48 hours and run on certified devices such as the FACSCalibur Flow Cytometer at the CDC laboratory in Entebbe. For some surveys we used on-site Pima CD4 testmachines once POS CD4 testing became available.

HIV viral load

EDTA blood specimens stored at 2-8 degrees Celsius were transported the same day to the laboratory, and run on standard systems such as Cobas Ampliprep or Cobas Taqman to obtain quantitative VL values.

Drug use markers

DUS recruits' urine samples were screened for a range of biomarkers (Table 2.4) related to drug use, using the commercially available *iCup*. *iCup* is a plastic device in the form of a urine collection cup/device with an inbuilt drug testing panel which can be read 5 minutes after at least 70ml of urine were added into the cup. Results (positive/negative) were read visually by Crane's nurse counsellors. Digital photocopies were used to permanently record an image of the reactive/non-reactive bands on the *iCup* for all drug metabolites.

Table 2.4. Urine-based drug marker assessed in the DUS survey

| # | Detectable drug (metabolite) | Time (duration) the drug metabolite is detectable after drug intake |
|-----|------------------------------|---|
| 1. | AMP – AMPHETAMINES | 2 - 4 hrs |
| 2. | COC - COCAINE | 24 to 48 hrs |
| 3. | THC – MARIJUANA | 3 to 10 days |
| 4. | mAMP – METHAMPHETAMINES | 3 to 5 days (Depending on urine PH level) |
| 5. | OPI – OPIATE | Several days |
| 6. | BZO – BENZODIAZEPINES | 3 to 7 days |
| 7. | TCT – TRICYCLIC | 10 days |
| 8. | BAR – BARBITURATES (SHORT) | 4 to 5 days |
| 9. | BAR – BARBITURATES (LONG) | 7 days |
| 10. | PPX – PROPOXYPHENE | 1 to 2 hours |
| 11. | MTD – METHADONE | 12 to 48 days |
| 12. | BUP – BUPRENORPHINE | Approximately 3 days |

2.8 DATA MANAGEMENT, ANALYSIS, size estimation and selection of key population

2.8a Data management

Recruit and Coupon ID numbers were tracked to ensure correct linkage between recruiter and recruit. Quantitative data were gathered in the form of ACASI data entered by the recruits or CAPI entered in real time by staff. For data quality assurance, we employed data entry checks in place during the interview as well as detection for and removal of illogical data values following completed interviews. We used SAS and/or STATA software to clean data by running inconsistency checks and to create secondary data variables. All other survey-related data, such as laboratory data, were double-entered by survey staff using EpiInfo. For qualitative data collection, we used digital recorders and semi-

structured interview guides during individual in-depth interviews and later transcribed them using Microsoft Word.

2.8b Data analysis

Quantitative data was analysed using RDSAT version 7.1 (<http://www.respondentdrivensampling.org/>) to adjust the data for the non-random sampling design. Sampling weights generated in RDSAT were exported to SAS for further data analysis. During sampling, equilibrium for key variables was assessed. Final analysis included estimates of the network size, sample characteristics, prevalence of HIV and STIs, reported risk behaviours, and factors associated with HIV infection or STIs. Uni-variant analysis was applied as appropriate and feasible for RDS samples.

2.8c Estimation of population size of select key populations

Capture/Recapture

To estimate MSM and FSW population sizes in Kampala, we used the capture/recapture method. Capture/recapture was first used in 1662 to estimate the population of London and was widely used in the early 20th century for wildlife population estimates. There are two steps to using this method. In step 1, a (ideally random) sample is taken and marked with a unique multiplier object (UMO). The UMO used was an object considered to be of some value to the respondent that they would like to keep it, but not too costly that they would be tempted to sell it. For step 2, a second sample (independent from the 1st) is drawn at a short time later. From these steps, three values are estimated: the first sample (size), second sample (size), and the overlap between the first and second samples (matches).

Capture (1st sample): We distributed unique objects (key chains that also function as bottle opener and nail clipper) among the eligible MSM and FSW (distinct from each other) shortly before the start of the survey. The objects were distributed with the help of community-based organizations (CBOs).

Recapture (2nd sample): The second capture was done when MSM and FSW community members participated in the Crane RDS survey. Coupon managers interviewed recruits as to whether the recruit could present the UMO. If the recruit stated they had received the UMO but could not present it, the coupon manager offered six different key chain design with one valid UMO that was distributed and five invalid UMOs that were not distributed. The recruit was asked to identify the UMO they had received and the coupon manager recorded whether the recruit had presented or identified the correct UMO.

The formula to estimate population size is:

$$N = C_1 \times C_2 / M$$

where N= estimate of total population size

C_1 = Total number of people marked/captured on first visit (Sample 1)

C_2 = Total number of people captured on second visit (Sample 2)

M = Matches, the number of people encountered both in 1st and 2nd sample

We used the bootstrap method to estimate standard errors and confidence limits.

NESTED ACTIVITIES

Game of Contacts

Estimating the sizes of hard-to-count populations is a challenging task. One encouraging approach is the network scale-up method (NSUM), which uses information about respondents' personal networks to make population estimates. NSUM is a general population-based survey method which assumes that given a large sample size, the distribution of a subpopulation in the general population is similar to its distribution in the average social network of representative survey participants (Killworth et al.) However, if the target population has low social visibility (i.e., few people know that a man is actually an MSM), as is likely the case in settings where homosexuality or sex work is stigmatized and/or criminalized, scale-up numbers will tend to be underestimated (transmission error).

The Game of Contacts aims to estimate (quantify) the social visibility (the complement to the transmission error) of high risk group members in order to improve the accuracy of NSUM based population size estimates. During the surveys among FSW, MSM, and DUS, recruits were also consented to take part in this extra interview called Game of Contacts (GoC), at the end of the 1st visit. Crane data managers developed an electronic application of this published interview technique that resembles a board game (Salganik et al.) There were a total of 3,148 GoC participants: 576 MSM, 1,447 FSW, and 1,125 DUs.

The GoC interview was added to Crane survey procedures and was electronically self-administered on a tablet computer. The Game of Contacts begins by identifying the high risk group in question (i.e. respondent is asked to confirm group affiliation). The GoC involves virtual playing cards which contain 24 first names written on them. Cards were shuffled to randomize question order, and then the respondent was requested to pick any one card. The respondent was asked how many people s/he knows by this name. The same names are used for each respondent. For each person known by this name the recruit was asked to place a token in one of four quadrants. We used a standard 'to know' definition of "you know them by sight or by name, they know you by sight or by name, and you have gotten in touch in person, by phone, or by e-mail at least once over the past two years." The respondent was also asked whether that contact (acquaintance) is a member of preselected key pop group (i.e. a drug user, etc.) themselves and whether s/he knows whether the contact is a drug user. One after another, respondents moved tokens into one of the four quadrants by selecting the appropriate square. Next, the respondent was asked if s/he shared a meal or drink with this contact in the last 12 months, which indicates a closer social relationship than the first 'to know' definition.

For every person the recruit knows with this name, the recruit is then directed to place a token in one of four quadrants (example: drug user):

- (1) Contact knows that the interviewee takes drugs and contact takes drugs;
- (2) Contact does not know that the interviewee takes drugs and contact takes drugs;
- (3) Contact knows that interviewee takes drugs and contact does not take drugs;
- (4) Contact does not know that interviewee takes drugs and contact does not take drugs.

Figure 1. Game of Contacts

| | | | |
|--|---|---|-------|
| | <i>Contact knows that interviewee takes drugs</i> | <i>Contact does not know that interviewee takes drugs</i> | |
| <i>Contact takes drugs</i> | A | B | A+B |
| <i>Contact does not take drugs</i> | C | D | C+D |
| | w_i | B+D | x_i |

Respondents repeated this process for each contact respondent they knew by that particular name. After probing all contacts with that particular name, the game board was cleared and respondents selected a new card marked with a new name. The set of names used were representative of general Ugandan adult population (using first names selected from the AIS 2011 sample). The game continued until all 24 cards were drawn. The transmission rate was then calculated using the following formula:

$$\hat{\tau} = \frac{\sum_i (w_i / \pi_i)}{\sum_i (x_i / \pi_i)}$$

where w_i is the number of referents that are aware that respondent i is in the target population, x_i is the total number of referent for interviewee i , and π_i is the probability of selection for interviewee i (Salganik et al., 2011). The Game of Contact electronic application is available to third parties upon request.

Mapping Key Populations

Crane Survey developed a novel approach to map key populations. All MSM, FSW, and DUS respondents also underwent a mapping interview. Two tools were used for mapping: An offline version of Google Earth depicting greater Kampala and a semi-structured interview guide. The face to face interviews took place at the end of the 1st visit, with only the respondent and the interviewer present in the room. First, the interviewer oriented the respondent on the Google Earth map of Kampala. Then respondents were probed where they socially meet their peers (MSM, DUS), or where they wait for clients. This (exact) location was recorded through a “pin” on the Google Earth map. If multiple locations were offered then multiple pins were recorded. For each pin location respondents were also asked to characterize the location through one short qualitative statement, focusing on the likely number of peers there. Gathered geographic information was limited to publicly accessible and/or commercial places and venues, such as streets, intersections, parks, markets, areas with bars, restaurants, night clubs, lodges, hotels, and similar locations. All locations depicted public spaces. Home residence locations were not recorded. The pins indicate drug use (sale or distribution of illicit drugs, consumption of illicit drugs), commercial sex (solicitation and consumption of commercial sex), or MSM venues (public places where MSM congregate).

Kampala parish level size estimation

The triangulation of mapping and size estimation data also allowed for the crude estimation of FSW and MSM population sizes on a Kampala parish level, as follows: The capture/recapture size estimation activity generated key pop sizes for FSW and MSM for all of Kampala, complete with 95% confidence intervals obtained through bootstrapping. Through mapping, we obtained the relative sizes of key population clusters (number of pins per parish). We related the total Kampala population sizes for FSW and MSM to the relative sizes (number of pins) per cluster/parish and obtained so crude estimates for the number of FSW (and MSM) for each parish. See also the Ethics Considerations for more information.

2.9 ETHICAL CONSIDERATIONS

The survey protocol and consent procedures were approved by the School of Public Health's Scientific and Ethics Committee (SEC), the Ugandan National Council of Science and Technology, and the CDC. The survey was conducted anonymously; informed consent was obtained verbally. All participants were compensated for their transport costs, time, and effort to recruit peers.

To ensure confidentiality, recruits' fingerprints were imaged (but not stored) to generate unique alphanumeric codes using scanners and Griaule software (Griaule Biometrics, San Jose, CA, USA). The alphanumeric codes enabled linking recruits' visits to their initial visits and laboratory results, to detect duplicate results, and to detect recruits presenting coupons already issued to other recruits.

With the exception of one survey (people engaged in multiple concurrent partnerships), no personal identifiers were collected. Participants were reimbursed for their transport and time, as well as for their recruitment efforts. Participants who tested syphilis positive were treated on site according to MoH or WHO guidelines. Participants who tested HIV positive were referred to HIV service providers for further HIV care and treatment.

Adverse events

In 2012 investigators reported to the IRB that a total of 15 respondents had been post-test counselled on a wrong HIV status. These mistakes originated from laboratory bench errors at UVRI and were reported to Makerere SPH's Research Ethics Committee. Because the surveys were conducted anonymously, alerting and re-counselling these 15 respondents proved difficult. Where possible (ongoing recruitment chains) Crane staff requested respondents to contact their own recruiters and ask them to come to the survey office, where, if necessary, these were then requested to contact their respective recruiter until the concerned individuals were reached. In addition, Crane purchased airtime on Kampala radio stations and urged all respondents in the concerned survey groups to contact the Crane survey office. Recruit ID and fingerprint scans made it possible to re-link and counsel respondents on their correct HIV status as warranted.

Mapping data

Crane investigators and staff repeatedly met with MSM and FSW CBO and NGO to discuss the risk and utility of the mapping data represent. As a result of these discussions, Crane suppressed all mapping and parish-level size estimation data related to MSM as the risk appeared to outweigh any potential utility. Further, Crane made available a limited number of Atlases showing Kampala parishes and their

related FSW parish level size estimates only in order to facilitate programmatic outreach work and its evaluation (e.g., number of sex workers reached vs likely present). A small number of hard copy atlases were made available through signed confidentiality agreements and designated custodians in agreement with the main FSW CBO who acted as gatekeepers to this information. More detailed mapping data were not made available but may be made accessible on a case by case basis again with FSW CBO as gate keepers.

RESULTS

3.1 Men who have sex with men (MSM)

Table 3.1.2 show that a total of 596 participated in this survey; and of these, 98% were Ugandan nationals. Religious affiliation; Catholics accounted for 30.7%, followed by Muslim (24.3 percent), and Protestant (22.8%). It was noted that 65% of participants had eight or more years of education while nearly 21 percent had no education. For marital status; 83% of the participants had never been married, while 7.8% and 6.7% were married or separated, respectively. 26% of MSM were engaged in skilled labor employment and 23.9% were engaged in manual labor, 24.3% were studying, while 21.9% were unemployed. Concerning sexual attraction, 71.9% preferred only or mostly men, about 24.6% preferred mostly women were attracted to men and women equally, while 3.2 percent preferred only women. The median age at first sex debut was 17 (15, 22) years while that of the sex partner was 20 (16, 24) years.

Table 3.1.2: Sexual Behaviour Characteristics among MSM in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|--|-------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Sexual attraction (N=596) | | | | |
| Only Men | 262 | 40.9 | 35.6 | 46.3 |
| Mostly Men, Sometimes Women | 172 | 31.0 | 26.2 | 35.8 |
| Equally Men and Women | 73 | 11.0 | 7.9 | 14.1 |
| Mostly Women, Sometimes Men | 74 | 13.6 | 9.7 | 17.4 |
| Only Women | 14 | 3.2 | 0.9 | 5.5 |
| None | 1 | 0.2 | -0.2 | 0.7 |
| Nationality (N=596) | | | | |
| Uganda | 586 | 98.3 | 96.9 | 99.7 |
| Other countries | 10 | 1.7 | 0.3 | 3.1 |
| Age (years) (N=596) | | | | |
| 18-24 | 340 | 58.8 | 53.7 | 63.9 |
| 25-34 | 217 | 35.1 | 30.1 | 40.1 |
| 35+ | 39 | 6.1 | 4.1 | 8.1 |
| Median Age (N=596)* | 24 (21, 27) | | | |
| Education (years in school) (N=596) | | | | |
| No school | 107 | 21.0 | 16.6 | 25.3 |
| Primary (1-7 years) | 82 | 13.8 | 10.3 | 17.3 |
| Secondary (8-12 years) | 102 | 17.4 | 13.6 | 21.2 |
| Higher education (13+ years) | 305 | 47.9 | 42.6 | 53.2 |

Table 3.1.2: Sexual Behaviour Characteristics among MSM in Kampala, Uganda 2011-2013 cont...

| Characteristic | | Weighted | | |
|---|--------|----------|-----------------|-----------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Marital status (N=596) | | | | |
| Never married | 501 | 83.5 | 79.6 | 87.4 |
| Married | 39 | 7.8 | 4.7 | 10.9 |
| Divorced | 8 | 0.9 | 0.2 | 1.6 |
| Separated | 40 | 6.7 | 4.3 | 9.0 |
| Widowed | 8 | 1.1 | 0.4 | 1.9 |
| Occupation (N=596) | | | | |
| Manual Labour | 134 | 23.9 | 19.2 | 28.6 |
| Skilled Labour | 160 | 26.1 | 21.6 | 30.5 |
| Study | 137 | 24.3 | 19.4 | 29.3 |
| Unemployed | 133 | 21.9 | 17.5 | 26.3 |
| Other | 32 | 3.8 | 2.2 | 5.4 |
| Religion | | | | |
| Protestant | 136 | 22.8 | | |
| Catholic | 183 | 30.7 | | |
| Muslim | 145 | 24.3 | | |
| Born again | 98 | 16.4 | | |
| None | 21 | 3.5 | | |
| Sexual intercourse with women (N=596) | | | | |
| Ever had sexual intercourse with women | 424 | 71.1 | 70.3 | 79.8 |
| Never had sexual intercourse with women | 163 | 27.3 | 20.3 | 29.7 |
| Respondent had sex with... (N=596) | | | | |
| Men only | 163 | 27.3 | 20.7 | 29.3 |
| Both Men and Women | 424 | 71.1 | 70.7 | 79.3 |
| Men ever had vaginal sex? Or both? (N=596) | | | | |
| Yes | 339 | 60.5 | 55.6 | 65.4 |
| No | 248 | 39.5 | 34.6 | 44.4 |
| First had sex as a minor with an adult (N=596) | | | | |
| Yes | 134 | 22.9 | 18.1 | 27.6 |
| No | 462 | 77.2 | 72.4 | 81.9 |
| Did he pay or give you something in exchange for sex (N=596) | | | | |
| Yes | 283 | 46.1 | 40.8 | 51.5 |
| No | 313 | 53.9 | 48.5 | 59.2 |

It was noted that 27% of MSM were only attracted to men only and had never had sex with women while 71.1% were attracted to both men and women and had ever had sex with both. About 1 out of 4 MSMs first had sex with an adult while they were minors.

The kind of MSM male sexual partners included; friends with about two thirds (65.2%), 5% for prison inmates and authority figures and 4.9% were relatives. The study (Table 3.1.2) also revealed that three quarters (75.2%) of MSMs have ever used a condom during sex. It was also noted that 90 percent have ever used lubricants which mainly included oil-based (69.7%) while 22.3% used water-based. About 45% MSM largely meet their male sexual partners in Club, bar, hotel, café, or restaurant. The study showed that two thirds of the MSMs have not revealed having sex with men to anyone and about family acceptance, 10.9% are rejected, 4.1% are accepted while 85% of the MSM family members don't know about their engagement of having sex with fellow men.

Table 3.1.2: Sexual Behaviour Characteristics among MSM in Kampala, Uganda 2011-2013 cont.

| Characteristic | Number | Weighted | | |
|--|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Describe the first man you had sex with (N=596) | | | | |
| Friend | 387 | 65.2 | 60.4 | 70.0 |
| Relative | 28 | 4.9 | 2.4 | 7.3 |
| Acquaintance | 65 | 10.4 | 7.4 | 13.4 |
| Stranger | 59 | 9.4 | 6.4 | 12.4 |
| Prison inmate | 23 | 5.0 | 2.5 | 7.4 |
| 'Authority figure' (religious leader, teacher, police, army) | 34 | 5.2 | 3.0 | 7.4 |
| What kind of authority figure (N=34) | | | | |
| Religious leader | 15 | 34.0 | 15.1 | 53.1 |
| Teacher | 7 | 28.9 | 5.4 | 52.5 |
| Military man | 3 | 7.7 | -1.2 | 16.5 |
| Police officer | 4 | 20.8 | -2.4 | 44.4 |
| Other | 5 | 8.6 | -0.5 | 17.1 |
| Ever used condom (N=596) | | | | |
| Yes | 456 | 75.2 | 70.4 | 80.0 |
| No | 140 | 24.8 | 20.0 | 29.6 |
| Ever used lubricants (N=596) | | | | |
| Yes | 543 | 88.8 | 85.2 | 92.3 |
| No | 53 | 11.2 | 7.7 | 14.8 |
| Main reason you have not used lubricants* (N=53) | | | | |
| Haven't thought about it | 16 | 27.6 | 12.9 | 42.4 |
| Don't like it | 11 | 24.0 | 8.0 | 40.1 |
| Too expensive | 5 | 11.3 | -0.8 | 23.4 |
| Can't get it | 21 | 37.2 | 19.8 | 54.0 |
| Type of lubricant used (N=543) | | | | |
| Water-based | 127 | 22.3 | 17.8 | 26.8 |
| Oil-based | 260 | 69.7 | 64.6 | 74.9 |
| I don't know | 46 | 8.0 | 5.0 | 10.9 |

Table 3.1.2: Sexual Behaviour Characteristics among MSM in Kampala, Uganda 2011-2013 cont.

| Characteristic | Weighted | | | |
|---|----------|------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Which lubricant do you use most often (N=543) | | | | |
| Saliva | 22 | 4.5 | 2.3 | 6.8 |
| Petroleum or Vaseline | 157 | 33.0 | 27.7 | 38.3 |
| Hand lotion, vaginal gel, or baby oil | 117 | 21.0 | 16.7 | 25.4 |
| KY jelly | 120 | 22.8 | 18.3 | 27.2 |
| Butter, Blue Band, ghee, or cooking oil | 42 | 6.0 | 4.0 | 8.0 |
| Water | 5 | 0.8 | 0.1 | 1.6 |
| Soap | 21 | 4.6 | 2.0 | 7.1 |
| Other | 49 | 7.3 | 4.8 | 9.8 |
| Use lubricant for anal sex (N=497) | | | | |
| Yes | 489 | 98.6 | 97.7 | 99.6 |
| No | 8 | 1.4 | 0.4 | 2.3 |
| How many times used lubricants last 5 rounds of anal sex (N=497) | | | | |
| 0% | 2 | 0.5 | -0.3 | 1.3 |
| 20% | 50 | 10.7 | 6.8 | 14.5 |
| 40% | 97 | 21.8 | 16.9 | 26.6 |
| 60% | 107 | 23.6 | 18.4 | 28.8 |
| 80% | 52 | 9.2 | 6.5 | 11.7 |
| 100% | 181 | 34.3 | 29.2 | 39.5 |
| Where do you meet men you have sex with (N=587) | | | | |
| School/ University campus | 78 | 12.3 | 8.8 | 15.9 |
| Club, bar, hotel, café, or restaurant | 266 | 44.8 | 39.7 | 50.0 |
| Private place | 144 | 27.2 | 22.6 | 31.9 |
| Church, mosque, temple | 5 | 0.9 | 0.0 | 1.8 |
| Military barracks | 3 | 0.5 | 0.0 | 1.0 |
| Spa/health/fitness centre or spa | 7 | 0.8 | 0.1 | 1.4 |
| At my work place | 20 | 3.9 | 1.7 | 6.0 |
| Internet (online) | 59 | 8.8 | 5.9 | 11.6 |
| Street, field, park | 5 | 0.9 | 0.1 | 1.7 |

Table 3.1.2: Sexual Behaviour Characteristics among MSM in Kampala, Uganda 2011-2013 cont.

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Where do you have sex with men (N=587) | | | | |
| My or someone else's home | 259 | 41.9 | 36.5 | 47.3 |
| Other private venue | 193 | 35.7 | 30.4 | 41.0 |
| Commercial venue (hotel, bar, club, etc.) | 126 | 21.3 | 17.0 | 25.6 |
| Open space (park, field, car, etc.) | 5 | 0.4 | 0.0 | 0.9 |
| Work place | 2 | 0.1 | -0.1 | 0.3 |
| Church, mosque, temple | 2 | 0.5 | -0.3 | 1.2 |
| Have you told anyone about having sex with men (N=587) | | | | |
| Yes | 235 | 34.1 | 29.2 | 38.9 |
| No | 352 | 65.9 | 61.1 | 70.8 |
| Who have you told (N=235) | | | | |
| Male friends who have sex with men | 177 | 76.9 | 70.2 | 83.6 |
| Other friends | 78 | 29.0 | 22.1 | 35.7 |
| Spouse | 19 | 9.2 | 3.8 | 14.7 |
| Other family | 27 | 8.8 | 4.9 | 12.7 |
| Health care worker | 47 | 16.4 | 11.0 | 21.7 |
| Other | 7 | 2.5 | 0.1 | 4.9 |
| Family acceptance (N=587) | | | | |
| Accepts me | 33 | 4.1 | 2.5 | 5.8 |
| Doesn't know | 480 | 85.0 | 81.5 | 88.5 |
| Rejects me | 74 | 10.9 | 7.7 | 14.1 |

**Weighted proportions could not be calculated*

Table 3.1.3: Last sex characteristics among MSM in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|-------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Did you use a lubricant the last time you had sex? (N=543) | | | | |
| Yes | 473 | 86.6 | 83.3 | 89.9 |
| No | 70 | 13.4 | 10.1 | 16.7 |
| Did you drink alcohol just before you had sex last time? (N=509) | | | | |
| Yes | 258 | 51.7 | 46.1 | 57.2 |
| No | 251 | 48.3 | 42.8 | 53.9 |
| Did you take drugs for pleasure just before you had sex last time? (N=265) | | | | |
| Yes | 135 | 53.6 | 45.8 | 61.4 |
| No | 130 | 46.4 | 38.6 | 54.2 |
| Was this last sex act agreed by both you and the partner, or did one coerce or force the other? (N=249)* | | | | |
| Agreed | 237 (95.2%) | | | |
| Coerced | 10 (4.0%) | | | |
| Forced | 2 (0.8%) | | | |
| Did this person force you to have sex? (N=341)* | | | | |
| Yes | 37 (10.9%) | | | |
| No | 304 (89.2%) | | | |

*Weighted proportions could not be calculated

HIV Testing among MSMs

Among MSM, two thirds have ever tested for HIV, while one third have never tested for HIV (Table 3.1.4). The main reasons given for having never tested for HIV was fear of lack of support if test result was positive (28.9%), did not feel at risk (26.2%) and fear for positive result (23.1%). Nearly half of MSM, who have ever tested for HIV, had tested two or more times before this survey. More than 65%, (67.5%) of ever-tested MSM last tested for HIV test during or before 2009, while 21.1% last tested between the years of 2010 and 2012. The result of the last HIV test result was negative for 41.6% of MSM, positive for 2.8% and 55.5% did not get their results. Of HIV-positive MSM, about half (48.9%) were taking ARVs.

Table 3.1.4: HIV testing characteristics among MSM in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Ever tested for HIV (N=596) | | | | |
| Yes | 420 | 67.1 | 62.2 | 72.0 |
| No | 176 | 32.9 | 28.0 | 37.8 |
| Most recent HIV testing | | | | |
| Within the last 12 months | 304 | 67.5 | 61.2 | 73.8 |
| 2 - 3 years ago | 73 | 21.1 | 15.7 | 26.4 |
| 4+ years ago | 41 | 11.5 | 7.2 | 15.7 |
| Main reason never tested for HIV (N=176) | | | | |
| Afraid of HIV-Positive Result | 37 | 23.1 | 15.1 | 31.0 |
| Don't feel at risk | 42 | 26.2 | 17.4 | 34.9 |
| Not enough confidentiality at testing place | 22 | 12.3 | 5.9 | 18.7 |
| Fear of not getting enough support from family, friends, or partner if result is positive | 51 | 28.9 | 19.9 | 37.9 |
| Don't know where to test | 18 | 7.5 | 3.6 | 11.4 |
| Too expensive | 6 | 2.0 | 0.2 | 3.7 |
| Number of life-time HIV tests (N=420) | | | | |
| 1 | 104 | 26.0 | 20.3 | 31.8 |
| 2-4 | 238 | 57.9 | 51.5 | 64.4 |
| 5+ | 78 | 16.0 | 11.2 | 20.9 |
| Place of last HIV test (N=420) | | | | |
| Clinic or Hospital | 228 | 50.7 | 44.4 | 57.0 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 107 | 27.2 | 21.6 | 32.9 |
| At home | 35 | 9.5 | 5.2 | 13.7 |
| Other | 50 | 12.6 | 8.3 | 16.8 |
| Preferred place of HIV testing (N=420) | | | | |
| Clinic or Hospital | 204 | 47.3 | 41.3 | 53.3 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 177 | 42.9 | 36.9 | 48.9 |
| At home | 12 | 4.4 | 1.4 | 7.4 |

| | | | | |
|---|-----|------|------|------|
| Mobile testing, eg. in a bus | 15 | 2.7 | 1.1 | 4.3 |
| Other | 12 | 2.7 | 0.6 | 4.8 |
| Preference to self-test for HIV (yes) (N=420) | 333 | 77.5 | 72.1 | 82.9 |
| Preferred counsellor sex (N=420) | | | | |
| Woman | 98 | 21.1 | 16.2 | 25.9 |
| Man | 196 | 48.5 | 42.4 | 54.5 |
| Doesn't matter | 126 | 30.5 | 24.8 | 36.3 |
| Ever counselled as same sex couple (yes) (N=420) | 204 | 48.4 | 42.3 | 54.5 |
| Disclosure of HIV test result to sex partner (yes) (N=294) | 212 | 67.9 | 60.4 | 75.4 |

Self-report Vs Measured HIV status

There is a discrepancy between self-reported and measured (tested in survey) HIV status (Table 3.1.5). 41.6% reported to be Negative for HIV however, only 26.4% were actually HIV Negative after laboratory testing. 2.8% reported positive to HIV but it turned out that about 6% were actually HIV positive. Of the 55.5% who didn't know their HIV status, two thirds (67.7%) turned out positive after HIV laboratory testing.

Table 3.1.5: Perceived status v. HIV test results for MSM in Kampala, Uganda 2011-2013

| | | HIV - Measured HIV status | | | |
|-----------------------------|------------|----------------------------------|----------|------------|----------|
| Perceived HIV Status | | Negative | | Positive | |
| | | Unweighted | Weighted | Unweighted | Weighted |
| | | Number | % | Number | % |
| | Negative | 211 | 41.6 | 14 | 26.4 |
| | Positive | 11 | 2.8 | 6 | 5.9 |
| | Don't know | 282 | 55.5 | 43 | 67.7 |

HIV testing and sexual behaviour among MSMs

Overall, 12.7 percent of Kampala MSM are HIV-infected (Table 3.1.6). HIV prevalence was higher among the older age group – revealing rise in HIV prevalence with age. The HIV prevalence was 36% among those who were older than 34 years. HIV was higher among MSM who were currently married, with lower educational status, gay orientation, not using condoms at last sex, and those who tested positive for syphilis.

Table 3.1.6: HIV status by select MSM characteristics, Kampala, Uganda 2011-2013

| Characteristic | Category | %HIV+ | | | |
|----------------------------------|-----------------------------|-------|----------|--------------|--------------|
| | | % | Weighted | | |
| | | | % | Lower 95% CI | Upper 95% CI |
| HIV status | HIV Positive (N=596) | 79 | 12.7 | 9.2 | 16.2 |
| Age | | | | | |
| (N=23) | 15-18 | 4.4 | 3.6 | -3.6 | 11.0 |
| (N=317) | 19-24 | 6.9 | 7.3 | 3.6 | 11.1 |
| (N=217) | 25-34 | 19.4 | 16.3 | 10.7 | 22.0 |
| (N=39) | 35+ | 35.9 | 46.9 | 28.1 | 64.9 |
| Overall (N=596) | | 13.3 | 12.1 | 9.1 | 16.2 |
| Marital status | | | | | |
| (N=501) | Never married | 11.0 | 10.6 | 7.2 | 14.0 |
| (N=39) | Currently married | 25.6 | 24.6 | 8.0 | 41.1 |
| (N=56) | Previously married | 11.0 | 22.3 | 9.9 | 34.5 |
| Religion | | | | | |
| (N=136) | Protestant | 11.0 | 10.4 | 4.3 | 16.6 |
| (N=183) | Catholic | 18.6 | 15.2 | 9.1 | 21.3 |
| (N=145) | Muslim | 11.0 | 11.1 | 5.4 | 16.8 |
| (N=98) | Born again | 11.2 | 14.7 | 5.1 | 24.2 |
| (N=21) | None | 9.5 | 6.9 | -3.5 | 17.1 |
| Employment | | | | | |
| (N=134) | Manual labour | 15.7 | 14.6 | 7.7 | 21.2 |
| (N=160) | Skilled labour | 13.8 | 14.9 | 7.4 | 22.3 |
| (N=137) | Study | 7.3 | 7.6 | 1.1 | 14.0 |
| (N=133) | Unemployed | 14.3 | 12.0 | 5.7 | 18.3 |
| Years of schooling | | | | | |
| (N=107) | None | 25.2 | 19.0 | 11.2 | 26.9 |
| (N=82) | Primary (1-7) | 17.1 | 22.4 | 10.9 | 34.4 |
| (N=102) | Secondary (8-12) | 4.9 | 4.3 | 0.0 | 5.5 |
| (N=305) | Tertiary (12+) | 10.8 | 10.2 | 5.7 | 14.5 |
| Circumcised | | | | | |
| (N=316) | Yes | 13.0 | 11.9 | 7.6 | 16.3 |
| (N=271) | No | 13.7 | 14.2 | 9.0 | 19.4 |
| Hazardous alcohol problem | | | | | |
| (N=313) | Yes | 12.8 | 10.9 | 7.1 | 14.9 |
| (N=217) | No | 15.7 | 17.4 | 10.8 | 23.8 |

| | | | | | |
|---|-----------------------|------|------|------|------|
| Identify as (N=317) | Gay/homosexual | 15.1 | 16.5 | 10.9 | 22.1 |
| (N=253) | Bisexual | 11.1 | 9.4 | 5.5 | 13.3 |
| (N=21) | Straight/heterosexual | 9.5 | 3.0 | -1.7 | 7.7 |
| Family acceptance (N=35) | Accepts me | 20.0 | 12.0 | 1.9 | 22.4 |
| (N=486) | Doesn't know | 12.6 | 12.4 | 8.9 | 15.9 |
| (N=75) | Rejects me | 14.7 | 15.3 | 5.3 | 25.6 |
| Depression score (N=123) | Depressed | 14.6 | | | |
| (N=222) | Not Depressed | 14.0 | | | |
| Age at first sex with a man (N=102) | <15 | 9.8 | 6.7 | 1.9 | 11.4 |
| (N=283) | 15-18 | 12.7 | 12.7 | 7.6 | 17.8 |
| (N=168) | 19-24 | 14.9 | 16.2 | 9.0 | 23.3 |
| (N=43) | 35+ | | | | |
| Ever injected drugs (N=92) | Yes | 13.0 | 12.1 | 4.5 | 19.7 |
| (N=173) | No | 10.4 | 10.8 | 4.7 | 17.0 |
| Ever sold sex (N=275) | Yes | 14.9 | 12.7 | 8.5 | 17.0 |
| (N=321) | No | 11.8 | 12.7 | 7.8 | 17.5 |
| Years selling sex (N=37) | <1 year | 29.7 | 21.1 | 7.6 | 35.3 |
| (N=47) | 1-2 years | 8.5 | 7.1 | -0.5 | 14.7 |
| (N=24) | 3-4 years | 12.5 | 15.6 | -2.6 | 34.9 |
| (N=27) | 5+ years | 22.2 | 26.3 | 5.9 | 46.2 |
| Lube used last sex (N=370) | Yes | 12.2 | 12.2 | 7.9 | 16.4 |
| (N=49) | No | 10.2 | 7.6 | 1.0 | 14.3 |
| Type of lube used in general (N=127) | Water | 20.5 | 15.6 | 8.8 | 22.2 |
| (N=360) | Oil | 11.4 | 12.0 | 7.8 | 16.2 |
| (N=46) | Don't know | 6.5 | 8.9 | -2.2 | 19.9 |
| Number male steady sex partners last six months (N=168) | 0 | 13.7 | 13.7 | 7.5 | 19.8 |
| (N=168) | 1 | 13.1 | 11.8 | 6.3 | 17.3 |
| (N=178) | 2—3 | 10.7 | 11.3 | 5.2 | 17.5 |
| (N=82) | 4+ | 18.3 | 15.6 | 5.1 | 26.1 |
| Number male casual partners last 6 months (N=233) | 0 | 12.5 | 11.0 | 6.3 | 15.7 |
| (N=90) | 1 | 7.8 | 7.7 | 1.5 | 13.7 |

| | | | | | |
|--|------------------|------|------|------|------|
| (N=146) | 2—3 | 14.4 | 14.6 | 7.7 | 21.5 |
| (N=127) | 4+ | 17.3 | 19.5 | 9.8 | 29.1 |
| Number male clients last 6 months | | | | | |
| (N=50) | 0 | 20.0 | 14.4 | 4.0 | 24.1 |
| (N=25) | 1 | 8.0 | 8.6 | -3.1 | 20.1 |
| (N=72) | 2—3 | 6.9 | 7.2 | -0.7 | 15.3 |
| (N=92) | 4+ | 18.5 | 15.3 | 6.9 | 24.0 |
| More than one male sex partner in last six months | | | | | |
| (N=457) | Yes (>1 partner) | 12.5 | 12.7 | 8.6 | 16.7 |
| (N=97) | No (1 partner) | 14.4 | 13.3 | 5.7 | 21.1 |
| Ever sex with a woman | | | | | |
| (N=424) | Yes | 12.5 | 12.4 | 8.4 | 16.4 |
| (N=163) | No | 15.3 | 14.5 | 8.2 | 20.7 |
| Ever sex with a woman in last 6 months | | | | | |
| (N=258) | Yes | 12.0 | 9.5 | 5.7 | 13.3 |
| (N=337) | No | 14.2 | 15.3 | 10.6 | 20.1 |
| Perceived highest risk by kind of anal sex | | | | | |
| (N=46) | Top | 21.7 | 15.9 | 5.8 | 26.7 |
| (N=91) | Bottom | 11.0 | 10.5 | 3.2 | 17.7 |
| (N=158) | Both same risk | 14.6 | 15.3 | 8.1 | 22.6 |
| (N=24) | Both no risk | 16.7 | 14.9 | -1.4 | 31.7 |
| More likely to get HIV through sex with | | | | | |
| (N=126) | Woman | 11.9 | 10.4 | 4.4 | 16.4 |
| (N=46) | Man | 10.9 | 9.4 | -0.6 | 19.7 |
| (N=154) | Same risk | 16.9 | 17.5 | 9.7 | 25.4 |
| Power to avoid HIV | | | | | |
| (N=168) | Very much | 10.7 | 12.8 | 5.8 | 20.0 |
| (N=71) | Somewhat | 9.9 | 8.4 | 1.6 | 15.1 |
| (N=61) | Very little | 18.0 | 13.7 | 4.8 | 22.1 |
| (N=30) | Not at all | 6.7 | 7.7 | -3.0 | 18.7 |
| Told health care worker they are MSM | | | | | |
| (N=47) | Yes | 8.5 | 8.2 | -1.1 | 17.0 |
| (N=190) | No | 15.8 | 17.8 | 11.1 | 24.5 |
| Experienced stigma during STI treatment | | | | | |
| (N=69) | Yes | 20.3 | 14.4 | 6.1 | 23.0 |
| (N=91) | No | 20.9 | 21.5 | 10.4 | 32.4 |
| Sometimes feel life is worth less than the life of other people | | | | | |

| | | | | | |
|--|--|------|------|------|------|
| (N=173) | Yes | 15.6 | 15.6 | 9.1 | 22.0 |
| (N=172) | No | 12.8 | 11.9 | 6.5 | 17.5 |
| Sometimes hate oneself | | | | | |
| (N=183) | Yes | 13.7 | 14.0 | 7.6 | 20.4 |
| (N=162) | No | 14.8 | 13.6 | 7.9 | 19.3 |
| Felt don't want to live | | | | | |
| (N=147) | Yes | 11.6 | 10.9 | 5.1 | 16.6 |
| (N=198) | No | 16.2 | 16.1 | 9.9 | 22.3 |
| Ever suffered homophobic violence | | | | | |
| (N=182) | Yes | 17.0 | 16.5 | 10.0 | 23.2 |
| (N=163) | No | 11.0 | 11.0 | 5.0 | 17.0 |
| Kind of violence or abuse | | | | | |
| (N=17) | Physical (beaten) | 23.5 | 16.9 | 0.3 | 33.2 |
| (N=67) | Verbal (threats, insults) | 11.9 | 12.6 | 4.1 | 21.5 |
| (N=26) | Moral (isolation, exclusion) | 11.5 | 21.7 | -1.3 | 44.8 |
| (N=8) | Sexual (forced to have sexual contact) | 12.5 | - | - | - |
| Ever blackmailed because MSM | | | | | |
| (N=160) | Yes | 18.1 | 18.5 | 11.4 | 25.6 |
| (N=185) | No | 10.8 | 10.3 | 5.2 | 15.3 |
| Ever raped | | | | | |
| (N=132) | Yes | 14.4 | 13.2 | 6.8 | 19.4 |
| (N=464) | No | 12.9 | 12.6 | 8.6 | 16.6 |
| Ever tested for HIV | | | | | |
| (N=420) | Yes | 12.4 | 12.9 | 8.6 | 17.1 |
| (N=176) | No | 15.3 | 12.4 | 7.0 | 17.6 |
| Reported last HIV test result | | | | | |
| (N=27) | Positive | 59.3 | 48.8 | 25.2 | 71.4 |
| (N=355) | Negative | 7.9 | 10.0 | 5.6 | 14.4 |
| (N=38) | Didn't get result | 21.1 | 16.3 | 4.0 | 28.6 |
| Number of times tested for HIV | | | | | |
| (N=176) | 0 | 15.3 | 12.3 | 7.0 | 17.7 |
| (N=104) | 1 | 11.5 | 9.1 | 2.9 | 15.4 |
| (N=205) | 2—3 | 15.1 | 16.5 | 9.5 | 23.3 |
| (N=111) | 4+ | 8.1 | 9.6 | 0.4 | 18.9 |
| Syphilis | | | | | |
| (N=572) | Negative | 12.6 | 12.2 | 8.7 | 15.6 |
| (N=17) | Positive | 41.2 | 36.3 | 9.7 | 66.1 |

**Weighted proportions could not be calculated*

Service access

Perceived access to information about HIV and STI, testing and treatment was relatively high (Table 3.1.7). More than half of those who stated that they had tested HIV positive had ever started ART.

