HIV Behavioural Surveillance Survey in Dadaab Refugee Camps, Kenya

## IGAD - UNHCR

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## ABBRIEVIATIONS \& ACRONYMS

| AIDS | Acquired Immunodeficiency Syndrome |
| :--- | :--- |
| BSS | Behavioral Surveillance Survey |
| CI | Confidence Interval |
| FHI | Family Health International |
| GLIA | Great Lakes Initiative on AIDS |
| HCT | HIV/AIDS Counseling \& Testing |
| HIV | Human Immunodeficiency Virus |
| IGAD | Intergovernmental Authority on Development |
| KAIS | Kenya AIDS Indicator Survey |
| KARSCOM | Kenya HIV and AIDS Research Co-ordinating Mechanism |
| NACC | National AIDS Control Council |
| NASCOP | National AIDS and STI Control Programme |
| PLHIV | People Living with HIV/AIDS |
| PMTCT | Prevention of Mother to Child Transmission |
| PPS | Population Proportionate to Size |
| STI | Sexually Transmitted Infection |
| UNHCR | United Nations High Commissioner for Refugees |
| VCCT | Voluntary Confidential Counseling and Testing |

## EXECUTIVE SUMMARY

Sub-Saharan Africa is the region of the world which has felt the great effects of the HIV/AIDS epidemic. While prevalence has decreased in some countries, the virus continues to threaten lives of individuals, security of families, and health of communities. Refugees have often experienced the trauma of conflict and displacement, and find themselves with little access to income or resources, factors which can make them especially vulnerable to HIV/AIDS. For humanitarian workers, it is critical to understand the behaviors, practices and vulnerabilities which put persons of concern at risk of contracting HIV. Because each displaced community is different, this necessitates periodic data collection using a tool specifically designed to measure such indicators.

This report presents the results of the first Behavioral Surveillance Survey (BSS) in Dadaab refugee camps, Kenya which was conducted at the end of 2009. The largest refugee camp in the world, Dadaab is home to more than a quarter million refugees, mostly from Somalia. Sentinel surveillance in 2006 reveals low prevalence of HIV among antenatal clinic attendees and patients at sexually transmitted infection (STI) clinics, $1 \%$ and $0.9 \%$, respectively. The main objective of the BSS was to provide baseline data on key HIV-related behaviors, knowledge, and service utilization which can be used to design and monitor programs and policies, and facilitate comparison with other populations. Future surveys will be able to measure change in the key indicators and provide feedback to program managers and policy makers.

The survey was led by the United Nations High Commissioner for Refugees (UNHCR), in collaboration with the Kenya National AIDS Control Council (NACC) and National AIDS \& STI Control Programme (NASCOP). The BSS was a cross sectional observational survey based on two-stage cluster sampling methodology. Eligible individuals aged 15-49 years were invited to participate after informed oral and written consent was obtained. An interviewer of the same sex administered a questionnaire.

Roughly equal numbers of participants were interviewed in each of the three camp sites, Dagahaley, Ifo and Hagadera. Due to untenable conditions and threats of violence, the surrounding host population was excluded from participating in the survey. A total of 1117 refugee men and women were interviewed. Non-participation due to refusal, abandonment of home or extended absence was no more than $5 \%$ in any location and is not expected to affect results.

To facilitate global reporting and regional comparison of key HIV-related information pertaining to displaced populations, UNHCR developed 17 core indicators for use in such settings. The core indicators from the Dadaab BSS are presented at the end of this summary, disaggregated by sex and age. Key findings and recommendations are discussed below.

## Background

Dadaab comprises 3 refugee camps in North Eastern Kenya: Dagahaley, Ifo, and Hagadera. With a population in excess of 260,000 , it is the world's largest refugee settlement. The refugee population in Dadaab is fairly homogenous: 93\% Somali Muslims, 6\% Ethiopian Christians and 1\% other minority groups (Sudanese, Congolese, Rwandese and Ugandans) who are predominantly Christian.

According to the most recent Kenya AIDS Indicator Survey, North Eastern province, in which Dadaab is situated, had the lowest adult HIV prevalence in Kenya, at 1.0\%, which is much lower than the national prevalence of $7.4 \%$ (NASCOP 2008), and similar to Somalia's latest national ANC prevalence of $0.9 \%$ reported by the World Health Organization (WHO 2004). HIV prevalence among refugee antenatal clinic (ANC) attendees in Dadaab was $0.6 \%$ in 2003, 1.4\% in 2005 and $1.0 \%$ in 2006 respectively (UNHCR 2007). ANC surveillance for syphilis among refugees in Dadaab recorded prevalence of $2.4 \%$ in 2005 and $2.7 \%$ in 2006 respectively (UNHCR 2007). Among refugee STI patients in Dadaab presenting with symptoms, HIV prevalence was $2.0 \%$ in 2003, $1.7 \%$ in 2005 and $0.9 \%$ in 2006.

UNHCR received funds in 2009 from the Intergovernmental Authority on Development (IGAD) to support the HIV response in East and the Horn of Africa. The purpose is to scale up HIV prevention, treatment, care and support services. The projects are evidence-based and HIV Behavioral Surveillance Surveys (BSS) among refugees and the surrounding host population are being conducted to inform and monitor HIV \& AIDS interventions and services.

The main objective of the BSS was to provide baseline data on key HIV-related behaviors, knowledge, and service utilization which can be used to design and monitor programs and policies, and facilitate comparison with other populations. Future surveys will be able to measure change in the key indicators and provide feedback to program managers and policy makers.

## Socio-demographic characteristics

A total of 620 and 497 refugee women and men respectively were interviewed. The refugee population in Dadaab is most comprised of Somali Muslims (93\%), with a minority of Ethiopian Christians (6\%). More female respondents were currently married than male respondents. Women married an average of 4 years earlier than men. Less than a third of men were currently married, and $13 \%$ of those married reported being in a polygamous marriage. A total of $5 \%$ of the total sample were in polygamous marriage, and $2 \%$ were not married but living with a long-term sex partner.

Differences in literacy between men and women, and older and young participants were found to be statistically significant. Respondents aged $15-24$ were more likely to be able to read and more likely to attain a secondary school education than their older counterparts, and the same was found to be true for men compared to women.

- Information, Education and Communication (IEC) materials must be developed for an audience that is not universally literate.
- Interactive and peers based HIV education and awareness interventions need to be developed and delivered.


## Income

Poverty, displacement and food insecurity increase vulnerability to HIV. Less than onefifth of respondents reported earning a monthly wage or salary, and two-thirds reported no form of income-generating activity.

- Interventions that enhance livelihood are needed to increase autonomy and reduce dependence on the humanitarian aid.


## Displacement and mobility

The refugee population is relatively stable, with less than $5 \%$ of respondents arriving in the previous year. Refugee men and women are somewhat mobile between the three camps, with a fifth reporting monthly visits or more to another camp site. Less than $10 \%$ make monthly trips or more to the surrounding communities. Longer trips (of at least 4 weeks) in the past year were reported by $15 \%$ of the population.

Mobility of all types described above was associated with higher levels of high-risk sexual behavior such as casual and transactional sex. Participants who reported long trips and trips to the other camps more than once a month were more likely to have experienced forced sex.

- While the association between risky sexual behavior and mobility is certainly troubling, mobility itself may not pose an additional risk, as prevalence is assumed to be low in both the refugee and national communities. However, longer trips outside the camp may lead to interaction with populations with a higher prevalence of HIV/AIDS.


## Sexual behavior

Among never married youth, $93 \%$ reported never had having sex, and a further $2 \%$ had had sex but were in a relationship with a cohabitating long-term partner. The average age at first sex for women was approximately 18 years, similar for the age at first marriage. For men, the average age at first sex was approximately 21, and the average age at first marriage 22 . These figures, combined with the fact that only $2 \%$ of all respondents reported first sex under the age of 15 , reflect a relatively positive picture for youth and sexual exposure.

Of those respondents who had had sex, two-thirds had a regular partner in the past 12 months (either a spouse or live-in partner). Of those with a regular partner in the past 12 months, only $4 \%$ reported having a casual or transactional partner during the same time period, which suggests that extra-marital sex, whether in the context of a monogamous or polygamous marriage, is fairly infrequent.

Casual sex in the past 12 months was reported by only $7 \%$ of those who had had sex. Of potential concern is the fact that $3 \%$ of respondents who had had sex reported having had transactional sex and $2 \%$ of all respondents reported having had anal sex.

Qualitative research and surveillance is warranted to understand the extent and nature of these risks in the community, and develop appropriate responses.

- Promote abstinence and being faithful to one uninfected partner though cultural acceptable methods and vehicles.
- Promote condom use and partner reduction interventions for people who engage in casual or transactional sex. Interventions could focus on partner reduction, consistent condom use, specific responses targeting sex workers and their clients as well as HIV/AIDS counseling and testing (HCT) services. Promoting services through peer networks may be one way to reach people engaged in high risk behavior.


## Condom awareness and use

Only two-thirds of all respondents were aware of condoms. Knowledge of the purpose of condoms was fairly high among those respondents who had heard of them, with around $90 \%$ knowing that they can prevent HIV and can be used for family planning.

Condom use was very low, with just $12 \%$ of sexually active respondents reporting ever using one, and only $6 \%$ reporting use at last sex with a regular partner. While condom use at last sex with a casual partner was slightly more than one-third, this is also lower than optimal. Data on condom use during transactional or anal sex was too sparse from which to draw conclusions, other than to note that condom use in these few instances was not common. For the group of participants who reported high-risk sex in the past 12 months (transactional, casual or anal, or sex with multiple partners), only $18 \%$ reported using a condom at last sex with any partner.

- Given that many men who weren't using condoms reported not liking them or not having access to free ones, and that women most often explained that her partner objected, HIV interventions should target messages about acceptability to men, and effort should be made to distribute free condoms in order to eliminate a barrier to uptake.
- HIV programs should focus on increasing awareness and consistent condoms use. Interventions focusing on condom negotiation skills may help individuals convince reluctant partners.


## Forced sex

Given that forced sex is often subject to underreporting, it is notable that $9 \%$ of women and $3 \%$ of men discussed experiences of forced sex.

- Programs to address sexual violence should include training for health professionals about providing comprehensive care to survivors, including sensitization to the fact that sexual violence can be perpetrated against men as well as women.
- Develop community based sexual and gender violence prevention programs including psychosocial support and access to legal services where necessary and appropriate


## Co-factors to contracting hiv/aids

High rates of circumcision among refugee men in the Dadaab camps bode well for containing HIV transmission in the population. Recent data suggests that male circumcision offers considerable protection for acquiring the HIV virus through sexual intercourse.

More than three-quarters of respondents were aware of diseases which can be transmitted though sexual intercourse. Of the $5 \%$ who reported symptoms associated with STIs in the past 12 months, only $46 \%$ sought care at a health clinic and more than half failed to notify all their sexual partners of their infection.

- A review should be conducted to investigate possibilities to strengthen counseling of STI patients to include condom distribution and encouragement of partner notification.


## Hiv knowledge, opinions and attitudes

Refugee men and women surveyed had high rates of correct knowledge of some HIVrelated facts, and low rates of knowledge of other facts. For example, 95\% of respondents knew that they could protect themselves from HIV by being faithful to one uninfected partner, and $92 \%$ knew that HIV could be transmitted through pregnancy. However, only $80 \%$ knew that they could protect themselves by abstaining from sex, and a surprising $87 \%$ of respondents mistakenly thought that HIV could be transmitted by using the toothbrush of an infected person.

Twenty-two percent (22\%) of all respondents were found to have comprehensive, correct knowledge of HIV, as measured by correctly answering 5 standard questions. The most important fact which was found to be misunderstood concerned condoms as a protective measure.

Of those who had heard about HIV, only 7\% held accepting attitudes towards people living with HIV, as measured by 4 standard questions.

- Attitudes towards PLHIV are generally unsupportive. Awareness campaigns, particularly in younger age groups, may help to create a more positive environment in which other HIV interventions can operate.


## Exposure to interventions

The data show that many messages about HIV are being delivered and the channels of communication currently used matched well with the forms respondents preferred. However, many hold unaccepting attitudes towards PLHIV, and knowledge can be improved on many topics, especially condoms.

Only 6\% of refugee men and women interviewed had had an HIV test in the last 12 months and learned the results. Of all respondents, $44 \%$ did not know where to get an HIV test. The data also show that exposure to HIV testing is associated with only a slight increase in knowledge, and that $20 \%$ of those who have been tested have not heard of a condom. Women who had been pregnant in the past five years, the majority
of whom attend antenatal clinic and many of whom had been tested for HIV, actually had lower knowledge than women who had not been pregnant in the past 5 years.

Condom distribution is already reaching about a quarter of those who reported having multiple sex partners in the past 12 months, and almost half of those who received condoms reported using a condom at last sex.

- Knowledge of HIV can be improved through IEC campaigns, but it can also be improved through existing contact with the health care system, particularly with targeted messages during antenatal care, STI treatment, and improved counseling as part of VCCT.
- Condoms should be available in easy-to-access locations across the camp, and distribution can be increased by offering them as part of the contacts with the health care system listed above: antenatal care, STI treatment and VCCT.
- HIV awareness campaign and IEC in health care setting should be strengthened to increase the knowledge level.
- Provider initiated testing in health care settings can be emphasized to increase the proportion of refugee men and women who know their HIV status and have comprehensive knowledge and accepting attitude towards people living with and affected by HIV/AIDS.
- Forming HIV post test clubs and supporting groups of people living positively with HIV may help fight stigma and discrimination and encourage accepting attitudes towards PLWHIV

Table 1: Core indicators ${ }^{1}$

| Indicator | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| Sexual Behavior |  |  |  |
| 1. Young men and women aged $15-24$ who have had sexual intercourse before the age of 15 years | $\begin{gathered} 2 \% \\ (4 / 227) \end{gathered}$ | $\begin{gathered} 2 \% \\ (6 / 305) \end{gathered}$ | $\begin{gathered} 2 \% \\ (10 / 532) \end{gathered}$ |
| Aged 15-19 | $\begin{gathered} 2 \% \\ (2 / 109) \end{gathered}$ | $\begin{gathered} 1 \% \\ (2 / 145) \end{gathered}$ | $\begin{gathered} 2 \% \\ (4 / 254) \end{gathered}$ |
| Aged 20-24 | $\begin{gathered} 1 \% \\ (2 / 118) \end{gathered}$ | $\begin{gathered} 3 \% \\ (4 / 160) \end{gathered}$ | $\begin{gathered} 2 \% \\ (6 / 278) \end{gathered}$ |
| 2. Never-married young people aged 15-24 who have never had sex | $\begin{gathered} 90 \% \\ (195 / 216) \end{gathered}$ | $\begin{gathered} 95 \% \\ (201 / 211) \end{gathered}$ | $\begin{gathered} 93 \% \\ (396 / 427) \end{gathered}$ |
| Aged 15-19 | $\begin{gathered} 91 \% \\ (99 / 109) \end{gathered}$ | $\begin{gathered} 95 \% \\ (126 / 133) \end{gathered}$ | $\begin{gathered} 93 \% \\ (225 / 242) \end{gathered}$ |
| Aged 20-24 | $\begin{gathered} 90 \% \\ (96 / 107) \end{gathered}$ | $\begin{gathered} 96 \% \\ (75 / 78) \end{gathered}$ | $\begin{gathered} 92 \% \\ (171 / 185) \end{gathered}$ |

Table 1: Core indicators ${ }^{1}$

| Indicator | Male | Female | Total |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| 3. More than one sex partner in the past 12 | $5 \%$ | $4 \%$ | $5 \%$ |
| months among men and women aged 15-49 | $(27 / 497)$ | $(24 / 620)$ | $(51 / 1,117$ |
| Aged 15-24 | $3 \%$ | $2 \%$ | $2 \%$ |
|  | $(6 / 227)$ | $(6 / 305)$ | $(12 / 532)$ |
| Aged 15-19 | $5 \%$ | $1 \%$ | $3 \%$ |
|  | $(5 / 109)$ | $(2 / 145)$ | $(7 / 254)$ |
| Aged 20-24 | $1 \%$ | $3 \%$ | $2 \%$ |
|  | $(1 / 118)$ | $(4 / 160)$ | $(5 / 278)$ |
| Aged 25-49 | $8 \%$ | $6 \%$ | $7 \%$ |
|  | $(21 / 270)$ | $(18 / 315)$ | $(39 / 585)$ |
| 4. Condom use at last sex with a regular | $5 \%$ | $6 \%$ | $6 \%$ |
| partner among men and women aged 15-49 | $(7 / 153)$ | $(16 / 262)$ | $(23 / 415)$ |
| Aged 15-24 | $20 \%$ | $7 \%$ | $9 \%$ |
|  | $(2 / 10)$ | $(6 / 81)$ | $(8 / 91)$ |
| Aged 25-49 | $4 \%$ | $6 \%$ | $5 \%$ |
|  | $(5 / 143)$ | $(10 / 181)$ | $(15 / 324)$ |
| 5. Sex with a non-regular partner in the last 12 | $4 \%$ | $4 \%$ | $4 \%$ |
| months among men and women aged 15-49 | $(21 / 497)$ | $(22 / 620)$ | $(43 / 1,117$ |
|  |  |  | $)$ |
| Aged 15-24 | $5 \%$ | $3 \%$ | $4 \%$ |
|  | $(11 / 227)$ | $(8 / 305)$ | $(19 / 532)$ |
| Aged 25-49 | $4 \%$ | $4 \%$ | $4 \%$ |
|  | $(10 / 270)$ | $(14 / 315)$ | $(24 / 585)$ |
| Aged 25-49 | $0 \%$ | $25 \%$ | $22 \%$ |
|  | $(0 / 1)$ | $(2 / 8)$ | $(2 / 9)$ |
| 6. Condom use at last sex with a non-regular | $43 \%$ | $27 \%$ | $35 \%$ |
| partner among men and women aged 15-49 | $(9 / 21)$ | $(6 / 22)$ | $(15 / 43)$ |
| Aged 15-24 | $45 \%$ | $13 \%$ | $32 \%$ |
|  | $(5 / 11)$ | $(1 / 8)$ | $(6 / 19)$ |
| Aged 25-49 | $40 \%$ | $36 \%$ | $38 \%$ |
|  | $(4 / 10)$ | $(5 / 14)$ | $(9 / 24)$ |
| 7. Sex with a transactional partner in the last 12 | $<0.05 \%$ | $2 \%$ | $1 \%$ |
| months among men and women aged 15-49 | $(1 / 497)$ | $(10 / 620)$ | $(11 / 1,117$ |
| Aged 15-24 | $0 \%$ | $0.7 \%$ | $0.4 \%$ |
|  | $(0 / 227)$ | $(2 / 305)$ | $(2 / 532)$ |
| Aged 25-49 | $<0.05 \%$ | $3 \%$ | $2 \%$ |
|  | $(1 / 270)$ | $(8 / 315)$ | $(9 / 585)$ |
| 8. Condom use at last sex with a transactional | $0 \%$ | $20 \%$ | $18 \%$ |
| partner among men and women aged 15-49 | $(0 / 1)$ | $(2 / 10)$ | $(2 / 11)$ |
| Aged 15-24 | $0 \%$ | $0 \%$ | $0 \%$ |
|  | $(0 / 0)$ | $(0 / 2)$ | $(0 / 2)$ |
|  |  |  |  |

