

# **Behavioural Surveillance Surveys Among Refugees and Surrounding Host Populations**

**Lukole and Lugufu, Tanzania**

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## ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
BSS	Behavioral Surveillance Survey
DRC	Democratic Republic of Congo
FHI	Family Health International
GLIA	Greater Lakes Initiative Against HIV/AIDS
HIV	Human Immunodeficiency Virus
NACP	National AIDS Control Programme
TACAIDS	Tanzania Commission for AIDS
UNHCR	United Nations High Commissioner for Refugees
VCCT	Voluntary Confidential Counseling and Testing

## EXECUTIVE SUMMARY

This report documents the process, results, and recommendations of the Tanzania HIV Behavioral Surveillance Survey (BSS) undertaken in refugee and host communities of western Tanzania at the end of 2005. The Tanzania HIV BSS serves as a baseline source of information for the design of HIV prevention programs in this area, and the strengthening of existing programs. In the future, it will also be used to track changes in HIV-related behaviors in the target populations and in the assessment of HIV prevention program impact.

During October and November 2005, researchers surveyed 2340 households in the Lukole refugee camp and two surrounding villages, as well as Lugufu refugee camp and two surrounding villages. Researchers administered the survey using a standard HIV BSS questionnaire modified to include certain indicators about HIV risk factors specific to forced displacement. Household selection was done using systematic sampling in the refugee camps and cluster sampling in the villages. All members of selected households between 15-49 years old were eligible respondents.

Non-participation rates both across households, and across individuals within households, were low. Across all locations, refusal rates at the household level were minimal though somewhat higher in villages (1% at villages surrounding Lukole; 2% at villages surrounding Lugufu) than in camps (.2% at Lukole camps; .6% at Lugufu camps). Across all locations, among participating households there were only 2 individuals who refused to participate. The percentage of households included in sampling exercises but not interviewed due to abandonment (i.e. unoccupied for at least one month) or extended travel varied between 1-13% depending on location with higher rates in the camps (8% at Ngara, 13% at Lugufu). The proportion of households included in sampling exercises but not interviewed due to repatriation was 11% at Ngara and 5% at Lugufu. In terms of HIV-related behaviours, it is not believed that repatriated, abandoned or extended travel households differed significantly from those that were interviewed though formal study of this question was not possible at the time. At the individual level, within households that participated in the survey, absences of individual members varied between 1-10% depending on location. Individual level absences were mixed between men and women depending on location with no clear trend across genders. Greater numbers of absences in both the camps and the villages were recorded among older (25-49 years) rather than younger (15-24 years) age groups.

The survey collected data on core indicators which are summarized in a table on the last page of the executive summary. The conclusions and recommendations that can be made from these and other results include the following:

### Characteristics of Target Population

In the camp setting at Lukole, 48% of the respondents were male and 52% female. In the villages, 45% were male and 55% female. The distribution of respondents over age groups was very much the same between the camps and villages. In each location, 21% of respondents were 15-19 years old, 19% and 20% were in the 20-24 year age range (camps and villages respectively), and 59% and 60% (camps and villages respectively) were between 25-49 years old. Virtually all respondents from the Lukole A and B camps were Burundian, and almost all respondents in the villages were Tanzanian. At Lugufu, the gender distribution within age groups differed slightly across locations. In both the camps and villages, there was more data from females than males overall. However, at the Lugufu camps, there were slightly more males (30%) than females (24%) in the youngest age group (15-19 years) while at the surrounding villages the data reflect more males (70%) than females (57%) in the 25-49 year age groups and more females (25%) than males (11%) in the 20-24 year age range. The overall age structure of the camp and village populations differed somewhat with 27% of all respondents at Lugufu

camps in the 15-19 year age category and 18% in the surrounding villages. Similar percentages were represented in the 20-24 year age category (18% Lugufu camps; 19% surrounding villages) while the 25-49 year age group was larger in the surrounding villages (62%) than in the camps (55%). As expected virtually all interviewees from the Lugufu camps were Congolese and all but four village respondents were Tanzanian.

Education levels varied according to study site and sub-location (i.e. village or camp). At the Lukole camps, 22% of respondents completed up to primary school in contrast to 57% of those in the surrounding villages. At the Lugufu refugee camps, more respondents had completed secondary school or above (52%) than those for whom primary school was the highest level of schooling completed (29%). In the villages surrounding the Lugufu camps, the majority of respondents (68%) had finished primary school only, with a smaller proportion (7%) having gone on to complete secondary school or above. In the questionnaire used, response categories for the highest level of education attained were mutually exclusive such that the total proportion of respondents who had attained *at least* a primary level of schooling was 31% at the Lukole camps and 63% in surrounding villages, and 81% at the Lugufu camps and 75% in surrounding villages. The vast majority of refugee respondents (70% at Lukole, 84% at Lugufu) did not have any source of cash income. Among those who did, most at Lukole were engaged in agriculture while Lugufu refugees were more typically involved in trade. Greater proportions of village respondents had access to cash income. For both, the main source of income came from the agriculture sector.

Most respondents in all locations reported that they consumed no alcohol in the previous four weeks (62% at Lukole camps and 54% in surrounding villages; 92% at Lugufu camps and 90% in surrounding villages). Even smaller proportions of respondents indicated recreational drug use in the past 12 months (2% in Lukole camps and 4% in surrounding villages; 3% at Lugufu camps and 2% in surrounding villages). Sensitivities to discussing alcohol and drug use may have inhibited some respondents from providing candid information about this practice.

Circumcision rates for men were higher than for women at both survey sites but varied considerably between locations. At Lukole, 22% of males in the camps and 20% of males in surrounding villages were circumcised, compared to 2% of female respondents at both locations. At Lugufu, 93% of males in the camps and 86% of males in the villages were circumcised while 2% of women in the camps and 3% in the villages indicated that they were circumcised.

### Recommendations

- Information, education, and communication activities should be appropriate to the varying educational levels across the project target groups. Activities at Lukole camps should be designed bearing in mind that the majority of participants are likely to have minimal literacy skills. Written materials for refugees at Lugufu may be created for a more literacy-advanced audience.
- Program planners should consider the possibility of introducing HIV/AIDS-related literacy programs targeted for those populations that may most need them.
- As most refugees in both locations have very limited access to cash, and many inhabitants of the targeted villages also have limited incomes, activities should be designed so as to minimize both financial and other burdens (e.g. time and distance to services).
- Recent research on the impact of male circumcision as an HIV preventive measure indicates that program planners should remain aware of efforts in this area and incorporate appropriate information to the target communities. Although female circumcision in the target populations is not common, it should not be ignored and program implementers should likewise include information about the harmful HIV-related health impact of this practice in education and communication materials.

- Although there is relatively little information available about the alcohol and drug consumption practice in the target population, program planners should not assume that these factors do not play a significant role in the establishment of various sexual relationships and HIV-related behaviors. Further investigation in this area is merited. Ideally qualitative methods may yield further insight into the drug and alcohol related practices of the target population and the relationship of these to various sexual relationships and the transmission of HIV/AIDS. It may be especially useful to design such an activity using participatory research methods.
- Even without more detailed information about the drug and alcohol related practices of the targeted population, the information, education, and communication materials designed for this program should highlight the link between alcohol/drug and unsafe sex practices.

#### Displacement, Mobility, and Networking

The vast majority of both refugee and national populations in the survey area had been resident in their communities for 12 months or more. Only 3% of refugees at Lukole, and 1% of refugees at Lugufu had resided there for 12 months or less. At Lugufu, a significantly higher proportion of nationals, relative to refugees, had been resident for 12 months or less, perhaps reflecting higher recent in-migration in the to those communities. In the villages surrounding Lugufu, 7% of respondents had been resident in their community for 12 months or less. The corresponding proportion at Lukole was 3%.

There was little movement of refugees outside of the camps for any extended period of time and fewer than one quarter (22%) of refugees at Lugufu, and only 7% of refugees at Lukole, reported that they had been away from their community for one continuous month or more within the previous 12 months. However, at both camp locations, across both younger (15-24 years and 25-49 years) and older age groups, more males than females had been away for 4 consecutive weeks or longer within the past 12 months. At both locations, most respondents from the host communities had not been absent for long periods. In Lukole, only 12% of respondents had been away for one continuous month or longer within the past 12 months, and in Lugufu the rate was only slightly higher at 17%.

There was fairly minimal visiting of refugees to the surrounding communities reported (70% in Lugufu and 75% in Lukole indicate that they never visit the surrounding community). At Lukole, there was more movement of nationals to camps than vice-versa (43% of nationals and 19% of refugees reported that they visit the other community one or more times per month) while at Lugufu cross-community visiting was also reported to occur among a greater proportion of nationals than refugees, though for both groups the proportions were lower than at Lukole (23% nationals and 17% refugees). In the villages surrounding both the Lukole and Lugufu camps, more males than females in the 25-49 year age group reported that they visited the camps one more more times per month. At the Lugufu camps, this was true for both the 15-24 year and 25-49 year age groups. Across all groups, the most commonly cited reasons for visits were shopping and/or to visit a friend.

#### Recommendations

- Plans for an HIV/AIDS prevention program should consider that although there is some interaction between camp and host community populations, this is limited. Service delivery locations concentrated at in one location (e.g. within a camp) will likely serve the immediate population. Service points should be distributed throughout beneficiary areas so as to be geographically accessible to the greatest number of people.
- Markets are one of the few places where refugee and host community populations meet with any regularity. Project planners should consider markets, especially in the camps, as a potential site for HIV prevention activities that simultaneously target both populations.

### Sexual Intercourse and Sexual Partners

Across locations and sub-populations, the picture of sexual initiation and abstinence among never-married respondents aged 15-24 was varied. A large proportion of never-married respondents aged 15-24 at the Lukole camps and surrounding villages, 56% and 75% respectively, reported that they had never had sex. These proportions were lower in Lugufu, 32% in camps and 56% in villages. At both Lukole and Lugufu, the proportions of unmarried respondents aged 15-24 who had abstained from sex during the 12 months prior to the study were similar to those who had never had sex as described above. At Lukole, 66% of refugees and 77% of nationals (unmarried, aged 15-24) had been abstinent during the previous 12 months. The results at Lugufu were 39% of refugees and 63% of nationals. Among unmarried youth aged 15-24, few had sex with a casual partner (defined as any sexual partner different from the one with whom the respondent lived or were married to and to/from whom the respondent did not receive or give money, gifts or favors for sex) in the previous 12 months at the Lukole locations (4% and 17% in Lukole camps and villages, respectively) while these rates were higher in Lugufu (39% and 20% in Lugufu camps and villages, respectively). Within this age group, there were similar levels of variation across sub-populations in terms of the proportion of respondents (married and unmarried combined) who had higher risk sex (defined as sex with a casual or transactional partner) in the past 12 months (definition of transactional partner provided below). At Lukole, 4% of respondents in camps and 19% of those in villages reported higher risk sex in the previous 12 months while at Lugufu this applied to 40% in camps and 21% in villages. Relatively few respondents of all ages and marital status at Lukole reported having had more than one sex partner (any type) in the previous 12 months (8% refugees; 23% nationals), while proportions at Lugufu were somewhat higher (37% refugees, 30% nationals).

### Recommendations

- Evidence in five countries in Africa has shown that limiting the number of concurrent partners is a primary way that AIDS transmission can be reduced at both a personal and population level. Inasmuch as most respondents, including many youth, in the study site are already sexually active, program efforts should promote preventive practices within existing relationships and inform target populations of the risks of increased numbers of sexual partners. Messages should focus on reducing the number of regular partners and keeping the number of casual sex partners low.

### Condom Use with Regular and Casual Sex Partners

Condom use among both refugees and nationals in both study sites was very low. Among those respondents who had a regular sex partner in the past 12 months, 3% of refugees and 9% of nationals of all ages at Lukole reported that they had used a condom at last intercourse with a regular partner. Within the Lugufu sample populations, only 12% of camp respondents and 8% of those in the surrounding villages who had sex with a regular partner in the past 12 months had used a condom at last intercourse with a regular partner.

In reviewing condom use with casual partners, it is first important to consider the proportion of the population with casual sex partners. There was considerable variation across sub-populations in the proportions who had recently had a casual sex partner. Among Lukole camp respondents of all ages who had ever had sex, 4% reported that they had sex with a casual partner within the past 12 months. Among those in the 15-24 age group, this proportion was 7%. In the villages surrounding Lukole, 19% of respondents of all ages, among those who had ever had sex, reported having had a casual sex partner in the previous 12 months. Among those in the 15-24 age category, the corresponding proportion was 32%. At the Lugufu camps, among those respondents who ever had sex, 36% of all ages, including 49% of those aged 15-24, indicated that they had a casual sex partner within the previous 12 months. In the surrounding villages the corresponding proportions were 24% for all ages, and 30% for the 15-24 year age group.



Condom use at last intercourse with a casual sex partner was low across all ages groups but is of particular concern among those in the 15-24 year age category as this age group included a relatively high proportion of respondents who reported having had a casual sex partner in the past 12 months. At the Lukole camps, 33% of respondents aged 15-24 who had a casual sex partner in the past 12 months reported that they had used a condom at last intercourse with a casual sex partner. The corresponding proportion in the villages surrounding the Lukole camps was 26%. At Lugufu, this applied to 39% in the camps and 28% in the surrounding villages.

Consistent condom use with casual sex partners (defined as using a condom every time with all casual sex partners) was also low. Sixteen percent of Lukole refugee respondents and 24% of nationals had practiced consistent condom use with all casual partners in the last 12 months. At Lugufu, consistent condom use with all casual partners was also very low at 20% and 12% among camp and village respondents, respectively.

### Recommendations

- A key part of future activities must focus on encouraging increased condom use within the target population. As indicated in later analysis the availability of condoms does not seem to be as big a hindrance to use as behavior-related reasons. Prevention activities should include guidance on condom use negotiation within couples, the importance of using condoms with regular partners when either one of the couple has more than one regular partner and/or casual partners, and the critical importance of consistent condom use with all casual partners.
- During program planning, further investigation should focus on better understanding the full range of reasons for which a large proportion of the target population does not use condoms. While survey exercises such as this can highlight the general issues, a more in-depth review of behavior-related hindrances to condom use in particular is warranted.

### Transactional Sex and Condom Use during Transactional Sex

Transactional sex in this study applied to both those who have given and/or received cash and/or gifts for sex. Data from this study indicate that the proportion of respondents who had ever had transactional sex is variable across age groups and locations. Among respondents at Lukole (combined ages), 1% in the camp population and 7% of nationals indicated that they had ever had transactional sex. Within the 15-19 year age group, the corresponding proportions were 1% and 8% of camp and village respondents, respectively. At Lugufu, 20% of all camp respondents and 6% of those from villages had ever had transactional sex. Among 15-19 year olds, this applied again to 20% of respondents in the camp population and 6% in the villages. Analysis indicates that the proportion of 15-24 year old respondents in the villages surrounding the Lukole camps who had ever had transactional sex (10%) compared to those in the 25-49 year age group (6%) was significantly different highlighting a possible growing concern for younger persons in particular.

Across both locations and all age groups, most respondents who ever had transactional sex reported that they had experienced transactional sex within the past 12 months, indicating an on-going risk behavior. Among 15-24 year old respondents .3% in Lukole camps, 9% in villages surrounding Lukole, 16% in Lugufu camps and 3% in villages surrounding Lugufu had experienced transactional sex in the past 12 months. Variation across locations was observed in terms of the difference in proportions of respondents who reported transactional sex in the past 12 months based on gender. At both the Lugufu camps and surrounding villages, a greater proportion of males than females reported transactional sex in the past 12 months in the 15-24 age year group (21% of males and 12% of females, Lugufu camps; 8% of males, 1% of females, Lugufu surrounding villages), which were statistically significant differences. At Lukole, significant differences between genders for this variable did not exist, according to the results obtained.

Condom use at last intercourse with a transactional sex partner, among those who had experienced transactional sex in the past 12 months, was not reported among Lukole refugees, and was 37% among Lukole nationals, 44% among Lugufu refugees, and 25% among Lugufu nationals. Condom use was higher for transactional sex compared to condom use with regular or casual partners for all ages combined, but in the 15-24 age group this was variable across locations, and there was clearly still room for a substantial increase. In this age group, there was also variation in the proportion of males compared to females who reported using a condom at last transactional sex, depending on location. In surrounding villages at both Lukole and Lugufu, a larger percentage of females than males reported condom use at last transactional sex (39% females and 33% males, surrounding villages Lukole; 33% females and 22% males, surrounding villages Lugufu) while at the camps in Lugufu this trend was reversed (49% males, 35% females).

### Recommendations

- Transactional sex is a form of exploitation and program activities should aim to minimize this practice to every extent possible. Such efforts may take a variety of forms focused on both parties in such transactions and factors in the general environment that facilitate transactional sex. While all age groups should be targeted for such activities, special attention should be paid to the youngest age groups.
- Program activities that promote the use of condoms should highlight the critical importance of correct and consistent condom use with transactional sex partners. As many of the reasons associated with the non-use of condoms in such relationship are behavioral, HIV prevention programs should find effective means of helping affected persons in the target population to overcome behavior-related barriers to consistent condom use.

### Forced Sex

Reporting of forced sex (defined as forced to have sex against one's will) within the Lukole study populations, both in the camp and villages, was relatively low. At the Lukole camp, 3.5% of respondents discussed ever having experienced forced sex, among whom approximately 13% (equivalent to .7% overall) reported such an experience within the past 12 months. Most commonly, camp respondents indicated that they had experienced forced sex violence after displacement. Within the surrounding villages at Lukole, only 2% indicated that they had ever experienced forced sex, among whom 29% (equivalent to .7% overall) had experienced this within the past 12 months. Nationals reported most frequently that the forced sex had occurred after the arrival of refugees. At Lugufu, 10% of refugees and 4% of nationals said that they had ever been forced to have sex against their will. As with Lukole, such incidents appear to be spread out over time inasmuch as less than 50% (45% at Lugufu camps and 53% in surrounding villages) of those who had ever experienced forced sex (equivalent to 3% in Lukole camps and 1% in surrounding villages, overall) reported that they had been forced to have sex within the past 12 months. Again, most responses highlight forced sex having occurred after displacement (for refugees) or after the arrival of refugees (for nationals).

### Recommendations

- There is a clear and documented link between forced sex and the risk of HIV transmission. Program planners should further investigate the prevalence of forced sex within the target population and integrate efforts to prevent forced sex and address the health needs of forced sex survivors. This may take a variety of forms including prevention sensitization activities at the community level and response measures geared to addressing the needs of those who have experienced forced sex. Within the latter, such methods should include post-exposure prophylaxis.

### Sexually Transmitted Infections

The majority of respondents at both Lukole and Lugufu had heard about sexually transmitted infections (STIs); 94% Lukole camps and 92% Lukole villages; 95% Lugufu camps and 91% Lugufu villages).

Direct experience of ever having experienced STI symptoms (defined as unusual genital discharge and/or genital sores or ulcers) was relatively low across all settings; 4% to 9% percent depending on location and symptom description. Among respondents who had experienced an STI in the past 12 months, the majority first sought treatment at a private or public health facility (90% Lukole camps and 63% Lukole villages; 57% Lugufu camps and 87% Lugufu villages). Among those who had an STI within the past 12 months, the proportion who informed all partners was uneven and insufficient across locations, ranging from 43% to 73%.

### Recommendations

- Inasmuch as this study has not focused in-depth on the measurement of STI rates, it is possible that STIs are more widespread than the results would indicate. As well, the study has not looked closely at the diagnostic and treatment practices in place. Program planners should more thoroughly research specific STI prevalence rates and the impact of current treatment practices in order to incorporate any improvements needed in this area.
- The practice of informing all partners when diagnosed with an STI is an important measure in efforts to reduce STI transmission and can help minimize the potential impact this HIV co-factor. Program efforts should incorporate guidance and support to target beneficiaries in prompt disclosure of STIs to all partners with consequent treatment.

### Knowledge about and Access to Condoms

Results indicate that the vast majority of respondents had heard about condoms and most people identified condom use as a means of HIV prevention. Nevertheless, as noted above, condom use with various sex partners was low across all study sites. At Lukole, of those who had ever heard of condoms, only 8% of camp respondents and 15% in villages had ever used one. At Lugufu these rates were higher than Lukole but still quite low (25% in camps and 20% in the villages). The data indicate that the majority of respondents knew where to obtain a condom and had few practical constraints in obtaining them. Still, the low condom usage rates are of concern.

### Recommendations

- Inasmuch as the vast majority of respondents in both study locations already know about condoms and report that they are able to obtain them when needed, program efforts should focus on more specifically determining why the target population remains reluctant to use them. Structural causes in the environment such as the distance to and operating hours of condom supply outlets should be addressed through a diversification and increase of condom sources. However, more attention should be focused on ways to encourage the adoption of regular condom use especially in high-risk situations of multiple partners, casual partners, and transactional sex where condom use is reportedly low. This can be addressed at the individual level through interventions such as peer education and focused counseling by health providers, as well as at the community level through information, education, and communication efforts specifically focused on reducing stigma related to condom use.

### Knowledge, Opinions, and Attitudes towards HIV/AIDS

In both study sites and among both the camp and village respondents, knowledge about the modes of HIV transmission and prevention methods was high as measured on individual questions. Among 15-24 year old respondents at both the Lukole camps and the surrounding villages, the proportion of male and female respondents' who could correctly answer any one of knowledge-based questions ranged from 77%-98%. Measures of correctly rejecting misconceptions about HIV were generally lower than knowledge measures, depending on the question and ranged between 62%-91%. Comprehensive correct knowledge of HIV/AIDS defined by five selected questions (see core indicator 12 below for further definition), was recorded for 35% of respondents 15-24 years old in the Lukole camps, and 48% of those in the surrounding villages. In general the proportion of respondents at Lukole who expressed

supportive attitudes towards persons living with HIV/AIDS and HIV prevention indicated a mix of sentiments depending on the issue. Within the Lukole camps, the proportion of respondents expressing supportive attitudes was 64%-81%, with the lowest support shown on the questions “if a teacher was infected with the virus that causes AIDS, should he/she be allowed to continue teaching?” (64% indicated yes) and “if a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret?” (66% said no). At the surrounding villages, supportive attitudes were expressed by between 47%-83% of respondents depending on the question. For the questions mentioned above, the proportions showing supportive attitudes were 47% and 83% respectively. As such, there was variation of sentiment both across locations on some issues, and within locations depending on the question. Relatively few respondents (23% in the camps; 27% in surrounding villages) expressed supporting attitudes on all four selected attitude questions.

Among 15-24 year old respondents at the Lugufu camps and surrounding villages, the proportion of male and female respondents' who could correctly answer any one of knowledge-based questions ranged from 69%-94%. As in Lukole, rejection of common misconceptions was expressed by lower proportions of respondents in this age group compared to questions measuring correct knowledge (57%-85% across the camps and villages combined). Although the proportion of respondents who correctly answered any one question was high, comprehensive knowledge of HIV/AIDS measured by the composite of five selected questions as described above was low: 26% in camps and 24% in villages. As was the case in Lukole, a wide variety of responses with regard to attitudes supportive of people living with HIV/AIDS was recorded among 15-49 year old respondents, ranging from 34%-74% in the camps and 39%-88% in the villages. Indicative of this variation, there were few respondents in either community who expressed supporting attitudes on four selected questions (9% in the camps; 24% in the villages).

### Recommendations

- Despite relatively high knowledge levels on individual questions, efforts to keep target populations well-informed about the modes of HIV transmission and means of prevention should continue with the goal of increasing comprehensive correct knowledge and the rejection of common misconceptions. More emphasis should be placed on dispelling common misconceptions about HIV through specifically targeted information, education, and communication campaigns. As well, efforts should be made to enhance supportive attitudes for persons living with HIV/AIDS in order to reduce stigma and encourage the support of those living with the illness. Program plans should early on incorporate community opinion leaders who can help to address many of the attitude-related issues include the instruction of youth in the use of condoms.

### Exposure and Access to Interventions

In both the Lugufu camps and villages, respondents reported that their current sources of information about HIV/AIDS reflect their preferred sources of information. Within the camps, the most commonly noted sources were radio, health facilities, and community health workers. Village respondents more frequently mentioned TV and video as both current and preferred sources of information about HIV/AIDS. At Lukole, both village and camp respondents identified radio messages as a source of current HIV/AIDS-related information. Camp respondents also mentioned health facilities and voluntary confidential counseling and testing centers more frequently than village respondents. In terms of preferred source, radio again featured in both village and camp responses as well as newspapers, though noted by a smaller percentage. Both groups also wanted to continue receiving information through health facilities and community health workers. Generally, knowledge about where one could go for HIV testing was higher in the camps (83% at Lukole camps, 84% at Lugufu camps) than in the villages (68% Lukole villages, 74% Lugufu villages). Actual testing was also higher in the camps than the villages. At Lukole, 32% of respondents in camps, compared to 15% in the surrounding villages

reported that they both had an HIV test in the past 12 months and received the results. At Lugufu, this applied to 18% of camp respondents and 10% in the surrounding villages.

### Recommendations

- Program plans for information-related efforts should take into account the noted preferences in each of the locations. These focus mainly on media outlets and health services.
- Although many respondents knew where to go for an HIV test, efforts should be made to ensure that the target population at all locations is aware of existing testing site options. As actual testing rates are not uniformly high, there may be need to expand testing site and/or to make more accessible the existing testing sites, especially in the villages.
- As most women in both camps and villages do receive antenatal care when pregnant, HIV testing and/or information about testing should be emphasized during antenatal visits with attention to involving male partners as effectively as possible.

### CORE INDICATORS

Indicator	Lukole (Ngara)		Lugufu (Kigoma)		
	Camps	Villages	Camps	Villages	
<b>Sexual behavior</b>					
1. Never-married young people aged 15-24 who have never had sex	Male	66% (87/131)	79% (79/99)	21% (29/141)	65% (60/92)
	Female	45% (55/123)	71% (68/96)	52% (42/81)	48% (53/111)
	Total	56% (142/254)	75% (147/195)	32% (71/222)	56% (113/203)
2. Never-married young people aged 15-24 who have abstained from sexual intercourse for the past 12 months	Male	78% (87/112)	81% (79/98)	29% (36/123)	70% (60/86)
	Female	53% (55/104)	72% (68/94)	56% (42/75)	57% (54/95)
	Total	66% (142/216)	77% (147/192)	39% (78/198)	63% (114/181)
3. Sex with a non-regular partner in the last 12 months among men and women aged 15-24	Male	3% (4/156)	19% (26/137)	50% (85/169)	18% (21/115)
	Female	5% (11/202)	16% (31/190)	28% (48/172)	21% (48/234)
	Total	4% (15/358)	17% (57/327)	39% (133/341)	20% (69/349)
4. Sex with a transactional partner in the last 12 months among men and women aged 15-24	Male	0	7% (9/136)	21% (35/167)	8% (9/114)
	Female	.5% (1/201)	10% (19/191)	12% (20/169)	1% (3/232)
	Total	.3% (1/356)	9% (28/327)	16% (55/336)	3% (12/346)
5. Higher risk sex in the last 12 months among men and women aged 15-24  (Percent of men and women aged 15-24 who reported having sex with a non-marital, non-cohabitating partner in the past 12 month)	Male	3% (4/156)	19% (26/137)	53% (89/169)	22% (25/115)
	Female	5% (11/202)	19% (36/191)	28% (48/172)	20% (48/234)
	Total	4% (15/358)	19% (62/328)	40% (137/341)	21% (73/349)
6. Condom use at last sex with a non-regular partner among men and women aged 15-24	Male	75% (3/4)	29% (7/24)	36% (31/85)	38% (8/21)
	Female	18% (2/11)	23% (7/30)	44% (21/48)	24% (11/46)
	Total	33% (5/15)	26% (14/54)	39% (52/133)	28% (19/67)

7. Condom use at last sex with a transactional partner among men and women aged 15-24	Male	0	33% (3/9)	49% (17/35)	22% (2/9)
	Female	0	39% (7/18)	35% (7/65)	33% (1/3)
	Total	0	37% (10/27)	44% (24/56)	25% (3/12)
8. Condom use at last high risk sex among men and women aged 15-24  (Percent of men and women who say they used a condom at last sex with a non-marital, non-cohabitating partner, of those who had sex with such a partner in the last 12 months)	Male	75% (3/4)	28% (7/25)	36% (32/89)	32% (8/25)
	Female	9% (1/11)	31% (11/35)	44% (21/48)	24% (11/46)
	Total	27% (4/15)	30% (18/60)	39% (53/137)	27% (19/71)
9. More than one sex partner in the past 12 months among men and women aged 15-49	Male	11% (45/423)	27% (99/372)	50% (176/352)	36% (136/381)
	Female	6% (25/452)	20% (89/446)	26% (106/409)	27% (147/548)
	Total	8% (70/875)	23% (188/818)	37% (282/761)	30% (283/929)
<b>HIV testing</b>					
10. Had an HIV test in the past 12 months and received the results, among men and women aged 15-49	Male	31% (129/423)	16% (61/372)	19% (66/352)	10% (38/381)
	Female	34% (299/452)	14% (64/446)	17% (69/409)	11% (57/548)
	Total	32% (282/875)	15% (125/818)	18% (135/761)	10% (95/929)
<b>STI health facility utilization</b>					
11. Had an STI symptom in the past 12 months and sought treatment at a health facility, among men and women aged 15-49	Male	100% (11/11)	50% (5/10)	50% (11/22)	88% (14/16)
	Female	78% (7/9)	71% (12/17)	63% (20/32)	86% (12/14)
	Total	90% (18/20)	63% (17/27)	57% (31/54)	87% (26/30)
<b>Knowledge, attitudes and misconceptions</b>					
12. Comprehensive correct knowledge of HIV/AIDS among men and women aged 15-24, including: (1) Know condoms prevent HIV; (2) know sex with only one partner prevents HIV; (3) do not think mosquitoes transmit HIV; (4) do not think sharing food transmits HIV; (5) knows healthy-looking person can have HIV	Male	33% (52/156)	44% (60/137)	25% (42/169)	32% (37/115)
	Female	36% (73/202)	50% (96/191)	26% (45/172)	35% (82/234)
	Total	35% (125/358)	48% (156/328)	26% (87/341)	34% (119/349)
13. Accepting attitudes towards PLWH/A among men and women aged 15-49 including: (1) would be willing to care for a family member sick with AIDS; (2) would buy fresh vegetables from a shopkeeper with HIV; (3) feel a teacher with HIV should be allowed to continue working; (4) does not feel that it should be kept a secret if a family member had HIV	Male	24% (98/404)	30% (103/349)	10% (33/322)	24% (87/360)
	Female	22% (95/431)	26% (109/425)	8% (31/382)	24% (129/532)
	Total	23% (193/835)	27% (212/774)	9% (64/704)	24% (216/892)
<b>Additional indicators for displacement situations</b>					
14. Percent of women aged 15-49 who were forced to have sex in the past 12 months		.7% (3/452)	.7% (3/446)	3% (11/409)	1% (7/548)
15. Residing in community for 12 months or less among men and women aged 15-49	Male	1% (4/423)	3% (11/372)	.28% (1/352)	6% (23/381)
	Female	5% (24/452)	6% (25/446)	1% (5/409)	7% (40/548)
	Total	3% (28/875)	4% (36/818)	1% (6/761)	7% (63/929)

16. Have been away from home for four or more weeks in the past 12 months, among men and women aged 15-49	Male	9% (39/420)	14% (51/368)	34% (119/352)	19% (74/380)
	Female	4% (18/447)	11% (48/443)	13% (51/408)	14% (79/547)
	Total	7% (57/867)	12% (99/811)	22% (170/760)	17% (153/927)
17. Visit the surrounding community one or more times a month, among men and women aged 15-49	Male	21% (88/423)	46% (170/372)	24% (84/352)	28% (105/381)
	Female	18% (82/452)	41% (183/446)	10% (42/409)	19% (105/548)
	Total	19% (170/875)	43% (353/818)	17% (126/761)	23% (210/929)

## 1.1 Background to the Tanzania HIV Behavioral Surveillance Survey

The Tanzania HIV Behavioral Surveillance Survey (BSS) is one in a series of surveys undertaken by UNHCR and its partners in six African countries as part of the Great Lakes Initiative on AIDS (GLIA). The Great Lakes Initiative on AIDS (GLIA) was born as a health sector-driven working relationship between the Ministries of Health of the 6 countries in the Great Lakes Region of Africa - *Burundi, Democratic Republic of Congo, Kenya, Rwanda, Tanzania and Uganda* – in 1997. GLIA was launched as a regional initiative by UNAIDS in 1999 and focused, during its initial stages, on a series of pilot HIV and AIDS prevention programmes amongst transport sector workers. Over time, the GLIA developed a multisectoral HIV and AIDS focus when it was agreed that the 6 countries in the Great Lakes region would, as of May 2003 onwards, collaborate through the 6 National AIDS Commissions (NACs in the Anglophone countries and CNLSs in the Francophone countries) in the 6 GLIA countries. After this agreement, it was set up as a sub-regional development institution with an HIV and AIDS focus in July 2004 when all 6 GLIA countries signed the GLIA Convention. By the end of February 2005, the parliaments and cabinets of each of the 6 GLIA member countries ratified the set up of this regional institution. The mission of the GLIA is to contribute to the reduction of HIV infections and to mitigate the socio-economic impact of the epidemic in the Great Lakes Region by developing regional collaboration and implementing interventions that can add value to the efforts of each individual country.

The World Bank is funding the first of the GLIA's projects since its creation as a regional institution (field with the African Union and the United Nations). The World Bank-funded GLIA Support Project includes support to selected refugee camps and areas surrounding the camps to improve HIV/AIDS prevention, care and treatment. The Tanzania HIV BSS serves as a baseline source of information for program design. In the future, it will also be used to track changes in HIV-related behaviors in the target populations and in the assessment of HIV prevention program impact. The specific objectives of the survey were:

1. Establish baseline behavioral baseline data among refugees and surrounding host populations in two refugee sites and surrounding populations that will be targeted through GLIA-funded HIV and AIDS interventions in Western Tanzania.
2. Estimate the level and factors of interaction between refugees and surrounding host population.
3. Improve the understanding of HIV risks and behaviours during the displacement phase among the refugee population.
4. Provide information on behavioral trends in the same catchments areas where HIV sentinel surveillance site data are being tracked.
5. Provide information to help guide program planning.
6. Establish baseline data to allow for future evaluation of the HIV interventions.
7. Obtain data in a standardized format, which will enable comparison with other behavioral surveillance studies, carried out in other GLIA countries.