Table 3.1.7: Service access among MSM in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Can you easily get information about STDs or AIDS? (N=596) | 433 | 70.0 | 65.1 | 74.8 |
| Can you easily get HIV testing and counselling? (N=596) | 448 | 76.0 | 71.3 | 80.7 |
| Can you easily get STD testing and treatment? (N=596) | 373 | 60.6 | 55.2 | 66.1 |
| Can you easily get testing and treatment for anal STDs? (N=596) | 281 | 46.8 | 41.7 | 51.9 |
| Can you easily get family planning services? (N=596) | 6 | 59.2 | 18.5 | 99.7 |
| Can you easily get legal or human rights services? (N=596) | 300 | 50.5 | 45.4 | 55.6 |
| Have you ever started to take ARVs?* (N=27) | 15 | 56.1 | 27.6 | 71.2 |

*Weighted proportion could not be calculated

Commercial sex

Table 3.1.8 shows that 45.6% have ever bought sex and of these about three quarters (73.3%) bought from men. Over one thirds of the MSM had ever sold sex (36.6%) and of these 95% sold sex for money, goods or services and almost two thirds consider selling sex as the main source of income. Slightly above half of MSMs (53.2%) that sell sex have sold to women.

Table 3.1.8 Buying and selling sex among MSM in Kampala, Uganda 2011-2013

| | N | Weighted % |
|--|-----|------------|
| Did you ever buy sex? | | |
| Yes | 280 | 45.6 |
| No | 327 | 54.4 |
| Did you ever buy sex from a man? | | |
| Yes | 207 | 73.5 |
| No | 73 | 26.5 |
| Did you ever buy sex from a woman? | | |
| Yes | 155 | 81.2 |
| No | 60 | 17.6 |
| Don't remember | 5 | 1.1 |
| Did you ever sell sex? | | |
| Yes | 245 | 36.6 |
| No | 361 | 63.4 |
| Did you ever sell sex to a man for money, goods, or services? | | |

| | | |
|--|-----|------|
| Yes | 224 | 94.7 |
| No | 22 | 5.3 |
| Is sex work your main source of income? | | |
| Yes | 139 | 64.3 |
| No | 107 | 35.7 |
| Did you ever sell sex to a woman for money, goods, or services? | | |
| Yes | 78 | 53.2 |
| No | 113 | 46.8 |

Coerced sex and rape

Coerced sex (i.e., having sex unwillingly but without being forced or threatened) and rape (forced or threatened to have sex) was observed among 29.1% and 20% respectively. 44.4% reported that they were raped by their friends (Table 3.1.9).

Table 3.1.9. Rape among MSM in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|------------|----------|-----------------|-----------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever give sex unwillingly (N=596) | | | | |
| Yes | 184 | 29.1 | 24.3 | 34.0 |
| No | 412 | 70.9 | 66.1 | 75.7 |
| Give sex unwillingly in the last 6 months (N=184) | | | | |
| Yes | 117 | 65.8 | 56.5 | 75.1 |
| No | 67 | 34.2 | 24.9 | 43.5 |
| Reasons for giving sex unwillingly (N=184) | | | | |
| To get or keep housing/lodging | 83 | 43.8 | 34.1 | 53.5 |
| To get education | 40 | 0.2 | 0.1 | 0.2 |
| To avoid problem with arrest or fines | 19 | 16.5 | 7.7 | 25.4 |
| To get out of prison or police cell | 16 | 7.1 | 3.2 | 11.1 |
| To get official papers or documents | 18 | 11.1 | 4.7 | 17.4 |
| To get food | 45 | 23.2 | 15.5 | 31.0 |
| To get healthcare | 18 | 9.5 | 3.9 | 15.3 |
| To get or keep work | 31 | 16.3 | 9.3 | 23.2 |
| Other reason | 92 | 48.2 | 38.4 | 57.9 |
| Who were the people you had sex with unwillingly (N=184) | | | | |
| Police or military | 23 | 13.9 | 6.6 | 21.3 |
| Other government officials | 34 | 25.2 | 15.2 | 35.3 |
| UN Staff | 40 | 20.1 | 12.9 | 27.2 |
| NGO Staff | 55 | 28.9 | 20.1 | 37.7 |
| Other | 2 | - | - | - |
| Religious leader | 26 | 17.2 | 8.9 | 25.6 |
| Person giving me shelter | 54 | 29.3 | 21.1 | 37.6 |

| | | | | |
|--|-------------|------|------|------|
| Health care staff | 8 | 5.5 | 0.4 | 10.6 |
| Employer | 38 | 21.1 | 12.3 | 30.1 |
| Other | 57 | 27.3 | 18.7 | 35.8 |
| Have you ever been raped? (N=596) | | | | |
| Yes | 132 | 20.2 | 16.2 | 24.3 |
| No | 464 | 79.8 | 75.7 | 83.9 |
| Who forced you to have sex with them? (N=132) | | | | |
| Family member, relative | 8 | 6.0 | 1.0 | 10.9 |
| My own sex partner | 29 | 24.0 | 13.5 | 34.5 |
| Friend | 56 | 44.4 | 33.2 | 55.6 |
| Authority figure | 14 | 7.4 | 3.0 | 11.7 |
| Stranger | 25 | 18.3 | 9.9 | 26.6 |
| How many times were you forced to have sex in the last 6 months? (median) (N=132)* | 2 (1,3) | | | |
| Did you ever suffer any violence or abuse because you have sex with other men? (N=345)* | | | | |
| Yes | 182 (52.8%) | | | |
| No | 163 (47.3%) | | | |
| What sort of violence or abuse was that? (N=116)* | | | | |
| Physical (beaten) | 17 (14.7%) | | | |
| Verbal (threats, insults) | 67 (57.8%) | | | |
| Moral (isolation, exclusion) | 26 (22.4%) | | | |
| Sexual (forced to have sexual contact) | 8 (6.9%) | | | |
| Who abused you this way?* (N=182)* | | | | |
| Family members | 32 (27.6%) | | | |
| Sex partner | 23 (19.8%) | | | |
| Friends, other people I know | 54 (46.6%) | | | |
| Authority figure (religious leader, military, teacher, police) | 9 (7.8%) | | | |
| Health care worker | 8 (6.9%) | | | |
| Strangers | 18 (15.5%) | | | |
| Have you ever been blackmailed by someone because you have sex with other men? (N=182)* | | | | |
| Yes | 134 (73.6%) | | | |
| No | 48 (26.4%) | | | |

**Weighted proportions could not be calculated*

Drug use

Table 3.1.10 shows that four in ten MSM have used drugs and the most commonly used drug was Khat. Eight in ten reportedly used drugs, one in two used fuel or petrol. 13.7% injected drugs, of whom 27.9% injected drugs on a daily basis within the last 6 months preceding the survey.

Table 3.1.10. Self-reported drug use among MSM in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|--|-------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever inhale, sniff, or swallow drugs (N=596) | 240 (40.3%) | 41.0 | 35.7 | 46.3 |
| Ever take nitrite inhalers (N=240) | 90 | 31.1 | 24.1 | 38.0 |
| Ever sniffed glue (N=240) | 91 | 33.7 | 26.0 | 41.3 |
| Ever sniffed cocaine (N=240) | 100 | 38.5 | 30.5 | 46.5 |
| Ever sniffed fuel or petrol (N=240) | 127 | 52.6 | 44.7 | 60.6 |
| Ever chewed Khat (N=240) | 187 | 80.9 | 74.5 | 87.3 |
| Ever inject drugs (N=596) | 92 (15.4%) | 13.7 | 10.4 | 17.0 |
| In the last 6 months, how often did you inject drugs? (N=153) | | | | |
| Every day | 52 | 27.9 | 19.3 | 36.4 |
| Several times a week | 33 | 20.3 | 11.0 | 29.4 |
| Several times a month | 25 | 16.1 | 9.3 | 23.1 |
| Once a month or less | 44 | 35.7 | 25.0 | 46.5 |

Table 3.1.11 revealed that about 7 in 10 MSMs preferred to be interviewed by a computer and of these about 6 in ten MSM say they were likely to share private information to a computer compared to a person.

Table 3.1.11. Interview preferences for MSM in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Do you prefer a computer or a person for such an interview? (N=596) | | | | |
| Prefer computer | 425 | 71.4 | 66.6 | 76.0 |
| Doesn't make a difference | 99 | 16.5 | 12.5 | 20.6 |
| Prefer real person | 72 | 12.1 | 8.3 | 15.9 |
| Are you more likely give private information to a computer or to a person? (N=596) | | | | |
| To a computer | 384 | 63.4 | 58.2 | 68.6 |
| To a person | 75 | 13.6 | 9.6 | 17.6 |
| Would tell both | 129 | 21.5 | 16.9 | 26.2 |
| Would tell neither | 8 | 1.5 | 0.4 | 2.5 |
| How often do you use computers? (N=596) | | | | |
| Never used before | 196 | 36.8 | 31.6 | 41.8 |
| Monthly or less | 164 | 27.4 | 22.7 | 32.1 |

| | | | | |
|-----------------|-----|------|------|------|
| Daily or weekly | 236 | 35.9 | 30.8 | 40.9 |
|-----------------|-----|------|------|------|

3.2 Female sex workers (FSW)

1,487 FSWs were recruited for the survey, with 99.1% being Ugandan nationals. 37% of FSW have never been to school, 30.6% attained primary education while 19.2% and 12.5% attained secondary and higher education respectively. About fifty percent of FSW have never married, followed by those separated (20.3%) and those divorced (19.1%). More than a third (38.7%) of FSWs are unemployed, while 25.6% work as skilled labourer and 16% worker as manual labourer.

Sexual behaviour characteristics

Table 3.2.1 indicates that about three quarters of the FSWs ever used a condom while 23.9% have never used a condom. About 2% of FSWs ever had anal sex. Almost half (49%) stated that had they have been raped before. Six in ten FSW (62.2%) were less careful about HIV and sex because of the perceived availability of better treatment for AIDS.

Table 3.2.1: Sexual Behaviour Characteristics among FSW in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|--|-------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| How old were you when you first had sex? (Median) (N=1,487)* | 17 (15, 18) | | | |
| Age of partner when you first had sex (median) (N=1,487)* | 20 (19, 25) | | | |
| Women have had anal or vaginal sex? Or both? (N=1,473) | | | | |
| Only vaginal sex | 1,333 | 90.5 | 88.7 | 92.3 |
| Only anal sex | 21 | 1.8 | 0.8 | 2.8 |
| Both vaginal and anal sex | 119 | 7.7 | 6.2 | 9.2 |
| Ever used condom (N=1,487) | | | | |
| Yes | 1,150 | 76.1 | 73.5 | 78.7 |
| No | 337 | 23.9 | 21.3 | 26.5 |
| Nationality (N=1,487) | | | | |
| Uganda | 1,472 | 99.1 | 98.5 | 99.6 |
| Other countries | 15 | 0.9 | 0.4 | 1.5 |
| Ever used lubricants (N=1,487) | | | | |
| Yes | 550 | 35.9 | 33.0 | 38.8 |
| No | 936 | 64.1 | 61.2 | 67.0 |
| Main reason you have not used lubricants (N=936) | | | | |
| Haven't thought about it | 426 | 46.3 | 42.6 | 49.9 |
| Don't like it | 285 | 30.5 | 27.1 | 34.0 |
| Too expensive | 60 | 6.7 | 4.7 | 8.6 |
| Partner objects | 34 | 3.4 | 2.0 | 4.8 |
| Can't get it | 131 | 13.2 | 10.7 | 15.7 |
| How many times used lubricants last 5 rounds of vaginal sex (mean) (N=550)* | | | | |

| | | | | |
|---|------------|------|------|------|
| Median | 3 (2, 4) | | | |
| Mean (Min, Max) | 2.9 (0, 5) | | | |
| Type of lubricant used (N=532) | | | | |
| Water-based | 244 | 36.9 | 22.5 | 51.6 |
| Oil-based | 267 | 61.1 | 46.4 | 75.5 |
| I don't know | 21 | 2.0 | -1.9 | 6.0 |
| Which lubricant do you use most often (N=532) | | | | |
| Saliva | 112 | 21.3 | 9.8 | 32.7 |
| Petroleum or Vaseline | 156 | 31.3 | 17.0 | 45.3 |
| Handlotion, vaginal gel, or baby oil | 74 | 16.4 | 6.0 | 26.9 |
| KY jelly | 20 | 3.4 | -1.1 | 7.8 |
| Butter, Blue Band, ghee, or cooking oil | 49 | 11.4 | 2.3 | 20.6 |
| Water | 92 | 12.7 | 4.8 | 20.8 |
| Soap | 16 | 2.0 | -1.9 | 6.0 |
| Other | 13 | 1.5 | -0.7 | 3.7 |
| Use lubricant for anal sex (N=85) | | | | |
| Yes | 70 | 80.8 | 71.0 | 90.7 |
| No | 15 | 19.2 | 9.3 | 29.0 |
| Have you ever been raped? (N=1,487) | | | | |
| Yes | 741 | 48.5 | 45.2 | 51.8 |
| No | 746 | 51.5 | 48.2 | 54.8 |
| Who forced you to have sex with them? (N=741) | | | | |
| Family member, relative | 34 | 5.0 | 3.1 | 6.9 |
| My own sex partner | 268 | 37.7 | 33.6 | 41.9 |
| Friend | 121 | 15.3 | 12.5 | 18.2 |
| Authority figure | 50 | 5.5 | 3.7 | 7.4 |
| Stranger | 268 | 36.4 | 32.2 | 40.6 |
| How many times were you forced to have sex in the last 6 months? (Median) (N=741)* | 2 (1, 3) | | | |
| Is it more likely to get HIV through vaginal sex or anal sex? (N=98)* | | | | |
| Vaginal sex | 39 (39.8%) | | | |
| Anal sex | 6 (6.1%) | | | |
| Same risk | 44 (44.9%) | | | |
| Don't know | 9 (9.2%) | | | |
| Because you take ARVs, is it now less important for you to use condoms?* (N=89) | | | | |
| Yes | 47 | 91.2 | 84.0 | 98.6 |
| No | 6 | 8.8 | 1.4 | 16.0 |
| Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for AIDS" | | | | |

| | | | | |
|---|-------------|------|------|------|
| (N=743)* | | | | |
| Yes | 462 (62.2%) | | | |
| No | 281 (37.8%) | | | |
| Did you use a lubricant the last time you had sex? (N=550) | | | | |
| Yes | 296 | 53.3 | 48.3 | 58.3 |
| No | 254 | 46.7 | 41.8 | 51.7 |
| Did you drink alcohol just before you had sex last time? (N=1,309) | | | | |
| Yes | 893 | 66.5 | 63.3 | 69.7 |
| No | 416 | 33.5 | 30.3 | 36.7 |
| Did you take drugs for pleasure just before you had sex last time? (N=719) | | | | |
| Yes | 372 | 48.3 | 43.8 | 52.8 |
| No | 347 | 51.8 | 47.3 | 56.2 |

**Weighted proportion could not be calculated*

Last sex act characteristics

Table 3.2.2 shows that two thirds (66.8%) of the FSWs used a condom at last sex. Similarly two thirds, drunk alcohol before having sex at last sex. About half of the FSWs used drugs for pleasure before having sex at last sex. The table also shows that over a half (53.3%) used lubricant at last sex.

Table 3.2.2: Last sex among FSW in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|-------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Was a condom used the last time you had sex? (N=452)* | | | | |
| Yes | 302 (66.8%) | | | |
| No | 150 (33.2%) | | | |
| Did you use a lubricant the last time you had sex? (N=550) | | | | |
| Yes | 296 | 53.3 | 48.3 | 58.3 |
| No | 254 | 46.7 | 41.8 | 51.7 |
| Did you drink alcohol just before you had sex last time? (N=1,309) | | | | |
| Yes | 893 | 66.5 | 63.3 | 69.7 |
| No | 416 | 33.5 | 30.3 | 36.7 |
| Did you take drugs for pleasure just before you had sex last time? (N=719) | | | | |
| Yes | 372 | 48.3 | 43.8 | 52.8 |
| No | 347 | 51.8 | 47.3 | 56.2 |

**Weighted proportion could not be calculated*

HIV testing

Table 3.2.3 indicates that 31.2% of FSWs in Kampala are HIV positive, 72.0% had ever tested for HIV; about 28% had never tested for HIV and main reasons were; fear for positive results (37.2%), followed by fear of lack of support if positive (26.4%) and some did not feeling at risk (15.4%) while others did not know where to get tested (13%). About 6 in ten had tested 2 to 4 times; one in four FSWs had tested once while 16% had tested more than 5 times. Twenty-five percent of FSW last tested for HIV in the year 2012, 25.6% in 2009 - 2011 while 16% tested earlier than 2009.

Table 3.2.3: HIV testing characteristics among FSW in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Ever tested for HIV (N=1,487) | | | | |
| Yes | 1,069 | 71.9 | 69.2 | 74.6 |
| No | 418 | 28.1 | 25.4 | 30.8 |
| HIV Positive (N=1,487) | 482 | 31.3 | 28.5 | 34.1 |
| Most recent HIV testing | | | | |
| Within the last 12 months | 731 | 25.4 | 22.3 | 28.5 |
| 2 - 3 years ago | 178 | 58.6 | 55.0 | 62.3 |
| 4+ years ago | 157 | 16.0 | 13.4 | 18.6 |
| Main reason never tested for HIV (N=418) | | | | |
| Afraid of HIV-Positive Result | 142 | 37.2 | 31.2 | 43.2 |
| Don't feel at risk | 62 | 15.4 | 10.8 | 20.0 |
| Not enough confidentiality at testing place | 28 | 5.7 | 3.5 | 7.9 |
| Fear of not getting enough support from family, friends, or partner if result is positive | 116 | 26.4 | 21.0 | 31.7 |
| Don't know where to test | 59 | 13.0 | 9.1 | 16.9 |
| Too expensive | 11 | 2.4 | 0.7 | 4.0 |
| Number of life-time HIV tests (N=1,069) | | | | |
| 1 | 265 | 25.4 | 22.4 | 28.4 |
| 2-4 | 625 | 58.6 | 55.1 | 62.1 |
| 5+ | 179 | 16.0 | 13.4 | 18.6 |
| Place of last HIV test (N=1,069) | | | | |
| Clinic or Hospital | 620 | 58.5 | 54.9 | 62.1 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 260 | 22.7 | 19.7 | 25.7 |
| At home | 51 | 5.5 | 3.7 | 7.4 |
| Other | 138 | 13.3 | 10.6 | 16.0 |
| Preferred place of HIV testing (N=1,069) | | | | |
| Clinic or Hospital | 486 | 46.7 | 43.2 | 50.2 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 495 | 44.0 | 40.5 | 47.5 |
| At home | 21 | 2.0 | 1.0 | 3.1 |
| Mobile testing, eg. in a bus | 14 | 1.5 | 0.7 | 2.4 |
| Other | 53 | 5.7 | 3.9 | 7.5 |
| Preference to self-test for HIV (N=1,069) | 781 | 74.1 | 70.8 | 77.4 |
| Disclosure of HIV test result to sex partner (yes) (N=692) | 492 | 71.8 | 67.6 | 75.9 |

Perceived HIV status Vs HIV laboratory test results

In general over three quarters of FSWs who reported not knowing the HIV status were actually positive, only 2.2% reported being positive but measured results showed 7.8, 27.2% reported being negative to HIV; however, bio measures revealed 13%.

Table 3.2.4: Perceived status v. HIV test results for FSW in Kampala, Uganda 2011-2013

| | | HIV - Measured HIV status | | | | | | | |
|-----------------------------|------------|----------------------------------|----------|--------------|--------------|------------|----------|--------------|--------------|
| Perceived HIV Status | | Negative | | | | Positive | | | |
| | | Unweighted | Weighted | | | Unweighted | Weighted | | |
| | | Number | % | Lower 95% CI | Upper 95% CI | Number | % | Lower 95% CI | Upper 95% CI |
| | | | | | | | | | |
| | Negative | 272 | 27.2 | 23.8 | 30.6 | 45 | 12.9 | 8.4 | 17.3 |
| | Positive | 23 | 2.2 | 1.2 | 3.3 | 28 | 7.8 | 4.6 | 11.0 |
| | Don't know | 683 | 70.6 | 67.1 | 74.0 | 286 | 79.3 | 74.2 | 84.5 |

HIV infection and service access

The overall estimated HIV prevalence among FSW was 31.3% (Table 3.2.5), prevalence for active syphilis infection was estimated at 6.3%. The median CD4+ T cell count among HIV-pos FSW was 443/mm3.

Table 3.2.5: Biological test results for FSW in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Weighted | | |
|-------------------------------|----------------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| HIV Positive (N=1,487) | 482 | 31.3 | 28.5 | 34.1 |
| SYP | | | | |
| Positive | 95 | 6.3 | 4.8 | 7.8 |
| Negative | 1,385 | 93.7 | 92.2 | 95.2 |

Table 3.2.6 show that access to information and sexual health services among FSW was high but not universal. Seventy-eight percent of FSW reported having easy access to STD or AIDS information. Easy access to HIV testing and counselling was reported by 88% of FSW. 83% reported having easy access to STD test and treatment. Easy access to family planning services was reported by 80.6% while three quarters of FSWs reported easy access to legal or human rights services.

Table 3.2.6: Service access among FSW in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number (Yes) | Weighted | | |
|--|-------------------------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Can you easily get information about STDs or AIDS? (N=1,487) | 1,160 | 78.0 | 75.4 | 80.6 |
| Can you easily get HIV testing and counselling? (N=1,487) | 1,298 | 88.0 | 86.2 | 89.9 |
| Can you easily get STD testing and treatment? (N=1,487) | 1,218 | 83.0 | 80.7 | 85.3 |
| Can you easily get family planning services? (N=1,473) | 1,187 | 80.6 | 78.1 | 83.0 |
| Can you easily get legal or human rights services? (N=1,487) | 1,109 | 75.4 | 72.8 | 78.1 |

Sexual characteristics of FSWs

Table 3.2.7 shows sex work characteristics among FSW. Nearly a third of FSW has been selling sex for four or more years. Sixty-three percent of FSW said they were forced or coerced, cheated or abducted into sex work. The main reason for FSW selling sex the first time was being cheated into it. Many FSW find their customers at places of work. Asked in which division of Kampala they mainly sell sex, most reported Kawempe, followed by Makindye; about one fifth reported “everywhere”.

Places FSW usually met clients include clubs, bars, restaurants, and the street. Two thirds of FSW have sex with clients mostly at hotels, lodges, or bar followed by client’s homes. Nearly half of FSW have had group sex, or sex with several customers at same time. Most FSW give some of their income to someone including owners of lodges where they have sex, middlemen, bar managers, spouses or other partner, and police.

In the last six months, almost all FSW sold sex only in Kampala, while few sold sex elsewhere in Uganda or even other countries. In the last six months, 63% of clients reportedly refused using a condom frequently or sometimes. To avoid using condoms, clients simply refuse, offer more money, threaten the sex worker, or beat her if she refuses. Reasons cited for not insisting to use a condom with a client include fear, earning more money, or because sex does takes shorter time without a condom.

Table 3.2.7. Buying and selling sex among FSW in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|-------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Number years selling sex (N=1,487) | | | | |
| 0 (Less than 1 year) | 302 | 22.3 | 19.7 | 24.8 |
| 1 | 151 | 11.8 | 9.7 | 13.8 |
| 2 | 332 | 24.1 | 21.5 | 26.6 |
| 3 | 215 | 13.6 | 11.6 | 15.7 |
| 4+ | 487 | 28.3 | 25.6 | 31.0 |
| Forced, coerced, cheated, abducted into sex work (N=1,487) | | | | |
| Yes | 914 | 63.1 | 60.1 | 66.1 |
| No | 573 | 36.9 | 33.9 | 40.0 |
| Main reason for selling sex first time (N=914)* | | | | |
| Was forced | 255 (27.9%) | | | |
| Was threatened | 154 (16.9%) | | | |
| Cheated into it | 415 (45.4%) | | | |
| Was abducted | 54 (5.9%) | | | |
| Other | 36 (3.9%) | | | |
| Find customers at place of work or outside work (N=655) | | | | |
| At place of work | 306 | 47.6 | 42.9 | 52.4 |
| Outside of work | 138 | 20.2 | 16.4 | 24.0 |
| Both | 211 | 32.2 | 27.7 | 36.7 |
| (Students, unemployed, other) | (832) | | | |

| | | | | |
|--|-------|------|------|------|
| Division of Kampala where mainly sell sex (N=1,487) | | | | |
| Makindye | 352 | 24.6 | 21.9 | 27.3 |
| Nakawa | 16 | 0.9 | 0.4 | 1.4 |
| Central | 90 | 6.2 | 4.6 | 7.8 |
| Rubaga | 127 | 8.5 | 6.7 | 10.3 |
| Kawempe | 587 | 40.0 | 37.1 | 43.0 |
| Everywhere | 315 | 19.7 | 17.5 | 22.0 |
| Where usually meet clients you sell sex to (N=1,487) | | | | |
| Street | 407 | 25.9 | 23.3 | 28.5 |
| Phone, SMS, email, Internet | 205 | 12.9 | 10.9 | 15.0 |
| Hotel, lodge | 227 | 16.2 | 14.0 | 18.5 |
| Club, bar, Restaurant | 414 | 28.3 | 25.5 | 31.1 |
| Private place | 132 | 9.9 | 8.0 | 11.8 |
| Brothel | 102 | 6.8 | 5.2 | 8.4 |
| Where usually have sex with clients (N=1,487) | | | | |
| Home | 158 | 11.2 | 9.1 | 13.2 |
| Client's home | 251 | 16.9 | 14.3 | 19.4 |
| Hotel, lodge, bar | 1,020 | 67.8 | 64.8 | 70.7 |
| Open space | 72 | 5.2 | 3.8 | 6.7 |
| Brothel | 222 | 14.5 | 12.3 | 16.6 |
| Other | 69 | 4.2 | 3.1 | 5.2 |
| Have sex with several customers at same time (group sex) (N=1,487) | | | | |
| Yes | 737 | 48.4 | 45.4 | 51.4 |
| No | 750 | 51.7 | 48.6 | 54.7 |
| Did you ever sell sex to a woman for money, goods, or services? (N=1,487) | | | | |
| Yes | 396 | 26.8 | 24.1 | 29.5 |
| No | 1,090 | 73.2 | 70.5 | 75.9 |
| Give some of your income to anyone (N=1,487) | | | | |
| Yes | 977 | 65.1 | 62.3 | 67.9 |
| No | 510 | 34.9 | 32.1 | 37.7 |
| Who do you give some of your income (N=977) | | | | |
| Spouse or other partner | 96 | 10.7 | 8.4 | 12.9 |
| Police | 53 | 4.5 | 3.1 | 5.9 |
| Middleman | 152 | 17.2 | 14.0 | 20.4 |
| Owner of lodge where sex occurs | 508 | 49.3 | 45.5 | 53.1 |
| Bar manager | 134 | 15.1 | 12.3 | 17.9 |
| Other | 34 | 3.3 | 1.9 | 4.6 |

| | | | | |
|--|-------------|------|------|------|
| Where have sold sex, in last six months (N=1,487) | | | | |
| Only in Kampala | 1,321 | 91.0 | 89.2 | 92.7 |
| Elsewhere in Uganda | 98 | 5.6 | 4.1 | 7.0 |
| Uganda and other countries | 68 | 3.4 | 2.5 | 4.3 |
| In last 6 months, how often have clients told you they don't want to use condom (N=1,487) | | | | |
| Frequently | 397 | 26.8 | 24.1 | 29.5 |
| Sometime | 537 | 36.4 | 33.6 | 39.2 |
| Rarely | 414 | 26.6 | 24.0 | 29.1 |
| Never | 139 | 10.2 | 8.3 | 12.0 |
| What do clients do to avoid using condom (N=1,348) | | | | |
| Simply refuse | 569 | 41.8 | 38.7 | 44.9 |
| Offer more money | 551 | 40.2 | 37.1 | 43.4 |
| Threaten me | 133 | 10.2 | 8.1 | 12.2 |
| Beat me if I refuse | 95 | 7.7 | 5.9 | 9.5 |
| Reasons not to insist on using a condom with a client (N=1,487) | | | | |
| I can get more money | 488 | 32.2 | 29.3 | 35.1 |
| Sex doesn't take as long without a condom | 200 | 13.4 | 11.2 | 15.5 |
| When I'm afraid I don't insist | 799 | 54.4 | 51.3 | 57.5 |
| Do you agree with this statement: "A woman in my situation can insist on using condoms with her customers all the time." (N=743)* | | | | |
| Yes | 628 (84.5%) | | | |
| No | 115 (15.5%) | | | |
| Did you ever buy sex? (N=1,487) | | | | |
| Yes | 557 | 37.2 | 34.2 | 40.2 |
| No | 930 | 62.8 | 59.8 | 65.8 |
| Did you ever buy sex from a man? (N=557) | | | | |
| Yes | 349 | 61.6 | 56.6 | 66.6 |
| No | 208 | 38.4 | 33.4 | 43.4 |

**Weighted proportion could not be calculated*

Drug use among FSWs

Table 3.2.9 shows that drug use by sniffing, inhalation or swallowing was common among FSW. Drugs that were are mainly used include glue, cocaine, fuel, and Khat.

Table 3.2.9. Drug use among FSW in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|--|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever inhale, sniff, or swallow drugs (N=1,487) | 638 | 40.6 | 37.6 | 43.7 |
| Ever sniffed glue (N=638) | 231 | 35.2 | 30.6 | 39.8 |
| Ever sniffed cocaine (N=638) | 234 | 33.2 | 28.9 | 37.6 |
| Ever sniffed fuel or petrol (N=638) | 205 | 29.7 | 25.8 | 33.7 |
| Ever chewed Khat (N=638) | 507 | 76.0 | 72.0 | 80.2 |
| Ever injected drugs(N=1,487) | 195 | 12.5 | 10.6 | 14.5 |

Gender-based violence among FSW

Gender-based violence (GBV) among FSW was measured and analysed. For the purpose of this analysis, GBV was defined as physical or verbal abuse, forced sex, and being paid less than agreed upon or nothing at all. Ninety five percent (95%) of FSW reported experiencing at least one form of client-initiated GBV in the previous 6 months. 23% of FSWs reportedly experienced all five types of client-initiated GBV; three quarters (95%) experienced physical abuse; 76% experienced verbal abuse; 79% experienced forced sex acts; 87% were paid less than negotiated for as sex act; and 75% were not paid at all for a sex act (Table 3.2.10).

Table 3.2.10: Number (%) of FSWs Self-Reported Experience of Client-Initiated GBV by Type in Previous 6 Months (N=1201); Number of Experiences of Client-Initiated GBV in Previous 6 Months (N=1467)

| Characteristic | Number | Weighted | | |
|--|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Type of GBV Experience | | | | |
| Physical Abuse (N=787) | 577 | 75.2 | 71.7 | 78.8 |
| Verbal Abuse (N=854) | 662 | 76.4 | 72.8 | 80.0 |
| Forced Sex Acts (N=904) | 725 | 79.2 | 75.8 | 82.6 |
| Paid Less than Agreed (N=1,230) | 1,078 | 87.0 | 84.9 | 89.2 |
| No Money Paid after Sex (N=1,100) | 815 | 75.0 | 72.0 | 78.2 |
| Perpetrator During Last Rape (N=741) | | | | |
| Family member | 34 | 5.0 | 3.1 | 6.9 |
| Own sex partner | 268 | 37.7 | 33.5 | 41.9 |
| Friend | 121 | 15.4 | 12.4 | 18.3 |
| Authority figure | 50 | 5.5 | 3.7 | 7.4 |
| Stranger | 268 | 36.4 | 32.2 | 40.6 |
| Number of Rape Occurrences, previous 6months. (N=741) | | | | |
| 0 | 133 | 19.0 | 15.4 | 22.5 |

| | | | | |
|-----|-----|------|------|------|
| 1-2 | 331 | 43.9 | 39.5 | 48.2 |
| ≥3 | 277 | 37.2 | 32.9 | 41.5 |

Interview mode preference among FSWs

Most FSW prefer interviewing in ACASI format rather than face to face and two thirds are likely to give private information to a computer than to a person. Almost nine in ten FSW had never used a computer prior to enrolling in the Crane Survey.

Table 3.2.11. Interview preferences among FSW participants in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Weighted | | |
|---|----------------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Do you prefer a computer or a person for such an interview? (N=1,487) | | | | |
| Prefer computer | 1108 | 74.2 | 71.5 | 76.8 |
| Doesn't make a difference | 181 | 12.3 | 10.3 | 14.3 |
| Prefer a person | 198 | 13.5 | 11.4 | 15.6 |
| Are you more likely give private information to a computer or to a person? (N=1,487) | | | | |
| To a computer | 1004 | 66.8 | 63.9 | 69.7 |
| To a person | 231 | 15.8 | 13.5 | 18.0 |
| Would tell both | 215 | 15.1 | 12.9 | 17.3 |
| Would tell neither | 37 | 2.3 | 1.5 | 3.2 |
| How often do you use computers? (N=1,487) | | | | |
| Never used before | 1258 | 86.0 | 84.0 | 88.0 |
| Monthly or less | 193 | 11.5 | 9.7 | 13.2 |
| Daily or weekly | 36 | 2.5 | 1.4 | 3.6 |

3.3 Congolese refugees (REF)

A total of 1,337 refugees (REF) participated in the survey of whom 97% reportedly came from the Democratic Republic of Congo. 22% have lived in camps before. The REF were largely looking for safety or hiding place. Seventy-four percent of the REF had attained primary and secondary education and only 8% had no education. Pertaining to marital status, two fifths of the REF were married and about the same number were never married while 10% and 5% were widowed and divorced respectively. Most REFs were either unemployed (42%) or performed manual labour (35%). Seventy-seven percent were not salaried while 23.4% receive salaries for their work. *Refugee characteristics.* Most refugees came to Kampala to seek safety. All had refugee status (99%) or had applied for it (1%).

Table 3.3.1: Refugee Characteristics among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|--|------------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Sex - male (biologic) (N=1,298) | 718 | 53.0 | 48.9 | 57.0 |
| Gender identification (N=1,298) | | | | |
| Male | 627 | 45.1 | 41.1 | 49.0 |
| Female | 593 | 48.9 | 44.9 | 52.8 |
| Other | 78 | 6.1 | 4.3 | 7.8 |
| Sexual attraction (N=1,298) | | | | |
| Only Men | 406 | 30.3 | 26.8 | 33.9 |
| Mostly Men, Sometimes Women | 37 | 4.2 | 2.4 | 6.0 |
| Equally Men and Women | 55 | 5.5 | 3.3 | 7.7 |
| Mostly Women, Sometimes Men | 26 | 1.5 | 0.8 | 2.3 |
| Only Women | 603 | 44.2 | 40.2 | 48.1 |
| None | 171 | 14.3 | 11.2 | 17.4 |
| Nationality (N=1,298) | | | | |
| Uganda | 34 | 2.5 | 1.4 | 3.6 |
| Other countries | 1,264 | 97.5 | 96.4 | 98.6 |
| Age (years) (N=1,298) | | | | |
| Median Age (IQR)* | 33 (25,40) | | | |
| 18-24 | 280 | 24.8 | 21.2 | 28.3 |
| 25-34 | 460 | 34.4 | 30.4 | 38.3 |
| 35+ | 558 | 40.9 | 36.7 | 45.1 |
| Education (years in school) (N=1,298) | | | | |
| No school | 77 | 8.0 | 5.7 | 10.4 |
| Primary (1-7 years) | 362 | 32.9 | 29.0 | 36.8 |
| Secondary (8-12 years) | 558 | 40.6 | 36.8 | 44.5 |
| Higher education (13+ years) | 301 | 18.5 | 15.5 | 21.4 |
| Marital status (N=1,298) | | | | |
| Never married | 499 | 39.1 | 35.3 | 43.0 |
| Married | 538 | 40.1 | 36.1 | 44.0 |
| Divorced | 67 | 6.2 | 4.1 | 8.4 |
| Separated | 72 | 5.1 | 3.3 | 6.8 |
| Widowed | 122 | 9.6 | 7.0 | 12.1 |

| | | | | |
|---|-------|------|------|-------|
| Occupation (N=1,298) | | | | |
| Manual Labor | 486 | 35.3 | 31.4 | 39.1 |
| Skilled Labor | 83 | 6.0 | 4.2 | 7.9 |
| Study | 43 | 3.6 | 2.0 | 5.2 |
| Unemployed | 509 | 42.4 | 38.3 | 46.4 |
| Other | 177 | 12.7 | 10.1 | 15.4 |
| Do you have refugee status? (N=1,298) | | | | |
| Yes | 1,290 | 99.2 | 98.4 | 100.0 |
| No | 8 | 0.8 | 0.0 | 1.6 |
| Have you lived in a refugee camp before coming to Kampala? (N=1,298) | | | | |
| Yes | 246 | 21.9 | 18.2 | 25.6 |
| No | 1,052 | 78.1 | 74.4 | 81.8 |
| Which is the main reason you came to Kampala? (N=1,298) | | | | |
| To get services | 32 | 2.9 | 1.4 | 4.4 |
| Because I have friends or family here | 5 | 0.6 | -0.1 | 1.2 |
| To look for work | 12 | 1.0 | 0.3 | 1.7 |
| To get education | 5 | 0.3 | 0.0 | 0.7 |
| To hide | 314 | 23.6 | 20.2 | 27.0 |
| For safety | 897 | 69.0 | 65.3 | 72.8 |
| Other | 39 | 2.6 | 1.3 | 3.8 |

**Weighted proportions could not be calculated*

Sexual health

Table 3.3.2 show that 85% reported to have ever had sexual intercourse, and 2.9% of the men and 8.1% female have ever had anal sex. Over half of the REF (56%) had ever used a condom. 50.3% have ever given sex unwillingly and about a third unwillingly gave sex in the last 6 months and 53.8% reported ever having been raped with majority having been raped by strangers (48.1%) followed by authority figure (32.4%).

Table 3.3.2: Sexual Behaviour Characteristics among REF in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|--|-------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Have you ever had sexual intercourse? (N=1,298) | | | | |
| Yes | 1,014 | 84.0 | 80.8 | 87.3 |
| No | 155 | 16.0 | 12.7 | 19.2 |
| How old were you when you first had sex? (median: IQR) (N=1,143)* | 18 (16, 20) | | | |
| Age of partner at first sex (median: IQR) (N=1,143)* | 20 (17, 25) | | | |
| Have you ever had sexual intercourse with men? (N=1,143) | | | | |
| Yes | 550 | 52.1 | 47.6 | 56.6 |
| No | 593 | 47.9 | 43.4 | 52.4 |

| | | | | |
|---|-----|------|------|------|
| Respondent had sex with... (N=1,143) | | | | |
| Only men | 9 | 0.4 | 0.0 | 0.8 |
| Only women | 543 | 45.3 | 40.7 | 49.9 |
| Both | 47 | 4.5 | 2.6 | 6.4 |
| Women have had anal or vaginal sex? Or both? (N=534) | | | | |
| Only vaginal sex | 473 | 87.1 | 82.7 | 91.6 |
| Only anal sex | 36 | 8.1 | 4.4 | 11.8 |
| Both vaginal and anal sex | 25 | 4.8 | 1.8 | 7.8 |
| Men have had anal or vaginal sex? Or both? (N=609) | | | | |
| Only vaginal sex | 531 | 90.3 | 86.6 | 94.0 |
| Only anal sex | 40 | 2.9 | 1.4 | 4.4 |
| Both vaginal and anal sex | 38 | 6.8 | 3.4 | 10.2 |
| Ever used condom (N=1,143) | | | | |
| Yes | 629 | 56.1 | 51.6 | 60.6 |
| No | 514 | 43.9 | 39.4 | 48.4 |
| Ever give sex unwillingly (N=1,143) | | | | |
| Yes | 526 | 50.3 | 46.0 | 54.6 |
| No | 617 | 49.7 | 45.4 | 54.0 |
| Give sex unwillingly in the last 6 months (N=526) | | | | |
| Yes | 144 | 27.7 | 22.6 | 32.7 |
| No | 382 | 72.3 | 67.3 | 77.4 |
| Reasons for giving sex unwillingly* | | | | |
| To get or keep housing/lodging (N=526) | 102 | 17.9 | 13.0 | 22.9 |
| To get education (N=526) | 14 | 3.7 | 0.9 | 6.5 |
| To avoid problem with arrest or fines (N=526) | 157 | 31.4 | 25.3 | 37.5 |
| To get out of prison or police cell (N=526) | 25 | 3.4 | 1.6 | 5.2 |
| To get official papers or documents (N=526) | 4 | 0.5 | 0.0 | 1.0 |
| Other (N=526) | 285 | 52.7 | 46.4 | 58.9 |
| To get food (N=526) | 138 | 28.1 | 22.3 | 33.9 |
| To get healthcare (N=526) | 49 | 10.8 | 6.7 | 14.8 |
| To get or keep work (N=526) | 24 | 3.4 | 1.6 | 5.2 |
| Other reason (N=526) | 348 | 63.5 | 57.3 | 69.8 |
| Who were the people you had sex with unwillingly | | | | |
| Police or military (N=526) | 236 | 44.6 | 37.9 | 51.2 |
| Other government officials (N=526) | 39 | 7.8 | 4.5 | 11.1 |
| UN Staff (N=526) | 7 | 1.9 | 0.2 | 3.5 |
| NGO Staff (N=526) | 42 | 7.8 | 4.6 | 10.9 |
| Other (N=526) | 245 | 44.9 | 38.8 | 51.1 |
| Religious leader (N=526) | 12 | 2.4 | 0.1 | 4.8 |

| | | | | |
|---|----------------------|------|------|------|
| Person giving me shelter (N=526) | 96 | 19.0 | 14.1 | 24.0 |
| Health care staff (N=526) | 10 | 1.9 | 0.4 | 3.5 |
| Employer (N=526) | 28 | 5.1 | 2.3 | 7.9 |
| Other (N=526) | 400 | 75.4 | 69.7 | 81.0 |
| Have you ever been raped? (N=1,143) | | | | |
| Yes | 549 | 53.8 | 49.4 | 58.0 |
| No | 594 | 46.2 | 42.0 | 50.6 |
| Who forced you to have sex with them? (N=549) | | | | |
| Family member, relative | 5 | 1.2 | -0.7 | 3.1 |
| My own sex partner | 78 | 14.9 | 10.7 | 19.0 |
| Friend | 23 | 3.4 | 1.7 | 5.1 |
| Authority figure | 186 | 32.4 | 26.6 | 38.3 |
| Stranger | 257 | 48.1 | 41.9 | 54.3 |
| How many times were you forced to have sex in the last 6 months? (median: IQR) (N=549)* | 0 (0,2); mean (1.43) | | | |
| Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for AIDS" (N=1,298) | | | | |
| Yes | 260 | 23.5 | 20.0 | 27.0 |
| No | 1,038 | 76.5 | 73.0 | 80.0 |

*Weighted population percentage could not be calculated

Last sex act characteristics

The majority(58.5%) of the REF had unprotected sex at last sexual encounter. Of these, 12%were coerced or forced during their last sex.