Table 1: Core indicators ${ }^{1}$ cont....

| Indicator | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| HIV Testing |  |  |  |
| 9. Percent of men and women aged 15-49 who received the results of their HIV test in the past 12 months | $\begin{gathered} 4 \% \\ (21 / 497) \end{gathered}$ | $\begin{gathered} 7 \% \\ (46 / 620) \end{gathered}$ | $\begin{gathered} 6 \% \\ (67 / 1,117) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} \hline 4 \% \\ (9 / 227) \end{gathered}$ | $\begin{gathered} \hline 7 \% \\ (20 / 305) \end{gathered}$ | $\begin{gathered} 5 \% \\ (29 / 532) \end{gathered}$ |
| Aged 15-19 | $\begin{gathered} 2 \% \\ (2 / 109) \end{gathered}$ | $\begin{gathered} 6 \% \\ (8 / 145) \end{gathered}$ | $\begin{gathered} 4 \% \\ (10 / 254) \end{gathered}$ |
| Aged 20-24 | $\begin{gathered} 6 \% \\ (7 / 118) \end{gathered}$ | $\begin{gathered} 8 \% \\ (12 / 160) \end{gathered}$ | $\begin{gathered} 7 \% \\ (19 / 278) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 4 \% \\ (12 / 270) \end{gathered}$ | $\begin{gathered} 8 \% \\ (26 / 315) \end{gathered}$ | $\begin{gathered} 6 \% \\ (38 / 585) \end{gathered}$ |
| STI Health Facility Utilization |  |  |  |
| 10. Percent of men and women aged 15-49 who had an STI symptom in the past 12 months and sought treatment at a health facility | $\begin{gathered} 73 \% \\ (11 / 15) \end{gathered}$ | $\begin{gathered} 37 \% \\ (15 / 41) \end{gathered}$ | $\begin{gathered} 46 \% \\ (26 / 56) \end{gathered}$ |
| Aged 15-24 | $\begin{aligned} & 50 \% \\ & (2 / 4) \end{aligned}$ | $\begin{gathered} 28 \% \\ (5 / 18) \end{gathered}$ | $\begin{gathered} 32 \% \\ (7 / 22) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 82 \% \\ (9 / 11) \end{gathered}$ | $\begin{gathered} 43 \% \\ (10 / 23) \end{gathered}$ | $\begin{gathered} 56 \% \\ (19 / 34) \end{gathered}$ |
| Knowledge, Attitudes, and Misconceptions |  |  |  |
| 11. Percent of men and women aged $15-49$ with comprehensive, correct knowledge of HIV/AIDS | $\begin{gathered} 30 \% \\ (149 / 496) \end{gathered}$ | $16 \%$ $(101 / 619)$ | $\begin{gathered} 22 \% \\ (250 / 1,115) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} 36 \% \\ (81 / 227) \end{gathered}$ | $\begin{gathered} 22 \% \\ (66 / 304) \end{gathered}$ | $\begin{gathered} 28 \% \\ (147 / 532) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 25 \% \\ (68 / 269) \end{gathered}$ | $\begin{gathered} 11 \% \\ (35 / 315) \end{gathered}$ | $\begin{gathered} 18 \% \\ (103 / 585) \end{gathered}$ |
| 12. Percent of men and women aged 15-49 with accepting attitudes towards PLHIV | $\begin{gathered} 11 \% \\ (47 / 410) \end{gathered}$ | $\begin{gathered} 4 \% \\ (23 / 571) \end{gathered}$ | $\begin{gathered} 7 \% \\ (70 / 981) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} 10 \% \\ (18 / 187) \end{gathered}$ | $\begin{gathered} 6 \% \\ (16 / 290) \end{gathered}$ | $\begin{gathered} 7 \% \\ (34 / 477) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 11 \% \\ (29 / 270) \end{gathered}$ | $\begin{gathered} 2 \% \\ (7 / 281) \end{gathered}$ | $\begin{gathered} 7 \% \\ (36 / 504) \end{gathered}$ |

Table 1: Core indicators ${ }^{1}$ cont....

| Indicator | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Exposure to HIV Interventions |  |  |  |
| 13. Percent of men and women aged 15-49 <br> who have been reached by HIV prevention <br> programs | $6 \%$ <br> $(29 / 497)$ | $7 \%$ <br> $(41 / 620)$ | $6 \%$ <br> $(70 / 1,117)$ |
| Aged 15-24 | $5 \%$ <br> $(11 / 227)$ | $7 \%$ <br> $(21 / 305)$ | $6 \%$ <br> $(32 / 532)$ |
| Aged 25-49 | $7 \%$ <br> $(18 / 270)$ | $6 \%$ <br> $(20 / 315)$ | $7 \%$ <br> $(38 / 585)$ |

Additional indicators for displacement situations

| 14. Percent of women aged $15-49$ who were forced to have sex in the past 12 months | -------- | $\begin{gathered} 1 \% \\ (6 / 620) \end{gathered}$ | -------- |
| :---: | :---: | :---: | :---: |
| 15. Percent of men and women residing in the current community for 12 months or less | $\begin{gathered} \hline 4 \% \\ (18 / 497) \end{gathered}$ | $\begin{gathered} 3 \% \\ (18 / 620) \end{gathered}$ | $\begin{gathered} \hline 3 \% \\ (36 / 1,117) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} 4 \% \\ (8 / 227) \end{gathered}$ | $\begin{gathered} 2 \% \\ (7 / 305) \end{gathered}$ | $\begin{gathered} 3 \% \\ (15 / 532) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 4 \% \\ (10 / 270) \\ \hline \end{gathered}$ | $\begin{gathered} 3 \% \\ (11 / 315) \\ \hline \end{gathered}$ | $\begin{gathered} 4 \% \\ (21 / 585) \\ \hline \end{gathered}$ |
| 16. Percent of men and women away from home for 4 weeks or more in the past 12 months | $\begin{gathered} 15 \% \\ (76 / 497) \end{gathered}$ | $\begin{gathered} 17 \% \\ (107 / 620) \end{gathered}$ | $\begin{gathered} 16 \% \\ (183 / 1117) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} 11 \% \\ (26 / 227) \end{gathered}$ | $\begin{gathered} 17 \% \\ (53 / 305) \end{gathered}$ | $\begin{gathered} 15 \% \\ (79 / 532) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 19 \% \\ (50 / 270) \end{gathered}$ | $\begin{gathered} 17 \% \\ (54 / 315) \end{gathered}$ | $\begin{gathered} 18 \% \\ (104 / 585) \end{gathered}$ |
| 17. Percent of men and women who visit the surrounding community one or more times a month | $\begin{gathered} 7 \% \\ (33 / 497) \end{gathered}$ | $\begin{gathered} 10 \% \\ (63 / 620) \end{gathered}$ | $\begin{gathered} 9 \% \\ (96 / 1117) \end{gathered}$ |
| Aged 15-24 | $\begin{gathered} 6 \% \\ (14 / 227) \end{gathered}$ | $\begin{gathered} 8 \% \\ (25 / 305) \end{gathered}$ | $\begin{gathered} 7 \% \\ (39 / 532) \end{gathered}$ |
| Aged 25-49 | $\begin{gathered} 7 \% \\ (19 / 270) \end{gathered}$ | $\begin{gathered} 12 \% \\ (38 / 315) \end{gathered}$ | $\begin{gathered} 10 \% \\ (57 / 585) \end{gathered}$ |

### 1.0 INTRODUCTION

### 1.1 Background information

Sub-Saharan Africa is the region of the world which has felt the greatest effects of the HIV/AIDS epidemic. Like neighboring Uganda and Tanzania, Kenya has witnessed a decline in HIV prevalence in recent years. The highest recorded HIV prevalence of $13.4 \%$ in 2000 has stabilized to around $7 \%$ more recently (Siringi 2010). While these figures represent a welcome improvement, the epidemic is still considered to be generalized in most areas, with up to 2 million HIV positive Kenyans, according to a recently published article (Siringi 2010).

While Kenya has been relatively stable, it borders with many countries experiencing long-standing conflict and political upheaval. Kenya is currently host to more than 350,000 refugees, primarily from Somalia, Ethiopia, and Southern Sudan, countries with a relatively low prevalence of HIV. Having experienced conflict and displacement, refugees often find themselves with little access to income or resources, factors which can make them especially vulnerable to HIV/AIDS. For humanitarian workers, it is critical to understand the behaviors, practices and vulnerabilities which put persons of concern at risk of contracting HIV. It is also important to understand interactions between communities of refugees and hosts, and identify risk for any group (as it is often assumed, even in the absence of evidence, that refugees pose a risk of infection for the host community). Because each displaced community is different, this necessitates periodic data collection using a tool specifically designed to measure such indicators.

### 1.2 Behavioral surveillance surveys

Sentinel surveillance, or collecting information from standing sites such as VCCT, general health and ante-natal clinics, is an important part of monitoring and understanding an HIV epidemic. However, while sentinel surveillance can provide numbers of cases as they are diagnosed, it fails to provide information about behaviors associated with HIV or what populations are most at risk. Behavioral Surveillance Surveys can fill these information gaps and describe access to HIV-related services.

The results presented in this report are from the 2009 BSS conducted in the three Dadaab camps, which was the first such survey in Dadaab. UNHCR led the planning and implementation of the survey in close coordination with the Kenya National AIDS Control Council (NACC) and National AIDS \& STI Control Programme (NASCOP). Initial consultations were conducted with stakeholders including government officials, community leaders and camp health staff in July, 2009. The survey commenced following approval of the Kenya HIV and AIDS Research Co-ordinating Mechanism (KARSCOM). Trained survey teams collected data over a period of several weeks in each camp location, concluding by the end of 2009.

### 1.3 The dadaab refugee camps

Situated on the eastern border with Somalia, Dadaab, Kenya is home to three refugee camps. The camps, Ifo, Hagadera, and Dagahaley, were established in the early 1990's to host 90,000 refugees fleeing conflict that followed the collapse of Said Barre regime and the onset of inter-clan conflict in Somalia. Today, the camps constitute the largest refugee settlement in the world, with more than 270,000 people, the majority of whom are Somali. The influx of refugees has continued to the present, with a particularly large number having arrived in 2009. Although plans to construct a fourth camp have been discussed, the camps are currently operating beyond capacity and the conflict in Somalia is ongoing.

UNHCR coordinates humanitarian services in the Dadaab camps and oversees protection. Primary health care and comprehensive HIV/AIDS programs are implemented by local and international partners, while the World Food Program provides the general food ration. Each of the three camp sites has a hospital with a basic laboratory and three or four health posts, with referrals made as necessary to a provincial hospital. HIV-related services available through the camp health system include a prevention of mother to child transmission (PMTCT) program which targets pregnant women and their partners, the vast majority of whom use antenatal services, and care, treatment, and support.

UNHCR has received funds from the Intergovernmental Authority on Development (IGAD) to support the HIV response in selected refugee camps in IGAD member states. The objective is to scale up HIV prevention, treatment, care and support services for refugees and populations surrounding refugee camps. In order to design and monitor evidence-based projects, baseline behavioral data among the target populations is needed. This data will allow for understanding of HIV-related risks and vulnerabilities associated with refugee populations in general, which should inform future policies and programming.

According to the most recent Kenya AIDS Indicator Survey, North Eastern province, in which Dadaab is situated, had the lowest adult HIV prevalence in Kenya, 1.0\%, much lower than the national prevalence of $7.4 \%$ (NASCOP 2008), and similar to Somalia's latest national ANC prevalence of $0.9 \%$ reported by the World Health Organization (WHO 2004). HIV prevalence among refugee antenatal clinic (ANC) attendees in Dadaab was $0.6 \%$ in 2003, $1.4 \%$ in 2005, and $1.0 \%$ in 2006 (UNHCR 2007). Among refugee STI patients presenting with symptoms, HIV prevalence was $2.0 \%$ in 2003, $1.7 \%$ in 2005, and $0.9 \%$ in 2006 (UNHCR 2007). This data confirms that HIV is present in the camps, and that programs are needed to contain and reduce transmission.

### 1.4 Objectives of the dadaab bss

The BSS questionnaire and methodology were adapted from UNHCR guidelines for BSS implementation among displaced populations, detailed in the Manual for Conducting HIV Behavioral Surveillance Surveys among Displaced Populations and their Surrounding Communities (UNHCR 2008). It was designed to provide key baseline data on HIV-related behaviors, knowledge of and attitudes towards HIV/AIDS, and access to HIV-related services, such as counseling and testing, and condom distribution.

The overall goal was to provide programme managers and policy makers with baseline strategic information for programming, advocacy and monitoring.

- The specific objectives were:
- To provide baseline information on the knowledge, attitude and behavioral indicators in Dadaab refugee camp.
- To estimate the type and frequency of interactions between the displaced and surrounding communities
- To provide baseline data to guide HIV response programme planning
- To provide information to help compare HIV/AIDS knowledge, attitude and behavioral practices in Dadaab.
- To provide data in a standard format to enable comparison with other behavioral surveillance studies in neighboring countries.

It is planned that this first survey will be followed by subsequent surveys, using similar methodology and tools, which will allow key indicators to be tracked every few years.

### 2.0 METHODOLOGY

### 2.1 Overview of survey design

The Behavioral Surveillance Survey in Dadaab camps was a cross-sectional, observational study. A total of 1,117 refugee men and women were recruited from 426 households through two-stage cluster methodology. This design was chosen to maximize representativeness across all three Dadaab camps, and allow for detection of a $15 \%$ change in condom use among youth and their non-regular partners (5\% precision, $80 \%$ power, based on national indicators).

### 2.2 Study area

While IGAD BSSs are generally conducted within the refugee camp and surrounding host community, in this study the later (surrounding host community) were regrettably excluded because of untenable conditions, demands and threats of violence directed to the survey team and the humanitarian community if their demands were not met.

### 2.3 Study population

Refugee households were selected according to the two-stage cluster methodology described in a later section. Individual were eligible to participate if they met the following inclusion criteria:

- Males and females aged 15 to 49 years old
- Living in the selected household for at least two weeks and sharing meals
- Exclusion criteria were as follows:
- Those who declined to provide informed consent
- Those unable to communicate (e.g. mentally challenged, etc.)


### 2.4 Informed consent

Consent was obtained from each eligible individual before an interview was conducted. The interviewer first read the consent form aloud, which explained the benefits and risks of participation, and emphasized that the respondent was free to decline to answer any or all questions at any time. If an individual consented to participate, the Interviewer then initialed the form. If the individual declined, the Interviewer stopped the process and made record of refusal. The consent form can be found at the front of the Questionnaire in Annex C.

### 2.5 Ethical considerations

The study protocol and instruments were based on those used previously in refugee camps and hosting communities in the region, and adapted for use in the Dadaab camps context. Before fieldwork, the protocol and instruments were submitted to and approved by the Kenya HIV and AIDS Research Co-ordinating Mechanism (KARSCOM).

### 2.6 Study design

Among the 426 households sampled, a two stage cluster sampling methodology was used to determine the blocks, households and individuals to be interviewed. For the first stage of sampling, the primary sampling unit was the block within the camps. In each of the three camps, all blocks were listed with their population estimates provided by the UNHCR pro-Gres data base. Forty five clusters each comprising a total of 10 households were assigned to blocks using probability proportionate to size (PPS), resulting in self-weighting samples, thus obviating the need for sampling weights. It was estimated that there were 2 eligible refugees per household.

The second stage involved household selection using cluster sampling method. Team leaders were assisted by the refugee block leader to identify the boundaries and the most geographically central position in the block. Next, a random starting direction was selected by spinning a pencil and choosing the direction. Interviewers enumerated all households along this line until the boundary of the block was reached. A randomly selected number between one and the total number of households in that direction was selected. Interviewers surveyed each eligible member of that household and each household following it. After that, the next and subsequent households were selected using the sampling interval until the desired number of households was selected.

If a household or member of a household were absent, the team visited up to three times before listing them as absent. Because the sample size was calculated to account for non-response, no household was replaced. In cases of absence or nonresponse, the circumstances were noted on the Participant Information Sheet.

### 2.7 Sample size

The populations at the three sites in Dadaab are very similar and the sites geographically close to one another, thus data from all refugees surveyed were planned for analysis as one group. The total sample size was based on $30 \%$ condom use with a non-regular partner among youth surveyed in northeastern Kenya:

A two-sample formula was used to detect a change of at least $15 \%$ between baseline and future surveys, with a precision level of $5 \%$, and $80 \%$ power. The cluster sampling methodology was accounted for with a design effect of 2 , and a non-response rate of $10 \%$ was assumed.

The sample size was calculated, using Stata 10 software (StataCorp 2007), based on the following formula (Kirkwood \& Sterne 2003).
$\frac{\mathrm{n}=\left\{\mathrm{u} \sqrt{ }\left[\pi_{1}\left(1-\pi_{1}\right)+\pi_{0}\left(1-\pi_{0}\right)\right]+\mathrm{v} \sqrt{ }[2 \bar{\pi}(1-\bar{\pi})]\right\}^{2}}{\left(\pi_{0}-\pi_{1}\right)^{2}}$
Where:
$u=1.28$ (power=80\%)
$\eta=1.96$ (significance level=5\%)
$\pi_{0}=$ proportion at baseline of condom use among 15-24 year olds or comprehensive HIV knowledge among 15-24 years old $\pi_{1}=$ proportion at follow-up of condom use among 15-24 year olds $\bar{\pi}=\begin{gathered}\pi_{0}+\pi_{1} \\ 2\end{gathered}$

The total target sample size, based on these calculations, was then used to create target sample sizes for each of the three individual camps. The number of target households was calculated using the average number of eligible persons in each household, according to UNHCR register data.