UNHCR and the Tanzanian Ministry of Health National AIDS Control Programme (NACP) serve as the lead organizations for this study, with important support from the Tanzania Commission for AIDS (TACAIDS). UNHCR contracted an outside consultant to lead the survey exercise with the support of both local and Geneva-based UNHCR staff, NACP and TACAIDS GLIA focal persons, and local UNHCR implementing partner NGOs. UNHCR implementing partners included Norwegian Peoples Aid and Tanzanian Red Cross Society. The survey took place during six weeks in October-November 2005 and focused on two main locations in Western Tanzania for a three-week period per area. In each location the survey was conducted in one camp area and two surrounding villages. During the first three weeks, the survey was undertaken in Ngara District at the Lukole refugee camps, and Kasulo and Nyamahwa villages. Immediately after completing the exercise at Ngara, the survey started in the Lugufu refugee camp, and Uvinza and Kazulamimba villages. The dataset includes information from a



total of 3395 men and women aged 15-49, including 1695 from the Ngara camps and surrounding villages, and 1700 from the Lugufu camps and surrounding villages.

The survey design and questionnaire used are based on the BSS model developed by Family Health International (FHI). The data collected includes information on the population's background characteristics, sexual history and HIV-related risk behaviors including condom use, sexually transmitted infections, knowledge and attitudes towards HIV/AIDS, and exposure and access to HIV prevention measures and VCCT. As well, this survey expands on the BSS model by including a series of questions that identify characteristics related to displacement, networking, and mobility. A copy of the questionnaire is provided in Appendix V. Further detail about study design and survey exercise implementation is provided in the methodology section of this report. The report is organized into five main components. In addition to the introduction, there are sections covering methodology, results, and recommendations. Because the data come from two different sites, results are presented in two separate sections. The final recommendations section synthesizes program considerations from both sites.

## 1.2 Survey Context

As of June 2005, Tanzania was host to over 400,000 Burundian and 150,000 Congolese refugees, as well as a smaller number of Rwandans.<sup>1</sup> The Lukole and Lugufu refugee camps are located at opposite ends of a string of camps running along western Tanzania's borders with Burundi and the Democratic Republic of Congo (DRC). A map of the study area is found in Appendix I. The Lukole camp is located in Ngara District (Kagera region) and consists of two sub-camps, Lukole A and Lukole B which are about 7 km apart. Together, the Lukole camps support a total of 15,153 Burundian refugee households (61,398 persons) according to UNHCR estimates at the time of fieldwork. The population at the Lugufu camp, located in Kigoma District (Kigoma region), is similarly divided into Lugufu A and Lugufu B which are geographically adjacent. The population in the Lugufu camps is Congolese, and is estimated to be 22,968 households (94,417 persons). Refugees in both Lukole and Lugufu camps are limited in their movement outside the camps by local authority restrictions. Although the security situation in and around the camps is stable, incidents have occurred prompting local officials to promote repatriation option as an option, especially in the Lukole camps. Repatriations were on-going in both camp sites at the time of the study.

In the Ngara study area, Kasulo village consists of 9 sub-villages with a total of 1,745 households (11,003 persons). Kasulo lies approximately 15 km from the Lukole refugee camps. Nyamahwa village consists of 5 sub-villages with a total of 1,089 households (8,217 persons) and is 30 km away from Lukole. The populations in both locations are largely engaged in subsistence agriculture. The main ethnic groups in the surrounding villages at Ngara are Hangaza, Basubi, and Washubi. Smaller numbers of Nyambo and Haya have migrated to the area, especially for trading.

At Lugufu, Uvinza and Kazulamimba village are composed of 12 and 11 sub-villages respectively. Approximately 2109 households live in Uvinza while Kazulamimba is slightly larger at 2660 households. Each village lies about 25 km from the Lugufu camp area. As in the villages surrounding Lukole, the populations of Uvinza and Kazulamimba derive their livelihoods mainly from agriculture. There is also a large salt mine at Uvinza. The villages surrounding Lugufu are home to the Ha. As in the rest of the country, the different ethnic groups included in the study area speak Swahili as a common language.

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<sup>1</sup> United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Consolidated Appeals Process (CAP): Mid-Year Review of the Humanitarian Appeal 2005 for Great Lakes. 23 June 2005. Available at: [www.reliefweb.int](http://www.reliefweb.int).

According to the 2003-04 Tanzania HIV/AIDS Indicator Survey, the country's first cases of AIDS were diagnosed in the Kagera region in 1983. The epidemic spread quickly and it is today estimated that nationally 7% of Tanzanians aged 15-49 are HIV-positive. The Tanzania HIV/AIDS Indicator Survey included HIV testing and among those respondents who consented to testing, 2% in Kigoma region and 3.7% in Kagera region were HIV positive.<sup>2</sup> There is no readily available HIV prevalence data specific to the villages or camps in this study. However, according to UNHCR's information for 2005, for all of the camp populations in western Tanzania, HIV rates are estimated to be 3.6% among antenatal attendees, 5.6% among blood donors, and 3% of VCCT clients.<sup>3</sup>

## 2.0 METHODOLOGY

### 2.1 Sample Size

As per the study protocol, the sample size was determined on the basis of prevalence measures for 2 key HIV-related behavioral indicators:

1. 50% of youth aged 15-24 in the target populations reporting the use of a condom during last sexual intercourse with a non-regular sexual partner.
2. 50% of respondents 15-24 years of age within the target population who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention

The sample size was determined using the two-sample formula to measure change of at least 15% between the baseline and final surveys, with a precision level of .05, power of .20, difference in proportions of 15% and initial prevalence of the above indicators 50%. A design effect of 2 was applied to accommodate the use of cluster sampling. The formula and other details are provided in appendix II. The overall target number of persons to be interviewed was determined to be 3,200 broken down between 1,600 in Ngara (800 total in the Lugufu camps, 800 total in the two surrounding villages) and 1,600 in Kigoma (800 total in the Lugufu camps, 800 total in the two surrounding villages). In the field, the following sampling results were realized:

Table 1: Summary Total Households Sampled and Questionnaires Completed, per Location

Location	Total HH sampled	Total questionnaires completed
Lukole A	437	889
Lukole B	315	(combined)
Nyamahwa	173	294
Kasulo	243	527
Lugufu 1	456	643
Lugufu 2	188	159
Uvinza	250	485
Kazulamimba	278	456
<b>Total</b>	<b>2340</b>	<b>3453</b>

<sup>2</sup> Tanzania Commission for AIDS (TACAIDS), National Bureau of Statistics (NBS), and ORC Macro. 2005. *Tanzania HIV/AIDS Indicator Survey 2003-04*. Calverton, MD., USA: TACAIDS, NBS, and ORC.

<sup>3</sup> UNHCR. Brief on the Reproductive Health Situation of the Refugees in Western Tanzania 2005.

## 2.2 Sampling Methodology

Two sampling methods were used to create the study sample, both with the household as the sampling unit. In the camps, UNHCR household listings were the basis of a systematic sampling exercise. UNHCR creates these listings from commodity distribution records and provided them to the study team separately for each sub-camp (i.e. separate lists for Lugufu 1, Lugufu 2, Lukole A, and Lukole B). The number of households sampled per sub-camp was proportional to the total number of households in the sub-camps.

It should be noted that two main factors necessitated re-sampling from these lists in order to achieve the required number of questionnaires. First, the repatriation exercises at the time of the survey resulted in many abandoned households, especially in the Lukole camps. Second, UNHCR staff verify the registration list on the basis of the physical presence of the head of household and his/her dependents and does not do a 100% check of the registrants' dwellings. In some cases, refugees had shifted to other parts of the camp. In Lukole, interviewers were unable to locate many of the households in the original sample. For the purposes of the survey, interviewers were instructed not to replace abandoned households. Instead, as additional households were selected from the same household listing after removing the initial sample from that list. On-going repatriation exercises at both Lukole and Lugufu camps are voluntary. According to UNHCR and NGO field staff familiar with the situation, there are no specific characteristics that distinguish those who repatriate from those who have not yet done so. There is therefore no known indication of selection bias in the camps samples due to repatriation.

The survey teams used cluster sampling to select households in the villages. Within each village, a target number of households per sub-village was determined, proportional to size. Interviewers familiar with the sub-villages first identified the most geographically central point within the sub-village and a direction in which to start was randomly selected. Interviewers enumerated all households along this line until the boundary of the sub-village 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. Interviewers did not replace abandoned households. Interviewers repeated this process until the number of required questionnaires per sub-village was obtained. Design effects were calculated for each of the core indicators and found to range between .15 and 2.6 though this was possible using only the data from Ngara villages. Given that the number of sub-villages in Lugufu was higher than in Ngara, it is not expected that the design effects for core indicators at Lugufu would have been larger than was calculated for Ngara.

## 2.3 Interviewer Selection and Training

In the camps, UNHCR field staff coordinated with the relevant implementing partner NGOs to identify suitable interviewers. In the villages, district health authorities in Ngara and Kigoma were responsible for interviewer selection in their respective areas. The same selection criteria applied for interviewers in both the refugee camps and villages. The criteria for their recruitment were:

1. 40 refugees and 40 locals (per location Ngara and Kigoma), so enabling refugees to be interviewed by refugees and locals by locals
2. Sex (gender balance)
3. Literacy in Swahili (Lugufu and Local population) Kirundi (Ngara)
4. Training background/Education: social workers, community health workers, students, community services, teachers, health workers, preferably with prior survey experience

In each location, the consultant implemented a 2-3 day training that covered the following topics:

1. Introductions

2. Background to survey
3. General logistics
4. Roles and responsibilities
5. Briefing on HIV/AIDS
6. Eligibility and consent process
7. Questionnaire
8. Household selection
9. Role play

## 2.4 Interview Team Structures and Supervision Mechanisms

The design of the interview team structure for each location included one 36-person interview team for the camp (covering both sub-camps) and another 40-person team for the two surrounding villages. Each team of 36 interviewers was broken into three smaller teams of 12 persons. Those 12 interviewers were organized into 6 pairs with each pair including one male and one female to the extent possible. A team leader, selected from the pool of interviewers, was assigned to each 12-person team. Each set of team leaders was in turn monitored by a site supervisor. The site supervisors in the refugee camps came from the staff of UNHCR implementing partner NGOs. Site supervisors for the villages were district health staff associated with the GLIA program as District AIDS Control Coordinators.

During field activities, some modifications to the structure described above were necessary. The team structures in place in each location were as follows:

Table 2: Summary of Interview Team Structures per Location

	<b>Lukole Camps (Ngara)</b>	<b>Surrounding Villages (Ngara)</b>	<b>Lugufu Camps (Kigoma)</b>	<b>Surrounding Villages (Kigoma)</b>
Site Supervisor	1	1	1	1
Team Leaders	2	3	3	2
Interviewers	40	27	36	29

The team leaders were responsible for supervising interviewers in the identification of households and assigning household numbers, re-visiting of households as necessary, quality of interviewing, proper questionnaire completion, and submission of correctly completed questionnaires to the site supervisor. The site supervisors' main responsibilities were supervising team leaders in the selection of households with interviewers, documenting number of households visited and questionnaires completed by day and in total, checking the quality of questionnaires completed. Additional supervision in the field was provided by national-level representatives of TACAIDS and the NACP.

## 2.5 Respondent Selection Criteria

All members of selected households between 15-49 years old were eligible respondents. A household member was defined as anyone who had been living and sharing meals with the household for at least 2 weeks. In the case of polygamous men maintaining more than one household, only those households that had been previously identified through sampling methods described above were included. If more than one family was living in the same household compound, they were both interviewed as two separate households.

Interviewers set appointments to revisit those households that included individuals who were not present at the time of interview. Whenever possible, interviewers also communicated their intent to return to households members were present through neighbors. Interviewers revisited households

and/or individuals within households at least three times before coding the individual or household as absent.

Of the 2340 households sampled, interviewers identified 165 as abandoned (including 118 repatriated households). In an additional 47 households, there were no eligible respondents (i.e. within the defined age group).

## 2.6 Consent Process

For each respondent, interviewers read aloud a statement of consent. Those agreeing to be interviewed indicated this orally and the interviewer signed the statement to document that oral consent had been obtained. For the purposes of this study, any individual aged 18 and above was considered able to give their own consent. For individuals under 18, consent first was obtained by the head of household and/or other household member aged 18 or above. Respondents were free to stop the interview at any time and to refuse to answer any question that made them feel comfortable. The survey involved minimal risk of harm (i.e. possible discomfort caused by the content of certain sensitive questions) and did not offer direct benefits or compensation to respondents.

Team leaders and/or site supervisors were responsible for re-visiting household members who did not provide consent to explain again the rationale of the study and seek again consent. Across the 2340 households sampled for this study, interviewers noted 22 refusals.

## 2.7 Non-participation rates

Non-participation rates both across households, and across individuals within households, were low. The following table summarizes non-participation rates due to absence (including households that were abandoned, repatriated, or on extended travel), ineligibility (specifically households that did not include any members within the eligible age group), and refusal at the household level. Across all locations, refusal rates were minimal though somewhat higher in villages than in camps.

**Table 3: Non-participation at the household level**

Location	Total number of households sampled	Total number of households unavailable for participation due to abandonment, travel, repatriation, or no members within targeted age group			Number of HH available for survey	Number of HH refused survey	Non-participation rate
		Percent of households abandoned/extended travel	Percent of households repatriated	Percent of households not eligible (age group)			
Lukole Camps (Ngara)	752	8% (58/752)	11% (84/752)	2% (19/752)	591	2	0.3% (2/591)
Surrounding Villages (Ngara)	416	1% (6/416)	n/a	1% (6/416)	404	6	1.5% (6/404)
Lugufu Camps (Kigoma)	644	13% (82/644)	5% (34/644)	3% (19/644)	509	4	0.8% (4/509)
Surrounding Villages (Kigoma)	528	1% (5/528)	n/a	0.6% (3/528)	520	10	2% (10/520)

Within households participating in the survey, refusals by any eligible household member were negligible. The absence of household members (defined as absent at each of three attempts to speak with the potential respondent) ranged between 1-10% depending on location. The following table summarizes non-participation at the individual level. Similar to the household level results, total non-participation rates in the Lukole camps were higher than the villages at the Ngara location. Total non-participation rates at the Kigoma sites (camps compared to villages) were very close to each other.

At the very few households where there was a refusal by any member, there was no clear trend in terms of gender. Both refusals were made by household members in the 25-49 years age group. Absences were mixed between men and women depending on location. Greater numbers of absences in both the camps and the villages were recorded in older (25-49 years) rather than younger (15-24 years) ages. Of household members who could not be interviewed for other causes, there were older than younger individuals, though numbers were very small in Kigoma. There was variation across locations in the gender of individuals who could not be interviewed for other reasons.

**Table 4: Non-participation at the individual level**

Location	Total number of individuals eligible for interview	Percent of interviews fully or partially completed	Percent of household members who were absent*	Percent of household members who could not be interviewed for other reasons†	Percent of household members who refused	Total non-participation of household members due to absence, refusal or other reason
Lukole Camps (Ngara)	874	94% (821/874)	2% (19/874)	4% (34/874)	0	6% (53/874)
Surrounding Villages (Ngara)	804	99% (794/804)	1% (9/804)	0	.1% (1/804)	1.1% (10/804)
Lugufu Camps (Kigoma)	760	89% (675/760)	10% (78/760)	1% (7/760)	0	11% (85/760)
Surrounding Villages (Kigoma)	928	91% (843/928)	9% (82/928)	.2% (2/928)	.1% (1/928)	9% (84/928)

\* Absence defined as not present in the household at the time of the survey after 3 attempts.

† Other reasons not specified (refer to the household listing page of the questionnaire, response category 6)

**Table 5: Proportions of total individual refusals and absences per location, by gender**

Location		Gender breakdown of household members who were absent*	Gender breakdown of household members who could not be interviewed for other reasons†	Gender breakdown of household members who refused
Lukole Camps (Ngara)	Male	32% (6/19)	41% (14/34)	0
	Female	68% (13/19)	59% (20/34)	0
Surrounding Villages (Ngara)	Male	67% (6/9)	0	0
	Female	33% (3/9)	0	1
Lugufu Camps (Kigoma)	Male	41% (32/78)	86% (6/7)	0
	Female	59% (46/78)	14% (1/7)	0
Surrounding	Male	56%	50%	1

Villages (Kigoma)		(46/82)	(1/2)	
	Female	44% (36/82)	50% (1/2)	0

\* Absence defined as not present in the household at the time of the survey after 3 attempts.

† Other reasons not specified (refer to the household listing page of the questionnaire, response category 6)

**Table 6: Proportions of total individual refusals and absences per location, by age group**

Location		Age breakdown of household members who were absent*	Age breakdown of household members who could not be interviewed for other reasons†	Age breakdown of household members who refused
Lukole Camps (Ngara)	15-24	32% (6/19)	26% (9/34)	0
	25-49	68% (13/19)	74% (25/34)	0
Surrounding Villages (Ngara)	15-24	11% (1/9)	0	0
	25-49	88% (8/9)	0	1
Lugufu Camps (Kigoma)	15-24	41% (32/78)	28% (2/7)	0
	25-49	59% (46/78)	72% 5/7	0
Surrounding Villages (Kigoma)	15-24	21% (17/82)	50% (1/2)	0
	25-49	79% (65/82)	50% (1/2)	1

\* Absence defined as not present in the household at the time of the survey after 3 attempts.

† Other reasons not specified (refer to the household listing page of the questionnaire, response category 6)

## 2.8 Questionnaires

The questionnaire used for this survey is based on FHI BSS guidelines and is composed of six sections that cover background characteristics, sexual history, HIV-related risk behaviors including condom use, sexually transmitted infections, knowledge and attitudes towards HIV/AIDS, and exposure and access to HIV prevention measures and VCCT. The questionnaire also includes questions for refugee respondents identifying the pre-displacement, displacement, and post-displacement context of certain indicators and other questions for all respondents that address mobility and the level of interaction between refugee and host communities. The questionnaire is 18 pages long and is composed of closed questions that include some filters and skip patterns. Interviews lasted approximately 40 minutes on average. The questionnaire can be found in appendix V.

## 2.9 Data Processing

In each location, four data entry clerks were responsible for recording questionnaire responses using EpiInfo 2002. UNHCR field offices selected the data entry clerks and the consultants provided them with on-site instructions in the use of EpiInfo and data entry guidelines specific to the assignment. At Lugufu, a data entry supervisor was also contracted to organize the flow of data entry and perform checking. The consultant undertook data checking verification in both Ngara and Lugufu locations. As well, the data entry supervisor at Lugufu performed verification of Lugufu questionnaires and once the data entry clerks at Lugufu had finished data entry for that location they also verified some of the Ngara data entry records. In total, one in four questionnaires (879/3452) was verified and data entry errors corrected. Data cleaning and analysis has been done using STATA (version 8.2).

### 3.0 RESULTS: Lukole Camps and Surrounding Villages (Ngara)

#### 3.1 Characteristics of Respondents

The dataset used to compile the following results consists of information from 1693 respondents of the Lukole refugee camp and surrounding village area. In the camp setting, 48% of the respondents were male and 52% female. In the villages, 45% were male and 55% female. The distribution of respondents over age groups was very much the same between the camps and villages. In each location, 21% of respondents were 15-19 years old, 19% and 20% were in the 20-24 year age range (camps and villages respectively), and 59% and 60% (camps and villages respectively) were between 25-49 years old.

Virtually all respondents from the Lukole A and B camps were Burundian, and almost all respondents in the villages were Tanzanian. Within the villages, a small number of Rwandans and Burundians also participated in the survey. All but seven respondents in the camps had refugee status while as expected in the villages the vast majority did not. Most respondents in both the camps and villages were currently married at the time of the interview (65% and 62%, respectively) with most others (26% in camps, 31% in villages) never married. The predominant religious affiliation in both camps and villages was Catholic, with smaller percentages of protestant and other religions especially Pentecostal and Adventist.

In the camps, the largest proportion of respondents said that they had never attended school (40%) while this was the case for only 28% of village respondents. Fifty-seven percent of village respondents had completed primary school and 6% had completed secondary school or above. Among camp respondents 22% had completed up to primary school and 9% had finished secondary school or above. In the questionnaire used, response categories for the highest level of education attained were mutually exclusive such that the total proportion of respondents who had attained *at least* a primary level of schooling was 31% in the camps and 63% in the villages. As might be expected given fairly limited opportunities for refugees, nearly 70% indicated that they did not earn income from any source. Among village respondents, 23% reported that they had no income. Within the group of refugees who had an income, 44% earned this through agriculture. Agriculture was also the predominant sector among the village respondents (87%).

These and further details on the background of Lukole camp and surrounding village respondents can be found in table 7 below.

Table 7: Background characteristics of respondents, Lukole

Indicator	Categories	Lukole A&B Camps			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Age	15-19 years	84 (20%)	99 (22%)	183 (21%)	84 (23%)	91 (20%)	175 (21%)
	20-24 years	72 (17%)	103 (23%)	175 (20%)	53 (14%)	100 (22%)	153 (19%)
	25-49 years	267 (63%)	250 (55%)	517 (59%)	235 (63%)	255 (57%)	490 (60%)
	Total	423	452	875	372	446	818
Nationality	Kenyan	0	0	0	0	0	0
	Rwandan	1 (.25%)	10 (2%)	11 (1%)	6 (2%)	13 (2%)	19 (2%)
	Ugandan	0	0	0	0	1 (.25%)	1 (.12%)
	Tanzanian	0	1 (.25%)	1 (.11%)	356 (96%)	422 (95%)	778 (95%)



	Congolese	0	0	0	0	0	0
	Burundian	422 (99.75%)	440 (97%)	862 (99%)	9 (2%)	9 (2%)	18 (2%)
	Total	423	451	874	371	445	817
Refugee Status	Refugee	412 (99.76%)	437 (99%)	849 (99%)	15 (4%)	31 (7%)	46 (6%)
	Non-Refugee (National)	1 (.25%)	6 (1%)	7 (1%)	354 (96%)	412 (93%)	766 (94%)
	Total	413	443	856	369	443	812
Marital status	Currently Married	261 (62%)	308 (68%)	569 (65%)	229 (61%)	275 (62%)	504 (62%)
	Never Married	139 (33%)	84 (19%)	223 (26%)	136 (37%)	115 (26%)	251 (31%)
	Divorced	16 (4%)	41 (9%)	57 (7%)	2 (.50%)	32 (7%)	34 (4%)
	Widow/widower	5 (1%)	17 (4%)	22 (2%)	5 (1%)	21 (5%)	26 (3%)
	Total	421	450	871	372	443	815
Religious affiliation	Catholic	279 (66%)	302 (67%)	581 (67%)	174 (47%)	208 (47%)	382 (47%)
	Protestant	75 (18%)	80 (18%)	155 (18%)	104 (28%)	115 (26%)	219 (27%)
	Muslim	37 (9%)	30 (7%)	67 (8%)	33 (9%)	43 (10%)	76 (9%)
	Other	30 (7%)	38 (8%0	68 (8%)	56 (15%)	77 (17%)	133 (16%)
	Total	421	451	872	367	443	810
Education	Never attended school	136 (32%)	212 (48%)	348 (40%)	74 (20%)	157 (35%)	231 (28%)
	Did not complete full grade/level	113 (27%)	138 (31%)	251 (29%)	33 (9%)	36 (8%)	69 (8%)
	Primary completed	111 (26%)	76 (17%)	187 (22%)	240 (64%)	230 (52%)	470 (57%)
	Secondary school and above	60 (14%)	19 (4%)	79 (9%)	25 (7%)	22 (5%)	47 (6%)
	Total	420	447	867	372	445	817
Income generating activity (among those earning income)	Unemployed (of all respondents)	273 (65%)	326 (74%)	599 (69%)	79 (21%)	108 (24.5%)	187 (23%)
	Agriculture	56 (39%)	57 (51%)	113 (44%)	250 (86%)	291 (89%)	541 (87%)
	Trade	26 (18%)	18 (16%)	44 (17%)	18 (6%)	19 (6%)	37 (6%)
	Pastoralism	3 (2%)	0	3 (1%)	8 (3%)	2 (1%)	10 (2%)
	Transport	6 (4%)	0	6 (2%)	0	0	0
	Fishing	0	0	0	0	0	0
	Crafts	10 (7%)	7 (6%)	17 (7%)	7 (2%)	4 (1%)	11 (2%)
	Private services	4 (3%)	2 (2%)	6 (2%)	0	3 (1%)	3 (.50%)
	Public services	8 (6%)	3 (3%)	11 (4%)	4 (1%)	8 (2%)	12 (2%)
	Humanitarian & development	22 (15%)	21 (19%)	43 (17%)	4 (1%)	1 (<.50%)	5 (1%)
	Other	8 (6%)	4 (4%)	12 (5%)	0	0	0
	Total	143	112	255	291	328	619

### 3.2 Displacement, Mobility, and Networking

The vast majority of refugees in Lukole had lived in their current community for at least three years and 78% had lived there for more than five years (table 8). Within the younger age group (15-24 years), there was a small but significant difference between the proportion of females (10%) and males (1%) who had been living in their community for 12 months or less (table 37, appendix III). The median number of years since leaving the country of origin was ten and the majority (75%) of respondents had lived only in one country, Tanzania, since leaving their country of origin. Reflecting the security and administrative limitations on refugee movement in the Tanzania border camps, very few refugees (7%) at Lukole reported that they had been away for more than four continuous weeks within the past 12 months (table 8). However, in both the younger (15-24 years) and older (25-49 years) age groups, a significantly greater proportion of males, compared to females, had been away from their community for four consecutive weeks within the past 12 months (table 38, appendix III).

Table 8: Length of time living in current community and proportion that has left community for more than 4 consecutive weeks within the last 12 months

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How long have you been living in this place?	Always	1 (.2%)	1 (.2%)	2 (.2%)	262 (71%)	249 (56%)	511 (63%)
	< 6 months	0	9 (2%)	9 (1%)	4 (1%)	13 (3%)	17 (2%)
	6-12 months	4 (1%)	15 (3.5%)	19 (2%)	7 (2%)	12 (3%)	19 (2%)
	1-2 years	12 (3%)	17 (4%)	29 (3.5%)	15 (4%)	28 (6%)	43 (5%)
	3-5 years	44 (11%)	80 (19%)	124 (15%)	19 (5%)	40 (9%)	59 (7%)
	> 5 years	345 (85%)	305 (71%)	650 (78%)	64 (17%)	100 (23%)	164 (20%)
	Total	406	427	833	371	442	813
Have you left home for longer than 4 weeks in the last 12 months?	Yes	39 (9%)	18 (4%)	57 (7%)	51 (14%)	48 (11%)	99 (12%)
	No	381 (91%)	429 (96%)	810 (94%)	317 (86%)	395 (89%)	712 (88%)
	Total	420	447	861	368	443	811

More men than women reported having been away for that period of time overall (table 40, appendix III). Among refugees who had an absence of this length within the previous 12 months, the most commonly mentioned reasons were employment (36%) and family-related causes (32%). A greater proportion of women (64%) than men (17%) mentioned family related causes (table 41, appendix III). Again reflecting the relative lack of mobility among refugees, 75% of respondents indicated that they never visited the surrounding communities with little difference across genders. Among those who visited the surrounding community at least once per month, among both men and women the most frequently mentioned reason for the most recent visit was to see a relative or friend.

Sixty-three percent of respondents from the villages surrounding the Lukole camp had always lived at their current location while an additional 20% had lived there for five years or longer. Similar to the trend in the camps, a small but significant difference in the proportion of females (9%) versus males (4%) in the 15-24 year age group had lived in their community for 12 months or less. As in the camps, the vast majority (88%) of village inhabitants had not been away from their homes for more than four

consecutive weeks within the past 12 months. Among those who had made such a trip, the most commonly cited reason was for family-related issues (46%), followed by health-related reasons (14%) particularly for women, and trade (13%). Compared to refugees going to the villages (24%), a larger proportion of nationals (58%) had crossed into the camps for any reason (table 9 below and table 43, appendix III). Among those who did, the main reasons were for shopping/market (46%) especially for men, and to visit a relative or friend (42%), especially for women (table 44, appendix III). Within the older age group (25-49 years) in the surrounding villages, a significant though small difference in the proportion of males (53%) compared to females (43%) reported that they visited the camps one or more times per month (table 39, appendix III).

Table 9: Frequency of visits to camp/surrounding community

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How often do you go to the camp/surrounding community to visit?	Never	308 (73%)	350 (78%)	658 (76%)	147 (40%)	193 (44%)	340 (42%)
	Less than once per month	25 (6%)	17 (4%)	42 (5%)	54 (14.5%)	64 (14.5%)	118 (14.5%)
	Once a month	35 (8%)	36 (8%)	71 (8%)	72 (19%)	101 (23%)	173 (21%)
	Many times in a month	53 (12.5%)	46 (10%)	99 (11%)	98 (26%)	82 (19%)	180 (22%)
	Total	421	449	870	371	440	811

### 3.3 Sexual Intercourse and Sexual Partners

Most respondents aged 15-49 within both the Lukole refugee population (82%) and the surrounding villages (79%) indicated that they have had sexual intercourse (table 45, appendix III). However, among refugees only one third of young adults aged 15-19 reported ever having had sexual intercourse. A slightly lower proportion (28%) of nationals in this age group reported ever having had sexual intercourse but this difference is not statistically significant (table 46, appendix III). As expected, respondents in older age groups were more likely to have had sex (table 47, appendix III). The age of first sex differs by gender in both the Lukole camps and villages where it is 20 years for males and 17-18 years for females (table 10).

Table 10: Average age at first intercourse

	Males	Females	t-test p value
Camps (Lukole A&B)	20	17.5	.000
Surrounding Villages	20.6	18.4	.000

Table 11: Average age at first marriage

	Males	Females	t-test p value
Camps (Lukole A&B)	21	17.6	.000
Surrounding Villages	21	19	.000

The older age at first sexual intercourse among males might be explained by older age at marriage (table 11) and what was reported to be limited sexual experience before marriage as per table 12 below. For both genders in the camps and villages, the majority of youth 15-19 who were not married reported that they had not yet had sex and very few unmarried youth indicated that they had a casual sex partner within the past twelve months (table 12). A greater proportion of unmarried youth aged 15-19 in villages reported having had a casual sex partner in the past 12 months compared to youth in the

camps, but the number of respondents in this category was small in both locations and the difference was only significant for males (table 48, appendix III).

Table 12: Sexual intercourse exposure and casual sex partners among unmarried youth

Age		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-19	Unmarried and never had sex	64 (79%)	54 (73%)	118 (76%)	66 (86%)	55 (83%)	121 (85%)
	Unmarried w casual sex partner in last 12 months	2 (2%)	3 (4%)	5 (3%)	9 (12%)	8 (12%)	17 (12%)
20-24	Unmarried and never had sex	23 (46%)	1 (2%)	24 (24%)	13 (59%)	13 (43%)	26 (50%)
	Unmarried w casual sex partner in last 12 months	1 (2%)	2 (4%)	3 (3%)	9 (41%)	8 (27%)	17 (33%)
Total 15-24	Unmarried and never had sex	87 (66%)	55 (45%)	142 (56%)	79 (80%)	68 (71%)	147 (75%)
	Unmarried w casual sex partner in last 12 months	3 (2%)	5 (4%)	8 (3%)	18 (18%)	16 (16%)	34 (17%)

The majority of adults aged 15-49 in the Lukole camps as well as the surrounding villages had sex with a regular partner in the past 12 months. Within the 15-24 year age group in both the camps and villages, more females than males reported having had a regular sex partner (table 13 below, and table 49, appendix III). Both men and women in the Lukole camps and surrounding villages who had sex with a regular partner in the past 12 months typically report that they had more than 2 regular partners within the past 12 months (table 50, appendix III).

Table 13: Regular sex partners

Have you had a regular sex partner in the past 12 months? (yes)	Age	Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
(Among those who have ever had sex)	15-24	40 (60%)	112 (77%)	152 (71%)	41 (76%)	89 (74%)	130 (75%)
	25-49	223 (86%)	202 (81%)	425 (84%)	204 (91%)	206 (83%)	409 (87%)
	Total (15-49)	263 (81%)	314 (80%)	577 (80%)	245 (88%)	294 (80%)	539 (84%)

Across all age groups, few respondents in either the camps or villages reported that they had sex with a casual sex partner within the past 12 months. As highlighted in table 14 below, among those who ever had sex, a greater proportion of respondents in the surrounding villages, as compared to the camps, in all age groupings indicated that they had sex with a casual sex partner in the past 12 months. These differences are statistically significant (table 51, appendix III) but may also reflect a reluctance to discuss casual sex partners within the refugee community. At least anecdotally, interviewers noted that for what may be cultural reasons some refugee respondents, particularly if unmarried, were disinclined to discuss casual sex.

Table 14: Casual sex partners

Have you had sex with a casual partner in the past 12 months? (yes)	Age	Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
(Among those who have ever had sex)	15-24	4 (6%)	11 (8%)	15 (7%)	25 (46%)	30 (25%)	55 (32%)
	25-49	13 (5%)	6 (2%)	19 (4%)	39 (18%)	28 (11%)	67 (14%)
	Total (15-49)	17 (5%)	17 (4%)	34 (4%)	64 (23%)	58 (16%)	122 (19%)

Among refugee respondents who had sex with a casual partner in the last 12 months, a small proportion, 16%, indicated that they had more than one casual sex partner in that time period. In the villages, 34% reported more than one casual sex partner (table 15). The difference between the camps and surrounding villages in the proportions of total respondents who said that they had sex with one versus two or more casual sex partners in the past 12 months was statistically significant (table 53, appendix III).