Table 3.3.3: Last sex among REF in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|--|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Was a condom used the last time you had sex? (N=629) | | | | |
| Yes | 256 | 41.49 | 35.75 | 47.24 |
| No | 373 | 58.51 | 52.76 | 64.25 |
| Did you drink alcohol just before you had sex? (N=582) | | | | |
| Yes | 99 | 20.4 | 14.8 | 25.9 |
| No | 483 | 79.6 | 74.1 | 85.2 |
| Was this last sex act agreed by both you and the partner, or did one coerce or force the other? (N=1,143) | | | | |
| Agreed | 834 | 68.3 | 63.9 | 72.7 |
| Coerced | 126 | 12.0 | 8.9 | 15.0 |

| | | | | |
|---|-----|------|------|------|
| Forced | 183 | 19.8 | 16.0 | 23.5 |
| Did this person force you to have sex? (N=123) | | | | |
| Yes | 108 | 90.0 | 83.8 | 96.1 |
| No | 15 | 10.0 | 3.9 | 16.2 |

HIV testing

Most (71.5%) had ever tested for HIV while 29% have never tested and their primary self-reported reason was not feeling at risk (45%). Other reasons included; fear for positive results, not knowing where to get tested. Almost two thirds of REF had tested for HIV 2-4 times before, 25% and 11% tested for HIV once and five or more times respectively. Seven in ten REF had their last HIV test within 12 months before the survey.

Table 3.3.4: HIV testing characteristics among REF in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever tested for HIV (N=1,298) | | | | |
| Yes | 933 | 71.5 | 67.9 | 75.1 |
| No | 365 | 28.5 | 24.9 | 32.1 |
| Main reason never tested for HIV (N=365) | | | | |
| Afraid of HIV-Positive Result | 55 | 19.3 | 13.1 | 25.4 |
| Don't feel at risk | 181 | 45.4 | 37.8 | 52.9 |
| Not enough confidentiality at testing place | 37 | 9.2 | 5.1 | 13.3 |
| Fear of not getting enough support from family, friends, or partner is result is positive | 27 | 7.0 | 3.6 | 10.4 |
| Don't know where to test | 43 | 13.9 | 8.7 | 19.0 |
| Too expensive | 22 | 5.3 | 2.5 | 8.2 |
| (Ever tested - Yes) | | | | |
| Number of life-time HIV tests (N=933) | | | | |
| 1 | 225 | 25.3 | 21.2 | 29.4 |
| 2-4 | 567 | 64.1 | 59.7 | 68.4 |
| 5+ | 141 | 10.7 | 8.4 | 13.0 |
| Timing of last HIV test (N=933) | | | | |
| Within last 12 months | 660 | 70.4 | 65.9 | 74.9 |
| 2-3 years ago | 149 | 17.4 | 13.5 | 21.3 |
| 4+ years ago | 103 | 12.2 | 9.1 | 15.3 |
| Place of last HIV test (N=933) | | | | |
| Clinic or Hospital | 637 | 69.9 | 65.5 | 74.2 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 117 | 12.9 | 9.5 | 16.3 |
| At home | 25 | 2.2 | 1.1 | 3.2 |
| Other | 154 | 15.0 | 12.0 | 18.1 |
| Preferred place of HIV testing (N=933) | | | | |

| | | | | |
|---|-----|------|------|------|
| Clinic or Hospital | 621 | 67.8 | 63.7 | 72.0 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 213 | 22.6 | 18.8 | 26.3 |
| At home | 10 | 0.8 | 0.3 | 1.3 |
| Mobile testing, eg. in a mobile bus | 15 | 1.1 | 0.4 | 1.7 |
| Other | 74 | 7.7 | 5.4 | 10.0 |
| Preference to self-test for HIV (Yes) (N=933) | 714 | 73.6 | 69.2 | 78.1 |
| Disclosure of HIV test result to sex partner (yes) (N=638) | 387 | 57.0 | 51.4 | 62.8 |

Perceived HIV status

Table 3.3.5 shows that the most who thought of themselves as HIV-infected (3 percent) about 4 percent actually tested HIV-positive. The table also depicts that of the 53.4 percent who thought they were HIV negative about two thirds were HIV positive based on HIV test results.

Table 3.3.5: Perceived status v. HIV test results for REF in Kampala, Uganda 2011-2013

| HIV - Measured HIV status | | | | | | | | | |
|---------------------------|------------|------------|----------|--------------|--------------|------------|----------|--------------|--------------|
| Perceived HIV Status | | Negative | | | | Positive | | | |
| | | Unweighted | Weighted | | | Unweighted | Weighted | | |
| | | Number | % | Lower 95% CI | Upper 95% CI | Number | % | Lower 95% CI | Upper 95% CI |
| | | | | | | | | | |
| | Negative | 445 | 53.2 | 47.5 | 58.9 | 15 | 64.3 | 41.1 | 89.5 |
| | Positive | 43 | 2.9 | 1.4 | 4.5 | 4 | 3.8 | -0.8 | 8.1 |
| | Don't know | 514 | 43.9 | 38.3 | 49.5 | 23 | 32.0 | 7.9 | 54.2 |

Biomarkers

The estimated HIV prevalence was 6.1%, somewhat lower than that among the general population of Kampala. The prevalence of active syphilis was less than 1 percent (0.7%).

Table 3.3.6: Biological test results for REF in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|-------------------------------|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| HIV Positive (N=1,298) | 81 | 6.1 | 4.1 | 8.1 |
| SYP (N=1,298) | | | | |
| Positive | 4 | 0.7 | -0.4 | 1.9 |
| Negative | 982 | 99.3 | 98.1 | 100.4 |

Service access among REF

Most of the REF reported that they have easy access to STD or AIDS information (70%). 88.5% reported that they have easy access to HIV testing and counselling, and 78.3% reported having easy access to STD testing and treatment. Among REF, 56.8% had easy access to legal or human rights services; about two fifths of the HIV positive REFs were accessing care and treatment and over 80% were receiving ARVs.

Table 3.3.7: Service access among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Can you easily get information about STDs or AIDS? (Yes) (N=1,298) | 905 | 69.6 | 65.9 | 73.2 |
| Can you easily get HIV testing and counselling? (Yes) (N=1,298) | 1,140 | 88.5 | 85.9 | 91.1 |
| Can you easily get STD testing and treatment? (Yes) (N=1,298) | 1,007 | 78.3 | 75.1 | 81.6 |
| Can you easily get family planning services? (Yes) (N=580) | 316 | 55.4 | 49.4 | 61.4 |
| Can you easily get legal or human rights services? (Yes) (N=1,298) | 747 | 56.8 | 53.0 | 60.7 |
| The last time you tried to get health care did you get health care or were your refused health care? (Yes) (N=488) | 403 | 84.1 | 79.5 | 88.6 |
| Have you ever registered for care and treatment for your HIV infection?* (Yes) (N=231) | 80 | 36.8 | 27.9 | 45.7 |
| What is the main reason you have not enrolled for care or treatment? (N=151) | | | | |
| Feel healthy | 79 | 48.8 | 37.1 | 60.0 |
| Fear of stigma by care provider | 2 | 0.6 | -0.2 | 1.5 |
| Do not want other to know of my infection | 3 | 0.8 | -0.1 | 1.7 |
| My faith in God will heal me | 6 | 3.3 | 0.3 | 6.4 |
| Cost | 2 | 0.9 | -0.6 | 2.4 |
| I am on waiting list to enrol | 4 | 5.1 | -2.3 | 12.8 |
| Other | 55 | 40.4 | 29.1 | 52.0 |
| Have you ever started to take ARVs?* (Yes) (N=80) | 32 | 82.8 | 70.2 | 95.8 |
| Do you still take ARVs?* (Yes) (N=32) | 31 | 95.2 | 85.1 | 105.0 |
| After you tested positive for HIV, did they test you for TB?* (Yes) (N=80) | 29 | 30.2 | 17.3 | 43.2 |
| After your test for TB, did you receive medicine for TB?* (Yes) (N=29) | 11 | 45.1 | 20.3 | 70.2 |

**Weighted proportions could not be calculated*

Sexual characteristics among REF

Table 3.3.8 shows that about 16% ever bought sex mostly from women and only 12% of the REF ever sold sex

Table 3.3.8 Buying and selling sex among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Did you ever buy sex? (N=1,143) | | | | |
| Yes | 179 | 15.9 | 12.8 | 18.9 |
| No | 964 | 84.1 | 81.1 | 87.2 |
| Did you ever buy sex from a man? (N=64) | | | | |
| Yes | 38 | 59.3 | 41.6 | 76.7 |
| No | 26 | 40.7 | 23.3 | 58.4 |
| Did you ever buy sex from a woman? (N=119) | | | | |
| Yes | 100 | 77.8 | 64.1 | 91.2 |
| No | 6 | 13.6 | 1.5 | 26.4 |
| Don't remember | 12 | 8.5 | 1.7 | 15.1 |
| Did you ever sell sex? (N=1,143) | | | | |
| Yes | 138 | 12.0 | 9.2 | 14.8 |
| No | 1,005 | 88.0 | 85.2 | 90.8 |
| Did you ever sell sex to a man for money, goods, or services? (N=61) | | | | |
| Yes | 40 | 58.3 | 41.0 | 76.0 |
| No | 21 | 41.7 | 24.0 | 59.0 |
| Is sex work your main source of income? (N=138) | | | | |
| Yes | 22 | 18.6 | 8.9 | 28.0 |
| No | 116 | 81.4 | 72.0 | 91.1 |
| Did you ever sell sex to a woman for money, goods, or services? (N=79) | | | | |
| Yes | 52 | 58.8 | 41.8 | 76.0 |
| No | 25 | 41.2 | 24.0 | 58.2 |

Drug use among REF

Self-reported drug use was low, ranging from 20% (cocaine) to chewing Khat (65%).

Table 3.3.9. Drug use among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|--|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Ever inhale, sniff, or swallow drugs (N=1,298) | 49 | 3.5 | 2.0 | 5.1 |
| Ever sniffed glue (N=49) | 23 | 40.2 | 20.3 | 60.5 |
| Ever sniffed cocaine (N=49) | 16 | 19.8 | 6.9 | 32.4 |
| Ever sniffed fuel or petrol (N=49) | 21 | 26.6 | 10.6 | 42.5 |
| Ever chewed Khat (N=49) | 25 | 65.3 | 45.7 | 84.6 |
| Ever injected drugs (N=1,298) | 15 | 0.9 | 0.4 | 1.4 |

Perceptions and acceptance

About a quarter of refugees feel rejected by police. Symptoms suggestive of depression were frequent.

Table 3.3.10. Perceptions among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| How accepted do you feel by police? (N=1,298) | | | | |
| Very accepted | 314 | 23.0 | 19.9 | 26.1 |
| Somewhat accepted | 650 | 52.7 | 48.9 | 56.7 |
| Rejected | 334 | 24.2 | 20.6 | 27.8 |
| How accepted do you feel by your neighbours? (N=1,298) | | | | |
| Very accepted | 260 | 20.3 | 17.1 | 23.5 |
| Somewhat accepted | 634 | 48.8 | 44.8 | 52.7 |
| Rejected | 404 | 31.0 | 27.2 | 34.8 |
| How accepted do feel by health care workers? (N=1,298) | | | | |
| Very accepted | 326 | 24.3 | 21.1 | 27.6 |
| Somewhat accepted | 784 | 60.6 | 56.6 | 64.5 |
| Rejected | 188 | 15.1 | 12.0 | 18.1 |
| Over the last 2 weeks, how often have you been bothered by having little interest or pleasure in doing things? (N=1,298) | | | | |
| Not at all | 487 | 40.0 | 35.9 | 44.1 |
| Several days | 411 | 32.7 | 28.7 | 36.6 |
| More than half the days | 130 | 8.9 | 6.9 | 10.9 |
| Nearly half the days | 270 | 18.4 | 15.5 | 21.4 |
| Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless? (N=1,298) | | | | |
| Not at all | 253 | 20.5 | 17.1 | 24.0 |
| Several days | 449 | 34.4 | 30.4 | 38.4 |
| More than half the days | 118 | 9.1 | 6.9 | 11.3 |
| Nearly half the days | 478 | 36.0 | 32.2 | 39.7 |

ACASI characteristics

It was noted that over half of the refugees (54%) preferred a computer to do the interview and nearly the same number was more likely to give private information to a computer. More than 60% had never used a computer before.

Table 3.3.11 Interview preferences among REF in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Do you prefer a computer or a person for such an interview? (N=1,298) | | | | |
| Prefer computer | 699 | 54.2 | 50.3 | 58.2 |
| Have no preference | 229 | 17.0 | 14.0 | 19.9 |
| Prefer a person | 370 | 28.9 | 25.4 | 32.3 |
| Are you more likely give private information to a computer or to a person? (N=1,298) | | | | |
| To a computer | 684 | 52.9 | 48.8 | 56.9 |
| To a person | 301 | 24.9 | 21.3 | 28.5 |
| Would tell both | 236 | 16.4 | 13.5 | 19.3 |
| Would tell neither | 77 | 5.8 | 3.9 | 7.8 |
| How often do you use computers? (N=1,298) | | | | |
| Never used before | 767 | 63.1 | 59.2 | 66.9 |
| Monthly or less | 303 | 22.0 | 18.6 | 25.4 |
| Daily or weekly | 228 | 14.9 | 12.2 | 17.6 |

3.4 Drug Users (DUS)

Attempt to implement a survey among people who inject drugs

Planning and preparations

The Crane survey planned to sample IDUs as described in the main survey protocol. Preparations for this survey included discussing with the in-charge of the alcohol and drugs unit at Butabika Hospital and peers of IDUs. NGOs including Serenity Centre and Uganda Youth Development Link (UYDEL) were also contacted. Both of these handle alcohol and drug cases but reported ever handling only one IDU case, for Serenity Centre, and no case at all, for UYDEL. Survey staff met with UYDEL served youth twice to ascertain which drugs are being consumed in Kampala, and under what street names they are known.

Eligibility criteria

- Age 18+ years
- Resides in Kampala for 6+ months
- Injected select drugs in the last 6 months

Sampling design

Respondent driven sampling. No. of coupons issued per seed/recruit: 4

Confidentiality

No personal identifiers collected

Measures

Quantitative interview (ACASI), qualitative interview, HIV and syphilis status, drug test on collected urine.

Sampling

Sampling started on the 5th of May 2011 and was terminated on the 12th of September 2011 due to very poor sampling. During this sampling period a total of seven (7) participants were enrolled: three seeds, two referred and eligible recruits, and two ineligible recruits.

Identifying seeds

The first potential participant was purposively selected by survey staff and was very willing to participate. She injected pethidine and her arms and legs were covered with lesions. She was not enrolled in the survey because she had no contact to any other IDU in her personal network. She provided information that her source of injecting equipment or narcotics was a pharmacy.

Pharmacies were then considered as a potential avenue to identify seeds for the survey. The School of Public Health furnished a letter to select pharmacies requesting their assistance in identifying candidate survey respondents. This letter stated the intent of the survey as sampling people with chronic pain or sleep deprivation problems. Pharmacies were asked to hand out a pre-prepared survey flyer to persons who procured opiate derivatives or strong pain killers. The flyer described the survey in a similar manner as the letter to the pharmacies. Distribution of letters and flyers started in July 2011 and a total of 11 pharmacies in Kampala

were each provided with 15 flyers. A report from some pharmacies showed that several customers had accepted the flyers but none presented at the survey office.

During the survey, the project manager also met with youth from Bwaise (Kawempe Division) dealing in and injecting heroin. They showed interest in the survey and helping to refer others but subsequent follow-up with them yielded no additional candidate survey respondents. Some stated that the “risk” was too high.

Seed description

Out of the seven enrolled participants, three were seeds.

The *first seed* was identified among female sex workers in Bwaise, Kawempe Division, Kampala. She reportedly injected marijuana and had relevant skin lesions. She recruited one peer who was a man. Though she reported knowing many women selling sex who also inject drugs, none presented at the survey office.

The *second seed*, a man, was identified at Mildmay Uganda (a VCT, care and treatment centre) and reported to the survey office. A search for IDU seeds through Mildmay Uganda started in May 2011 but only managed to get one after four months. He promised to convince about seven colleagues he reportedly knew well but in the end referred none.

The *third seed* was identified through a hospital. She reportedly injected pethidine and knew a few peers and physicians who also injected. None accepted referral to the survey.

These three seeds referred a total of two eligible recruits to the survey. The survey was discontinued due to lack of sampling success.

Major challenges and constraints

Anecdotal observations suggest that a good number of persons injecting drugs may be affluent persons who may not easily be motivated participate. Some doctors and magistrate said they would never risk their “images” in the survey.

The survey coincided with the time when police was on the lookout of IDU. Fear of arrest and breach of confidentiality may have been major concerns.

Results from the survey among injecting and non-injecting drug users

In lieu of a survey among PWID, Crane conducted a survey among injecting and non-injecting drug users.

Sexual characteristics

About 1 percent of male drug users ever had sex with men. Among women, some 10% ever had anal sex, among men approximately 6% ever had anal sex. 15 percent of DUS have never used a condom and 25.6% reported to have ever been raped largely by own sexual partner (47%) followed by strangers (26%). Almost two thirds were in agreement with the statement that the availability of ART makes one less careful about sex and HIV.

Table 3.4.1: Sexual Behaviour Characteristics for DUS in Kampala, Uganda 2011-2013

| Characteristic | Male | | Female | | Total | |
|--|-------------|----------|-------------|----------|-------------|----------|
| | Unweighted | Weighted | Unweighted | Weighted | Unweighted | Weighted |
| | Number | % | Number | % | Number | % |
| Respondent age at time of sexual debut (median) (N=677)* | 16 (14, 18) | | 15 (14, 17) | | 16 (14, 18) | |
| Have had anal or vaginal sex? Or both? (N=) | | | | | | |
| Only vaginal sex | 440 | 94.1 | 177 | 89.6 | | |
| Only anal sex | 8 | 1.1 | 3 | 0.7 | | |
| Both vaginal and anal sex | 28 | 4.9 | 21 | 9.7 | | |
| Age of partner when you first had sex (median) (N=677)* | 16 (14, 19) | | 20 (18, 25) | | 17 (15, 20) | |
| Ever used condom (N=792M, 357F, 1,149T) | | | | | | |
| Yes | 639 | 82.8 | 304 | 90.2 | 943 | 85.4 |
| No | 152 | 17.2 | 50 | 9.8 | 202 | 14.6 |
| Have you ever been raped? (N=792M, 357F, 1,149T)* | | | | | | |
| Yes | 123 (15.5%) | | 173 (48.5%) | | 296 (25.8%) | |
| No | 668 (84.3%) | | 181 (50.7%) | | 849 (73.9%) | |
| Who forced you to have sex with them? (N=123M, 173F, 296T) | | | | | | |
| Family member, relative | 18 | 10.0 | 7 | 2.8 | 25 | 5.1 |
| My own sex partner | 51 | 42.4 | 78 | 46.7 | 129 | 45.3 |
| Friend | 35 | 31.5 | 31 | 19.6 | 66 | 23.4 |
| Authority figure | 5 | 1.6 | 9 | 4.5 | 14 | 3.6 |
| Stranger | 14 | 14.5 | 48 | 26.4 | 62 | 22.7 |
| Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for AIDS" (N=814M, 358F, 1,172T) | | | | | | |
| Yes | 494 | 64.2 | 224 | 60.9 | 718 | 62.9 |

| | | | | | | |
|--|-----|------|-----|------|-----|------|
| No | 291 | 35.8 | 133 | 39.2 | 424 | 37.1 |
| Over the last 2 weeks, how often have you been bothered by having little interest or pleasure in doing things? (N=814M, 358F, 1,172T) | | | | | | |
| Not at all | 287 | 37.0 | 96 | 26.7 | 383 | 33.2 |
| Several days | 241 | 30.6 | 106 | 32.2 | 347 | 31.2 |
| More than half the days | 81 | 11.1 | 44 | 12.9 | 125 | 11.8 |
| Nearly half the days | 176 | 21.3 | 111 | 28.2 | 287 | 23.9 |
| Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless? (N=814M, 358F, 1,172T) | | | | | | |
| Not at all | 307 | 38.8 | 97 | 27.3 | 404 | 34.6 |
| Several days | 234 | 29.6 | 108 | 33.3 | 342 | 31.0 |
| More than half the days | 80 | 10.9 | 59 | 15.1 | 139 | 12.4 |
| Nearly half the days | 164 | 20.7 | 93 | 24.3 | 257 | 22.0 |

**Weighted proportion could not be calculated*

Last sex act characteristics

Table 3.4.2 shows that over half of the drug users used a condom at last sex act. Over two thirds had taken alcohol before sex while over 70% used drugs for pleasure.

Table 3.4.2: Last sex characteristics for DUS in Kampala, Uganda 2011-2013

| Characteristic | Male | | Female | | Total | |
|--|-------------|----------|-------------|----------|-------------|----------|
| | Unweighted | Weighted | Unweighted | Weighted | Unweighted | Weighted |
| | Number | % | Number | % | Number | % |
| Was a condom used the last time you had sex? (N=572M, 280F, 852T)* | | | | | | |
| Yes | 283 (49.5%) | | 148 (52.9%) | | 431 (50.6%) | |
| No | 289 (50.5%) | | 132 (47.1%) | | 421 (49.4%) | |
| Did you drink alcohol just before you had sex last time? (N=737M, 348F, 1,085T) | | | | | | |
| Yes | 499 | 64.1 | 276 | 78.1 | 775 | 69.2 |
| No | 238 | 35.9 | 72 | 21.9 | 310 | 30.8 |
| Did you take drugs for pleasure just before you had sex last time? (N=792M, 357F, 1,149T) | | | | | | |
| Yes | 557 | 71.5 | 264 | 70.2 | 821 | 71.0 |
| No | 235 | 28.6 | 93 | 29.8 | 328 | 29.0 |

**Weighted proportion could not be calculated*

HIV testing characteristics among Drug Users

It was noted that 57.5% ever tested for HIV largely within a time frame of one year before the survey, HIV testing was mostly done in clinics or hospitals and testing centres accounting for over three thirds of the Drug users. These same places were largely preferred for HIV testing.

Table 3.4.3: HIV testing characteristics for DUS in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|-------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever tested for HIV (N=1,172) | | | | |
| Yes | 648 | 57.5 | 53.9 | 61.0 |
| No | 524 | 42.5 | 39.0 | 46.2 |
| Most recent HIV testing | | | | |
| Within the last 12 months | 360 | 59.9 | 54.5 | 65.4 |
| 2 - 3 years ago | 131 | 21.6 | 17.0 | 26.1 |
| 4+ years ago | 151 | 18.5 | 14.8 | 22.2 |
| Main reason never tested for HIV (N=524) | | | | |
| Afraid of HIV-Positive Result | 178 | 33.2 | 28.1 | 38.4 |
| Don't feel at risk | 122 | 21.6 | 17.2 | 26.0 |
| Not enough confidentiality at testing place | 29 | 5.7 | 3.3 | 8.1 |
| Fear of not getting enough support from family, friends, or partner is result is positive | 114 | 24.7 | 19.4 | 29.8 |
| Don't know where to test | 65 | 12.4 | 8.8 | 16.0 |
| Too expensive | 16 | 2.4 | 0.7 | 4.0 |
| Number of life-time HIV tests (N=648) | | | | |
| 1 | 191 | 28.5 | 24.0 | 33.1 |
| 2-4 | 353 | 54.4 | 49.1 | 59.7 |
| 5+ | 104 | 17.1 | 12.7 | 21.5 |
| Place of last HIV test (N=648) | | | | |
| Clinic or Hospital | 312 | 47.1 | 41.8 | 52.3 |
| Testing center (e.g., AIC, MILD MAY, TASO) | 189 | 28.9 | 24.2 | 33.5 |
| At home | 55 | 9.6 | 6.1 | 13.1 |
| Other | 92 | 14.4 | 10.8 | 18.0 |
| Preferred place of HIV testing (N=648)* | | | | |
| Clinic or Hospital | 255 (39.4%) | | | |
| Testing center (e.g., AIC, MILD MAY, TASO) | 311 (48%) | | | |
| At home | 24 (3.7%) | | | |
| Mobile testing, eg. in a mobile HCT bus | 37 (5.7%) | | | |
| Other | 21 (3.2%) | | | |
| Preference to self-test for HIV (N=648) | 187 | 81.5 | 74.5 | 88.7 |
| Disclosure of HIV test result to sex partner (yes) (N=444)* | 324 (73%) | | | |

*Weighted proportion could not be calculated

Self-Report HIV Vs Measured HIV status among Drug users

Table 3.4.4 show a big variation between self-report status and measured result with an increasing trend. It can be noted that whereas 2 percent reported being HIV positive; more nine in ten were positive on laboratory testing. Two thirds of DUS who reported not knowing their HIV status tested positive and among the self-reported negative over a fifths were HIV positive.

Table 3.4.4: Perceived status v. HIV test results for DUS in Kampala, Uganda 2011-2013

| | | HIV - Measured HIV status | | | | | | | |
|----------------------|------------|---------------------------|----------|--------------|--------------|------------|----------|--------------|--------------|
| Perceived HIV Status | | Negative | | | | Positive | | | |
| | | Unweighted | Weighted | | | Unweighted | Weighted | | |
| | | Number | % | Lower 95% CI | Upper 95% CI | Number | % | Lower 95% CI | Upper 95% CI |
| | | | | | | | | | |
| | Negative | 274 | 36.5 | 30.8 | 42.1 | 21 | 21.0 | 7.8 | 34.6 |
| | Positive | 27 | 1.8 | 0.8 | 2.8 | 13 | 11.7 | 0.8 | 22.2 |
| | Don't know | 654 | 61.7 | 56.1 | 67.3 | 124 | 67.3 | 51.0 | 83.6 |

Biomarkers

Overall, 17% of drug users in Kampala are HIV-infected; 23.5% had active syphilis and 20.0% tested positive for hepatitis B virus (HBV).

Table 3.4.5: Biological test results for DUS in Kampala, Uganda 2011-2013

| Characteristic | Category | Percentage that are HIV positive | | | |
|--------------------------------|----------|----------------------------------|----------|--------------|--------------|
| | | Unweighted | Weighted | | |
| | | % | % | Lower 95% CI | Upper 95% CI |
| Sex (N=814) | Male | 11.8 | 12.3 | 9.4 | 15.2 |
| | Female | 27.4 | 26.8 | 20.8 | 32.7 |
| Overall (n=1172) | | 194 (16.6%) | | | |
| SYP (N=1,172) (N=67) | Positive | 26.9 | 23.5 | 12.4 | 34.4 |
| | Negative | 15.9 | 17.2 | 14.1 | 20.2 |
| HBV (N=1,172) (N=99) | Positive | 21.2 | 20.9 | 11.3 | 30.3 |
| | Negative | 16.6 | 17.4 | 14.3 | 20.5 |

Service access among Drug Users

Table 3.4.6 indicates that generally 70% of the DUS had access to the different service save for ARV where three in five drug users that are HIV positive had access. Almost four in five drug users report having easy access to HIV testing and counselling, three quarters had easy access to STD testing and treatment while access to information about STI and HIV and family planning methods was at 70% and 71% respectively as well as access to legal and human rights services at almost three quarters.

Table 3.4.6: Service access and uptake for DUS in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|--|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| Can you easily get information about STDs or AIDS? (N=1,172) | 791 | 70.1 | 66.8 | 73.4 |
| Can you easily get HIV testing and counselling? (N=1,172) | 917 | 79.6 | 76.7 | 82.5 |
| Can you easily get STD testing and treatment? (N=1,172) | 867 | 75.3 | 71.8 | 78.8 |
| Can you easily get family planning services? (N=358) | 261 | 70.8 | 64.4 | 77.4 |
| Can you easily get legal or human rights services? (N=1,172) | 835 | 73.1 | 69.9 | 76.3 |
| Have you ever started to take ARVs?* (N=58) | 39 | 59.5 | 44.2 | 75.1 |

*Weighted proportion could not be calculated

Commercial sex among Drug Users

More than 60% of male DUS have ever bought sex while over three quarters of the female DUS have ever sold sex. 90% of female DUS considered sex work as their main source of income compare to only a quarter of the males.

Table 3.4.7. Buying and selling sex for DUS in Kampala, Uganda 2011-2013

| Characteristic | Male | | Female | | Total | |
|---|--------------|----------|--------------|----------|----------------|----------|
| | Unweighted | Weighted | Unweighted | Weighted | Unweighted | Weighted |
| | Number | % | Number | % | Number | % |
| Did you ever buy sex? (N=792M, 357F, 1,149T) | n=792 | | n=357 | | n=1,149 | |
| Yes | 516 | 61.7 | 115 | 30.4 | 631 | 50.4 |
| No | 275 | 38.3 | 239 | 69.6 | 514 | 49.6 |
| Did you ever sell sex? (N=792M, 357F, 1,149T) | | | | | | |
| Yes | 163 | 16.5 | 267 | 78.9 | 430 | 39.0 |
| No | 629 | 83.6 | 90 | 21.1 | 719 | 61.0 |
| Is sex work your main source of income? (N=163M, 267F, 430M) | | | | | | |
| Yes | 46 | 25.7 | 235 | 89.5 | 281 | 69.2 |
| No | 117 | 74.3 | 32 | 10.5 | 149 | 30.8 |

Types of Drugs used

Overall, 80% of the DUS ever chewed Khat followed by slightly over a half who ever injected Cocaine. Other injected drugs included; heroin (33.3%), opiates (31%). Non-injecting ever drug use included sniffing glue, cocaine and petrol. About 13% (153/1,172) injected drugs in the last 6 months. About 37% of injecting drug users had ever used a needle or syringe that were not completely new and unused with over one thirds sharing the needle or syringe with other injecting drug users. Drug users largely use water to clean their needles or syringes (34%) while only 5% use cotton. The needles or syringes used were mainly bought from Hospital and pharmacy.

Table 3.4.8. Drug use for DUS in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Ever sniffed glue (N=1,172) | 422 | 34.0 | 30.4 | 37.5 |
| Ever sniffed cocaine (N=1,172) | 367 | 28.2 | 25.0 | 31.3 |
| Ever sniffed fuel or petrol (N=1,172) | 488 | 37.3 | 33.8 | 40.9 |
| Ever chewed Khat (N=1,172) | 954 | 78.9 | 75.4 | 82.4 |
| Ever inject drugs (N=1,172) | 237 | 18.2 | 15.5 | 21.0 |
| Ever practiced flashblood (N=237) | 47 | 19.3 | 12.9 | 25.7 |
| Ever injected Heroine, brown sugar or white sugar (N=237) | 87 | 33.3 | 25.8 | 40.6 |
| Ever injected Buprenorphine, Pethidine, Morphine, or Pentazocin (N=237) | 67 | 30.7 | 22.8 | 38.5 |
| Ever injected Cocaine (N=237) | 127 | 52.5 | 44.1 | 60.9 |
| In the last 6 months, how often did you inject drugs? (N=153) | | | | |
| Every day | 52 | 27.9 | 19.3 | 36.4 |
| Several times a week | 33 | 20.3 | 11.0 | 29.4 |
| Several times a month | 25 | 16.1 | 9.3 | 23.1 |
| Once a month or less | 44 | 35.7 | 25.0 | 46.5 |
| Ever used a needle or syringe that were not completely new and unused? (N=237) | | | | |
| Yes | 112 | 46.6 | 37.8 | 55.2 |
| No | 125 | 53.4 | 44.8 | 62.2 |
| Ever share your needles or syringes with others when you injected drugs? (N=237) | | | | |
| Yes | 89 | 37.2 | 29.0 | 45.3 |
| No | 148 | 62.8 | 54.7 | 71.0 |
| What do you usually use to clean the needle/syringe? (N=237) | | | | |
| Only water | 77 | 33.5 | 25.8 | 41.6 |
| Soap and water | 54 | 23.1 | 14.9 | 31.1 |
| Soda/soft drinks | 13 | 3.8 | 1.3 | 6.2 |
| Alcohol | 29 | 13.4 | 6.6 | 19.9 |
| Bleach | 40 | 15.8 | 10.4 | 21.4 |

| | | | | |
|--|----|------|------|------|
| Cotton | 12 | 4.8 | 1.5 | 8.1 |
| Other | 12 | 5.6 | 1.5 | 9.7 |
| Where do you usually get new needles and syringes from? (N=237) | | | | |
| Pharmacy | 82 | 30.0 | 23.0 | 37.1 |
| Hospital | 84 | 36.8 | 29.1 | 44.5 |
| Other drug users | 58 | 27.5 | 19.5 | 35.3 |
| Other | 13 | 5.8 | 2.0 | 9.6 |

Perceptions on acceptability

More than half feel rejected by the police, and over one third feel rejected by neighbours, family (42%), or health care workers (39%).

Table 3.4.9. Perceptions for DUS in Kampala, Uganda 2011-2013

| Characteristic | Number | Weighted | | |
|---|--------|----------|--------------|--------------|
| | | % | Lower 95% CI | Upper 95% CI |
| How accepted do you feel by police? (N=1,172) | | | | |
| Very accepted | 221 | 17.8 | 14.9 | 20.8 |
| Somewhat accepted | 318 | 28.2 | 24.7 | 31.7 |
| Rejected | 603 | 54.0 | 50.0 | 58.0 |
| How accepted do you feel by your neighbors? (N=1,172) | | | | |
| Very accepted | 361 | 28.1 | 24.7 | 31.5 |
| Somewhat accepted | 413 | 36.5 | 32.6 | 40.3 |
| Rejected | 368 | 35.5 | 31.4 | 39.6 |
| How accepted do feel by health care workers? (N=1,172) | | | | |
| Very accepted | 328 | 26.9 | 23.7 | 30.0 |
| Somewhat accepted | 383 | 33.9 | 30.4 | 37.4 |
| Rejected | 431 | 39.2 | 35.7 | 42.6 |
| How accepted do you feel by your family? (N=1,172) | | | | |
| Very accepted | 385 | 33.1 | 29.4 | 36.7 |
| Somewhat accepted | 318 | 25.5 | 22.0 | 28.9 |
| Rejected | 439 | 41.5 | 37.5 | 45.5 |

ACASI characteristics among DUS

Table 3.4.10 shows that two thirds of the DUS prefer ACASI interviews to face-to-face interviews and majority (60%) are more likely to give private information to a computer although most (70%) had never used a computer before.

Table 3.4.10. Interview preferences for DUS in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | Weighted | | |
|---|------------|----------|--------------|--------------|
| | Number | % | Lower 95% CI | Upper 95% CI |
| Do you prefer a computer or a person for such an interview? (N=1,172) | | | | |
| Prefer computer | 751 | 65.4 | 61.9 | 68.9 |
| Doesn't make a difference | 182 | 14.5 | 12.0 | 17.0 |
| Prefer a person | 239 | 20.2 | 17.1 | 23.2 |
| Are you more likely give private information to a computer or to a person? (N=1,172) | | | | |
| To a computer | 673 | 58.7 | 54.9 | 62.6 |
| To a person | 236 | 18.5 | 15.7 | 21.4 |
| Would tell both | 226 | 19.8 | 16.9 | 22.9 |
| Would tell neither | 37 | 2.9 | 1.8 | 4.0 |
| How often do you use computers? (N=1,172) | | | | |
| Never used before | 799 | 69.5 | 65.8 | 73.3 |
| Monthly or less | 222 | 18.3 | 15.5 | 21.2 |
| Daily or weekly | 151 | 12.1 | 9.4 | 14.9 |

3.5 Trans-gender women (TG)

The survey among TG was qualitative in nature and targeted total of 45 interviews conducted and evaluated using NVivo. Median age of participants was 23 years; HIV prevalence was 20%.

Emergent themes revealed a highly varied gender identity and expression. HIV-related themes included limited access to non-stigmatizing health services, inconsistent condom use, inaccurate perceptions of self and partners' risk, alcohol use, anal sex with men, high rates of multiple partners, high rates of self and enacted stigma and violence. These themes reveal the broader structural context as well as personal and relational behavioural factors related to HIV risk behaviour. Social, cultural and policy issues surrounding TGW revealed HIV prevention attitudes, risk and health-promoting behaviours that could inform interventions. Stigma and violence were reported by almost all respondents.

One participant mentioned, "They called me " Devil" and wanted to kill me, they told my mum that we don't want to associate with your child . . . I was sent away from the home and my mother felt very bad and didn't know what to do . . . my mother's house was burnt down; they tortured and beat me."

The findings highlight the urgency to target this hidden key population with innovative, comprehensive and effective HIV prevention interventions that address structural issues as well as high-risk behaviours such as inconsistent condom use, multiple partners, self and enacted stigma, violence and alcohol use.

Table 3.5.1: Sexual Behaviour Characteristics for TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|---|------------|-------------|
| | Number | Percent (%) |
| How old were you when you first had sex? (median) (N=40) | 16 | IQR:14, 18 |
| Age of partner at first sex (median) (N=40) | 21 | IQR: 18, 25 |
| Respondent had sex with... (N=41) | | |
| Only men | 29 | 70.7 |
| Only women | 0 | 26.8 |
| Both | 11 | 2.4 |
| Men have had anal or vaginal sex? Or both? (N=41) | | |
| Only vaginal sex | 2 | 4.9 |
| Only anal sex | 34 | 82.9 |
| Both vaginal and anal sex | 4 | 9.8 |
| Ever used condom (N=41) | | |
| Yes | 34 | 82.9 |
| No | 6 | 14.6 |
| Main reason last time a condom not used (N=34) | | |
| Didn't have one | 8 | 23.5 |
| Forgot to use it | 2 | 5.9 |
| Didn't want to use one | 3 | 0.8 |
| Partner refused | 5 | 14.7 |
| Didn't feel at risk | 4 | 11.8 |
| Too expensive | 1 | 2.9 |

| | | |
|--|----|-------|
| Partner was HIV negative | 3 | 8.8 |
| I always use condoms | 8 | 23.5 |
| Run short of condoms in last 6 mos. (N=34) | | |
| Yes | 20 | 58.8 |
| No | 13 | 38.2 |
| Ever used lubricants (N=41) | | |
| Yes | 39 | 95.1 |
| No | 1 | 2.4 |
| Type of lubricant used (N=39) | | |
| Water-based | 16 | 41.0 |
| Oil-based | 21 | 53.9 |
| I don't know | 2 | 5.1 |
| Which lubricant do you use most often (N=39) | | |
| Saliva | 1 | 2.6 |
| Petroleum or Vaseline | 6 | 15.4 |
| Handlotion, vaginal gel, or baby oil | 3 | 7.7 |
| KY jelly | 21 | 53.9 |
| Butter, Blue Band, ghee, or cooking oil | 0 | 0.0 |
| Water | 2 | 5.1 |
| Soap | 1 | 2.6 |
| Other | 5 | 12.8 |
| Use lubricant for anal sex (N=37) | | |
| Yes | 37 | 100.0 |
| No | 0 | 0.0 |
| How many times used lubricants last 5 rounds of anal sex (N=37) | | |
| 0% | 0 | 0.0 |
| 20% | 3 | 8.1 |
| 40% | 7 | 18.9 |
| 60% | 7 | 18.9 |
| 80% | 2 | 5.4 |
| 100% | 18 | 48.7 |
| Proportion of protected anal sex (N=38) | | |
| 0-20% | 9 | 23.7 |
| 21-40% | 5 | 13.2 |
| 41- 60% | 1 | 2.6 |
| 61-80% | 4 | 10.5 |
| 81-100% | 12 | 31.6 |
| Have you ever been raped? (N=41) | | |
| Yes | 11 | 26.8 |
| No | 29 | 70.7 |
| Who forced you to have sex with them? (N=11) | | |
| Family member, relative | 0 | 0.0 |
| My own sex partner | 5 | 45.5 |

| | | |
|--|----|------|
| Friend | 3 | 27.3 |
| Authority figure | 2 | 18.2 |
| Stranger | 1 | 9.1 |
| What kind of anal sex is more dangerous to get HIV? (N=41) | | |
| Active (top) anal sex | 4 | 9.8 |
| Passive (bottom) anal sex | 18 | 43.9 |
| Both have same risk | 14 | 34.2 |
| Both without risk | 2 | 4.9 |
| Don't know | 3 | 7.3 |
| Is it more likely to get HIV through vaginal sex or anal sex? (N=41) | | |
| Vaginal sex | 3 | 7.3 |
| Anal sex | 12 | 29.3 |
| Same risk | 23 | 56.1 |
| Don't know | 3 | 7.3 |
| Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for AIDS" (N=41) | | |
| Yes | 17 | 41.5 |
| No | 24 | 58.5 |

Last sex act characteristics

Most last sex acts were protected by condoms and lubricants, however alcohol and drug use were common among TGs.