Table 2: Distribution of sample, by camp

| Camp | Households sampled | Individuals sampled |
| :--- | :--- | :--- |
| Ifo | 156 | 406 |
| Hagadera | 133 | 351 |
| Dagahaley | 137 | 360 |
| Total | $\mathbf{4 2 6}$ | $\mathbf{1 , 1 1 7}$ |

### 2.8 STUDY INSTRUMENTS

The BSS questionnaire was developed based on international standards for measuring behavioral risk factors and adapted through consultations with technical experts and program managers for the displacement situation. The questionnaire was developed in English and translated into Somali and Amharic and thereafter back-translated into English. The questionnaire was administered to each individual respondent in his/her own local dialect or English.

The individual questionnaire used to collect the information covered the following areas:
a. Background characteristics including age, education, occupation, religion, and marital status
b. Alcohol and drug use
c. Circumcision
d. Military activity
e. Sexual history and risk behavior
f. Sexually transmitted infections
g. Knowledge opinions and attitudes towards HIV AIDS
h. Exposure and access to interventions

The questionnaire also included questions related to pre-displacement, displacement, and post-displacement time periods and other questions for all respondents that
address forced displacement and the level of interaction between refugee and host communities. The questionnaire was used to record household consent (given by the head of household) and individual consent. The questionnaire was about 18 pages long and was composed of closed-ended questions that include some filters and skip patterns. Interviews lasted approximately 30 minutes. A copy of the questionnaire is in Annex C.

Before administering the questionnaire, interviewers collected information about the household on a Household Information Sheet. For each individual, the interviewer completed a Participation Information Sheet which included the age, sex, and relationship to the head of the household of each person living in the household. A copy of the Household Information Sheet is in Annex A and a copy of the Participant Information Sheet is in Annex B. The result of each visit for each person was also recorded.

### 2.9 Validation of instruments

The study instruments were briefly pre-tested in the field to help refine the translated versions before training.

### 2.10 Study team

The study team was composed of a field supervisor, team leaders, and interviewers. One field supervisor oversaw activities of four team leaders, and each team leader supervised two interview teams of two interviewers each. Two teams were led by one team leader and four team leaders were monitored by one field supervisor.

The Principal and co-Principal Investigators provided frequent monitoring, both in the field and in the data editing offices. The team organization is displayed in the organogram below.

Chart 1. Study team organizational chart


### 2.12 Training

Interviewer training lasted five days and took place in Dadaab refugee camp. Over 45 candidates, identified by the local implementing partners and UNHCR field office staff participated in each training session. Interviewers and supervisors were identified based on educational attainment, language, and previous survey experience. Trainers included the Principal Investigator and co-Principal Investigators from the MOH, UNHCR and implementing partners' staff members. Training consisted of a background to the survey, including purpose and how results are meant to be used, logistics, interviewing techniques, roles and responsibilities, brief HIV/AIDS definitions and discussion, consent process, detailed review of each question in the questionnaire, household selection, training quiz, and practice administering the questionnaire.

At the end of training, trainers identified team leaders, who then received additional training on their roles and responsibilities. Interviewers were selected based on performance during training and on a written test. Six data entry clerks were trained in data entry in Epi Info (CDC 2005) for five days. After a test, four were selected to continue. The whole survey team; interviewers, data entry staff, supervisors, the investigator signed confidentiality agreements and UNHCR code of conduct.

### 2.13 Mobilisation and data collection

Each interview team sent to the field included one male and one female interviewer, to allow for male respondents to be interviewed by male interviewers, and female respondents to be interviewed by female interviewers. The interview teams identified the selected households using address information from the pro-Gres database and assigned a household number. Each interviewer reviewed his or her partner's questionnaires for completion and accuracy prior to leaving a household. Households that were vacant were revisited as necessary.

Team leaders monitored their interview teams and ensured that they followed procedures and completed questionnaires appropriately. Field supervisors did the same for all teams.

### 2.14 Data management and processing

Data entry team members were selected in a process similar to that of the interviewers and trained over 2 days to introduce the questionnaire and the data entry process. Following the training, a Team Supervisor was selected and the team began work from an office in the vicinity of the camp site, which facilitated easy transport of forms. At a minimum, $10 \%$ of the questionnaires were verified to ensure data quality, with a much higher percentage of verification at the beginning of the process. All data entry errors were corrected.

The data were double-entered and validated using EpiData version 3.1. Analysis was done using STATA version 10. Descriptive statistics were performed to produce estimates and measure differences between gender and age groups for variables of interest.

### 2.15 Study limitations

The study was powered to give baseline information for the Dadaab camps as a whole, and not for each of the three individual camps. While some differences between the camps were noted, these may reflect differences in age, ethnicity, and sex of the sample, rather than actual differences in the camps. Furthermore, the sample size was chosen in order to measure differences over time in key indicators. Estimates involving relatively rare events, such as forced sex or transactional sex, are often much less precise, with wide confidence intervals. Such data, while important, must be interpreted with caution.

The Dadaab BSS was subject to a set of biases that affect any such data collection exercise. The most potentially threatening of these is reporting bias, which can occur when respondents choose not to disclose experiences or behaviors, particularly those which may be socially or culturally stigmatized. To reduce this bias, interviewers were trained to assure respondents that their answers would be kept confidential and that no record would be kept of their name or any personal identifier. They were further advised that they could choose not to answer any question, as a non-response was preferable to an incorrect response.

Recall bias may have also inhibited the validity of results. Recall bias refers to the difficulty a respondent may have remembering past events. The BSS questionnaire attempts to limit recall bias by asking about past events which occurred in a standard timeframe, usually, in the past 12 months; or by asking about the last time an event occurred.

Some sampling or non-response bias may have been introduced, but because a twostage cluster methodology based on UNHCR records was employed, and less than 5\% non-response was encountered, such bias is not expected to have affected the results.

### 3.0 RESULTS

### 3.1 Socio-demographic

Interviews were conducted with 620 refugee women and 497 refugee men. A total of 1,117 refugee men and women were interviewed. The response rate exceeded $95 \%$. All respondents were between 15 and 49 years of age, with the median age 25 for both sexes. The three camp sites were represented roughly in equal proportions, with 32\% (360) of total respondents from Dagahaley, 36\% (406) from Ifo, and 31\% (351) from Hagadera.

The vast majority of respondents (93\%) were of Somali nationality, and the remaining respondents ( $7 \%$ ) of Ethiopian nationality. Of the Somali majority, $86 \%$ were nationals of South Central Somalia, while 8\% were nationals of Puntland, and $6 \%$ were nationals of Somaliland. Of all respondents, $93 \%$ reported being Muslim, and the remaining $7 \%$ reported being Christian, with almost all of the Christian minority also part of the Ethiopian minority ( $92 \%$ of Christians were Ethiopian).

Table 3: Age, nationality and religion of respondents

| Indicator | Category | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Age | $15-19$ years | $109(22 \%)$ | $145(23 \%)$ | $254(23 \%)$ |
|  | $20-24$ years | $118(24 \%)$ | $160(26 \%)$ | $278(25 \%)$ |
|  | $25-49$ years | $270(54 \%)$ | $315(51 \%)$ | $585(52 \%)$ |
|  | Total | 497 | 620 | 1,117 |
| Nationality | Somali (Somaliland) | $13(3 \%)$ | $46(7 \%)$ | $59(5 \%)$ |
|  | Somali (Puntland) | $26(5 \%)$ | $58(9 \%)$ | $84(8 \%)$ |
|  | Somali (South Central) | $419(84 \%)$ | $480(77 \%)$ | $899(80 \%)$ |
|  | Ethiopian | $39(8 \%)$ | $36(6 \%)$ | $75(7 \%)$ |
|  | Total | 497 | 620 | 1,117 |
| Religious <br> Affiliation | Muslim | $462(93 \%)$ | $582(94 \%)$ | $1,044(93 \%)$ |
|  | Christian | $35(7 \%)$ | $38(6 \%)$ | $73(7 \%)$ |
|  | Total | 497 | 620 | 1,117 |

Table 4: Marital status of respondents

| Indicator | Category |  | Male | Female | Total |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Marital <br> Status | Currently <br> married | Monogamous | $134(27 \%)$ | $231(37 \%)$ | $365(33 \%)$ |
|  |  | Polygamous | $20(4 \%)$ | $33(5 \%)$ | $53(5 \%)$ |
|  | Single |  | $293(56 \%)$ | $241(39 \%)$ | $534(48 \%)$ |
|  | Divorced/separated | $27(5 \%)$ | $55(9 \%)$ | $82(7 \%)$ |  |
|  | Widowed/widower |  | $23(5 \%)$ | $60(10 \%)$ | $83(7 \%)$ |
|  | Total |  | 497 | 620 | 1,117 |

Of the male respondents, over half reported never having been married ( $56 \%$ ), and only $31 \%$ reported being currently married. Compared to the male respondents, more female respondents were currently married ( $43 \%$ ), and almost twice as many were divorced or widowed ( $9 \%$ of women were divorced versus $5 \%$ of men, and $10 \%$ of women were widowed versus $5 \%$ of men). These differences in marital status between men and women were all found to be statistically significant ( $p<0.001$ ). Of 154 currently married men, 20 (13\%) reported being in polygamous relationships, while of 418 currently married women, 53 (13\%) reported being in a polygamous relationship. ${ }^{1}$ For men, the average age at first marriage was 21.9 , while for women it was 17.9 ( $\mathrm{p}<0.001$ ). Overall, $37 \%$ of respondents reported being currently married, with an additional $2 \%$ reporting living with a long-term partner.

Table 5: Average age at first marriage, significance test by sex

| Indicator | Male | Female | Total | t-test statistic <br> p value |
| :--- | :---: | :---: | :---: | :---: |
| Average age at first <br> marriage | 21.9 | 17.9 | 19.3 | $\mathrm{p}=0.0000$ |
| (Among 575 who had ever <br> been married) |  |  |  |  |

Among all refugee men and women, $44 \%$ had completed primary education or higher, however this figure was much higher for the respondents aged $15-24$ years ( $59 \%$ ) compared to the respondents aged $25-49$ ( $31 \%$; $\mathrm{p}<0.001$ ). More women reported never having attended school, as compared to men ( $45 \%$ versus $31 \%$; $p<0.001$ ). Differences were also noted in respondents aged 15-24 years, with $21 \%$ of women and $15 \%$ of men reporting never having attended school, although not at a statistically

[^0]significant level ( $p=0.093$ ). More than half of all respondents reported that they could easily read in some language. Of the respondents aged $15-24,83 \%$ could easily read in some language, versus only $47 \%$ of respondents aged $25-49$ ( $p<0.001$ ). Sex was also significantly linked with literacy, with $74 \%$ of men and $55 \%$ of women being able to read in some language ( $\mathrm{p}<0.001$ ).

Table 6: Highest level of schooling, by sex

| Indicator | Category | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Highest <br> Level of <br> Schooling | None | $155(31 \%)$ | $277(45 \%)$ | $432(39 \%)$ |
|  | Incomplete primary | $66(13 \%)$ | $128(21 \%)$ | $194(17 \%)$ |
|  | Completed primary | $150(30 \%)$ | $139(22 \%)$ | $289(26 \%)$ |
|  | Completed secondary | $106(21 \%)$ | $71(11 \%)$ | $177(16 \%)$ |
|  | Post secondary | $20(4 \%)$ | $5(1 \%)$ | $25(2 \%)$ |
|  | Total | 497 | 620 | 1,117 |

Table 7: Ability to read in some language, significance test by age group and sex

|  | Sex | Total | $\begin{gathered} \mathrm{Chi}^{2} \\ \mathrm{p} \text { value } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Ability to read easily in some language | Male | 74\% (369/497) | $\mathrm{X}^{2}$ |
|  | Female | 55\% (344/620) | $\mathrm{p}=0.000$ |
|  | Age | Total | Chi ${ }^{2}$ <br> $p$ value |
|  | 15-24 | 83\% (439/532) | $\mathrm{x}^{2}$ |
|  | 25-49 | 47\% (274/585) | $\mathrm{p}=0.000$ |

### 3.2 Income

A majority of respondents ( $66 \%$ ) reported no form of income-generating activity. The most common form of income generation reported was humanitarian work, including incentives ( $11 \%$ ), followed by trading ( $7 \%$ ). Only $18 \%$ of respondents reported earning a monthly wage or salary ( $18 \%$ of men, and $18 \%$ of women).

Table 8: Income generation

| Indicator |  | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Income <br> Generating <br> Activities | None | $315(63 \%)$ | $426(69 \%)$ | $741(66 \%)$ |
|  | Agriculture | $2(<0.5 \%)$ | $6(1 \%)$ | $8(1 \%)$ |
|  | Trading | $43(9 \%)$ | $32(5 \%)$ | $75(7 \%)$ |
|  | Pastoralism | $26(5 \%)$ | $12(2 \%)$ | $38(3 \%)$ |
|  | Transport | $10(2 \%)$ | $4(1 \%)$ | $14(1 \%)$ |
|  | Crafts | $14(3 \%)$ | $19(3 \%)$ | $33(3 \%)$ |
|  | Private Services | $12(2 \%)$ | $38(6 \%)$ | $50(4 \%)$ |
|  | Public Services | $12(2 \%)$ | $7(1 \%)$ | $19(2 \%)$ |
|  | Humanitarian / |  |  |  |
| Develop. | $54(11 \%)$ | $74(12 \%)$ | $128(11 \%)$ |  |
| Other | $9(2 \%)$ | $2(<0.5 \%)$ | $11(1 \%)$ |  |
|  | Total | 497 | 620 | 1,117 |

### 3.3 Displacement, and mobility

Respondents were asked how long they had been living in the Dadaab camps. About $12 \%$ reported that they have always lived in the camp, while an additional $67 \%$ of respondents had lived in the camp more than 5 years. Only $3 \%$ reported having arrived within the past 12 months. Of all refugee men and women, $16 \%$ reported having left home for longer than 4 weeks in the last 12 months, with slightly more women (17\%) reporting such visits than men (15\%). For women, the most common reasons for leaving home were related to family and health; for men, the most common reasons were related to family, school, and trade.

Of all respondents, $20 \%$ reported visiting one of the other two camp sites at least one a month, while $55 \%$ reported never visiting another site. The most common reasons for the last visit to another camp site were to visit a friend or relative ( $61 \%$ ), for entertainment ( $10 \%$ ), or for trade ( $9 \%$ ). More female respondents than male respondents reported never visiting another camp ( $65 \%$ versus $43 \%$; $p<0.001$ ).

Also of interest was mobility of refugees to surrounding local communities, which was found to be less common than mobility between refugee camp sites. Only $9 \%$ of refugee men and women reported visiting the surrounding community at least once a month (compared to $20 \%$ visiting the other refugee camp sites at least once a month), and $78 \%$ reported never visiting the surrounding communities. As for visiting the other camps, more female respondents than male respondents reported never visiting the surrounding communities ( $84 \%$ versus $70 \%$; $p<0.001$ ). For both sexes, the most common reason for the last visit was to see a friend or relative ( $44 \%$ of women, and $46 \%$ of men). Other common reasons for men were trade (14\%), entertainment (13\%),
employment (10\%), and school (8\%). For women, other common reasons were school (16\%), trade ( $9 \%$ ), health care ( $8 \%$ ) and shopping ( $7 \%$ ).

Participants who reported taking a trip of longer than 4 weeks in the past 12 months or visiting the other camps or community at least once a month were significantly more likely to report transactional and casual sex in the past 12 months (for all indicators: $\mathrm{p}<0.002$ ). Forced sex was also significantly more common in those who reported trips of longer than 4 weeks or visiting other camps more than once a month (for both indicators: $\mathrm{p}<0.03$ ).

Table 9: Displacement and Mobility

| Indicator | Category | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| How long have you been living in this place? | Always | 56 (11\%) | 75 (12\%) | $\begin{gathered} 131 \\ (12 \%) \end{gathered}$ |
|  | < 6 months | 10 (2\%) | 10 (2\%) | 20 (2\%) |
|  | 6-12 months | 8 (2\%) | 8 (1\%) | 16 (1\%) |
|  | 1-2 years | 49 (10\%) | 52 (8\%) | 101 (9\%) |
|  | 3-5 years | 52 (10\%) | 51 (8\%) | 103 (9\%) |
|  | > 5 years | 322 (65\%) | 424 (68\%) | 746 |
|  | Total | 497 | 620 | 1,117 |
| Have you left home for longer than 4 weeks in the last 12 months? | Yes | 76 (15\%) | 107 (17\%) | 183 |
|  | No | 421 (85\%) | 513 (83\%) | 934 |
|  | Total | 497 | 620 | 1,117 |
| How often do you go to the surrounding community? | Never | 350 (70\%) | 518 (84\%) | 868 |
|  | < Once a month | 114 (23\%) | 39 (6\%) | 153 |
|  | Once a month | 22 (4\%) | 45 (7\%) | 67 (6\%) |
|  | > Once a month | 11 (2\%) | 18 (3\%) | 29 (3\%) |
|  | Total | 497 | 620 | 1,117 |
| How often do you go to another Dadaab camp? | < Once a month | 187 (38\%) | 91 (15\%) | 278 |
|  | Once a month | 73 (15\%) | 98 (16\%) | 171 |
|  | > Once a month | 24 (5\%) | 30 (5\%) | 54 (5\%) |
|  | Total | 497 | 620 | 1,117 |

### 3.4 Sexual behavior

### 3.4.1 Sexual debut

Of all respondents, $56 \%$ ( $95 \% \mathrm{Cl}$ : $50.0 \%-61.5 \%$ ) reported ever having had sexual intercourse. The relatively low percentage of respondents with sexual experience is partially explained by the fact that never married youth made up $38 \%$ of the sample, and sexual relationship among unmarried Somali youth is restricted and punitive measures may be undertaken among the offending couples. Among all never married youth ( $15-24$ years old), $93 \%$ ( $95 \% \mathrm{Cl}: 86.5 \%-98.9 \%$ ) reported never having had sexual intercourse. Of the 31 (7\%) never married youth reporting sexual experience, 9 (2\%) reported living with a long-term sexual partner.