Table 15: Number of casual sex partners in the past 12 months, by gender

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How many casual partners did you have sex with in the past 12 months?	One	11 (73%)	16 (94%)	27 (84%)	43 (66%)	36 (65.5%)	79 (66%)
	Two	3 (20%)	1 (6%)	4 (13%)	12 (19%)	14 (25.5%)	26 (22%)
	More than two	1 (7%)	0	1 (3%)	10 (15%)	5 (9%)	15 (12%)
(Among those who have had sex with a casual partner in the past 12 months)	Total	15	17	32	65	55	120

Most respondents of both Burundian and Tanzanian nationality (91% and 79%, respectively) indicated that their most recent casual sex partner was of the same nationality. Among Tanzanians, an additional 13% reported that the most recent casual sex partner was of Burundian nationality, and 7% reported that their most recent casual sex partner was Rwandan (table 52, appendix III).

### 3.4 Condom Use with Regular and Casual Sex Partners

Condom use with a regular partner was very low in both populations. Among those respondents who had a regular sex partner in the past 12 months, only 3% of men and women in the camps, and 9% of men and women in the villages indicating that they had used a condom with their regular sex partner at last sexual intercourse (table 54, appendix III). Interestingly, the proportion of 15-19 year old respondents who reported using a condom at last sexual intercourse with a regular partner was greater than for those 20 years and older. The difference in proportions was small but statistically significant (table 55, appendix III).

The vast majority of respondents who had sex with a casual partner within the past 12 months did not use condoms consistently with all casual partners and did not use a condom at last sex with a casual partner (table 16). Inasmuch as the overall number of respondents indicating they had a casual sex partner in the past 12 months was low, especially in the camps, the figures by which to compare these variables across genders, age groups and locations were also small. The differences between age groups within each location with regard to condom use at last sex with a casual partner were not statistically significant for either the camp or village settings. Similarly, the differences between age groups within each location regarding consistent condom use were also not statistically significant for either location (table 56, appendix III).

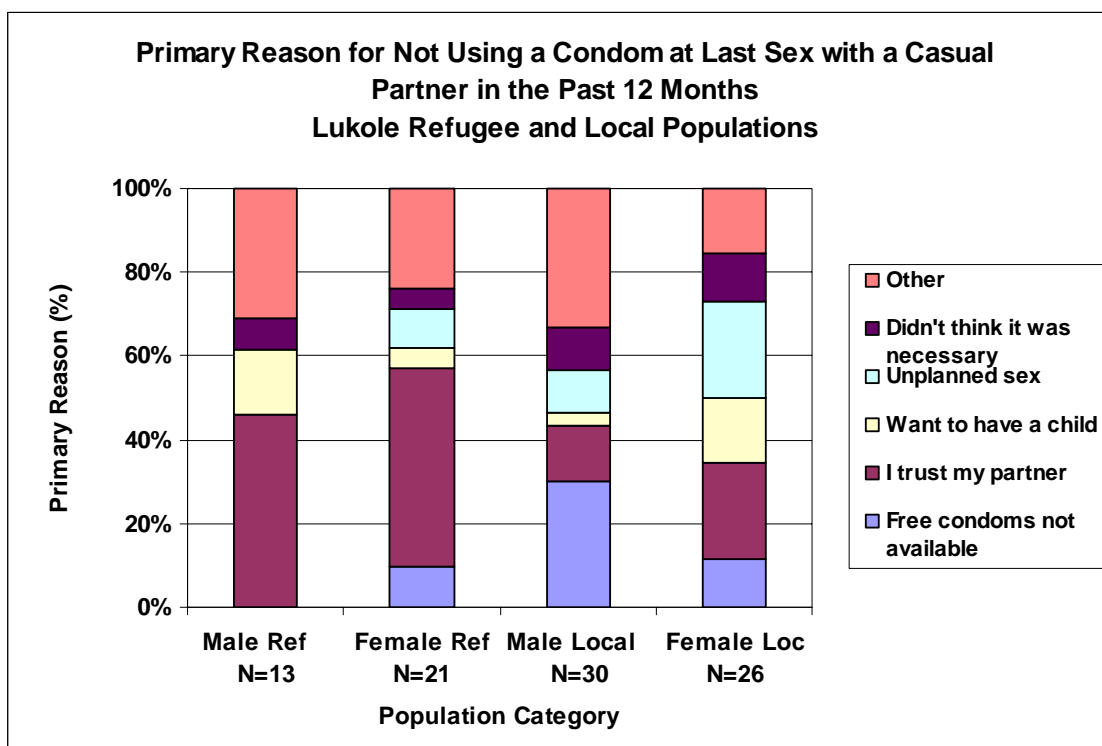
Table 16: Condom use with casual sex partners

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-24	Used condom at last sexual intercourse with casual sex partner	3 (75%)	2 (18%)	5 (33%)	7 (29%)	7 (23%)	14 (26%)
	Consistent condom use with all casual sex partner during the last 12 months	1 (25%)	1 (9%)	2 (13%)	8 (40%)	6 (25%)	14 (32%)

25-49	Used condom at last sexual intercourse with casual sex partner	5 (38%)	0	5 (26%)	10 (27%)	4 (15%)	14 (22%)
	Consistent condom use with all casual sex partners during the last 12 months	3 (30%)	0	3 (19%)	7 (21%)	3 (14%)	10 (18%)
Total 15-49	Used condom at last sexual intercourse with casual sex partner	8 (47%)	2 (12%)	10 (29%)	17 (28%)	11 (20%)	28 (24%)
	Consistent condom use with all casual sex partners during the last 12 months	4 (29%)	1 (6%)	5 (16%)	15 (28%)	9 (20%)	24 (24%)

Among both male and female refugees, the single most commonly cited reason for not using a condom at last sex with a casual partner during the previous 12 months was the respondents' trust in their partners. A greater proportion of nationals pointed to either the unavailability of free condoms or other reasons (figure 1).

Figure 1: Primary reason for not using a condom at last sex with a casual partner in the past 12 months



### 3.5 Transactional Sex and Condom Use during Transactional Sex

Across all age groups (15-19, 20-24, and 25-49 years) very few respondents in the Lukole camps, among those who ever had sex, indicated that they had ever had transactional sex. It is possible that this reflects under-reporting within this sub-population on this particular topic due to potential social sensitivities. Anecdotally, interviewers observed that respondents were often hesitant to discuss transactional sex. The low responses to transactional sex-related questions resulted in limited possible analysis.

Among respondents of all ages at the Lukole camps, one percent reported ever having had transactional sex. Within the surrounding villages, seven percent said that they had ever had transactional sex. The proportions were higher among younger age groups: 8% among 15-19 year olds and 12% among 20-24 year olds (table 17). The difference in proportions between the age groups of 15-24 year olds (combined) and 25-49 was statistically significant (tables 57, appendix III). Across all age groups, almost the same proportion of respondents reported that they had transactional sex within the past 12 months, compared to the proportion that ever had transactional sex, indicating that it was an on-going behavior (table 17). Relatively equal proportions across age groups, among those who had sex with a transactional sex partner in the past 12 months, had used a condom at last sex. This was reported by 40% respondents in the 15-19 year category, 35% of the 20-24 year category, and 39% of the 25-29 year category.

Table 17: Transactional sex and condom use during transactional sex

Age		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-19	Ever had transactional sex	1 (1%) n=84	1 (1%) n=99	2 (1%) n=183	6 (7%) n=84	8 (8%) n=91	14 (8%) n=175
	Had transactional sex within last 12 months	0	0	0	5 (6%) n=84	6 (7%) n=91	11 (6%) n=175
	Used condom at last sex with transactional sex partner in past 12 months	0	0	0	2 (40%) n=5	2 (40%) n=5	4 (40%) n=10
20-24	Ever had transactional sex	1 (1%) n=72	1 (1%) n=103	2 (1%) n=175	5 (9%) n=53	14 (14%) n=100	19 (12%) n=153
	Had transactional sex within last 12 months	0	1 (1%) n=103	1 (1%) n=174	4 (8%) n=52	13 (13%) n=100	17 (11%) n=152
	Used condom at last sex with transactional sex partner in past 12 months	0	1 (100%) n=1	1 (100%) n=1	1 (25%) n=4	5 (38%) n=13	6 (35%) n=17
25-49	Ever had transactional sex	4 (1.5%) n=267	1 (.4%) n=250	5 (1%) n=517	15 (6%) n=235	12 (5%) n=255	27 (6%) n=490
	Had transactional sex within last 12 months	0	0	0	14 (6%) n=235	9 (4%) n=255	23 (5%) n=490
	Used condom at last sex with transactional sex partner in past 12 months	0	0	0	6 (43%) n=14	3 (33%) n=9	9 (39%) n=23
Total	Ever had transactional sex	6 (1%) n=423	3 (1%) n=452	9 (1%) n=875	26 (7%) n=372	34 (8%) n=446	60 (7%) n=818
	Had transactional sex within last 12 months	0	1 (.2%) n=451	1 (.1%) n=871	23 (6%) n=371	28 (6%) n=446	51 (6%) n=817
	Used condom at last sex with transactional sex partner in past 12 months	0	0	0	9 (39%) n=23	10 (37%) n=27	19 (38%) n=50

Questions under the transactional sex section of this survey were asked of all individuals without distinction between whether they were the person paying for, or receiving payment for, transactional sex. The following results therefore were generated from the responses of both those who paid for and were paid for the transactional sex. Again, the data for refugees with regard to transactional sex was very limited. The data indicate that among nationals who had had transactional sex within the past 12

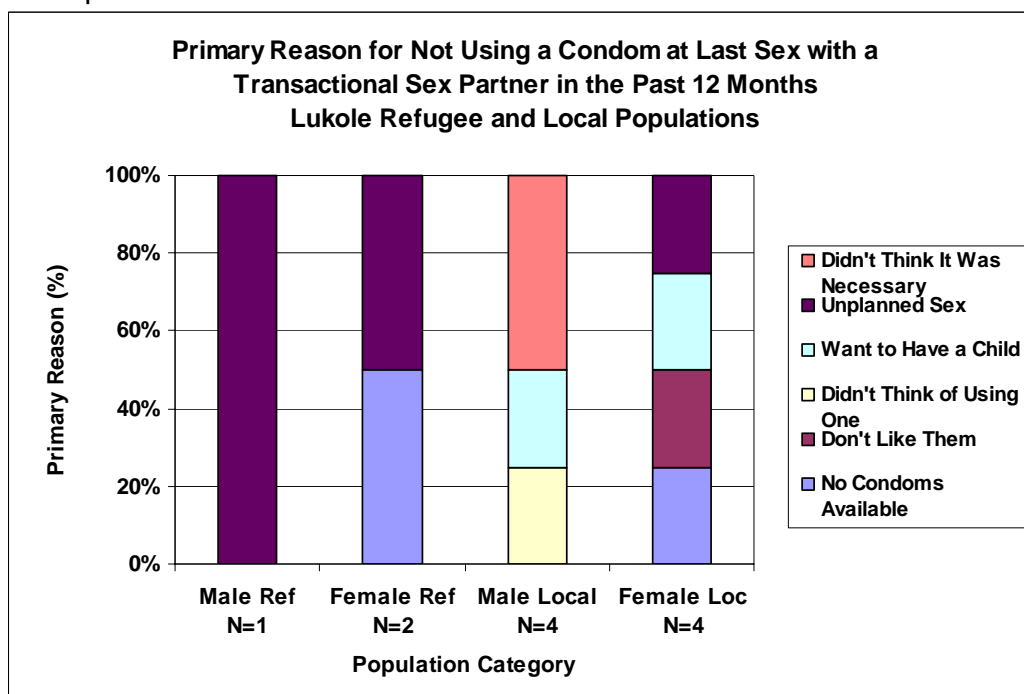
months, the last such transaction typically had been for either a gift (45%) or money (35%), less often both at the same time (20%) (table 18).

Table 18: Category of compensation (money, gift or both) at last transactional sex within the past 12 months

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you exchanged sex, was it for money, a gift or a favor? (In the past 12 months)	Money	0	0	0	11 (48%)	12 (43%)	23 (45%)
	Gift	0	0	0	10 (43%)	8 (28.5%)	18 (35%)
	Both money and gift	0	1	1	2 (9%)	8 (28.5%)	10 (20%)
	Total	0	1	1	23	28	51

Within the surrounding communities, the most commonly reported reasons for not using a condom at last sex with a transactional sex partner in the past 12 months included the unavailability of condoms, dislike for condoms, wanting to have a child, unplanned sex, didn't think of using one, and didn't think it was necessary. When reviewing the following chart, the reader should again keep in mind that the number of respondents to this and other transactional sex-related questions in the Lukole camps was very small and it is therefore difficult to make conclusions about that sub-population.

Figure 2: Primary reason for not using a condom at last sex with a transactional sex partner in the past 12 months



Among the nine respondents from the Lukole camps who had ever had transactional sex, eight reported that this happened before displacement. Among the 60 nationals who have ever had transactional sex, there were 14 responses indicating that transactional sex occurred before the arrival of refugees to the area, and 44 responses that it occurred afterwards. Response categories for this variable are not mutually exclusive (table 59, appendix III).



Transactional sex partners among those in the Lukole camps included refugees, persons from the local community, and humanitarian workers. As with the rest of the analysis for the camps within this segment of the data, it is difficult to draw conclusions due to the small number of responses. For the surrounding villages where there is more data, among males 62% of those who had ever had transactional sex reported that this partner was another person from the community, and 38% said that it was a refugee. Among females from the villages, 48% reported that the transactional sex partner was from the local community, 29% said the partner was a refugee, 13% from within the military or paramilitary and 10% humanitarian or development worker (table 60, appendix III).

### 3.6 Forced Sex

As reported in the literature on forced sex in general and in conflict situations, reporting of such events is typically very low relative to actual prevalence. As shown in table 10, in the Lukole camps, 24 respondents (3.5%) discussed ever having experienced forced sex, among whom approximately 13% reported such an experience had occurred within the past 12 months. Among those ever experiencing forced sex, the interviewers also asked when during the forced migration experience such an experience had occurred. Forty-three percent of the responses indicated that forced sex had occurred after displacement, with smaller percentages of responses provided in the before (22%) and during (35%) displacement phases. It is notable that eight of the 24 (33%) camp respondents who were ever been forced to have sex were male and 16 (66%) are female. However, this difference is not statistically significant (table 62, appendix III).

As highlighted in table 20, the number of respondents in the surrounding villages who reported ever experiencing forced sex was also low (2%). For a somewhat greater proportion of nationals (29%) compared to camp respondents who had ever experienced forced sex, such an incident had occurred within the past 12 months. But as with the rest of this analysis the overall numbers are small and this may not reflect a true difference across locations. As with the results from the Lukole camps, the difference between genders in the overall number of respondents who indicated that they had ever had forced sex is not statistically significant. Similarly, small numbers render accurate interpretation difficult, but of ten responses to the question of whether forced sex had occurred before or after the arrival of refugees, the answer was “after” in nine cases (table 61, appendix III).

Table 19: Proportion of all women aged 15-49 who ever experienced forced sex, and proportion of all women aged 15-49 who have experienced forced sex in the past 12 months

		Camps (Lukole A&B)	Surrounding Villages
Have you ever been forced to have sex against your will?	Yes	3% (15/452)	2% (8/446)
Have you been forced to have sex against your will in the past 12 months?	Yes	.7% (3/452)	.7% (3/446)

Table 20: Forced sex, ever and in the past 12 months among respondents who have ever had sex

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever been forced to have sex against your will?	Yes	8 (3%)	16 (4%)	24 (3.5%)	7 (2%)	8 (2%)	15 (2%)
	No	299 (97%)	364 (96%)	663 (96.5%)	281 (97%)	342 (98%)	623 (98%)
	Total	307	380	687	289	350	639

Have you been forced to have sex against your will in the past 12 months? (among those who ever experienced forced sex)	Yes	0	3 (30%)	3 (13%)	3 (37.5%)	3 (23%)	6 (29%)
	No	8 (100%)	12 (89%)	20 (87%)	5 (62.5%)	10 (77%)	15 (71%)
	Total	8	15	23	8	13	21

### 3.7 Alcohol and Drug Use

While a large proportion of respondents in both the Lukole camps (62%) and surrounding villages (54%) reported that they consumed no alcohol in the previous four weeks, about 19% in the camps and 25% in the villages indicated that within that timeframe they had consumed alcohol at least once per week. At the same time, even smaller proportions of respondents spoke about recreational drug use with 2% in camps and 4% in villages answering that they had taken any drug not prescribed by a physician (defined as recreational drug use) in the past 12 months (table 63, appendix III).

From the camp population, there is information about alcohol use at last sex with a casual sex partner in the past 12 months from a little over half of those respondents who had a casual sex partner in that time period. Of those, 11% indicated that the last time they had sex with a casual partner they had been under the influence of alcohol. The total numbers upon which this percentage is based are very small (table 65, appendix III). In the surrounding villages, this information was available for almost all those who indicated having had a casual sex partner within the past 12 months. Within this group, also approximately 11% reported that they had been under the influence of alcohol at last sex with a casual partner.

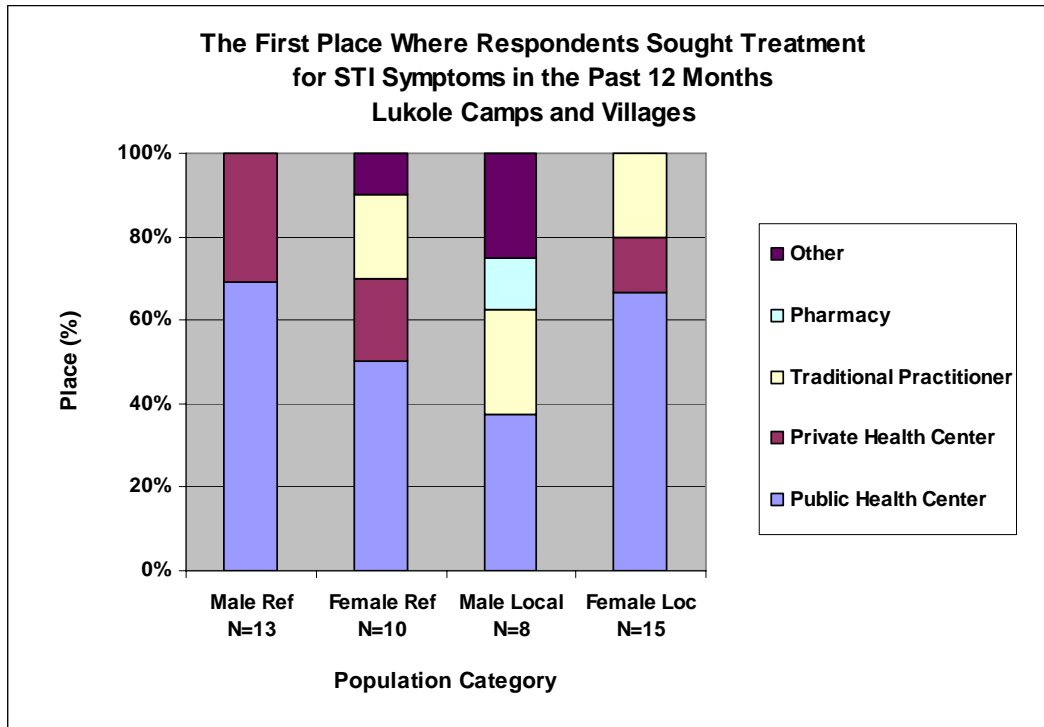
### 3.8 Cofactors to Contracting HIV

Circumcision rates were very similar across the camp and village communities in this setting. Among males, 22% in the Lukole camps reported that they were circumcised, while in the villages the rate for males was 20%. Female circumcision was minimal at 2% in both camps and villages (table 66, appendix III).

The majority of respondents in both the camps (94%) and villages (92%) had heard about STIs (table 67, appendix III). At the Lukole camps, four percent of respondents in Lukole camps said that they had experienced an unusual genital discharge within the past 12 months and two percent reported having had a genital ulcer or sore within that time frame. Given the small numbers involved, little variation across age groups was detected. Within the villages, seven percent reported having had an unusual discharge, and four percent reported a genital ulcer or sore within the past 12 months (tables 68-69, appendix III).

Of those who had either genital discharge or a genital sore or ulcer within the past 12 months, and for whom data was available, 61% in the camps said that at the time of the suspected STI they had sought treatment for it. In the villages, this was 84% (table 70, appendix III). As shown in the figure below, the majority of respondents first seek medical attention from the public health clinic in a case such as this. In the camps, 73% of respondents who had experienced a suspected STI within the past 12 months said that they had informed all of their sexual partners. In the villages, nearly half told all of their partners, and nearly half told none of their partners (table 71, appendix III).

Figure 3: The first place where respondents sought treatment for STI symptoms in the past 12 months



### 3.9 Knowledge about and access to condoms

Within both the Lukole camps and surrounding villages, the great majority of respondents had heard about condoms, 90% and 88% respectively. There was no difference between genders in either location with regard to having heard about condoms (table 72, appendix III). Comparing across age groups, while it appears that a lower proportion of the youngest age group respondents (15-19 years) in both the camps and villages had heard of condoms relative to the higher age groups, these differences were not statistically significant. As well, although 17% of youngest respondents (15-19 years old) in the villages indicated that they had not heard of condoms compared to 13% in the camps, this difference was also insignificant.

Among the responses provided to the unprompted question “What do you think condoms are used for?” the most frequently mentioned reason was “protection against STI/HIV/AIDS” (82.5% and 79% of responses in the camps and villages respectively), followed by “prevents pregnancy” (67% and 48% of responses in the camps and villages respectively) (table 73, appendix III). Within locations, there was no significant difference between genders or age groups in terms of the identification of condom functions.

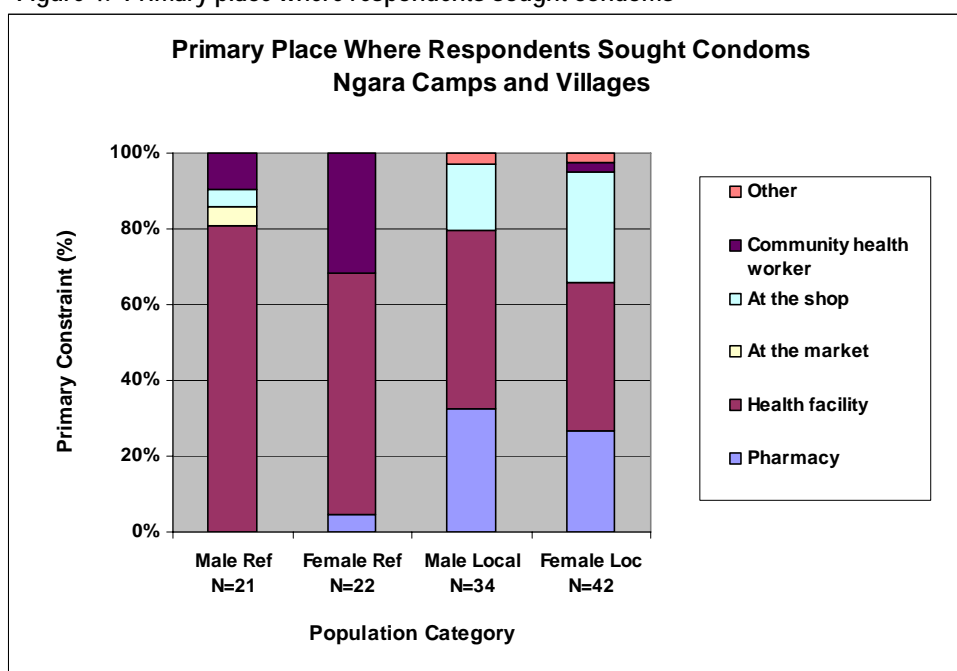
According to the data gathered in this survey, condom use was low in both the camps and villages. In the Lukole camp setting, among those who had ever heard of condoms, only 8% reported that they had ever used one (table 21). For the villages, this proportion was 15% which was statistically significantly higher than in the camps but still quite low (table 74, appendix III).

Table 21: Proportion of respondents who have heard about condoms and who have ever used condoms

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever heard of condoms?	Yes	355 (90%)	388 (90%)	743 (90%)	317 (88%)	376 (88%)	693 (88%)
	No	41 (10%)	43 (10%)	84 (10%)	45 (12%)	53 (12%)	98 (12%)
	Total	396	431	827	362	429	791
Have you ever used a condom?	Yes	31 (9%)	27 (7%)	58 (8%)	53 (17%)	49 (13%)	102 (15%)
	No	322 (91%)	359 (93%)	681 (92%)	260 (83%)	327 (87%)	587 (85%)
	Total	353	386	739	313	376	689

With small differences across age groups and genders, most respondents (86% in camps and 94%) among those who had ever used a condom knew where to get one (tables 75-76, appendix III). As shown in the following chart, the majority of respondents in both the camp and village settings identified the health facility as the place they usually go to get a condom.

Figure 4: Primary place where respondents sought condoms



Among those who had ever used a condom, most respondents (78% in the camps, 77% in the villages) reported that they were able to obtain a condom every time they need one. There was no significant difference across genders or across age groups (tables 77-78, appendix III). Among the very few respondents who indicate obstacles in obtaining a condom every time they need one, the main such obstacle reported was distance (reported by 8 respondents in the villages) (table 79, appendix III).

### 3.10 Knowledge, opinions, and attitudes towards HIV/AIDS and persons living with it

Respondents in both the Lukole camps and villages showed relatively high levels of knowledge about HIV. For each knowledge question asked, between 77% and 91% of respondents aged 15-24 correctly

identified modes of HIV transmission and means of protection. Rates were similar for this age group in the surrounding villages as well, ranging from 77% to 98% depending on the question. There were not strong differences between genders. Similarly, most responses from the 15-24 year age group with regard to some of the common misconceptions about HIV/AIDS were also correct, though fewer respondents answered correctly a question about the transmission of HIV through mosquito bites, compared to other questions (62% in the camps and 77% in the villages). There were more differences between 15-24 year old respondents from camps as compared to villages with regard to the questions measuring attitudes. For example, while 35% of refugee youth respondents (aged 15-24) said that a teacher infected with HIV should not be allowed to continue teaching, this proportion was 53% among nationals in the same age group. Another difference between the two groups was shown in a second question measuring attitudes. Forty percent of refugees aged 15-24 said that they would not be willing to care for a relative with HIV in their household (i.e. the respondent's household). For nationals, this was only 14%. Differences between locations for both of these indicators were statistically significant.

Generally similar patterns of responses were provided by respondents of both locations in the 25-49 age group as compared to the 15-21 year old respondents. In both age groups, more respondents in the camp population than in the villages said that one can prevent transmission of HIV through abstaining from sex. As well more respondents in the 25-49 year age group from the villages, 30%, said that young adolescents should not be taught how to use condoms, compared with 19% among refugee populations. This difference is statistically significant. There were not large differences between genders for any of the questions in this age group.

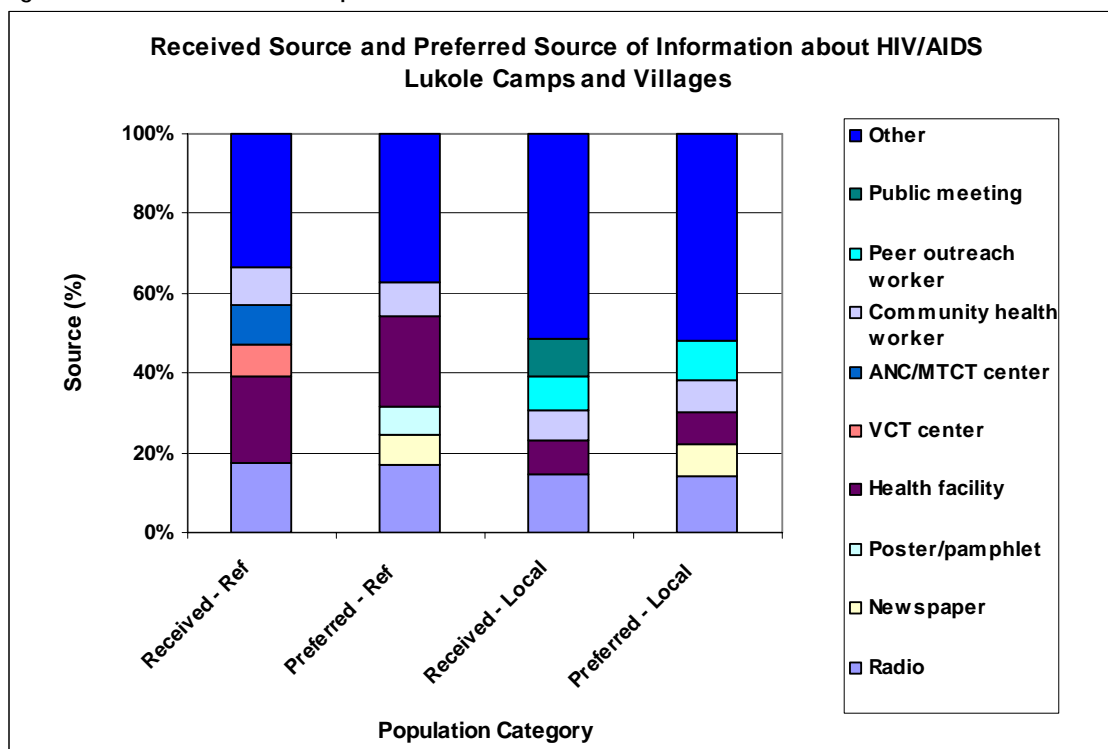
Table 80 (appendix III), highlights responses to several of the questions asked in the survey section on knowledge, opinions, and attitudes towards HIV/AIDS.

### 3.11 Exposure and Access to Interventions

As identified in the following chart (figure 5), the most frequently mentioned sources of information about HIV that had been accessed by respondents in the Lukole camps and villages are similar but not the same. Both mentioned radio as an important source. As well, the health facility was a commonly indicated source of information though more so in the camps than the villages. The VCCT center was mentioned by some camp respondents but did not feature in the villages, whereas the village respondents highlighted peer outreach workers and public meetings, which the camp respondents did not. Both groups mentioned community health workers in small proportions. Other places where people received information about HIV in the camps included the market, the youth centre, and in seminars.

In terms of preferred sources of information, radio again featured as a commonly noted source. Similar proportions, albeit relatively small, of both refugee and village respondents reported that they wanted to receive information about HIV/AIDS through newspapers. Both groups also wanted to continue receiving information through health facilities and community health workers. The most commonly mentioned "other" preferred source of information among camp respondents was the youth centre, and for village respondents market area and seminars were also mentioned but by very few.

Figure 5: Received source and preferred source of information about HIV/AIDS



Among respondents from the Lukole camps, more females (68%) than males (47%) in the 15-19 year age group had ever been tested for HIV. This difference was statistically significant (tables 81-82, appendix III). In the camps, for the same age group, somewhat more males than females reported ever having been tested but this difference was not significant. In general, across all ages, more respondents in the camp (66%) had been tested than those in the villages (29%), which was a statistically significant difference (table 83, appendix III). Similarly, a greater proportion of respondents in the Lukole camps (83%) indicated that they knew where one could go to get an HIV test, compared to respondents from the surrounding villages (68%) (table 84, appendix III). Among those who had been tested in the past 12 months, almost all in the camps (96%) and in the villages (94%) said that it had been a voluntary test. As well, 97% in the camps and 93% in the villages had received the results of the last test in the past 12 months (table 81, appendix III). The difference between camps and villages in the overall proportion of respondents who were tested for HIV in the past 12 months and received the results was significant, indicating greater testing among respondents in the camps (32%) than the villages (15%) (table 84, appendix III). Although more women in the Lukole camps (80%) had been pregnant within the past five years compared to women in the villages (68%), almost all of the women regardless of location had received ante-natal care (table 87, appendix III).

## 4.0 RESULTS: Lugufu Camps and Surrounding Villages (Kigoma)

### 4.1 Characteristics of Respondents

In total, 761 respondents from the Lugufu 1 & 2 camps and 929 respondents from surrounding villages (Uvinza and Kazulamimba) provided information included in the analysis of this survey. The gender distribution within age groups differed slightly across locations. In both the camps and villages, there was more data from females than males overall. At the Lugufu camps, there were slightly more males (30%) than females (24%) in the youngest age group (15-19 years) while at the surrounding villages the data reflect more males (70%) than females (57%) in the 25-49 year age groups and more females (25%) than males (11%) in the 20-24 year age range.

As expected virtually all interviewees from the camps were Congolese and all but four village respondents were Tanzanian. Similarly, almost all (98%) of those interviewed in the camps were refugees and 99% in the villages were nationals. Over half of the respondents (55% in camps, 65% in villages) were married. The greatest proportion of camp respondents (50%) were of protestant faiths with smaller percentages of Muslims and Catholics. In the villages, Muslims constituted the single dominant faith (48%) in this sample with a smaller percentage of Protestants (23%).

Of all camp respondents, more completed secondary school or above (52%) than those who had completed primary school only (29%). In the villages, the majority of respondents (68%) had completed primary school only with relatively few (7%) having completed secondary school or above. In the questionnaire used, response categories for the highest level of education attained were mutually exclusive such that the total proportion of respondents who had attained *at least* a primary level of schooling was 81% in the camps and 75% in the villages. As might be expected, a greater proportion of refugees (84%) compared to nationals (49%) were unemployed. Among those refugees who earned a cash income, most (40%) made their money through trade. In the villages, the majority among those employed (78%) earned money in the agricultural sector.

Further information about the background characteristics of the respondents is found in table 22 below.