Table 3.5.2: Last sex characteristics for TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|---|------------|-------------|
| | Number | Percent (%) |
| Was a condom used the last time you had sex? (N=34) | | |
| Yes | 26 | 76.5 |
| No | 8 | 23.5 |
| Did you use a lubricant the last time you had sex? (N=39) | | |
| Yes | 38 | 97.4 |
| No | 1 | 2.6 |
| Did you drink alcohol just before you had sex last time? (N=35) | | |
| Yes | 14 | 40.0 |
| No | 20 | 57.1 |
| Did you take drugs for pleasure just before you had sex last time? (N=13) | | |
| Yes | 4 | 30.8 |
| No | 9 | 69.2 |
| Was this last sex act agreed by both you and the partner, or did one coerce or force the other? (N=41) | | |
| Agreed | 39 | 95.1 |

| | | |
|---------|---|-----|
| Coerced | 1 | 2.4 |
| Forced | 1 | 2.4 |

HIV testing among TGs

87.8% of respondents had tested for HIV before and many have tested more than once, mostly within the last 12 months. More than half would prefer to self-test.

Table 3.5.3: HIV testing characteristics for TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|---|------------|-------------|
| | Number | Percent (%) |
| Ever tested for HIV (N=41) | | |
| Yes | 36 | 87.8 |
| No | 5 | 12.2 |
| Main reason never tested for HIV (N=5) | | |
| Afraid of HIV-Positive Result | 1 | 20.0 |
| Don't feel at risk | 2 | 40.0 |
| Not enough confidentiality at testing place | 1 | 20.0 |
| Fear of not getting enough support from family, friends, or partner if result is positive | 0 | 0.0 |
| Don't know where to test | 1 | 20.0 |
| Too expensive | 0 | 0.0 |
| Number of life-time HIV tests (N=36) | | |
| 1 | 3 | 8.3 |
| 2-4 | 24 | 66.7 |
| 5+ | 9 | 25.0 |
| Timing of last HIV test (N=36) | | |
| Within last 12 months | 31 | 86.1 |
| 2-3 years ago | 2 | 5.6 |
| 4+ years ago | 3 | 8.3 |
| Place of last HIV test (N=36) | | |
| Clinic or Hospital | 19 | 52.8 |
| Testing center (e.g., AIC, MILD MAY, TASO) | 13 | 36.1 |
| At home | 1 | 2.8 |
| Other | 3 | 8.3 |
| Preferred place of HIV testing (N=36) | | |
| Clinic or Hospital | 16 | 44.4 |
| Testing center (e.g., AIC, MILD MAY, TASO) | 20 | 55.6 |
| At home | 0 | 0.0 |
| Mobile testing, eg. in a bus | 0 | 0.0 |
| Other | 0 | 0.0 |
| Preference to self-test for HIV (N=36) | 23 | 63.9 |
| Disclosure of HIV test result to sex partner (yes) (N=) | 21 | 77.8 |

Table 3.5.4: Perceived status v. HIV test results for TG in Kampala, Uganda 2011-2013

| | | HIV - Measured HIV status | | | |
|----------------------|------------|---------------------------|---------|------------|---------|
| Perceived HIV Status | | Negative | | Positive | |
| | | Unweighted | | Unweighted | |
| | | Number | Percent | Number | Percent |
| | Negative | 13 | 41.9 | 2 | 33.3 |
| | Positive | 0 | 0.0 | 0 | 0.0 |
| | Don't know | 18 | 58.1 | 4 | 66.7 |
| | Total | 31 | 100.0 | 6 | 100 |

Table 3.5.5: Service uptake for TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|---|------------|-------------|
| | Number | Percent (%) |
| Can you easily get information about STDs or AIDS? (N=41) | 27 | 65.9 |
| Can you easily get HIV testing and counseling? (N=41) | 33 | 80.5 |
| Can you easily get STD testing and treatment? (N=41) | 29 | 70.7 |
| Can you easily get testing and treatment for anal STDs? (N=41) | 25 | 61.0 |
| Can you easily get legal or human rights services? (N=41) | 18 | 43.9 |
| Have you ever registered for care and treatment for your HIV infection? (N=4) | 4 | 100.0 |
| Have you ever started to take ARVs? (N=4) | 3 | 75.0 |
| Do you still take ARVs? (N=3) | 2 | 66.7 |
| After you tested positive for HIV, did they test you for TB? (N=4) | 2 | 50.0 |

Commercial sex.

More than half of TG respondents reportedly sold sex (almost only to men) and about 30% bought sex. Among those who ever sold sex, less than half stated selling sex is their main income.

Table 3.5.6. Buying and selling sex among TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|------------------------------|------------|-------------|
| | Number | Percent (%) |
| Did you ever buy sex? (N=41) | | |
| Yes | 12 | 29.3 |
| No | 28 | 68.3 |

| | | |
|---|----|------|
| Did you ever buy sex from a man? (N=12) | | |
| Yes | 9 | 75.0 |
| No | 3 | 25.0 |
| Did you ever sell sex? (N=41) | | |
| Yes | 23 | 56.1 |
| No | 17 | 41.5 |
| Did you ever sell sex to a man for money, goods, or services? (N=23) | | |
| Yes | 22 | 95.7 |
| No | 1 | 4.4 |
| Is sex work your main source of income? (N=23) | | |
| Yes | 11 | 47.8 |
| No | 12 | 52.2 |

Drug use

More than a quarter of the respondents reported taking drugs.

Table 3.5.7. Drug use amongTG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|--|------------|-------------|
| | Number | Percent (%) |
| Ever inhale, sniff, or swallow drugs (N=41) | 12 | 29.3 |
| Ever take nitrite inhalers (N=12) | 4 | 33.3 |
| Ever sniffed glue (N=12) | 4 | 33.3 |
| Ever sniffed cocaine (N=12) | 4 | 33.3 |
| Ever sniffed fuel or petrol (N=12) | 4 | 33.3 |
| Ever chewed Khat (N=12) | 6 | 50.0 |
| Ever injected drugs (N=41) | 1 | 2.4 |

Mental health

56.1% sometimes feel their life is worth less than that of others; 63.4% sometimes hate themselves, and 48.8% stated they ever felt they didn't want to live any longer.

Table 3.5.8. PerceptionsamongTG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|--|------------|-------------|
| | Number | Percent (%) |
| Over the last 2 weeks, how often have you been bothered by having little interest or pleasure in doing things? (N=41) | | |
| Not at all | 14 | 34.2 |
| Several days | 15 | 36.6 |
| More than half the days | 6 | 14.6 |
| Nearly half the days | 5 | 14.6 |
| Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless? (N=41) | | |

| | | |
|--|----|------|
| Not at all | 17 | 41.5 |
| Several days | 16 | 39.0 |
| More than half the days | 3 | 7.3 |
| Nearly half the days | 5 | 12.2 |
| Do you sometimes feel your life is worth less than the life of other people? (N=41) | | |
| Yes | 23 | 56.1 |
| No | 18 | 43.9 |
| Do you sometimes hate yourself? (N=41) | | |
| Yes | 26 | 63.4 |
| No | 15 | 36.6 |
| Have you ever felt you don't want to live? (N=41) | | |
| Yes | 20 | 48.8 |
| No | 21 | 51.2 |

ACASI characteristics

Most prefer ACASI to face to face interviews and are more likely to give private information to a computer. Few never used a computer before.

Table 3.5.9. Interview preferences for TG in Kampala, Uganda 2011-2013

| Characteristic | Unweighted | |
|--|------------|-------------|
| | Number | Percent (%) |
| Do you prefer a computer or a person for such an interview? (N=41) | | |
| Prefer computer | 35 | 85.4 |
| Doesn't make a difference | 5 | 12.2 |
| Prefer real person | 1 | 2.4 |
| Are you more likely give private information to a computer or to a person? (N=41) | | |
| To a computer | 33 | 80.5 |
| To a person | 5 | 12.2 |
| Would tell both | 3 | 7.3 |
| Would tell neither | 0 | 0.0 |
| How often do you use computers? (N=41) | | |
| Never used before | 6 | 14.6 |
| Monthly or less | 12 | 29.3 |
| Daily or weekly | 23 | 56.1 |

3.6 Network (NET)

This survey focused on people with partner concurrency (individuals with multiple sexual partners). Most initial recruits (seeds) were identified at an external HIV testing and counselling facility and based on self-reported multiple partnerships, were then referred to Crane and enrolled in the survey. Enrolment criteria included adult age and self-reported multiple partnerships of two and above sexual relationships. Initial enrolled seeds were given as many coupons as they reported having sex partners. Once their partners presented at Crane, they were offered enrolment and, if reporting multiple partnerships (i.e., partners in addition to the recruiter), offered coupons for further recruitment. Hence, the sampling strategy resembled RDS except that sexual relationships, and not just social ones, would determine recruitment and enrolment.

Sexual Behavioural characteristics among NET

Table 3.6.1 indicates that the average age at first sexual debut was almost the age of an adult based on the Ugandan Law of 18 year age lower limit while the partners were slightly older that is average age of 19 years. The table shows that above half of the NETs ever had sexual intercourse with men, 91 percent have had sex with only women and almost all have virginal sex an above three quarters of the NETs have used a condom. It was also noted that above two fifths of the NET have experienced rape largely by own partners followed by strangers. Slightly above half of the NET agree with the statement “I am not as careful about HIV and sex now because there is better treatment for AIDS”.

Table 3.6.1: Sexual Behaviour Characteristics among NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|--|-------------------|--------------------|
| How old were you when you first had sex? (median) (N=1,305) | 17 | IQR: 15, 18.5 |
| Sex partners (median) (N=1,305) | 19 | IQR: 16, 22 |
| Have you ever had sexual intercourse with men? (N=1,305) | | |
| Yes | 691 | 53.0 |
| No | 613 | 47.0 |
| Women have had anal or vaginal sex? Or both? (N=646) | | |
| Only vaginal sex | 599 | 92.7 |
| Only anal sex | 2 | 0.3 |
| Both vaginal and anal sex | 45 | 7.0 |
| Men have had anal or vaginal sex? Or both? (N=659) | | |
| Only vaginal sex | 596 | 90.4 |
| Only anal sex | 11 | 1.7 |
| Both vaginal and anal sex | 51 | 7.7 |
| Ever used condom (N=1,305) | | |
| Yes | 1,020 | 78.2 |
| No | 284 | 21.8 |
| Have you ever been raped? (N=1,305) | | |
| Yes | 285 | 21.8 |
| No | 1,019 | 78.1 |
| Who forced you to have sex with them? (N=285) | | |

| | | |
|---|-----|-----------|
| Family member, relative | 24 | 8.4 |
| My own sex partner | 127 | 44.6 |
| Friend | 55 | 19.3 |
| Authority figure | 13 | 4.6 |
| Stranger | 66 | 23.2 |
| How many times were you forced to have sex in the last 6 months? (median) (N=285) | 1 | IQR: 0, 3 |
| Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for AIDS" (N=900) | | |
| Yes | 459 | 51.0 |
| No | 441 | 49.0 |

HIV testing characteristics

Two thirds ever tested for HIV and of these many tested 2+ times those who have never test were largely afraid of positive results. Slightly less than half stated a preference for self-testing at testing centres while slightly above two fifths (42 percent) of NETs preferred to test at clinic or Hospital.

Table 3.6.2: HIV testing characteristics among NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|---|-------------------|--------------------|
| Ever tested for HIV (N=1,305) | | |
| Yes | 863 | 66.1 |
| No | 442 | 33.9 |
| Main reason never tested for HIV (N=442) | | |
| Afraid of HIV-Positive Result | 141 | 31.9 |
| Don't feel at risk | 85 | 19.2 |
| Not enough confidentiality at testing place | 32 | 7.2 |
| Fear of not getting enough support from family, friends, or partner is result is positive | 97 | 22.0 |
| Don't know where to test | 54 | 12.2 |
| Too expensive | 10 | 2.3 |
| Number of life-time HIV tests (N=863) | | |
| 1 | 212 | 24.6 |
| 2-4 | 502 | 58.2 |
| 5+ | 149 | 17.3 |
| Place of last HIV test (N=863) | | |
| Clinic or Hospital | 467 | 54.1 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 276 | 32.0 |
| At home | 46 | 5.3 |
| Other | 74 | 8.6 |
| Preferred place of HIV testing (N=863) | | |
| Clinic or Hospital | 359 | 41.6 |
| Testing centre (e.g., AIC, MILD MAY, TASO) | 423 | 49.0 |

| | | |
|---|------------|-------------|
| At home | 17 | 2.0 |
| Mobile testing, eg. in a bus | 32 | 3.7 |
| Other | 32 | 3.7 |
| Preference to self-test for HIV (N=863) | 374 | 43.3 |
| Disclosure of HIV test result to sex partner (yes) (N=657) | 547 | 83.3 |

Self report Vs Measured HIV status among NETs

The table shows that whereas 2 percent reported to be HIV positive measured results showed 7 percent were actually positive. Of the 65 percent who did not know their HIV status, over 82 percent were HIV positive and of the 33 percent who reported to be HIV negative, 11 percent turned out positive.

Table 3.6.3: Perceived status v. HIV test results for NET in Kampala, Uganda 2011-2013

| | | HIV - Measured HIV status | | | |
|-----------------------------|------------|----------------------------------|------------|------------|------------|
| Perceived HIV Status | | Negative | | Positive | |
| | | Unweighted | Unweighted | Unweighted | Unweighted |
| | | Number | Percent | Number | Percent |
| | Negative | 313 | 32.5 | 24 | 11.1 |
| | Positive | 23 | 2.4 | 15 | 6.9 |
| | Don't know | 626 | 65.1 | 177 | 81.9 |
| Total | | 962 | 100.0 | 216 | 100.0 |

Biomarkers

Overall HIV prevalence is 25%. HIV infected respondents had a median CD4 count of 582. Syphilis prevalence was estimated at 4.4%

Table 3.6.4: Biological test results for NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|------------------------------------|----------------------|-----------------------|
| HIV Positive by Sex (N=328) | | |
| Male | 123 | 37.0 |
| Female | 205 | 62.5 |
| Overall | | |
| SYP (N=1,305) | | |
| Positive | 56 | 4.3 |
| Negative | 1,246 | 95.5 |

Service access

Generally above three quarters of the NET has easy access to the different services with testing and counselling highly accessed at 86 percent followed by STD testing and treatment at 79 percent while access to information was least at 77 percent.

Table 3.6.5: Service uptake among NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|---|----------------------|-----------------------|
| Can you easily get information about STDs or AIDS? (N=1,305) | 1,002 | 76.8 |
| Can you easily get HIV testing and counselling? (N=1,305) | 1,121 | 85.9 |
| Can you easily get STD testing and treatment? (N=1,305) | 1,029 | 78.9 |

Commercial sex

Buying (35%) and selling sex (26%) is frequent.

Table 3.6.6. Buying and selling sex among NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|---|----------------------|-----------------------|
| Did you ever buy sex? (N=1,305) | | |
| Yes | 455 | 34.9 |
| No | 849 | 65.1 |
| Did you ever sell sex? (N=1,305) | | |
| Yes | 333 | 25.5 |
| No | 971 | 74.4 |

Drug use

One fifth report having used drugs.

Table 3.6.7. Drug use among NET in Kampala, Uganda 2011-2013

| Characteristic | Unweighted Number | Unweighted Percent |
|---|----------------------|-----------------------|
| Ever inhale, sniff, or swallow drugs (N=1,305) | 295 | 22.6 |
| Ever sniffed glue (N=295) | 93 | 31.5 |
| Ever sniffed cocaine (N=295) | 76 | 25.8 |
| Ever sniffed fuel or petrol (N=295) | 95 | 32.2 |
| Ever chewed Khat (N=295) | 211 | 71.5 |
| Ever injected drugs (N=1,305) | 81 | 6.2 |

ACASI characteristics

The majority of respondents preferred the ACASI format and stated they'd be more likely to divulge private information to a computer, compared to a person.

Table 3.6.8. Interview preferences among NET in Kampala, Uganda 2011-2013

| Characteristic | Number | Percent |
|---|--------|---------|
| Do you prefer a computer or a person for such an interview? (N=1,305) | | |
| Prefer computer | 877 | 67.2 |
| Doesn't make a difference | 172 | 13.2 |
| Prefer real person | 256 | 19.6 |
| Are you more likely give private information to a computer or to a person? (N=1,305) | | |
| To a computer | 789 | 60.5 |
| To a person | 256 | 19.6 |
| Would tell both | 234 | 17.9 |
| Would tell neither | 26 | 2.0 |
| How often do you use computers? (N=1,305) | | |
| Never used before | 952 | 73.0 |
| Monthly or less | 217 | 16.6 |
| Daily or weekly | 136 | 10.4 |

3.7 Game of Contacts (GoC)

The overall unweighted transmission rate for three of the survey groups (MSM, FSW, DU) was estimated for a subset of data that was collected through September 2012. Using three network size variables (SIZEMTH, SIZEWEE, SIZEDAY), three weighted transmission rates were calculated. Table 3.7.1 shows the weighted transmission rates for three groups using the different network size variables (SIZEWEE is recommended for use). The results are presented by survey group and includes a histogram of the number of contacts generated per respondent, a table with the cross-classification of the reported characteristics of contacts generated by GoC, and the unweighted transmission rate.

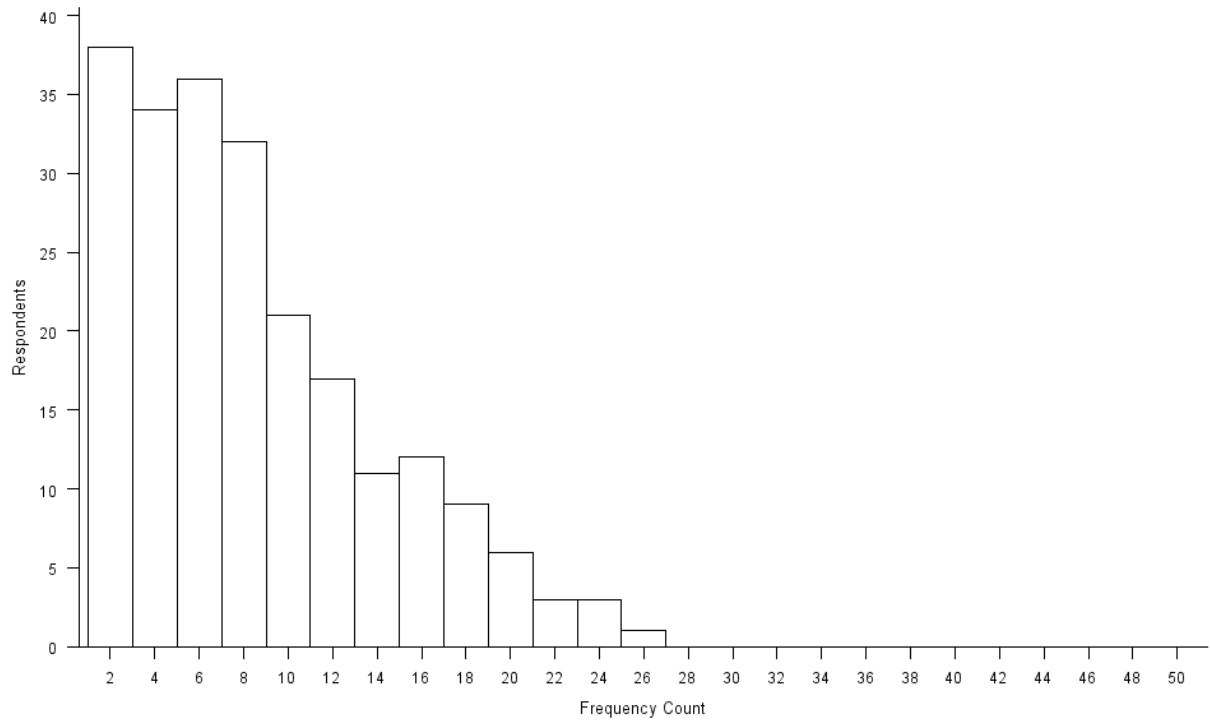
Table 3.7.1. Sample size, unweighted and unweighted transmission rates for MSM, FSW, and DU in Crane Survey, Kampala, Uganda, 2012.

| | Sample size and transmission rate (95% bootstrap confidence interval) | | | | | |
|-----------------|---|------|-------|------|-----|------------------|
| | MSM | | FSW | | DU | |
| Unweighted | 223 | 0.58 | 1,164 | 0.78 | 702 | 0.78 (0.71-0.75) |
| <u>Weighted</u> | | | | | | |
| Total with PNS | 203 | | 1,099 | | 694 | |
| SIZEMTH | 203 | 0.50 | 1,099 | 0.76 | 693 | 0.71 |
| SIZEWEE | 201 | 0.52 | 1,099 | 0.76 | 690 | 0.70 |
| SIZEDAY | 185 | 0.60 | 1,066 | 0.76 | 659 | 0.71 |

MSM

The number of contacts per MSM respondent were calculated with a frequency count (Figure 3.7.1). The mean number of contacts was 8.0 and median number of contacts generated was 7.

Figure 3.7.1. Histogram of number of contacts generated per MSM respondent, Kampala, Uganda 2012.



Reported characteristics (contact being MSM or not, contact knows respondent is MSM or not) were cross-tabulated for 1,778 contacts. Of the respondents who reported that the contact was MSM (770), 705 (92%) that contact knows the respondent is MSM, while 65 (8%) reported that the contact does not know they were MSM. Of the respondents who stated that the contact is not MSM, 334 (33%) reported that the contact knows the respondent is MSM, whereas 674 (67%) reported that the contact does not know that respondent is MSM. The unweighted transmission rate for all contacts of MSM was 58% and 33% for all contacts who are not MSM.

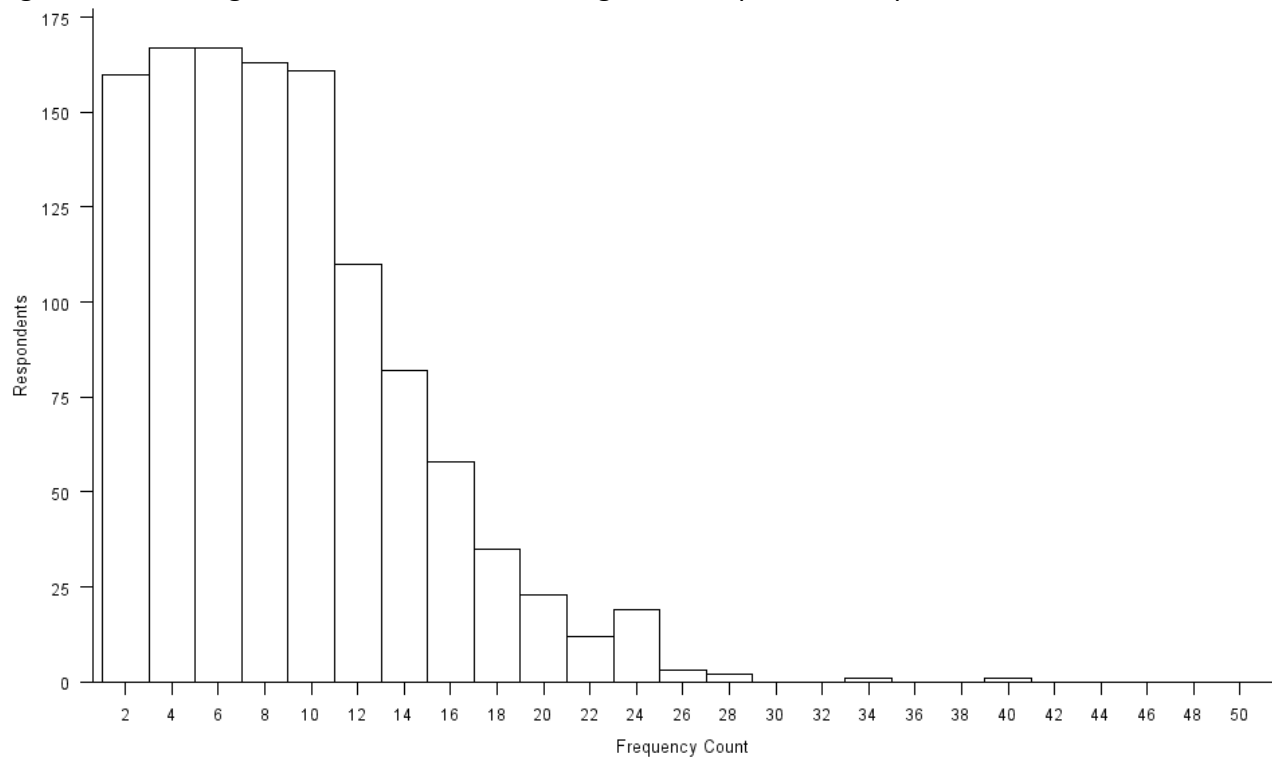
Table 3.7.2. Cross-classification of reported characteristics of 1,778 contacts in GoC for MSM respondents, Kampala, Uganda 2012.

| | Contact is MSM | Contact is not MSM | Total |
|--|---------------------|-----------------------|------------------------|
| Contact knows that you are MSM | 705 (92%) | 334 (33%) | 1,039 (58%) |
| Contact does not know that you are MSM | 65 (8%) | 674 (67%) | 739 (42%) |
| Total | 770 (43%) (100%) | 1,008 (57%) (100%) | 1,778 (100%) (100%) |

FSW

The number of contacts per FSW respondent were calculated with a frequency count (Figure 3.7.2). The mean number of contacts was 8.4 and median number of contacts generated was 8.

Figure 3.7.2. Histogram of number of contacts generated per FSW respondent



Reported characteristics (contact being FSW or not, contact knows respondent is FSW or not) were cross-tabulated for 9,730 contacts. Of the respondents who reported that the contact was FSW (4,435), 4,213 (95%) that contact knows the respondent is FSW, while 222 (5%) reported that contact does not know they were FSW. Of the respondents who stated that the contact is not FSW, 3,347 (63%) reported that contact knows the respondent is FSW, whereas 1,948 (37%) reported that the contact does not know that respondent is FSW. The unweighted transmission rate for all contacts of FSW was 78% and 63% for all contacts who are not FSW.

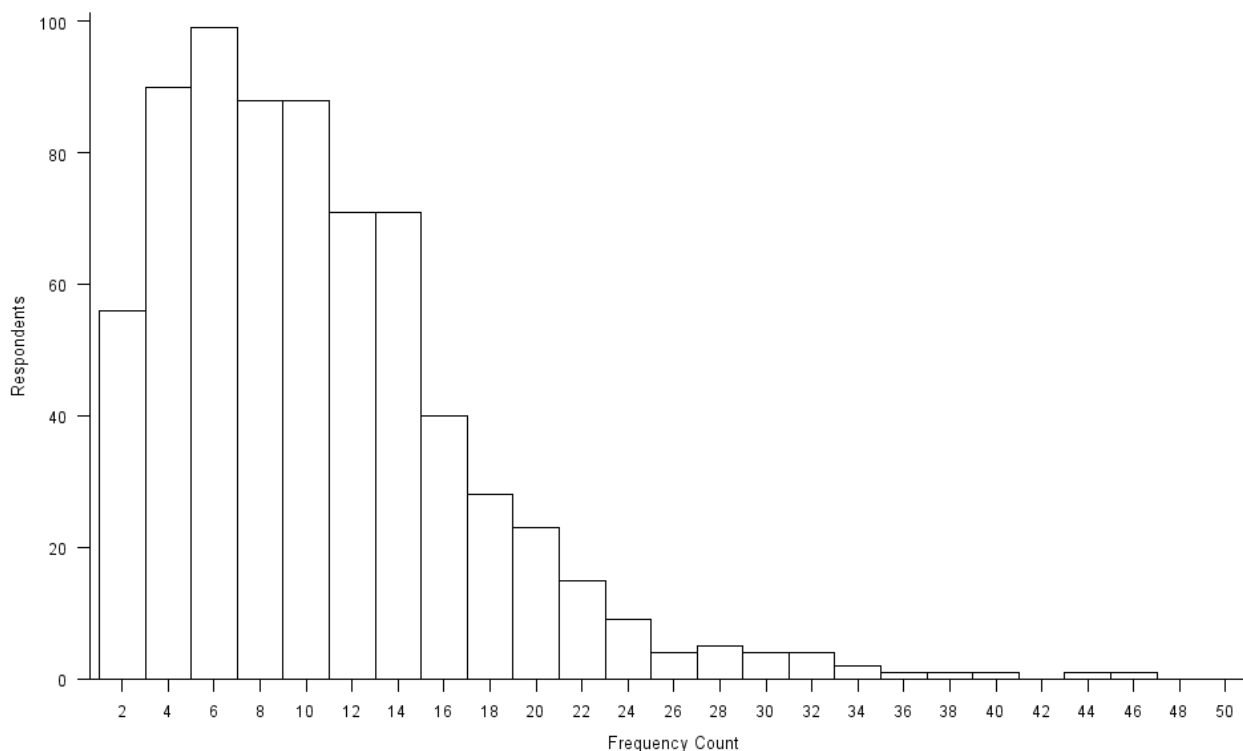
Table 3.7.3. Cross-classification of reported characteristics of 9,730 contacts in GoC for FSW respondents, Kampala, Uganda 2012.

| | Contact is FSW | Contact is not FSW | Total |
|--|--------------------|--------------------|---------------------|
| Contact knows that you are FSW | 4,213 (95%) | 3,347 (63%) | 7,560 (78%) |
| Contact does not know that you are FSW | 222 (5%) | 1,948 (37%) | 2,170 (22%) |
| Total | 4,435 (46%) (100%) | 5,295 (54%) (100%) | 9,730 (100%) (100%) |

DU

The number of contacts per DU respondent were calculated with a frequency count (Figure 3.7.3). The mean number of contacts was 10 and median number of contacts generated was 9.

Figure 3.7.3. Histogram of number of contacts generated per DU respondent



Reported characteristics (contact uses drugs or not, contact knows respondent uses drug or not) were cross-tabulated for 7,038 contacts. Of the respondents who reported that the contact uses drugs (4,072), 3,823 (94%) reported that contact knows the respondent uses drugs, while 249 (6%) reported that contact does not know they use drugs. Of the respondents who stated that the contact does not use drugs, 1,316 (44%) reported that contact knows the respondent uses drugs, whereas 1,650 (56%) reported that the contact does not know that respondent uses drugs. The unweighted transmission rate for all contacts of DU was 73% and 44% for all contacts who do not use drugs.

Table 3.7.4. Cross-classification of reported characteristics of 9,730 contacts in GoC for DU respondents, Kampala, Uganda 2012.

| | Contact uses drugs | Contact does not use drugs | Total |
|-------------------------------------|--------------------|----------------------------|--------------|
| Contact knows you use drugs | 3,823 (94%) | 1,316 (44%) | 5,139 (73%) |
| Contact does not know you use drugs | 249 (6%) | 1,650 (56%) | 1,899 (27%) |
| Total | 4,072 (58%) (100%) | 2,966 (42%) (100%) | 7,038 (100%) |

3.8 Population Size Estimates

Table 3.8.1. Frequency of capture, recapture, and matches (present, identify) of UMOs for MSM and FSW in Kampala, Uganda 2013.

| | MSM | FSW |
|--------------------------------|------------|------------|
| Capture 1 | 380 (400)* | 540 |
| Capture 2 | 372 | 1567 |
| Matches (UMO presented) | 6 | 30 |
| Matches UMO identified) | 12 | 34 |
| Matches, total | 18 | 64 |

*Approximately 20 UMOs distributed “late”, i.e., during RDS sampling period (excluded from analysis)

**Presented UMO

***Did not present UMO, but did identify correct UMO

Table 3.8.2. MSM and FSW population size estimates (Capture/Recapture)

| | MSM | FSW | Comment |
|--|--------------------------|----------------------------|---|
| Presenting correct UMO (95% CI) | 28,000 (4,000-53,000) | 26,000 (18,000-35,000) | These estimates exclude matches based on correctly identifying the UMO and therefore may be an overestimate. It is recommended not to use these row's estimates |
| Presenting or identifying correct UMO | 7,900 (4,400-11,300) | 13,200 (10,200- 16,200) | These estimates include matches based both on presenting or identifying the correct UMO. It is recommended to use these (conservative) estimates. |

For the FSW population size, a relatively rapid turn-over (women starting and stopping sex work) has to be considered in addition to the point population size estimate. The average time FSW respondents stated being in sex work was 2 years (i.e., at time of survey participation), suggesting that every few years half or more of the female sex worker population may exit and are replaced by new entrants.

REFERENCES

1. Ministry of Health (MOH) [Uganda] and ICF International. 2012. Uganda AIDS Indicator Survey 2011. Kampala, Uganda and Calverton, Maryland, USA
2. UNAIDS/WHO (2011) Guidelines on surveillance among populations most at risk for HIV. Available at [] (Accessed 10 November 2012).
3. Baral S, Sifakis F, Gleghorn F, Beyrer C (2007) Elevated risk for HIV infection among men who have sex with men in low- and middle-income countries 2000-2006; a systematic review. PLoSMed 4: e339.
4. Malekinejad M, Johnston LG, Kendal C, Kerr LR, Rifkin MR, et al. (2008) Using Respondent-driven sampling methodology for HIV biological and behavioural surveillance in international settings: a systematic review. AIDS Behav 12; S105-S130.
5. Hladik W, Barker J, Ssenkusu JM, Opio A, Tappero JW, et al. (2012) HIV Infection among Men Who Have Sex with Men in Kampala, Uganda- A Respondent-Driven Sampling Survey. PLoS ONE 7(5); e38143. Doi:10.1371/journal.pone.0038143.
6. UNAIDS/WHO (2011) Guidelines on surveillance among populations most at risk for HIV. Available at [] (Accessed 10 November 2012).
7. The game of contacts: Estimating the social visibility of groups. Matthew J. Salganik, Maeve B. Mello, Alexandre H. Abdo, Neilane Bertoni, Dimitri Fazito, Francisco I. Bastos. Social Networks 33(2011) 70–78.
8. Killworth PD, McCarty C, Bernard HR, Shelley GA, Johnsen EC (1998). Estimation of seroprevalence, ‘rape and homelessness in the US using a social network approach. Eval Rev, 22, 289–308.

APPENDIX A: PERSONS INVOLVED

| | |
|-------------------|--|
| George Lubwama | Project manager |
| Enos Sande | Surveillance Officer |
| Moses Ogwal | Senior Data Manager |
| Annet Lukwago | Head Nurse Counsellor |
| Gorretti Nakiwala | Head Coupon Manager/ Screening officer |
| Ronald Mutunzi | Data Manager |
| Fiona Kabuka | Data Manager |
| Paul Ssagala | Data Manager |
| Isaac Kyasi | Data Manager |
| Justine Nanteza | Nurse Counsellor |
| Remmie Nashema | Nurse Counsellor |
| Cissy Nambejja | Nurse Counsellor |
| Daphne Mukunyu | Coupon Manager/Screening Officer |
| Lawrence Muyomba | Coupon Manager/Screening Officer |
| Zubayiri Sebyala | Coupon Manager/Screening Officer |
| Stella Nabisere | Administrator |

APPENDIX B: CRANE SURVEY PROCEDURES CHECKLIST

| | | | | | |
|----------------------------|--|--|--|-------------------------|----------------------|
| Participant ID: STICKER | | 1 st Visit | | Queue No.:__ __ (WRITE) | |
| | | Coupon ID: (WRITE) | | Date: M / M / D / 201__ | |
| # | ITEM | RESULT | | | INITIAL/ STAFF ID |
| 1. | Coupon scanned | () Yes-accepted () Yes-not accepted: () N/A–Seed() No: | | | RECEPTION |
| 2. | Survey Information material | Folder: () Given () Not given: MP3 player: () Given () Not given: | | | |
| 3. | ID verified (2 steps) | () Yes () No: | | | |
| 4. | Coupon scanned | () Yes () No: | | | |
| 5. | Participant registered (Fingerprint scan) | () Yes () No: | | | COUPON MANAGER |
| 6. | Screening Interview | () Completed – eligible () Not completed: () Completed – not eligible: | | | |
| 7. | Participant stopped | () No () Yes - Ineligible, transport paid: Ugs_____ | | | |
| 8. | Globalconsent | () Obtained () Not obtained - stop: | | | |
| 9. | Participant verified | () Yes () No: | | | |
| 10. | Interview completed | () Yes-ACASI () Yes-CAPI () No: | | | |
| 11. | NET/ # Partners FSW (00 if none) NET/ MSM | Male steady: __ __ Male casual: __ __ Male com: Buying __ __ Selling __ __ Female steady: __ __ Female casual: __ __ Female com: Buying __ __ Selling __ __ | | | DATA MANAGER |
| 12. | Interview flags: | Qual. interview >> () Y () N () N/A FTF interview >> () Y () N () N/A | | | |

| | | | |
|-----|--|--|---|
| | Game of Contacts >> | ()Y ()N ()N/A | |
| | Mapping>> | ()Y ()N ()N/A | |
| 13. | Biomarker flags | Blood draw ()Y ()N ()N/A Vaginal swab ()Y ()N ()N/A Urine ()Y ()N ()N/A Rectal swab ()Y ()N ()N/A | |
| 14. | Participant verified | ()Yes ()No: | |
| 15. | | | |
| 16. | Pre-test counseling and consent for HIV test | HIV () Counseled, agreed to HIV testing () Counseled, refused HIV testing () Pre-test counseling not conducted: | NURSE COUNSELOR |
| 17. | Consent to non-HIV testing | () Agreed to all () Refused all () Refused these: | Uncollected <i>spx:Check spx to be collected at 2nd visit</i> |
| 18. | Consent to spx storage, future testing | () Agreed () Refused | 1 st NC: |
| 19. | Specimen collection | Blood: () Yes () No: Urine: () Yes () No: | |
| 20. | Urine drug test | () Not offered () Done () Not done: | |
| 21. | FTF interview | () Not offered () Consented– administered () Refused () Consented - not done: | 2 nd NC: |
| 22. | Game of contacts | () Not offered () Consented – administered () Refused () Consented - not done: | |
| 23. | Mapping | () Not offered () Consented - administered () Refused () Consented - not done: | |
| 24. | Participant verified | () Yes () No: | |
| 25. | Net-code interview | () NA () Done () Not done: | |

| | | | |
|-----|---|---|-------------------|
| 26. | Qualitative interview offered – <i>insert date</i> | () Not offered () Refused () Offered: MM/DD/201__Time: _____ | COUPON MANAGER |
| 27. | No. coupons given (Referral training) | NET: __ __ Peers: ____ PSW: ____ FPM: ____ | |
| 28. | Issued coupons | IDs recorded in log sheet () Yes () No: IDs recorded in WinMARP () Yes () No: | |
| 29. | Follow-up visit date scheduled | M M / D D / 201__ Time: () None: | |
| 30. | Compensation paid: UgS: _____ | () Transport () Specimens () Other: () Time () Not paid: | COUPON MANAGER |
| 31. | Visit 1 Exit check | () All stops completed, checklist info complete () Not all stops completed, info incomplete: | |

Qualitative Interview Queue No:

| | | | |
|-----|-------------------------------|---|-------------------|
| 32. | Participant Verified | () Yes () No: | RECEPTION |
| 33. | Interview information | () Listened to MP3 player () MP3 player not given: | |
| 34. | Participant verified | () Yes () No: | |
| 35. | Date of interview | D D / M M / 201__ | |
| 36. | Interview consent | () Obtained () Not obtained - stop: | INTERVIEWER |
| 37. | Interview outcome | () Completed () Aborted: () Not conducted: | |
| 38. | Compensation paid | () Yes: UgS _____ () No: | |
| 39. | Qual. Interview Exit check | () All stops completed () Not all stops completed: | COUPON MANAGER |

2nd Visit Queue No:

| | | | | |
|-----|--|--|--|--------------------|
| 40. | Date | D D / M M / 201_ | | |
| 41. | Participant verified | () Yes () No: | | |
| 42. | Coupon | () Yes-returned () Not with participant | | RECEPTION |
| 43. | Participant-coupon link | () Confirmed () No coupon slip () Not confirmed: | | |
| 44. | Participant verified | () Yes () No: | | DATA MANAGER |
| 45. | Recruitment interview | () Completed () Not done – N/A () Not completed: | | |
| 46. | Participant verified | () Yes () No: | | |
| 47. | Pregnancy | () Neg () Pos () N/A | | |
| 48. | Missing 1st visit spx to be collected | () Yes: () Collected () Not collected: () No | | NURSE COUNSELOR |
| 49. | HIV result returned, counseled | () Yes () Yes-refused result () No: | | |
| 50. | Non-HIV results returned, counseled | () Yes, complete () Partial, return date: () No: | | |
| 51. | Treatment provided | Yes: () TP () NG () CT () BV () TV () No - All negative () No: | | |
| 52. | Treatment referral | () HIV: _____(CENTER) () Other: () N/A () No, participant already on treatment | | |
| 53. | Participant verified | () Yes () No: | | |
| 54. | No. coupons retrieved (eligible participants only) | Peers: ____ Non-peers: ____ NET: ____ () NA | | COUPON MANAGER |

| | |
|------------|--|
| 55. | Compensation paid: () Transport () Time () Referring others () Not paid: Ugs: _____ |
| 56. | Visit 2 Exit check () All stops completed () Not all stops completed: |

| | | |
|--|--|--|
| Data entry 1 st (Staff ID):..... 2 nd (Staff ID):..... | Greyed boxes: Value entered in WinMARP | Bold borders: Value entered in EpiInfo |
|--|--|--|

APPENDIX C: DATA INSTRUMENT

MAIN CRANE SURVEY QUESTIONNAIRE

Groups covered:

- | | | | |
|--------|----------------------------------|----------|-------------------------------|
| 1. MSM | Men who have sex with men | 9. REF | Urban Refugees |
| 2. FPM | Female sex partners of MSM | 10. DIS | Disabled persons |
| 3. FSW | Female sex workers | 11. STR | Street Youth |
| 4. PSW | Male sex partners/clients of FSW | 12. SLM | Slum dwellers |
| 5. UST | University students | 13. WSW | Women who have sex with women |
| 6. BOD | Motorcycle taxi drivers | 14. TG/I | |
| 7. DUS | Drug users | 15. POS | |
| 8. NET | Sex network survey | | |

Section # Topic area

- | | | | |
|----|--|----|---|
| 0 | Questionnaire parameters | 14 | Sexual coercion, rape |
| 1 | ACASI exercise | 15 | Psychosocial measures |
| 2 | Demographics | 16 | Steady partners |
| 3 | Network questionnaire | 17 | Casual partners |
| 4 | Reproductive history | 18 | Commercial sex – Respondent buys sex |
| 5 | HIV testing | 19 | Sex work – Respondent sells sex |
| 6 | Service access | 20 | Last sex act |
| 7 | Alcohol | 21 | Number of sex partners across all types |
| 8 | Recreational drug use | 22 | Recruiter |
| 9 | Lifetime sex characteristics | 23 | STDs |
| 10 | MSM characteristics | 24 | Questionnaire feedback |
| 11 | Condom and lubricant use | 25 | Interview status |
| 12 | Frequency and types of sex | | |
| 13 | Oral and non-genital sex | | |

TEXT COLORING:

GROUP NAME IN BOLD GREEN: Must ask, cannot skip for this group

GROUP NAME IN BOLD BLUE: Indicates questions asked only to this group

GROUP NAME IN BOLD RED: question must be skipped (for all or specific group), value may be assigned automatically.