Table 10: Sexual intercourse and casual sexual partners among never married youth (15-24)

| Age | Indicator | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Total Never Married 15-24 years |  | $\mathrm{N}=216$ | $\mathrm{N}=211$ | $\mathrm{N}=427$ |
|  | Never Had Sex | 195 (90\%) | 201 (95\%) | 396 (93\%) |
|  | Casual Sex Partner in the past 12 months | 11 (5\%) | 2 (1\%) | 13 (3\%) |
| Never Married 15-19 years |  | $\mathrm{N}=109$ | $\mathrm{N}=133$ | $\mathrm{N}=242$ |
|  | Never Had Sex | 99 (91\%) | 126 (95\%) | 225 (93\%) |
|  | Casual Sex Partner in the past 12 months | 7 (6\%) | 1 (0.7\%) | 8 (3\%) |
| Never <br> Married <br> 20-24 <br> years |  | $\mathrm{N}=107$ | N=78 | $\mathrm{N}=185$ |
|  | Never Had Sex | 96 (90\%) | 75 (96\%) | 171 (92\%) |
|  | Casual Sex Partner in the past 12 months | 4 (4\%) | 1 (1\%) | 5 (3\%) |

The relative wide confidence interval surrounding the proportion of never married youth who have had sex reflects large differences in sexual experience by nationality. Closer examination shows that $96 \%$ ( $95 \% \mathrm{CI}$ : 93.3-97.8\%) of never married Somali youth reported never having had sexual intercourse, versus only $41 \%$ ( $95 \% \mathrm{CI}$ : 27.2-54.7\%) of never married Ethiopian youth reporting never having had sexual intercourse ( $p<0.01$ ). Other statistically significant differences by nationality in key sexual behaviors such as reported transactional sex, casual sex, and anal sex, were not found.

Table 11: Sexual intercourse among never married youth (15-24), by nationality

| Ever had sexual <br> intercourse | Never Married <br> Somali Youth <br> $\mathbf{N}=\mathbf{4 0 5}$ | Never Married <br> Ethiopian Youth <br> $\mathbf{N}=\mathbf{2 2}$ | Total <br> $\mathbf{N}=\mathbf{4 2 7}$ |
| :---: | :---: | :---: | :---: |
| Yes | $18(4 \%)$ | $13(59 \%)$ | $31(7 \%)$ |
|  | $95 \% \mathrm{Cl}: 2.2-6.6 \%$ | $95 \% \mathrm{Cl}: 45.3-$ <br> 7200 | $95 \% \mathrm{Cl}: 1.1-13.5 \%$ |
|  | $387(96 \%)$ | $9(41 \%)$ | $396(93 \%)$ |
|  | $95 \% \mathrm{Cl}: 93.3-97.8 \%$ | $95 \% \mathrm{Cl}: 27.2-$ <br> $54.7 \%$ | $95 \% \mathrm{Cl}: 86.5-98.9 \%$ |
|  |  |  |  |

Unsurprisingly, low level of sexual experience among youth was reflected in the uncommon occurrence of sexual intercourse before age 15 among youth ( $2 \%$ for both men and women).

Table 12: Sexual intercourse before age 15 among youth (15-24)

| Indicator | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Sexual intercourse <br> before the age of <br> 15 years | $1.8 \%$ | $2.0 \%$ | $1.9 \%$ |
|  | $95 \% \mathrm{Cl}:<0.05-3.5 \%$ | $95 \% \mathrm{Cl}: 0.1-4.0 \%$ | $95 \% \mathrm{CI}: 0.4-3.4 \%$ |

Significantly more women reported having had sex than men ( $63 \%$ versus $47 \%$; $\mathrm{p}<0.01$ ), corresponding with the fact that $60 \%$ of women reported having been married while only $41 \%$ of men reported having been married. The average age of first sex was only slightly lower than the average age of first marriage, and the two were almost the same for females. It is worth noting that because the average age of respondents was quite low, these averages may be biased towards younger ages (i.e. a 16 year old who may not have sex until age 20 can't be counted, while her peer who had sex at 15 will be counted).

Table 13: Age at first sex and first marriage

| Indicator | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Average age at first sex <br> (Among 623 who had ever had sex) | 20.7 | 17.8 | 18.9 |
| Average age at first marriage <br> (Among 575 who had ever been <br> married) | 21.9 | 17.9 | 19.3 |

### 3.4.2 Knowledge of condoms

Of all respondents, two-thirds had heard of condoms, with respondents aged 15-24 more likely to have heard of condoms than respondents aged 25-49 ( $\mathrm{p}<0.01$ ). No significant difference between men and women was found. More than $90 \%$ of those who had heard of condoms knew that condoms prevent HIV, while $87 \%$ knew that condoms prevent pregnancy or can be used for family planning. Of respondents who had had sex, $12 \%$ had used a condom before. Respondents were also asked whether they had heard of and used the female condom. Just $32 \%$ had heard of the female condom, while $5 \%$ of those who had had sex had used a female condom.

Table 14: Condom awareness and use

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Had heard of condoms | 15-24 | $\begin{gathered} \hline 67 \% \\ (152 / 227) \end{gathered}$ | 72\% (221/305) | 70\% (373/532) |
|  | 25-49 | $\begin{gathered} 66 \% \\ (178 / 270) \end{gathered}$ | 59\% (185/315) | 62\% (363/585) |
|  | $\begin{gathered} \text { Total } \\ (15-49) \end{gathered}$ | $\begin{gathered} 66 \% \\ (330 / 497) \end{gathered}$ | 65\% (406/620) | 66\% (736/1,117) |
|  |  | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 58.2-74.6 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 55.9-75.1 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 59.2-72.6 \% \end{gathered}$ |
| Ever used a condom <br> (Among those who have had sex) | 15-24 | 45\% (14/31) | 15\% (15/103) | 22\% (29/134) |
|  | 25-49 | 14\% (28/203) | 7\% (19/286) | 10\% (47/489) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 18\% (42/234) | 9\% (34/389) | 12\% (76/623) |
|  |  | $\begin{gathered} \hline 95 \% \mathrm{Cl}: \\ 3.8-26.5 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: 2.8- \\ 16.9 \% \end{gathered}$ | $\begin{gathered} \hline 95 \% \mathrm{Cl}: \\ 3.5-21.0 \% \end{gathered}$ |
| Heard of a female condom |  |  | 39\% (119/305) | 37\% (195/532) |
|  |  |  | 26\% (81/315) | 28\% (166/585) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | $\begin{gathered} 32 \% \\ (161 / 497) \end{gathered}$ | 32\% (200/620) | 32\% (361/1,117) |
|  |  | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 23.4-41.4 \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 23.2-41.3 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 25.9-38.8 \% \end{gathered}$ |
| Ever used a female condom (Among those who have had sex) | 15-24 | 10\% (3/31) | 9\% (9/103) | 6\% (12/134) |
|  | 25-49 | 5\% (10/203) | 4\% (10/286) | 4\% (20/489) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 6\% (13/234) | 5\% (19/389) | 5\% (32/623) |

Table 15: Condom awareness, significance test by age group and sex

|  | Age | Total | $\mathrm{Chi}^{2} \mathrm{p}$ value |
| :---: | :---: | :---: | :---: |
| Have heard of condoms | 15-24 | 70\% (373/532) | $\begin{gathered} x^{2} \\ 8.0566 \\ p=0.005 \end{gathered}$ |
|  | 25-49 | 62\% (363/585) |  |
|  | Sex | Total | Chi ${ }^{2} \mathrm{p}$ value |
|  | Male | 66\% (330/497) | $\begin{gathered} x^{2} \\ 0.1027 \\ p=0.749 \end{gathered}$ |
|  | Female | 65\% (406/620) |  |

Table 16: Knowledge of the purpose of condoms

|  |  | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Know that <br> condoms can be <br> used. . | To prevent HIV | $91 \%$ <br> $(300 / 330)$ | $90 \%$ <br> $(367 / 406)$ | $91 \%(667 / 736)$ |
| (Among those <br> who have heard <br> of condoms | To prevent <br> pregnancy or <br> allow for family <br> planning | $90 \%$ <br> $(296 / 330)$ | $84 \%$ <br> $(342 / 406)$ | $87 \%$ (638/736) |

### 3.4.3 Regular sex and condom use

Among respondents who had had sex, approximately two-thirds reported having a regular sex partner in the past 12 months, with similar patterns among youth 15-24 and those 25 and older. Overall, refugee men and women reported regular partnership in the same proportion, although of all age and sex groups, young women were most likely to have a regular sex partner.

Table 17: Regular sex partners

|  | Age | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Had a regular sex <br> partner in the past <br> 12 months | $15-24$ | $32 \%$ <br> $(10 / 31)$ | $79 \%$ <br> $(81 / 103)$ | $68 \% ~(91 / 134)$ |
| (Among those who <br> have had sex) | $25-49$ | $70 \%$ <br> $(143 / 203)$ | $63 \%$ <br> $(181 / 286)$ | $66 \%$ (324/489) |
|  | Total <br> $(15-49)$ | $65 \%$ <br> $(153 / 234)$ | $67 \%$ <br> $(262 / 389)$ | $67 \%$ (415/623) |

Among 415 respondents who had a regular sex partner in the past 12 months, only 23 (6\%) reported using a condom at last sex with a regular sex partner. This percentage was higher among youth aged 15-24 (9\%), compared with respondents aged 25-49 (5\%).

Table 18: Condom use with regular sex partners

|  | Age | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Used a condom at last <br> sex with a regular sex <br> partner in the last 12 <br> months | $15-24$ | $20 \%(2 / 10)$ | $7 \%(6 / 81)$ | $9 \%(8 / 91)$ |
|  | $25-49$ | $4 \%(5 / 143)$ | $6 \%(10 / 181)$ | $5 \%(15 / 324)$ |
| (Among those who have <br> had a regular sex <br> partner in the past 12 | Total | $5 \%(7 / 153)$ | $6 \%(16 / 262)$ | $6 \%(23 / 415)$ |
|  |  | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ |  |

### 3.4.4 Casual sex and condom use

Overall, among those who had had sex, just 7\% reported having a casual sex partner in the past 12 months. Casual sex partnership was more prevalent in young sexually active adults aged 15-24 compared to those aged 25-49 ( $14 \%$ versus $5 \%$; $p<0.001$ ). For the 43 refugee men and women reporting a casual sex partner in the past 12 months, $10(23 \%)$ reported that their last casual sex partner was of a different nationality. On average, the age gap between the respondent and their last casual sex partner was 5.7 years, with $26 \%$ of respondents reporting an age difference of ten years or more. Of these 43 with casual sex partnerships, 4 (9\%) reported that the last casual sex encounter involved alcohol.

Table 19: Casual sex partners

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Had a casual sex partner in the past 12 months <br> (Among those who have had sex) | 15-24 | 35\% (11/31) | 7\% (8/103) | 14\% (19/134) |
|  | 25-49 | 5\% (10/203) | 5\% (14/286) | 5\% (24/489) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 9\% (21/234) | 6\% (22/389) | 7\% (43/623) |
|  |  | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 4.8-13.1 \% \end{gathered}$ | $\begin{aligned} & \text { 95\% CI: } \\ & \text { 2.3-9.0\% } \end{aligned}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 3.7-10.1 \% \end{gathered}$ |
| Had a casual sex partner in the past 12 months <br> (Among all respondents) | 15-24 | $\begin{gathered} 5 \% \\ (11 / 227) \end{gathered}$ | 3\% (8/305) | 4\% (19/532) |
|  | 25-49 | $\begin{gathered} 4 \% \\ (10 / 270) \\ \hline \end{gathered}$ | 4\% (14/315) | 4\% (24/585) |
|  | $\begin{gathered} \hline \text { Total } \\ (15-49) \end{gathered}$ | $\begin{gathered} 4 \% \\ (21 / 497) \end{gathered}$ | 4\% (22/620) | 4\% (43/1,117) |
|  |  | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 2.1-6.3 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 1.4-5.7 \% \end{gathered}$ | $\begin{gathered} 95 \% \mathrm{Cl}: \\ 1.9-5.8 \% \end{gathered}$ |

Condom use with a casual sex partner was more common than with a regular partner, with $35 \%$ ( $95 \%$ CI: $11.3-58.4 \%$ ) reporting use of a condom at last sex with a casual partner. Of the 43 respondents who reported a casual partner in the past 12 months, 22 ( $51 \%$ ) said they never used a condom, while only 5 (12\%) reported always using a
condom. For men who reported not using a condom at last sex with a casual partner, one third said that they did not like them, while $17 \%$ said that free condoms were not available. Among women, the most common reason (38\%) was that their partner objected.

Table 20: Condom use with casual sex partners

|  | Age | Male | Female | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Used a condom at last <br> sex with a casual sex <br> partner in the last 12 <br> months | $15-24$ | $45 \%$ <br> $(5 / 11)$ | $25-49$ | $(1 / 8)$ | $32 \%$ | $(6 / 19)$ |
|  |  | $40 \%$ <br> $(4 / 10)$ | $36 \%$ | $(5 / 14)$ | $38 \%$ | $(9 / 24)$ |
| Among those who <br> have had a casual sex <br> partner in the past 12 <br> months) | Total | (15-49) | $43 \%$ <br> $(9 / 21)$ | $27 \%$ | $(6 / 22)$ | $35 \%$ |

### 3.3.5 Multiple partners

Few respondents who reported having a regular sex partner in the past 12 months reported having a casual or transactional sex partner in the past 12 months. Overall, $2 \%$ of male respondents and $6 \%$ of female respondents in a regular partnership reported having a casual or transactional sex partner in the past 12 months, a difference which was not quite statistically significant ( $p=0.063$ ).

## Table 21: Casual and transactional partnership among those with regular sex partners

|  | Age | Male | Female | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Had a casual or transactional <br> sex partner in the past 12 <br> months | Total | $2 \%$ | $6 \%$ | $4 \%$ | $(18 / 415)$ |
| (Among those who had a regular <br> sex partner in the past 12 |  | $(3 / 153)$ | $(15 / 262)$ |  |  |

Of all respondents, $5 \%$ reported having more than one sex partner in the past 12 months. Of those respondents who reported having a sex partner in the past 12 months, $88 \%$ reported only one partner. This figure increases to $91 \%$ if excluding respondents in a polygamous marriage. Four percent (4\%) of respondents who were sexually active in the past 12 months reported 3 or more sex partners. Men reported more sex partners than women ( $p<0.05$ ), and respondents aged 15-24 reported more sex partners than those aged 25-49 ( $\mathrm{p}<0.01$ ).

Table 22: Multiple sex partners in the past 12 months

|  | Age | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Had more than one | Total | $5.4 \%$ | $3.9 \%$ | $4.6 \% \quad(51 / 1,117)$ |
| sex partner in the last | $(15-49)$ | $(27 / 497)$ | $(24 / 620)$ |  |
| 12 months |  | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ |
| (Among all <br> respondents) |  | $3.1-7.8 \%$ | $1.8-6.0 \%$ | $2.6-7.4 \%$ |

Table 23: Number of sex partnerships in the past 12 months

|  | Number | Male <br> $\mathbf{N}=\mathbf{1 7 1}$ | Female <br> $\mathbf{N}=\mathbf{2 7 2}$ | Total N=443 |
| :--- | :---: | :---: | :---: | :---: |
| Number of sex <br> partners in the past 12 <br> months | 1 | $84 \%$ | $91 \%$ | $88 \%$ |
| (Among those who <br> (eported having a sex <br> partner in the past 12 | 2 | $11 \%$ | $5 \%$ | $7 \%$ |
|  | $3-9$ | $4 \%$ | $1 \%$ | $2 \%$ |

Table 24: Number of sex partners in the past 12 months, significance test by age group and sex

| Indicator | Male | Female | Total | t-test statistic $\mathbf{p}$ value |
| :--- | :---: | :---: | :---: | :---: |
| Average number <br> of sex partners in <br> the past 12 <br> months | 0.43 | 0.52 | 0.48 | $\mathrm{p}=0.0444$ |
|  | Aged 15-24 | Aged 25-49 | Total | t-test statistic $\mathbf{p}$ value |
|  | 0.24 | 0.70 | 0.48 | $\mathrm{p}=0.0000$ |

### 3.4.6 Transactional sex and condom use

Of those who had ever had sex, $3 \%$ of refugee men and $3 \%$ of refugee women reported having exchanged money, gifts or favors for sex. When asked about the past 12 months, only one male respondent reported having exchanged money, favors or gifts for sex, while all 10 female respondents who had ever had transactional sex, had also done so in the past 12 months.

Among the 6 male refugees who had had a transactional sex partner, 4 reported that their last partner was another refugee, while of the 10 female refugees who had had transactional sex, 7 were reported to be from the community of nationals surrounding the camp. In regards to the last transactional sex act, only 4 of 16 respondents said
sex was exchanged for money alone; favors and/or gifts were involved in $75 \%$ of the exchanges.

Table 25: Transactional sex partners

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Ever had a transactional sex partner <br> (Among those who have had sex) | 15-24 | 6\% (2/31) | 2\% (2/103) | 3\% (4/134) |
|  | 25-49 | 2\% (4/203) | 3\% (8/286) | 2\% (12/489) |
|  | $\begin{gathered} \hline \text { Total } \\ (15-49) \end{gathered}$ | 3\% (6/234) | 3\% (10/389) | 3\% (16/623) |
| Had a transactional sex partner in the past 12 months (Among those who have had sex) | $\begin{gathered} \text { Total } \\ (15-49) \end{gathered}$ | $\begin{aligned} & <0.05 \% \\ & (1 / 234) \end{aligned}$ | 3\% (10/389) | 2\% (11/623) |
| Had a transactional partner in the past 12 months <br> (Among all respondents) | 15-24 | 0\% (0/227) | $\begin{gathered} \hline 0.7 \% \\ (2 / 305) \end{gathered}$ | 0.4\% (2/532) |
|  | 25-49 | $\begin{aligned} & <0.05 \% \\ & (1 / 270) \end{aligned}$ | 3\% (8/315) | 2\% (9/585) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | $\begin{aligned} & <0.05 \% \\ & (1 / 497) \end{aligned}$ | 2\% (10/620) | 1\% (11/1,117) |
|  |  | $\begin{gathered} 95 \% \mathrm{Cl}: \\ <0.01-0.62 \% \end{gathered}$ | $\begin{aligned} & \text { 95\% CI: } \\ & \text { 0.2-3.0\% } \end{aligned}$ | $\begin{aligned} & 95 \% \mathrm{Cl}: \\ & 0.1-1.8 \% \end{aligned}$ |

Table 26: Last transactional sex

|  | Transactional <br> partner's identity | Male N=6 | Female N=10 |
| :--- | :--- | :---: | :---: |
| Identity of last transactional <br> sex partner | Refugee | 4 | 2 |
|  | Local national | 2 | 7 |
|  | Police, security, <br> military | 0 | 1 |
| What was exchanged for <br> last transactional sex | Sex exchanged for: | Toney | Total N=16 |
|  | Gift | 4 |  |
|  | Favor | 3 |  |
|  | Combination of above | 6 |  |

Only 2 of the 11 ( $18 \%, 95 \% \mathrm{Cl}:<0.01-60 \%$ ) respondents who reported having transactional sex in the past 12 months reported use of a condom at last sex. Eight of the 11 ( $73 \%$ ) reported never using a condom with transactional sex partners, and 5 of 9
(56\%) respondents who did not use a condom at last transactional sex reported the reason as not liking them.