Table 22: Background characteristics of respondents, Lugufu

Indicator	Categories	Lugufu 1&2 Camps			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Age	15-19 years	106 (30%)	97 (24%)	203 (27%)	72 (19%)	99 (18%)	171 (18%)
	20-24 years	63 (18%)	75 (18%)	138 (18%)	43 (11%)	135 (25%)	178 (19%)
	25-49 years	183 (52%)	237 (58%)	420 (55%)	266 (70%)	314 (57%)	580 (62%)
	Total	352	409	761	381	548	929
Nationality	Kenyan	0	0	0	2 (.50%)	0	2 (.25%)
	Rwandan	0	0	0	0	1 (<.25%)	1 (<.25%)
	Ugandan	0	0	0	0	0	0
	Tanzanian	1 (.25%)	2 (.50%)	3 (.25%)	376 (99%)	545 (99.5%)	921 (99.25%)
	Congolese	349 (99%)	401 (98%)	750 (99%)	2 (.50%)	1 (<.25%)	3 (.25%)
	Burundian	2 (.50%)	4 (1%)	6 (.75%)	1 (.25%)	0	1 (<.25%)

	Other	0	1 (.25%)	0	0	0	0
	Total	352	408	760	381	547	928
Refugee Status	Refugee	341 (98%)	401 (98%)	742 (98%)	6 (2%)	3 (.50%)	9 (1%)
	Non-Refugee (National)	8 (2%)	7 (2%)	15 (2%)	373 (98%)	542 (99.5%)	915 (99%)
	Total	349	408	757	379	545	924
Marital status	Currently Married	184 (53%)	234 (57%)	418 (55%)	245 (65%)	351 (64%)	596 (65%)
	Never Married	156 (45%)	93 (23%)	249 (33%)	112 (30%)	128 (23.5%)	240 (26%)
	Divorced	8 (2%)	48 (12%)	56 (7%)	17 (5%)	54 (10%)	71 (8%)
	Widow/widower	1 (.25%)	32 (8%)	33 (4%)	3 (1%)	12 (2%)	15 (2%)
	Total	349	407	756	377	545	922
Religious affiliation	Catholic	95 (27%)	110 (27%)	205 (27%)	109 (29%)	123 (23%)	232 (25%)
	Protestant	167 (48%)	208 (51%)	375 (50%)	89 (23%)	119 (22%)	208 (23%)
	Muslim	45 (13%)	41 (10%)	86 (11%)	170 (45%)	277 (51%)	447 (48%)
	Other	41 (12%)	45 (11%)	86 (11%)	13 (3%)	26 (5%)	39 (4%)
	Total	348	404	752	381	545	926
Education	Never attended school	10 (3%)	102 (25%)	112 (15%)	34 (9%)	104 (19%)	138 (15%)
	Did not complete full grade/level	7 (2%)	26 (6%)	33 (4%)	28 (7%)	62 (11%)	90 (10%)
	Primary completed	50 (14%)	171 (42%)	221 (29%)	278 (73%)	350 (64%)	628 (68%)
	Secondary school and above	284 (81%)	109 (27%)	393 (52%)	41 (11%)	29 (5%)	70 (7%)
	Total	351	408	759	381	546	927
Income generating activity (among those earning income)	Unemployed (of all respondents)	227 (79%)	357 (87.5%)	634 (84%)	167 (44%)	281 (52%)	448 (49%)
	Agriculture	4 (6%)	12 (24.5%)	16 (13%)	151 (72%)	214 (82%)	365 (78%)
	Trade	25 (36%)	22 (45%)	47 (40%)	25 (12%)	29 (11%)	54 (11.5%)
	Pastoralism	3 (4%)	2 (4%)	5 (4%)	0	0	0
	Transport	0	0	0	3 (1%)	1 (.50)	4 (1%)
	Fishing	2 (3%)	0	2 (2%)	2 (1%)	0	2 (.50%)
	Crafts	12 (17%)	1 (2%)	13 (11%)	14 (7%)	8 (3%)	22 (5%)
	Private services	2 (3%)	2 (4%)	4 (3%)	4 (2%)	2 (1%)	6 (1%)
	Public services	4 (6%)	2 (4%)	6 (5%)	11 (5%)	3 (1%)	14 (3%)
	Humanitarian & development	13 (19%)	7 (14%)	20 (17%)	0	1 (.5%)	1 (.25%)
	Other	5 (7%)	1 (2%)	6 (5%)	0	2 (1%)	2 (.50%)
	Total	70	49	119	210	260	470



## 4.2 Displacement, Mobility, and Networking

As in Lukole, most refugees at the Lugufu camps had been living there for at least three years, with 79% who reported that they had lived in Lugufu for over five years. Unlike the villages surrounding Lukole however, in-migration from other locations appeared to be more prevalent among those living in the villages surrounding the Lugufu camps. In Uvinza and Kazulamimba, less than half of respondents indicated that they had always lived there (table 23).

Table 23: Length of time living in current community and proportion that has left community for more than 4 consecutive weeks within the last 12 months

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How long have you been living in this place?	Always	0	0	0	184 (49%)	247 (46%)	431 (47%)
	< 6 months	1 (.3%)	4 (1%)	5 (.7%)	9 (2%)	17 (3%)	26 (3%)
	6-12 months	0	1 (.2%)	1 (.1%)	14 (4%)	23 (4%)	37 (4%)
	1-2 years	5 (1.4%)	9 (2%)	14 (2%)	20 (5%)	26 (5%)	46 (5%)
	3-5 years	58 (17%)	76 (19%)	134 (18%)	33 (9%)	60 (11%)	93 (10%)
	> 5 years	284 (82%)	312 (77%)	596 (79%)	115 (31%)	166 (31%)	281 (31%)
	Total	348	402	750	375	539	914
Have you left home for longer than 4 weeks in the last 12 months?	Yes	119 (34%)	51 (13%)	170 (22%)	74 (19%)	79 (14%)	153 (17%)
	No	233 (66%)	357 (87%)	590 (78%)	306 (82%)	468 (86%)	774 (83%)
	Total	352	408	760	380	547	927

Relatively few (17%) of village respondents had left home for more than four weeks at some point in the previous 12 months. In the camps, a slightly greater proportion (22%) indicated that they had been away for such a period of time relative to village respondents (17%) (table 89). The difference was small but statistically significant (table 91, appendix IV). As well, more men than women were mobile according to this definition in both the camps and villages (table 92, appendix IV). In the camps, this difference was significant for both younger (15-24 years) and older (25-49 years) age groups. However, in the surrounding villages the difference between genders was significant only in the 25-49 year age group (table 89, appendix IV). Among those who had been away from home for at least one month in the previous 12 months, in both the Lugufu camps and surrounding villages, the purpose of travel for most was family-related (63% in camps, 54% in villages) (table 93, appendix IV).

The majority of respondents in both locations (70% in camps, 67% in villages) reported that they never go to the other community for any reason. Among the few who do, the dominant reason for refugee respondents was shopping/market-related and for village respondents it was to visit a friend or relative (table 24 below and tables 94-95, appendix IV). In both age groups (15-24 years and 25-49 years), a small though significant difference in proportion between genders was noted with a larger percentage of males compared to females having visited the surrounding community one or more times per month (table 90, appendix IV). In the surrounding villages, a significant difference between genders was noted only in the 25-49 year age group with more males than females who indicated that they visited the refugee camps one more times per month (table 90, appendix IV).

Table 24: Frequency of visits to camp/surrounding community

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How often do you go to the camp/surrounding community to visit?	Never	202 (58%)	326 (81%)	528 (70%)	236 (62%)	383 (70%)	619 (67%)
	Less than once per month	62 (18%)	36 (9%)	98 (13%)	40 (10.5%)	56 (10%)	96 (10%)
	Once a month	50 (14%)	24 (6%)	74 (9%)	71 (19%)	82 (15%)	153 (16.5%)
	Many times in a month	34 (10%)	18 (5%)	52 (7%)	34 (9%)	23 (4%)	57 (6%)
	Total	348	404	752	381	544	925

### 4.3 Sexual Intercourse and Sexual Partners

Seventy-nine percent of refugee respondents in this sample and 86% of nationals in surrounding villages had ever had sexual intercourse (table 96, appendix IV). A greater proportion of 15-19 year olds in the camps (66.5%) as compared to the villages (44%) had ever had sex (table 97, appendix IV) and as would be expected in both camps and villages a larger proportion of 20-24 year olds (97% camps, 89% villages) than 15-19 years olds had previously experienced intercourse (table 102, appendix IV).

The average age at first intercourse was the same (16 years) for males and females in the Lugufu camps and slightly higher for males (19.8) than females (17.9) in the villages (table 25). Within the camps, the average age of first marriage among males was nearly five years later than among females. A similar difference existed between males and females in the villages (table 26).

Table 25: Average age at first intercourse

	Males	Females	t-test p value
Lugufu Camps	15.9	16	.6517
Surrounding Villages	19.8	17.9	.000

Table 26: Average age at first marriage

	Males	Females	t-test p value
Lugufu Camps	21.5	16.7	.000
Surrounding Villages	23.4	18.6	.000

Among unmarried 15-19 year old respondents in the camps, 40% indicated that they were abstinent. This rate was much higher among females than males (56% and 28% respectively, table 27). At the same time, more unmarried males (50%) than unmarried females (32%) in the 15-19 year old group had a casual sex partner within the past 12 months (table 27). The differences between genders in the 15-19 year age category noted in the Lugufu camps was reversed in the villages (i.e. more male than female youth who were celibate, and more female than male youth who were unmarried with a casual sex partner) but these differences for the surrounding villages noted in the table below were not statistically significant (table 98, appendix IV). Overall, reported abstinence (unmarried and never had sex) rates in the villages were higher in the camps in both the 15-19 and 20-24 year age groups (tables 100-101, appendix IV).

Table 27: Sexual intercourse exposure and casual sex partners among unmarried youth

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-19	Unmarried and never had sex	28 (28%)	39 (56%)	67 (40%)	52 (74%)	43 (61%)	95 (67%)
	Unmarried w casual sex partner in last 12 months	50 (50%)	22 (32%)	72 (43%)	9 (13%)	11 (50%)	20 (14%)

20-24	Unmarried and never had sex	1 (2%)	3 (25%)	4 (8%)	8 (36%)	10 (25%)	18 (29%)
	Unmarried w casual sex partner in last 12 months	24 (58%)	7 (58%)	31 (58%)	11 (15%)	13 (32%)	24 (39%)
Total 15-24	Unmarried and never had sex	29 (21%)	42 (52%)	71 (32%)	60 (65%)	53 (48%)	113 (56%)
	Unmarried w casual sex partner in last 12 months	74 (52%)	29 (36%)	103 (46%)	20 (22%)	24 (22%)	44 (22%)

Just over half of 15-24 year old respondents in both the camps and villages indicated that they had at least one regular sex partner within the past 12 months. This is also true for the vast majority of those in the 25-49 year category (table 28). For most respondents (all age groups combined) who had a regular sex partner, the majority, 76% and 79% in the camps and villages respectively, had more than two regular partners within the past 12 months (table 104, appendix IV).

Table 28: Regular sex partners

Have you had a regular sex partner in the past 12 months? (yes)  (Among those who have ever had sex)	Age	Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
	15-24	83 (49%)	100 (58%)	183 (54%)	40 (35%)	151 (65%)	191 (55%)
	25-49	160 (87%)	173 (73%)	333 (79%)	230 (86%)	258 (82%)	488 (84%)
	Total (15-49)	243 (69%)	273 (67%)	516 (68%)	270 (71%)	409 (75%)	679 (73%)

Taking all ages together, among those who had ever had sex, more respondents in the Lugufu camps (36%) than surrounding villages (24%) indicated that they had experienced intercourse with a casual partner in the past twelve months (table 29, table 103, appendix IV). The rates between genders show that more males than females had a casual partner within that time frame in Lugufu camps and villages, among respondents aged 15-24 years; other differences between genders were not statistically significant. (table 29, tables 105, 106, 107, appendix IV). The majority (82%) of Congolese refugees at the Lugufu camps who had sex with a casual partner in the past 12 months had most recent casual sex partners of the same nationality, while for 12% the most recent casual sex partner was Tanzanian. Tanzanian respondents indicated almost exclusively (98%) that their most recent casual sex partner was also Tanzanian (table 108, appendix IV).

Table 29: Casual sex partners

Have you had sex with a casual partner in the past 12 months? (yes) (Among those who have ever had sex)	Age	Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
	15-24	85 (61.5%)	47 (36%)	132 (49%)	21 (39%)	48 (27%)	69 (29.5%)
	25-49	61 (33%)	58 (23%)	119 (27%)	57 (24.5%)	62 (20%)	119 (22%)
	Total (15-49)	146 (45%)	104 (29%)	250 (36%)	79 (25.5%)	110 (22%)	189 (24%)

In both the camps and villages, and in both genders, the largest proportion of respondents who had ever had sex with a casual partner indicated that within the past 12 months they had only one casual partner (table 30). There were minimal differences between genders in the reported number of casual sex partners within the past 12 months.

Table 30: Number of casual sex partners in the past 12 months, by gender

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How many casual partners did you have sex with in the past 12 months?	One	49 (35%)	58 (60%)	107 (45%)	41 (55%)	72 (76%)	113 (66%)
	Two	37 (26%)	24 (25%)	61 (26%)	11 (15%)	14 (15%)	25 (15%)
	More than two	55 (39%)	14 (15%)	69 (29%)	23 (31%)	9 (9%)	32 (19%)
(Among those who have had sex with a casual partner in the past 12 months)	Total	141	96	237	75	95	170

#### 4.4 Condom Use with Regular and Casual Sex Partners

As in the Ngara camp and villages setting, condom use with the last regular partner among respondents who had a regular sex partner in the past 12 months was low in both the camps (12%) and villages (8%). Also similar to Ngara, a greater proportion of respondents in the youngest age group 15-19 years old used a condom at last sex with a regular partner than those in the 20-49 year ages (tables 109 and 110, appendix IV).

As shown in table 31 below, condom usage for the those who had a casual sex partner within the past 12 months was higher at last sex with a casual sex partner (34% in the camps, 24% in the villages) than in regular sex partners (12% in the camps, 8% in the villages). Nevertheless, it was far below half among both camp and village populations. As with condom use at last sex with a regular partner, the data showed that a greater percentage of the younger 15-24 year age group than the respondents 25-49 used a condom at last sex with a casual partner but these differences were not statistically significant in either the camps or villages (table 111, appendix IV). Consistent condom use with all casual partners was also very low at 20% among camp respondents and 12% among village respondents (table 31).

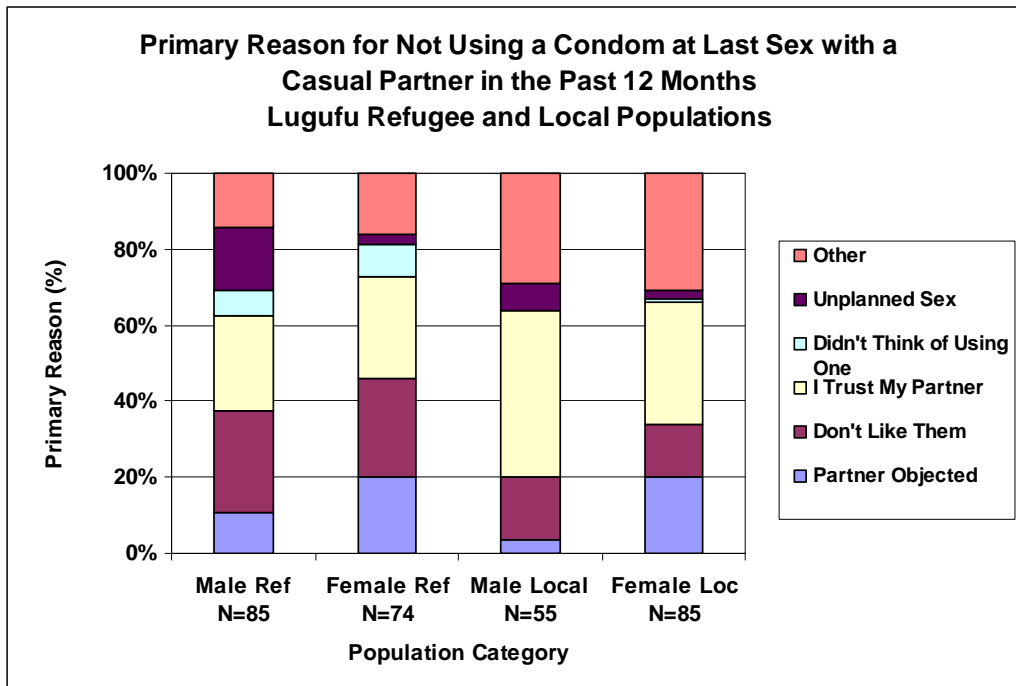
Table 31: Condom use with casual sex partners

Age		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-24	Used condom at last sexual intercourse with casual sex partner	31 (36%)	21 (44%)	52 (39%)	8 (38%)	11 (24%)	19 (28%)
	Consistent condom use with all casual sex partners during the last 12 months	21 (25%)	12 (25%)	33 (25%)	5 (24%)	7 (15%)	12 (18%)
25-49	Used condom at last sexual intercourse with casual sex partner	22 (37%)	11 (19%)	33 (28%)	16 (28%)	10 (16%)	26 (22%)
	Consistent condom use with all casual sex partners during the last 12 months	10 (17%)	6 (11%)	16 (14%)	3 (5%)	7 (12%)	10 (9%)
Total 15-49	Used condom at last sexual intercourse with casual sex partner	53 (37%)	32 (30%)	85 (34%)	24 (31%)	21 (19%)	45 (24%)
	Consistent condom use with all casual sex partners during the last 12 months	31 (22%)	18 (17%)	49 (20%)	8 (11%)	14 (13%)	22 (12%)

Among both camps and village respondents, the most commonly cited reasons for not using a condom at last sex with a casual partner included partner objections, personal dislike of condoms, and trust in

the partner. Much smaller proportions mentioned reasons related to lack of preparedness - not having thought about it and having unplanned sex.

Figure 6: Primary reason for not using a condom at last sex with casual partner in past 12 months



#### 4.5 Transactional Sex and Condom Use during Transactional Sex

Transactional sex within each age group was higher among camp respondents than in the villages as shown in the following table, for both indicators of transactional sex (i.e. ever had transactional sex, and had transactional sex within the past 12 months). These differences were all statistically significant (tables 113 and 114, appendix IV). Within locations, the difference between proportions of those who have ever had sex comparing younger respondents (15-24 years) to older (25-49 years) was not statistically significant in either the camps or the villages (table 112, appendix IV). Among those who had ever had transactional sex, fairly large proportions of respondents had such an experience within the past twelve months, indicative of an on-going situation. At both the Lugufu camps and surrounding villages, more males than females reported transactional sex in the past 12 months in the 15-24 age year group (21% of males and 12% of females, Lugufu camps; 8% of males, 1% of females, Lugufu surrounding villages), which were statistically significant differences (table 115, appendix IV).

In general, for both camp and village locations, the proportion of respondents (all ages) who reported condom use at last transactional sex was higher than that reported for either last sex with regular partner or last sex with casual partner (tables 109, appendix IV, tables 31 and 32). Within the different age groups, there appeared to be fluctuation in the rate of condom usage at last sex with a transactional sex partner, comparing camp and village experiences. However, the overall figures were small and the differences between locations within each age group were not statistically significant.

Table 32: Transactional sex and condom use during transactional sex

Age		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-19	Ever had transactional sex	23 (22%) n=106	18 (19%) n=97	41 (20%) n=203	5 (7%) n=72	6 (6%) n=99	11 (6%) n=171
	Had transactional sex within last 12 months	18 (17%) n=106	13 (14%) n=95	31 (15%) n=201	4 (6%) n=72	2 (2%) n=98	6 (4%) n=170
	Used condom at last sex with transactional sex partner in past 12 months	7 (39%) n=18	4 (31%) n=13	11 (35%) n=31	1 (25%) n=4	1 (50%) n=2	2 (33%) n=6
20-24	Ever had transactional sex	23 (37%) n=63	13 (17%) n=75	36 (26%) n=138	9 (21%) n=43	5 (4%) n=135	14 (8%) n=178
	Had transactional sex within last 12 months	17 (28%) n=61	7 (9%) n=74	24 (18%) n=135	5 (12%) n=42	1 (1%) n=134	6 (3%) n=176
	Used condom at last sex with transactional sex partner in past 12 months	10 (59%) n=17	3 (43%) n=7	13 (54%) n=24	1 (20%) n=5	0 n=1	1 (17%) n=6
25-49	Ever had transactional sex	41 (22%) n=183	34 (14%) n=237	75 (18%) n=420	20 (8%) n=266	13 (4%) n=314	33 (6%) n=580
	Had transactional sex within last 12 months	28 (16%) n=179	24 (10%) n=235	52 (13%) n=414	17 (6%) n=265	11 (4%) n=314	28 (5%) n=579
	Used condom at last sex with transactional sex partner in past 12 months	12 (43%) n=27	6 (26%) n=23	18 (36%) n=50	9 (53%) n=17	5 (45%) n=11	14 (50%) n=28
Total	Ever had transactional sex	87 (25%) n=352	65 (16%) n=404	152 (20%) n=761	34 (9%) n=381	24 (4%) n=548	58 (6%) n=929
	Had transactional sex within last 12 months	63 (18%) n=346	43 (11%) n=404	107 (14%) n=750	26 (7%) n=379	14 (3%) n=546	40 (4%) n=925
	Used condom at last sex with transactional sex partner in past 12 months	29 (47%) n=62	13 (30%) n=43	42 (40%) n=105	11 (42%) n=26	6 (43%) n=14	17 (43%) n=40

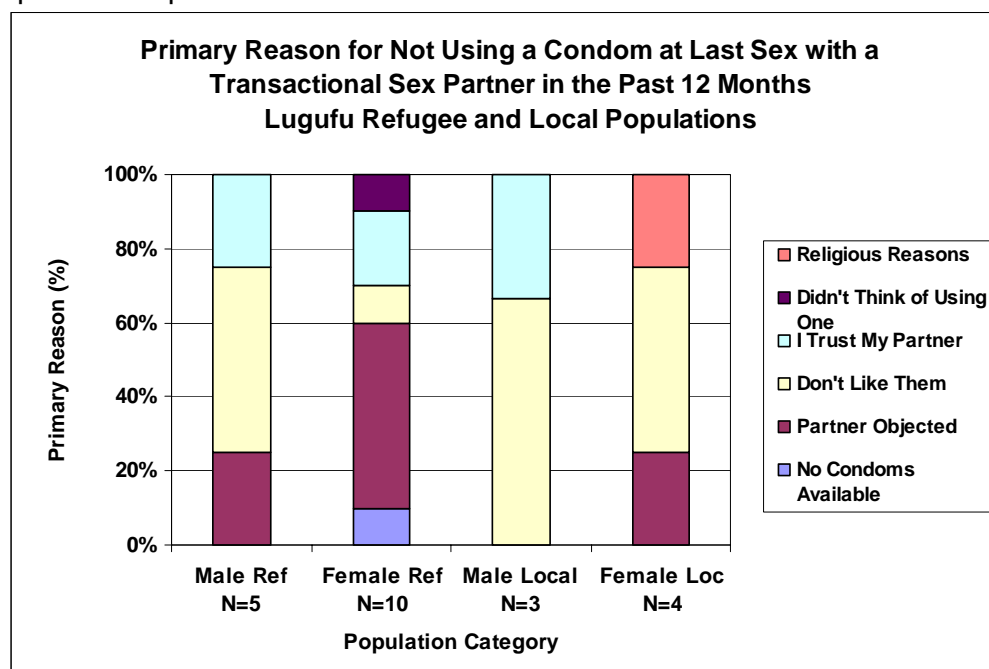
As previously noted, questions under the transactional sex section of this survey were asked of all individuals without distinction between whether they were paying for, or being paid for, the sexual transaction. The following table (table 33) consists of responses from both those who may have paid and those who may have been paid in the transaction. In the Lugufu camps, the most common form of payment for transactional sex was money, which in only a few cases was reported to be combined with a gift. In the villages, responses indicated that it was most common to exchange sex for both money and a gift together.

Table 33: Category of compensation (money, gift or both) at last transactional sex within the past 12 months

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you exchanged sex, was it for money, a gift or a favor? (In the past 12 months)	Money	39 (62%)	30 (68%)	69 (64.5%)	9 (35%)	2 (14%)	11 (27.5%)
	Gift	22 (35%)	9 (21%)	31 (29%)	4 (15%)	2 (14%)	6 (15%)
	Both money and gift	2 (3%)	5 (11%)	7 (6.5%)	13 (50%)	10 (72%)	23 (57.5%)
	Total	63	44	107	26	14	40

Twenty-two respondents who had not used a condom at last sex with a transactional partner provided reasons for non-use. Among refugee respondents, it was notable that more females (five) than males (one) highlighted partner objections, while males focused more on not liking condoms and trusting the partner. Similarly, in the villages males highlighted not liking condoms and trusting the partner as well as dislike of condoms and partner objections. One respondent mentioned religious reasons (figure 7).

Figure 7: Primary reason for not using a condom at last sex with a transactional sex partner in the past 12 months



Camp respondents who ever had transactional sex were asked whether it had occurred before, during or after displacement. These response categories were not exclusive such that each respondent could answer to all that applied. The vast majority of such responses (92%) indicated that for refugees transactional sex more often occurred after displacement than before or during. For village respondents as well, there were many more responses (90%) reporting transactional sex to have occurred after the arrival of refugees to the community area (table 116, appendix IV).

For most refugee respondents, the person with whom they had engaged in transactional sex most recently was also a refugee (82%), with a further 10% coming from the community. Similarly, for nationals, the most recent transactional sex partner was most often (66%) another person from the

local community but humanitarian/development workers were also mentioned a number of times (13%) as well as refugees (11%) (table 117, appendix IV).

#### 4.6 Forced Sex

As in Ngara, respondents were likely hesitant to disclose experience of forced sex in the survey setting. Rates as shown in the tables 34 and 35 below may be underestimates but represent what information was gathered through the exercise. This indicates that 10% of refugees and 4% of nationals, who ever had sex, had at some time been forced to have sex against their will. Within these small figures, it is again notable that as in Ngara males and females were both affected. For many of those who had ever experienced forced sex, this appears to have been sporadic more than on-going inasmuch as less than 50% reported that it had happened within the past 12 months.

Information about the timing of forced sex incidents among camp respondents indicates that the majority of cases occurred after displacement (33 of 65 responses). Similarly for nationals, 28 of 39 responses show that forced sex occurred after the arrival of refugees (table 118, appendix IV).

Table 34: Proportion of all women aged 15-49 who ever experienced forced sex, and proportion of all women aged 15-49 who have experienced forced sex in the past 12 months

		Camps Lugufu 1&2)	Surrounding Villages
Have you ever been forced to have sex against your will?	Yes	7% (28/409)	3% (18/548)
Have you been forced to have sex against your will in the past 12 months?	Yes	3% (11/409)	1% (7/548)

Table 35: Forced sex, ever and in the past 12 months among respondents who have ever had sex

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever been forced to have sex against your will?	Yes	24 (9%)	31 (10%)	55 (10%)	14 (4%)	19 (4%)	33 (4%)
	No	243 (91%)	267 (90%)	510 (90%)	320 (96%)	431 (96%)	751 (96%)
	Total	267	298	565	334	450	784
Have you been forced to have sex against your will in the past 12 months? (Among those who ever experienced forced sex)	Yes	12 (50%)	13 (41%)	25 (45%)	7 (50%)	8 (38%)	15 (43%)
	No	12 (50%)	19 (59%)	31 (55%)	7 (50%)	13 (62%)	20 (57%)
	Total	24	32	56	14	21	35

#### 4.7 Alcohol and Drug Use

As in Lukole refugee camps and surrounding villages, the majority of respondents in the Lugufu area reported that they had not had any alcoholic drinks in the previous 4 weeks (92% in the camps, 90% in the villages) (table 119, appendix IV). Even fewer respondents described taking any drug not prescribed by a physician (i.e. recreational drug) in the same time period (only 3% in camps, and 2% in villages). According to camp respondents, few people were under the influence of alcohol the last time that they had sex with a casual partner (4%) while this was somewhat more common among village survey participants (13%) (table 120, appendix IV). Of those who had casual sex within the past 12



months, 4% in the camps and 13% in the villages indicated the influence of alcohol at last sex with a casual partner.

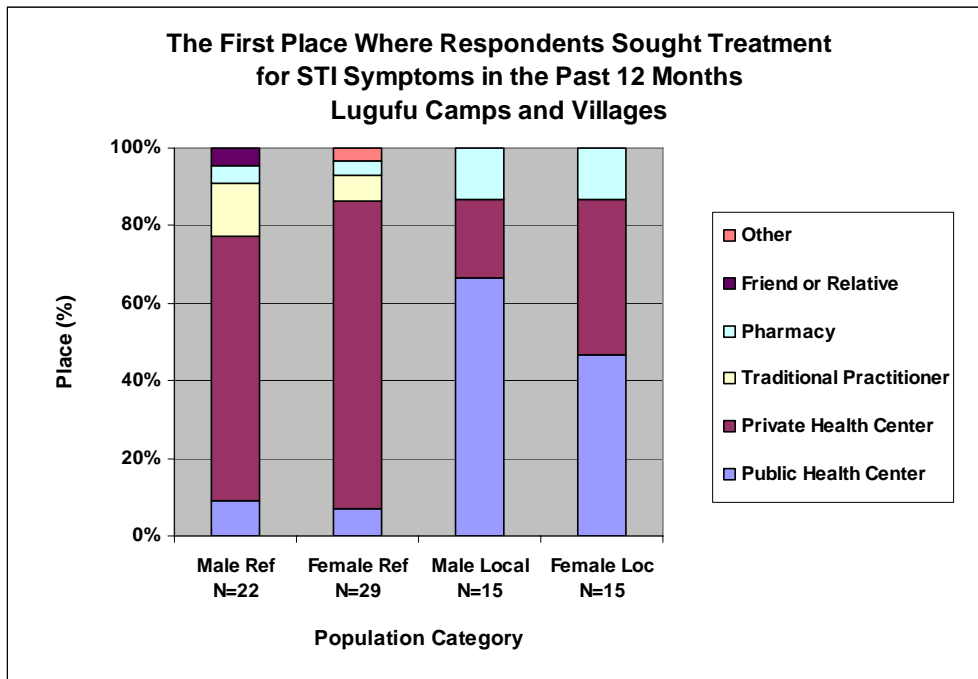
#### 4.8 Cofactors to Contracting HIV

Male circumcision was more commonly practiced among both camp and village communities in the Lugufu area (93% and 86%, respectively), than in the Lukole camps and surrounding villages (tables 122 and 123, appendix IV). In contrast, female circumcision was minimal with low rates (2% in camps and 3% in villages) similar to those for women in Lukole.

Most respondents both in the Lugufu camps (95%) and villages (91%) had heard about STIs (table 124). Across all ages, reported direct experience of an STI was low with 7% of camp respondents and 5% of nationals having had an unusual genital discharge within the past month. Similarly low percentages of respondents (9% in camps, 4% in villages) had experienced a genital ulcer or sore in that time frame. Within each of the STI indicators, proportions were fairly similar across age groups, genders, and locations (tables 125 and 126).

For combined ages, of those who had previously had a genital discharge, ulcer or sore, a greater percentage of camp respondents (75%), relative to village respondents (67%), sought treatment though this difference was not statistically significant (table 127). As expected, the overwhelming majority of camp respondents, both men and women, sought help from private health services there while village respondents went to public health services (figure 8). Almost half of respondents from the camp (48%) who had an STI indicated that they had informed none of their sexual partners, while 43% said they had informed all of their partners. In the villages, a somewhat greater proportion (57%) said that they had told all of their partners and 25% had told none. The difference across locations was statistically significant when comparing those respondents who told all of their partners and those who told none (tables 128 and 129, appendix IV).

Figure 8: The first place where respondents sought treatment for STI symptoms in the past 12 months



## 4.9 Knowledge about and Access to Condoms

In both the Lugufu camps and surrounding villages, the vast majority of respondents said that they had heard of condoms (93% in camps, 85% in villages). Within each location there was very little difference across genders in terms of having previously heard about condoms (table 36). There were small and statistically insignificant differences between age groups (table 130, appendix IV). The most commonly reported function for condoms among respondents in both the camps and villages was protection against HIV/AIDS with prevention of pregnancy and family planning mentioned less often but still fairly frequently (34%-49% of responses depending on location) (table 132, appendix IV).

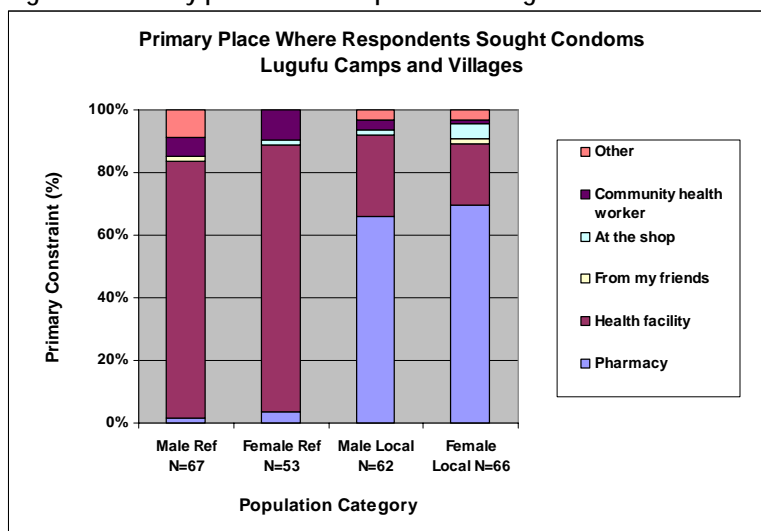
Reported rates of ever using a condom were higher in the Lugufu camps and villages than was reported in Ngara (table 131, appendix IV), but still low at 25% in Lugufu camps and 20% in the villages surrounding the Lugufu camps (table 36).

Table 36: Proportion of respondents who have heard about condoms and who have ever used condoms

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever heard of condoms?	Yes	272 (94%)	301 (92%)	573 (93%)	322 (86%)	452 (85%)	774 (85.5%)
	No	17 (6%)	26 (8%)	43 (7%)	52 (14%)	79 (15%)	131 (14.5%)
	Total	289	327	616	374	531	905
Have you ever used a condom?	Yes	77 (29%)	64 (21.5%)	141 (25%)	73 (23%)	79 (18%)	152 (20%)
	No	191 (71%)	233 (78.5%)	424 (75%)	248 (77%)	368 (82%)	616 (80%)
	Total	268	297	565	321	447	768

Almost all respondents in both Lugufu camps and villages indicated that they knew where to obtain a condom (95% in camps, 97% in villages) (table 133, appendix IV). As shown in the following chart (figure 9), the great majority of both male and female respondents in the Lugufu camps reported that they first sought condoms from the health facility. Very few camp respondents answering this question described other locations, though the community health worker figured somewhat as a source for both males and females. In the villages, some respondents also said that they first sought condoms from a health facility but the majority acquired condoms from a pharmacy.