Default values: 995-Skipped by design, 996-Missing, 997-Don't know, 998-Other, 999-Refused to answer

Variable Syntax (“/” indicates shortened version to facilitate 7 letter variable names)

| | | | |
|------|----------------------------|------|---------------------------------|
| A/G | AGE | NP | NETWORK PARTNER |
| AC | (SERVICE) ACCESS | NT | NETWORK QUESTIONNAIRE |
| ALC | ALCOHOL | OR | ORAL |
| AN | ANAL (SEX) | OT | OTHER |
| BF | BUYING SEX FROM FEMALES | PA | PARTNER |
| BM | BUYING SEX FROM MALES | PE | PERCEPTIONS |
| BY | BUYING SEX | PR/G | PREGNANT |
| CF | FEMALE CASUAL SEX PARTNERS | PSW | PSW NETWORK SIZE (QUESTIONS) |
| CH | CHILD(REN) | QU | QUESTIONNAIRE PARAMETER |
| CM | MALE CASUAL SEX PARTNERS | QES | QUESTIONNAIRE FEEDBACK |
| CO | CONDOM | RC | RECRUITER |
| COM | COMMERCIAL | RE | RECALL PERIOD |
| CS | CASUAL SEX | RF | REGULAR FEMALE PARTNER |
| DE | DEMOGRAPHICS | RG | REGULAR (PARTNER) |
| DR | DRUG USE | RH | REPRODUCTIVE HISTORY |
| DUR | DURATION | RIM | RIMMING |
| EV | EVER | RM | REGULAR MALE PARTNER |
| EX | (ACASI) EXERCISE | RU | RECRUIT |
| FE | FEMALE | RX | STD TREATMENT |
| FIS | FISTING | SC | LIFETIME SEX CHARACTERISTICS |
| FP | FAMILY PLANNING | SE | SELLING SEX |
| FR | FORCE(D) | SF | SELLING SEX TO FEMALES |
| FT/F | FIRST | SM | SELLING SEX TO MALES |
| HV | HIV | SW | SEX WORK |
| ID | INTRAVENOUS DRUG USE | SX | SEX |
| INT | INTERVIEW | TR | TREATMENT |
| K/N | KNOW | TY | TYPE (OF SEX, SEX PARTNER) |
| LT/L | LAST | VA | VAGINAL (SEX) |
| LU | LUBRICANT | VD | SEX. TRANSM. DISEASES |
| MA | MALE | VI | VIOLENCE |
| MAR | MARRIED | WE | WEEKS |
| MM | MSM (CHARACTERISTICS) | WHO | WHO |
| MO | MONTHS | WH/Y | REASON |
| NG | NON-GENITAL SEX | YR | YEARS |
| NO | NO, NOT | | |
| NOW | NOW | | |
| NR | NUMBER | | |

DATA MANAGEMENT

Condom use: If COEV='2' (No condom use ever), then insert value '0' in all numerical condom questions: SXVACO, SXAVCO, RMCONR, RM1COLT, RM2COLT, RMxCOLT, etc., RFCONR, RF1COLT, RF2COLT, RFxCOLT, etc.,

Rationale: Respondents who report never using a condom have all condom questions skipped, including the number of sex acts protected with condoms.

| N/A | 0. | QU | Questionnaire parameters | Data entry automatic or by data manager | SKIP PATTERN, COMMENT |
|------|------|---------|--|--|---|
| Cum. | Sec. | VARNAME | Questions | Coding categories | |
| N/A | 1 | QUDATE | Interview date | DD / MM / YYYY SYSTEM DATE | (AUTOMATIC) (HIDDEN) FTF |
| N/A | N/A | QUYEAR | Sampling year, using QUDATE | YEAR #### | |
| N/A | 2 | QUSTART | Start time of interview | HH/MM SYSTEM TIME | (AUTOMATIC) (HIDDEN) |
| N/A | N/A | QUDUR | Interview duration in minutes, compute as INTTIME-QUSTART | INTERVIEW LENGTH ### | |
| N/A | 3 | QUDM | Data manager | FIRST AND LAST INITIAL OF DM | LEGAL VALUES ONLY FTF |
| N/A | 4 | QUGRP | Respondent's group | LEGAL VALUES: MSM, FPM, FSW, PSW, UST, BOD, DUS, NET, DIS, REF, STR, SLM, WSW, TG/I, POS | DETERMINES SKIP PATTERN AND AUTOMATIC VALUES BY GROUP FTF |
| N/A | 5 | QUID | Respondent ID (1 st entry) | LEGAL RANGE OF VALUES | MUST CORRESPOND WITH GROUP VALUE |
| N/A | 6 | QUID2 | Respondent ID (2 nd entry) | LEGAL RANGE OF VALUES | IF NO MATCH: BLANK OUT BOTH FIELDS, RETURN TO PREVIOUS ID FIELD FTF |
| N/A | 7 | QUVISID | Visit ID | RANGE: 01-99 | FTF |
| N/A | 8 | QULANG | Language | ENGLISH 1 LUGANDA 2 SWAHILI 3 FRENCH 4 | FTF |
| N/A | 9 | QUMODE | Administration | SELF-ADMINISTERED – CASI 1 STAFF-ADMINISTERED – CAPI 2 FTF 3 | FTF |
| N/A | 10 | QULOC | What is the location where this interview is taking place? | FIELD 1 OFFICE 2 | |
| N/A | 11 | QURESP1 | Is the respondent a recruit or a seed? | RECRUIT 1 SEED 2 | |
| N/A | 12 | QURESP2 | Please confirm that this respondent is a seed, meaning no other survey respondent referred this respondent into the survey. | YES – THIS IS A SEED 1 NO – THIS IS NOT A SEED 2 | SKIP IF QURESP1='1' |
| N/A | N/A | N/A | “Hello, my name is... I will help you to do the interview. You can refuse to answer any question and you can stop the interview at any time. However, answering all our questions will greatly help making this survey a success. If you don't know the exact answer, try to give your best guess. For most questions, choose the one answer that fits best. We'll tell you if a question allows for more than one answer. We keep all your answers in private. I will not ask for your name or other information that tells who you are.” | | FTF ONLY |

| | | | | |
|-----|-----|----------------|---|--|
| N/A | 1. | EX | ACASI EXERCISE <i>Show text and play audio for each question and answer categories. Data manager to observe and assist respondent.</i> | |
| N/A | N/A | EX1 | <p>Welcome. First we explain to you how to do this interview. You can listen and read the questions and then you give your best answer. The "NEXT" button in the lower right corner brings you to the next question. Use the "BACK" button to return to the previous question if you need to.</p> <p>Now we will explain you the different types of questions and answers. Some questions you answer by clicking either "Yes" or "No". Try it and click on "Yes".</p> | <p>YES NO</p> <p>REPEAT IF INCORRECT</p> |
| N/A | N/A | EX2 | <p>For some questions you choose the best or correct answer. For example, which day is today?</p> <p>MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY</p> | <p>REPEAT IF INCORRECT</p> |
| N/A | N/A | EX3A/B/C/D/E/F | <p>For other questions you can choose several answers. For example, here is a list of things people do. Which of these do you do? Click on all that apply.</p> <p>CLIMBING MOUNTAINS MEETING FRIENDS READING BOOKS TRAVEL TO AMERICA WATCHING TV TRAVEL TO JAPAN</p> | <p>REPEAT IF INCORRECT</p> |
| N/A | N/A | EX4 | <p>For some questions you answer by entering a number, for example when we ask how old one is or how many children one has. Let's try that: Type the number "17".</p> <p> __ __ </p> | <p>REPEAT IF INCORRECT</p> |
| N/A | N/A | EX5 | <p>This question is to test your hearing. Just listen and choose the right answer. <i>Audio only: Type the number 23.</i></p> <p> __ __ </p> | |
| N/A | N/A | EX51 | <p>Use input from EX5. "CORRECT" if value = 23, "INCORRECT" if value <> 23.</p> <p>CORRECT 1 INCORRECT 2</p> | |
| N/A | N/A | EX5B | <p>This question is to test your reading. There is no tone. Just listen and choose the right answer. <i>Audio only: Type the number 23.</i></p> <p> __ __ </p> | |
| N/A | N/A | EX6 | <p>DM input: ACASI successful?</p> <p>YES 1 NO 2</p> | <p>NO: DECIDE IF HAPI NECESSARY (MAY DISCUSS WITH SENIOR DM OR PM)</p> |

| N/A | 2. | DE | Demographics | |
|-----|-----|----------|---|--|
| N/A | N/A | N/A | <i>Now some general questions about you.</i> | |
| 1 | 1 | DESEX | What is your sex? MALE 1 FEMALE 2 | TUTORIAL (DM PRESENT) FTF |
| 2 | 2 | DEDOB | What year were you born? YEAR [][][][] MINIMUM: SYSTEMYEAR-80 MAXIMUM: SYSTEMYEAR-15 | TUTORIAL (DM PRESENT) |
| N/A | N/A | DEAGE | Respondent age SYSTEMYEAR - DEDOB | COMPUTED VARIABLE, POST INTERVIEW |
| N/A | N/A | DEAGE2 | Categorical age group variable using DEAGE as input <25 YEARS 1 25+ YEARS 2 | |
| N/A | N/A | DEAGE3 | Categorical age group variable using DEAGE as input <15 YEARS 1 15-18 YEARS 2 19-24 YEARS 3 25-34 YEARS 4 35+ YEARS 5 | |
| 3 | 3 | DEAG | I calculated your age. Is XX the right age? YES 1 NO 2 | TUTORIAL (DM PRESENT) IF NO, JUMP BACK TO YEAR OF BIRTH QUESTION. |
| 4 | 4 | DERACE | What is your race? AFRICAN 1 ASIAN 2 OTHER 3 | TUTORIAL (DM PRESENT) |
| 5 | 5 | DENAT | What is your nationality? UGANDAN 1 OTHER 2 | TUTORIAL (DM PRESENT) FTF '1'>SKIP NEXT 2 QES |
| 6 | 6 | DENAT2 | You said "other". Which country is your nationality? SOUTH SUDAN 1 DR CONGO 2 RWANDA 3 TANZANIA 4 KENYA 5 OTHER 996 | <>'996' > SKIP NEXT QES '2' > GO TO DERFFRO |
| 7 | 7 | DENAT3 | You said other. Which country? SOMALIA 1 ETHIOPIA 2 BURUNDI 3 ERITREA 4 OTHER 996 | REF ONLY |
| 8 | 8 | DERFFRO | Where in the DR Congo do you come from? NORD-KIVU 1 SUD-KIVU 2 MANIEMA 3 ORIENTALE 4 OTHER 5 | REF ONLY <>'5' > SKIP NEXT QUESTION |
| 9 | 9 | DERFFRO2 | You said "Other". Where in the DR Congo do you come from? EQUATEUR 1 KASAI ORIENTALE 2 KATANGA 3 KASAI OCCIDENTAL 4 OTHER 5 | REF ONLY |
| 10 | 10 | DERFFRO3 | Was your home in a village or a town? VILLAGE 1 TOWN 2 | REF ONLY |
| 11 | 11 | DERFHO | What was your work where you lived in the DR Congo? FARMING 1 LABORER 2 GOVERNMENT OFFICIAL 3 SOLDIER 4 OTHER 5 | |
| 12 | 12 | DESCH1 | In total, how many years did you go to school? Type '0' if you never attended school. [][] RANGE: 0-20 | TUTORIAL (DM PRESENT) (LAST QUESTION) |
| 13 | 13 | DESCH1B | Do you attend school now? YES 1 NO 2 | SKIP IF DESCH1='0' |
| N/A | N/A | DESCH2 | Did you ever attend school? YES 1 | HIDDEN. ASSIGN '1' IF |

| | | | | NO 2 | DESCH1>0, '2' IF DESCH1=0 |
|-----|-----|---------|---|---|------------------------------------|
| N/A | N/A | N/A | <p>Welcome to the computer interview. It takes about 30-45 minutes. You can read and listen to the questions or turn the sound off. For some questions you choose the best of several answers offered. Other questions allow for more than one answer. For others you answer by giving the right number, for example how old you are. The computer asks everyone the same questions, no matter your answers. If you make errors the computer will go back to the previous question, or you can choose to go back.</p> <p>Doing the interview with a computer gives you complete privacy. There are no "right" or "wrong" answers. Please answer all questions truthfully – your replies may be used to give you the right counseling, just for you. Don't feel embarrassed or ashamed by any questions. If you don't know the exact answer, try to give your best guess. If you need help, just tell our staff.</p> <p>NEXT</p> | | |
| 14 | 14 | DEREL | What religion are you? | PROTESTANT 1 CATHOLIC 2 MOSLEM 3 BORN AGAIN 4 NONE 5 OTHER 996 | FTF |
| 15 | 15 | DEMAR | What is your marital status? With "married" we mean married in church or mosque, traditional marriage, or court. If you never married but now live with someone, click on "Never married". | NEVER MARRIED 1 MARRIED 2 DIVORCED 3 SEPARATED 4 WIDOWED 5 | FTF |
| N/A | N/A | DEMAR2 | Input DEMAR. NEVER MARRIED=DEMAR/NEVER MARRIED. EVER MARRIED=DEMAR/MARRIED, DIVORCED, SEPARATED, or WIDOWED | NEVER MARRIED 1 EVER MARRIED 2 | |
| N/A | N/A | DEMAR3 | Input DEMAR. NEVER MARRIED=DEMAR/NEVER MARRIED. CURRENTLY MARRIED=DEMAR/MARRIED, PREVIOUSLY MARRIED=DEMAR/DIVORCED, SEPARATED, or WIDOWED | NEVER MARRIED 1 CURRENTLY MARRIED 2 PREVIOUSLY MARRIED 3 | |
| 16 | 16 | DEWIVES | You said you are married. How many wives are you married to? | [] RANGE: 1-8 | SKIP IF FEMALE OR NOT MARRIED |
| 17 | 17 | DECOWIV | How many wives is your husband married to (including yourself)? | [] RANGE: 1-8 | SKIP IF MALE OR NOT MARRIED |
| N/A | N/A | DEPOLY | Input DEWIVES and DECOWIV. Compute as "MONO" if DEWIVES or DECOWIV=1; "POLY" if DEWIVES or DECOWIV>1. | MONO 1 POLY 2 | |
| 18 | 18 | DERFMAR | Do you live alone or with family here in Kampala? | ALONE 1 WITH FAMILY 2 | REF ONLY |
| 19 | 19 | DEWORK | What do you do for work? | MANUAL LABOUR 1 SKILLED LABOUR 2 STUDY 3 UNEMPLOYED 4 OTHER 5 | BOD: SKIP, LEAVE UNASSIGNED FTF |
| 20 | 20 | DEWORK2 | Do you earn a monthly wage or salary; this means you regularly receive money for work? | YES 1 NO 2 | |
| 21 | 21 | DEBDDIV | In which Kampala division is the boda boda stage you mainly work at? | MAKINDYE 1 NAKAWA 2 CENTRAL 3 RUBAGA 4 KAWEMPE 5 | BOD ONLY |
| 22 | 22 | DEBDRE | Are you registered with a Boda association? | YES 1 NO 2 | BOD ONLY |
| 23 | 23 | DEUSDIS | Which of the following disciplines fits your university study best? | MEDICINE 1 LAW 2 | UST ONLY |

| | | | | |
|-----|-----|---------------|--|--------------------------------|
| | | | SCIENCES 3 ARTS 4 BUSINESS 5 | |
| 24 | 24 | DESTAY | Where do you stay? ON CAMPUS 1 HOSTEL 2 WITH RELATIVES, FAMILY 3 | UST ONLY |
| 25 | 25 | DESTR1 | Why do you live on the street? I HAVE NO FAMILY 1 MY FAMILY CHASED ME AWAY 2 MY FAMILY IS POOR 3 MY FAMILY IS FAR AWAY 4 | STR ONLY |
| 26 | 26 | DESTR2 | Do you stay together with your parents? YES 1 NO 2 | STR ONLY |
| 27 | 27 | DESTR3 | Are you the head of the household? YES 1 NO 2 | STR, REF ONLY |
| 28 | 28 | DESTR4 | Have you lost one or both parents? LOST MY MOTHER 1 LOST MY FATHER 2 LOST BOTH MY PARENTS 3 | STR ONLY |
| 29 | 29 | DESTR5 | Do you stay together with brothers or sisters? YES 1 NO 2 | STR ONLY |
| 30 | 30 | DESTR6 | Where do you usually stay overnight? SOMEWHERE IN THE OPEN 1 IN SOME HOUSE 2 | STR ONLY |
| 31 | 31 | DESTR7 | How many other boys, girls, and adults do you usually stay overnight at the same place as you? Type '0' if you sleep by yourself. [] [] RANGE: 0-30 | STR ONLY |
| 32 | 32 | DESTR8 | Which of the following organizations did you get help from in the last year? Click on "Other" if an organization not listed here helped you. Click on "None" if you never got help from an organization. LIST ORGANIZATIONS | STR ONLY |
| 33 | 33 | DEDIS1 | Are you a member of an association for disabled persons? YES 1 NO 2 | DIS ONLY '2': SKIP NEXT QES |
| 34 | 34 | DEDIS2 | Which of the following associations for the disabled are you a member of? Check all that apply. Click on "Other" if the association you are a member of is not listed here. Click on "None" if you are not a member of any association of the disabled. LIST ASSOCIATIONS | DIS ONLY |
| 35 | 35 | DERFCAM | Have you lived in a refugee camp before you came to live in Kampala? YES 1 NO 2 | REF ONLY |
| 36 | 36 | DERFARR | Which year did you arrive in Uganda? [] [] [] [] MINIMUM: SYSTEM YEAR – AGE IN YEARS MAXIMUM: SYSTEM YEAR | REF ONLY |
| N/A | N/A | DERFARR2 | Input DEFARR. Compute as indicated by category labels. ONE YEAR OR LESS 1 2-4 YEARS 2 5 OR MORE YEARS 3 | |
| 37 | 37 | DERFKLA | Which is the main reason why you come to Kampala? TO GET SERVICES 1 BECAUSE I HAVE FRIENDS OR FAMILY HERE 2 TO LOOK FOR WORK 3 TO GET EDUCATION 4 TO HIDE 5 FOR SAFETY 6 OTHER 8 | REF ONLY |
| 38 | 38 | DERFSTA | Do you have refugee status? YES 1 NO 2 | REF ONLY |
| 39 | 39 | DERFORG A/B/C | In the last 12 months, did you receive services from any of these organizations? Check all that apply. (A) REFUGEE LAW PROJECT 1 2 (B) INTERAID 1 2 (C) UNHCR 1 2 | REF ONLY |
| 40 | 40 | DESLRES | How many years have you lived at this place? Type "0" if less than one NUMBER: [] [] RANGE: 0-CURRENT AGE | SLM ONLY |

| | | | | | |
|----|----|---------|---|--|----------|
| | | | <i>year.</i> | | |
| 41 | 41 | DESLOWN | Do you or your family own this home or do you pay rent? | I OR WE OWN IT 1 I OR WE PAY RENT 2 | SLM ONLY |
| 42 | 42 | DESLWAT | How do you get water for use at the place you stay? | HAVE RUNNING WATER INSIDE MY HOUSE 1 HAVE RUNNING WATER OUTSIDE MY HOUSE 2 BUY WATER SOMEWHERE 3 OTHER 4 | SLM ONLY |
| 43 | 43 | DESLSHR | Do you share this place with people other than your family? | YES 1 NO 2 | SLM ONLY |
| 44 | 44 | DESLNET | Last night, did you sleep under a mosquito net? | YES 1 NO 2 | SLM ONLY |
| 45 | 45 | DESLLAT | At home, what do you usually do to relieve yourself? | I USE OUR OWN TOILET 1 WE SHARE A TOILET WITH OTHER HOUSEHOLDS 2 I GO TO SOME OTHER TOILET 3 I USE A PLASTIC BAG OR BUCKET 4 OTHER 5 | SLM ONLY |
| 46 | 46 | DESLFLO | Did the home you stay now ever get flooded by rains? | YES 1 NO 2 | SLM ONLY |
| 47 | 47 | DESLROB | Have you ever been robbed at the place you stay now, or have thieves stolen things from the place you stay now? | YES 1 NO 2 | SLM ONLY |

| N/A | 3. | NT | Network questionnaire | NOT SLM SKIP IF QURESP2='1' |
|-----|----|---------|---|---|
| 48 | 1 | NTKNOW | Think about the person who gave you the coupon. What is your relationship with that person? SOMEONE YOU KNOW A LITTLE 1 SOMEONE YOU KNOW WELL 2 A FAMILY MEMBER OR OTHER RELATIVE 3 | |
| 49 | 2 | NTRESX | Did you have sex with this person in the last 6 months? YES 1 NO 2 | '1' > SKIP SCEVSX AND ASSIGN SCEVSX='1' '2' > SKIP NEXT QES |
| 50 | 3 | NTPATY | What kind of sex partner is that person? A steady partner is someone you have a stable relationship with, for example a husband, wife, boy or girlfriend. A casual sex partner is someone you do not have a relationship with. A commercial sex partner is someone you exchange sex for money with. STEADY 1 CASUAL 2 COMMERCIAL 3 | |
| 51 | 4 | NTKNDUR | Do you know this person for some weeks, or some months, or years? WEEKS 1 MONTHS 2 YEARS 3 | |
| 52 | 5 | NTRESEE | On how many days did you see that person in the last 30 days? NUMBER: [][] RANGE: 1-30 | |
| 53 | 6 | NTJOIN | What is the main reason you joined this study? INTERESTED IN STUDY 1 WANT TO KNOW MY HIV STATUS 2 WANT TO KNOW IF I HAVE AN STD 3 WANT MONEY 4 WAS FORCED TO COME 5 OTHER 996 | |
| 54 | 7 | NTEXCH | Was your coupon exchanged for something? NO, NOTHING 1 MONEY OR GOODS 2 FAVOURS OR SERVICES 3 SEXUAL FAVOURS 4 | |

| N/A | 4. | RH | Reproductive history | FEMALES 13-49 YEARS ONLY |
|-----|-----|----------|--|---------------------------|
| N/A | N/A | N/A | <i>Now some questions about family planning, pregnancies and births.</i> | |
| 55 | 1 | RHFP | Do you use any family planning method? YES 1 NO 2 | '2' > SKIP NEXT QES |
| 56 | 2 | RHFPTY | Which method do you mainly use? PILL 1 INJECTION 2 NORPLANT 3 IUD 4 CONDOMS 5 OTHER 996 | |
| 57 | 3 | RHEVPRG | Have you ever been pregnant? YES 1 NO 2 | '2' > NEXT SECTION FTF |
| 58 | 4 | RHPRNOW | Are you pregnant now? YES 1 NO 2 | |
| 59 | 5 | RHPRNR1 | In your life, how many times have you been pregnant? Count all pregnancies, including live births, abortions, and still births. NUMBER: [][] RANGE: 1-40 | |
| N/A | N/A | RHPRNR3 | Input RHPRNR1. Compute as indicated by categorical labels NEVER 1 PRIMI 2 MULTI 3 | |
| 60 | 6 | RHCHNR | How many children have you ever given birth to? NUMBER: [][] RANGE: 0-15 MAX: # total pregnancies+3 | |
| 61 | 7 | RHPRNR2 | In the last 12 months, how many times did you become pregnant? Type "0" if you did not become pregnant in the last 12 months. NUMBER: [][] RANGE: 0-4 MAX: # total pregnancies | |
| 62 | 8 | RHABORT | Women sometimes remove unwanted pregnancies. In your life, have you ever removed a pregnancy? YES 1 NO 2 | '2' > SKIP NEXT 2 QES FTF |
| 63 | 9 | RHABNR1 | In your life, how many times did you remove a pregnancy? NUMBER: [][] RANGE: 1-40 MAX: # total pregnancies | |
| 64 | 10 | RHABNR2 | In the last 12 months, how many times did you remove a pregnancy? Type "0" if none. NUMBER: [][] RANGE: 0-4 MAX: # pregnancies in last 12 months | |
| 65 | 11 | RHMISC | Women sometimes have miscarriages. In your life, did you ever have a miscarriage? YES 1 NO 2 | '2' > SKIP NEXT 2 QES |
| 66 | 12 | RHMISC1 | In your life, how many times did you have a miscarriage? NUMBER: [][] RANGE: 1-40 MAX: # total pregnancies - # total abortions | |
| 67 | 13 | RHMISC2 | In the last 12 months, how many miscarriages did you have? Type "0" if none. NUMBER: [][] RANGE: 0-4 MAX: # pregnancies in last 12 months - # abortions in last 12 months | |
| 68 | 14 | RHCHSUPP | How many children do you support now? Include your own children and any others you support? NUMBER: [][][] MAX: RHCHNR+8 | |

| | | | | |
|-----|-----|--------------|--|--|
| N/A | 5. | HV | HIV testing | |
| N/A | N/A | N/A | <i>Next some questions on HIV testing.</i> | |
| 69 | 1 | HVHEARD | Have you ever heard of a disease called AIDS? YES 1 NO 2 | STR ONLY |
| 70 | 2 | HVTEST | Have you ever tested for HIV? YES 1 NO 2 | '1' > SKIP NEXT QES |
| 71 | 3 | HVNOWHY | What is the main reason you have never tested for HIV? AFRAID OF HIV-POSITIVE RESULT 1 DON'T FEEL AT RISK 2 NOT ENOUGH CONFIDENTIALITY AT TESTING PLACE 3 FEAR OF NOT GETTING ENOUGH SUPPORT FROM FAMILY, FRIENDS, OR PARTNER IF RESULT IS POSITIVE 4 DON'T KNOW WHERE TO TEST 5 TOO EXPENSIVE 6 | SKIP TO NEXT SECTION |
| 72 | 4 | HVTSTNR | How many times have you tested before? NUMBER: [][] RANGE: 1-99 | |
| N/A | N/A | HVTSTNR2 | Input HVTSTNR and HVTEST. Compute as labeled. (If HVTEST="NO" then HVTSTNR="NEVER"). NEVER 1 ONCE 2 2-4 TIMES 3 5+ TIMES 4 | |
| 73 | 5 | HV12MTH | Have you tested for HIV in the last 12 months? YES 1 NO 2 | '1' > SKIP NEXT QUESTION |
| 74 | 6 | HVTSTLT | Which year was your last test? [][][][] MINIMUM YEAR: 1985 MAXIMUM YEAR: SYSTEM YEAR | |
| N/A | N/A | HVTSTLT2 | Input HV12MTH and HVTSTLT. Compute as labeled. WITHIN LAST 12 MTHS 1 2-3 YEARS AGO 2 4+ YEARS AGO 3 | |
| 75 | 7 | HVTSTLO1 | Where did you take your last HIV test? CLINIC OR HOSPITAL 1 TESTING CENTER (FOR EXAMPLE AIC, MILD MAY, TASO) 2 AT HOME 3 OTHER 4 | |
| 76 | 8 | HVTSTLO2 | Where would you prefer to get an HIV test? CLINIC OR HOSPITAL 1 TESTING CENTER (FOR EXAMPLE AIC, MILD MAY, TASO) 2 AT HOME 3 MOBILE TESTING, E.G., IN A BUS 4 OTHER 5 | |
| 77 | 9 | HVWHO1 | If it were easy enough, would you prefer to do to the HIV test yourself? YES 1 NO 2 | |
| 78 | 10 | HVWHO2 | Would you prefer a man or a woman to counsel you? WOMAN 1 MAN 2 DOESN'T MATTER 3 | MSM, WSW ONLY |
| 79 | 11 | HVWHO3 | Would you prefer a straight or a gay person to counsel you? GAY 1 STRAIGHT 2 DOESN'T MATTER 3 | MSM, WSW ONLY |
| 80 | 12 | HVCOUNP | Have you ever been counseled as a same sex couple? YES 1 NO 2 | MSM, WSW ONLY SKIP IF HVTEST='2' |
| 81 | 13 | HVRES | What was the result of your last test? NEGATIVE 2 POSITIVE 1 DID NOT GET RESULT 3 | |
| 82 | 14 | HVRETEL | Did you tell anyone your HIV status? YES 1 NO 2 | '2' > SKIP NEXT QUESTION |
| 83 | 15 | HVTELWHO A/B | Who did you tell? 1. SEX PARTNER 1 2 2. OTHERS 1 2 | |
| 84 | 16 | HVBEL | What do you think is your HIV status now? NEGATIVE 2 POSITIVE 1 DON'T KNOW 3 | |

| | | | | |
|-----|-----|---------|---|---|
| N/A | 6. | RX | CARE AND TREATMENT | SKIP TO NEXT SECTION UNLESS HVRES='1' |
| N/A | N/A | RXINFO1 | Thank you. You told us you have tested positive. Many people with HIV are registered with a health care provider. Some receive "Care", meaning they take medicine like Septrin but not yet ARVs. Others receive "Treatment", meaning they also take ARVs. The next few questions are about your care and treatment experience. Please click NEXT. | |
| 85 | 1 | RXREG1 | Have you ever registered for care and treatment for your HIV infection? | YES 1 NO 2 '1' > SKIP NEXT QUESTION |
| 86 | 2 | RXREG2 | What is the main reason you have not enrolled for care or treatment? | FEEL HEALTHY 1 FEAR OF STIGMA BY CARE PROVIDER 2 DO NOT WANT OTHERS TO KNOW OF MY INFECTION 3 MY FAITH IN GOD WILL HEAL ME 4 COST 5 I AM ON WAITING LIST TO ENROL 6 OTHER 998 SKIP TO NEXT SECTION |
| 87 | 3 | RXCTX1 | Have you ever started to take Septrin? | YES 1 NO 2 '1' > SKIP NEXT QUESTION |
| 88 | 4 | RXCTX2 | Why have you never started to take Septrin? | FEEL HEALTHY 1 FEAR OF STIGMA BY CARE PROVIDER 2 DO NOT WANT OTHERS TO KNOW OF MY INFECTION 3 COST 4 OTHER 998 SKIP TO NEXT SECTION |
| 89 | 5 | RXCTX3 | Do you still take Septrin? | YES 1 NO – I HAVE STOPPED TAKING SEPRIN 2 '1' > SKIP NEXT QUESTION |
| 90 | 6 | RXCTX4 | What is the main reason why you stopped to take Septrin? | FEEL HEALTHY 1 TOO MANY SIDE EFFECTS 2 I DID NOT FEEL WELCOME BY MY CARE PROVIDER 3 MY FAITH IN GOD WILL HEAL ME 4 COST 5 OTHER 998 |
| 91 | 7 | RXARV1 | Have you ever started to take ARVs? | YES 1 NO 2 '1' > SKIP NEXT QUESTION |
| 92 | 8 | RXARV2 | Why have you never started to take ARVs? | MY CD4 COUNT IS STILL HIGH 1 MY CD4 COUNT IS UNKNOWN 2 I AM ON A WAITING LIST TO START 3 OTHER 998 SKIP TO RXCD41 |
| 93 | 9 | RXARV3 | Do you still take ARVs? | YES 1 NO – I HAVE STOPPED TAKING ARVs 2 '1' > SKIP NEXT QUESTION |
| 94 | 10 | RXARV4 | What is the main reason why you stopped to take ARVs? | FEEL HEALTHY 1 TOO MANY SIDE EFFECTS 2 I DID NOT FEEL WELCOME BY MY TREATMENT PROVIDER 3 MY FAITH IN GOD WILL HEAL ME 4 COST 5 OTHER 998 |
| 95 | 11 | RXCD41 | Did they ever test your CD4 count? The CD4 number tells how sick you are with HIV and how much you need ARVs. | YES 1 NO 2 DON'T KNOW 997 IF <> '1' SKIP TO RXVL1 |
| 96 | 12 | RXCD42 | When did they last test your CD4 count? | IN THE LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 DON'T KNOW 997 |
| 97 | 13 | RXCD43 | What was the result of your last CD4 count? | MORE THAN 500 1 BETWEEN 350 AND 499 2 BETWEEN 200 AND 349 3 BELOW 200 4 DON'T KNOW 997 |
| 98 | 14 | RXVL1 | Did they ever test your "viral load"? With "viral load" we mean they look how much virus you have | YES 1 NO 2 IF <> '1' SKIP TO RXTB1 |

| | | | | | |
|-----|----|--------|--|---|--|
| | | | in your blood. | DON'T KNOW 997 | |
| 99 | 15 | RXVL2 | When did they last test your viral load? | IN THE LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 DON'T KNOW 997 | |
| 100 | 16 | RXVL3 | When they last tested your viral load, was it "Suppressed" or "Not suppressed"? With "Suppressed" we mean there is no virus in your blood. With "Not suppressed" we mean some virus is still in your blood. | SUPPRESSED 1 NOT SUPPRESSED 2 DON'T KNOW 997 | |
| 101 | 17 | RXTB1 | After you tested positive for HIV, did they test you for TB? | YES 1 NO 2 OTHER 998 | IF <> '1' SKIP TO RXHBV1 |
| 102 | 18 | RXTB2 | What was the result? | NEGATIVE 2 POSITIVE 1 DON'T KNOW 997 | |
| 103 | 19 | RXTB3 | After your test for TB, did you receive medicine for TB? | YES 1 NO 2 DON'T KNOW 997 | |
| 104 | 20 | RXHBV1 | After you tested HIV-positive, have you been tested for hepatitis B? Hepatitis B is a virus causing liver disease. | YES 1 NO 2 DON'T KNOW 997 | DUS, FSW, MSM ONLY IF <> '1' SKIP TO RXHCV1 |
| 105 | 21 | RXHBV2 | What was the test result? | NEGATIVE 2 POSITIVE 1 DON'T KNOW 997 | DUS, FSW, MSM ONLY |
| 106 | 22 | RXHCV1 | After you tested HIV-positive, have you been tested for hepatitis C? Hepatitis C is a virus causing liver disease. | YES 1 NO 2 DON'T KNOW 997 | DUS, FSW, MSM ONLY |
| 107 | 23 | RXHCV2 | What was the test result? | NEGATIVE 2 POSITIVE 1 DON'T KNOW 997 | DUS, FSW, MSM ONLY |
| 108 | 24 | HVCARE | Do you get Septrin through a care provider? | YES 1 NO 2 | SKIP IF HVRES<>'1' '1' > SKIP NEXT QUESTION |
| 109 | 25 | HVARV | Do you take antiretroviral drugs for your HIV infection? | YES 1 NO 2 | SKIP IF HVRES<>'1' |
| 110 | 26 | HVCLIN | Which kind of clinic would you prefer to receive medical care? A separate, stand-alone clinic that caters only for people like you, or an integrated clinic that caters to all people but with special staff and rooms for people like yourself? | SEPARATE STAND ALONE 1 INTEGRATED 2 | SKIP IF HVRES<>'1' MSM, WSW ONLY |

| N/A | 7. | AC | Service access | |
|-----|-----|---------|---|---------------------------------------|
| N/A | N/A | N/A | <i>Thank you. The next few questions are about how easy you can get services if you would need them. Services that easy to get are affordable, not too far away, don't take too much time, and welcome you. Services that are "difficult" to get are either not available for you, too expensive, or too far.</i> | |
| 111 | 1 | ACINFO | Can you easily get information about STDs or AIDS? | YES 1 NO 2 |
| 112 | 2 | ACVCT | Can you easily get HIV testing and counseling? | YES 1 NO 2 |
| 113 | 3 | ACSTD | Can you easily get STD testing and treatment? | YES 1 NO 2 |
| 114 | 4 | ACSTDAN | Can you easily get testing and treatment for anal STDs? | YES 1 NO 2 |
| 115 | 5 | ACFP | Can you easily get family planning services? | YES 1 NO 2 |
| 116 | 6 | ACHR | Can you easily get legal or human rights services? | YES 1 NO 2 |
| 117 | 7 | ACHC1 | People sometimes get sick or injured. Did you get sick or injured in the last 6 months? | YES 1 NO 2 |
| 118 | 8 | ACHC2 | When you were sick or injured did you try to get healthcare? | YES 1 NO 2 |
| 119 | 9 | ACHC3 | The last time you tried to get health care did you get health care or were your refused health care? | RECEIVED CARE 1 WAS REFUSED CARE 2 |