Table 27: Condom use with transactional sex partners

|  | Male | Female | Total |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Used a condom at last sex with a | $0 \%$ | $20 \%$ | $18 \%$ |
| transactional sex partner in the last 12 | $(0 / 1)$ | $(2 / 10)$ | $(2 / 11)$ |
| months | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ |
| (Among those who have had a | - | $<0.01-$ | $<0.01-59.8 \%$ |
| transactional sex partner in the past 12 |  | $64.4 \%$ |  |

### 3.4.7 Forced sex

Discussing issues of forced sex is difficult and often underreported in surveys. In the Dadaab camp survey, $9 \%$ of female respondents and $3 \%$ of male respondents reported having been forced to have sex at some point in their lifetime. For those who had experienced forced sex, $70 \%$ indicated that they had been forced to have sex after displacement, $64 \%$ during displacement, and $25 \%$ before displacement (many indicated being forced to have sex in more than one of these time periods; 11 of 69 reported being forced to have sex at all three time periods). Ten percent (10\%) reported forced sex in the past year.

Fourteen percent (14\%) of those who had experienced forced sex reported it by a regular partner, and $20 \%$ reported forced sex by another family member. Seventy-one percent ( $71 \%$ ) reported forced sex by a non-family member, with more than half of those reporting being forced by the military.

Table 28: Forced sex history

|  | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Ever forced to have sex | $3 \%(14 / 497)$ | $9 \%(55 / 620)$ | $6 \%(69 / 1,1117)$ |
| Among those who had experienced forced sex (N=69) ${ }^{2}$ : |  |  |  |
| Forced to have sex in the past <br> 12 months | $7 \%(1 / 14)$ | $11 \%(6 / 55)$ | $10 \%(7 / 69)$ |
| Forced to have sex before <br> displacement | $50 \%(7 / 14)$ | $18 \%(10 / 55)$ | $25 \% ~(17 / 69)$ |
| Forced to have sex during <br> displacement | $50 \%(7 / 14)$ | $67 \%(37 / 55)$ | $64 \%(44 / 69)$ |
| Forced to have sex after <br> displacement | $64 \%(9 / 14)$ | $71 \%(39 / 55)$ | $70 \%(48 / 69)$ |

[^1]Table 29: Forced sex in the past 12 months

|  | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Forced to have sex in the | $0.2 \%$ | $1.0 \%$ | $0.6 \%(7 / 1,1117)$ |
| past 12 months | $(1 / 497)$ | $(6 / 620)$ |  |
|  | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ | $95 \% \mathrm{Cl}:$ |
|  | $<0.01-$ | $<0.01-2.0 \%$ | $<0.01-1.3 \%$ |
|  | $0.6 \%$ |  |  |

### 3.4.8 ANAL SEX AND CONDOM USE

Of 1,117 respondents, 18 ( $1.6 \%$ ) reported having had anal sex. When asked about the past 12 months, no women reported having anal sex, while 4 men reported having anal sex with another man, and 3 men reported having anal sex with a woman.

Of the 4 men reporting anal sex with another man in the past 12 months, all reported using a condom. Of the 3 men reporting anal sex with a woman in the past 12 months, none reported using a condom.

### 3.5 Co-factors related to hiv/aids transmission \& vulnerability

### 3.5.1 Sexually transmitted infections

STIs enhance susceptibility of acquiring and transmitting HIV infection, making it important that people know about them and seek proper care when symptoms arise. Seven percent (7\%) of women and 3\% of men reported either unusual genital discharge or a genital ulcer or sore in the past 12 months. Among those with such symptoms, $46 \%$ sought treatment at a public or private health facility. More than half ( $54 \%$ ) did not inform all their sexual partners about the symptoms they experienced.

Table 30: Awareness of sexually transmitted infections and history of symptoms

|  | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Ever heard of diseases that can <br> be transmitted through sexual <br> intercourse | $80 \%$ <br> $(400 / 497)$ | $75 \%$ <br> $(463 / 620)$ | $77 \% \quad(863 / 1,117)$ |
| Experienced symptoms <br> associated with STIs in the past <br> 12 months | $3 \%(15 / 497)$ | $7 \% \quad(41 / 620)$ | $5 \% \quad(56 / 1,117)$ |
| Experienced symptoms <br> associated with STIs in the past <br> 12 months and sought <br> treatment at a health facility | $73 \%(11 / 15)$ | $37 \% \quad(15 / 41)$ | $46 \% \quad(26 / 56)$ |

### 3.5.2 Circumcision

Ninety-two percent (92\%) of women and $94 \%$ of men reported being circumcised among the refugees interviewed from Dadaab camps. Circumcision was highly correlated with religion, with $98 \%$ of Muslims reporting have been circumcised. The median age of circumcision was 5 as reported for men and 6 as reported for women. Of the 31 non-circumcised men, 11 indicated that they would be interested in getting circumcised if the procedure were safe and affordable. While $91 \%$ of women indicated a preference for a circumcised partner, only $56 \%$ percent of men indicated the same.

### 3.5.3 Alcohol and substance use

The BSS interview included topics of alcohol and drug use. Only 3\% of refugees interviewed reported drinking alcohol once a week or more. The vast majority ( $96 \%$ ) reported never drinking alcohol. These responses were similar between male and female respondents. However, of the small number reporting sex with a casual partner in the past 12 months ( 43 respondents), $9 \%$ indicated that they were under the influence of alcohol during their last sexual encounter with a casual partner.

The most commonly reported non-medical drug used was a locally-produced herb called khat, which is typically chewed and has mild stimulant effects. The vast majority
of female respondents (96\%) reported never using it, while $19 \%$ of male respondents reported using it at least once a week.

Only a handful of respondents reported using any other non-medical drug in the past 12 months, such as amphetamines (6 respondents), or marijuana (6 respondents). Three respondents reported using a previously used needle to inject drugs in the past 12 months.

### 3.5.4 Military activity

Military involvement has been shown to have some relation to HIV risk in some settings. In the Dadaab camps, $4 \%$ of men and $1 \%$ of women had ever been involved in either official or unofficial military activities, and none were currently involved in such activities. While few people reported a military history, those who did were more likely to report having ever had transactional sex ( $9 \%$ versus $2 \%$ in respondents with no military history), a difference which was found to be statistically significant ( $\mathrm{p}=0.049$ ). No such link was observed between previous military history and transactional sex in the past 12 months.

### 3.6 HIV knowledge, opinions, and attitudes

The majority of refugee men and women surveyed had heard of HIV/AIDS, with more women having awareness (92\%), than men ( $82 \%$; $\mathrm{p}<0.01$ ). Comprehensive knowledge of HIV/AIDS is often reported as a composite indicator, based on the number of respondents who know two ways to prevent sexual transmission of the disease, reject two misconceptions about transmission, and know that a healthy-looking person can have HIV/AIDS. Using that definition, $22 \%$ of the surveyed group had comprehensive, correct knowledge about HIV. Youth aged $15-24$ were more likely to have comprehensive, correct knowledge than respondents aged 25-49 (28\% versus 18\%; $\mathrm{p}<0.01$ ). The fact which was least likely to be known by respondents was that HIV cannot be transmitted through sharing food, with only $48 \%$ knowing that HIV could not be transmitted in such a way. On the other hand, more than $84 \%$ of respondents knew that being faithful to one uninfected partner can prevent transmission.

Table 31: Awareness of HIV/AIDS and comprehensive, correct knowledge

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Ever heard of HIV/AIDS | 15-24 | $\begin{gathered} 82 \% \\ (187 / 227) \end{gathered}$ | $\begin{gathered} 95 \% \\ (290 / 305) \end{gathered}$ | 90\% (477/532) |
|  | 25-49 | $\begin{gathered} \hline 83 \% \\ (223 / 270) \end{gathered}$ | $\begin{gathered} \hline 89 \% \\ (281 / 315) \end{gathered}$ | 86\% (504/585) |
|  | $\begin{gathered} \text { Total } \\ (15-49) \end{gathered}$ | $\begin{gathered} 82 \% \\ (410 / 497) \end{gathered}$ | $\begin{gathered} 92 \% \\ (571 / 620) \end{gathered}$ | $\begin{gathered} 88 \% \\ (981 / 1,117) \end{gathered}$ |
| Had comprehensive, correct knowledge about HIV/AIDS | 15-24 | $\begin{gathered} 36 \% \\ (81 / 227) \end{gathered}$ | $\begin{gathered} 22 \% \\ (66 / 304) \end{gathered}$ | 28\% (147/532) |
|  | 25-49 | $\begin{gathered} 25 \% \\ (68 / 269) \end{gathered}$ | $\begin{gathered} 11 \% \\ (35 / 315) \end{gathered}$ | 18\% (103/585) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | $\begin{gathered} 30 \% \\ (149 / 496) \end{gathered}$ | $\begin{gathered} 16 \% \\ (101 / 619) \end{gathered}$ | $\begin{gathered} 22 \% \\ (250 / 1,115) \end{gathered}$ |

Chart 2: Knowledge of five key facts about HIV, by age group


Attitudes towards people living with HIV/AIDS are typically assessed by using a composite indicator of four questions. A respondent is said to have accepting attitudes if she 1) agrees she would take care of a family member sick with HIV, 2) agrees that a teacher with HIV who is not sick should be allowed to continue working, 3) is willing to buy fresh vegetables from a shopkeeper with HIV/AIDS, and 4) doesn't think a family member with HIV/AIDS should remain secret. Among those refugee men and women surveyed who had heard of HIV, only $11 \%$ of men and $4 \%$ of women met the criteria for
having accepting attitudes. More than half of respondents indicated that they would care for a sick family member ( $61 \%$ ), and agreed that a teacher with HIV/AIDS should be allowed to continue teaching ( $56 \%$ ). Only $40 \%$ would buy fresh vegetables from a shopkeeper with HIV/AIDS, and $58 \%$ would want to keep it a secret if a family member had HIV/AIDS.

Table 32: Attitudes towards people living with HIV/AIDS

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Exhibit accepting attitudes towards people living with HIV/AIDS <br> (Among those who | 15-24 | 10\% (18/187) | 6\% (16/290) | 7\% (34/477) |
|  | 25-49 | 11\% (29/270) | 2\% (7/281) | 7\% (36/504) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 11\% (47/410) | 4\% (23/571) | 7\% (70/981) |

Respondents who had heard of HIV were asked what they thought about their personal risk for contracting HIV/AIDS. Overall, 43\% felt no risk of HIV transmission, while 40\% felt at moderate risk and $16 \%$ felt at high risk. Among the group of respondents who had reported transactional sex, anal sex, more than one sex partner, or casual sex in the past 12 months, $39 \%$ felt they were at no risk of contracting HIV. When asked in which community more HIV exists, almost twice as many refugee men and women (62\%) thought that HIV is more prevalent in the surrounding local community, as opposed to in the refugee community ( $36 \%$ ).

## Chart 3: Personal risk perception of contracting HIV



Table 33: Perceptions of personal risk of contracting HIV

|  |  | Male <br> $\mathbf{N}=\mathbf{4 1 0}$ | Female <br> $\mathbf{N}=571$ | Total <br> $\mathbf{N}=\mathbf{9 8 1}$ |
| :--- | :---: | :---: | :---: | :---: |
| Are you at risk for <br> acquiring HIV? <br> (Among those who <br> had heard of HIV) | Yes, high risk | $14 \%$ | $17 \%$ | $16 \%$ |
|  | Yes, moderate risk | $44 \%$ | $38 \%$ | $41 \%$ |
|  | No risk | $42 \%$ | $44 \%$ | $43 \%$ |
|  | Already infected | 0 | $<0.05 \%$ | $<0.05 \%$ |
|  | No answer/ Don't <br> know | $<0.05 \%$ | $1 \%$ | $<0.05 \%$ |

### 3.7 Exposure to interventions

### 3.7.1 Sources of HIV information

Respondents were asked about any HIV-related messages they had received in the past 12 months. Overall, $40 \%$ indicated that they had received some message in the past 12 months, with more women and young people reporting receiving messages than men and older people.

Table 34: Received HIV messages in the past 12 months

|  | Age | Male | Female | Total |
| :--- | :---: | :---: | :---: | :---: |
| Received a <br> message about HIV <br> in the past 12 <br> months | $15-24$ | $42 \%$ <br> $(95 / 227)$ | $47 \%$ <br> $(144 / 305)$ | $45 \%(239 / 532)$ |
|  | $25-49$ | $31 \%$ <br> $(84 / 270)$ | $39 \%$ <br> $(123 / 315)$ | $35 \%(207 / 585)$ |
|  | Total |  |  |  |
| $(15-49)$ | $36 \%$ <br> $(179 / 497)$ | $43 \%$ <br> $(267 / 620)$ | $40 \%$ <br> $(446 / 1,117)$ |  |

The chart below displays the various sources of information on HIV that respondents reported being exposed to in the past 12 months (in blue), and the sources they reported they preferred. The most frequent modes of receiving information, by radio and through health facilities, were also the most preferred modes. The third most preferred mode, through television or video, was less commonly noted as a source of information.

Chart 4: Sources of information on HIV, and preferred sources


### 3.7.2 HIV testing

HIV testing was not particularly common in refugee men and women surveyed at the Dadaab camps. Overall, $16 \%$ ( $95 \% \mathrm{CI}: 8.6-23.3 \%$ ) reported ever having a test for HIV. This figure was twice as high for women ( $21 \%$ ) as for men ( $9 \%$; $\mathrm{p}<0.01$ ), and testing was more common among respondents aged 25-49 ( $20 \%$ ) versus respondents aged $15-24$ ( $11 \% ; \mathrm{p}<0.01$ ). The higher rate of testing in women was correlated with pregnancy in the past 5 years, with $46 \%$ of those having a recent pregnancy reporting HIV testing, versus only $9 \%$ of those women who had not been pregnant in the past 5 years reporting HIV testing ( $p<0.001$ ). Unfortunately, fewer women who had had a recent pregnancy had correct knowledge about HIV, compared to women who had not had a recent pregnancy ( $12 \%$ versus $18 \%$ ).

When HIV testing is done in the context of VCCT or antenatal care, counseling messages should include modes of transmission of HIV and ways to protect against HIV. Twenty-five percent ( $25 \%$ ) of refugee men and women who had had an HIV test gave correct answers to all five HIV knowledge questions, while $22 \%$ of refugee men and women who had not had an HIV test knew all five answers. Significantly more people who had had an HIV test held accepting attitudes towards people living with HIV/AIDS than those who had not had an HIV test ( $15 \%$ versus $5 \%$; $p<0.001$ ), although the percentage was still quite low. For women attending antenatal clinic and individuals attending VCCT, contact with the health care system represents an important opportunity to receive information on HIV.

Among those who had tested for HIV, $42 \%$ had a test in the past 12 months; among those who had tested in the past 12 months, $91 \%$ learned the result of the test. Overall, $6 \%$ of refugee men and women surveyed had received a test in the past 12 months and learned the result.

Table 35: HIV testing

|  | Age | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| Ever tested for HIV | 15-24 | 8\% (19/227) | 13\% (41/305) | 11\% (60/532) |
|  | 25-49 | 10\% (26/270) | 29\% (92/315) | 20\% (118/585) |
|  | $\begin{gathered} \text { Total } \\ (15-49) \end{gathered}$ | 9\% (45/497) | $\begin{gathered} 21 \% \\ (133 / 620) \end{gathered}$ | $\begin{gathered} 16 \% \\ (178 / 1,117) \end{gathered}$ |
| Tested in the past 12 months <br> (Among those who have tested for HIV) | 15-24 | 47\% (9/19) | 49\% (20/41) | 48\% (29/60) |
|  | 25-49 | 54\% (14/56) | 34\% (31/92) | 33\% (20/60) |
|  | $\begin{gathered} \text { Total } \\ (15-49) \end{gathered}$ | 51\% (23/45) | 38\% (51/133) | 42\% (74/178) |
| Learned their results <br> (Among those who tested for HIV in the past 12 months) | 15-24 | 100\% (9/9) | 100\% (20/20) | 100\% (29/29) |
|  | 25-49 | 86\% (12/14) | 84\% (26/31) | 84\% (38/45) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 91\% (21/23) | 90\% (46/51) | 91\% (67/74) |
| Tested for HIV in the past 12 months and learned their results <br> (Among all respondents ) | 15-24 | 4\% (9/227) | 7\% (20/305) | 5\% (29/532) |
|  | 25-49 | 4\% (12/270) | 8\% (26/315) | 6\% (38/585) |
|  | $\begin{aligned} & \text { Total } \\ & (15-49) \end{aligned}$ | 4\% (21/497) | 7\% (46/620) | 6\% (67/1,117) |

Table 36: HIV testing history, significance test by age group and sex

|  | Age | Total | Chi ${ }^{2} \mathrm{p}$ value |
| :---: | :---: | :---: | :---: |
| Ever tested for HIV | 15-24 | 11\% (60/532) | $\mathrm{x}^{2}$ |
|  | 25-49 | 20\% (118/585) | 16.4478 p=0.000 |
|  | Sex | Total | $\mathrm{Chi}^{2} \mathrm{p}$ value |
|  | Male | 9\% (45/497) | $\mathrm{X}^{2} \quad 31.6497$ |
|  | Female | 21\% (133/620) | $\mathrm{p}=0.000$ |

Table 37: HIV Knowledge, by HIV testing history

|  |  | Percent with <br> comprehensive, <br> correct knowledge | Average number correct <br> knowledge questions <br> (0=no correct; 5=all correct) |
| :--- | :---: | :---: | :---: |
| Ever tested for <br> HIV | Yes <br> $\mathrm{N}=178$ | $25 \%$ (45/178) | 3.6 |
|  | No <br> $\mathrm{N}=939$ | $22 \%$ (205/939) | 3.0 |

Table 38: Accepting attitudes towards PLHIV, by HIV testing history

|  |  | Percent with <br> accepting attitudes | Average number of <br> accepting attitudes held <br> (0=no accepting; 4=all <br> accepting) |
| :--- | :---: | :---: | :---: |
| Ever tested for <br> HIV | Yes <br> $\mathrm{N}=178$ | $15 \% \quad(26 / 178)$ | 2.1 |
|  | No <br> $\mathrm{N}=803^{3}$ | $5 \% \quad(44 / 803)$ | 1.7 |

### 3.7.3 ACCESS TO HIV SERVICES

Of all respondents, $56 \%$ said they knew where they could obtain an HIV test. Of 327 respondents who indicated they were not interested in an HIV test in the future, 69\% said they were sure of not being infected. Six percent (6\%) indicated that they did not know where to go for a test. Eight percent (8\%) feared stigmatization and 5\% were afraid of the result they would receive.