Figure 9: Primary place where respondents sought condoms



In both the camps and villages, 86% of respondents reported that they can get a condom every time it is needed. The reported accessibility of condoms did not vary significantly across age groups (tables 135 and 136). Among the very few who reported a constraint in obtaining condoms, the most commonly mentioned reason among female camp respondents was health workers' attitudes. Among male camp respondents, constraints mentioned most commonly were places to obtain condoms not being open at convenient hours, and fear of being seen obtaining condoms. In the villages the most commonly indicated constraint among men was fear of being seen, while a smaller number of respondents also highlighted cost. For women, issues included inaccessibility in terms of distance and working hours of places where one can get a condom (i.e. places not open at convenient hours), as well as cost (table 137 and figure 12, appendix IV).

#### 4.10 Knowledge, Opinions, and Attitudes towards HIV/AIDS and persons living with it

The results of analysis on key indicators of knowledge, opinions, and attitudes towards HIV/AIDS are presented in table 138, appendix IV. Overall knowledge levels of key HIV transmission modes, looking at individual questions, were high within both the Lugufu camps and villages, with small differences between the 15-24 and 25-49 year age groups. Interestingly, the lowest knowledge score in both age groups was for the question "Can people protect themselves from HIV infection by abstaining from sex?" (69% and 70% among 15-24 year olds in the villages and camps, respectively; 75% and 79% among 25-49 year olds in the camps and villages, respectively). Within both age groups, there were only small differences between genders for the key knowledge questions. Respondents generally scored lower on questions designed to measure levels of misconception about HIV/AIDS than they did on the knowledge questions. This was the case for both younger and older age groups. Again, there were few differences across genders. The key question under this section that generated the lowest scores in both age groups within the camps was "Can people get infected with HIV through a mosquito bite?" Only fifty-seven percent of 15-24 year old respondents and 59% in the 25-49 year age group responded correctly. Within the villages, the most common misconception concerned the possibility of contracting HIV through shared use of a toothbrush with someone who is infected (64% and 68% correct identification in the 15-24 and 25-49 year age groups respectively).

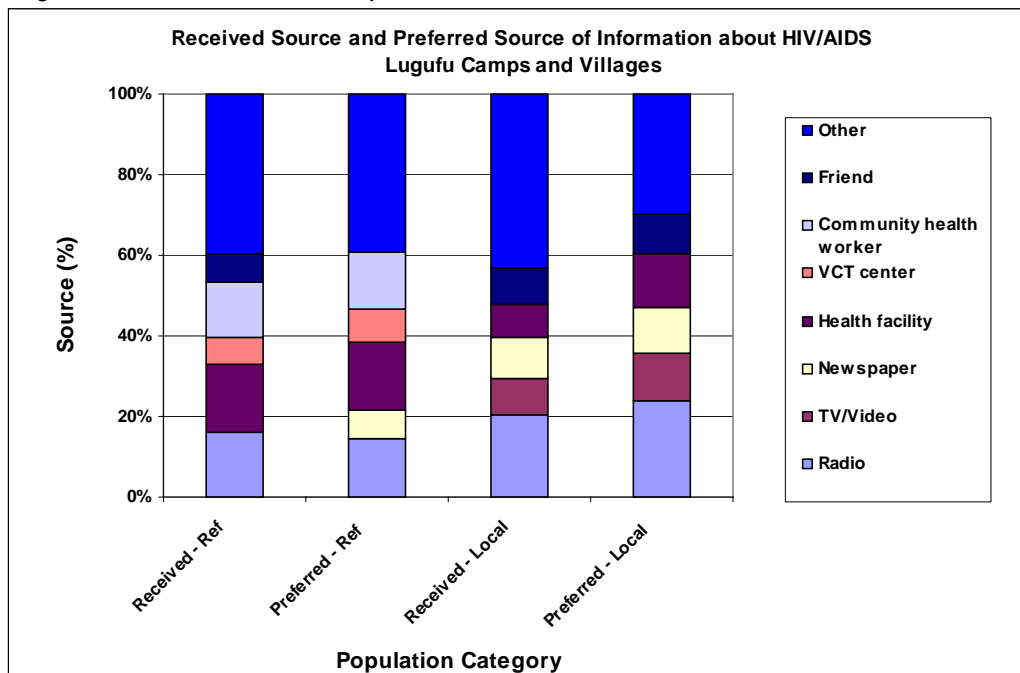
Within camps and within villages there was very little variation in attitudes across age groups. Between the two settings however there were differences on certain indicators. For example, while only 22% of village respondents (both age groups) said that they would want the HIV positive status of a relative to remain a secret, 48% of camp respondents 15-24 and 51% of camps respondents 25-49 indicated that they would (table 139, appendix IV). There was also somewhat higher variation across genders with regard to certain attitude measures, compared to the knowledge or misconception questions. Within the 15-24 year age groups in the camps, a higher proportion of females (46%) relative to males (38%) said that a teacher who is HIV positive should not be allowed to continue teaching. However, this difference was not statistically significant and was even smaller for those in this age group in the villages.

#### 4.11 Exposure and Access to Interventions

In the Lugufu camps, the most frequently mentioned sources of information about HIV/AIDS were the radio, health facilities, community health workers and to a lesser extent VCCT centers and friends. Many refugees noted receiving information from other sources which mainly include specific seminars they have attended. The composition of preferred sources of information about HIV/AIDS in the camps was fairly similar to current actual sources. Camp respondents did not mention that they would like to receive information through friends and some did indicate newspapers, but all other sources were the same as where they currently receive information and in basically similar proportions.

The picture in the villages was somewhat different mainly in the role of TV and video-based information which featured both as a current source of HIV/AIDS-related information and as a preferred source. Radio and newspaper sources were highlighted in fairly similar proportions as current and preferred sources, as well as health facilities and friends. Unlike the camp respondents, the village survey participants did not mention VCCT centers as a leading current or preferred source of information. Village respondents provided a mix of other current and preferred sources, predominantly seminars.

Figure 10: Received source and preferred source of information about HIV/AIDS



Results for questions relating to HIV VCCT services are provided in tables 140-146, appendix IV. Among both camp and village respondents there was generally high awareness of where one can go for an HIV test, though this was higher in the camps (84%) than in the villages (74%) (table 146, appendix IV). Less than half of camp respondents and fewer than 25% of village respondents had ever been tested for HIV. Both across and within age groups, more camp than village respondents had ever been tested (table 141, appendix IV). However, among those village and camp respondents who had ever been tested, the proportions that were tested within the past 12 months were similar both within age groups and for all ages. Among camp respondents who had an HIV test within the past 12 months, higher percentages received pre-test counseling (95% for all ages combined) than in the villages (76%). This difference was statistically significant for the total (all ages) comparison and for 20-24 year old respondents (table 142, appendix IV).

The vast majority of respondents indicated that the last time they had tested for HIV within the past 12 months, the test was voluntary and almost all reported that they received the results of their last HIV test (94% in camps, 100% in villages). A small but significant difference in the proportion of all respondents who had an HIV test in the past 12 months and received the results was noted, with the larger proportion in the camps (18%) and fewer in the villages (10%). This difference appears to be due mainly to the difference between the populations in testing, rather than any major divergence with regard to receiving results (table 145, appendix III). A somewhat lower proportion of 15-19 year old respondents (among those who had been tested in the past 12 months) in the camps said that they had received the test results (81%) which was statistically lower than other ages within the camps but not statistically lower than village respondents in that age group (table 143, appendix IV).

A somewhat higher proportion of female village respondents (66%) had been pregnant in the past five years compared to the refugee respondents (59%). Within both groups and at all ages, nearly all women who had been pregnant within the past five years had received ante-natal care (table 147, appendix IV).

## 5.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

### 5.1 Characteristics of Respondents

The results presented in earlier sections of this report are based on the feedback of 1693 respondents in Lukole and 1690 respondents in Lugufu. The gender breakdown in Lukole was fairly evenly split while at Lugufu there was some gender variation across age groups and overall more information was received from women than men.

The ethnic make up of each location was very homogeneous with virtually all Lukole camp respondents from Burundi, almost every Lugufu camp respondent from the DRC, and a vast majority of Tanzanian village respondents in both locations with negligible percentages of Rwandans and Burundians in the Lukole surrounding communities.

Most respondents in both locations were currently married at the time of the study. The predominant religious affiliation of study participants at Lukole (both camps and villages) was Catholic. At the Lugufu camps, about 50% of respondents were of protestant faiths with smaller percentages of Muslims and Catholics. In the villages surrounding Lugufu the largest percentage of respondents identified themselves as Muslims, with a smaller percentage of Protestants.

Education levels varied according to study site and sub-location (i.e. village or camp). At the Lukole camps, 22% of respondents completed up to primary school in contrast to 57% of those in the surrounding villages. At the Lugufu refugee camps, more respondents had completed secondary school or above (52%) than those for whom primary school was the highest level of schooling completed (29%). In the villages surrounding the Lugufu camps, the majority of respondents (68%) had finished primary school only, with a smaller proportion (7%) having gone on to complete secondary school or above. In the questionnaire used, response categories for the highest level of education attained were mutually exclusive such that the total proportion of respondents who had attained *at least* a primary level of schooling was 31% at the Lukole camps and 63% in surrounding villages, and 81% at the Lugufu camps and 75% in surrounding villages. The vast majority of refugee respondents (70% at Lukole, 84% at Lugufu) did not have any source of cash income. Among those who did, most at Lukole were engaged in agriculture while Lugufu refugees were more typically involved in trade. Greater proportions of village respondents had access to cash income. For both, the main source of income came from the agriculture sector.

Most respondents in all locations reported that they consumed no alcohol in the previous four weeks (62% at Lukole camps and 54% in surrounding villages; 92% at Lugufu camps and 90% in surrounding villages). Even smaller proportions of respondents indicated recreational drug use in the past 12 months (2% in Lukole camps and 4% in surrounding villages; 3% at Lugufu camps and 2% in surrounding villages). Sensitivities to discussing alcohol and drug use may have inhibited some respondents from providing candid information about this practice.

Circumcision rates for men were higher than for women at both survey sites but varied considerably between locations. At Lukole, 22% of males in the camps and 20% of males in surrounding villages were circumcised, compared to 2% of female respondents at both locations. At Lugufu, 93% of males in the camps and 86% of males in the villages were circumcised while 2% of women in the camps and 3% in the villages indicated that they were circumcised.

## Recommendations

Program plans should consider the following:

- Information, education, and communication activities should be appropriate to the varying educational levels across the project target groups. Activities at Lukole camps should be designed bearing in mind that the majority of participants are likely to have minimal literacy skills. Written materials for refugees at Lugufu may be created for a more literacy-advanced audience.
- Program planners should consider the possibility of introducing HIV/AIDS-related literacy programs targeted for those populations that may most need them.
- As most refugees in both locations have very limited access to cash, and many inhabitants of the targeted villages also have limited incomes, activities should be designed so as to minimize both financial and other burdens (e.g. time and distance to services).
- Recent research on the impact of male circumcision as an HIV preventive measure indicates that program planners should remain aware of efforts in this area and incorporate appropriate information to the target communities. Although female circumcision in the target populations is not common, it should not be ignored and program implementers should likewise include information about the harmful HIV-related health impact of this practice in education and communication materials.
- Although there is relatively little information available about the alcohol and drug consumption practice in the target population, program planners should not assume that these factors do not play a significant role in the establishment of various sexual relationships and HIV-related behaviors. Further investigation in this area is merited. Ideally qualitative methods may yield further insight into the drug and alcohol related practices of the target population and the relationship of these to various sexual relationships and the transmission of HIV/AIDS. It may be especially useful to design such an activity using participatory research methods.

## 5.2 Displacement, Mobility, and Networking

There was little indicated movement of refugees outside of the camps for any extended period of time and fewer than one quarter (22%) of refugees at Lugufu, and only 7% of refugees at Lukole, reported that they had been away from their community for one continuous month or more within the previous 12 months. However, at both refugee camp locations, across both younger (15-24 years and 25-49 years) and older age groups, more males than females had been away for 4 consecutive weeks or longer within the past 12 months. At both locations, most respondents from the host communities had not been absent for long periods. In Lukole, only 12% of respondents had been away for one continuous month or longer within the past 12 months, and in Lugufu the rate was only slightly higher at 17%.

There was fairly minimal visiting of refugees to the surrounding communities reported (70% in Lugufu and 75% in Lukole indicate that they never visit the surrounding community). At Lukole, there was more movement of nationals to camps than vice-versa (43% of nationals and 19% of refugees reported that they visit the other community one or more times per month) while at Lugufu cross-community visiting was also reported to occur among a greater proportion of nationals than refugees, though for both groups the proportions were lower than at Lukole (23% nationals and 17% refugees). In the villages surrounding both the Lukole and Lugufu camps, more males than females in the 25-49 year age group reported that they visited the camps one more more times per month. At the Lugufu camps, this was true for both the 15-24 year and 25-49 year age groups. Across all groups, the most commonly cited reasons for visits were shopping and/or to visit a friend.

## Recommendations

- Plans for an HIV/AIDS prevention program should consider that although there is some interaction between camp and host community populations, this is limited. Service delivery locations concentrated at in one location (e.g. within a camp) will likely serve the immediate

population. Service points should be distributed throughout beneficiary areas so as to be geographically accessible to the greatest number of people.

- Markets are one of the few places where refugee and host community populations meet with any regularity. Project planners should consider markets, especially in the camps, as a potential site for HIV prevention activities that simultaneously target both populations.

### 5.3 Sexual Intercourse and Sexual Partners

Across locations and sub-populations, the picture of sexual initiation and abstinence among never-married respondents aged 15-24 was varied. A large proportion of never-married respondents aged 15-24 at the Lukole camps and surrounding villages, 56% and 75% respectively, reported that they had never had sex. These proportions were lower in Lugufu, 32% in camps and 56% in villages. At both Lukole and Lugufu, the proportions of unmarried respondents aged 15-24 who had abstained from sex during the 12 months prior to the study were similar to those who had never had sex as described above. At Lukole, 66% of refugees and 77% of nationals (unmarried, aged 15-24) had been abstinent during the previous 12 months. The results at Lugufu were 39% of refugees and 63% of nationals. Among unmarried youth aged 15-24, few had sex with a casual partner (defined as any sexual partner different from the one with whom the respondent lived or were married to and to/from whom the respondent did not receive or give money, gifts or favors for sex) in the previous 12 months at the Lukole locations (4% and 17% in Lukole camps and villages, respectively) while these rates were higher in Lugufu (39% and 20% in Lugufu camps and villages, respectively). Within this age group, there were similar levels of variation across sub-populations in terms of the proportion of respondents (married and unmarried combined) who had higher risk sex (defined as sex with a casual or transactional partner) in the past 12 months (definition of transactional partner provided below). At Lukole, 4% of respondents in camps and 19% of those in villages reported higher risk sex in the previous 12 months while at Lugufu this applied to 40% in camps and 21% in villages. Relatively few respondents of all ages and marital status at Lukole reported having had more than one sex partner (any type) in the previous 12 months (8% refugees; 23% nationals), while proportions at Lugufu were somewhat higher (37% refugees, 30% nationals).

#### Recommendation

- Evidence in five countries in Africa has shown that limiting the number partners is a primary way that AIDS transmission can be reduced at both a personal and population level. Inasmuch as most respondents, including many youth, in the study site are already sexually active, program efforts should promote preventive practices within existing relationships and inform target populations of the risks of increased numbers of sexual partners. Messages should focus on reducing the number of regular partners and keeping the number of casual sex partners low.

### 5.4 Condom Use with Regular and Casual Sex Partners

Condom use among both refugees and nationals in both study sites was very low. Among those respondents who had a regular sex partner in the past 12 months, 3% of refugees and 9% of nationals of all ages at Lukole reported that they had used a condom at last intercourse with a regular partner. Within the Lugufu sample populations, only 12% of camp respondents and 8% of those in the surrounding villages who had sex with a regular partner in the past 12 months had used a condom at last intercourse with a regular partner.

In reviewing condom use with casual partners, it is first important to consider the proportion of the population with casual sex partners. There was considerable variation across sub-populations in the proportions who had recently had a casual sex partner. Among Lukole camp respondents of all ages who had ever had sex, 4% reported that they had sex with a casual partner within the past 12 months.



Among those in the 15-24 age group, this proportion was 7%. In the villages surrounding Lukole, 19% of respondents of all ages, among those who had ever had sex, reported having had a casual sex partner in the previous 12 months. Among those in the 15-24 age category, the corresponding proportion was 32%. At the Lugufu camps, among those respondents who ever had sex, 36% of all ages, including 49% of those aged 15-24, indicated that they had a casual sex partner within the previous 12 months. In the surrounding villages the corresponding proportions were 24% for all ages, and 30% for the 15-24 year age group.

Condom use at last intercourse with a casual sex partner was low across all ages groups but is of particular concern among those in the 15-24 year age category as this age group included a relatively high proportion of respondents who reported having had a casual sex partner in the past 12 months. At the Lukole camps, 33% of respondents aged 15-24 who had a casual sex partner in the past 12 months reported that they had used a condom at last intercourse with a casual sex partner. The corresponding proportion in the villages surrounding the Lukole camps was 26%. At Lugufu, this applied to 39% in the camps and 28% in the surrounding villages.

Consistent condom use with casual sex partners (defined as using a condom every time with all casual sex partners) was also low. Sixteen percent of Lukole refugee respondents and 24% of nationals had practiced consistent condom use with all casual partners in the last 12 months. At Lugufu, consistent condom use with all casual partners was also very low at 20% and 12% among camp and village respondents, respectively.

#### Recommendation

- A key part of future activities must focus on encouraging increased condom use within the target population. As indicated in later analysis the availability of condoms does not seem to be as big a hindrance to use as behavior-related reasons. Prevention activities should include guidance on condom use negotiation within couples, the importance of using condoms with regular partners when either one of the couple has more than one regular partner and/or casual partners, and the critical importance of consistent condom use with all casual partners.
- During program planning, further investigation should focus on better understanding the full range of reasons for which a large proportion of the target population does not use condoms. While survey exercises such as this can highlight the general issues, a more in-depth review of behavior-related hindrances to condom use in particular is warranted.

#### 5.5 Transactional Sex and Condom Use during Transactional Sex

Transactional sex in this study applied to both those who have given and/or received cash and/or gifts for sex. Data from this study indicate that the proportion of respondents who had ever had transactional sex is variable across age groups and locations. Among respondents at Lukole (combined ages), 1% in the camp population and 7% of nationals indicated that they had ever had transactional sex. Within the 15-19 year age group, the corresponding proportions were 1% and 8% of camp and village respondents, respectively. At Lugufu, 20% of all camp respondents and 6% of those from villages had ever had transactional sex. Among 15-19 year olds, this applied again to 20% of respondents in the camp population and 6% in the villages. Analysis indicates that the proportion of 15-24 year old respondents in the villages surrounding the Lukole camps who had ever had transactional sex (10%) compared to those in the 25-49 year age group (6%) was significantly different highlighting a possible growing concern for younger persons in particular.

Across both locations and all age groups, most respondents who ever had transactional sex reported that they had experienced transactional sex within the past 12 months, indicating an on-going risk behavior. Among 15-24 year old respondents .3% in Lukole camps, 9% in villages surrounding Lukole,

16% in Lugufu camps and 3% in villages surrounding Lugufu had experienced transactional sex in the past 12 months. Variation across locations was observed in terms of the difference in proportions of respondents who reported transactional sex in the past 12 months based on gender. At both the Lugufu camps and surrounding villages, a greater proportion of males than females reported transactional sex in the past 12 months in the 15-24 age year group (21% of males and 12% of females, Lugufu camps; 8% of males, 1% of females, Lugufu surrounding villages), which were statistically significant differences. At Lukole, significant differences between genders for this variable did not exist, according to the results obtained.

Condom use at last intercourse with a transactional sex partner, among those who had experienced transactional sex in the past 12 months, was not reported among Lukole refugees, and was 37% among Lukole nationals, 44% among Lugufu refugees, and 25% among Lugufu nationals. Condom use was higher for transactional sex compared to condom use with regular or casual partners for all ages combined, but in the 15-24 age group this was variable across locations, and there was clearly still room for a substantial increase. In this age group, there was also variation in the proportion of males compared to females who reported using a condom at last transactional sex, depending on location. In surrounding villages at both Lukole and Lugufu, a larger percentage of females than males reported condom use at last transactional sex (39% females and 33% males, surrounding villages Lukole; 33% females and 22% males, surrounding villages Lugufu) while at the camps in Lugufu this trend was reversed (49% males, 35% females).

### Recommendation

- Transactional sex is a form of exploitation and program activities should aim to minimize this practice to every extent possible. Such efforts may take a variety of forms focused on both parties in such transactions and factors in the general environment that facilitate transactional sex. While all age groups should be targeted for such activities, special attention should be paid to the youngest age groups.
- Program activities that promote the use of condoms should highlight the critical importance of correct and consistent condom use with transactional sex partners. As many of the reasons associated with the non-use of condoms in such relationship are behavioral, HIV prevention programs should find effective means of helping affected persons in the target population to overcome behavior-related barriers to consistent condom use.

### 5.6 Forced Sex

Reporting of forced sex (defined as forced to have sex against one's will) within the Lukole study populations, both in the camp and villages, was relatively low. At the Lukole camp, 3.5% of respondents discussed ever having experienced forced sex, among whom approximately 13% (equivalent to .7% overall) reported such an experience within the past 12 months. Most commonly, camp respondents indicated that they had experienced forced sex violence after displacement. Within the surrounding villages at Lukole, only 2% indicated that they had ever experienced forced sex, among whom 29% (equivalent to .7% overall) had experienced this within the past 12 months. Nationals reported most frequently that the forced sex had occurred after the arrival of refugees. At Lugufu, 10% of refugees and 4% of nationals said that they had ever been forced to have sex against their will. As with Lukole, such incidents appear to be spread out over time inasmuch as less than 50% (45% at Lugufu camps and 53% in surrounding villages) of those who had ever experienced forced sex (equivalent to 3% in Lukole camps and 1% in surrounding villages, overall) reported that they had been forced to have sex within the past 12 months. Again, most responses highlight forced sex having occurred after displacement (for refugees) or after the arrival of refugees (for nationals).

## Recommendation

- There is a clear and documented link between forced sex and the risk of HIV transmission. Program planners should further investigate the prevalence of forced sex within the target population and integrate efforts to prevent forced sex and address the health needs of forced sex survivors. This may take a variety of forms including prevention sensitization activities at the community level and response measures geared to addressing the needs of those who have experienced forced sex. Within the latter, such methods should include post-exposure prophylaxis.

## 5.7 Sexually Transmitted Infections

The majority of respondents at both Lukole and Lugufu had heard about sexually transmitted infections (STIs); 94% Lukole camps and 92% Lukole villages; 95% Lugufu camps and 91% Lugufu villages). Direct experience of ever having experienced STI symptoms (defined as unusual genital discharge and/or genital sores or ulcers) was relatively low across all settings; 4% to 9% percent depending on location and symptom description. Among respondents who had experienced an STI in the past 12 months, the majority first sought treatment at a private or public health facility (90% Lukole camps and 63% Lukole villages; 57% Lugufu camps and 87% Lugufu villages). Among those who had an STI within the past 12 months, the proportion who informed all partners was uneven and insufficient across locations, ranging from 43% to 73%.

## Recommendations

- Inasmuch as this study has not focused in-depth on the measurement of STI rates, it is possible that STIs are more widespread than the results would indicate. As well, the study has not looked closely at the diagnostic and treatment practices in place. Program planners should more thoroughly research specific STI prevalence rates and the impact of current treatment practices in order to incorporate any improvements needed in this area.
- The practice of informing all partners when diagnosed with an STI is an important measure in efforts to reduce STI transmission and can help minimize the potential impact this HIV co-factor. Program efforts should incorporate guidance and support to target beneficiaries in prompt disclosure of STIs to all partners with consequent treatment.

## 5.8 Knowledge about and Access to Condoms

Results indicate that the vast majority of respondents had heard about condoms and most people identified condom use as a means of HIV prevention. Nevertheless, as noted above, condom use with various sex partners was low across all study sites. At Lukole, of those who had ever heard of condoms, only 8% of camp respondents and 15% in villages had ever used one. At Lugufu these rates were higher than Lukole but still quite low (25% in camps and 20% in the villages). The data indicate that the majority of respondents knew where to obtain a condom and had few practical constraints in obtaining them. Still, the low condom usage rates are of concern.

## Recommendation

- Inasmuch as the vast majority of respondents in both study locations already know about condoms and report that they are able to obtain them when needed, program efforts should focus on more specifically determining why the target population remains reluctant to use them. Structural causes in the environment such as the distance to and operating hours of condom supply outlets should be addressed through a diversification and increase of condom sources. However, more attention should be focused on ways to encourage the adoption of regular condom use especially in high-risk situations of multiple partners, casual partners, and transactional sex where condom use is reportedly low. This can be addressed at the individual

level through interventions such as peer education and focused counseling by health providers, as well as at the community level through information, education, and communication efforts specifically focused on reducing stigma related to condom use.

## 5.9 Knowledge, Opinions, and Attitudes towards HIV/AIDS

In both study sites and among both the camp and village respondents, knowledge about the modes of HIV transmission and prevention methods was high as measured on individual questions. Among 15-24 year old respondents at both the Lukole camps and the surrounding villages, the proportion of male and female respondents' who could correctly answer any one of knowledge-based questions ranged from 77%-98%. Measures of correctly rejecting misconceptions about HIV were generally lower than knowledge measures, depending on the question and ranged between 62%-91%. Comprehensive correct knowledge of HIV/AIDS defined by five selected questions (see core indicator 12 for further definition), was recorded for 35% of respondents 15-24 years old in the Lukole camps, and 48% of those in the surrounding villages. In general the proportion of respondents at Lukole who expressed supportive attitudes towards persons living with HIV/AIDS and HIV prevention indicated a mix of sentiments depending on the issue. Within the Lukole camps, the proportion of respondents expressing supportive attitudes was 64%-81%, with the lowest support shown on the questions "if a teacher was infected with the virus that causes AIDS, should he/she be allowed to continue teaching?" (64% indicated yes) and "if a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret?" (66% said no). At the surrounding villages, supportive attitudes were expressed by between 47%-83% of respondents depending on the question. For the questions mentioned above, the proportions showing supportive attitudes were 47% and 83% respectively. As such, there was variation of sentiment both across locations on some issues, and within locations depending on the question. Relatively few respondents (23% in the camps; 27% in surrounding villages) expressed supporting attitudes on all four selected attitude questions.

Among 15-24 year old respondents at the Lugufu camps and surrounding villages, the proportion of male and female respondents' who could correctly answer any one of knowledge-based questions ranged from 69%-94%. As in Lukole, rejection of common misconceptions was expressed by lower proportions of respondents in this age group compared to questions measuring correct knowledge (57%-85% across the camps and villages combined). Although the proportion of respondents who correctly answered any one question was high, comprehensive knowledge of HIV/AIDS measured by the composite of five selected questions as described above was low: 26% in camps and 24% in villages. As was the case in Lukole, a wide variety of responses with regard to attitudes supportive of people living with HIV/AIDS was recorded among 15-49 year old respondents, ranging from 34%-74% in the camps and 39%-88% in the villages. Indicative of this variation, there were few respondents in either community who expressed supporting attitudes on four selected questions (9% in the camps; 24% in the villages).

### Recommendation

- Despite relatively high knowledge levels on individual questions, efforts to keep target populations well-informed about the modes of HIV transmission and means of prevention should continue with the goal of increasing comprehensive correct knowledge and the rejection of common misconceptions. More emphasis should be placed on dispelling common misconceptions about HIV through specifically targeted information, education, and communication campaigns. As well, efforts should be made to enhance supportive attitudes for persons living with HIV/AIDS in order to reduce stigma and encourage the support of those living with the illness. Program plans should early on incorporate community opinion leaders who can help to address many of the attitude-related issues include the instruction of youth in the use of condoms.

## 5.10 Exposure and Access to Interventions

In both the Lugufu camps and villages, respondents reported that their current sources of information about HIV/AIDS reflect their preferred sources of information. Within the camps, the most commonly noted sources were radio, health facilities, and community health workers. Village respondents more frequently mentioned TV and video as both current and preferred sources of information about HIV/AIDS. At Lukole, both village and camp respondents identified radio messages as a source of current HIV/AIDS-related information. Camp respondents also mentioned health facilities and voluntary confidential counseling and testing centers more frequently than village respondents. In terms of preferred source, radio again featured in both village and camp responses as well as newspapers, though noted by a smaller percentage. Both groups also wanted to continue receiving information through health facilities and community health workers. Generally, knowledge about where one could go for HIV testing was higher in the camps (83% at Lukole camps, 84% at Lugufu camps) than in the villages (68% Lukole villages, 74% Lugufu villages). Actual testing was also higher in the camps than the villages. At Lukole, 32% of respondents in camps, compared to 15% in the surrounding villages reported that they both had an HIV test in the past 12 months and received the results. At Lugufu, this applied to 18% of camp respondents and 10% in the surrounding villages.

### Recommendation

- Program plans for information-related efforts should take into account the noted preferences in each of the locations. These focus mainly on media outlets and health services.
- Although many respondents knew where to go for an HIV test, efforts should be made to ensure that the target population at all locations is aware of existing testing site options. As actual testing rates are not uniformly high, there may be need to expand testing site and/or to make more accessible the existing testing sites, especially in the villages.
- As most women in both camps and villages do receive antenatal care when pregnant, HIV testing and/or information about testing should be emphasized during antenatal visits with attention to involving male partners as effectively as possible.

# APPENDIX I: Map of Refugee Camps in Western Tanzania



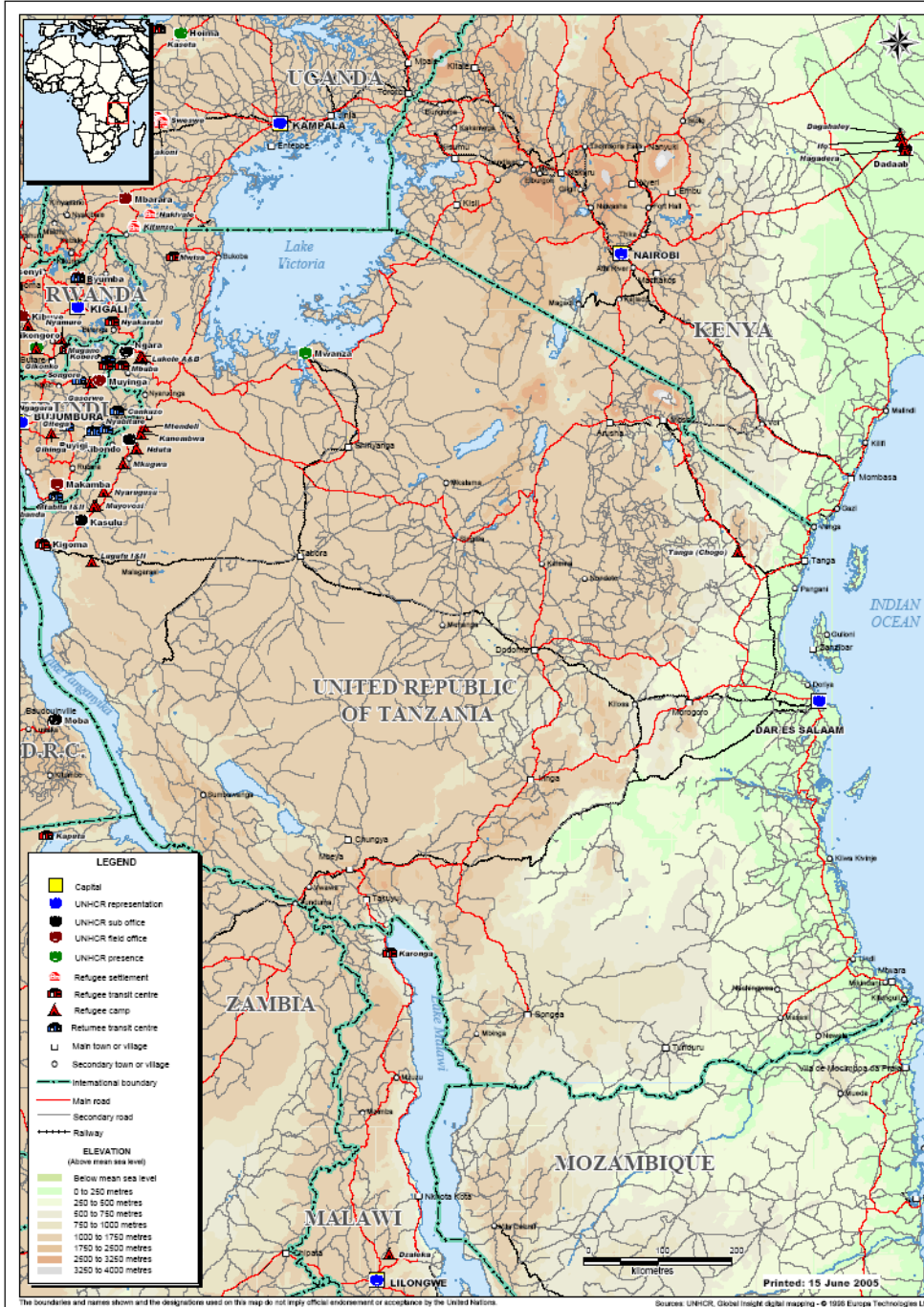
## United Republic of Tanzania Atlas Map

As of June 2005

### PGDS in DOS

Population and Geographic Data Section  
Division of Operational Support

Email: mapinfo@unhcr.org



## APPENDIX II: Sample Size Determination

The following formula was used to determine the sample size for youth as well as for the other target groups:

$$n = D \frac{\left[ \sqrt{2P(1-P)}Z_{1-\alpha} + \sqrt{P_1(1-P_1) + P_2(1-P_2)}Z_{1-\beta} \right]^2}{\Delta^2}$$

Where:

D = design effect;

$P_1$  = the estimated proportion at the time of the first survey;

$P_2$  = the proportion at some future date such that the quantity ( $P_2 - P_1$ ) is the size of the magnitude of change it is desired to be able to detect;

$P = (P_1 + P_2) / 2$ ;

$\Delta^2 = (P_2 - P_1)^2$

$Z_{1-\alpha}$  = the z-score corresponding to the probability with which it is desired to be able to conclude that an observed change of size ( $P_2 - P_1$ ) would not have occurred by chance;

$Z_{1-\beta}$  = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size ( $P_2 - P_1$ ) if one actually occurred.