MSM ONLY

FEMALES ONLY

FSW, MSM, DUS, REF,
DIS ONLYSTR, REF ONLY
'2': SKIP NEXT TWO
QESSTR, REF ONLY
'2': SKIP NEXT TWO
QES

STR, REF ONLY

| | | | | | |
|-----|-----|----------|---|---|--|
| N/A | 8. | ALC | Alcohol | AUDIT-C: ALL GROUPS AUDIT: FOR EVERYONE WHO SCORES ACCORDINGLY IN AUDIT- C | |
| N/A | N/A | N/A | <i>Next some questions on alcohol and drug use.</i> | | |
| 120 | 0 | ALCEVER | Did you ever drink alcohol in your life? | YES 1 NO 2 | '2' > SKIP TO NEXT SECTION FTF |
| 121 | 1 | ALCFREQ | <i>Now I am going to ask you some questions about your use of alcoholic beverages during this past year.</i> How often do you have a drink containing alcohol? For example, one bottle of beer or one sachet of Waragi counts as two drinks. | NEVER 0 MONTHLY OR LESS 1 2-4 TIMES A MONTH 2 2-3 TIMES A WEEK 3 4 OR MORE TIMES A WEEK 4 | '0' > ALCSCR1 IF ALCEVER='2' THEN ALCFREQ='0' (AUDIT-C) |
| 122 | 2 | ALCDAY | How many drinks containing alcohol do you have on a typical day when you are drinking? | 1 OR 2 0 3 OR 4 1 5 OR 6 2 7-9 3 10 OR MORE 4 | (AUDIT-C) IF ALCEVER='2' THEN ALCDAY='0' |
| | N/A | ALCBINGE | How often do you have six or more drinks on one occasion? For example, one bottle of beer or one sachet of Waragi counts as two drinks. | NEVER 0 LESS THAN MONTHLY 1 MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | (AUDIT-C) IF ALCEVER='2' THEN ALCBINGE='0' |
| N/A | N/A | ALCSCR1 | AUDIT-C total score (Add up Q1-3. If response values are missing and total score <8, blank out total score.) | NUMBER: [][] | HIDDEN, COMPUTED ASSIGN '0' IF ALCFREQ='0' |
| N/A | N/A | ALCSCR2 | Alcohol abuse problem | YES 1 NO 2 UNDETERMINED 3 MALE RESPONDENT (DESEX='1') IF ALCSCR1>3 THEN ALCSCR2='1' IF ALCSCR1<4 THEN ALCSCR2='2' IF ALCDAY AND ALCBINGE='0' THEN ALCSCR2='2' FEMALE RESPONDENT (DESEX='2') IF ALCSCR1>2 THEN ALCSCR2='1' IF ALCSCR1<3 THEN ALCSCR2='2' IF ALCDAY AND ALCBINGE='0' THEN ALCSCR2='2' | HIDDEN, COMPUTED IF ALCSCR2='1', CONTINUE WITH ALCTRL IF ALCSCR2='2', SKIP TO NEXT SECTION |
| 123 | 3 | ALCCTRL | How often during the last year have you found that you were not able to stop drinking once you had started? | NEVER 0 LESS THAN MONTHLY 1 MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | |
| 124 | 4 | ALCFAIL | How often during the last year have you failed to do what was normally expected of you because of drinking? | NEVER 0 LESS THAN MONTHLY 1 MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | |
| 125 | 5 | ALCMORN | How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? | NEVER 0 LESS THAN MONTHLY 1 MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | |
| 126 | 6 | ALCGUILT | How often during the last year have you had a feeling of guilt or | NEVER 0 LESS THAN MONTHLY 1 | |

| | | | | | |
|-----|-----|----------|--|--|---|
| | | | remorse after drinking? | MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | |
| 127 | 7 | ALCMEM | How often during the last year have you been unable to remember what happened the night before because of your drinking? | NEVER 0 LESS THAN MONTHLY 1 MONTHLY 2 WEEKLY 3 DAILY OR ALMOST DAILY 4 | |
| 128 | 8 | ALCINJ | Have you or someone else been injured because of your drinking? | NO 0 YES, BUT NOT IN THE LAST YEAR 2 YES, DURING THE LAST YEAR 4 | |
| 129 | 9 | ALCCONC | Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down? | NO 0 YES, BUT NOT IN THE LAST YEAR 2 YES, DURING THE LAST YEAR 4 | FTF |
| N/A | N/A | ALCSCORE | Audit total score NUMBER: [][] (Add up Q1-3 and Q6-12. If response values are missing <u>and</u> total score <8, blank out total score. If ALCTRL = '.' then set ALCSCORE = '.') | | HIDDEN (COMPUTE DURING DATA MANAGEMENT) |
| N/A | N/A | ALCSCR | Hazardous drinking YES 1 NO 2 UNDETERMINED 3 IF ALCSCR2='2' THEN ALCSCR='2' IF ALCSCORE>'7' THEN ALCSCR='1' IF ALCSCORE<'8' THEN ALCSCR='2' IF ALCSCORE='.' THEN ALCSCR='3' | | HIDDEN (COMPUTE DURING DATA MANAGEMENT) |

| N/A | 9. | DR/ID | Recreational drug use | | |
|-----|-----|---------|---|--------------------|--|
| 130 | 1 | DRIDEV | Some people use drugs for pleasure. These drugs can be legal or illegal. Did you ever use drugs for pleasure? | YES 1 NO 2 | DUS: ASSIGN VALUE '1', HIDE '2' > NEXT SECTION FTF |
| N/A | A | DR | Non-injecting drug use | | |
| 131 | 2 | DREV | Did you ever smoke, inhale, sniff, or swallow drugs? This question is not about injecting drugs, only about smoking, inhaling, sniffing, or swallowing. | YES 1 NO 2 | DUS: SKIP, ASSIGN NO VALUE '1' > SKIP NEXT QES |
| 132 | 3 | DREV1 | Please confirm: Did you ever inhale, sniff, or swallow drugs? | YES 1 NO 2 | DUS: SKIP, ASSIGN NO VALUE IF DRGEVER & DRGEV_1='2' SKIP TO NEXT SUB-SECTION |
| 133 | 4 | DREVM1 | Have you ever taken nitrite inhalers, also known as "poppers"? | YES 1 NO 2 | MSM ONLY |
| 134 | 5 | DREVM2 | Have you ever taken ecstasy? | YES 1 NO 2 | |
| 135 | 6 | DREVG1 | Have you ever sniffed glue? | YES 1 NO 2 | |
| 136 | 7 | DREVFUE | Have you ever sniffed aviation fuel or petrol? Petrol is also known as Kongo. | YES 1 NO 2 | |
| 137 | 8 | DREVMAR | Have you ever smoked Marijuana or taken it by mouth? Marijuana is also known as Banghi, Njaga, Sadda, or dope. | YES 1 NO 2 | |
| 138 | 9 | DREVAMP | Have you ever taken Amphetamine or Metamphetamine by mouth? | YES 1 NO 2 | |
| 139 | 10 | DREVTRA | Have you ever taken tranquilizers, such as Diazepam, Nitrazepam, or Alprazolam? Diazepam is also known as Valium. | YES 1 NO 2 | |
| 140 | 11 | DREVAVI | Have you ever taken Avil or Phenargan? | YES 1 NO 2 | (NOT AN ELIGIBILITY DRUG) |
| 141 | 12 | DREVKHA | Have you ever chewed Khat, also known as Mairungi? | YES 1 NO 2 | (NOT AN ELIGIBILITY DRUG) |
| 142 | 13 | DREVHER | Have you ever taken Heroin, by sniffing or smoking? Heroin is also known as Brown Sugar, Muggo, or Kachwiri. | YES 1 NO 2 | |
| 143 | 14 | DREVDEX | Have you ever taken Dextropropoxyphen, Codein, or Morphine by mouth? | YES 1 NO 2 | |
| 144 | 15 | DREVCOC | Have you ever sniffed Cocaine or Crack Cocaine? Cocaine is also known as coke. | YES 1 NO 2 | |
| 145 | 16 | DREVKUB | Have you ever taken Kubba or Manichan by mouth? | YES 1 NO 2 | (NOT AN ELIGIBILITY DRUG) |
| 146 | 17 | DRGMXNR | The last 10 times you took drugs, how many times did you mix different drugs? | [] RANGE: 0-10 | DUS ONLY |
| 147 | 18 | DRGALC | When you are on drugs does it happen that you also drink alcohol? | YES 1 NO 2 | DUS ONLY |
| 148 | 19 | DRRE | In the last 6 months, have you sniffed, inhaled, or swallowed drugs for pleasure? | YES 1 NO 2 | IF "NO" ON ALL EVER DRUG QUESTIONS, SKIP TO NEXT SECTION AND ASSIGN '2' TO ALL INDICATORS. '2' > NEXT SUB-SECTION. |
| N/A | N/A | N/A | The following questions are about drugs that you may have taken in the last 6 months. | | DUS ONLY |
| 149 | 20 | DRREGLU | In the last 6 months have you sniffed glue? | YES 1 NO 2 | DUS ONLY SKIP IF NEVER USED |
| 150 | 21 | DRREFUE | In the last 6 months have you sniffed aviation fuel or petrol? Petrol is also known as Kongo. | YES 1 NO 2 | DUS ONLY SKIP IF NEVER USED |
| 151 | 22 | DRREMAR | In the last 6 months have you smoked Marijuana or taken it by | YES 1 | DUS ONLY |

| | | | | | | |
|-----|----|---------|---|-----|---|--------------------|
| | | | mouth? Marijuana is also known as Banghi, Njaga, Sadda, or dope. | NO | 2 | SKIP IF NEVER USED |
| 152 | 23 | DRREAMP | In the last 6 months have you taken Amphetamine or Metamphetamine by mouth? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 153 | 24 | DRRETRA | In the last 6 months have you taken tranquilizers, such as Diazepam, Nitrazepam, or Alprazolam? Diazepam is also known as Valium. | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 154 | 25 | DRREAVI | In the last 6 months have you taken Avil or Phenargan? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 3. | 26 | DRREKHA | In the last 6 months have you chewed Khat, also known as Mairungi? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 4. | 27 | DRREHER | In the last 6 months have you taken Heroin, by sniffing or smoking? Heroin is also known as Brown Sugar, Muggo, or Kachwiri. | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 5. | 28 | DRREDEX | In the last 6 months have you taken Dextropropoxyphen, Codein, or Morphine by mouth? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 6. | 29 | DRRECOC | In the last 6 months have you sniffed Cocaine or Crack Cocaine? Cocaine is also known as coke. | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 7. | 30 | DRREKUB | In the last 6 months have you taken Kubba or Manichan by mouth? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | SKIP IF NEVER USED |
| 8. | 31 | DRREOTH | In the last 6 months have you taken other drugs not mentioned here? | YES | 1 | DUS ONLY |
| | | | | NO | 2 | |

| N/A | B | ID | Injection drug use | | | |
|-----|-----|----------|--|-----|---|--|
| 9. | 1 | IDUEVER | Some people inject drugs with a syringe for pleasure. Have you ever injected drugs for pleasure? | YES | 1 | IDU SURVEY: ASSIGN VALUE '1' AND SKIP NEXT QUESTION '1' > SKIP NEXT QES DUS: MUST CONFIRM EITHER INJECTING OR NON-INJ. DU IN LAST 6 MTHS. IF NEITHER: POP-UP WINDOW TO CALL DM. |
| | | | | NO | 2 | |
| 10. | 2 | IDU_1 | I want to make sure I get the right answer: Did you ever inject drugs? | YES | 1 | '2' > NEXT SECTION |
| | | | | NO | 2 | |
| 11. | 3 | IDUFYR | How many years ago did you first inject drugs? If less than one year, enter "0". | [] | | DUS ONLY |
| | | | MAX: SYSTEM YEAR - BIRTH YEAR - 12 | | | >'0' > SKIP NEXT QES |
| 12. | 4 | IDULYR | How many years ago did you last inject drugs? If less than one year, enter "0" | [] | | DUS ONLY |
| | | | MAX: IDFYR | | | |
| 13. | 5 | IDUFLASH | Have you ever practiced "flashblood"? Flashblood means you inject another drug user's blood. | YES | 1 | DUS ONLY |
| | | | | NO | 2 | |
| 14. | 6 | IDEVHER | Have you ever injected Heroin or brown sugar, or white sugar? | YES | 1 | |
| | | | | NO | 2 | |
| 15. | 7 | IDEVMOR | Have you ever injected Buprenorphine, Pethidine, Morphine, or Pentazocin? | YES | 1 | |
| | | | | NO | 2 | |
| 16. | 8 | IDEVCOC | Have you ever injected Cocaine? | YES | 1 | |
| | | | | NO | 2 | |
| 17. | 9 | IDEVTRA | Have you ever injected Diazepam, also known as Valium, or other tranquilizers? | YES | 1 | |
| | | | | NO | 2 | |
| 18. | 10 | IDREANY | Have you injected drugs in the last 6 months? | YES | 1 | IDU SURVEY: ASSIGN VALUE '1' AND SKIP '2' > SKIP RECALL IDU QUESTIONS |
| | | | | NO | 2 | |
| N/A | N/A | N/A | The following questions are about drugs that you may have injected in the last 6 months. | | | |
| 19. | 11 | IDREHER | In the last 6 months have you injected Heroin or brown sugar, or white sugar? | YES | 1 | |
| | | | | NO | 2 | |
| 20. | 12 | IDREMOR | In the last 6 months have you injected Buprenorphine, Pethidine, Morphine, or Pentazocin? | YES | 1 | |
| | | | | NO | 2 | |
| 21. | 13 | IDRECOC | In the last 6 months have you injected Cocaine? | YES | 1 | |
| | | | | NO | 2 | |
| 22. | 14 | IDRETRA | In the last 6 months have you injected Diazepam, | YES | 1 | |

| | | | | | | |
|-----|----|----------|---|--|---------------------------------|--|
| | | | also known as Valium, or other tranquilizers? | NO | 2 | |
| 23. | 15 | IDRECNO | In the last 6 months, on average how often did you inject drugs? | EVERY DAY SEVERAL TIMES A WEEK SEVERAL TIMES A MONTH ONCE A MONTH OR LESS | 1 2 3 4 | DUS ONLY |
| 24. | 16 | IDOLDEV | When you injected drugs, have you ever used a needle or syringe that were not completely new and unused? | YES NO | 1 2 | DUS ONLY '2' > SKIP NEXT 2 QES (IDOLNUM, IDREOLD) |
| 25. | 17 | IDOLDNUM | The last 10 times you injected drugs, how often was it with a needle and syringe that were not completely new and unused? | | [] RANGE: 0-10 | DUS ONLY |
| 26. | 18 | IDREOLD | In the last 6 months, how many times did you usually use the same needle/syringe before you threw it away? Type 1 if you always use new needles. Type 99 if you don't know. | | [] RANGE 1-99 | DUS ONLY |
| 27. | 19 | IDSHARE | Did you ever share your needles or syringes with others when you injected drugs? | YES NO | 1 2 | DUS ONLY '2' > SKIP NEXT 2 QES (IDSHNR1, IDCLNUM) |
| 28. | 20 | IDSHNR1 | The last 10 times you injected drugs, how often did you share needles or syringes with others? Type '0' if never. | | [] RANGE 0-10 | DUS ONLY. ASSIGN '0' IF IDSHARE (Q15) = '2' |
| 29. | 21 | IDCLNUM | Think about the last 10 times you used a needle/syringe by someone else or with someone else. How often did you clean the needle and syringe before you used it for yourself? | | [] RANGE 0-10 | DUS ONLY |
| 30. | 22 | IDSHNR2 | The last 10 times you injected drugs, how many times did you share a vial/cooker/container, cotton/filter, or rinse water? | | [] RANGE 0-10 | DUS ONLY |
| 31. | 23 | IDSHNR3 | The last 10 times you injected drugs, how many times did you draw up your drug solution from a common container shared by others? | | [] RANGE 0-10 | DUS ONLY |
| 32. | 24 | IDCLTY | What do you usually use to clean the needle/syringe? | ONLY WATER SOAP AND WATER SODA/SOFT DRINKS ALCOHOL BLEACH COTTON OTHER | 1 2 3 4 5 6 9 | DUS ONLY |
| 33. | 25 | IDNEWSO | Where do you usually get new needles and syringes from? | PHARMACY HOSPITAL OTHER DRUG USERS OTHER | 1 2 3 9 | DUS ONLY |
| 34. | 26 | IDNEWWH | How many days ago did you last obtain new needles or syringes? Type '0' for today and '99' if you never got new equipment. | | [] RANGE: 0-99 | DUS ONLY |
| 35. | 27 | IDWHERE | Where do you usually inject drugs? <i>Check all that apply.</i> | IN MY HOME IN ANOTHER PERSON'S HOME PUBLIC PLACES (CLUB/BAR/LODGE ETC.) ABANDONED/EMPTY BUILDING STREET/PARK OTHER OPEN SPACES | 1 2 3 4 5 6 | DUS ONLY |
| 36. | 28 | IDTRABS | Have you ever received treatment for an abscess due to your drug injections? | YES NO | 1 2 | DUS ONLY |
| 37. | 29 | IDTROVE | Have you ever received treatment for an overdose? | YES NO | 1 2 | DUS ONLY |
| 38. | 30 | IDTRSUB | Have you ever received treatment with drug substitution? | YES NO | 1 2 | DUS ONLY |
| 39. | 31 | IDTRCOU | Have you ever received outpatient counseling | YES NO | 1 2 | DUS ONLY |
| 40. | 32 | IDTRSEL | Have you ever received help through a self-help group? | YES | 1 | DUS ONLY |

| | | | | | |
|-----|----|---------|---|--|---------------------------------|
| 41. | 33 | IDTRDET | Have you ever received treatment for detoxification and addiction | NO 2 YES 1 NO 2 | DUS ONLY |
| 42. | 34 | IDTRREH | Have you ever been in treatment for your drug addiction? | YES 1 NO 2 | DUS ONLY |
| 43. | 35 | IDTRBUT | Have you ever been to Butabika Hospital for treatment because of your drug use? | YES 1 NO 2 | DUS ONLY '2' > SKIP NEXT QES |
| 44. | 36 | IDBUTYR | In which year were you last at Butabika Hospital? | THIS YEAR 1 LAST YEAR 2 BEFORE LAST YEAR 3 | DUS ONLY |
| 45. | 37 | IDTRSER | Have you ever been to Serenity Center for treatment because of your drug use? | YES 1 NO 2 | DUS ONLY '2' > SKIP NEXT QES |
| 46. | 38 | IDSERYR | In which year were you last at Serenity Center? | THIS YEAR 1 LAST YEAR 2 BEFORE LAST YEAR 3 | DUS ONLY |
| 47. | 39 | IDTRUYD | Have you ever been at UYDEL because of your drug use? | YES 1 NO 2 | DUS ONLY '2' > SKIP NEXT QES |
| 48. | 40 | IDUYDYR | Which year have you been at UYDEL? | THIS YEAR 1 LAST YEAR 2 BEFORE LAST YEAR 3 | DUS ONLY |

| N/A | C | ID | Knowledge on transmission by injection <i>Thank you. The next few questions are about your knowledge about certain bugs or infectious diseases.</i> | IDU/DUS ONLY SKIP UNLESS EVER INJECTED DRUGS |
|-----|---|---------|--|--|
| 49. | 1 | IDHIV | Can a person get HIV by injecting with a needle/syringe that was already used by someone else? | YES 1 NO 2 DON'T KNOW 3 |
| 50. | 2 | IDHBV | Have you heard about Hepatitis B? | YES 1 NO 2 '2' > SKIP QUESTIONS ON HEP B |
| 51. | 3 | IDHBVKN | Can a person get Hepatitis B by injecting with a needle/syringe that was already used by someone else? | YES 1 NO 2 DON'T KNOW 3 |
| 52. | 4 | IDHBVHA | Do you have Hepatitis B? | YES 1 NO 2 DON'T KNOW 3 |
| 53. | 5 | IDHBVVA | Have you ever been vaccinated against Hepatitis B? | YES 1 NO 2 DON'T KNOW 3 |
| 54. | 6 | IDHCV | Have you heard about Hepatitis C? | YES 1 NO 2 '2' > SKIP QUESTIONS ON HEP C |
| 55. | 7 | IDHCVKN | Can a person get Hepatitis C by injecting with a needle/syringe that was already used by someone else? | YES 1 NO 2 DON'T KNOW 3 |
| 56. | 8 | IDHCVHA | Do you have Hepatitis C? | YES 1 NO 2 DON'T KNOW 3 |

| N/A | D | DU | Buying and consuming drugs <i>Thank you. The next few questions are about where people buy and consume drugs.</i> | DUS ONLY |
|-----|---|-------|--|---|
| 57. | 1 | DUBUY | Where do you usually buy drugs? <i>Check all that apply.</i> | AT SOMEONE'S HOME 1 PUBLIC PLACES (CLUB/BAR/LODGE ETC.) 2 ABANDONED/EMPTY BUILDING 3 STREET/PARK 4 OTHER OPEN SPACES 5 OTHER 996 |

| | | | | | |
|-----|---|---------|--|---|--|
| 58. | 2 | DUPAY | How do you pay for your drugs? <i>Check all that apply.</i> | THROUGH MY JOB 1 DEALING DRUGS 2 SELLING SEX 3 EXCHANGING SEX FOR DRUGS 4 STEALING OR ROBBERY 5 OTHER 996 | |
| 59. | 3 | DUWHERE | Where do you usually consume drugs? <i>Check all that apply.</i> | IN MY HOME 1 IN ANOTHER PERSON'S HOME 2 PUBLIC PLACES (CLUB/BAR/LODGE ETC.) 3 ABANDONED/EMPTY BUILDING 4 STREET/PARK 5 OTHER OPEN SPACES 6 | |
| 60. | 4 | DUDIV | When you take drugs, in which Kampala Division do you do that usually? | MAKINDYE 1 NAKAWA 2 CENTRAL 3 RUBAGA 4 KAWEMPE 5 | |

| N/A | 10. | SC | Lifetime sex characteristics <i>The next few questions are about your sexual identity and history about having sex with women or men.</i> | |
|------------|-----|---------|--|--|
| 61. | 1 | SCCIRC | Are you circumcised? YES 1 NO 2 | MALES ONLY |
| 62. | 2 | SCATTR | What people are you most sexually attracted to? ONLY MEN 1 MOSTLY MEN, SOMETIMES WOMEN 2 EQUALLY MEN AND WOMEN 3 MOSTLY WOMEN, SOMETIMES MEN 4 ONLY WOMEN 5 NONE 6 | |
| 63. | 3 | SCIDEN | This question is about your sexual identity. Do you identify yourself as: GAY, LESBIAN, OR HOMOSEXUAL 1 BISexual 2 STRAIGHT OR HETEROSEXUAL 3 OTHER 4 | FTF |
| 64. | 4 | SCIDEN2 | You said "Other". Do you identify as: TRANSGENDER 1 INTERSEX 2 | |
| 65. | 5 | SCIDENT | Do you mostly identify as male or female? MALE 1 FEMALE 2 NEITHER 3 | |
| 66. | 6 | SCEVSX | Have you ever had sexual intercourse? <i>With sexual intercourse we mean vaginal sex or anal sex.</i> YES 1 NO 2 | MSM, FPM, FSW, PSW, NET: ASSIGN VALUE "YES", HIDE '1' > SKIP NEXT QUESTION IF NTRSEX='1' SKIP SCEVSX AND ASSIGN SCEVSX='1' FTF |
| 67. | 7 | SCEVSX2 | Please confirm: Did you ever have sex? YES 1 NO 2 | '2' SKIP ALL SEX RELATED QUESTIONS FTF |
| 68. | 8 | SCFTAG | How old were you when you first had sex? YEARS [][] | >'9' > SKIP NEXT QES |
| 69. | 9 | SCFTAG2 | You said you were only X years old when you first had sex. Is this true? YES, TRUE 1 NO, NOT TRUE 2 | '2' > PREVIOUS QES |
| 70. | 10 | SCFTAP | How old was your partner when you first had sex? <i>Please give your best guess.</i> YEARS [][] | >'9' > SKIP NEXT QES |
| 71. | 11 | SCFTAP2 | You said your partner was only X years old when you first had sex. Is this true? YES, TRUE 1 NO, NOT TRUE 2 | '2' > PREVIOUS QES |
| 72. 73. | 12 | SCSXRE | Did you have sex in the last 6 months? YES 1 NO 2 | MSM, FPM, FSW, PSW, NET: ASSIGN VALUE "YES", HIDE |
| 74. | 13 | SCSXRE2 | Please confirm: Did you have sex in the last 6 months? I DID HAVE SEX IN LAST 6 MONTHS 1 I DID NOT HAVE SEX IN LAST 6 MONTHS 2 | MSM, FPM, FSW, PSW, NET: ASSIGN VALUE "YES", HIDE IF SCSXRE=2 AND SCSXRE2=2 SKIP 6-MONTH RECALL QUESTIONS IF SCSXRE<> SCSXRE2 GO BACK TO SCSXRE |
| 75. | 14 | SCMAEV | Have you ever had sexual intercourse with men? YES 1 NO 2 | MSM, FPM, FSW: ASSIGN VALUE "YES", HIDE OTHER: '2' > SKIP RECALL/LIFETIME MALE SEX PARTNER QES |

| | | | | | | | |
|-----|-----|---------|---|--|--|---|--|
| | | | | | | | '2' > HIDE NEXT QES, ASSIGN VALUE '2' FTF |
| 76. | 15 | SCMARE | Have you had anal sex with other men in the last 6 months? | YES 1 NO 2 | | | MSM, FPM, FSW: ASSIGN VALUE 'YES', HIDE |
| 77. | 16 | SCFEEV | Have you ever had sexual intercourse with women? | YES 1 NO 2 | | | PSW: ASSIGN VALUE 'YES', HIDE '1' > SKIP NEXT QES |
| 78. | 17 | SCEVFE2 | Please tell me again: Have you ever had sex with women? | YES 1 NO 2 | | | MALES ONLY '2' > SKIP RECALL/LIFETIME FEMALE SEX PARTNER QES |
| N/A | N/A | | | | | DATA ENTRY CHECK: If SCEVSX=1, SMAEV=2 and SCFEEV=2 and SCEVFE2=2 CANNOT BE LEGAL >> POP-UP MESSAGE TO CALL DM | |
| 79. | 18 | SCGEND | Respondent had sex with | MEN 1 WOMEN 2 BOTH 3 | | | HIDE, ASSIGN VALUE ACCORDING TO THE TWO PREVIOUS QUESTIONS |
| 80. | 19 | SCTYMA | Women may have vaginal or anal sex. With anal sex we mean a man puts his penis in your anus. What kind of sex did you ever have? | ONLY VAGINAL SEX 1 ONLY ANAL SEX 2 BOTH VAGINAL AND ANAL SEX 3 | | | FEMALES ONLY FTF |
| 81. | 20 | SCTYFA | Men may have vaginal or anal sex. With anal sex we mean a man puts his penis in his partner's behind. What kind of sex did you ever have? | ONLY VAGINAL SEX 1 ONLY ANAL SEX 2 BOTH VAGINAL AND ANAL SEX 3 | | | MALES ONLY FTF |
| 82. | 21 | SCFEPA1 | Have you <i>ever</i> lived with a <i>female</i> sex partner? | YES 1 NO 2 | | | SKIP IF Q15 (SCEVFE2)='2' '2' > SKIP NEXT QES |
| 83. | 22 | SCFEPA2 | Are you <i>currently</i> living with a <i>female</i> sex partner? | YES 1 NO 2 | | | SKIP IF Q15 (SCEVFE2)='2' |
| 84. | 23 | SCMAPA1 | Have you <i>ever</i> lived with a <i>male</i> sex partner? | YES 1 NO 2 | | | SKIP IF Q13 (SCMAEV)='2' '2' > SKIP NEXT QES |
| 85. | 24 | SCMAPA2 | Are you <i>currently</i> living with a <i>male</i> sex partner? | YES 1 NO 2 | | | SKIP IF Q13 (SCMAEV)='2' |
| 86. | 25 | SCCHILD | Have you fathered children? | YES 1 NO 2 DON'T KNOW 997 | | | MALES ONLY FTF |
| 87. | 26 | SCLEC | Some students have sex with lecturers. Did you ever have sex with a lecturer at your institution? | YES 1 NO 2 | | | UST ONLY |
| 88. | 27 | SCLECNR | How many lecturers have you had sex with since you joined this institution? | NUMBER __ | | | UST ONLY |

| N/A | 11. | MM | MSM characteristics | MSM ONLY REF IF SCMARE='1' |
|-----|-----|-------------|--|--|
| 99. | 1 | MMFTAG | How old were you when you first had sex with a man? YEARS [][] | |
| 90. | 2 | MMFTPAA | Approximately how old was he? YEARS [][] <i>Please give your best estimate</i> | |
| 91. | 3 | MMFTSE | Did he pay or give you something in exchange for sex? YES 1 NO 2 | |
| 92. | 4 | MMFTTY | How would you describe the first man you had sex with? FRIEND 1 RELATIVE 2 ACQUAINTANCE 3 STRANGER 4 PRISON INMATE 5 'AUTHORITY FIGURE' (RELIGIOUS LEADER, TEACHER, POLICE, ARMY) 6 | '1'-5' > SKIP NEXT QES |
| 93. | 5 | MMFTAUT | What kind of "authority" was he? RELIGIOUS LEADER 1 TEACHER 2 MILITARY MAN 3 POLICE OFFICER 4 OTHER 5 | |
| 94. | 6 | MMTELL1 | Other than your male sex partners, have you told anyone about having sex with men? YES 1 NO 2 | '2' > SKIP NEXT QES |
| 95. | 7 | MMTELL2 | Who have you told about having sex with men? Y N MALE FRIENDS WHO HAVE SEX WITH MEN 1 2 OTHER FRIENDS 1 2 SPOUSE 1 2 (OTHER) FAMILY 1 2 HEALTH CARE WORKER 1 2 OTHER 1 2 | |
| 96. | 8 | MMFAMIL | About your family: Would you say that your family accepts you as you are, doesn't know what you are, or rejects you for what you are? ACCEPTS ME 1 DOESN'T KNOW 2 REJECTS ME 3 | |
| 97. | 9 | MMMEET W | In general, where do you usually <u>meet</u> men you have sex with? SCHOOL / UNIVERSITY CAMPUS 1 CLUB, BAR, HOTEL, CAFÉ, OR RESTAURANT 2 PRIVATE PLACE 3 CHURCH, MOSQUE, TEMPLE 4 MILITARY BARRACKS 5 SPA/HEALTH/FITNESS CENTER, OR SAUNA 6 AT MY WORK PLACE 7 INTERNET (ONLINE) 8 STREET, FIELD, PARK 9 | |
| 98. | 10 | MMSXWH | Where do you usually have sex with men? MY OR SOMEONE ELSE'S HOME 1 OTHER PRIVATE VENUE 2 COMMERCIAL VENUE (HOTEL, BAR, CLUB, ETC.) 3 OPEN SPACE (PARK, FIELD, CAR, ETC) 4 WORK PLACE 5 CHURCH, MOSQUE, TEMPLE 6 | |
| 99. | 11 | MMMEMP 1 | As of today, are you a member of any of the following the NGOs? SPECTRUM 1 ANGELS 2 GALA UGANDA 3 SMUG 4 QUEER YOUTH UGANDA 5 ICEBREAKERS 6 OTHER 995 | "NONE OF THE ABOVE": CANNOT BE CHECKED IN COMBINATION WITH OTHER CHOICES |

| | | | | | |
|------|----|-------------|--|--|---|
| | | | NONE OF THE ABOVE | 9 | |
| 100. | 12 | MMMEMB 2 | Here are some more NGOs. As of today, are you a member of any of these? <i>Check all that apply.</i> | ST PAUL'S RECONCILIATION CENTER 1 YOUTH ON ROCK 2 KULHAS CLUB 3 GLF 4 KUCHU LOVE 5 OTHER 995 NONE OF THE ABOVE 9 | "NONE OF THE ABOVE": CANNOT BE CHECKED IN COMBINATION WITH OTHER CHOICES |

| | | | | |
|------|-----|-----------|---|--|
| N/A | 12. | CO/LU | Condom and lubricant use | SKIP SECTION IF CLIENT NEVER HAD SEX. |
| N/A | A | CO | Condoms | MSM, FPM, FSW, PSW, NET: ALWAYS ASK |
| 101. | 1 | COEV | Have you <i>ever</i> used a male condom during sex? YES 1 NO 2 | |
| 102. | 2 | COEV2 | Please confirm: Have you <i>ever</i> used a male condom during sex? YES 2 NO 1 | IF COEV='2' AND COEV2='1' > SKIP ALL QES RE CONDOM USE IF COEV=COEV2 GO BACK TO COEV |
| 103. | 3 | COEV2B | Please confirm: Have you <i>ever</i> used a male condom during sex? YES 1 NO 2 | IF COEV='2' AND COEV2='2' > SKIP ALL QES RE CONDOM USE IF COEV<>COEV2 GO BACK TO COEV |
| 104. | 4 | COREUSE | Some people re-use their condom for more than one round of sex. Have you ever re-used a condom? YES 1 NO 2 | |
| 105. | 5 | CONOWHY | The last time you did not use a condom, what was the reason? DIDN'T HAVE ONE 1 FORGOT TO USE IT 2 DIDN'T WANT TO USE ONE 3 PARTNER REFUSED TO USE ONE 4 DIDN'T FEEL AT RISK 5 TOO EXPENSIVE 6 PARTNER WAS HIV-NEGATIVE 7 I ALWAYS USE CONDOMS 8 | |
| 106. | 6 | COSHORT 1 | In the last 6 months have you ever run short of condoms? YES 1 NO 2 | '2' > SKIP NEXT QUESTION |
| 107. | 7 | COSHORT 2 | Why did you run short of condoms in the last 6 months? NOT AVAILABLE 1 TOO EMBARRASSED TO BUY 2 TOO EXPENSIVE 3 OTHER 4 | |
| 108. | 8 | COAVAIL | Would you say condoms are easily available or not so easily available when you needed them in the last 6 months? EASILY AVAILABLE 1 NOT EASILY AVAILABLE 2 UNSURE 3 | |
| 109. | 9 | COFE | Have you ever used a female condom during sex? YES 1 NO 2 | FEMALES ONLY |

| | | | | |
|------|-----|------|---|--|
| N/A | B | LU | Lubricants | FSW, MSM: ALWAYS ASK ALL OTHER GROUPS: SKIP |
| N/A | N/A | N/A | <i>Some people use lubricants during sex. Lubricants are liquids or gels that make it easier to penetrate and reduce friction during sex.</i> | |
| 110. | 1 | LUEV | Have you ever used lubricants during sex? YES, HAVE USED 1 NO, HAVE NEVER USED 2 | '2' > Q8 |
| 111. | 2 | LUAN | Have you ever used lubricants during anal sex? YES, HAVE USED 1 NO, HAVE NEVER USED 2 | 2' > Q7 FSW: SKIP IF NEVER HAD ANAL SEX |

| | | | | | |
|-----|---|---------|--|---|----------------------------|
| 12. | 3 | LUBY | Where do you usually get lubricants? | SHOP 1 CLUB OR FITNESS CENTER 2 PHARMACY 3 FRIENDS 4 | |
| 13. | 4 | LUTY1 | Lubricants may be water-based or oil-based. Which lubricants do you usually use? | WATER-BASED 1 OIL-BASED 2 I DON'T KNOW 3 | |
| 14. | 5 | LUTY2 | Which lubricant do you most often use? | SALIVA 1 PETROLEUM OR VASELINE 2 HAND LOTION, VAGINAL GEL, OR BABY OIL 3 KY JELLY 4 BUTTER, BLUE BAND, GHEE, OR COOKING OIL 5 WATER 6 SOAP 7 OTHER 995 | |
| 15. | 6 | LUNRAN | How many times have you used lubricants the last 5 rounds you had anal sex? | NUMBER [] RANGE 0-5 | SKIP IF NEVER HAD ANAL SEX |
| 16. | 7 | LUNRVA | How many times have you used lubricants the last 5 rounds you had vaginal sex? | NUMBER [] RANGE 0-5 | FSW ONLY |
| 17. | 8 | LUNOWHY | What is the main reason you have not used lubricants? | HAVEN'T THOUGHT ABOUT IT 1 DON'T LIKE IT 2 TOO EXPENSIVE 3 PARTNER OBJECTS 4 CAN'T GET IT 5 | |

| | | | | |
|-----|-----|---------|--|--|
| N/A | 13. | SX | Frequency and types of sex | SKIP SECTION IF NO SEX IN LAST 6 MTHS ALWAYS ASK IF ELIGIBILITY CRITERIA IMPLY RECALL SEX |
| N/A | N/A | N/A | Next a few questions about what types of sex you had. People may have vaginal sex or anal sex. We will ask you how many times or rounds you had different types of sex. | |
| 18. | 1 | SXVANR | Think about when you had vaginal sex. How many rounds of vaginal sex did you have in the last 6 months? [][] Please take time to give the most accurate answer. If you don't know, give your best guess. Type "0" if you did not have vaginal sex in the last 6 months. | SKIP IF NEVER HAD VAGINAL SEX '0' > SKIP NEXT QUESTION FSW, FSW: ALWAYS ASK |
| 19. | 2 | SXVACO | Out of these rounds, how many times was a condom used? Type [][] "0" if none. MAX VALUE AS IN PREVIOUS QUESTION | |
| 20. | 3 | SXANNR | Think about when you had anal sex. How many rounds of anal sex did you have in the last 6 months? [][] Please take time to give the most accurate answer. If you don't know, give your best guess. | SKIP TO Q7 IF NEVER HAD ANAL SEX '00'>Q7 |
| 21. | 4 | SXANCO | Out of these rounds, how many times was a condom used? Type [][] "0" if none. MAX VALUE AS IN PREVIOUS QUESTION | SKIP IF NEVER HAD ANAL SEX |
| 22. | 5 | SXRANNR | You said you had XXX rounds of anal sex. Of these, how many times did you have receptive anal sex? [][] With "receptive" we mean your partner puts his penis in your anus. Type "0" if none. MAXIMUM=TOTAL NO. ANAL SEX | MALES ONLY. SKIP IF NEVER HAD ANAL SEX |
| 23. | 6 | SXIANNR | Number of times respondent had insertive sex in recall period. [][] COMPUTED AS DIFFERENCE BETWEEN TOTAL NO. ANAL SEX AND NO. RECEPTIVE ANAL SEX | MALES ONLY. HIDDEN. |
| 24. | 7 | SXGROUP | Some people have group sex, meaning sex with more than one person. Did you ever have group sex? YES 1 NO 2 | FSW, MSM ONLY |

| | | | | |
|------|------------|-----------|---|---------------------------------------|
| N/A | 14. | NG | Oral and non-genital sex | |
| N/A | N/A | N/A | <i>Now some questions about sex using your mouth or hand.</i> | |
| 125. | 1 | NGMAS | Have you ever masturbated? With "masturbation" we mean when you touch yourself for sexual pleasure. YES 1 NO 2 | '2' > SKIP NEXT QES |
| 126. | 2 | NGMASNR | In the last 6 months, how many times did you do that? DAILY 1 WEEKLY 2 MONTHLY 3 NOT IN LAST 6 MONTHS 4 | |
| 127. | 3 | NGOR | Some people kiss or suck their partners' penis. Did you ever? YES 1 NO 2 | '2' SKIP NEXT QES |
| 128. | 4 | NGORNR | In the last 6 months, how many times did you do that? DAILY 1 WEEKLY 2 MONTHLY 3 NOT IN LAST 6 MONTHS 4 | |
| 129. | 5 | NGRIM | Did you ever kiss or lick your sex partner's anus? YES 1 NO 2 | MSM ONLY '2' > NEXT SECTION |
| 130. | 6 | NGRIMNR | In the last 6 months, how many times did you do that? DAILY 1 WEEKLY 2 MONTHLY 3 NOT IN LAST 6 MONTHS 4 | MSM ONLY |
| 131. | 7 | NGFIS | Did someone ever put his finger or hand in your anus? YES 1 NO 2 | MSM ONLY '2' > NEXT SECTION |
| 132. | 8 | NGFISNR | In the last 6 months, how many times did this happen to you? DAILY 1 WEEKLY 2 MONTHLY 3 NOT IN LAST 6 MONTHS 4 | MSM ONLY |

| | | | | |
|------|-----|----------|--|--|
| N/A | 15. | VI | Sexual coercion, rape | ALL MALES, ALL FEMALES |
| N/A | A | COERCION | Now some questions about rape. Rape is when someone forces you to give sex by beating you or threatens to hurt or kill you. | NOT REF, MSM, SLM, STR |
| N/A | A | COERCION | Now some questions about coerced sex and rape. Coerced sex is when you give sex unwillingly but without being forced or threatened. For example people may give sex unwillingly to avoid arrest, or not get reported to authorities, to get housing, or to keep their job or other benefits. Rape is when someone forces you to give sex by beating you or threatens to hurt or kill you. Now, let's first talk about giving sex unwillingly. Please click on the "Next" button. | REF, MSM, SLM, STR ONLY |
| 133. | 1 | UNEV | Did you ever give sex unwillingly? YES 1 NO 2 | '2' > SKIP TO VIEV REF, MSM, SLM, STR ONLY |
| 134. | 2 | UNRE | In the last 6 months did you give sex unwillingly? YES 1 NO 2 | '2' > SKIP NEXT QES REF, MSM, SLM, STR ONLY |
| 135. | 3 | UNNR | In the last 6 months how many times did you give sex unwillingly? [][] RANGE: 1-95 | REF, MSM, SLM, STR ONLY |
| 136. | 4 | UNREAS1 | What were the reasons you gave sex unwillingly? Click on all that apply. TO GET OR KEEP HOUSING/LODGING 1 2 TO GET EDUCATION 1 2 TO AVOID PROBLEMS WITH ARREST OR FINES 1 2 TO GET OUT OF PRISON OR POLICE CELL 1 2 TO GET OFFICIAL PAPERS OR DOCUMENTS 1 2 OTHER 1 2 | REF, MSM, SLM, STR ONLY |
| 137. | 5 | UNREAS2 | Here are some more reasons to give sex unwillingly. Please click on the ones that apply to you. TO GET FOOD 1 2 TO GET HEALTH CARE 1 2 TO GET OR KEEP WORK 1 2 OTHER REASON 1 2 | REF, MSM, SLM ONLY |
| 138. | 6 | UNWHO1 | Who were the people you had sex with unwillingly? Click on all that apply. POLICE OR MILITARY 1 2 OTHER GOVERNMENT OFFICIALS 1 2 UN STAFF 1 2 NGO STAFF 1 2 OTHER 1 2 | REF, MSM, SLM ONLY |
| 139. | 7 | UNWHO2 | What other people did you have sex with unwillingly? Please click on the ones that apply to you. RELIGIOUS LEADER 1 2 PERSON GIVING ME SHELTER 1 2 HEALTH CARE STAFF 1 2 EMPLOYER 1 2 OTHER 1 2 | REF, MSM, SLM ONLY |
| N/A | B | RAPE | | |
| 140. | 1 | RAEV | Now some questions about rape. With rape we mean someone forces you to give sex by beating you or threatens to hurt or kill you. This may be done by strangers, authority figures, spouses, friends, or family members. Were you ever forced to have sex that way? YES 1 NO 2 | ALL GROUPS '2' > NEXT SECTION FTF |
| 141. | 2 | RAWHO | The last time this happened, who forced you to have sex? Check only one. FAMILY MEMBER, RELATIVE 1 MY OWN SEX PARTNER 2 FRIEND 3 'AUTHORITY FIGURE' 4 STRANGER 5 | |
| 142. | 3 | RAWHOFD | You said 'FRIEND'. Which of the following fits it most? STUDENT 1 WORK COLLEAGUE 2 PRISON INMATE 3 OTHER 4 | SKIP IF VIWHO<>'3' |
| 143. | 4 | RAWHOAU | You said 'AUTHORITY FIGURE'. Which of the following fits it most? EMPLOYER OR SUPERVISOR 1 RELIGIOUS LEADER 2 TEACHER 3 MILITARY OR UNIFORMED PERSONNEL 4 OTHER 5 | SKIP IF VIWHO<>'4' |
| 144. | 5 | RAWHOMI | You said 'UNIFORMED PERSONNEL'. Which of POLICE 1 MILITARY 2 | SKIP IF VIWHOAU<>'4' |