HIV interventions often promote condom distribution. When asked whether they had received condoms from a health facility or clinic in the past 12 months, only $7 \%$ of all respondents said they had. However, the rate was higher for those with higher risk; for example, $9 \%$ of those having had sex received condoms, and $24 \%$ of those with more than one sex partner in the past 12 months received condoms. Sixty-five percent ( $65 \%$ ) of respondents 25 years or older felt that young adolescents should not be taught how to use condoms.

[^2]
### 4.0 DISCUSSION AND CONCLUSION

This study was the first BSS to be conducted in the Dadaab refugee camps. The data generated gives policy makers and program managers a better understanding of the community's risks to HIV transmission and gaps in knowledge and services provided. Below, key findings are summarized and recommendations are offered about the interpretation of data for program purposes.

### 4.1 Background characteristics

The data presented in this report comes from interviews with a total of 1,117 refugee men and women in the three Dadaab refugee camps. All individuals aged 15-49 were eligible to participate, but refugees aged 15-24 are represented in greater numbers than those aged 25-49. There were $25 \%$ more women than men in the survey sample. Both gender and age imbalance of respondents may be a result of the absence of older, male household members at the time of data collection. To understand the key indicators, it is helpful to examine them disaggregated by both sex and age group, as presented in the preceding Results chapter.

The refugee population at Dadaab is fairly homogenous. While a few individuals do not fall into the two major categories, the population consists mostly of Somali Muslims ( $93 \%$ ), with a minority of Ethiopian Christians (6\%). Because religion has an impact on behavior and practices (marriage and circumcision), it is important to keep the religious make-up of the population in mind.

Differences in marital status between refugee men and women necessitate careful interpretation of data. Refugee women in the sample married an average of 4 years earlier than men; thus, they were more likely to be currently married or previously married than male respondents. Less than a third of men were currently married, and $13 \%$ of them reported being in a polygamous marriage. A total of $5 \%$ of the total sample were in polygamous marriage, and $2 \%$ were not married but living with a longterm partner. While not affecting a large part of the sample, these characteristics mean that regular partnership may be a better proxy for committed relationship status than marital status or number of sex partners.

Differences in literacy between refugee men and women, and older and young refugees were found to be statistically significant ( $p<0.001$ ). Respondents aged 15-24 were more likely to be able to read and more likely to attain a higher level of education than those aged 25-49, and the same was found to be true for men compared to women. While literacy in some language is rather high among youth (83\%), program managers need to consider that $21 \%$ of young women have not been to school and cannot read easily in any language.

Poverty, particularly mixed with displacement, can increase vulnerability to HIV. Less than one-fifth of respondents reported earning a monthly wage or salary, and two-thirds reported no form of income-generating activity. Given the encampment policy and movement restriction imposed on refugees, humanitarian assistance should be expanded to cover basic essential (clothing, beddings) to reduce vulnerability and
adoption of high risk behaviors. Moreover, HIV programs may need to link to incomegenerating activities to work synergistically to relieve pressures of poverty and inform people about risk behaviors and ways to avoid HIV transmission.

### 4.2 Displacement, mobility and networking

The very large population at the Dadaab camps has been relatively stable, with less than $5 \%$ of respondents arriving in the previous year. Refugee men and women are somewhat mobile between the three camps, with a fifth reporting monthly visits or more to another camp site. Less than $10 \%$ make monthly trips or more to the surrounding communities. Longer trips (of at least 4 weeks), were reported by $15 \%$ of the population. All three types of mobility were significantly associated with higher levels of casual and transactional sex, and higher levels of forced sex were found to be associated with longer trips outside the camp and more visits to other camps. Sentinel surveillance suggests a rather low HIV prevalence in the camps, and national data show a similarly low prevalence in the area surrounding Dadaab, however prevalence is much higher in other areas of Kenya and surrounding countries. Longer trips which expose the traveler to high-risk behavior with residents of a higher-prevalence area may be of special concern for HIV program managers.

### 4.3 Sexual experience and sex partners

The data show relatively high levels of HIV protective sexual behavior. Among never married youth aged $15-24,93 \%$ reported never had having sex, and $2 \%$ were actually unmarried but cohabitating with a long-term partner. The average age at first sex for women was approximately 18, similar for the age at first marriage. For men, the average age at first sex was approximately 21, and the average age at first marriage 22. These figures, combined with the fact that only $2 \%$ of all respondents reported first sex under the age of 15 , reflect a relatively positive picture for youth and sexual exposure. However, the overall data does mask the higher level of risk behaviors reported by non-Somali youth. More effort may be needed to target prevention messages to these communities.

Of those respondents who reported having had sex, two-thirds had a regular partner in the past 12 months (either a spouse or live-in partner). Of those, only $4 \%$ reported having a casual or transactional partner during the same time period, which suggests that extra-marital sex, whether in the context of a monogamous or polygamous marriage, is fairly infrequent.

Casual sex in the past 12 months was reported by $7 \%$ of those who had had sex. Although it is difficult to draw conclusions on the basis of those 43 respondents, $9 \%$ did report being under the influence of alcohol at last casual sex. Approximately one quarter reported an age gap of 10 years or more between themselves and that last partner. Thus, while casual sex partnerships may not be widespread, they do appear to be associated with factors which can pose a risk of HIV or STI transmission.

Transactional sex was reported by $3 \%$ of respondents who had had sex. Only 1 male respondent and 10 female respondents reported a transactional sex encounter in the
past 12 months, although this may represent underreporting, particularly given the conservative context. Of all 1,117 respondents, 18 reported having had anal sex. HIV sentinel surveillance data suggests that the epidemic is concentrated but the affected population groups have not been identified. This data suggests that a core group of atrisk population groups such as sex workers, men who have sex with men exist in the camp and further investigation and target specific HIV responses are needed/warranted.

Respondents may be inclined to underreport many types of sexual activity, particularly in very conservative settings. Assuming that the data collected are accurate or not substantially underreported, we can understand that sexual activity in this community is not initiated particularly early. The levels of transactional and casual sex reported were low compared to national averages in Kenya; however, a more appropriate comparison to other similarly conservative Muslim populations. This is made difficult, however, by a lack of comparable data; in fact, according to a recent literature review of HIV data from the Middle East and North Africa region, no country in the region has collected sexual behavior data from the general population (Abu-Radaad et al. 2010). To facilitate comparison, estimates of key sexual behavior indicators for the Dadaab camps are displayed in the chart below, alongside estimates from the 2008-9 Kenya Demographic and Health Survey (Kenya NBS \& MEASURE DHS 2010), and estimates from an unpublished study of predominantly Muslim refugees living in Wad Sharifey camp in Sudan.

Table 39: Estimates of key sexual behavior indicators for Dadaab Camps, and comparison populations

|  | Sex | Dadaab Camps (2009) | $\begin{aligned} & \text { Kenya DHS } \\ & \text { (2008-9) } \\ & \text { *(DHS 2003) } \end{aligned}$ | Wad Sharifey Camp (2010) |
| :---: | :---: | :---: | :---: | :---: |
| Never married youth who have never had sex | Men | 90.3\% | 37.3\%* | 70\% |
|  | Women | 95.3\% | 63.4\%* | 95\% |
| Casual sex in the past 12 months | Men | 4.2\% | 11.7\%* | 3.4\% |
|  | Women | 3.5\% | 1.7\% | 1.0 |
| Sex with a transactional partner in the past 12 months | Men | 0.2\% | $\begin{aligned} & 2.0 \% \\ & \text { (ages 50-54) } \end{aligned}$ | 0\% |
|  | Women | 1.6\% |  | 0.5\% |
| More than one sex partner in the past 12 months | Men | 5.4\% | 9.4\% | 5.8\% |
|  | Women | 3.9\% | 1.4\% | 1.0\% |

Based on these comparisons, it appears that abstinence among youth is quite high in Dadaab, even compared with another conservative population such as that of Wad Sharifey camp, and particularly compared to national estimates of Kenya. Prevalence of casual and transactional sex, and sex with multiple partners appears similar across all groups, although somewhat higher among Kenyan men. The reported prevalence of anal sex was similar in both refugee camps settings (1.0\% of the Wad Sharifey camp and $1.6 \%$ of the Dadaab camp).

### 4.4 Condom awareness and use

Knowledge of the purpose of condoms was fairly high among those respondents who had heard of them, with around $90 \%$ knowing that they can prevent HIV and can be used for family planning. However, only two-thirds of all respondents were aware of condoms. Awareness was higher among youth age 15-24; ironically, however, it was also higher among those who had never had sex (71\%) compared to those who had had sex (62\%). Less than one-third were aware of female condoms.

Condom use was also very low, with just $12 \%$ of sexually active respondents reporting ever using one, and only $6 \%$ reporting use at last sex with a regular partner. While condom use at last sex with a casual partner was slightly more than one-third, this is also lower than optimal. Condom use at last sex among those engaged in high risk sex in the past 12 months, including casual sex, transactional sex, or anal sex, was just 18\%.

Given that many men who weren't using condoms reported not liking them or not having access to free ones, and that women most often explained that her partner objected, HIV interventions should target messages about acceptability to men, and effort should be made to distribute free condoms in order to eliminate a barrier to uptake. Increasing awareness of condoms and their potential to protect against HIV should also be a goal of health campaigns and integrated into the health system, including through interactions with community health workers and with the health facilities. For example, women who reported being pregnant in the past 5 years were less likely to have heard of condoms than women who had not been pregnant, despite a high rate of antenatal clinic attendance which put them in contact with the health system. The antenatal clinic visit, where HIV testing should be done, represents an opportunity to increase condom awareness in women.

### 4.5 Forced sex

Given that forced sex is often subject to underreporting, it is notable that $9 \%$ of women and $3 \%$ of men discussed experiences of forced sex. While it was most commonly reported to have happened before or during displacement, it was also reported after displacement, and from a wide variety of perpetrators, including military officers, family members and regular partners. Programs in the camp should include services for victims of forced sex and interventions to raise awareness and promote prevention. In all cases, the needs of both male and female beneficiaries should be considered.

### 4.6 Alcohol and drug use

Low rates of reported alcohol and drug use do not seem to play a critical role in the risk of HIV transmission, although for some small segment of the population, intervention may be appropriate and helpful.

### 4.7 Co-factors to contracting hiv/aids

High rates of circumcision among men in the Dadaab camps bode well for containing HIV transmission in the population, since it is recently understood that circumcised men and populations that tend to circumcise are at less risk of transmission of the virus through sexual intercourse.

More than three-quarters of respondents were aware of diseases which can be transmitted though sexual intercourse. Of the $5 \%$ who reported symptoms associated with STIs in the past 12 months, only $46 \%$ sought care at a health clinic. Increased care-seeking for STI symptoms could lead to reduced risk of contracting HIV, and thus is a recommended goal for the health system in the refugee camps. Another important goal should be to increase rates of partner notification, as currently more than half of those with symptoms report not informing all their sexual partners.

### 4.8 Knowledge, opinions and attitudes relating to HIV

Knowledge of ways that HIV can and cannot be transmitted was in some cases high among the refugee men and women surveyed and in some cases low. For example, $95 \%$ of respondents knew that they could protect themselves from contracting HIV by being faithful to one uninfected partner, and $92 \%$ knew that HIV could be transmitted from the mother to the child during pregnancy. However, only $80 \%$ knew that they could protect themselves by abstaining from sex, and a surprising $87 \%$ of respondents mistakenly thought that HIV could be transmitted by using the toothbrush of an infected person.

Of the five facts included in the standard composite knowledge indicator, $22 \%$ of all respondents were found to have correct knowledge of all five facts. About half of respondents answered 4 of the 5 questions correctly. The most important fact which was found to be misunderstood concerned condoms as a protective measure. As recommended above, programs should focus not only on increasing awareness of condoms, but including messages about the protective effect against the HIV virus.

The data on attitudes towards people living with HIV (PLHIV) deserves attention. Of those who had heard about HIV, only $7 \%$ held accepting attitudes towards people living with HIV, measured by four questions, including: 1) Would you be willing to care for a family member infected with HIV? 2) Would you be willing to buy fresh vegetables from a shopkeeper who was infected with HIV? 3) Do you think a teacher who is infected with HIV should be allowed to continue teaching? 4) Do you think it should remain a secret if a family member has HIV? In order for HIV interventions to succeed, including counseling and testing, and care and treatment, effort must be made to reduce stigma and discrimination towards PLHIV so that those who need services will avail them.

### 4.9 Exposure and access to interventions

The data show that many messages about HIV are being delivered through various channels, such as radio broadcasts, health clinics, community health workers, schools and television, and that a number of refugees receive these messages. The channels of communication currently used matched well with the forms respondents preferred, with the exception of television, which may be expensive for health programs to access. However, many hold unaccepting attitudes towards PLHIV, and knowledge can be improved on many topics, especially condoms.

Only 6\% of refugee men and women interviewed had had an HIV test in the last 12 months and learned the results. Most of those who had a recent test did learn the results, so an objective of HIV programs should be to increase uptake of HCT services, including increasing awareness of VCCT centers, since $44 \%$ of respondents did not know where to get an HIV test. The data also show that exposure to HIV testing is associated with only a slight increase in knowledge. This suggests that the counseling part of the VCCT may need to be strengthened; for example, $20 \%$ of those who had a test had not heard of a condom.

Condom distribution is already reaching about a quarter of those who reported having multiple sex partners in the past 12 months, and almost half of those who received condoms reported using them at last sex. Thus, increasing distribution may lead to increasing use of condoms, and could be another important goal of intervention programs.

### 5.0 Recommendations

## Data from this survey points to several key areas where HIV interventions could focus to make important impact. Recommendations discussed are summarized below:

- Information, Education and Communication (IEC) materials must be developed for an audience that is not universally literate. Programs that rely on interactive methods to pass on information (peer led education, puppetry) are recommend.
- From an HIV transmission perspective, interaction with the local community and refugees at other camps may not pose much additional risk, as prevalence is assumed to be low in both the refugee and national communities. However, longer trips outside the camp may be associated with high risk behavior in higher prevalence areas.
- High risk sex does not appear to be very prevalent in the camps. For the group of people who do engage in casual or transactional sex (4\% in the sample), interventions could be useful to encourage reduction of the numbers of partners, usage of condoms, and VCCT services. Promoting services through peer networks may be one way to reach people engaged in high risk behavior.
- A third of respondents did not know what a condom was, and only $12 \%$ of sexually active respondents had ever used one. HIV programs should focus on increasing both these indicators. Respondents who knew of condoms but didn't
use them cited the male partner not liking them or not having access to free condoms. Countering such objections with increased free distribution and targeted messages could help reduce barriers to use. Interventions focusing on condom negotiation skills may help individuals convince reluctant partners.
- Although few respondents reported having had sex in exchange for money, gifts or favors, it would be inappropriate to dismiss the risk posed by transactional sex, which is often underreported and is an efficient way of HIV transmission. Qualitative research may help to understand the full extent and nature of transactional sex in the community, and develop responses if warranted.
- Programs to address sexual violence should include training for health professionals about handling such cases, including sensitization to the fact that sexual violence can be perpetrated against men as well as women.
- A review should be conducted to investigate possibilities to strengthen counseling of STI patients to include condom distribution and encouragement of partner notification.
- Attitudes towards PLHIV are generally unsupportive. Awareness campaigns, particularly in younger age groups, may help to create a more positive environment in which other HIV interventions can operate.
- Knowledge of HIV can be improved through IEC campaigns, but it can also be improved through contact with the health care system, particularly with targeted messages during antenatal care, STI treatment, and improved counseling as part of VCCT.
- Condoms should be available in easy-to-access locations across the camp, and distribution can be increased by offering them as part of the contacts with the health care system listed above: antenatal care, STI treatment and VCCT.


### 6.0 References

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## ANNEX A: HOUSEHOLD INFORMATION SHEET

To be completed by team leader

| Serial number of household | Number of eligible people (15-59) in household | Number of participants recruited | Number of participants refused | Reason for household and participant refusal | Household absent |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Date <br> Visit 1 | Date <br> Visit 2 | Date <br> Visit 3 | Absent household recruited |
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## ANNEX B: PARTICIPANT INFORMATION SHEET

(one per household)


To be completed by interviewers recruiting the household

## ANNEX C: ENGLISH QUESTIONNAIRE

## DADAAB HIV BEHAVIORAL SURVEILLANCE SURVEY KENYA NATIONAL AIDS CONTROL COMMISSION (NACC), KENYA NATIONAL AIDS \& STI CONTROL PROGRAMME (NASCOP) \& UNHCR

Serial number of questionnaire
Household serial number


CONSENT FORM
Hello. My name is $\qquad$ and I am an interviewer with the NACC, Ministry of Health and UNHCR. We are conducting a behavioral survey in this community, and requesting people to participate. This will help in developing better health services in your community, especially related to HIV \& AIDS.

Ask the household head for household consent: Your household has been randomly selected and we wish to have permission to interview eligible members of your household.

May we proceed? $\quad$ Yes $\square \quad$ No $\square$
You've been selected randomly and we wish, with your permission, to interview you. Be assured we want to learn from your experience, and all the information we collect will be used to help us fight against AIDS in your community, country and region. Some of the questions asked are of a sensitive nature, however your name will not be recorded. This interview will be completely confidential. That means we will not take your name or any information that could identify you. We ask you to answer our questions honestly and to the best of your ability. The information you give us today will not be used in relation to registration, food distribution or any other services. At any point you can refuse to answer a question or stop the interview without giving any reason.

Your participation in this survey is important and we rely on you to provide us with accurate information that will help us to develop effective activities to fight HIV. The interview will take approximately 30 minutes, and with your cooperation it can be done quickly.

May I have your permission to undertake this interview?
Yes $\quad$
No $\quad$ It would be helpful if you could tell me why you don't want to participate.