$\alpha = 0.05$  ( $Z_{1-\alpha} = 1.65$ )    $\beta = 0.20$  ( $Z_{1-\beta} = 0.84$ )

APPENDIX III: TABLES 37 – 87 FOR REFERENCED RESULTS, LUKOLE CAMPS AND SURROUNDING VILLAGES

*Displacement and Networking*

Table 37: Length of time living in the current community, by age group and gender

			Camps (Lukole A&B)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
How long have you been living in the community where you currently live?	15-24	Up to 12 months	1 (.6%)	20 (10%)	21 (6%)	$\chi^2$ 13.6687 p=.000	5 (4%)	17 (9%)	22 (7%)	$\chi^2$ 3.5152 p=.0184
		> 12 months	155 (99%)	182 (90%)	337 (94%)		132 (96%)	174 (91%)	306 (93%)	
	25-49	Up to 12 months	3 (1%)	4 (2%)	7 (1%)	$\chi^2$ .2194 p=.64	6 (3%)	8 (3%)	14 (3%)	$\chi^2$ .1503 p=.6283
		> 12 months	264 (99%)	246 (98%)	510 (99%)		229 (97%)	247 (97%)	476 (97%)	

Table 38: Proportion of respondents who have left their community for more than 4 consecutive weeks within the last 12 months, by age group and gender

			Camps (Lukole A&B)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
Have you left home for longer than 4 weeks in the last 12 months?	15-24	Yes	19 (12%)	11 (5%)	30 (8%)	$\chi^2$ 5.1328 p=.023	18 (13%)	24 (13%)	42 (13%)	$\chi^2$ .0281 p=.867
		No	137 (88%)	190 (95%)	327 (92%)		117 (87%)	165 (87%)	165 (87%)	
	25-49	Yes	20 (8%)	7 (3%)	27 (5%)	$\chi^2$ 5.6828 p=.017	33 (14%)	24 (9%)	57 (12%)	$\chi^2$ 2.6134 p=.106
		No	244 (92%)	239 (97%)	483 (95%)		200 (86%)	230 (91%)	430 (88%)	

Table 39: Frequency of visits to camp/surrounding community, by age group and gender

			Camps (Lukole A&B)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
How often do you go to the camp/surrounding community to visit?	15-24	1 or more times/month	35 (23%)	38 (19%)	73 (20%)	$\chi^2$ .7122 p=.399	46 (34%)	73 (38%)	119 (36%)	$\chi^2$ .7440 p=.388
		Never or < 1 times/month	121 (78%)	164 (82%)	285 (80%)		91 (66%)	118 (62%)	209 (64%)	
	25-49	1 or more times/month	53 (20%)	44 (18%)	97 (19%)	$\chi^2$ .4289 p=.513	124 (53%)	110 (43%)	234 (48%)	$\chi^2$ 4.5445 p=.033
		Never or < 1 times/month	214 (80%)	206 (82%)	420 (81%)		111 (47%)	145 (57%)	256 (52%)	



Table 40: Differences between genders in answering the question “Have you left home for longer than 4 weeks in the last 12 months?” (per location)

		Male	Female	Test Statistic
Lukole Camps	Yes	39 (9%)	18 (4%)	$\chi^2$ 9.7499 p=.002
	No	381 (91%)	429 (96%)	
Lukole Villages	Yes	51 (14%)	48 (11%)	$\chi^2$ 1.7149 ns
	No	317 (86%)	395 (89%)	

ns = not significant

Table 41: Reasons for absence from home community for one month or longer in previous 12 months, among those reporting such an absence

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Why were you away from this place for one month or more?	Employment	12 (40%)	4 (28.5%)	16 (36%)	5 (11%)	2 (4%)	7 (7%)
	Trade	2 (7%)	0	2 (4.5%)	7 (15%)	6 (12%)	13 (13%)
	Family-related	5 (17%)	9 (64%)	14 (32%)	21 (46%)	24 (47%)	45 (46%)
	Political reasons	0	0	0	1 (2%)	0	1 (1%)
	Military-related	0	0	0	0	0	0
	School-related	2 (7%)	0	2 (4.5%)	2 (4%)	2 (4%)	4 (4%)
	In jail	1 (3%)	0	1 (2%)	3 (6.5%)	2 (4%)	5 (5%)
	Health-related	2 (7%)	1 (7%)	3 (7%)	4 (9%)	10 (20%)	14 (14%)
	Holiday	1 (3%)	0	1 (2%)	1 (2%)	2 (4%)	3 (3%)
	Religion-related	0	0	0	1 (2%)	1 (2%)	2 (2%)
	Other	5 (17%)	0	5 (11%)	1 (2%)	0	1 (1%)
	Total	30	14	44	46	51	97

Table 42: Differences between proportions of men compared to women who were away from their current community for more than four consecutive weeks within the past 12 weeks for family-related or employment reasons (Lukole refugee camps)

	Employment-related reason	Male	Female	Test Statistic
Lukole Camps	Yes	12 (40%)	4 (28.5%)	$\chi^2$ .5388 ns
	No	18 (60%)	10 (71%)	
	Family-related reason	Male	Female	Test Statistic
	Yes	5 (17%)	9 (64%)	$\chi^2$ 9.9773 p=.002
	No	25 (83%)	5 (36%)	

ns = not significant

Table 43: Differences between camp and village respondents in answering the question "How often do you go to the camp/surrounding community to visit?"

	Frequency of visits	Lukole Camps	Lukole Villages	Test Statistic
Lukole Camps and Villages	Never	658 (76%)	340 (42%)	$\chi^2$ 197.71 p=.000
	< 1/month or once a month or many times/month	212 (24%)	471 (58%)	
	Family-related reason	Lugufu Camps	Lugufu Villages	Test Statistic
Lugufu Camps and Villages	Never	528 (70%)	619 (67%)	$\chi^2$ 2.0819 p=.149
	< 1/month or once a month or many times/month	224 (30%)	306 (33%)	

Table 44: Reasons for visiting refugees/host community the last time such a visit was made, among those reporting ever making such a visit

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you visited the refugees/host community, what was your reason?	Employment	12 (12%)	5 (5%)	17 (9%)	1 (.5%)	1 (.5%)	2 (.5%)
	Trade	2 (2%)	0	2 (1%)	10 (5%)	5 (2%)	15 (4%)
	Shopping/market	4 (4%)	7 (7.5%)	11 (6%)	120 (60%)	75 (34%)	195 (46%)
	Health care	0	0	0	1 (.5%)	1 (.5%)	2 (.5%)
	School	0	0	0	0	1 (.5%)	1 (.25%)
	Entertainment	0	0	0	3 (1.5%)	2 (1%)	5 (1%)

	Food	9 (9%)	6 (6%)	15 (8%)	0	1 (.5%)	1 (.25%)
	Visit relative/friend	65 (64%)	64 (69%)	129 (66%)	51 (25.5%)	126 (57%)	177 (42%)
	Collect firewood	5 (5%)	8 (9%)	13 (7%)	4 (2%)	6 (3%)	10 (2%)
	Attend religious service	0	1 (1%)	1 (.5%)	10 (5%)	1 (.5%)	11 (3%)
	Other	5 (5%)	2 (2%)	7 (4%)	0	1 (.5%)	1 (.25%)
	Total	102	93	195	200	220	420

### *Sexual Intercourse and Sexual Partners*

Table 45: Proportion of respondents who have ever had sex, per location

Have you ever had sexual intercourse?		Lukole Camps	Surrounding Villages - Lukole	Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Yes		720 (82%)	644 (79%)	686 (90%)	801 (86%)	$\chi^2$ 41.61 p=.000
No		154 (18%)	169 (21%)	74 (10%)	128 (14%)	
Total		874	813	760	929	

Table 46: Differences between proportions of respondents aged 15-19 who indicate that they have had sex, comparing Lukole camps and surrounding villages

	Have ever had sex	Lukole Camps	Surrounding Villages - Lukole	Test Statistic
Have you ever had sexual intercourse?	Yes	62 (34%)	49 (28%)	$\chi^2$ 1.2794 ns
	No	121 (66%)	124 (72%)	
	Total	183	173	

ns = not significant

Table 47: Difference between proportions of respondents who indicate that they have had sex, comparing age groups 15-19 and 20-24, in both Lukole camps and surrounding villages

	Has ever had sex	15-19	20-24	Test Statistic
Lukole Camps	Yes	62 (34%)	151 (86%)	$\chi^2$ 101.9496 p=.000
	No	121 (66%)	24 (14%)	
Surrounding Villages - Lukole	Yes	49 (28%)	125 (82%)	$\chi^2$ 94.5445 p=.000
	No	124 (72%)	27 (18%)	

Table 48: Proportion of unmarried respondents aged 15-19 who have had sex with a casual partner in the past 12 months, by gender

	Has had sex with a casual partner in last 12 months	Lukole Camps	Surrounding Villages	Test Statistic
Unmarried Males	Yes	2 (2.5%)	9 (12%)	$\chi^2$ 5.1797 p=.000
	No	79 (97.5%)	68 (88%)	
Unmarried Females	Yes	3 (4%)	8 (12%)	$\chi^2$ 3.0404 p=.0112
	No	71 (96%)	59 (88%)	

Table 49: Proportion of respondents aged 15-24 who have had a regular sex partner in the past 12 months, by gender

	Has had a regular sex partner in the last 12 months	Males	Females	Test Statistic
Lukole Camps	Yes	40 (26%)	112 (55%)	$\chi^2$ 32.0046 p=.000
	No	116 (74%)	90 (45%)	
Surrounding Villages	Yes	41 (30%)	91 (48%)	$\chi^2$ 10.6758 p=.001
	No	96 (70%)	99 (52%)	

Table 50: Number of regular sex partners in the past 12 months, by gender

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
How many regular partners did you have sex with in the past 12 months?	One	7 (3%)	11 (4%)	18 (3%)	34 (14%)	27 (10.23)	61 (12%)
	Two	5 (2%)	1 (<.50%)	6 (1%)	14 (6%)	8 (3%)	22 (4%)
(Among those who have ever had a regular partner	More than two	245 (95%)	294 (96%)	539 (96%)	188 (80%)	229 (87%)	417 (83%)
	Total	257	306	563	236	264	500

Table 51: Cross-location comparison of the proportion of respondents who have had sex with a casual partner in the past 12 months, by age group (among those who have ever had sex)

	Has had a casual sex partner in the last 12 months	Lukole Camps	Surrounding Villages	Test Statistic
15-24 years	Yes	15 (7%)	55 (32%)	$\chi^2$ 39.3882 p=.000
	No	198 (93%)	118 (68%)	
25-49 years	Yes	19 (4%)	67 (14%)	$\chi^2$ 33.6883 p=.000
	No	487 (96%)	401 (86%)	

**Table 52: Nationality of Non-Regular (Casual) Sex Partners**

Nationality of Respondents		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Burundian	Non-regular partners (casual sex)	17 (4%)	17 (4%)	34 (4%)	2 (22%)	2 (22%)	4 (22%)
	Nationality of most recent non-regular (casual) sex partner: Burundian	16 (94%)	15 (88%)	31 (91%)	1 (50%)	0	1 (25%)
	Nationality of most recent non-regular (casual) sex partner: Tanzanian	1 (6%)	2 (12%)	3 (9%)	1 (50%)	2 (100%)	3 (75%)
Tanzanian	Non-regular partners (casual sex)	0	0	0	61 (17%)	52 (12%)	113 (15%)
	Nationality of most recent non-regular (casual) sex partners: Burundian	0	0	0	6 (10%)	8 (15%)	14 (13%)
	Nationality of most recent non-regular (casual) sex partners: Tanzanian	0	0	0	47 (80%)	41 (79%)	88 (79%)
	Nationality of most recent non-regular (casual) sex partners: Rwandan	0	0	0	6 (10%)	2 (4%)	8 (7%)
	Nationality of most recent non-regular (casual) sex partners: Kenyan	0	0	0	0	1 (2%)	1 (1%)
Rwandan	Non-regular partners (casual sex)	0	0	0	3 (50%)	5 (38%)	8 (42%)
	Nationality of most recent non-regular (casual) sex partners: Burundian	0	0	0	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Tanzanian	0	0	0	2 (67%)	1 (20%)	3 (37%)
	Nationality of most recent non-regular (casual) sex partners: Rwandan	0	0	0	1 (33%)	4 (80%)	5 (63%)

**Table 53: Cross-location comparison of the proportion of respondents who have had sex with one vs. more than one casual sex partner in the past 12 months**

How many casual partners did you have sex with in last the 12 months?		Lukole Camps	Surrounding Villages	Test Statistic
(Among those who have had a casual sex partner in the past 12 months)	One	27 (82%)	79 (63%)	$\chi^2$ 4. 0987 p=.0001
	Two or more	6 (18%)	46 (37%)	

## Condom Use with Regular and Casual Sex Partners

Table 54: Proportion of respondents who used a condom at last sexual intercourse with regular sex partner, by gender

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you had sex with your regular partner, did you use a condom?  (Among those who have had a regular sex partner in the past 12 months)	Yes	8 (3%)	7 (2%)	15 (3%)	29 (12%)	20 (7%)	49 (9%)
	No	247 (97%)	296 (98%)	543 (97%)	216 (88%)	275 (93%)	491 (91%)
	Total	255	303	558	245	295	540

Table 55: Difference in proportion of respondents who used a condom at last sexual intercourse with regular sex partner, by age group, among those who had a regular sex partner in the past 12 months

	The last time you had sex with your regular partner, did you use a condom?	15-19 years	20-49 years	Test Statistic
Lukole Camps	Yes	3 (9%)	12 (2%)	$\chi^2$ 5.4966 p=.019
	No	30 (91%)	513 (98%)	
Surrounding Villages	Yes	7 (23%)	42 (8%)	$\chi^2$ 7.8280 p=.0289
	No	23 (77%)	468 (92%)	

Table 56: Difference in proportion of respondents who used a condom at last sexual intercourse with a casual partner, by age group, among those who had a casual sex partner in the past 12 months

	The last time you had sex with a casual partner did you use a condom?	15-24 years	25-49 years	Test Statistic
Lukole Camps	Yes	5 (33%)	5 (26%)	$\chi^2$ .1988 p=.656
	No	10 (66%)	14 (74%)	
Surrounding Villages	Yes	14 (26%)	14 (22%)	$\chi^2$ .2191 p=.7031
	No	40 (74%)	49 (78%)	

## Transactional Sex

Table 57: Difference in proportion of respondents who have ever had sex with a transactional sex partner, comparing age categories 15-24 years and 25-49 years

	Have you ever had sex in exchange for money, a gift or a favor?	15-24 years	25-49 years	Test Statistic
Surrounding Villages (Lukole)	Yes	33 (10%)	27 (6%)	$\chi^2$ 5.9865 p=.04
	No	295 (90%)	463 (94%)	

Table 58: Difference in proportion of respondents who have ever had sex with a transactional sex partner, comparing age categories 20-24 years and 25-49 years

	Have you ever had sex in exchange for money, a gift or a favor?	20-24 years	25-49 years	Test Statistic
Surrounding Villages (Lukole)	Yes	19 (12%)	27 (6%)	$\chi^2$ 8.3769 p=.005
	No	134 (88%)	463 (94%)	

Table 59: Transactional sex before, during, or after displacement (among camp respondents), and before or after the arrival of refugees (among village respondents)

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During which period in your life did you exchange sex for money, a gift or a favor?	Before Displacement/ arrival of refugees	0	0	0	5	9	14 (48%)
	During Displacement	0	0	0	n/a	n/a	n/a
	After Displacement/ arrival of refugees	5	3	8	18	26	44
	Total	5	3	8	23	35	58

(Note: Response categories are not mutually exclusive; proportions therefore provided as denominator relates to responses, not respondents)

Table 60: Origin of transactional sex partner by gender and across locations among respondents who have ever had transactional sex

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Who was the last person with whom you exchanged sex for money, a gift or a favor?  (Among those who have ever had transactional sex)	Refugee	3 (60%)	1 (33%)	4 (50%)	8 (38%)	9 (29%)	17 (33%)
	Person from local community	1 (20%)	1 (33%)	2 (25%)	13 (62%)	15 (48%)	28 (54%)
	Military, paramilitary, police	0	0	0	0	4 (13%)	4 (8%)
	Humanitarian/ development worker	0	1 (33%)	1 (12.5%)	0	3 (10%)	3 (6%)
	Other	1 (20%)	0	1 (12.5%)	0	0	0
	Total	5	3	8	21	31	52

## Forced sex

Table 61: Forced sex before, during, or after displacement (among camp respondents), and before or after the arrival of refugees (among village respondents)

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During which period in your life were you forced to have sex? (Among those ever forced to have sex)	Before Displacement/ arrival of refugees	1	4	5	0	1	1
	During Displacement	2	6	8	n/a	n/a	n/a
	After Displacement/ arrival of refugees	4	6	10	5	4	9
	Total	7	16	23	5	5	10

(Note: Response categories are not mutually exclusive and the figures above reflect the total number of responses given; therefore no proportions as related to total number of respondents are provided in this table.)

Table 62: Difference in proportion of respondents who have ever experienced forced sex, comparing males and females

	Have you ever been forced to have sex against your will?	Males	Females	Test Statistic
Lukole Camps	Yes	8 (3%)	16 (4%)	$\chi^2$ 1.2969 p=.255
	No	299 (97%)	364 (96%)	
Surrounding Villages	Yes	7 (3%)	8 (2%)	$\chi^2$ .0144 p=.8616
	No	281 (97%)	342 (98%)	

## Alcohol and Drug Use

Table 63: Alcohol consumption in the past four weeks

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
In the last four weeks, how often have you had drinks containing alcohol?	Everyday	56 (13%)	23 (5%)	79 (9%)	62 (17%)	39 (9%)	101 (12%)
	At least once per week	97 (23%)	71 (16%)	168 (19%)	97 (26%)	105 (24%)	202 (25%)
	At least once per month	34 (8%)	43 (10%)	77 (9%)	25 (7%)	43 (10%)	68 (8%)
	Never	232 (55%)	307 (69%)	539 (62%)	185 (50%)	254 (58%)	439 (52%)
	Total	419	444	863	369	441	810



Table 64: Use of drugs not prescribed by health professional (i.e. recreational drug use)

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you taken any drugs that were not prescribed by a health professional in the past 12 months?	Yes	9 (2%)	9 (2%)	18 (2%)	18 (5%)	14 (3%)	32 (4%)
	No	408 (98%)	437 (98%)	845 (98%)	353 (95%)	427 (97%)	780 (96%)
	Total	417	446	863	371	441	812

Table 65: Influence of alcohol during last sex with a casual sex partner in the past 12 months

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you had sex with a casual partner, were you under the influence of alcohol?	Yes	1 (11%)	1 (10%)	2 (11%)	6 (10%)	8 (13%)	14 (11%)
	No	8 (89%)	9 (90%)	17 (89%)	57 (90%)	52 (87%)	109 (89%)
	Total	9	10	19	63	60	123

### *Co-factors to contracting HIV*

Table 66: Percentage of sample respondents circumcised

Age	Camps (Lukole A&B)			Surrounding Villages		
	Male	Female	Total	Male	Female	Total
15-19	14 (17%)	1 (1%)	15 (8%)	8 (10%)	1 (1%)	9 (5%)
20-49	78 (23%)	6 (2%)	84 (12%)	67 (23%)	6 (2%)	73 (11%)
Total	92 (22%)	7 (2%)	99 (11%)	75 (20%)	7 (2%)	82 (10%)

Table 67: Proportion of respondents who have heard about STIs, by age group

		Camps (Lukole A&B)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Have you ever heard about a disease that can be transmitted through sexual intercourse?	Yes	152 (89%)	156 (93%)	469 (96%)	142 (89%)	130 (91%)	432 (94%)
	No	13 (8%)	11 (6.5%)	18 (4%)	17 (11%)	13 (9%)	26 (6%)
	Don't Know	5 (3%)	1 (1%)	2 (<.5%)	1 (.5%)	0	1 (<.5%)
	Total	170	168	489	160	143	459

Table 68: Proportion of respondents with unusual genital discharge in the last 12 months

			Camps (Lukole A&B)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
Have you had any unusual genital discharge in the past 12 months?	15-19	Yes	1 (1%)	7 (8%)	8 (5%)	3 (4%)	4 (5%)	7 (4%)
		No	76 (99%)	84 (92%)	160 (95%)	76 (96%)	79 (95%)	155 (96%)
		Total	77	91	168	79	83	162
	20-24	Yes	3 (5%)	3 (3%)	6 (4%)	1 (2%)	9 (10%)	10 (7%)

		No	63 (95%)	99 (97%)	162 (96%)	49 (98%)	84 (90%)	133 (93%)
		Total	66	102	168	50	93	133
	15-49 (all ages)	Yes	15 (4%)	20 (5%)	35 (4%)	20 (6%)	30 (7%)	50 (7%)
		No	380 (96%)	411 (95%)	791 (96%)	326 (94%)	387 (93%)	713 (93%)
		Total	395	431	826	346	417	763

Table 69: Proportion of respondents with any genital ulcers or sores in the last 12 months

			Camps (Lukole A&B)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
Have you had any genital ulcers or sores in the past 12 months?	15-19	Yes	0	4 (4%)	4 (2%)	1 (1%)	2 (2%)	3 (2%)
		No	75 (100%)	86 (95%)	161 (98%)	77 (99%)	79 (98%)	156 (98%)
		Total	75	90	165	78	81	159
	20-24	Yes	1 (1.5%)	1 (1%)	2 (1%)	0	5 (5%)	5 (3.5%)
		No	65 (98.5%)	100 (99%)	165 (99%)	48 (100%)	88 (95%)	136 (96%)
		Total	66	101	167	48	93	141
	15-49 (all ages)	Yes	9 (2%)	10 (2%)	19 (2%)	11 (3.5%)	20 (5%)	31 (4%)
		No	381 (98%)	418 (98%)	799 (98%)	332 (96.5%)	392 (95%)	724 (96%)
		Total	390	428	818	343	412	755

Table 70: Proportion of respondents seeking treatment at the last time of any genital discharge, ulcers or sores in the last 12 months

			Camps (Lukole A&B)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
During the last time you had genital discharge, ulcer or sore, did you seek treatment?	15-19	Yes	0	4 (50%)	4 (50%)	1 (100%)	1 (50%)	2 (67%)
		No	0	4 (50%)	4 (50%)	0	1 (50%)	1 (33%)
		Total	0	8	8	1	2	3
	20-24	Yes	2 (100%)	2 (67%)	4 (80%)	1 (100%)	4 (80%)	5 (83%)
		No	0	1 (33%)	1 (20%)	0	1 (20%)	1 (17%)
		Total	2	3	5	1	5	6
	15-49 (all ages)	Yes	11 (78.5%)	9 (47%)	20 (61%)	10 (91%)	17 (81%)	27 (84%)
		No	3 (21.5%)	10 (53%)	13 (39%)	1 (9%)	4 (19%)	5 (16%)
		Total	14	19	33	11	21	32

Table 71: Proportion of respondents who informed their partner the last time they had a sexually transmitted infection

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During the last time you had a sexually transmitted infection did you inform your sexual partner(s)?	All of them	9 (69%)	13 (76%)	22 (73%)	8 (57%)	10 (44%)	18 (49%)
	Some of them, not all	0	1 (6%)	1 (3%)	0	1 (4%)	1 (3%)
	None of them	4 (31%)	3 (18%)	7 (23%)	6 (43%)	12 (52%)	18 (49%)
	Total	13	17	30	14	23	37

### *Knowledge about and Access to Condoms*

Table 72: Age groups of respondents who have never heard of condoms

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever heard of condoms? (no)	15-19	12 (15%)	10 (11%)	22 (13%)	14 (17.5%)	13 (15%)	27 (17%)
	20-24	4 (6%)	10 (10%)	14 (8%)	4 (8%)	13 (13%)	17 (11%)
	25-49	25 (10%)	23 (10%)	48 (10%)	27 (12%)	27 (11%)	54 (11%)

Table 73: Proportion of responses that correctly identify the uses of condoms in response to the question: “What do you think condoms are used for?”

Protects against STI/HIV/AIDS		Lukole Camps	Surrounding Villages	Prevents pregnancy		Lukole Camps	Surrounding Villages
	Yes		722 (82.5%)		649 (79%)	Yes	
No		153 (17.5%)	169 (21%)	No		292 (33%)	428 (52%)
Total		875	818	Total		875	818
Family planning		Lukole Camps	Surrounding Villages	Don't know		Lukole Camps	Surrounding Villages
	Yes		295 (34%)		365 (45%)	Yes	
No		580 (66%)	453 (55%)	No		863 (99%)	802 (98%)
Total		875	818	Total		875	818

(Note: These questions were unprompted. The percentages indicated under the “no” response category reflect the fact that a respondent did not mention this response. It does not indicate that the person does not believe that condoms can be used for that function.)

Table 74: Across location difference in proportion of respondents who have ever used a condom (among those who have ever heard of a condom)

Have you ever used a condom?		Lukole Camps	Surrounding Villages	Test Statistic
Yes		58 (8%)	102 (15%)	$\chi^2$ 17.3390 $p=$ .0073
No		681 (92%)	587 (85%)	

Table 75: Proportion of respondents who know where to get a condom (among those who have ever heard of one and who have ever used one), by gender

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Do you know where you can get a condom?	Yes	25 (83%)	24 (89%)	49 (86%)	47 (96%)	44 (92%)	91 (94%)
	No	5 (17%)	3 (11%)	8 (14%)	2 (4%)	4 (8%)	6 (6%)
	Total	30	27	57	49	48	97

Table 76: Proportion of respondents who know where to get a condom (among those who have ever heard of one and who have ever used one), by age group

		Camps (Lukole A&B)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Do you know where you can get a condom?	Yes	15 (88%)	10 (83%)	24 (86%)	20 (91%)	23 (96%)	48 (94%)
	No	2 (12%)	2 (17%)	4 (14%)	2 (9%)	1 (4%)	3 (6%)
	Total	17	12	28	22	24	51

Table 77: Proportion of respondents who can obtain a condom every time needed (among those who have ever heard of one and who have ever used one), by gender

		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Can you obtain a condom every time you need one?	Yes	21 (81%)	19 (76%)	40 (78%)	40 (77%)	35 (76%)	75 (76.5%)
	No	5 (19%)	6 (24%)	11 (22%)	12 (23%)	11 (24%)	23 (23%)
	Total	26	25	51	52	46	98

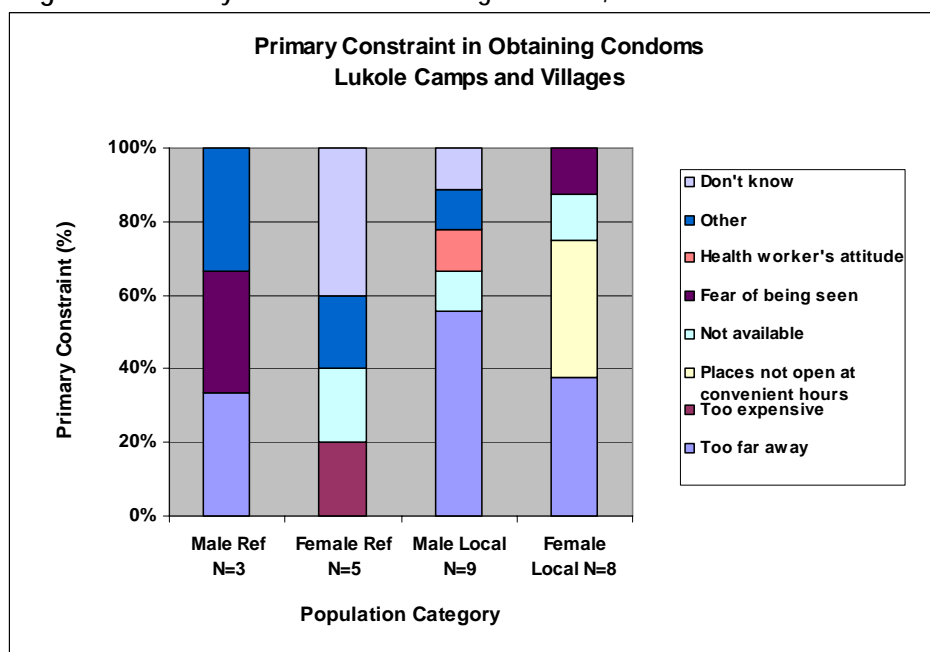
Table 78: Proportion of respondents who can obtain a condom every time needed (among those who have ever heard of one and who have ever used one), by age group

		Camps (Lukole A&B)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Can you obtain a condom every time you need one?	Yes	12 (80%)	8 (67%)	20 (83%)	16 (84%)	18 (72%)	41 (76%)
	No	3 (20%)	4 (33%)	4 (17%)	3 (16%)	7 (28%)	13 (24%)
	Total	15	12	24	19	25	54

Table 79: Primary Constraint in Obtaining Condoms

	Male Ref	Female Ref	Male Local	Female Local
Too far away	1	0	5	3
Too expensive	0	1	0	0
Places not open at convenient hours	0	0	0	3
Not available	0	1	1	1
Fear of being seen	1	0	0	1
Health worker's attitude	0	0	1	0
Other	1	1	1	0
Don't know	0	2	1	0

Figure 11: Primary Constraint in Obtaining Condoms, Lukole



## Knowledge, Opinions, and Attitudes towards HIV/AIDS

Table 80: Key indicators of knowledge, misconceptions, and attitudes towards HIV/AIDS, by age group

Age		Camps (Lukole A&B)			Surrounding Villages		
15-24	Knowledge	Male	Female	Total	Male	Female	Total
	Abstain (yes)	118 (84%)	165 (86%)	283 (85%)	93 (76%)	132 (77%)	225 (77%)
	Be faithful (yes)	117 (83%)	173 (90%)	290 (87%)	111 (89%)	152 (89%)	263 (89%)
	Consistent condom use (yes)	113 (81%)	161 (84%)	274 (83%)	103 (83%)	139 (81%)	242 (82%)
	Anal sex without condom (yes)	111 (79%)	144 (75%)	255 (77%)	108 (88%)	152 (90%)	260 (89%)
	Sharing needles (yes)	132 (94%)	188 (98%)	320 (96%)	122 (98%)	165 (97%)	287 (98%)
	MTCT – pregnancy/delivery (yes)	127 (91%)	175 (92%)	302 (91%)	109 (88%)	156 (93%)	265 (91%)
	MTCT – breastfeeding (yes)	121 (86%)	180 (94%)	301 (91%)	116 (94%)	157 (93%)	273 (93%)
	<b>Misconceptions</b>						
	Mosquito (no)	93 (66%)	112 (58%)	205 (62%)	92 (75%)	134 (79%)	226 (77%)
	Food (no)	120 (86%)	156 (82%)	276 (84%)	113 (91%)	154 (90%)	267 (91%)
	Toothbrush (yes)	104 (74%)	145 (75%)	249 (75%)	101 (81%)	138 (82%)	239 (82%)
	Healthy looking person (yes)	123 (88%)	172 (90%)	295 (89%)	106 (85%)	157 (93%)	263 (90%)
	<b>Attitudes</b>						
	Family secret (yes)	34 (24%)	58 (31%)	92 (28%)	28 (23%)	38 (23%)	66 (23%)
	Teacher (no)	40 (29%)	75 (39%)	115 (35%)	63 (51%)	92 (55%)	155 (53%)
	Household care (no)	55 (40%)	76 (40%)	131 (40%)	14 (11%)	28 (17%)	42 (14%)
	Buy vegetables (no)	36 (26%)	56 (30%)	92 (28%)	23 (19%)	37 (22%)	60 (21%)
	Adolescent condom (no)	30 (21%)	41 (21%)	71 (21%)	28 (23%)	35 (21%)	63 (22%)
<b>25-49</b>	<b>Knowledge</b>						
	Abstain (yes)	205 (84%)	204 (88%)	409 (86%)	167 (74%)	162 (70%)	329 (72%)
	Be faithful (yes)	217 (89%)	217 (94%)	434 (91%)	204 (91%)	213 (91%)	417 (91%)
	Consistent condom use (yes)	201 (82%)	188 (82%)	389 (82%)	180 (80%)	189 (81%)	369 (81%)
	Anal sex without condom (yes)	189 (77%)	171 (75%)	360 (76%)	198 (88%)	205 (88%)	403 (88%)
	Sharing needles (yes)	239 (98%)	227 (98%)	466 (98%)	217 (96%)	228 (97%)	445 (97%)
	MTCT – pregnancy/delivery (yes)	225 (92%)	216 (94%)	441 (93%)	205 (92%)	216 (93%)	421 (92%)
	MTCT – breastfeeding (yes)	220 (90%)	210 (92%)	430 (91%)	204 (91%)	218 (94%)	422 (93%)
	<b>Misconceptions</b>						
	Mosquito (no)	159 (65%)	146 (63%)	305 (64%)	168 (75%)	176 (76%)	344 (75%)
	Food (no)	212 (87%)	187 (81%)	399 (84%)	209 (93%)	211 (90%)	420 (92%)

	Toothbrush (yes)	188 (77%)	159 (69%)	317 (73%)	175 (78%)	174 (74%)	349 (76%)
	Healthy looking person (yes)	220 (90%)	201 (88%)	421 (89%)	200 (89%)	197 (85%)	397 (87%)
	<b>Attitudes</b>						
	Family secret (yes)	70 (29%)	65 (28%)	135 (29%)	46 (20%)	50 (22%)	96 (21%)
	Teacher (no)	90 (37%)	79 (35%)	169 (36%)	116 (52%)	127 (55%)	243 (53%)
	Household care (no)	85 (35%)	73 (32%)	158 (34%)	38 (17%)	42 (18%)	80 (17%)
	Buy vegetables (no)	58 (24%)	55 (24%)	113 (24%)	34 (15%)	49 (21%)	83 (18%)
	Adolescent condom (no)	43 (18%)	49 (21%)	92 (19%)	65 (29%)	71 (30%)	136 (30%)

### *Exposure and Access to Information about HIV/AIDS*

Table 81: HIV VCCT

Age		Camps (Lukole A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-19	Ever been tested (yes)	34 (47%)	59 (68%)	93 (58%)	19 (28%)	17 (21%)	36 (24%)
	Last 12 months (yes)	21 (60%)	44 (75%)	65 (69%)	12 (67%)	13 (76%)	25 (71%)
	Last test had pre-test counseling (<=12 mos) (yes)	21 (100%)	41 (93%)	62 (95%)	12 (100%)	11 (85%)	23 (92%)
	Last test voluntary (<=12 mos) (yes)	21 (100%)	44 (100%)	65 (100%)	12 (100%)	12 (92%)	24 (96%)
	Last test received result (<=12 mos) (yes)	20 (95%)	40 (98%)	60 (97%)	12 (100%)	12 (92%)	24 (96%)
20-24	Ever been tested (yes)	36 (55%)	75 (75%)	111 (67%)	13 (25%)	27 (29%)	40 (28%)
	Last 12 months (yes)	22 (61%)	48 (63%)	70 (62%)	9 (75%)	20 (74%)	29 (74%)
	Last test had pre-test counseling (<=12 mos) (yes)	21 (95%)	45 (96%)	66 (96%)	8 (100%)	17 (85%)	25 (89%)
	Last test voluntary (<=12 mos) (yes)	18 (82%)	48 (100%)	66 (94%)	8 (89%)	18 (90%)	26 (90%)
	Last test received result (<=12 mos) (yes)	18 (90%)	42 (100%)	60 (97%)	9 (100%)	19 (95%)	28 (97%)
Total	Ever been tested (yes)	234 (61%)	290 (70%)	524 (66%)	102 (30%)	117 (29%)	219 (29%)
	Last 12 months (yes)	158 (67%)	191 (67%)	349 (67%)	68 (69%)	77 (66%)	145 (67%)
	Last test had pre-test counseling (<=12 mos) (yes)	152 (96%)	175 (92%)	327 (94%)	63 (97%)	65 (87%)	128 (91%)
	Last test voluntary (<=12 mos) (yes)	149 (95%)	184 (96%)	333 (96%)	65 (97%)	71 (92%)	136 (94%)
	Last test received result (<=12 mos) (yes)	146 (97%)	173 (98%)	319 (97%)	63 (95%)	68 (91%)	131 (93%)

Table 82: Across gender difference in proportion of respondents who have ever used been tested for HIV, aged 15-19 years

Have you ever been tested for HIV?	Lukole Camps	Yes	Males	Females	Test Statistic
			34 (47%)	59 (68%)	
	No	39 (53%)	28 (32%)		
	Surrounding Villages	Yes	19 (28%)	17 (21%)	$\chi^2$ .9755 p=.2918
No		49 (72%)	64 (79%)		

Table 83: Difference between locations in proportion of respondents who have ever been tested for HIV

Have you ever been tested for HIV?		Lukole Camps	Surrounding Villages	Test Statistic		
		Yes	524 (66%)		219 (29%)	$\chi^2$ 204.9774 p=.000
		No	273 (34%)		528 (71%)	

Table 84: Difference between locations in proportion of respondents who were tested for HIV in the past 12 months and received results.