Crane ACASI instrument

| | | | | | |
|------|---|-------|---|--|--|
| | | | the following fits it most? | PRISON WARDEN 3 ASCARI 4 OTHER 5 | |
| 145. | 6 | | | | |
| 146. | 7 | RAREN | In the last 6 months, how many times were you forced to have sex? | [][] RANGE: 0-25 | |

| | | | | |
|------|----------|-----------|--|---|
| N/A | 16. | N/A | Psychosocial measures | |
| N/A | A | SS | Social support | MSM, REF, STR, DIS |
| N/A | N/A | N/A | Thank you for your answers. The next few questions are about help and support from your friends, family or special persons. Special persons may be any other person you feel close to, such as your sex partner or other person you feel close to. | |
| 147. | 1 | SSSPHER | There is a special person who is around when I am in need. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 148. | 2 | SSSPSHR | There is a special person with whom I can share my joys and sorrows. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 149. | 3 | SSFHMLP | My family really tries to help me. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 150. | 4 | SSFMEM | I get the emotional help and support I need from my family. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 151. | 5 | SSSPCMF | I have a special person who is a real source of comfort to me. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 152. | 6 | SSFRHLP | My friends really try to help me. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 153. | 7 | SSFRCNT | I can count on my friends when things go wrong. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 154. | 8 | SSFMTLK | I can talk about my problems with my family. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 155. | 9 | SSFRSHR | I have friends with whom I can share my joys and sorrows. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 |
| 156. | 10 | SSSPCAR | There is a special person in my life that cares about my feelings. | STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 |

| | | | | |
|------|----|---------|--|--|
| | | | MILDLY AGREE 4 STRONGLY AGREE 5 | |
| 157. | 11 | SSFHMLP | My family is willing to help me make decisions. STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 | |
| 158. | 12 | SSFRTLK | I can talk about my problems with my friends. STRONGLY DISAGREE 1 MILDLY DISAGREE 2 NEUTRAL 3 MILDLY AGREE 4 STRONGLY AGREE 5 | |

| N/A | B | PE | Perceptions | |
|------|-----|----------|--|--|
| N/A | N/A | N/A | <i>Now some questions about your thoughts or opinions.</i> | |
| 159. | 1 | PEACCPOL | How accepted do you feel by the police? VERY ACCEPTED 1 SOMEWHAT ACCEPTED 2 REJECTED 3 | DUS, MSM, FSW, REF ONLY |
| 160. | 2 | PEACCNEI | How accepted do you feel by your neighbours? VERY ACCEPTED 1 SOMEWHAT ACCEPTED 2 REJECTED 3 | DUS, MSM, FSW, REF ONLY |
| 161. | 3 | PEACCHCW | How accepted do you feel by health care workers? VERY ACCEPTED 1 SOMEWHAT ACCEPTED 2 REJECTED 3 | DUS, MSM, FSW, REF ONLY |
| 162. | 4 | PEACCFAM | How accepted do you feel by your family? VERY ACCEPTED 1 SOMEWHAT ACCEPTED 2 REJECTED 3 | DUS, MSM, FSW ONLY |
| 163. | 5 | PEHVGET | How likely do you think it is for you to get infected with HIV in the next year? EXTREMELY UNLIKELY 1 SOMEWHAT UNLIKELY 2 SOMEWHAT LIKELY 3 EXTREMELY LIKELY 4 | SKIP IF CLIENT STATED S/HE IS HIV-POS NOT STR |
| 164. | 6 | PEHVPAS | How likely do you think it is for you to pass on HIV to your partner? EXTREMELY UNLIKELY 1 SOMEWHAT UNLIKELY 2 SOMEWHAT LIKELY 3 EXTREMELY LIKELY 4 | SKIP IF CLIENT STATED S/HE IS HIV-NEG NOT STR |
| 165. | 7 | PEHAVO | How much is it in your power to escape HIV? VERY MUCH 1 SOMEWHAT 2 A LITTLE 3 NOT AT ALL 4 | SKIP IF CLIENT STATED S/HE IS HIV-POS NOT STR |
| 166. | 8 | PEMODE1 | What <i>kind</i> of anal sex is more dangerous to get HIV? ACTIVE (TOP) ANAL SEX 1 PASSIVE (BOTTOM) ANAL SEX 2 BOTH HAVE SAME RISK 3 BOTH WITHOUT RISK 4 DON'T KNOW 5 | SKIP IF NEVER HAD ANAL SEX MALES ONLY MSM: ALWAYS ASK |
| 167. | 9 | PEMODE2 | Is it more likely to get HIV through vaginal sex or anal sex? VAGINAL SEX 1 ANAL SEX 2 SAME RISK 3 DON'T KNOW 4 | SKIP IF NEVER HAD ANAL SEX MSM: ALWAYS ASK |
| 168. | 10 | PEMODE3 | Is it more likely to get HIV through sex with men or with women? MORE LIKELY WITH WOMEN 1 MORE LIKELY WITH MEN 2 SAME RISK 3 DON'T KNOW 4 | SKIP FOR FEMALES SKIP FOR MALES IF NEVER HAD SEX WITH MALES MSM: ALWAYS ASK |
| 169. | 11 | PEHIV | Are you afraid of HIV? YES 1 NO 2 | |
| 170. | 12 | PECOND1 | Do you agree with this statement: "A woman in YES 1 | FEMALES ONLY |

| | | | | | | |
|------|----|---------|---|---|------------------|--|
| | | | my situation can insist on using condoms with her sex partners all the time." | NO | 2 | |
| 171. | 13 | PECOND2 | Do you agree with this statement: "A woman in my situation can insist on using condoms with her spouse all the time." | YES NO | 1 2 | FEMALES ONLY SKIP UNLESS MARRIED |
| 172. | 14 | PECOND3 | Do you agree with this statement: "A woman in my situation can insist on using condoms with her customers all the time." | YES NO | 1 2 | FSW ONLY |
| 173. | 15 | PEARV1 | Earlier you said you take ARVs. Because you take ARVs, is it now less important for you to use condoms? | YES NO | 1 2 | SKIP UNLESS RESPONDENT IS ON ART |
| 174. | 16 | PEARV2 | Do you agree with this statement: " <i>I am not as careful about HIV and sex now because there is better treatment for AIDS</i> " | AGREE DON'T AGREE | 1 2 | |
| 175. | 17 | PEPHQ1 | Over the last 2 weeks, how often have you been bothered by having little interest or pleasure in doing things? | NOT AT ALL SEVERAL DAYS MORE THAN HALF THE DAYS NEARLY EVERY DAY | 0 1 2 3 | [PHQ2] |
| 176. | 18 | PEPHQ2 | Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless? | NOT AT ALL SEVERAL DAYS MORE THAN HALF THE DAYS NEARLY EVERY DAY | 0 1 2 3 | [PHQ2] |
| 177. | 19 | PEWORTH | Do you sometimes feel your life is worth less than the life of other people? | YES NO | 1 2 | |
| 178. | 20 | PEHATE | Do you sometimes hate yourself? | YES NO | 1 2 | |
| 179. | 21 | PESUI | Have you ever felt you don't want to live? | YES NO | 1 2 | |

| N/A | C | IHM | Internalized homophobia - MSM | MSM ONLY |
|------|---|--------|---|--|
| 180. | 1 | IHMMM1 | Thank you. The next few questions are about how you feel about your sexual attraction to men. | Data source: Internalized homophobia (IHP) instrument, 9 item version, DSM v3, APA |
| 181. | 2 | IHM1 | I have tried to stop being attracted to men in general.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 182. | 3 | IHM2 | If someone offered me the chance to be completely heterosexual, I would accept the chance.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 183. | 4 | IHM3 | I wish I weren't gay/bisexual.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 184. | 5 | IHM4 | I feel that being gay/bisexual is a personal shortcoming for me.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 185. | 6 | IHM5 | I would like to get professional help in order to change my sexual | STRONGLY AGREE 1 SOMEWHAT AGREE 2 |

| | | | | | |
|------|----|------|---|--|--|
| | | | orientation from gay/bisexual to straight.* | NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 186. | 7 | IHM6 | I have tried to become more sexually attracted to women. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 187. | 8 | IHM7 | I often feel it best to avoid personal or social involvement with other gay/bisexual men. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 188. | 9 | IHM8 | I feel alienated from myself because of being gay/bisexual. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 189. | 10 | IHM9 | I wish that I could develop more erotic feelings about women. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |

| N/A | D | IHF | Internalized homophobia - WSW | | WSW ONLY |
|------|-----|--------|--|--|--|
| N/A | N/A | IHFMM1 | Thank you. The next few questions are about how you feel about your sexual attraction to men. | | Data source: Internalized homophobia (IHP) instrument, 9 item version, DSM v3, APA |
| 190. | 1 | IHF1 | I have tried to stop being attracted to women in general.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 191. | 2 | IHF2 | If someone offered me the chance to be completely heterosexual, I would accept the chance.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 192. | 3 | IHF3 | I wish I weren't lesbian/bisexual.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 193. | 4 | IHF4 | I feel that being lesbian/bisexual is a personal shortcoming for me.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 194. | 5 | IHF5 | I would like to get professional help in order to change my sexual orientation from lesbian/bisexual to straight.* | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 | |
| 195. | 6 | IHF6 | I have tried to become more sexually attracted to men. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 | |

| | | | | |
|------|---|------|---|--|
| | | | STRONGLY DISAGREE 5 | |
| 196. | 7 | IHF7 | I often feel it best to avoid personal or social involvement with other lesbian/bisexual women. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 197. | 8 | IHF8 | I feel alienated from myself because of being lesbian/bisexual. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |
| 198. | 9 | IHF9 | I wish that I could develop more erotic feelings about men. | STRONGLY AGREE 1 SOMEWHAT AGREE 2 NEITHER AGREE NOR DISAGREE 3 SOMEWHAT DISAGREE 4 STRONGLY DISAGREE 5 |

| N/A | E | HT | Trauma | HTQ | REF ONLY |
|------|-----|--------------|---|---|----------------------|
| N/A | N/A | N/A | Thank you for your answers so far. Next some questions about events you may have experienced before you fled your country. So, think about the time before you fled your country. If at any time during this survey or after you would like to speak to someone, there are people here you can speak to immediately'- provided the volunteers are trained by the nurse counselors AND referral services for psychosocial support are available. Click NEXT. | | |
| 199. | 1 | HTSHLT | Have you experienced a lack of shelter? | YES 1 NO 2 | |
| 200. | 2 | HTLACK | Have you experienced lack of food or water? | YES 1 NO 2 | |
| 201. | 3 | HTCARE | Have you experienced ill health without access to health care? | YES 1 NO 2 | |
| 202. | 4 | HTDEST | Have you experienced confiscation or destruction of personal property? | YES 1 NO 2 | |
| 203. | 5 | HTCOMB | Have you experienced combat situations (for example shelling, grenade attacks, shooting)? | YES 1 NO 2 | |
| 204. | 6 | HTEVAC | Have you experienced forced evacuation under dangerous conditions? | YES 1 NO 2 | |
| 205. | 7 | HTBEAT | Have you experienced beating to the body? | YES 1 NO 2 | |
| 206. | 8 | HTRAPE | Have you experienced rape? | YES 1 NO 2 | '2' > SKIP TO HTABUS |
| 207. | 9 | HTRPTI | Were you raped before you were displaced, during your displacement or after your displacement? <i>Please check all that apply.</i> | BEFORE 1 2 DURING 1 2 AFTER 1 2 | |
| 208. | 10 | HTRPLOC | Were you raped in the DRC, in Uganda, or elsewhere? <i>Please check all that apply.</i> | DRC 1 2 UGANDA 1 2 OTHER COUNTRY 1 2 | |
| 209. | 11 | HTRPWHO | Who raped you? <i>Please check all that apply.</i> | MILITIA 1 2 POLICE 1 2 GOV'T SOLDIERS 1 2 UN STAFF 1 2 NGO STAFF 1 2 OTHER 1 2 | |
| 210. | 12 | HTRPWHO 2 | You said "other". Who was that? <i>Please check all that apply.</i> | NEIGHBOUR 1 2 RELATIVE 1 2 CLERGY 1 2 STRANGER 1 2 OTHER 1 2 DON'T KNOW 1 2 | |

| | | | | | |
|------|----|----------|---|--|-----------------------|
| 211. | 13 | HTRPPRG | Did you get pregnant as a result of the rape? | YES 1 NO 2 DON'T KNOW 3 | |
| 212. | 14 | HTRAPE0 | How many times were you raped? | [][] RANGE: 1-98 | |
| 213. | 15 | HTRAPE1A | How many people raped you in total? | [][] RANGE: 1-98 | |
| 214. | 16 | HTRAPE1B | Sometimes people get gang-raped. During any rape, were you raped by more than one person? | YES 1 NO 2 | '2' > SKIP TO HTRAPE2 |
| 215. | 17 | HTRAPE1C | How many times were you gang-raped? | [][] RANGE: 1-98 | |
| 216. | 18 | HTRAPE1D | How many people gang-raped you at any one time? | [][] RANGE: 1-98 | |
| 217. | 19 | HTRAPE2 | Were you raped with an object, for example a stick or weapon? | YES 1 NO 2 | |
| 218. | 20 | HTRAPE3 | After the rape, did you get health care because of the rape? | YES 1 NO 2 | |
| 219. | 21 | HTRAPE4 | After the rape, did you receive medicine so that you cannot get HIV/AIDS from the rape? | YES 1 NO 2 | |
| 220. | 22 | HTRAPE5 | Did you report the rape to the authorities? | YES 1 NO 2 | |
| 221. | 23 | HTRAPE6 | Did you tell your family or a friend that you were raped? <i>Check all that apply.</i> | YES – FAMILY 1 YES – FRIEND OR OTHER 2 I DID NOT TELL ANYONE 2 | |
| 222. | 24 | HTRAPE7 | Were you injured in your private parts because of the rape? | YES 1 NO 2 | '2' > SKIP TO HTABUS |
| 223. | 25 | HTFIST | Because you were raped do you have a fistula in your private parts? A fistula is a connection between your vagina and your bladder or rectum, meaning urine or stool can pass into your vagina. | YES 1 NO 2 I DON'T KNOW 3 | |
| 224. | 26 | HTABUS | Have you experienced other types of sexual abuse or sexual humiliation? | YES 1 NO 2 | |
| 225. | 27 | HTKNIFE | Have you experienced knifing or axing? | YES 1 NO 2 | |
| 226. | 28 | HTTORT | Have you experienced torture, i.e., while in captivity you received deliberate and systematic infliction of physical or mental suffering? | YES 1 NO 2 | |
| 227. | 29 | HTINJUR | Have you experienced serious physical injury from combat situations or landmines? | YES 1 NO 2 | |
| 228. | 30 | HTPRIS | Have you experienced imprisonment? | YES 1 NO 2 | |
| 229. | 31 | HTLABR | Have you experienced forced labor (like animal or slave)? | YES 1 NO 2 | |
| 230. | 32 | HTXTRT | Have you experienced extortion or robbery? | YES 1 NO 2 | |
| 231. | 33 | HTWASH | Have you experienced brainwashing? | YES 1 NO 2 | |
| 232. | 34 | HTHIDE | Have you experienced forced to hide? | YES 1 NO 2 | |
| 233. | 35 | HTKIDN | Have you experienced kidnapped? | YES 1 NO 2 | |
| 234. | 36 | HTSEPA | Have you experienced other forced separation from family members? | YES 1 NO 2 | |
| 235. | 37 | HTBURY | Did you have to find and bury bodies? | YES 1 NO 2 | |
| 236. | 38 | HTISOL | Have you experienced enforced isolation from others? | YES 1 NO 2 | |

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|------|----|---------|--|---------------|--|
| 237. | 39 | HTBETR | Have you experienced when someone was forced to betray you and place you at risk for death or injury? | YES 1 NO 2 | |
| 238. | 40 | HTBURY2 | Were you prevented from burying someone? | YES 1 NO 2 | |
| 239. | 41 | HTDESE | Were you forced to desecrate or destroy the bodies or graves of deceased persons? | YES 1 NO 2 | |
| 240. | 42 | HTHARM1 | Were you forced to physically harm a family member or friend? | YES 1 NO 2 | |
| 241. | 43 | HTHARM2 | Were you forced to physically harm someone who is not family or friend? | YES 1 NO 2 | |
| 242. | 44 | HTDEST2 | Were you forced to destroy someone else's property or possessions? | YES 1 NO 2 | |
| 243. | 45 | HTBETR2 | Were you forced to betray a family member or friend, placing them at risk of death or injury? | YES 1 NO 2 | |
| 244. | 46 | HTBETR3 | Were you forced to betray someone who is not a family member or friend, placing them at risk of death or injury? | YES 1 NO 2 | |
| 245. | 47 | HTMURD | Have you experienced the murder or death due to violence of your spouse? | YES 1 NO 2 | |
| 246. | 48 | HTMURD2 | Have you experienced the murder or death due to violence of your child? | YES 1 NO 2 | |
| 247. | 49 | HTMURD3 | Have you experienced the murder or death due to violence of another family member or friend? | YES 1 NO 2 | |
| 248. | 50 | HTKIDN2 | Have you experienced the disappearance or kidnapping of your spouse? | YES 1 NO 2 | |
| 249. | 51 | HTKIDN3 | Have you experienced the disappearance or kidnapping of your child? | YES 1 NO 2 | |
| 250. | 52 | HTKIDN4 | Have you experienced the disappearance or kidnapping of another family member or friend? | YES 1 NO 2 | |
| 251. | 53 | HTWINJ | Have you witnessed serious physical injury of a family member or friend due to combat or landmines? | YES 1 NO 2 | |
| 252. | 54 | HTWBEAT | Have you witnessed the beating of other people? | YES 1 NO 2 | |
| 253. | 55 | HTWTORT | Have you witnessed torture of other people? | YES 1 NO 2 | |
| 254. | 56 | HTWMURD | Have you witnessed the killing or murder of other people? | YES 1 NO 2 | |
| 255. | 57 | HTFEAR | Have you experiences any other situation that was very frightening or in which you felt your life was in danger? | YES 1 NO 2 | |

| N/A | F | HS | HTQ – Trauma symptoms (Part IV) | REF ONLY |
|------|-----|---------|--|--|
| N/A | N/A | HS | Thank you for your answers. Next some questions about symptoms that people sometimes have after experiencing hurtful or terrifying events to their lives. For each question please decide how much the symptoms bothered you in the past one week. Please click "Next" to start. | |
| 256. | 1 | HSMEM | In the past one week, how much were you bothered by recurrent thoughts or memories of the most hurtful or terrifying events? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 REF (PTSD-8) |
| 257. | 2 | HSRELIV | In the past one week, how much were you bothered by feeling as though the event is happening again? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 REF (PTSD-8) |
| 258. | 3 | HSMARE | Recurrent nightmares? | NOT AT ALL 1 A LITTLE 2 REF (PTSD-8) |

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|------|-----|-------------|--|--|-----|
| | | | | QUITE A BIT 3 EXTREMELY 4 | |
| 259. | 4 | HSDETA | Feeling detached or withdrawn from people? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| N/A | N/A | HSMM | Remember: We ask how much you were bothered by these symptoms in the past one week. Please click on the "Next" button. | | REF |
| 260. | 5 | HSFEEL | Unable to feel emotions? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 261. | 6 | HSJUMP | Feeling jumpy, easily startled? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 262. | 7 | HSCONC | Difficulty concentrating? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 263. | 8 | HSSLEP | Trouble sleeping? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 264. | 9 | HSGUAR | Feeling on guard? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 265. | 10 | HSIRRI | Feeling irritable or having outbursts of anger? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 266. | 11 | HSAVOI | Avoiding activities that remind you of the traumatic or hurtful event? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 267. | 12 | HSINAB | Inability to remember parts of the most traumatic or hurtful events? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 268. | 13 | HSLESS | Less interest in daily activities? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 269. | 14 | HSNOFU T | Feeling as if you have no future? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| N/A | N/A | | Remember: We ask how much you were bothered by these symptoms in the past one week. Please click on the "Next" button. | | REF |
| 270. | 15 | HSAVOI2 | Avoiding thoughts or feeling associated with the traumatic or hurtful events? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 271. | 16 | HSEMOT | Sudden emotional or physical reaction when reminded of the most the traumatic or hurtful events? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |

| | | | | | | |
|------|-----|----------|--|--|------------------|-----|
| 272. | 17 | HSSKIL | Feeling that you have less skills than you had before? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 273. | 18 | HSDEAL | Having difficulty dealing with new situations? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 274. | 19 | HSEXHA | Feeling exhausted? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 275. | 20 | HSPAIN | Bodily pain? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 276. | 21 | HSPHYS | Troubled by physical problems? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 277. | 22 | HSMEM2 | Poor memory? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 278. | 23 | HSMEM3 | Finding out or being told that you have done something that you cannot remember? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| N/A | N/A | | Remember: We ask how much you were bothered by these symptoms in the past one week. Please click on the "Next" button. | | | REF |
| 279. | 24 | HSATTN | Difficulty paying attention? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 280. | 25 | HSSPLIT | Feeling as if you are split into two people and one of you is watching what the other is doing? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 281. | 26 | HSPLAN | Feeling unable to make daily plans? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 282. | 27 | HSBLAME | Blaming yourself for things that have happened? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 283. | 28 | HSGUILT | Feeling guilty for having survived? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 284. | 29 | HSHPLES | Hopelessness? | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 285. | 30 | HSASHAM | Feeling ashamed of the hurtful or traumatic events that have happened to you. | NOT AT ALL A LITTLE QUITE A BIT EXTREMELY | 1 2 3 4 | REF |
| 286. | 31 | HSUNDS T | Feeling that people do not understand what happened to you? | NOT AT ALL A LITTLE | 1 2 | REF |

| | | | | | |
|------|----|---------|---|--|-----|
| | | | | QUITE A BIT 3 EXTREMELY 4 | |
| 287. | 32 | HSHOST | Feeling others are hostile to you? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 288. | 33 | HSRELY | Feeling that you have no one to rely upon? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 289. | 34 | HSBETR | Feeling that someone you trusted betrayed you? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 290. | 35 | HSHUMI | Feeling humiliated by your experience? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 291. | 36 | HSTRUST | Feeling no trust in others? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 292. | 37 | HSPWLS | Feeling powerless to help others? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 293. | 38 | HSTHINK | Spending time thinking why these things happened to you? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 294. | 39 | HSONLY | Feeling that you are the only that suffered these events? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |
| 295. | 40 | HSREVE | Feeling a need for revenge? | NOT AT ALL 1 A LITTLE 2 QUITE A BIT 3 EXTREMELY 4 | REF |

| N/A | G | VI | VIOLENCE | | |
|------|---|---------|--|---|--------------------------------|
| 296. | 1 | VIBEAT1 | Street children sometimes get beaten. Were you ever beaten by anyone? | YES 1 NO 2 | STR ONLY '2' > SKIP VIBEAT* |
| 297. | 2 | VIBEAT2 | In the last 6 months did you get beaten by anyone? | YES 1 NO 2 | STR ONLY |
| 298. | 3 | VIBEAT3 | Who beat you? <i>Click on all that apply.</i> | OTHER STREET CHILDREN 1 POLICE OR OTHER GOVERNMENT PEOPLE 2 OTHER PEOPLE 3 | STR ONLY |
| 299. | 4 | VIMSM1 | Did you ever suffer any violence or abuse because you have sex with other men? | YES 1 NO 2 | MSM ONLY |
| 300. | 5 | VIMSM2 | What sort of violence or abuse was that? <i>Check all that apply</i> | PHYSICAL (BEATEN) 1 VERBAL (THREATS, INSULTS) 2 MORAL (ISOLATION, EXCLUSION) 3 SEXUAL (FORCED TO HAVE SEXUAL CONTACT) 4 | MSM ONLY |
| 301. | 6 | VIMSM3 | Who abused you this way? <i>Check all that apply</i> | FAMILY MEMBERS 1 SEX PARTNER 2 FRIENDS, OTHER PEOPLE I KNOW 3 'AUTHORITY FIGURE' (RELIGIOUS LEADER, MILITARY, TEACHER, POLICE) 4 HEALTH CARE WORKER 5 | MSM ONLY |

Crane ACASI instrument

| | | | | |
|------|---|--------|---|---------------|
| | | | STRANGERS 6 | |
| 302. | 7 | VIMSM4 | Have you ever been blackmailed by someone because you have sex with other men? | YES 1 NO 2 |
| | | | | MSM ONLY |

| | | | | | |
|------|------------|-----------|--|---|---|
| N/A | N/A | N/A | <i>Next we ask about different types of sex partners. These partners may be steady, casual, or commercial sex partners. Steady partners are sex partners you have a stable relationship with. This may be a husband, wife, boy or girlfriend. Casual partners are sex partners you do not have a relationship with. Commercial sex partners are people with whom there is payment for sex.</i> | | |
| N/A | 17. | RG | Steady partners (Regular) | | |
| N/A | N/A | N/A | <i>Now some questions about steady partners. Steady partners are sex partners you have a stable relationship with. This may be a husband, wife, boy or girlfriend.</i> | | |
| 303. | 0 | RGANY | In the last six months, did you have any steady sex partners, male or female? | YES 1 NO 2 | '2' > NEXT MAIN SECTION |
| N/A | A | RM | Steady male partners | | Skip if never had sex with men |
| 304. | 1 | RMPANR | In the last 6 months how many <i>male</i> steady partners did you have? Type '0' if none. | <input type="text"/> <input type="text"/> NONE 00 | '00' > B '1', '2', OR '3' > A1 |
| 305. | 2 | RMSXNR | How many rounds of sex did you have with male steady partners in the last 6 months? <i>Give your best guess</i> | <input type="text"/> <input type="text"/> <input type="text"/> | |
| 306. | 3 | RMCONR | Out of these times, how many times was a condom used? <i>Give your best guess</i> | <input type="text"/> <input type="text"/> MAX VALUE: EQUAL TO QES 9.2 | |
| 307. | 4 | RMHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | SKIP IF >1 PARTNER |

| | | | | | |
|------|-----------|----------|--|---|--|
| 308. | A1 | N/A | <i>Now let's talk about these partners in a little more detail. Let's first talk about the one you had sex with the most recent.</i> | | NET ONLY |
| 309. | 1 | RM1AG | How old is that partner? | AGE IN YEARS <input type="text"/> <input type="text"/> RANGE: 15-70, PROBE IF <18 | |
| 310. | 2 | RM1MAR1 | Is this man married to you? | YES 1 NO 2 | FEMALES ONLY |
| 311. | 3 | RM1MAR2 | Is this person married to someone? | YES 1 NO 2 DON'T KNOW 3 | |
| 312. | 4 | RM1SXFT | When did you first have sex with this person? | WITHIN LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 | '2' > SKIP NEXT QES |
| 313. | 5 | RM1SXF | How many months ago? Type "1" if less than one month ago. | NUMBER: <input type="text"/> <input type="text"/> RANGE: 1-12 | |
| 314. | 6 | RM1SXF | How many years ago? | NUMBER: <input type="text"/> <input type="text"/> RANGE: 1-40 | |
| 315. | 7 | RM1SXL | When did you last have sex with this person? | WITHIN LAST 4 WEEKS 1 MORE THAN 1 MONTH AGO 2 | '2' > SKIP NEXT QES |
| 316. | 8 | RM1SXL | How many weeks ago? Type "1" if less than a week ago. | NUMBER: <input type="text"/> <input type="text"/> RANGE: 1-4 | |
| 317. | 9 | RM1SXL | How many months ago? | NUMBER: <input type="text"/> <input type="text"/> RANGE: 2-6 | Q9 (RM1SXL) CANNOT BE GREATER THAN Q5 (RM1SXF) |
| 318. | 10 | RM1ACTIV | Do you expect to have sex with this person again in | YES 1 | |

| | | | | | | |
|------|-----------|---------|---|---|-------------|--|
| | | | the future? | NO | 2 | |
| 319. | 11 | RM1TY1 | What kind of sex did you ever have with this person? Check all that apply. | VAGINAL SEX ANAL SEX | 1 2 | FEMALES ONLY DISPLAY IF EVER HAD BOTH TYPES OF SEX |
| 320. | 12 | RM1TY2 | What kind of sex did you ever have with this person? Check all that apply. | INSERTIVE ANAL SEX RECEPTIVE ANAL SEX | 1 2 | MALES ONLY DISPLAY IF HOMOSEX. RELATION |
| 321. | 13 | RM1COLT | The last time you had sex with this person, was a condom used? | YES NO | 1 2 | SKIP IF NEVER USED CONDOMS WITH THIS PARTNER |
| 322. | 14 | RM1CH | Do you have children with that person? | YES NO | 1 2 | SKIP IF MALE OR NEVER PREGNANT |
| 323. | 15 | RM1HVP1 | Did this partner tell you his HIV status? | YES NO | 1 2 | |
| 324. | 16 | RM1HVP2 | Does this person have HIV? If you don't know, give your best guess. | YES – IS HIV-POSITIVE NO – IS HIV-NEGATIVE DON'T KNOW | 1 2 3 | |
| 325. | 17 | RM1HV1 | Did you tell that partner your HIV status? | YES NO | 1 2 | |
| 326. | 18 | RM1PASX | Do you think that over the last 6 months this person has had sex with people other than you? <i>Give your best guess.</i> | YES NO | 1 2 | '2' > TO NEXT SECTION |
| 327. | 19 | RM1PANR | With how many people do you think he has had sex with in the last 6 months? | NUMBER <input type="text"/> RANGE: 0-9 | | |
| 328. | 20 | RM1RGNR | How many of these do you think were steady partners? | NUMBER <input type="text"/> <input type="text"/> <input type="text"/> | | Q20 (RM1RGNR) CANNOT BE GREATER THAN Q19 (RM1PANR) |
| 329. | A2 | N/A | <i>Now think about your 2nd steady partner.</i> | | | SKIP IF RMPANR<2 |
| 330. | N/A | RM2xxxx | Repeat questions from A1 | | | |
| 331. | A3 | N/A | <i>Now think about your 3rd steady partner.</i> | | | SKIP IF RMPANR<3 |
| 332. | N/A | RM3xxxx | Repeat questions from A1 | | | |

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|------|----------|-----------|---|--|---|--|
| 333. | B | RF | Female steady partners | | | MALES ONLY. Skip if never had sex with women. |
| 334. | N/A | N/A | <i>Now some questions about female steady partners.</i> | | | |
| 335. | 1 | RFPANR | In the last 6 months how many <i>female</i> steady partners did you have? <i>Type "0" if you have none.</i> | | <input type="text"/> | '0' > NEXT SECTION |
| 336. | 2 | RFSXNR | How many times did you have sex with female steady partners in the last 6 months? <i>Give your best guess</i> | | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | |

| | | | | |
|------|-----------|----------|--|--|
| 337. | 3 | RFCONR | Out of these times, how many times was a condom used? <input type="text"/> | |
| 338. | 4 | RFHV | What do you think is this person's HIV status? NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | SKIP IF >1 PARTNER |
| 339. | B1 | N/A | <i>Now let's talk about these partners in a little more detail. Let's first talk about the one you had sex with the most recent.</i> | NET ONLY |
| 340. | 1 | RF1AG | How old is that partner? AGE IN YEARS <input type="text"/> RANGE: 15-70, PROBE IF <18 | |
| 341. | 2 | RF1MAR1 | Is this woman married to you? YES 1 NO 2 | MALES ONLY |
| 342. | 3 | RF1MAR2 | Is this person married to someone? YES 1 NO 2 DON'T KNOW 3 | |
| 343. | 4 | RF1SXFT | When did you first have sex with this person? WITHIN LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 | '2' > SKIP NEXT QES |
| 344. | 5 | RF1SXFY | How many months ago? Type "1" if less than one month ago. NUMBER: <input type="text"/> RANGE: 1-12 | |
| 345. | 6 | RF1SXF | How many years ago? NUMBER: <input type="text"/> RANGE: 1-40 | |
| 346. | 7 | RM1SXL | When did you last have sex with this person? WITHIN LAST 4 WEEKS 1 MORE THAN 1 MONTH AGO 2 | '2' > SKIP NEXT QES |
| 347. | 8 | RM1SXLW | How many weeks ago? Type "1" if less than a week ago. NUMBER: <input type="text"/> RANGE: 1-4 | |
| 348. | 9 | RM1SXL | How many months ago? NUMBER: <input type="text"/> RANGE: 2-6 | Q9 (RM1SXL) CANNOT BE GREATER THAN Q5 (RM1SXFY) |
| 349. | 10 | RM1ACTIV | Do you expect do have sex with this person again in the future? YES 1 NO 2 | |
| 350. | 11 | RM1TY1 | What kind of sex did you ever have with this person? Check all that apply. VAGINAL SEX 1 ANAL SEX 2 | FEMALES ONLY DISPLAY IF EVER HAD BOTH TYPES OF SEX |
| 351. | 12 | RM1TY2 | What kind of sex did you ever have with this person? Check all that apply. INSERTIVE ANAL SEX 1 RECEPTIVE ANAL SEX 2 | MALES ONLY DISPLAY IF HOMOSEX. RELATION |
| 352. | 13 | RM1COLT | The last time you had sex with this person, was a condom used? YES 1 NO 2 | SKIP IF NEVER USED CONDOMS WITH THIS PARTNER |
| 353. | 14 | RM1CH | Do you have children with that person? YES 1 NO 2 | SKIP IF MALE OR NEVER PREGNANT |
| 354. | 15 | RM1HVP1 | Did this partner tell you his HIV status? YES 1 NO 2 | |
| 355. | 16 | RM1HVP2 | Does this person have HIV? If you don't know, give your best guess. YES – IS HIV-POSITIVE 1 NO – IS HIV-NEGATIVE 2 | |

| | | | | |
|------|-----------|---------|--|---|
| | | | DON'T KNOW 3 | |
| 356. | 17 | RM1HV1 | Did you tell that partner your HIV status? YES 1 NO 2 | |
| 357. | 18 | RM1PASX | Do you think that over the last 6 months this person has had sex with people other than you? <i>Give your best guess.</i> YES 1 NO 2 | '2' > TO NEXT SECTION |
| 358. | 19 | RM1PANR | With how many people do you think he has had sex with in the last 6 months? NUMBER _ RANGE: 0-9 | |
| 359. | 20 | RM1RGNR | How many of these do you think were steady partners? NUMBER _ _ | Q20 (RM1RGNR) CANNOT BE GREATER THAN Q19 (RM1PANR) |
| 360. | B2 | N/A | <i>Now think about your 2nd female steady partner.</i> | NET ONLY SKIP IF RFPANR<2 |
| 361. | N/A | RF2XXXX | Repeat questions from B1 | |
| 362. | B3 | N/A | <i>Now think about your 3rd female steady partner.</i> | NET ONLY SKIP IF RFPANR<3 |
| 363. | N/A | RF3XXXX | Repeat questions from B1 | |

| | | | | |
|------|------------|-----------|---|--|
| N/A | 18. | CS | Casual sex partners | |
| N/A | N/A | N/A | <i>Next we ask about your casual sex partners. Casual partners are sex partners you do not have a relationship with. There is no payment for sex with these partners.</i> | |
| 364. | 0 | CSRE | In the last six months, did you have any casual sex partners, male or female? | YES 1 NO 2 |
| N/A | A | CM | Casual male partners (CM) | Skip if never had sex with men. |
| 365. | 1 | CMPANR | In the last 6 months how many <i>male</i> casual sex partners did you have? Type '0' if none. | 00 NONE 00 |
| 366. | 2 | CMSXNR | How many times did you have sex with male casual partners in the last 6 months? Give your best guess | MINIMUM=NO. MALE CASUAL PARTNERS |
| 367. | 3 | CMCONR | Out of these times, how many times was a condom used? Give your best guess | |
| 368. | 4 | CMHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 |

| | | | | |
|------|-----------|----------|---|---|
| N/A | A1 | N/A | <i>Now let's talk about these casual partners in a little more detail. Let's first talk about the one you had sex with the most recent.</i> | NET ONLY, SKIP IF NO CASUAL MALE PARTNERS |
| 369. | 1 | CM1AG | How old is that partner? | AGE IN YEARS 00-99 RANGE: 15-70, PROBE IF <18 |
| 370. | 2 | CM1MAR2 | Is this person married to someone? | YES 1 NO 2 DON'T KNOW 3 |
| 371. | 3 | CM1SXFT | When did you first have sex with this person? | WITHIN LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 |
| 372. | 4 | CM1SXFY | How many months ago? Type "1" if less than one month ago. | NUMBER: 0-12 RANGE: 1-12 |
| 373. | 5 | CM1SXFM | How many years ago? | NUMBER: 0-40 RANGE: 1-40 |
| 374. | 6 | CM1SXLTL | When did you last have sex with this person? | WITHIN LAST 4 WEEKS 1 MORE THAN 1 MONTH AGO 2 |
| 375. | 7 | CM1SXLW | How many weeks ago? Type "1" if less than a week ago. | NUMBER: 0-4 RANGE: 1-4 |
| 376. | 8 | CM1SXMLM | How many months ago? | NUMBER: 0-6 RANGE: 2-6 |
| 377. | 9 | CM1ACTIV | Do you expect to have sex with this person again in the future? | YES 1 NO 2 |
| 378. | 10 | CM1TY1 | What kind of sex did you ever have with this person? Check all that apply. | VAGINAL SEX 1 ANAL SEX 2 |
| 379. | 11 | CM1TY2 | What kind of sex did you ever have with this person? Check all that apply. | INSERTIVE ANAL SEX 1 RECEPTIVE ANAL SEX 2 |
| 380. | 12 | CM1COLT | The last time you had sex with this person, was a condom used? | YES 1 NO 2 |
| 381. | 13 | CM1CH | Do you have children with that | YES 1 |

| | | | | | |
|------|-----|---------|--|---|--|
| | | | person? | NO 2 | OR NEVER PREGNANT |
| 382. | 14 | CM1HVP1 | Did this partner tell you his HIV status? | YES 1 NO 2 | |
| 383. | 15 | CM1HVP2 | Does this person have HIV? If you don't know, give your best guess. | YES – IS HIV-POSITIVE 1 NO – IS HIV-NEGATIVE 2 DON'T KNOW 3 | |
| 384. | 16 | CM1HV1 | Did you tell that partner your HIV status? | YES 1 NO 2 | |
| 385. | 17 | CM1PASX | Do you think that over the last 6 months this person has had sex with people other than you? Give your best guess. | YES 1 NO 2 | '2' > TO NEXT SECTION |
| 386. | 18 | CM1PANR | With how many people do you think he has had sex with in the last 6 months? | NUMBER __ RANGE: 0-9 | |
| 387. | 19 | CM1RGNR | How many of these do you think were steady partners? | NUMBER __ | Q20 (RM1RGNR) CANNOT BE GREATER THAN Q19 (RM1PANR) |
| N/A | A2 | N/A | Now think about your 2 nd casual partner. | | SKIP IF CMPANR<2 |
| N/A | N/A | RM2xxxx | Repeat questions from A1 | | |
| N/A | A3 | N/A | Now think about your 3 rd casual partner. | | SKIP IF CMPANR<3 |
| N/A | N/A | RM3xxxx | Repeat questions from A1 | | |

| | | | | | |
|------|---|--------|--|---|---|
| N/A | B | CF | Casual female partners (CF) | | Males only Skip if never had sex with women |
| 388. | 1 | CFPANR | In the last 6 months how many <i>female</i> casual sex partners did you have? | __ NONE 00 | '00' > NEXT SECTION |
| 389. | 2 | CFSXNR | How many times did you have sex with female casual partners in the last 6 months? Give your best guess | __ MINIMUM=NO. FEMALE CASUAL PARTNERS | |
| 390. | 3 | CFCONR | Out of these times, how many times was a condom used? Give your best guess | __ | |
| 391. | 4 | CFHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | SKIP IF >1 PARTNER |