Interviewer signature confirming verbal consent was obtained:
$\qquad$ _ _ 2009
Signature of interviewer (witness) Day Month

| IDENTIFICATION |  |
| :---: | :---: |
| COUNTRY .......... | KENYA |
| REGION/ PROVINCE . | DADAAB |
| CAMP/ SURROUNDING AREA ( $\mathrm{Camp}=1$, Surrounding area $=2$ ) | - |
| IDENTIFICATION NUMBER OF CAMP/VILLAGE | ___\|__| |
| CLUSTER NUMBER ........... | - |
| URBAN/ RURAL (Urban = 1, Rural = 2 ) $\ldots \ldots \ldots .$. | -1 |

## NAME AND CODE OF INTERVIEWER



## SECTION I: BACKGROUND CHARACTERISTICS (38 questions)

| N ${ }^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| A. Socio-demographic |  |  |  |
| 101. | Record sex of the respondent | $\begin{aligned} & 1=\text { Male } \\ & 2=\text { Female } \\ & 1 \end{aligned}$ |  |
| 102. | How old are you? <br> Record age in years | Record number of years $99 \text { = DON'T KNOW }$ $\qquad$ |  |
| 103. | In which country were you born? | $\begin{aligned} & 1 \text { = Kenya } \\ & 2 \text { = Rwanda } \\ & 3 \text { = Uganda } \\ & 4 \text { = Somaliland (Somalia) } \\ & 5 \text { = Puntland (Somalia) } \\ & 6 \text { = South Central Somalia } \\ & 7 \text { = Ethiopia } \\ & 8=\text { Congo (DRC) } \\ & 1 \\ & 9 \text { = Burundi } \\ & 10 \text { = Sudan } \\ & 11 \text { = Eritrea } \\ & 12=\text { Other (Specify) } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 104. | What is your current nationality? | ```1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Somali - Somaliland 5 = Somali - Puntland 6 = Somali - South Central 7 = Ethiopian 8 = Congolese (DRC) \|___|__| \(9=\) Burundian \(10=\) Sudanese \(11=\) Eritrean \(12=\) Other (Specify) \(98=\) No answer 99 = Don't know``` |  |
| 105. | Are you currently a refugee? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 106. | What is your religion? | $\begin{aligned} & 1=\text { Catholic } \\ & 2=\text { Protestant } \\ & 3=\text { Orthodox Christian } \\ & 4=\text { Christian }- \text { Other } \\ & 5=\text { Muslim } \\ & 6=1 \\ & 6=\text { Other (Specify) } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 107. | What is the highest level of schooling you have completed? (different from a literacy programme) | ```0 = Have never attended school 1 = Did not complete primary education 2 = Primary 3 = Secondary ____I 4 = College 5 = University \(98=\) No answer 99 = Don’t know``` |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWE |  | SKIP |
| :---: | :---: | :---: | :---: | :---: |
| 108. | How easy is it for you to read a paper written in <br> i. Somali? <br> ii. Amharic? <br> iii. Swahili? <br> iv. English? <br> v. Anuak? <br> vi. Nuer? <br> vii. Acholi? <br> viii. Kinyarwanda? <br> ix. Runyoro? <br> x. Runyankole? <br> xi. Other language? <br> (Hold up a paper written in each language) <br> CIRCLE ONE ANSWER FOR EACH QUESTION | 1 = Easy <br> at all 2 = Difficult <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 <br> 1 2 | $3 \text { = Do not read }$ <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 |  |
| 109. | Do you earn a monthly wage or salary? <br> (different from refugee rations) | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 110. | In what sector do you earn a living? <br> (Only one answer is possible. Record the principal income sector.) | ```0 = None \(1=\) Agriculture \(2=\) Trading 3 = Pastoralism 4 = Transport \|___ \(5=\) Crafts 6 = Private services 7 = Public services 8 = Humanitarian or development group (includes incentive workers) 9 = Other (Specify)``` $\qquad$ ```\[ 98 \text { = No answer } \] \[ 99 \text { = Don't know } \]``` |  |
| 111. | How long have you been living in the community where you currently live? | 1 = Always <br> 2 = Less than 6 months <br> $3=6-11$ months <br> 4 = 1-2 years $\square$ <br> $5=3-5$ years <br> $6=$ More than 5 years <br> $98=$ No answer <br> 99 = Don't Know |  |
| 112. | Refugees only: Cross-check $105=$ Yes <br> How long ago did you leave the country where you were born? | Record number of years $\square$ $99=$ UNKNOWN |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 113. | Refugees only: Cross-check 105 =Yes <br> How many countries have you transited through or lived in since you left your home country, including the country where you currently live? | Record number of countries $\qquad$ $99=$ UNKNOWN |  |
| 114. | (Remind respondent that this interview is confidential and anonymous. Questions relate to HIV \& AIDS.) <br> In the last 12 months have you been away from the community where you currently live for one continuous month or more? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If NO go to 116 |
| 115. | Why were you away from this place for one month or more? | $\begin{aligned} & 1=\text { Employment } \\ & 2=\text { Trade } \\ & 3=\text { Family-related } \\ & 4=\text { Political reasons } \\ & 5=\text { Military-related } \\ & 1 \quad \ldots \quad \text { ___ } \\ & 6=\text { School-related } \\ & 7=\text { In jail } \\ & 8=\text { Health-related } \\ & 9=\text { Holiday } \\ & 10=\text { Religion-related } \\ & 11=\text { Other (specify) } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 116. | How often do you go to the camp/surrounding community to visit? | $0=$ Never <br> 1 = Less than once a month <br> 2 = Once a month <br> \|___|__| <br> 3 = Many times in a month <br> $98=$ No answer <br> 99 = Don't know | If NEVER go to 118 if refugee OR go to 120 if host community |
| 117. | The last time you visited the refugees/ host community, what was your reason? <br> Only one answer can be recorded | ```1 = Employment \(2=\) Trade 3 = Shopping/ Market 4 = Health care 5 = School 6 = Entertainment \|___|__| \(7=\) Food \(8=\) Visit relative/friend \(9=\) Collect firewood \(10=\) Attend religious service 11 = Other (specify)``` $\qquad$ ```\[ 98=\text { No answer } \] \[ 99 \text { = Don't know } \]``` |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 118. | Refugees only: Cross-check $105=$ Yes <br> How often do you go to another Dadaab refugee camp to visit? | $\begin{aligned} & 0 \text { = Never } \\ & 1 \text { = Less than once a month } \\ & 2 \text { = Once a month } \\ & 3 \text { = Many times in a month } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If NEVER go to $120$ |
| 119. | Refugees only: Cross-check 105 = Yes <br> The last time you visited another Dadaab refugee camp, what was your reason? <br> Only one answer can be recorded | ```1 = Employment 2 = Trade 3 = Shopping/ Market 4 = Health care 5 = School 6 = Entertainment \|__|__| 7 = Food \(8=\) Visit relative/friend 9 = Collect firewood \(10=\) Attend religious service 11 = Other (specify)``` $\qquad$ ```\[ 98 \text { = No answer } \] \[ 99 \text { = Don't know } \]``` |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 120. | Have you ever been married? (dowry or registered) | $1=\mathrm{Yes}$ <br> 2 <br> = <br> No <br> $98=$ No answer <br> 99 = Don't know | If NO go to 122 |
| 121. | How old were you when you first married? | Age in years <br> 99 = Don't Know <br> \|_______| |  |
| 122. | What is your current relationship status? | 1 = Currently married <br> 2 = Never married <br> 3 = Divorced/Separated <br> \|___|__| <br> 4 = Widow/ Widower <br> $98=$ No answer <br> $99=$ Don't know | If not currently married go to 124 |
| 123. | Are you in a monogamous or polygamous marriage? | 1 = Monogamous <br> 2 = Polygamous $\qquad$ <br> $98=$ No answer <br> 99 = Don't know |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| No | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 124. | Are you currently living with your spouse or another long-term sex partner? | $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| B. Alcohol and drug use |  |  |  |
| 125. | In the past 4 weeks, how often have you had drinks containing alcohol? | ```1 = Everyday 2 = At least once a week \|___|__| 3 = At least once a month 4 = Never \(98=\) No answer 99 = Don’t know``` |  |
| 126. | In the past 4 weeks, how often have you chewed khat/ miraa? | 1 = Everyday <br> 2 = At least once a week <br> \|___|__| $\square$ <br> 3 = At least once a month <br> 4 = Never <br> $98=$ No answer <br> 99 = Don't know |  |
| 127. | Have you taken any drugs that were not prescribed by a health professional in the past 12 months? (This can include orally, sniffing, injection, or chewing methods for using drugs) <br> Note: A health professional does not include traditional medical practitioners | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If NO go to 131 |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| $\mathbf{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 128. | What drugs have you taken? | 1 = Marijuana <br> $2=$ Khat $/$ miraa <br> \|__| <br> 3 = Heroin <br> \|___| <br> 4 = Opium <br> \|___| <br> 5 = Amphetamines <br> \|___| <br> $6=$ Drugs/herbs from traditional healer $\square$ <br> 7 = Other (Specify) $\qquad$ <br> \|__| <br> $98=$ No answer $\square$ <br> 99 = Don't know $\qquad$ |  |
| 129. | Have you injected any drugs that were not prescribed by a health professional in the past 12 months? <br> Note: A health professional does not include traditional medical practitioners | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If NO go to 131 |
| 130. | Have you used a needle or syringe to inject drugs that were not prescribed by a health professional, that had already been used by another person in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| C. Circu | umcision |  |  |
| :---: | :---: | :---: | :---: |
| 131. | Some men and women have been circumcised, have you been circumcised? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If No, go to 133 |
| 132. | At what age were you circumcised? | Record number of years <br> 99 = DON'T KNOW $\qquad$ |  |
| 133. | If you could choose, would you prefer a sexual partner who was circumcised or not circumcised? | 1 = Circumcised <br> $2=$ Not circumcised $\square$ <br> 3 = Don't know/ no preference <br> $98=$ No answer <br> $99=$ Don't know |  |
| 134. | MEN NOT CIRCUMCISED ONLY: Cross-check 131 = No <br> Would you be interested in getting circumcised if it was affordable and safe? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 1+\quad \mid \quad 1 \\ & 99 \text { = Don't know } \end{aligned}$ |  |

## SECTION I: BACKGROUND CHARACTERISTICS (38 questions) cont....

| D. Military Activity |  |  |  |
| :---: | :---: | :---: | :---: |
| 135. | (Remind respondent that this interview is confidential and anonymous. Questions relate to HIV \& AIDS.) <br> Have you ever been involved in any official or unofficial military, paramilitary or police activities? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If NO go to 201 |
| 136. | For how long were you involved in military, paramilitary or police activities? | 1 = Less than 6 months <br> $2=6$ to 12 months <br> $3=1$ to 2 years $\square$ <br> $4=3$ to 4 years <br> $5=5$ or more years <br> $98=$ No answer <br> 99 = Don't know |  |
| 137. | Are you currently involved in military, paramilitary or police activities? | $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If YES go to } \\ & 201 \end{aligned}$ |
| 138. | How long ago did you leave your military, paramilitary or police activities? | Record number of years <br> If less than one year, record 00 $99 \text { = Don't know }$ $\qquad$ |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions)

| N ${ }^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| A. SEXUAL ACTIVITY |  |  |  |
| 201. | Have you ever had sexual intercourse? <br> (Sexual intercourse is defined as penetrative vaginal or anal sex) | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { IF NO, go to } \\ & 235 \end{aligned}$ |
| 202. | At what age did you first have sexual intercourse? | Age in years <br> $99=$ Don't know |  |
| 203. | The last time you had sex, did you use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| B. REGULAR SEX PARTNERS |  |  |  |
| 204. | Have you had a regular sex partner in the past 12 months? <br> (A regular sexual partner is defined as spouse or live-in sexual partner) <br> Cross check: If $\mathbf{1 2 2}$ does not equal 1, then probe to make sure the definition of "regular partner" is understood | $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \end{aligned}$ | $\begin{gathered} \text { If NO go to } \\ 209 \end{gathered}$ |
| 205. | How many regular partners did you have sex with in last the 12 months? | Record number <br> $98=$ No answer <br> $99=$ Don't know |  |
| 206. | What was the nationality of your most recent regular partner? | $\begin{aligned} & 1 \text { = Kenyan } \\ & 2=\text { Rwandan } \\ & 3=\text { Ugandan } \\ & 4=\text { Somali } \end{aligned}$ |  |

SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions)

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | ```5 = Ethiopian 6 = Congolese (DRC) 7 = Burundian 8=Sudanese 9 = Eritrean 10 = Other (Specify)``` $\qquad$ ```\[ 98 \text { = No answer } \] \[ 99 \text { = Don’t know } \]``` |  |
| 207. | How old was your most recent regular partner? | Record age in years <br> $98=$ No answer <br> 99 = Don't know |  |
| 208. | The LAST TIME you had sex with your regular partner, did you use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

## C. NON REGULAR PARTNERSHIP

| 209. | Have you had sex with a casual partner in the past 12 months? <br> (A casual sex partner is defined as any sexual partner different from the one with whom you live or are married to and from whom you did not receive or give money, gifts or favors for sex) | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ | \|_ـ_|_| | $\begin{gathered} \hline \text { If No go to } \\ 220 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 210. | How many casual partners did you have sex with in last the 12 months? | Record number <br> $98=$ No answer | \|_____| |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | 99 = Don't know |  |
| 211. | What was the nationality of your most recent casual partner? | ```1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Somali \(5=\) Ethiopian \(6=\) Congolese (DRC) 7 = Burundian 8 = Sudanese \(9=\) Eritrean \(10=\) Other (Specify) \(98=\) No answer 99 = Don't know``` |  |
| 212. | How old was your most recent casual partner? | Record age in years $99 \text { = Don't know }$ |  |
| 213. | What was the marital status of your most recent casual partner? | 1 = Currently married <br> $2=$ Never married <br> 3 = Divorced/Separated <br> 4 = Widow/ Widower <br> 5 = Other (Specify) $\qquad$ <br> $98=$ No answer <br> 99 = Don't know |  |

SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 214. | What was the profession of your most recent casual partner? | ```1 = Businessperson \(2=\) Trader 3 = Student 4 = Driver/ Truck driver 5 = Housemaid \(6=\) Pastoralist 7 = Farmer \(8=\) Military, paramilitary, police or security guard 9 = Commercial sex worker \(10=\) Humanitarian or development worker 11 = Unemployed \(12=\) Other (Specify)``` $\qquad$ ```\[ 98 \text { = No answer } \] \[ 99 \text { = Don't know } \]``` |  |
| 215. | The last time you had sex with a casual partner, had you taken any alcohol? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 216. | The last time you had sex with a casual partner did you use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{gathered} \text { If No go to } \\ 218 \end{gathered}$ |
| 217. | Who suggested using a condom the last time you had sex with a casual partner? | $1=$ My partner <br> $2=$ Myself | Go to 219 |

SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| $\mathbf{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 3 \text { = Joint decision } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 218. | What was the main reason you did not use a condom the last time you had sex with a casual partner? <br> Record only one answer | $1=$ No condoms available <br> 2 = Free condoms not available <br> 3 = Too expensive <br> 4 = Partner objected <br> $5=$ Don't like them <br> $6=$ Used other contraceptive <br> 7 = I trust my partner <br> $8=$ Didn't think of using one <br> $9=$ Don't know what condom is <br> $10=$ Want to have a child <br> $11=$ Religious reasons <br> $12=$ Unplanned sex <br> $13=$ Didn't think it was necessary <br> $14=$ Other (Specify) $\qquad$ <br> $98=$ No answer <br> 99 = Don't know |  |
| 219. | In the past 12 months, how often did you use a condom with all of your casual sex partners? | 1 = Every time $\square$ <br> $2=$ Frequently (more than $50 \%$ of the time) <br> 3 = Sometimes (less than $50 \%$ of the time) <br> $4=$ Never <br> $98=$ No answer <br> 99 = Don't know |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| D. TRANSACTIONAL SEXSECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont.... |  |  |  |
| :---: | :---: | :---: | :---: |
| 220. | Have you ever had sex in exchange for money, a gift or a favour? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If No go to 235 |
| 221. | The last time you exchanged sex, was it for money, a gift or a favour? | ```\(1=\) Money \(2=\) Gift 3 = Favour \(4=\) More than one thing (eg: Money and gift, money and favour, gift and favour) \(98=\) No answer 99 = Don't know``` |  |
| 222. | Who was the last person with whom you exchanged sex for money, a gift or a favour? | 1 = Refugee $\square$ <br> $2=$ Person from local community <br> 3 = Military, paramilitary, police or security guard <br> 4 = Humanitarian or development worker <br> 5 = Other (Specify) $\qquad$ <br> $98=$ No answer <br> 99 = Don't know |  |
| 223. | Refugees only: Cross-check 105 =Yes <br> During which period in your life did you exchange sex for money, a gift or a favour? <br> Record all answers | A. Before displacement $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \end{aligned}$ <br> B. = During displacement $1=\mathrm{Yes}$ $2 \text { = No }$ <br> C. = After displacement $1=\mathrm{Yes}$ $2=\mathrm{No}$ |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| 224. | Nationals only: Cross-check 105=No <br> During which period in your life did you exchange sex for money, a gift or a favour? <br> Record all answers | A. = Before refugees arrived $\square$ $1=\mathrm{Yes}$ $2=\mathrm{No}$ <br> B. = After refugees arrived $\qquad$ <br> $1=\mathrm{Yes}$ $2=\mathrm{No}$ |  |
| :---: | :---: | :---: | :---: |
| 225. | Have you had sex in exchange for money, a gift or a favour in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If No go to } \\ & 235 \end{aligned}$ |
| 226. | In the past 12 months, how many partners did you have sex with in exchange for money, a gift or a favour? | Record number $\square$ <br> $99=$ Don't know |  |
| 227. | The last time you exchanged sex, was it for money, a gift or a favour? | 1 = Money <br> $2=$ Gift <br> 3 = Favour <br> 4= More than one thing (example: Money and gift, money and favour, gift and favour) <br> $98=$ No answer <br> $99=$ Don't know |  |
| 228. | Who was the last person with whom you exchanged sex for money, a gift or a favour? | 1 = Refugee $\square$ <br> $2=$ Person from local community <br> 3 = Military, paramilitary, police or security guard <br> 4 = Humanitarian or development worker <br> 5 = UN peacekeeper <br> $6=$ Other (Specify) $\qquad$ <br> $98=$ No answer |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

|  |  | 99 = Don't know |  |
| :---: | :---: | :---: | :---: |
| 229. | How old was the last person with whom you exchanged sex for money, a gift or a favour? | Record age in years <br> $98=$ No answer <br> $99=$ Don't know |  |
| 230. | The last time you exchanged sex for money, a gift or a favour, had you taken any alcohol? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 231. | The last time you exchanged sex for money, a gift or a favour, did you use a condom? | $1 \text { = Yes }$ $2=\mathrm{No}$ <br> $99=$ Don't know | If No go to 233 |
| 232. | Who suggested using a condom the last time you exchanged sex for money, a gift or a favour? | $1=$ My partner <br> $2=$ Myself <br> 3 = Joint decision <br> $98=$ No answer <br> $99=$ Don't know | Go to 234 |
| 233. | What was the main reason you did not use a condom the last time you exchanged sex for money, a gift or a favour? <br> Record only one answer | $1=$ No condoms available <br> 2 = Free condoms not available <br> 3 = Too expensive <br> 4 = Partner objected <br> $5=$ Don't like them <br> $6=$ Used other contraceptive <br> 7 = 1 trust my partner <br> $8=$ Didn't think of using one <br> $9=$ Don't know what condom is <br> $10=$ Want to have a child <br> 11 = Religious reasons |  |

SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

|  |  | 12 = Unplanned sex <br> 13 = Didn't think it was necessary <br> 14 = Other (Specify) $\qquad$ <br> $98=$ No answer <br> $99=$ Don't know |  |
| :---: | :---: | :---: | :---: |
| 234. | In the past 12 months, how often did you use a condom with all of the people with whom you exchanged sex for money, a gift or a favour? | 1 = Every time <br> $2=$ Frequently (more than $50 \%$ of the time) <br> $3=$ Sometimes (less than $50 \%$ of the time) <br> $4=$ Never <br> $98=$ No answer <br> 99 = Don't know |  |
| E. FORCED SEX |  |  |  |
| 235. | Have you ever been forced to have sex against your will? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If No, go to } \\ & 245 \end{aligned}$ |
| 236. | REFUGEE ONLY : Cross-check 105 =Yes <br> During which period in your life were you forced to have sex? <br> Record all answers | A. Before displacement $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \end{aligned}$ <br> B. = During displacement $1=\mathrm{Yes}$ $2 \text { = No }$ <br> C. = After displacement $1=\mathrm{Yes}$ $2 \text { = No }$ |  |
| 237. | Nationals only: Cross-check 105=No <br> During which period in your life were you forced to have sex? <br> Record all answers | A. = Before refugees arrived $\qquad$ $1=\mathrm{Yes}$ $2=\mathrm{No}$ <br> B. = After refugees arrived $\qquad$ |  |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

|  |  | $\begin{aligned} & 1=\mathrm{Yes} \\ & 2=\mathrm{No} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: |
| 238. | Who forced you to have sex? <br> More than one answer can be given. Record all answers | 1 = Regular partner $\qquad$ <br> $2=$ Family member other than regular partner <br> $3=$ Non-family member | If Regular partner or other family member (1 or 2) only, go to 240 |
| 239. | If you were forced to have sex by a non-family member, who forced you? <br> More than one answer can be given. Record all answers | 1 = Refugee $\square$ <br> $2=$ Person from local community $\square$ <br> 3=Military, paramilitary, police or security guard $\qquad$ I <br> 4 = Humanitarian or development worker <br> $5=$ UN peacekeeper <br> $6=$ Other (Specify) $\qquad$ $\qquad$ <br> 99 = Don't know $\square$ |  |
| 240. | Have you been forced to have sex against your will in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If No, go to } \\ & 245 \end{aligned}$ |
| 241. | How many times were you forced to have sex in the past 12 months? | Provide Number $99 \text { = Don’t know }$ |  |
| 242. | Who forced you to have sex? <br> More than one answer can be given. Record all answers | 1 = Regular partner $\qquad$ <br> $2=$ Family member other than <br> regular partner <br> 3 = Non-family member | If Regular partner or other family member only, go to 244 |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| 243. | If you were forced to have sex by a non-family member, who forced you? <br> More than one answer can be given. Record all answers | 1 = Refugee <br> $2=$ Person from local community <br> 3=Military, paramilitary, police or security guard $\square$ - <br> 4 = Humanitarian or development worker <br> $5=\mathrm{UN}$ peacekeeper <br> $6=$ Other (Specify) $\qquad$ $\qquad$ <br> 99 = Don't know |  |
| :---: | :---: | :---: | :---: |
| 244. | How old was the last person who forced you to have sex? | 1 = Older than me <br> $2=$ Younger than me $\square$ <br> 3 = Same age as me <br> $98=$ No answer <br> $99=$ Don't know |  |
| F. ANAL SEX |  |  |  |
| 245. | Have you had anal sex with a man or a woman in the past 12 months? <br> Anal sex includes both penetrative and receptive anal intercourse | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{gathered} \text { If No, go to } \\ 301 \end{gathered}$ |
| 246. | Women only: <br> The last time you had anal sex with a man, did you or your partner use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 247. | Men only: <br> Have you had anal sex with a man in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{gathered} \text { If No, go to } \\ 249 \end{gathered}$ |

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOR (50 questions) cont....

| 248. | Men only: <br> The last time you had anal sex with a man, did you or your partner use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 249. | Men only: <br> Have you had anal sex with a woman in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  | $\begin{aligned} & \text { If No, go to } \\ & 301 \end{aligned}$ |
| 250. | Men only: <br> The last time that you had anal sex with a woman, did you or your partner use a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |

## SECTION III: MALE and FEMALE CONDOMS (11 questions)

| N ${ }^{\circ}$ | QUESTIONS | ANSWERS |  | SKIP |
| :---: | :---: | :---: | :---: | :---: |
| 301. | Have you ever heard of condoms? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  | $\begin{aligned} & \text { If NO, go to } \\ & 401 \end{aligned}$ |
| 302. | What do you think condoms are used for? <br> Unprompted question. Record all answers given. | 1 = Protects against STI/ HIV and AIDS <br> $2=$ Prevents pregnancy <br> 3 = Family Planning <br> 4 = Other (Specify) $\qquad$ <br> 5 = Don't know |  |  |
| 303. | Have you ever used a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  | $\begin{aligned} & \text { If NO, go to } \\ & 308 \end{aligned}$ |
| 304. | Do you know where you can obtain a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \end{aligned}$ |  | $\begin{aligned} & \text { If NO, go to } \\ & 307 \end{aligned}$ |

## SECTION III: MALE and FEMALE CONDOMS (11 questions) cont....

| $\mathbf{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | 99 = Don't know |  |
| 305. | Where do you usually get condoms? <br> Only one answer possible | 1 = Pharmacy <br> $2=$ Health facility <br> $3=$ At the market <br> 4 = From my friends <br> $5=$ At the shop <br> $6=$ Community health worker <br> 7 = Other (Specify) $\qquad$ <br> $98=$ No answer <br> $99=$ Don't know |  |
| 306. | Can you obtain a condom every time you need one? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If YES, go } \\ & \text { to } 308 \end{aligned}$ |
| 307. | What is the main constraint to obtaining a condom every time you need one? <br> Only one answer possible | 1 = Too far away (geographical access) <br> $2=$ Too expensive <br> 3 = Places not open at convenient hours <br> 4 = Not available <br> $5=$ Fear of being seen <br> $6=$ Health worker's attitude |  |

SECTION III: MALE and FEMALE CONDOMS (11 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | 7 = Other (specify) $\qquad$ <br> $98=$ No answer <br> 99 = Don't know |  |
| 308. | Have you ever heard of a female condom? | $1=\mathrm{Yes}$ <br> $2=\mathrm{No}$ $\square$ <br> $98=$ No answer <br> 99 = Don't know | $\begin{aligned} & \text { If NO, go to } \\ & 401 \end{aligned}$ |
| 309. | Have you ever used a female condom? | $1=\mathrm{Yes}$ $2=\mathrm{No}$ <br> $98=$ No answer <br> $99=$ Don't know |  |
| 310. | Would you/your partner be willing to use a female condom if available? | $1=\mathrm{Yes}$ <br> $2=\mathrm{No}$ <br> $98=$ No answer <br> 99 = Don't know |  |
| 311. | Do you know where you can obtain a female condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |

## SECTION IV: SEXUALLY TRANSMITTED INFECTIONS (6 questions)

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 401. | Have you ever heard about diseases that can be transmitted through sexual intercourse? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ |  |
| 402. | Have you had any unusual genital discharge in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ |  |
| 403. | Have you had any genital ulcers or sores in the past 12 months? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ | If NO to both 402 AND 403, go to 501 |
| 404. | During the last time you had genital discharge, ulcer or sore, did you seek treatment? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ | $\begin{gathered} \text { If NO go to } \\ 406 \end{gathered}$ |
| 405. | Where was the FIRST place that you went for treatment? <br> Only one answer possible | $1=$ Public health center <br> $2=$ Private health center <br> $3=$ Traditional healer <br> 4 = Doctor/ nurse / clinical officer <br> $5=$ Pharmacy <br> 6 = Friend or relative <br> 7 = Other (specify) $\qquad$ <br> $98=$ No answer |  |

SECTION IV: SEXUALLY TRANSMITTED INFECTIONS (6 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | 99 = Don't know |  |
| 406. | During the last time you had a sexually transmitted infection did you inform your sexual partner(s)? | $1=\mathrm{Yes}$, all of them <br> $2=$ Some of them, not all <br> $3=\mathrm{No}$, none of them <br> $98=$ No answer <br> 99 = Don't know |  |

## SECTION V: KNOWLEDGE, OPINIONS, and ATTITUDES towards HIV \& AIDS (20 questions)

| $\mathrm{N}^{\circ}$ | QUESTIONS - | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 501. | Have you ever heard of HIV or a disease called AIDS? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{gathered} \text { If NO, go to } \\ 614 \end{gathered}$ |
| 502. | Refugees only: Cross-check: 105=Yes <br> In which community do you think there are more cases of HIV \& AIDS - in your community or the surrounding local community? | $\begin{aligned} & 1=\text { My (refugee) community } \\ & 2=\text { Surrounding local community } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ |  |
| 503. | Nationals only: Cross-check: 105=No <br> In which community do you think there are more cases of HIV \& AIDS - in your community or the refugee community? | $1=$ My (surrounding local) community <br> $2=$ Refugee community <br> $98=$ No answer <br> 99= Don't know |  |
| 504. | Can people protect themselves from HIV infection by staying faithful to one uninfected faithful sex partner? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 505. | Can people protect themselves from HIV infection by using a condom correctly every time they have sex? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 506. | Can people protect themselves from HIV infection by abstaining from sex? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |


| 507. | Can people get infected with HIV through a mosquito bite? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ | \|_ـ_|_| |  |
| :---: | :---: | :---: | :---: | :---: |
| 508. | Can people get infected with HIV by sharing a toothbrush with someone who is infected? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | \|_-_L_| |  |
| 509. | Can people get infected with HIV by having anal sex with a male partner and not using a condom? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |
| 510. | Can a person get infected by HIV by getting injected with a needle that was already used by someone else? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | \|___|_| |  |
| 511. | Can people get infected with HIV by sharing food with someone who is infected? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | \|___| |  |
| 512. | Is it possible for a healthy-looking person to have HIV, the virus that causes AIDS? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | \|___|_|l|l|l|l|l|l|l|l| |  |
| 513. | Can a pregnant woman with HIV \& AIDS, transmit the virus to her unborn child during pregnancy or delivery? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |


| 514. | Can a woman with HIV \& AIDS transmit the virus to her baby during breastfeeding? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ | $\|\quad\| \quad\|\quad\|$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 515. | If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret? | $\begin{aligned} & 1=\text { Yes (keep it secret) } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99=\text { Don't know } \end{aligned}$ |  |  |
| 516. | If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for him or her in your own household? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |
| 517. | If a teacher was infected with the virus that causes AIDS, should he/ she be allowed to continue teaching? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | \|___|_| |  |
| 518. | Would you buy fresh vegetables from a shopkeeper who was infected with the virus that causes AIDS? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |
| 519. | Should young adolescents be taught how to use condoms? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |  |
| 520. | What are the chances that you might get HIV? | ```1 = High chance \(2=\) Moderate chance 3 = No chance 4 = Already infected with HIV \(98=\) No answer 99 = Don't know``` |  |  |

## SECTION VI: EXPOSURE and ACCESS to INTERVENTIONS (16 questions)

| $\mathbf{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 601. | Have you received information on HIV \& AIDS in the past 12 months? | $\begin{aligned} & 1 \text { = Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If No, go to 603 |
| 602. | From what sources have you received information on HIV \& AIDS in the past 12 months? <br> Unprompted question. Record all answers given | Mass media <br> 1 = Radio <br> $2=$ TV/ Video/ DVD <br> 3 = Newspaper <br> $4=$ Poster/pamphlet <br> Health services <br> $5=$ Health facility <br> $6=\mathrm{VCT}$ center <br> 7 = ANC/PMTCT center <br> People <br> $8=$ Community health worker <br> $9=$ Friend <br> $10=$ Family member <br> 11 = Person living with HIV \& AIDS <br> $12=$ Peer outreach worker <br> Other places <br> $13=$ School <br> 14 = Place of worship <br> $15=$ Public meeting <br> $16=$ Others (specify) $\qquad$ |  |
| 603. | From what sources would you prefer to receive information on HIV \& AIDS? | Mass media |  |

## SECTION VI: EXPOSURE and ACCESS to INTERVENTIONS (16 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  | Unprompted question. Record all answers given | 1 = Radio <br> $2=$ TV/ Video/ DVD <br> 3 = Newspaper <br> 4 = Poster/pamphlet <br> Health services <br> $5=$ Health facility <br> $6=$ VCT center <br> 7 = ANC/PMTCT center <br> People <br> $8=$ Community health worker <br> $9=$ Friend <br> $10=$ Family member <br> 11 = Person living with HIV \& AIDS <br> $12=$ Peer outreach worker <br> Other places <br> $13=$ School <br> 14 = Place of worship <br> $15=$ Public meeting <br> $16=$ Others (specify) |  |
| 604. | Do you know a place where a person can be tested for HIV? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98 \text { = No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If No or Don't know, go to 606 |
| 605. | Where can a person be tested for HIV? | 1 = In local community <br> $2=\ln$ refugee camp <br> $3=\ln$ both sites <br> $98=$ No answer <br> 99 = Don't know |  |

## SECTION VI: EXPOSURE and ACCESS to INTERVENTIONS (16 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
| 606. | I do not want to know the results, but have you ever been tested for HIV? <br> (State that you do not want to know the result of the test) | $1=\mathrm{Yes}$ $2=\mathrm{No}$ <br> $98=$ No answer <br> 99 = Don't know | $\begin{aligned} & \text { If No, go to } \\ & 612 \end{aligned}$ |
| 607. | When was the last time you were tested for HIV? | $1=\ln$ the past 12 months <br> $2=1-2$ years ago <br> $3=3$ or more years ago <br> $98=$ No answer <br> 99 = Don't know |  |
| 608. | The last time you were tested for HIV did you yourself ask for the test, was it offered to you and you accepted, or was it required? | $1=I$ asked for the test <br> $2=$ It was offered and I accepted <br> $3=$ It was required <br> $98=$ No answer <br> 99 = Don't know |  |
| 609. | The last time you were tested for HIV did you receive counselling? | $1=\mathrm{Yes}$ $2=\mathrm{No}$ <br> $98=$ No answer <br> 99 = Don't know |  |
| 610. | The last time you were tested for HIV, where did you go to get tested? <br> Only one answer possible. | Public sector <br> 1 = Hospital <br> $2=$ Health post <br> 3 = Health facility government <br> 4 = Clinic/ family planning <br> $5=$ Mobile Clinic <br> Private Sector <br> $6=$ Private hospital/ Clinic <br> 7 = Pharmacy <br> $8=$ Private medical doctor <br> $9=$ Mobile clinic <br> $10=$ Traditional healer <br> 11 = Other (Specify) $\qquad$ <br> $98=$ No answer |  |

SECTION VI: EXPOSURE and ACCESS to INTERVENTIONS (16 questions) cont....

| $\mathrm{N}^{\circ}$ | QUESTIONS | ANSWERS | SKIP |
| :---: | :---: | :---: | :---: |
|  |  | 99 = Don't know |  |
| 611. | I do not want to know the result, but, the last time you were tested for HIV did you obtain the result of the test? <br> (State again that you do not want to know the test result) | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 612. | Would you go for an HIV test in the future? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | $\begin{aligned} & \text { If Yes, go } \\ & \text { to } 614 \end{aligned}$ |
| 613. | What is the primary reason you don't want to go for a test? <br> Only one answer possible | 1 = Don't know where to go for a test <br> 2 = Sure of not being infected <br> 3 = Afraid of the result <br> $4=$ Afraid of the blood taking <br> $5=($ Afraid of) catching an infection <br> $6=$ Fear of stigmatisation <br> 7 = Don't think testing is confidential <br> 8 = Too expensive <br> 9 = Other (Specify) $\qquad$ <br> $98=$ No answer <br> 99 = Don’t know |  |
| 614. | Have you been given condoms in the past 12 months, for example from a hospital, health post, outreach service, drop-in centre or clinic? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ |  |
| 615. | Women only <br> Have you been pregnant in the past 5 years? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don't know } \end{aligned}$ | If No, end interview |
| 616. | Women only <br> When you were pregnant did you go to an ante-natal clinic? | $\begin{aligned} & 1=\text { Yes } \\ & 2=\text { No } \\ & 98=\text { No answer } \\ & 99 \text { = Don’t know } \end{aligned}$ |  |

THAT IS THE END OF THE QUESTIONNAIRE. THANK YOU FOR TAKING THE TIME TO ANSWER OUR QUESTIONS. WE APPRECIATE YOUR HELP.


[^0]:    ${ }^{1}$ The same proportion of men and women reported being in polygamous marriages, which may seem counterintuitive, but may be explained by the age limit for eligibility (no one aged 50 or older was eligible to participate, and older men may be more likely to have multiple wives).

[^1]:    ${ }^{2}$ Respondents were asked about forced sex in each time period: before, during and after displacement, and could indicate more than one time period.

    Forced sex in the past 12 months was reported by 7 respondents, or $0.6 \%$; women were more likely to report recent forced sex (1.0\%) than men ( $0.2 \%$ ), although the difference was not statistically significant ( $p=0.107$ ).

[^2]:    ${ }^{3}$ Denominator for attitudes indicator is smaller than for HIV knowledge. Typically only those who have heard of HIV are included in the attitudes indicator, while all are included in the knowledge indicator (those who do not know of HIV are assumed not to have correct, comprehensive knowledge)