The last time you were tested for HIV did you obtain the result of the test?		Lukole Camps	Surrounding Villages	Test Statistic		
		Yes	282 (32%)		125 (15%)	$\chi^2$ 66.4950 p=.000
		No	593 (68%)		693 (85%)	

Table 85: Difference between locations in proportion of respondents who know where one can be tested for HIV

Do you know a place where a person can be tested for HIV?		Lukole Camps	Surrounding Villages	Test Statistic		
		Yes	654 (83%)		514 (69%)	$\chi^2$ 39.3178 p=.0011
		No	136 (17%)		234 (31%)	

Table 86: Pregnancy in the past five years and antenatal care

Age		Camps (Lukole A&B)	Surrounding Villages	Total
15-24		Female	Female	Female
	Pregnant in last 5 yrs. (yes)	84 (81%)	57 (52%)	141 (66%)
	Received ANC during last pregnancy within last 5 yrs.	76 (92%)	54 (98%)	130 (94%)
25-49				
	Pregnant in last 5 yrs. (yes)	109 (79%)	131 (77%)	240 (78%)
	Received ANC during last pregnancy within last 5 yrs.	107 (100%)	126 (98%)	233 (99%)
Total				
	Pregnant in last 5 yrs. (yes)	193 (80%)	188 (67%)	381 (73%)
	Received ANC during last pregnancy within last 5 yrs.	183 (96%)	180 (98%)	363 (97%)



Table 87: Difference between locations in proportion of respondents who had been pregnant in the past five years

Have you been pregnant in the past five years?		Lukole Camps	Surrounding Villages	Test Statistic
	Yes	193 (80%)	188 (67%)	$\chi^2$ 10.8515 p=.0178
	No	49 (20%)	93 (33%)	

APPENDIX IV: TABLES 88 – 147 FOR REFERENCED RESULTS, LUGUFU CAMPS AND SURROUNDING VILLAGES

*Displacement and Networking*

Table 88: Length of time living in the current community, by age group and gender

			Camps (Lugufu 1&2)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
How long have you been living in the community where you currently live?	15-24	Up to 12 months	0	3 (2%)	3 (1%)	$\chi^2$ 2.9738 p=.085	9 (8%)	27 (12%)	36 (10%)	$\chi^2$ 1.1487 p=.284
		> 12 months	169 (100%)	169 (98%)	338 (99%)		106 (92%)	207 (88%)	313 (90%)	
	25-49	Up to 12 months	1 (.5%)	2 (1%)	3 (1%)	$\chi^2$ .1288 p=.720	14 (5%)	13 (4%)	27 (5%)	$\chi^2$ .4092 p=.522
		> 12 months	182 (99%)	235 (99%)	417 (99%)		252 (95%)	301 (96%)	553 (95%)	

Table 89: Proportion of respondents who have left their community for more than 4 consecutive weeks within the last 12 months, by age group and gender

			Camps (Lugufu A&B)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
Have you left home for longer than 4 weeks in the last 12 months?	15-24	Yes	55 (33%)	20 (12%)	75 (22%)	$\chi^2$ 21.4883 p=.000	19 (17%)	38 (16%)	57 (16%)	$\chi^2$ .0071 p=.933
		No	114 (67%)	151 (88%)	265 (78%)		95 (83%)	195 (84%)	290 (84%)	
	25-49	Yes	64 (35%)	31 (13%)	95 (23%)	$\chi^2$ 28.2770 p=.000	55 (21%)	41 (13%)	96 (17%)	$\chi^2$ 6.0529 p=.014
		No	119 (65%)	206 (87%)	325 (77%)		211 (79%)	273 (87%)	484 (83%)	

Table 90: Frequency of visits to camp/surrounding community, by age group and gender

			Camps (Lukole A&B)				Surrounding Villages			
			Male	Female	Total	Test Statistic	Male	Female	Total	Test Statistic
How often do you go to the camp/surrounding community to visit?	15-24	1 or more times/month	34 (20%)	18 (10%)	52 (15%)	$\chi^2$ 6.1463 p=.013	24 (21%)	41 (18%)	65 (19%)	$\chi^2$ .5703 p=.450
		Never or < 1 times/month	135 (80%)	154 (90%)	289 (85%)		91 (79%)	193 (82%)	284 (81%)	
	25-49	1 or more times/month	50 (27%)	24 (10%)	74 (18%)	$\chi^2$ 21.0371 p=.000	81 (30%)	64 (20%)	145 (25%)	$\chi^2$ 7.7867 p=.005
		Never or < 1 times/month	133 (73%)	213 (90%)	346 (82%)		185 (70%)	250 (80%)	435 (75%)	

Table 91: Difference across locations in the proportion of respondents who have been away from home for longer than 4 weeks in the last 12 months

Have you left home for longer than 4 weeks in the last 12 months?		Lugufu 1&2	Surrounding Villages	Test Statistic
	Yes	170 (22%)	153 (17%)	$\chi^2$ 9.2750 p=.002
	No	590 (78%)	774 (83%)	

Table 92: Differences between genders in answering the question “Have you left home for longer than 4 weeks in the last 12 months?” (per location)

		Male	Female	Test Statistic
Lugufu Camps	Yes	119 (34%)	51 (12.5%)	$\chi^2$ 49.4029 p=.000
	No	233 (66%)	357 (87.5%)	
Lugufu Villages	Yes	74 (19.5%)	79 (14.4%)	$\chi^2$ 4.1188 p=.042
	No	306 (80.5%)	468 (85.6%)	

Table 93: Reasons for absence from home community for one month or longer in previous 12 months, among those reporting such an absence

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Why were you away from this place for one month or more?	Employment	2 (2%)	0	2 (1%)	6 (8%)	0	6 (4%)
	Trade	17 (15%)	5 (10%)	22 (13%)	13 (17%)	6 (8%)	19 (12%)
	Family-related	73 (62%)	32 (64%)	105 (63%)	42 (54.5%)	41 (53%)	83 (54%)
	Political reasons	0	0	0	0	1 (1%)	1 (1%)
	Military-related	0	0	0	0	1 (1%)	1 (1%)
	School-related	3 (2.5%)	0	3 (2%)	5 (6.5%)	0	5 (3%)
	In jail	1 (1%)	0	1 (1%)	1 (1%)	0	1 (1%)
	Health-related	7 (6%)	7 (14%)	14 (8%)	6 (8%)	13 (17%)	19 (12%)
	Holiday	11 (9%)	5 (10%)	16 (9.5%)	2 (3%)	11 (14%)	13 (8%)
	Religion-related	2 (2%)	0	2 (1%)	0	3 (4%)	3 (2%)
	Other	1 (1%)	1 (2%)	2 (1%)	2 (3%)	1 (1%)	3 (2%)
<b>Total</b>	<b>117</b>	<b>50</b>	<b>167</b>	<b>77</b>	<b>77</b>	<b>154</b>	

Table 94: Differences between camp and village respondents in answering the question “How often do you go to the camp/surrounding community to visit?”

	Frequency of visits	Lugufu Camps	Surrounding Villages	Test Statistic
Lugufu Camps and Villages	Never	528 (70%)	619 (67%)	$\chi^2$ 2.0819 p=.149
	< 1/month or once a month or many times/month	224 (30%)	306 (33%)	

Table 95: Reasons for visiting refugees/host community the last time such a visit was made, among those reporting ever making such a visit

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you visited the refugees/host community, what was your reason?	Employment	1 (1%)	0	1 (.5%)	7 (5%)	1 (1%)	8 (3%)
	Trade	20 (14%)	14 (18%)	34 (15.5%)	14 (10%)	5 (3%)	19 (7%)
	Shopping/market	92 (65%)	45 (58%)	137 (62.5%)	47 (35%)	30 (20.5%)	77 (27.5%)
	Health care	0	0	0	1 (1%)	3 (2%)	4 (1%)
	School	1 (1%)	0	1 (.5%)	0	0	0
	Entertainment	3 (2%)	0	3 (1%)	0	1 (1%)	1 (.5%)
	Food	1 (1%)	0	1 (.5%)	0	0	0
	Visit relative/friend	9 (6%)	11 (14%)	20 (9%)	61 (45.5%)	96 (66%)	157 (56%)
	Collect firewood	11 (8%)	7 (9%)	18 (8%)	1 (1%)	3 (2%)	4 (1%)
	Attend religious service	2 (1%)	0	2 (1%)	2 (1.5%)	3 (2%)	5 (2%)
	Other	2 (1%)	0	2 (1%)	1 (1%)	3 (2%)	4 (1%)

### *Sexual Intercourse and Sexual Partners*

Table 96: Proportion of respondents who have ever had sex, per location

Have you ever had sexual intercourse?	Lukole Camps	Surrounding Villages - Lukole	Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Yes	720 (82%)	644 (79%)	686 (90%)	801 (86%)	$\chi^2$ 41.61 p=.000
No	154 (18%)	169 (21%)	74 (10%)	128 (14%)	
Total	874	813	760	929	

Table 97: Differences between proportions of respondents aged 15-19 who indicated that they have had sex, comparing Lugufu camps and surrounding villages

	Have ever had sex	Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Have you ever had sexual intercourse?	Yes	135 (66.5%)	75 (44%)	$\chi^2$ 19.3269 p=.000
	No	68 (33.5%)	96 (56%)	
	Total	203	171	

Table 98: Differences in proportions of male and female respondents aged 15-19 who are abstinent (unmarried and never had sex), by location

	Has ever had sex	Males	Females	Test Statistic
Lugufu Camps (15-19 years)	Yes	72 (72%)	30 (43.5%)	$\chi^2$ 13.8807 p=.000
	No	28 (28%)	39 (56.5%)	
Surrounding Villages - Lugufu (15-19 years)	Yes	18 (26%)	28 (39%)	$\chi^2$ 3.0196 p=.082
	No	52 (74%)	43 (61%)	

Table 99: Differences in proportions of male and female respondents aged 15-19 who are unmarried with a casual sex partner within the past 12 months, by location

	Has had casual sex partner within last 12 months	Males	Females	Test Statistic
Lugufu Camps (15-19 years)	Yes	50 (50%)	22 (32%)	$\chi^2$ 5.4797 P=.019
	No	50 (50%)	47 (68%)	
Surrounding Villages - Lugufu (15-19 years)	Yes	9 (13%)	11 (15%)	$\chi^2$ 1.2263 p=.5
	No	61 (87%)	59 (83%)	

Table 100: Difference between locations in proportion of 15-19 year old unmarried respondents who have ever had sex

	Have ever had sex	Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Among unmarried youth 15-19 years old	Yes	102 (60%)	46 (33%)	$\chi^2$ 23.6930 p=.000
	No	67 (40%)	95 (67%)	
	Total	169	141	

Table 101: Difference between locations in proportion of 20-24 year old unmarried respondents who have ever had sex

	Have ever had sex	Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Among unmarried youth 20-24 years old	Yes	49 (92%)	44 (71%)	$\chi^2$ 8.5258 p=.004
	No	4 (8%)	18 (29%)	
	Total	53	62	

Table 102: Difference between proportions of respondents who indicate that they have had sex, comparing age groups 15-19 and 20-24, in both Lugufu camps and surrounding villages

	Has ever had sex	15-19	20-24	Test Statistic
Lugufu Camps	Yes	135 (66.5%)	134 (97%)	$\chi^2$ 46.1805 p=.000
	No	68 (33.5%)	4 (3%)	
Surrounding Villages - Lugufu	Yes	75 (44%)	159 (89%)	$\chi^2$ 81.6028 p=.000
	No	96 (56%)	19 (11%)	

Table 103: Difference between locations in proportion of respondents who have had sex with a casual partner in the past 12 months

		Lugufu Camps	Surrounding Villages - Lugufu	Test Statistic
Have you had sex with a casual partner in the past 12 months?  (Among respondents who have ever had sex)	Yes	250 (36%)	189 (24%)	$\chi^2$ 29.4427 p=.000
	No	434 (63%)	609 (76%)	
	Total	758	798	

Table 104: Number of regular sex partners in the past 12 months, by gender

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
(Among those who have had a regular partner in the past 12 months)	One	28 (12%)	31 (12%)	59 (12%)	36 (15%)	65 (18%)	101 (16.5%)
	Two	35 (15%)	23 (9%)	58 (12%)	13 (5%)	15 (4%)	28 (4.5%)
	More than two	166 (72%)	206 (79%)	372 (76%)	195 (80%)	288 (78%)	483 (79%)
	Total	229	260	489	244	368	612

Table 105: Difference between genders in proportion of respondents who have had sex with at least one casual partner in the past 12 months, 15-24 years old (among those who have ever had sex)

	Has ever had sex with a casual partner	Males	Females	Test Statistic
Lugufu Camps	Yes	85 (61.5%)	47 (36%)	$\chi^2$ 16.7958 p=.000
	No	54 (39%)	83 (64%)	
Surrounding Villages - Lugufu	Yes	21 (39%)	48 (27%)	$\chi^2$ 3.2111 p=.201
	No	33 (61%)	131 (73%)	

Table 106: Difference between genders in proportion of respondents who have had sex with at least one casual partner in the past 12 months, 25-49 years old (among those who have ever had sex)

	Has ever had sex with a casual partner	Males	Females	Test Statistic
Lugufu Camps	Yes	61 (33%)	57 (24%)	$\chi^2$ 4.6511 p=.098
	No	122 (67%)	175 (76%)	
Surrounding Villages - Lugufu	Yes	58 (23%)	62 (20%)	$\chi^2$ 1.8431 p=.398
	No	197 (77%)	248 (80%)	

Table 107: Difference between genders in proportion of respondents who have had sex with at least one casual partner in the past 12 months, 15-49 years old (among those who have ever had sex)

	Has ever had sex with a casual partner	Males	Females	Test Statistic
Lugufu Camps	Yes	146 (45%)	104 (29%)	$\chi^2$ 21.1709 p=.000
	No	176 (55%)	258 (71%)	
Surrounding Villages - Lugufu	Yes	79 (25.5%)	110 (22%)	$\chi^2$ 1.0949 p=.578
	No	230 (74.5%)	379 (77%)	

Table 108: Nationality of non-regular (casual) sex partners

Nationality of Respondents		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Congolese	Non-regular partners (casual sex)	145 (42%)	105 (25%)	250 (33%)	1 (50%)	0	1 (33%)
	Nationality of most recent non-regular (casual) sex partner: Congolese	120 (83%)	84 (80%)	204 (82%)	0	0	0
	Nationality of most recent non-regular (casual) sex partner: Burundian	8 (5%)	5 (5%)	13 (5%)	0	0	0
	Nationality of most recent non-regular (casual) sex partner: Tanzanian	16 (11%)	15 (14%)	31 (12%)	0	0	0

	Nationality of most recent non-regular (casual) sex partners: Rwandan	1 (1%)	0	1 (.5%)	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Kenyan	0	1 (1%)	1 (.5%)	0	0	0
Tanzanian	Non-regular partners (casual sex)	1 (100%)	0	1 (33%)	78 (21%)	110 (20%)	188 (20%)
	Nationality of most recent non-regular (casual) sex partners: Burundian	0	0	0	1 (1%)	0	1 (.5%)
	Nationality of most recent non-regular (casual) sex partners: Tanzanian	0	0	0	75 (96%)	108 (99%)	183 (98%)
	Nationality of most recent non-regular (casual) sex partners: Rwandan	0	0	0	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Congolese	1 (100%)	0	1 (100%)	2 (3%)	1 (1%)	3 (2%)
Burundian	Non-regular partners (casual sex)	0	1 (25%)	1 (17%)	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Burundian	1 (100%)	0	0	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Tanzanian	0	0	0	0	0	0
	Nationality of most recent non-regular (casual) sex partners: Rwandan	0	0	0	0	0	0

### *Condom Use with Regular and Casual Sex Partners*

Table 109: Proportion of respondents who used a condom at last sexual intercourse with regular sex partner, by gender

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you had sex with your regular partner, did you use a condom?  (Among those who have had a regular sex partner in the past 12 months)	Yes	39 (16%)	24 (9%)	63 (12%)	24 (9%)	30 (7%)	54 (8%)
	No	203 (84%)	244 (91%)	447 (88%)	242 (91%)	377 (93%)	619 (92%)
	Total	242	268	510	266	407	673



Table 110: Difference in proportion of respondents who used a condom at last sexual intercourse with regular sex partner, by age group, among those who had a regular sex partner in the past 12 months

	The last time you had sex with your regular partner, did you use a condom?	15-19 years	20-49 years	Test Statistic
Lugufu Camps	Yes	15 (19.5%)	48 (11%)	$\chi^2$ 4.2555 p=.039
	No	62 (80.5%)	385 (89%)	
Surrounding Villages	Yes	11 (19%)	43 (7%)	$\chi^2$ 10.2964 p=.001
	No	47 (81%)	572 (93%)	

Table 111: Difference in proportion of respondents who used a condom at last sexual intercourse with a casual partner, by age group, among those who had a casual sex partner in the past 12 months

	The last time you had sex with a casual partner did you use a condom?	15-24 years	25-49 years	Test Statistic
Lugufu Camps	Yes	52 (39%)	33 (28%)	$\chi^2$ 3.4594 p=.063
	No	81 (61%)	85 (72%)	
Surrounding Villages	Yes	19 (29%)	26 (22%)	$\chi^2$ .9904 p=.320
	No	48 (72%)	93 (78%)	

### *Transactional Sex*

Table 112: Difference in proportion of respondents who have ever had sex with a transactional sex partner, comparing 15-24 years and 25-49

	Have you ever had sex in exchange for money, a gift or a favor?	15-24 years	25-49 years	Test Statistic
Lugufu Camps	Yes	77 (23%)	75 (18%)	$\chi^2$ 2.6270 p=.105
	No	264 (77%)	345 (82%)	
Surrounding Villages (Lugufu)	Yes	25 (7%)	33 (6%)	$\chi^2$ .8084 p=.369
	No	324 (93%)	547 (94%)	

Table 113: Difference in proportion of respondents who have ever had sex with a transactional sex partner, comparing Lugufu camps and surrounding villages, at each age group

	Have you ever had sex in exchange for money, a gift or a favour?	Lugufu Camps	Surrounding Villages (Lugufu)	Test Statistic
15-19	Yes	41 (20%)	11 (6%)	$\chi^2$ 14.6897 p=.000
	No	162 (80%)	160 (94%)	
20-24	Yes	36 (26%)	14 (8%)	$\chi^2$ .19.3783 p=.000
	No	102 (74%)	164 (92%)	
25-49	Yes	75 (18%)	33 (6%)	$\chi^2$ 37.4361 p=.000
	No	345 (82%)	547 (94%)	
Total	Yes	152 (20%)	58 (6%)	$\chi^2$ 72.4729 p=.000
	No	609 (80%)	871 (94%)	

Table 114: Difference in proportion of respondents who have ever had sex with a transactional sex partner within the past 12 months, comparing Lugufu camps and surrounding villages, at each age group

	Have you ever had sex in exchange for money, a gift or a favour in the past 12 months?	Lugufu Camps	Surrounding Villages (Lugufu)	Test Statistic
15-19	Yes	31 (15%)	6 (4%)	$\chi^2$ 14.5107 p=.000
	No	170 (85%)	164 (96%)	
20-24	Yes	24 (18%)	6 (3%)	$\chi^2$ 18.0973 p=.000
	No	111 (82%)	170 (97%)	
25-49	Yes	52 (13%)	28 (5%)	$\chi^2$ 19.4448 p=.000
	No	362 (87%)	551 (95%)	
Total	Yes	107 (14%)	40 (4%)	$\chi^2$ 51.1393 p=.000
	No	643 (86%)	885 (96%)	

Table 115: Difference in proportion of respondents aged 15-24 who have had sex with a transactional sex partner in the past 12 months, by gender

	Have you had sex in exchange for money, a gift or a favour in the past 12 months?	Male	Female	Test Statistic
Lugufu Camps	Yes	35 (21%)	20 (12%)	$\chi^2$ 5.1077 p=.024
	No	132 (79%)	149 (88%)	
Surrounding Villages (Lugufu)	Yes	9 (8%)	3 (1%)	$\chi^2$ 9.9505 p=.002
	No	105 (92%)	229 (99%)	

Table 116: Transactional sex before, during, or after displacement (among camp respondents), and before or after the arrival of refugees (among village respondents)

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During which period in your life did you exchange sex for money, a gift or a favor?	Before Displacement/ arrival of refugees	17 (22%)	13 (23%)	30 (22%)	6 (21%)	6 (32%)	12 (25.5%)
	During Displacement	10 (13%)	11 (17%)	21 (15%)	n/a	n/a	n/a
	After Displacement/ arrival of refugees	79 (94%)	56 (90%)	134 (92%)	27 (90%)	16 (89%)	43 (90%)
	Total	106	80	185	33	22	55

(Note: Response categories are not mutually exclusive; proportions therefore provided as denominator relates to responses, not respondents)

Table 117: Origin of transactional sex partner by gender and across locations among respondents who have ever had transactional sex

		Camps (Lugufu1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Who was the last person with whom you exchanged sex for money, a gift or a favor?  (Among those who have ever had transactional sex)	Refugee	65 (82%)	48 (81%)	113 (82%)	4 (13%)	2 (9%)	6 (11%)
	Person from local community	10 (13%)	4 (7%)	14 (10%)	22 (71%)	13 (59%)	35 (66%)
	Military, paramilitary, police	0	1 (2%)	1 (1%)	0	3 (14%)	3 (6%)
	Humanitarian/ development worker	1 (1%)	4 (7%)	5 (4%)	3 (10%)	4 (18%)	7 (13%)
	Other	3 (4%)	1 (2%)	4 (3%)	1 (3%)	0	1 (2%)
	Total	79	58	137	31	22	52

## Forced sex

Table 118: Forced sex before, during, or after displacement (among camp respondents), and before or after the arrival of refugees (among village respondents)

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During which period in your life were you forced to have sex? (Among those ever forced to have sex)	Before Displacement/ arrival of refugees	7	13	20	3	8	11
	During Displacement	5	7	12	n/a	n/a	n/a
	After Displacement/ arrival of refugees	14	19	33	11	17	28
	Total	26	39	65	14	25	39

(Note: Response categories are not mutually exclusive and the figures above reflect the total number of responses given; therefore no proportions as related to total number of respondents are provided in this table.)

## Alcohol and Drug Use

Table 119: Alcohol consumption in the past four weeks

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
In the last four weeks, how often have you had drinks containing alcohol?	Everyday	6 (2%)	2 (.50%)	8 (1%)	13 (3%)	3 (.50%)	16 (2%)
	At least once per week	27 (8%)	7 (2%)	34 (4.5%)	34 (9%)	18 (3%)	52 (6%)
	At least once per month	20 (6%)	1 (.25%)	21 (3%)	11 (3%)	10 (2%)	21 (2%)
	Never	297 (85%)	397 (98%)	694 (92%)	320 (85%)	515 (94%)	835 (90%)
	Total	350	407	757	378	546	924

Table 120: Use of drugs not prescribed by health professional (i.e. recreational drug use)

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you taken any drugs that were not prescribed by a health professional in the past 12 months?	Yes	17 (5%)	6 (1.5%)	23 (3%)	13 (3%)	7 (1%)	20 (2%)
	No	329 (95%)	399 (98%)	728 (97%)	367 (97%)	539 (99%)	906 (98%)
	Total	346	405	752	380	546	926

Table 121: Influence of alcohol during last sex with a casual sex partner in the past 12 months

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
The last time you had sex with a casual partner, were you under the influence of alcohol?	Yes	9 (6%)	2 (2%)	11 (4%)	11 (14%)	14 (13%)	25 (13%)
	No	140 (94%)	107 (98%)	247 (96%)	68 (86%)	96 (87%)	164 (86%)
	Total	149	109	258	79	110	190

### Co-factors to contracting HIV

Table 122: Percentage of sample respondents circumcised

Age	Camps (Lugufu 1&2)			Surrounding Villages		
	Male	Female	Total	Male	Female	Total
15-19	98 (93%)	3 (3%)	101 (50%)	65 (90%)	1 (1%)	66 (39%)
20-49	229 (93%)	5 (2%)	234 (42%)	263 (85%)	15 (3%)	278 (37%)
Total	327 (93%)	8 (2%)	335 (44%)	328 (86%)	16 (3%)	344 (37%)

Table 123: Difference in proportions of males who have been circumcised, across locations

Some men and women have been circumcised, have you been circumcised?		Lukole Camps and Villages	Lugufu Camps and Villages	Test Statistic $\chi^2$ 717.4863 p=.000
	Yes	167 (21%)	655 (90%)	
	No	624 (79%)	76 (10%)	
	Total	791	731	

Table 124: Proportion of respondents who have heard about STIs, by age group

		Camps (Lugufu 1&2)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Have you ever heard about a disease that can be transmitted through sexual intercourse?	Yes	154 (93%)	110 (96%)	319 (95%)	160 (95%)	157 (90%)	515 (91%)
	No	12 (7%)	4 (3%)	16 (5%)	7 (4%)	17 (10%)	43 (7%)
	Don't Know	0	1 (1%)	1 (<.25%)	1 (1%)	0	6 (1%)
	Total	166	115	337	168	174	564

Table 125: Proportion of respondents with unusual genital discharge in the last 12 months

			Camps (Lugufu 1&2)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
Have you had any unusual genital discharge in the past 12 months?	15-19	Yes	3 (3%)	7 (9%)	10 (6%)	3 (4%)	4 (4%)	7 (4%)
		No	85 (97%)	71 (91%)	156 (94%)	68 (96%)	93 (96%)	161 (96%)
		Total	88	78	166	71	97	97
	20-24	Yes	5 (9%)	7 (11%)	12 (10%)	1 (2.5%)	4 (3%)	5 (3%)
		No	49 (91%)	54 (89%)	103 (90%)	39 (97.5%)	128 (97%)	167 (97%)
		Total	54	61	115	40	132	172
	15-49 (all ages)	Yes	16 (6%)	28 (9%)	44 (7%)	20 (5%)	22 (4%)	42 (5%)
		No	273 (94%)	300 (91%)	573 (93%)	353 (95%)	510 (96%)	863 (95%)
		Total	289	328	617	373	532	905

Table 126: Proportion of respondents with any genital ulcers or sores in the last 12 months

			Camps (Lugufu 1&2)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
Have you had any genital ulcers or sores in the past 12 months?	15-19	Yes	6 (7%)	7 (9%)	13 (8%)	5 (7%)	3 (3%)	8 (5%)
		No	82 (93%)	70 (91%)	152 (92%)	66 (93%)	94 (97%)	160 (95%)
		Total	88	77	165	71	97	168
	20-24	Yes	8 (15%)	7 (12%)	15 (13%)	2 (5%)	3 (2%)	5 (3%)
		No	46 (85%)	53 (88%)	99 (87%)	40 (95%)	129 (98%)	169 (97%)
		Total	54	60	114	42	132	174
	15-49 (all ages)	Yes	25 (8%)	30 (9%)	55 (9%)	19 (5%)	18 (3%)	37 (4%)
		No	262 (91%)	295 (91%)	557 (91%)	356 (95%)	515 (97%)	871 (96%)
		Total	287	325	612	375	533	908

Table 127: Proportion of respondents seeking treatment at the last time of any genital discharge, ulcers or sores in the last 12 months

			Camps (Lugufu 1&2)			Surrounding Villages		
			Male	Female	Total	Male	Female	Total
During the last time you had genital discharge, ulcer or sore, did you seek treatment?	15-19	Yes	5 (62.5%)	6 (86%)	11 (73%)	3 (60%)	2 (67%)	5 (62.5%)
		No	3 (37.5%)	1 (14%)	4 (27%)	2 (40%)	1 (33%)	3 (37.5%)
		Total	8	7	15	5	3	8
	20-24	Yes	7 (78%)	9 (90%)	16 (84%)	0	2 (50%)	2 (33%)
		No	2 (22%)	1 (10%)	3 (16%)	2 (100%)	2 (50%)	4 (67%)
		Total	9	10	19	2	4	6
	15-49 (all ages)	Yes	21 (68%)	31 (82%)	52 (75%)	15 (65%)	14 (70%)	29 (67%)
		No	10 (32%)	7 (18%)	17 (25%)	8 (35%)	6 (30%)	14 (33%)
		Total	31	38	69	23	20	43

Table 128: Proportion of respondents who informed their partner(s) the last time they had a sexually transmitted infection

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
During the last time you had a sexually transmitted infection did you inform your sexual partner(s)?	All of them	12 (41%)	17 (45%)	29 (43%)	15 (62.5%)	10 (50%)	25 (57%)
	Some of them, not all	1 (3%)	5 (13%)	6 (9%)	4 (17%)	4 (20%)	8 (18%)
	None of them	16 (55%)	16 (42%)	32 (48%)	5 (21%)	6 (30%)	11 (25%)
	Total	29	38	67	24	20	44

Table 129: Difference in proportions of respondents who informed their partner(s) the last time they had a sexually transmitted infection, across locations

During the last time you had a sexually transmitted infection did you inform your sexual partner(s)?		Lugufu Camps	Surrounding Villages	Test Statistic
	All partners	29 (47.5)	25 (75.5%)	$\chi^2$ 6.0106 p=.014
None	32 (52.46)	9 (26.47)		
Total	61	34		
Some partners	6 (16%)	8 (47%)	$\chi^2$ 6.0523 p=.014	
None	32 (84%)	9 (53%)		
Total	38	17		
All partners	29 (83%)	25 (76%)	$\chi^2$ .5236 p=.469	
Some	6 (17%)	8 (24%)		
Total	35	33		

## Knowledge about and Access to Condoms

Table 130: Age groups of respondents who have never heard of condoms

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Have you ever heard of condoms? (no)	15-19	4 (4.5%)	6 (8%)	10 (6%)	9 (13%)	12 (12%)	21 (12.5%)
	20-24	5 (9%)	9 (15%)	14 (12%)	11 (26%)	15 (11%)	26 (15%)
	25-49	8 (5%)	11 (6%)	19 (6%)	32 (12%)	52 (17%)	84 (15%)

Table 131: Difference across Lugufu and Lukole locations in proportion of respondents who have ever used a condom

Have you ever used a condom?		Lukole Camps	Lugufu Camps	Test Statistic
	Yes	58 (8%)	141 (25%)	
No	681 (92%)	424 (75%)		
Total	739	565		
		Lukole Villages	Lugufu Villages	Test Statistic
Yes	102 (15%)	152 (20%)	$\chi^2$ 6.2766 $p=.012$	
No	587 (85%)	616 (80%)		
Total	689	768		

Table 132: Proportion of responses that correctly identify the uses of condoms in response to the question: "What do you think condoms are used for?"