| | | | | | |
|------|----|---------|--|---|--|
| 392. | A1 | N/A | Now let's talk about these casual partners in a little more detail. Let's first talk about the one you had sex with the most recent. | | NET ONLY, SKIP IF NO CASUAL MALE PARTNERS |
| 393. | 1 | CM1AG | How old is that partner? | AGE IN YEARS __ RANGE: 15-70, PROBE IF <18 | |
| 394. | 2 | CM1MAR2 | Is this person married to someone? | YES 1 NO 2 DON'T KNOW 3 | |
| 395. | 3 | CM1SXFT | When did you first have sex with this person? | WITHIN LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 | '2' > SKIP NEXT QES |
| 396. | 4 | CM1SXFY | How many months ago? Type "1" if less than one month ago. | NUMBER: __ RANGE: 1-12 | |
| 397. | 5 | CM1SXFM | How many years ago? | NUMBER: __ RANGE: 1-40 | |

| | | | | | | |
|------|-----|----------|---|---|-------------|---|
| 398. | 6 | CM1SXL | When did you last have sex with this person? | WITHIN LAST 4 WEEKS MORE THAN 1 MONTH AGO | 1 2 | '2' > SKIP NEXT QES |
| 399. | 7 | CM1SXLW | How many weeks ago? Type "1" if less than a week ago. | NUMBER: [][] RANGE: 1-4 | | |
| 400. | 8 | CM1SXML | How many months ago? | NUMBER: [][] RANGE: 2-6 | | Q9 (RM1SXLM) CANNOT BE GREATER THAN Q5 (RM1SXFY) |
| 401. | 9 | CM1ACTIV | Do you expect to have sex with this person again in the future? | YES NO | 1 2 | |
| 402. | 10 | CM1TY1 | What kind of sex did you ever have with this person? Check all that apply. | VAGINAL SEX ANAL SEX | 1 2 | FEMALES ONLY DISPLAY IF EVER HAD BOTH TYPES OF SEX |
| 403. | 11 | CM1TY2 | What kind of sex did you ever have with this person? Check all that apply. | INSERTIVE ANAL SEX RECEPTIVE ANAL SEX | 1 2 | MALES ONLY DISPLAY IF HOMOSEX. RELATION |
| 404. | 12 | CM1COLT | The last time you had sex with this person, was a condom used? | YES NO | 1 2 | SKIP IF NEVER USED CONDOMS WITH THIS PARTNER |
| 405. | 13 | CM1CH | Do you have children with that person? | YES NO | 1 2 | SKIP IF MALE OR NEVER PREGNANT |
| 406. | 14 | CM1HVP1 | Did this partner tell you his HIV status? | YES NO | 1 2 | |
| 407. | 15 | CM1HVP2 | Does this person have HIV? If you don't know, give your best guess. | YES – IS HIV-POSITIVE NO – IS HIV-NEGATIVE DON'T KNOW | 1 2 3 | |
| 408. | 16 | CM1HV1 | Did you tell that partner your HIV status? | YES NO | 1 2 | |
| 409. | 17 | CM1PASX | Do you think that over the last 6 months this person has had sex with people other than you? <i>Give your best guess.</i> | YES NO | 1 2 | '2' > TO NEXT SECTION |
| 410. | 18 | CM1PANR | With how many people do you think he has had sex with in the last 6 months? | NUMBER [][] RANGE: 0-9 | | |
| 411. | 19 | CM1RGNR | How many of these do you think were steady partners? | NUMBER [][] | | Q20 (RM1RGNR) CANNOT BE GREATER THAN Q19 (RM1PANR) |
| N/A | A2 | N/A | Now think about your 2 nd casual partner. | | | SKIP IF CMPANR<2 |
| N/A | N/A | RM2xxxx | Repeat questions from A1 | | | |
| N/A | A3 | N/A | Now think about your 3 rd casual partner. | | | SKIP IF CMPANR<3 |
| N/A | N/A | RM3xxxx | Repeat questions from A1 | | | |

| | | | | | |
|------|------------|------------|--|--------------------------------------|--|
| N/A | 19. | BY | Commercial Sex – Respondent buys sex | | SKIP TO |
| N/A | N/A | N/A | <i>Now some questions about buying sex. People may buy sex with money, goods, food, shelter, or services.</i> | | |
| 412. | 0 | BYEV | Did you ever buy sex? | YES 1 NO 2 | PSW: HIDE AND ASSIGN VALUE "1" '2' >NEXT SECTION FTF |
| N/A | A | PSW | Network questions for PSW | | PSW ONLY |
| 413. | 1 | PSWNR | Many men buy sex. How many men do you know personally who bought sex in the last 6 months? <i>Give your best guess.</i> | XXX NUMBER [][] RANGE: 0-100 | '0' > NEXT SECTION |
| 414. | 2 | PSWADAY | Of these, how many could you see by this time tomorrow? | YYY [][] Maximum: XXX | |
| 415. | 3 | PSWAWEE | And how many could you see by this time next week? | ZZZ [][] Minimum: YYY | |
| 416. | 4 | PSWAMON | And how many could you see by this time next month? | [][] Minimum: ZZZ | |
| 417. | 5 | PSWPDAY | Of all the men you know who buy sex, how many of these know you well enough that they could see you by this time tomorrow? | AAA [][] RANGE: 0-100 | |
| 418. | 6 | PSWPWEE | And how many could see you by this time next week? | BBB [][] Minimum: AAA | |
| 419. | 7 | PSWPMON | And how many could see you by this time next month? | NUMBER [][] Minimum: BBB | |

| | | | | | |
|------|----------|-----------|---|---|--|
| N/A | B | BM | Respondent buys sex from men | | Skip if never had sex with men MSM: ALWAYS ASK |
| 420. | 1 | BMEV | Did you ever buy sex from a man? | YES 1 NO 2 | '2' > SUBSECTION C |
| 421. | 2 | BMPANR | How many different <i>men</i> did you buy sex from in the last 6 months? <i>Type "0" if none.</i> | [][] NONE 00 | '00' > NEXT SECTION |
| 422. | 3 | BMSXNR | How many <i>rounds of sex</i> did you have with these men? <i>Give your best guess.</i> | [][] MINIMUM=NO. MALE COMM. PARTNERS | |
| 423. | 4 | BMCONR | Of these, how many times was a condom used? <i>Give your best guess.</i> | [][] | |
| 424. | 5 | BMHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | SKIP IF >1 PARTNER |

| | | | | | |
|------|----------|-----------|---------------------------------------|-----------------------------------|--|
| N/A | C | BF | Respondent buys sex from women | | Males only. Skip if never had sex with women PSW: ALWAYS ASK |
| 425. | 1 | BFEV | Did you ever buy sex from a woman? | YES 1 NO 2 DON'T REMEMBER 3 | ILLEGAL: Q1 (BFEV)='2' AND Q242 (BMEV)='2' AND Q234 (BYEV)='2' > POP-UP MESSAGE TO |

| | | | | |
|------|---|--------|--|---|
| | | | | CALL DM. '2' > NEXT SECTION |
| 426. | 2 | BFPANR | In the last 6 months how many different <i>women</i> did you buy sex from? <i>Type "0" if none.</i> | <div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> NONE 00 '00' > NEXT SECTION |
| 427. | 3 | BFSXNR | How many <i>rounds</i> did you have with these women in the last 6 months? <i>Give your best guess</i> | <div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> MINIMUM=NO. FEMALE COMM. PARTNERS |
| 428. | 4 | BFCNR | Of these, how many times was a condom used? | <div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> MAX=NO. SEX TIMES |
| 429. | 5 | BFHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 SKIP IF >1 PARTNER |

| | | | | |
|------|-----|-----------------|--|--|
| N/A | 20. | SE/SW/S M/SF | Sex work – Respondent sells sex | |
| N/A | N/A | N/A | Now some questions about selling sex that is where you sell sex for money, goods, favors, or services. | |
| 430. | 1 | SEEV | Did you ever sell sex? YES 1 NO 2 | FSW: ASSIGN 'YES' VALUE, HIDE '2' > NEXT SECTION FTF |
| 431. | 2 | SERE | Did you sell sex in the last 6 months? YES 1 NO 2 | FSW: ASSIGN 'YES' VALUE, HIDE IF SEEV='2' ASSIGN SERE VALUE='2' |
| 432. | 3 | SEINCOM | Is sex work your main source of income? YES 1 NO 2 | |
| 433. | A | SW | Sex work characteristics | FSW: MUST ASK MSM/REF: ASK IF SEINCOM="YES" ALL OTHER GROUPS: SKIP |
| 434. | 1 | SWDUR | For how many years have you sold sex? Type "0" if less than one year. YEARS: [][] MAX VALUE: AGE-15 | |
| 435. | 2 | SWAG | Compute age at start of sex work. If sex work started at age ≥18 years, do not probe and go to next question. If sex work started at age <18 years, probe: So you started selling sex at age xx years? YES 1 NO 2 | |
| 436. | 3 | SWFR1 | Some people get forced or coerced to sell sex. Some people get cheated or abducted into sex work. Did any of this happen to you the first time you sold sex? YES 1 NO 2 | '2' > SKIP NEXT QES |
| 437. | 4 | SWFR2 | What was the main reason you first had sex with a customer? WAS FORCED 1 WAS THREATENED 2 WAS CHEATED INTO SEX WORK 3 WAS ABDUCTED 4 OTHER 996 | |
| 438. | 5 | SWIND | Do you find your customers mainly at the place you work or outside your work? AT THE PLACE I WORK 1 OUTSIDE MY WORK 2 BOTH 3 | SKIP IF DEWORK>'3' |
| 439. | 6 | SWIND2 | Where do you work? BAR, CLUB, OR RESTAURANT 1 LODGE OR HOTEL 2 SHOP OR MARKET 3 OTHER PLACE 4 | SKIP UNLESS SWIND='1' OR '3' |
| 440. | 7 | SWDIV | In which Division of Kampala do you mainly sell sex? MAKINDYE 1 NAKAWA 2 CENTRAL 3 RUBAGA 4 KAWEMPE 5 EVERYWHERE 6 | |
| 441. | 8 | SWMEET | In general, where do you usually meet clients you sell sex to? STREET 1 PHONE, SMS, EMAIL, INTERNET 2 HOTEL, LODGE 3 CLUB, BAR, RESTAURANT 4 PRIVATE PLACE 5 BROTHEL 6 | |
| 442. | 9 | SWWHERE | Where do you usually have sex with your clients? MY HOME 1 MY CLIENTS' OR OTHER HOME 2 | |

| | | | Check all that apply | HOTEL, LODGE, OR BAR OPEN SPACE (PARK, FIELD, CAR, ETC.) BROTHEL OTHER | 3 4 5 995 | |
|------|----|---------|--|---|--------------------|---|
| 443. | 10 | SWGROU | Do you sometimes have sex with several customers at the same time (group sex)? | YES NO | 1 2 | |
| 444. | 11 | SWEVYEL | Did a customer ever yell at you? | YES NO | 1 2 | |
| 445. | 12 | SWEVHIT | Did a customer ever hit or hurt you? | YES NO | 1 2 | |
| 446. | 13 | SWEVCAR | Did you ever need health care because a customer hit or hurt you? | YES NO | 1 2 | |
| 447. | 14 | SWEVROB | Did a customer ever rob you? | YES NO | 1 2 | |
| 448. | 15 | SWEVACT | Did a customer ever force you to do sex acts you did not want to do? | YES NO | 1 2 | |
| 449. | 16 | SWEVPAY | Did a customer ever not pay you at all? | YES NO | 1 2 | |
| 450. | 17 | SWEVLES | Did a customer ever pay you less than agreed? | YES NO | 1 2 | |
| 451. | 18 | SWEVPOL | Has a police officer ever forced you to give him free sex? | YES NO | 1 2 | |
| 452. | 19 | SWEVAUT | Has any other authority figure ever forced you to give him free sex? | YES NO | 1 2 | |
| 453. | 20 | SWREYEL | In the last 6 months did a customer yell at you? | YES NO | 1 2 | SKIP IF SWEVYEL='2' AND ASSIGN VALUE='2' |
| 454. | 21 | SWREHIT | In the last 6 months did a customer hit or hurt you? | YES NO | 1 2 | SKIP IF SWEVHIT='2' AND ASSIGN VALUE='2' |
| 455. | 22 | SWRECAR | In the last 6 months did you need health care because a customer hit or hurt you? | YES NO | 1 2 | SKIP IF SWEVCAR='2' AND ASSIGN VALUE='2' |
| 456. | 23 | SWREROB | In the last 6 months did a customer rob you? | YES NO | 1 2 | SKIP IF SWEVROB='2' AND ASSIGN VALUE='2' |
| 457. | 24 | SWREACT | In the last 6 months did a customer force you to do sex acts you did not want to do? | YES NO | 1 2 | SKIP IF SWEVACT='2' AND ASSIGN VALUE='2' |
| 458. | 25 | SWREPAY | In the last 6 months did a customer not pay you at all? | YES NO | 1 2 | SKIP IF SWEVPAY='2' AND ASSIGN VALUE='2' |
| 459. | 26 | SWRELES | In the last 6 months did a customer pay you less than agreed? | YES NO | 1 2 | SKIP IF SWEVLES='2' AND ASSIGN VALUE='2' |
| 460. | 27 | SWREPOL | In the last 6 months did a police officer force you to give him free sex? | YES NO | 1 2 | SKIP IF SWEVPOL='2' AND ASSIGN VALUE='2' |
| 461. | 28 | SWREAUT | In the last 6 months did any other authority figure force you to give him free sex? | YES NO | 1 2 | SKIP IF SWEVAUT='2' AND ASSIGN VALUE='2' |
| 462. | 29 | SWPIMP | Do you have to give some of your income from sex work to | YES | 1 | |

| | | | | | | |
|------|----|----------|--|--|------------------------------|--|
| | | | anyone? | NO | 2 | |
| 463. | 30 | SWPIMP2 | Who do you have to give some of your income? Check all that apply. | SPOUSE OR OTHER PARTNER POLICE MIDDLEMAN OWNER OF LODGE WHERE SEX TAKES PLACE BAR MANAGER OTHER | 1 2 3 4 6 995 | |
| 464. | 31 | SWPLACE | In the last 6 months, where have you sold sex: | ONLY IN KAMPALA ELSEWHERE IN UGANDA IN UGANDA AND OTHER COUNTRIES | 1 2 3 | |
| 465. | 32 | SWREF | Have you ever sold sex in a refugee camp in Uganda? | YES NO | 1 2 | REF ONLY |
| 466. | 33 | SWPLACE2 | In the last 6 months in how many different towns have you sold sex? | _____ RANGE: 2-15 | 1 | SKIP IF SWPLACE='1' |
| 467. | 34 | SWCO1 | Clients sometimes say they don't want to use a condom. In the last 6 months how often have clients told you they don't want to use a condom? | FREQUENTLY SOMETIMES RARELY NEVER | 1 2 3 4 | '4' > SKIP NEXT QES |
| 468. | 35 | SWCO2 | In your experience, what do clients do to avoid using a condom? | THEY SIMPLY REFUSE OFFER MORE MONEY THREATEN ME BEAT ME IF I REFUSE | 1 2 3 4 | |
| 469. | 36 | SWCO3 | What do you do to make clients use condoms? | TALK TO HIM REFUSE TO HAVE SEX UNLESS HE USES A CONDOM ASK FOR MORE MONEY NOTHING | 1 2 3 4 | |
| 470. | 37 | SWCO4 | Are there reasons not to insist on using a condom with a client? | I CAN GET MORE MONEY SEX DOESN'T TAKE AS LONG WITHOUT A CONDOM WHEN I'M AFRAID I DON'T INSIST | 1 2 3 | |
| 471. | 38 | SWMEMBE | As of today, are you a member or do you frequent any of the following the NGOs? Check all that apply. | UYDEL REPRODUCTIVE HEALTH UGANDA AMREF OTHER NONE OF THE ABOVE | 1 2 3 4 5 | CANNOT CHECK '5' TOGETHER WITH ANY OTHER VALUE |

| | | | | | | |
|------|----------|-----------|--|------------------------------------|-------------|--|
| N/A | B | SM | Respondent selling sex to males | | | Skip if never had sex with men FSW: Always ask |
| N/A | N/A | N/A | <i>Now some questions about you selling sex to men.</i> | | | |
| 472. | 1 | SMEV | Did you ever sell sex to a man for money, goods, or services? | YES NO | 1 2 | FSW: ASSIGN VALUE 'YES', HIDE '2' > B |
| 473. | 2 | SMRE | In the last 6 months, did you sell sex to men? | YES NO | 1 2 | FSW: ASSIGN VALUE 'YES', HIDE '2' > B |
| 474. | 3 | SMPANR | How many men have you sold sex to in the last 6 months ? | _____ MINIMUM: 1 | 1 | |
| 475. | 4 | SMSXNR | How many rounds of sex did you have with these men you sold sex to in the last 6 months? | _____ MINIMUM: 1 | 1 | |
| 476. | 5 | SMCONR | Of these, how many times was a condom used? <i>Give your best guess.</i> | _____ MINIMUM: 1 | 1 | |
| 477. | 6 | SMHV | What do you think is this person's HIV status? | NEGATIVE POSITIVE DON'T KNOW | 1 2 3 | SKIP IF >1 PARTNER |

| | | | | | | |
|-----|----------|-----------|--|--|--|---|
| N/A | C | SF | Respondent selling sex to females | | | Skip if never had sex with women. FSW: Always ask |
|-----|----------|-----------|--|--|--|---|

| | | | | | |
|------|-----|--------|---|--|--------------------|
| N/A | N/A | N/A | <i>Now some questions about you selling sex to women.</i> | | |
| 478. | 1 | SFEV | Did you ever sell sex to a woman for money, goods, or services? | YES 1 NO 2 | '2' > NEXT SECTION |
| 479. | 2 | SFRE | In the last 6 months, did you sell sex to women? | YES 1 NO 2 | '2' > NEXT SECTION |
| 480. | 3 | SFPANR | How many different women have you sold sex to in the last 6 months? | [] [] [] MINIMUM: 1 | |
| 481. | 4 | SFSXNR | How many rounds of sex did you have with these women you sold sex to in the last 6 months? | [] [] MINIMUM=NO. MALE COMM. PARTNERS | |
| 482. | 5 | SFCONR | Of these, how many times was a condom used? <i>Give your best guess.</i> | [] [] [] | |
| 483. | 6 | SFHV | What do you think is this person's HIV status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | SKIP IF >1 PARTNER |

| | | | | | |
|------|-----|--------|---|--|--|
| N/A | 21. | LT | Last sex act | | SKIP IF NEVER HAD SEX |
| N/A | N/A | N/A | <i>Now think about the last time you had sex with another man. Ready?</i> | | MSM |
| N/A | N/A | N/A | <i>Now think about the last time you had sex with the person who gave you the coupon. Ready?</i> | | FPM, PSW |
| N/A | N/A | N/A | <i>Now think about the last time you had sex with a client. Ready?</i> | | FSW |
| | | | <i>Now think about the last time you had sex with the person who gave you the coupon for this study. Ready? Click Next.</i> | | NET RECRUITS |
| N/A | N/A | N/A | <i>Now think about the last time you had sex. Ready?</i> | | BOD, UST, DUS, REF, SLM, DIS, STR, NET SEEDS |
| 484. | 1 | LTGEND | Was this with a man or a woman? | MAN 1 WOMAN 2 | HIDE AND ASSIGN: MSM-1, FPM-1, FSW-1, PSW-2 |
| 485. | 2 | LTPATY | What kind of sex partner did you last have sex with? | STEADY 1 CASUAL 2 COMMERCIAL 3 | < '3' > SKIP NEXT QUESTION |
| 486. | 3 | LTBYSE | You said commercial. Did you buy or sell sex? | BUY 1 SELL 2 | |
| 487. | 4 | LTSXTY | What kind of sex did you have with that person? | VAGINAL 1 ANAL 2 BOTH 3 | MSM: HIDE AND ASSIGN '2' |
| 488. | 5 | LTSXNR | How many rounds of sex did you have with this person that day? | [] RANGE: 1-5 | |
| 489. | 6 | LTCO | Was a condom used that time? | YES 1 NO 2 | SKIP IF NEVER USED A CONDOM |
| 490. | 7 | LTLU | Did you use a lubricant that time? | YES 1 NO 2 | SKIP IF NEVER USED LUBRICANTS |
| 491. | 8 | LTAL | Did you drink alcohol just before you had sex? | YES 1 NO 2 | SKIP IF NEVER USED ALCOHOL |
| 492. | 9 | LTDR | Did you take drugs for pleasure just before you had sex? | YES 1 NO 2 | SKIP IF NEVER USED DRUGS |
| 493. | 10 | LTAG | How old was the person you had sex with? <i>Please give your best guess.</i> | AGE IN YEARS [][] RANGE 12-75 | UST, NET ONLY |
| 494. | 11 | LTHV | What do you think was this person's HIV-status? | NEGATIVE 1 POSITIVE 2 DON'T KNOW 3 | |
| 495. | 12 | LTFR | Was this last sex act agreed by both you and the partner, or did one coerce or force the other? | AGREED 1 COERCED 2 FORCED 3 | <>'3' > SKIP TO NEXT SECTION |
| 496. | 13 | LTFR1 | Did this person force you to have sex? | YES 1 NO 2 | MALE-MALE SEX ACT OR FEMALE RESPONDENT, ELSE SKIP '1' > SKIP NEXT QUESTION |
| 497. | 14 | LTFR2 | Did you force this person to have sex with you? | YES 1 NO 2 | MALE RESPONDENT |

| N/A | 22. | NR | Number of sex partners across all types | | |
|------|-----|--------|--|--|---|
| N/A | N/A | N/A | <i>Thank you. Now a few questions about the all your sex partners.</i> | | |
| 498. | 1 | NRREMA | According to your answers, you had sex with XX men in the last 6 months. How many ongoing sexual relationships with men would you say you have right now? With “ongoing relationship” we mean male sex partners you had sex with recently and expect to have sex again in the near future. | [] MAX.: NO. RECALL MALE PARTNERS | SKIP IF NEVER HAD SEX WITH MALES MSM, FSW: ALWAYS ASK |
| 499. | 2 | NREVMA | Now please think about all the different men you had sex with in your life. How many were these? <i>Please give your best guess</i> | NUMBER: [][][][] MINIMUM: # RECALL MALE PARTNERS | SKIP IF NEVER HAD SEX WITH MALES MSM, FSW: ALWAYS ASK |
| 500. | 3 | NRREFE | According to your answers, you had sex with XX women in the last 6 months. How many ongoing sexual relationships with women would you say you have right now? With “ongoing relationship” we mean female sex partners you had sex with recently and expect to have sex again in the near future. | NUMBER: [][] MAX.: NO. RECALL FEMALE PARTNERS | SKIP IF NEVER HAD SEX WITH WOMEN PSW: ALWAYS ASK |
| 501. | 4 | NREVFE | Now please think about all the different women you had sex with in your life. How many were these? <i>Please give your best guess</i> | NUMBER: [][][][] MINIMUM: # RECALL FEMALE PARTNERS | SKIP IF NEVER HAD SEX WITH WOMEN PSW: ALWAYS ASK |
| 502. | 5 | NRREPA | Computed | [] NRREMA+NRREFE | HIDDEN, COMPUTED |

| N/A | 23. | RC | Recruiter | NET ONLY |
|------|-----|---------|--|---|
| N/A | N/A | N/A | <i>Now let's talk about the person who gave you this coupon again.</i> | |
| 503. | 1 | RCAG | How old is that person? AGE IN YEARS <input type="text"/> <input type="text"/> <input type="text"/> RANGE: 12-70, PROBE IF <18 | |
| 504. | 2 | RCGEND | Is it a man or a woman? MAN 1 WOMAN 2 | '2' > SKIP NEXT QUESTION |
| 505. | 3 | RCPATY | What kind of sex partner is or was that person? SPOUSE OR STEADY 1 CASUAL 2 COMMERCIAL 3 | <>'1' > SKIP NEXT QUESTION |
| 506. | 4 | RCMAR | Are you married to this person? YES 1 NO 2 | SKIP IF NOT CURRENTLY MARRIED '1' > SKIP NEXT QUESTION |
| 507. | 5 | RCMAROT | Is this person married to someone else? YES 1 NO 2 | |
| 508. | 6 | RCSXWHY | Why do or did you have sex with this person? LOVE 1 FUN, PLEASURE 2 SUPPORTS MY LIVING 3 | |
| 509. | 7 | RCBYSE | You said "commercial". Did you pay for sex or did your partner pay for sex? I PAID 1 THAT PERSON PAID ME 2 | SKIP IF NOT COMM. PARTNER |
| 510. | 8 | RCSXFT | When did you first have sex with this person? WITHIN LAST 12 MONTHS 1 MORE THAN A YEAR AGO 2 | '2' > SKIP NEXT QUESTION |
| 511. | 9 | RCSXFMO | How many months ago? Type "0" if less than one month ago. NUMBER: <input type="text"/> <input type="text"/> <input type="text"/> RANGE: 1-12 | |
| 512. | 10 | RCSXFYR | How many years ago? NUMBER: <input type="text"/> <input type="text"/> <input type="text"/> RANGE: 1-40 | |
| 513. | 11 | RCSXLT | When did you last have sex have sex with this person? WITHIN LAST 4 WEEKS 1 MORE THAN 1 MONTH AGO 2 | '1' > SKIP NEXT QUESTION |
| 514. | 12 | RCSXLMO | How many months ago? NUMBER: <input type="text"/> <input type="text"/> <input type="text"/> RANGE: 2-6 | |
| 515. | 13 | RCSXACT | Is this sexual relationship still active? YES 1 NO 2 | |
| 516. | 14 | RCSXNR | In the last 6 months, how many times did you have sex with this person? <i>Give your best estimate</i> RANGE: 1-60 | |
| 517. | 15 | RCCO | The last time you had sex with this person, was a condom used? YES 1 NO 2 | SKIP IF NEVER USED CONDOMS WITH THIS PARTNER |
| 518. | 16 | RECH | Do you have children with that person? YES 1 NO 2 | SKIP IF SAME SEX RELATION. |
| 519. | 17 | REPAOT | Do you think that over the last 6 months, apart from you, this person had sex with other people? Give your best guess. YES 1 NO 2 | '2' > SKIP NEXT 4 QUESTIONS |
| 520. | 18 | REPARG | How many of these were steady partners? <input type="text"/> <input type="text"/> <input type="text"/> | |
| 521. | 19 | REPACS | How many of these were casual partners? <input type="text"/> <input type="text"/> <input type="text"/> | |
| 522. | 20 | REPACOM | How many of these were commercial partners? <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | ADD UP AND PROBE IF TOTALS ARE INCONSISTENT |
| 523. | 21 | REPA2 | So that means you think this partner had X other partners in the last 6 months. Correct? YES 1 NO 2 | '2' > PROBE ALL 3 QUESTIONS AGAIN OR OFFER TO CALL DM |
| 524. | 22 | REPAKN | Does this partner know about any of your other current YES 1 | SKIP IF NO |

Crane ACASI instrument

| | | | | | | |
|------|----|---------|--|-----|---|---|
| | | | partners? | NO | 2 | OTHER RECALL PARTNER OR IF THIS IS COMM. PARTNER |
| 525. | 23 | REPAOTK | Do any of your other current partners know about this partner? | YES | 1 | |
| | | | | NO | 2 | |

| | | | | | | |
|------|-----|---------|--|---|-----------------------|---|
| N/A | 24. | VD | STDs | | | SKIP THIS SECTION IF NEVER HAD SEX. MSM, FPM, FSW, PSW: ALWAYS ASK |
| N/A | N/A | N/A | Next a few questions about STDs. | | | |
| 526. | 1 | VDREUL | In the past 6 months did you suffer from lesions or ulcers in your private parts? | YES NO | 1 2 | |
| 527. | 2 | VDREWA | In the past 6 months did you suffer from warts in your private parts? | YES NO | 1 2 | |
| 528. | 3 | VDREIT | In the past 6 months did you suffer from itchiness in your private parts? | YES NO | 1 2 | |
| 529. | 4 | VDREDY | In the past 6 months did you have pain when urinating? | YES NO | 1 2 | |
| 530. | 5 | VDREAB | In the past 6 months did you suffer from lower abdominal pain? | YES NO | 1 2 | FEMALES ONLY |
| 531. | 6 | VDANREL | In the past 6 months did you suffer from lesions or ulcers in your anus? | YES NO | 1 2 | SKIP IF NEVER HAD ANAL SEX. MSM: ALWAYS |
| 532. | 7 | VDANREW | In the past 6 months did you suffer from warts in your anus? | YES NO | 1 2 | SKIP IF NEVER HAD ANAL SEX. MSM: ALWAYS |
| 533. | 8 | VDANREI | In the past 6 months did you suffer from itchiness in your anus? | YES NO | 1 2 | SKIP IF NEVER HAD ANAL SEX. MSM: ALWAYS |
| N/A | N/A | N/A | Now some questions about treatment for STDs. | | | |
| 534. | 9 | RXSXNO | The last time you had an STD did you stop having sex while you had this problem? | YES NO | 1 2 | '3' > SKIP TO NEXT SECTION |
| 535. | 10 | RXCO | The last time you had an STD did you use a condom when you had sex? | YES NO | 1 2 | |
| 536. | 11 | RXWHERE | Where did you get treatment the last time you had an STD? | HOSPITAL OR CLINIC PHARMACY TREATED MYSELF DID NOT TREAT OTHER | 1 2 3 4 5 | '4' > SKIP TO NEXT SECTION |
| 537. | 12 | RXWHEN | How quickly did you go for treatment? | WITHIN ONE WEEK WITHIN ONE MONTH AFTER ONE MONTH DIDN'T GO FOR TREATMENT | 1 2 3 4 | |
| 538. | 13 | RXSTIG | The last time you went for treatment for an STD did you feel stigmatized by the health care staff? | YES NO | 1 2 | |

| | | | | |
|------|-----------|------------|---|------------------------|
| N/A | 25 | QES | Questionnaire feedback | |
| N/A | N/A | N/A | <i>These last few questions are about your computer use and how you liked this interview.</i> | |
| 539. | 1 | QESPREF | Do you prefer a computer or a person for such an interview? PREFER COMPUTER 1 DOESN'T MAKE A DIFFERENCE 2 PREFER REAL PERSON 3 | |
| 540. | 2 | QESLIE | You did this interview alone with the computer. Are you more likely give private information to a computer or to a person? TO A COMPUTER 1 TO A PERSON 2 WOULD TELL BOTH 3 WOULD TELL NEITHER 4 | |
| 541. | 3 | QESPC | How often do you use computers? NEVER USED BEFORE 1 MONTHLY OR LESS 2 DAILY OR WEEKLY 3 | |
| 542. | 4 | QESSTF1 | Thank you. In this office we are committed to treat everyone with respect. Have you been treated with respect? I WAS TREATED WITH RESPECT 1 SOME STAFF DID NOT TREAT ME WITH RESPECT 2 | '1' > SKIP NEXT QES |
| 543. | 5 | QESSTF2 | Sorry to hear. We encourage you to leave a confidential note in our suggestion box. Can you please tell us where you were not treated with respect? AT THE RECEPTION 1 IN THE WAITING ROOM 2 AT MY FIRST INTERVIEW 3 DURING THIS INTERVIEW 4 OTHER OCCASION 5 I DON'T WANT TO TELL 6 | |
| N/A | N/A | N/A | <i>We have come to the last question. You cannot hear this question. Please read and answer accordingly. If you cannot read it, click on the "Don't Know" button.</i> | |
| 544. | 6 | QESDAYS | How many days are there in a week? __ RANGE: 0-99 | |
| N/A | N/A | N/A | <i>THANK YOU. THIS IS THE END OF THE INTERVIEW. PLEASE TELL THE STAFF THAT YOU HAVE FINISHED.</i> | |

| N/A | N/A | INT | INTERVIEW STATUS | |
|------|-----|---------|---|---|
| 545. | 1 | INTCOMP | Interview completed? | YES 1 NO 2 |
| 546. | 2 | INTWHY | What is the main reason for not completing the interview? | QUESTIONS UNCOMFORTABLE 1 TOO LONG 2 UNCOMFORTABLE WITH COMPUTER 3 OTHER 995 |
| 547. | 3 | INTTIME | End time of interview | HH / MM SYSTEM TIME |
| | | INTDUR | Duration of interview | INTTIME-QUSTART Unit: Minutes COMPUTED VARIABLE, POST INTERVIEW |

APPENDIX D: MAIN SURVEY ELEMENTS

| GROUP | NET | DUS | FSW | MSM | REF | TG |
|-----------------------|--------------------------------|---|-------------------------------------|------------------------------|----------------------------|----------------------------|
| ACASI | YES | YES | YES | YES | YES | YES |
| UMO | NO | NO | YES | YES | NO | NO |
| Mapping | NO | YES (2 nd visit) | YES | YES | NO | NO |
| GoC | NO | YES | YES | YES | NO | NO |
| FTF | NO | YES | NO | YES | NO | NO |
| Qual int | YES | YES | NO | NO | YES | YES |
| Specimens | Blood | Blood, Urine | Blood | Blood | Blood | Blood |
| Tests | HIV (Pos: HIVDR, VL), Syphilis | HIV (Pos: HIVDR), Syphilis HBV, HCV, Drugs | HIV (Pos: HIVDR, CD4, VL), syphilis | HIV (Pos: CD4, VL), syphilis | HIV (Pos: CD4), syphilis | HIV (Pos: CD4), syphilis |
| Repository | 1,000 plasma ul (-80°C) | 1,000 plasma ul (-80°C) | 1,000 plasma ul (-80°C) | 1,000 plasma ul (-80°C) | 1,000 plasma ul (-80°C) | 1,000 plasma ul (-80°C) |
| Coupons | Up to 15 | IDU: 4, Non-Kawempe: 4, Else: 3 | Peers: 3 Clients: 3 | 3 | 3 | 3 |
| 2 nd VISIT | YES | YES | YES | YES | YES | YES |
| Target sample size | 600-1500 | 600-1500 | 600-1500 | 600-1500 | 600-1500 | 20-50 |

Appendix E:Table 3.1. Study Participant Demographic Information for MSM, FSW, TG, DUS, REF, NET (Kampala, 2011-2013)

| Characteristic | MSM | | FSW | | DUS | | | | | | REF | | TG | |
|--|-------------|-------------|-------------|-------------|-------------|----------|-------------|----------|---------------|----------|------------|-------------|------------|-------------|
| | Unweighted | Weighted | Unweighted | Weighted | Male | | Female | | Total | | Unweighted | Weighted | Unweighted | |
| | Number | % or number | Number | % or number | Unweighted | Weighted | Unweighted | Weighted | Unweighted | Weighted | Number | % or number | Number | Percent (%) |
| Sex - male (biologic) (N=596) | 587 | 97.7 | 1,473 | 99.1 | 814 | 64.0 | 358 | 36.1 | | | 718 | 53.0 | 41 | 100.0 |
| Gender identification (N=596) | | | | | | | | | | | | | | |
| Male | 444 | 74.7 | 106 | 7.3 | 689 | 84.2 | 30 | 8.2 | 719 | 56.8 | 627 | 45.1 | 7 | 17.1 |
| Female | 135 | 23.1 | 1,356 | 91.1 | 96 | 12.0 | 321 | 91.1 | 417 | 40.5 | 593 | 48.9 | 34 | 82.9 |
| Other | 17 | 2.2 | 25 | 1.6 | 28 | 3.9 | 4 | 0.7 | 31 | 2.7 | 78 | 6.1 | | |
| Sexual attraction (N=596) | | | | | | | | | | | | | | |
| Only Men | 262 | 40.9 | 1,374 | 93.0 | 13 | 2.2 | 317 | 91.7 | 330 | 34.4 | 406 | 30.3 | 37 | 90.2 |
| Mostly Men, Sometimes Women | 172 | 31.0 | 53 | 3.2 | 29 | 3.0 | 17 | 4.4 | 46 | 3.5 | 37 | 4.2 | 2 | 4.9 |
| Equally Men and Women | 73 | 11.0 | 29 | 1.4 | 32 | 4.8 | 5 | 1.2 | 37 | 3.5 | 55 | 5.5 | 2 | 4.9 |
| Mostly Women, Sometimes Men | 74 | 13.6 | 15 | 1.0 | 38 | 4.2 | 4 | 0.6 | 42 | 2.9 | 26 | 1.5 | 0 | 0.0 |
| Only Women | 14 | 3.2 | 10 | 0.8 | 669 | 81.4 | 4 | 0.5 | 673 | 52.2 | 603 | 44.2 | 0 | 0.0 |
| None | 1 | 0.2 | 6 | 0.6 | 32 | 4.4 | 8 | 1.5 | 40 | 3.4 | 171 | 14.3 | 0 | 0.0 |
| Nationality (N=596) | | | | | | | | | | | | | | |
| Uganda | 586 | 98.3 | 1,472 | 99.1 | 792 | 97.8 | 351 | 98.9 | 1,143 | 98.2 | 34 | 2.5 | 41 | 100.0 |
| Other countries | 10 | 1.7 | 15 | 0.9 | 22 | 2.2 | 7 | 1.1 | 29 | 1.8 | 1,264 | 97.5 | 0 | 0.0 |
| Age (years) (N=596) | | | | | | | | | | | | | | |
| 18-24 | 340 | 58.8 | 408 | 27.9 | 315 | 41.0 | 117 | 35.7 | 432 | 39.0 | 280 | 24.8 | 27 | 65.9 |
| 25-34 | 217 | 35.1 | 767 | 51.1 | 339 | 37.9 | 184 | 50.4 | 523 | 42.4 | 460 | 34.4 | 12 | 29.3 |
| 35+ | 39 | 6.1 | 312 | 21.0 | 160 | 21.2 | 57 | 13.9 | 217 | 18.6 | 558 | 40.9 | 2 | 4.9 |
| Median Age (N=596)* | 24 (21, 27) | | 28 (24, 33) | | 26 (22, 33) | | 27 (23, 32) | | 27 (22.5, 32) | | 33 (25,40) | | | |
| Education (years in school) (N=596) | | | | | | | | | | | | | | |
| No school | 107 | 21.0 | 539 | 37.7 | 319 | 35.9 | 126 | 36.9 | 445 | 36.3 | 77 | 8.0 | 7 | 17.1 |
| Primary (1-7 years) | 82 | 13.8 | 458 | 30.6 | 171 | 25.1 | 125 | 31.4 | 296 | 27.3 | 362 | 32.9 | 6 | 14.6 |
| Secondary (8-12 years) | 102 | 17.4 | 294 | 19.2 | 151 | 17.0 | 63 | 18.3 | 214 | 17.5 | 558 | 40.6 | 14 | 34.2 |
| Higher education (13+ years) | 305 | 47.9 | 196 | 12.5 | 173 | 22.0 | 44 | 13.5 | 217 | 18.9 | 301 | 18.5 | 14 | 34.2 |
| Marital status (N=596) | | | | | | | | | | | | | | |
| Never married | 501 | 83.5 | 747 | 49.4 | 524 | 64.5 | 187 | 54.5 | 711 | 60.9 | 499 | 39.1 | 36 | 87.8 |
| Married | 39 | 7.8 | 91 | 5.9 | 106 | 14.2 | 30 | 9.0 | 136 | 12.3 | 538 | 40.1 | 1 | 2.4 |
| Divorced | 8 | 0.9 | 272 | 19.1 | 20 | 2.0 | 55 | 14.5 | 75 | 6.5 | 67 | 6.2 | 1 | 2.4 |
| Separated | 40 | 6.7 | 302 | 20.3 | 143 | 17.2 | 71 | 17.0 | 214 | 17.1 | 72 | 5.1 | 3 | 7.3 |
| Widowed | 8 | 1.1 | 75 | 5.3 | 21 | 2.2 | 15 | 5.0 | 36 | 3.2 | 122 | 9.6 | 0 | 0.0 |
| Occupation (N=596) | | | | | | | | | | | | | | |
| Manual Labor | 134 | 23.9 | 242 | 16.0 | 344 | 44.8 | 90 | 26.5 | 434 | 38.2 | 486 | 35.3 | 2 | 4.9 |
| Skilled Labor | 160 | 26.1 | 390 | 25.6 | 218 | 26.9 | 80 | 23.5 | 298 | 25.7 | 83 | 6.0 | 16 | 39.0 |
| Study | 137 | 24.3 | 23 | 1.9 | 41 | 4.7 | 7 | 3.1 | 48 | 4.1 | 43 | 3.6 | 9 | 22.0 |
| Unemployed | 133 | 21.9 | 563 | 38.7 | 196 | 22.0 | 159 | 41.7 | 355 | 29.2 | 509 | 42.4 | 13 | 31.7 |
| Other | 32 | 3.8 | 269 | 17.8 | 15 | 1.6 | 22 | 5.2 | 37 | 2.9 | 177 | 12.7 | 1 | 2.4 |

* For Refugees, other nationality includes 1260 (97.7%) from Democratic Republic of Congo.