Protects against STI/HIV/AIDS		Lugufu Camps	Surrounding Villages	Prevents pregnancy		Lugufu Camps	Surrounding Villages
	Yes	540 (71%)	678 (73%)		Yes	376 (49%)	417 (45%)
	No	221 (29%)	251 (27%)		No	385 (51%)	512 (55%)
	Total	761	929		Total	761	929
Family planning		Lugufu Camps	Surrounding Villages	Don't know		Lugufu Camps	Surrounding Villages
	Yes	295 (34%)	365 (45%)		Yes	21 (3%)	64 (7%)
	No	580 (66%)	453 (55%)		No	740 (97%)	865 (93%)
	Total	875	818		Total	761	929

(Note: These questions were unprompted. The percentages indicated under the "no" response category reflect the fact that a respondent did not mention this response. It does not indicate that the person does not believe that condoms can be used for that function.)



Table 133: Proportion of respondents who know where to get a condom (among those who have ever heard of one and who have ever used one), by gender

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Do you know where you can get a condom?	Yes	76 (96%)	61 (94%)	137 (95%)	70 (95%)	77 (95%)	147 (95%)
	No	3 (4%)	4 (6%)	7 (5%)	4 (5%)	4 (5%)	8 (5%)
	Total	79	65	144	74	81	155

Table 134: Proportion of respondents who know where to get a condom (among those who have ever heard of one and who have ever used one), by age group

		Camps (Lugufu 1&2)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Do you know where you can get a condom?	Yes	32 (94%)	30 (97%)	75 (95%)	24 (89%)	27 (93%)	96 (97%)
	No	2 (6%)	1 (3%)	4 (5%)	3 (11%)	2 (7%)	3 (3%)
	Total	34	31	79	27	29	99

Table 135: Proportion of respondents who can obtain a condom every time needed (among those who have ever heard of one and who have ever used one), by gender

		Camps (Lugufu 1&2)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
Can you obtain a condom every time you need one?	Yes	70 (89%)	52 (83%)	122 (86%)	65 (88%)	69 (84%)	134 (86%)
	No	9 (11%)	11 (17%)	20 (14%)	9 (12%)	13 (16%)	22 (14%)
	Total	79	63	142	74	82	156

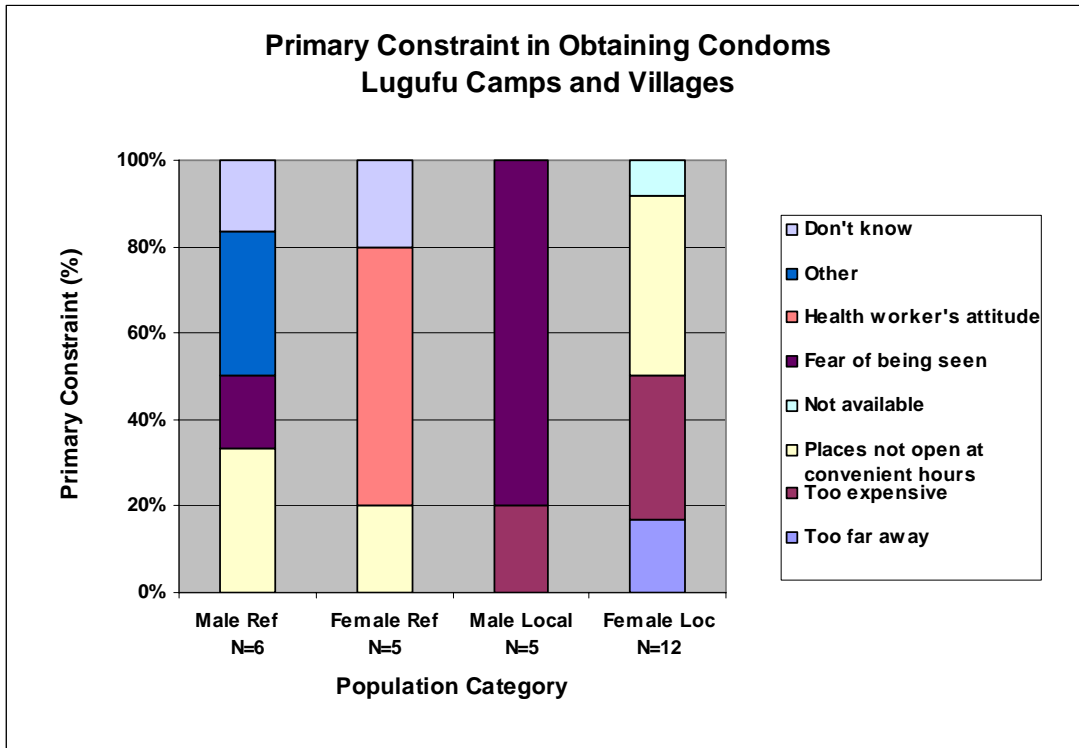
Table 136: Proportion of respondents who can obtain a condom every time needed (among those who have ever heard of one and who have ever used one), by age group

		Camps (Lugufu 1&2)			Surrounding Villages		
		15-19	20-24	25-49	15-19	20-24	25-49
Can you obtain a condom every time you need one?	Yes	28 (85%)	27 (90%)	67 (85%)	21 (84%)	23 (74%)	90 (90%)
	No	5 (15%)	3 (10%)	12 (15%)	4 (16%)	8 (26%)	10 (10%)
	Total	33	30	79	25	31	100

Table 137: Primary Constraint in Obtaining Condoms

	Male Ref	Female Ref	Male Local	Female Local
Too far away	0	0	0	2
Too expensive	0	0	1	4
Places not open at convenient hours	2	1	0	5
Not available	0	0	0	1
Fear of being seen	1	0	4	0
Health worker's attitude	0	3	0	0
Other	2	0	0	0
Don't know	1	1	0	0

Figure 12: Primary constraint in obtaining condoms, Lugufu



### Knowledge, Opinions, and Attitudes towards HIV/AIDS

Table 138: Key indicators of knowledge, misconceptions, and attitudes towards HIV/AIDS, by age group

Age		Camps (Lugufu A&B)			Surrounding Villages		
		Male	Female	Total	Male	Female	Total
15-24	<b>Knowledge</b>						
	Abstain (yes)	93 (69%)	96 (71%)	189 (70%)	77 (69%)	157 (69%)	234 (69%)
	Be faithful (yes)	115 (86%)	114 (84%)	229 (85%)	93 (83%)	191 (84%)	284 (84%)
	Consistent condom use (yes)	107 (79%)	113 (83%)	220 (81%)	77 (69%)	158 (70%)	235 (69%)
	Anal sex without condom (yes)	120 (89%)	125 (92%)	245 (90%)	95 (85%)	196 (86%)	291 (86%)
	Sharing needles (yes)	128 (95%)	125 (92%)	253 (93%)	109 (97%)	210 (93%)	319 (94%)
	MTCT – pregnancy/delivery (yes)	119 (89%)	114 (84%)	233 (86%)	96 (86%)	178 (79%)	274 (81%)
	MTCT – breastfeeding (yes)	111 (82%)	112 (82%)	223 (82%)	92 (82%)	190 (84%)	282 (83%)
	<b>Misconceptions</b>						
	Mosquito (no)	74 (57%)	76 (56%)	150 (57%)	85 (76%)	172 (76%)	257 (76%)
	Food (no)	105 (78%)	104 (74%)	209 (78%)	92 (82%)	196 (87%)	288 (85%)
	Toothbrush (yes)	102 (75%)	104 (76%)	206 (76%)	68 (61%)	147 (65%)	215 (64%)
	Healthy looking person (yes)	98 (73%)	102 (75%)	200 (74%)	83 (74%)	165 (73%)	248 (73%)
	<b>Attitudes</b>						

	Family secret (yes)	64 (48%)	66 (49%)	130 (48%)	30 (27%)	45 (20%)	75 (22%)
	Teacher (no)	51 (38%)	63 (46%)	114 (42%)	53 (47%)	119 (53%)	172 (51%)
	Household care (no)	32 (24%)	37 (27%)	69 (26%)	11 (10%)	27 (12%)	38 (11%)
	Buy vegetables (no)	35 (26%)	46 (34%)	81 (30%)	36 (32%)	86 (38%)	122 (36%)
	Adolescent condom (no)	84 (62%)	92 (68%)	176 (65%)	67 (60%)	137 (61%)	204 (61%)
<b>25-49</b>	<b>Knowledge</b>						
	Abstain (yes)	108 (74%)	138 (75%)	246 (75%)	203 (79%)	228 (78%)	431 (79%)
	Be faithful (yes)	129 (88%)	162 (88%)	291 (88%)	221 (86%)	249 (85%)	470 (86%)
	Consistent condom use (yes)	113 (77%)	138 (75%)	251 (76%)	171 (67%)	177 (60%)	348 (63%)
	Anal sex without condom (yes)	130 (89%)	163 (89%)	293 (89%)	240 (94%)	265 (90%)	505 (92%)
	Sharing needles (yes)	141 (97%)	169 (92%)	310 (94%)	246 (96%)	279 (95%)	525 (96%)
	MTCT – pregnancy/delivery (yes)	128 (88%)	161 (88%)	289 (88%)	212 (83%)	231 (79%)	443 (81%)
	MTCT – breastfeeding (yes)	113 (78%)	163 (89%)	276 (84%)	211 (83%)	244 (83%)	455 (83%)
	<b>Misconceptions</b>						
	Mosquito (no)	90 (62%)	105 (57%)	195 (59%)	191 (75%)	218 (74%)	409 (75%)
	Food (no)	122 (84%)	142 (77%)	264 (80%)	222 (87%)	251 (86%)	473 (86%)
	Toothbrush (yes)	115 (79%)	130 (71%)	245 (74%)	177 (69%)	197 (68%)	374 (68%)
	Healthy looking person (yes)	115 (79%)	137 (75%)	252 (77%)	186 (73%)	220 (75%)	406 (74%)
	<b>Attitudes</b>						
	Family secret (yes)	81 (56%)	87 (48%)	168 (51%)	60 (23%)	62 (21%)	122 (22%)
	Teacher (no)	65 (45%)	75 (41%)	140 (43%)	135 (53%)	159 (54%)	294 (54%)
	Household care (no)	42 (29%)	42 (23%)	84 (26%)	28 (11%)	35 (12%)	63 (12%)
	Buy vegetables (no)	39 (27%)	59 (32%)	98 (30%)	79 (31%)	112 (38%)	191 (35%)
	Adolescent condom (no)	91 (63%)	124 (68%)	215 (66%)	159 (62%)	174 (59%)	333 (61%)

Table 139: Difference in proportion of Lugufu camp and village respondents who would want a family member's HIV positive status to remain a secret

Have you ever used a condom?		Lugufu Camps	Surrounding Villages	Test Statistic
	Yes	130 (49%)	75 (22.5%)	$\chi^2$ 44.9466 p=.000
	No	136 (51%)	256 (77.5%)	
	Total	266	331	

## Exposure and Access to Information about HIV/AIDS

Table 140: HIV VCCT

Age		Camps (Lugufu 1&2)			Surrounding Villages		
15-19		Male	Female	Total	Male	Female	Total
	Ever been tested (yes)	24 (31%)	24 (32%)	48 (31%)	9 (13%)	19 (20%)	28 (17%)
	Last 12 months (yes)	17 (71%)	11 (46%)	28 (58%)	7 (79%)	10 (53%)	17 (61%)
	Last test had pre-test counseling (<=12 mos) (yes)	17 (100%)	10 (91%)	27 (96%)	6 (86%)	8 (80%)	14 (82%)
	Last test voluntary (<=12 mos) (yes)	15 (88%)	8 (73%)	23 (82%)	6 (86%)	9 (90%)	15 (88%)
	Last test received result (<=12 mos) (yes)	14 (87%)	8 (73%)	22 (81%)	7 (100%)	10 (100%)	17 (100%)
<b>20-24</b>							
	Ever been tested (yes)	21 (41%)	29 (49%)	50 (45%)	13 (33%)	23 (18%)	36 (21%)
	Last 12 months (yes)	15 (71%)	15 (52%)	30 (60%)	6 (50%)	16 (70%)	22 (63%)
	Last test had pre-test counseling (<=12 mos) (yes)	13 (87%)	14 (93%)	27 (93%)	4 (67%)	11 (69%)	15 (68%)
	Last test voluntary (<=12 mos) (yes)	13 (87%)	14 (93%)	27 (90%)	4 (67%)	13 (81%)	17 (77%)
	Last test received result (<=12 mos) (yes)	12 (86%)	14 (93%)	26 (90%)	6 (100%)	16 (100%)	22 (100%)
<b>Total</b>							
	Ever been tested (yes)	109 (40%)	135 (43%)	244 (42%)	84 (23%)	111 (21%)	195 (22%)
	Last 12 months (yes)	73 (68%)	75 (56%)	148 (61%)	45 (54%)	65 (59%)	110 (57%)
	Last test had pre-test counseling (<=12 mos) (yes)	70 (96%)	70 (95%)	140 (95%)	32 (73%)	50 (78%)	82 (76%)
	Last test voluntary (<=12 mos) (yes)	65 (89%)	63 (84%)	128 (86%)	34 (77%)	55 (85%)	89 (82%)
	Last test received result (<=12 mos) (yes)	66 (93%)	71 (95%)	137 (94%)	43 (98%)	63 (97%)	106 (97%)

Table 141: Difference in proportion of camp and villages respondents who have ever been tested for HIV, by age group and total

Have you ever been tested for HIV? (yes)		Lugufu Camps	Surrounding Villages	Test Statistic
	15-19	48 (31%)	28 (17%)	$\chi^2$ 9.0546 p=.003
	20-24	50 (45%)	36 (21%)	$\chi^2$ 18.2290 p=.000
	Total (15-49)	224 (42%)	195 (22%)	$\chi^2$ 63.6859 p=.000

Table 142: Difference in proportion of camp and villages respondents who received pre-test counseling the last time they tested for HIV within the past 12 months, by age group and total

The last time you were tested for HIV did you receive counselling? (yes)		Lugufu Camps	Surrounding Villages	Test Statistic
	15-19	27 (96%)	14 (87.5%)	$\chi^2$ 1.2776 p=.258
	20-24	27 (93%)	15 (68%)	
	Total (15-49)	140 (95%)	82 (76%)	

Table 143: Difference in proportion of Lugufu camp respondents who received results of most recent HIV test within the past 12 months, by age group (among those who have ever been tested for HIV and who have been tested within the past 12 months)

		15-19 years	20-49 years	Test Statistic
The last time you were tested for HIV did you obtain the result of the test?	Yes	22 (81%)	115 (97%)	$\chi^2$ 8.7405 p=.003
	No	5 (19%)	4 (3%)	
	Total	27	119	

Table 144: Difference in proportion of respondents aged 15-19 who received results of most recent HIV test within the past 12 months, by location (among those who have ever been tested for HIV and who have been tested within the past 12 months)

		Lugufu Camps (15-19)	Lugufu Villages (15-19)	Test Statistic
The last time you were tested for HIV did you obtain the result of the test?	Yes	22 (81%)	17 (100%)	$\chi^2$ 3.5518 p=.059
	No	5 (19%)	0	
	Total	27	17 (100%)	

Table 145: Difference between locations in proportion of respondents who were tested for HIV in the past 12 months and received results

The last time you were tested for HIV did you obtain the result of the test?		Lukole Camps	Surrounding Villages	Test Statistic
	Yes	135 (18%)	95 (10%)	$\chi^2$ 20.0873 p=.000
	No	626 (82%)	834 (90%)	

Table 146: Proportion of camp and village respondents (all ages) who know where to go for an HIV test

		Lugufu Camps	Lugufu Villages	Test Statistic
Do you know a place where a person can be tested for HIV?	Yes	505 (84%)	649 (78%)	$\chi^2$ 23.4661 p=.000
	No	93 (16%)	230 (26%)	
	Total	598	879	

Table 147: Pregnancy in the past five years and antenatal care

Age		Camps (Lugufu 1&2)	Surrounding Villages	Total
15-24		Female	Female	Female
	Pregnant in last 5 yrs. (yes)	51 (53%)	92 (61%)	143 (58%)
	Received ANC during last pregnancy within last 5 yrs.	50 (98%)	89 (98%)	139 (98%)
25-49				
	Pregnant in last 5 yrs. (yes)	82 (65%)	145 (69%)	227 (68%)
	Received ANC during last pregnancy within last 5 yrs.	81 (99%)	142 (99%)	223 (99%)
Total				
	Pregnant in last 5 yrs. (yes)	133 (59%)	237 (66%)	370 (63%)
	Received ANC during last pregnancy within last 5 yrs.	131 (98%)	231 (99%)	362 (99%)

**BEHAVIOURAL SURVEILLANCE SURVEY FOR  
GREAT LAKES INITIATIVE AGAINST AIDS (GLIA)**

Serial number of questionnaire

|\_|\_|\_|\_|

**CONSENT FORM**

Hello Sir/ Madam,

My name is .....I am an interviewer, working to fight against HIV/AIDS with name of organisation in name of region.

We would like to know the behaviours and practices associated with the spread of HIV/AIDS in your community.

You've been selected randomly and we wish, with your permission, to interview you.

Be assured that 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, but please note that your name will not be recorded in the questionnaire, and any details related to your privacy will be kept confidential. It will not be used in relation to registration, food distribution or any other services.

Your participation in this survey is very important and we rely on you to provide us with accurate information that will help us to develop effective activities to fight HIV spread.

The interview will take approximately XX minutes, but with your cooperation it can be done quickly.

May I have your permission to undertake this interview? Yes  No

If you do not want to participate, why.....

Signature of the interviewer that a verbal consent was obtained:

---

<i>IDENTIFICATION</i>	
COUNTRY .....	_
REGION/ PROVINCE .....	_ _
CAMP/ SURROUNDING AREA (Camp = 1, Surrounding area = 2) .....	_
NAME OF CAMP/ SURR AREA .....	_ _
URBAN/ RURAL (Urban = 1, Rural = 2) .....	_
SERIAL NUMBER OF HOUSEHOLD .....	_ _

<b><u>NAME AND CODE OF INTERVIEWER</u></b>	
	_ _

<b>CONTROL</b>			
	CONTROL ON FIELD LEVEL	CONTROL IN CENTRAL OFFICE	DATA ENTRY CLERK
NAME	----- _	----- _	----- _
DATE	-----	-----	-----
REMARKS			

<b><i>Start of interview: __/__/h</i></b>
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## SECTION I: BACKGROUND CHARACTERISTICS (35 questions)

N°	QUESTIONS	ANSWERS	SKIP
<i>A. SOCIO-DEMOGRAPHIC</i>			
101.	Record sex of the respondent	1 = Male 2 = Female <span style="float: right;"> _ </span>	
102.	How old were you at your last birthday? (Record age in years)	Record number of years 99 = DON'T KNOW <span style="float: right;"> _ _ </span>	
103.	In which country were you born?	1 = Kenya 2 = Rwanda 3 = Uganda 4 = Tanzania 5 = Congo (DRC) <span style="float: right;"> _ </span> 6 = Burundi 7 = Other (Specify) _____ <b>Note: Responses should be revised to include only locally relevant countries</b>	
104.	What is your current nationality?	1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Tanzanian 5 = Congolese (DRC) <span style="float: right;"> _ </span> 6 = Burundian 7 = Other (Specify) _____ <b>Note: Responses should be revised to include only locally relevant nationalities</b>	
105.	Are you currently a refugee?	1 = Yes 2 = No <span style="float: right;"> _ </span>	
106.	What is your religion?	1 = Catholic 2 = Protestant 3 = Moslem <span style="float: right;"> _ </span> 4 = Other (Specify) _____ <b>Note: Responses should be revised to include other locally relevant religions</b>	
107.	What is the highest level of schooling you have completed? (different from a literacy program)	0 = Have never attended school 1 = Did not complete a full grade/level 2 = Primary 3 = College 4 = Secondary <span style="float: right;"> _ </span> 5 = High school 6 = University	





**B. ALCOHOL AND DRUG USE**

123.	In the last 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	<input type="checkbox"/>	
124.	Have you taken any drugs that were not prescribed by a health professional in the past 12 months?  <b>Note: A health professional does not include traditional medical practioners</b>	1 = Yes 2 = No	<input type="checkbox"/>	IF <b>NO</b> GO TO <b>128</b>
125.	What drugs have you taken?	1 = Marijuana 2 = Khat 3 = Heroin 4 = Opium 5 = Amphetamines 6 = Other (Specify) _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Note: Responses should be revised to include locally relevant drugs</b>
126.	Have you injected any drugs that were not prescribed by a health professional in the past 12 months?  <b>Note: A health professional does not include traditional medical practioners</b>	1 = Yes 2 = No	<input type="checkbox"/>	IF <b>NO</b> GO TO <b>128</b>
127.	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?	1 = Yes 2 = No	<input type="checkbox"/>	

**C. CIRCUMCISION**

128.	Some men and women have been circumcised, have you been circumcised?	1 = Yes 2 = No	<input type="checkbox"/>	IF <b>NO</b> , GO TO <b>130</b>
129.	At what age were you circumcised?	Record number of years 99 = DON'T KNOW	<input type="text"/>	
130.	If you could choose, would you prefer a sexual partner who was circumcised or not circumcised?	1 = Circumcised 2 = Not circumcised 3 = Don't know/ no preference	<input type="checkbox"/>	
131.	Would you be interested in getting circumcised if it was affordable and safe?	1 = Yes 2 = No 99 = Don't know	<input type="text"/>	

**D. MILITARY ACTIVITY**

132.	Have you ever been involved in any official or unofficial military, paramilitary or police activities?	1 = Yes 2 = No <input type="checkbox"/>	IF <b>NO</b> GO TO <b>201</b>
133.	For how long were you involved in military, paramilitary or police activities?	1 = Less than 6 months 2 = 6 to 12 months 3 = 1 to 2 years <input type="checkbox"/> 4 = 3 to 4 years 5 = 5 or more years	
134.	Are you currently involved in military, paramilitary or police activities?	1 = Yes 2 = No <input type="checkbox"/>	IF <b>YES</b> GO TO <b>201</b>
135.	How long ago did you leave your military, paramilitary or police activities?	Record number of years If less than one year, record 00 99 = Don't know <input type="text"/>	

## SECTION II: SEXUAL HISTORY AND RISK BEHAVIOUR (49 questions)

N°	QUESTIONS	ANSWERS	SKIP
<b>A. SEXUALLY ACTIVITY</b>			
201.	Have you ever had sexual intercourse? (Sexual intercourse is defined as penetrative vaginal or anal sex)	1 = Yes 2 = No  <input type="checkbox"/>	IF <b>NO</b> , GO TO <b>301</b>
202.	At what age did you first have sexual intercourse?	Age in years 99 = Don't know <input type="text"/>	
<b>B. REGULAR SEX PARTNERS</b>			
203.	Have you had a regular sex partner in the past 12 months? (A regular sexual partner is defined as spouse or live-in sexual partner)  <b>Cross check:</b> If 122 does not equal 1, then probe to make sure the definition of "regular partner" is understood	1 = Yes 2 = No  <input type="checkbox"/>	IF <b>NO</b> GO TO <b>208</b>
204.	How many regular partners did you have sex with in last the 12 months?	Record number 98 = No answer 99 = Don't know  <input type="text"/>	
205.	What was the nationality of your most recent regular partner?	1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Tanzanian 5 = Congolese (DRC) 6 = Burundian 7 = Other (Specify) _____ <b>Note: Responses should be revised to include only locally relevant nationalities</b>	<input type="checkbox"/>
206.	How old was your most recent regular partner?	Record age in years 99 = Don't know  <input type="text"/>	
207.	The LAST TIME you had sex with your regular partner, did you use a condom?	1 = Yes <input type="checkbox"/> 2 = No	

## C. CASUAL SEX PARTNERS

<b>208.</b>	Have you had sex with a casual partner in the past 12 months? <b>(A casual sex partner is defined as any sexual partner different from the one with whom one live or are married to and whom you did not receive or give money, gifts or favors for sex)</b>	1 = Yes 2 = No 98 = No answer 99 = Don't know	_ _ _	IF <b>No</b> GO TO <b>219</b>
<b>209.</b>	How many casual partners did you have sex with in last the 12 months?	Record number 98 = No answer 99 = Don't know	_ _ _	
<b>210.</b>	What was the nationality of your most recent casual partner?	1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Tanzanian 5 = Congolese (DRC) 6 = Burundian 7 = Other (Specify) _____ <b>Note: Responses should be revised to include only locally relevant nationalities</b>	_	
<b>211.</b>	How old was your most recent casual partner?	Record age in years 99 = Don't know	_ _ _	
<b>212.</b>	What was the marital status of your most recent casual partner?	1 = Married 2 = Single 3 = Divorced 4 = Widow/widower 5 = Other (Specify) _____ 99 = Don't know	_ _ _	
<b>213.</b>	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 9 = Commercial sex worker 10 = Humanitarian or development worker 11 = Unemployed 12 = Other (Specify) _____ 99 = Don't know	_ _ _	
<b>214.</b>	The last time you had sex with a casual partner, were you under the influence of alcohol?	1 = Yes 2 = No 99 = Don't know		



215.	The last time you had sex with a casual partner did you use a condom?	1 = Yes 2 = No	IF <b>NO</b> GO TO <b>217</b>
216.	Who suggested using a condom the last time you had sex with a casual partner?	1 = My partner 2 = Myself <input type="checkbox"/> 3 = Joint decision	GO TO <b>218</b>
217.	What was the <i>main</i> reason you did not use a condom the last time you had sex with a casual partner?  <b>Record only one answer</b>	1 = No condoms available 2 = Free condoms not available 3 = Too expensive 4 = Partner objected 5 = Don't like them 6 = Used other contraceptive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 7 = I trust my partner 8 = Didn't think of using one 9 = Don't know what condom is 10 = Want to have a child 11 = Religious reasons 12 = Unplanned sex 13 = Didn't think it was necessary 14 = Other (Specify) _____ 99 = Don't know	
218.	In the past 12 months, how often did you use a condom with all of your casual sex partners?	1 = Every time 2 = Frequently (more than 50% of the time) 3 = Sometimes (less than 50% of the time) 4 = Never <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 99 = Don't know	
<b>D. TRANSACTIONAL SEX</b>			
219.	Have you ever had sex in exchange for money, a gift or a favor?	1 = Yes 2 = No <input type="checkbox"/>	IF <b>NO</b> GO TO <b>234</b>
220.	The last time you exchanged sex, was it for money, a gift or a favor?	1 = Money 2 = Gift <input type="checkbox"/> 3 = Both money and gift	
221.	Who was the last person with whom you exchanged sex for money, a gift or a favor?	1 = Refugee 2 = Person from local community 3 = Military, paramilitary, police <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 4 = Humanitarian or development worker 5 = Other (Specify) _____ 99 = Don't know	



232.	<p>What was the <i>main</i> reason you did not use a condom the last time you had you exchanged sex for money, a gift or a favor?</p> <p><b>Record only one answer</b></p>	<p>1 = No condoms available  2 = Free condoms not available  3 = Too expensive  4 = Partner objected  5 = Don't like them  6 = Used other contraceptive <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/>  7 = I trust my partner  8 = Didn't think of using one  9 = Don't know what condom is  10 = Want to have a child  11 = Religious reasons  12 = Unplanned sex  13 = Didn't think it was necessary  14 = Other (Specify) _____  99 = Don't know</p>	
233.	<p>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 favor?</p>	<p>1 = Every time  2 = Frequently (more than 50% of the time)  3 = Sometimes (less than 50% of the time)  4 = Never <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/>  99 = Don't know</p>	

**E. FORCED SEX**

234.	<p>Have you ever been forced to have sex against your will?</p>	<p>1 = Yes <input type="checkbox"/><input type="checkbox"/>  2 = No</p>	<p>IF <b>NO</b>, GO TO <b>244</b></p>
235.	<p><b>REFUGEE ONLY : Cross-check 106 =1</b></p> <p>During which period in your life were you forced to have sex?</p> <p><b>Record all answers</b></p>	<p><b>A. Before displacement</b> <input type="checkbox"/><input type="checkbox"/>  1 = Yes  2 = No  <b>B. = During displacement</b> <input type="checkbox"/><input type="checkbox"/>  1 = Yes  2 = No  <b>C. = After displacement</b> <input type="checkbox"/><input type="checkbox"/>  1 = Yes  2 = No</p>	
236.	<p><b>Nationals only: Cross-check 105=No</b></p> <p>During which period in your life were you forced to have sex?</p> <p><b>Record all answers</b></p>	<p><b>A. = Before refugees arrived</b>  <input type="checkbox"/><input type="checkbox"/>  1 = Yes  2 = No  <b>B. = After refugees arrived</b>  <input type="checkbox"/><input type="checkbox"/>  1 = Yes  2 = No</p>	

237.	Who forced you to have sex? <i>More than one answer can be given. Record all answers</i>	1 = Regular partner  _  2 = Other family member  _  3 = Non-family member  _	IF REGULAR PARTNER OR OTHER FAMILY MEMBER ONLY, GO TO 239
238.	If you were forced to have sex by a non-family member, who forced you? <i>More than one answer can be given. Record all answers</i>	1 = Refugee  _  2 = Person from local community  _  3 = Military, paramilitary, police  _  4 = Humanitarian or development worker  _  5 = UN peacekeeper  _  6 = Other (Specify) _____  _  99 = Don't know  _	
239.	Have you been forced to have sex against your will in the past 12 months?	1 = Yes 2 = No  _  99 = Don't know	IF NO, GO TO 244
240.	How many times were you forced to have sex in the past 12 months?	Provide Number  _  99 = Don't know	
241.	Who forced you to have sex? <i>More than one answer can be given. Record all answers</i>	1 = Regular partner  _  2 = Other family member  _  3 = Non-family member  _	IF REGULAR PARTNER OR OTHER FAMILY MEMBER ONLY, GO TO 243
242.	If you were forced to have sex by a non-family member, who forced you? <i>More than one answer can be given. Record all answers</i>	1 = Refugee  _  2 = Person from local community  _  3 = Military, paramilitary, police  _  4 = Humanitarian or development worker  _  5 = UN peacekeeper  _  6 = Other (Specify) _____  _  99 = Don't know  _	
243.	How old was the last person who forced you to have sex?	1 = Older than me 2 = Younger than me  _  3 = Same age as me	
<b>F. ANAL SEX</b>			
244.	Have you had anal sex with a man or a woman in the past 12 months? <b>Anal sex included both penetrative and receptive anal intercourse</b>	1 = Yes 2 = No  _  99 = Don't know	IF NO, GO TO 301

245.	<p>Women only:</p> <p><b>The last time you had anal sex with a man, did you or your partner use a condom?</b></p>	<p>1 = Yes  2 = No  99 = Don't know</p> <p style="text-align: right;"> __ </p>	
246.	<p>Men only:</p> <p>Have you had anal sex with a man in the past 12 months?</p>	<p>1 = Yes  2 = No  99 = Don't know</p> <p style="text-align: right;"> __ </p>	IF <b>NO</b> , GO TO <b>248</b>
247.	<p>Men only:</p> <p><b>The last time you had anal sex with a man, did you or your partner use a condom?</b></p>	<p>1 = Yes  2 = No  99 = Don't know</p> <p style="text-align: right;"> __ </p>	
248.	<p>Men only:</p> <p><b>Have you had anal sex with a woman in the past 12 months?</b></p>	<p>1 = Yes  2 = No  99 = Don't know</p> <p style="text-align: right;"> __ </p>	IF <b>NO</b> , GO TO <b>301</b>
249.	<p>Men only:</p> <p><b>The last time that you had anal sex with a woman, did you or your partner use a condom?</b></p>	<p>1 = Yes  2 = No  99 = Don't know</p> <p style="text-align: right;"> __ </p>	

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

N°	QUESTIONS	ANSWERS	SKIP
301.	Have you ever heard of condoms?	1 = Yes 2 = No <span style="float: right;"> _ </span>	IF <b>NO</b> , GO TO <b>401</b>
302.	What do you think condoms are used for?  <b>Unprompted question. Record all answers given.</b>	1 = Protects against STI/HIV/AIDS <span style="float: right;"> _ </span> 2 = Prevents pregnancy <span style="float: right;"> _ </span> 3 = Family Planning <span style="float: right;"> _ </span> 4 = Other (Specify) _____ <span style="float: right;"> _ </span> 99 = Don't know <span style="float: right;"> _ </span>	
303.	Have you ever used a condom?	1 = Yes 2 = No <span style="float: right;"> _ </span>	IF <b>NO</b> , GO TO <b>401</b>
304.	Do you know where you can obtain a condom?	1 = Yes 2 = No <span style="float: right;"> _ </span>	IF <b>NO</b> , GO TO <b>307</b>
305.	Where do you usually get condoms? <b>Only one answer possible</b>	1 = Pharmacy <span style="float: right;"> _ </span> 2 = Health facility <span style="float: right;"> _ </span> 3 = At the market <span style="float: right;"> _ </span> 4 = From my friends <span style="float: right;"> _ </span> 5 = At the shop <span style="float: right;"> _ </span> 6 = Community health worker <span style="float: right;"> _ </span> 7 = Other (Specify) _____ <span style="float: right;"> _ </span> 99 = Don't know <span style="float: right;"> _ </span>	
306.	Can you obtain a condom every time you need one?	1 = Yes 2 = No <span style="float: right;"> _ </span>	IF <b>YES</b> , GO TO <b>308</b>
307.	What are the <i>main</i> constraint to obtaining a condom every time you need one?  <b>Only one answer possible</b>	1 = Too far away (geographical access) 2 = Too expensive 3 = Places not open at convenient hours 4 = Not available <span style="float: right;"> _ </span> 5 = Fear of being seen 6 = Health worker's attitude 7 = Other (specify) _____ 99 = Don't know	
308.	Have you ever heard of a female condom?	1 = Yes 2 = No <span style="float: right;"> _ </span>	IF <b>NO</b> , GO TO <b>401</b>
309.	Have you ever used a female condom?	1 = Yes 2 = No <span style="float: right;"> _ </span>	
310.	Would you/your partner be willing to use female condom if available?	1 = Yes 2 = No <span style="float: right;"> _ _ </span> 99 = Don't know	
311.	Do you know where you can obtain a female condom?	1 = Yes 2 = No <span style="float: right;"> _ </span>	

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

N°	QUESTIONS	ANSWERS	SKIP
401.	Have you ever heard about diseases that can be transmitted through sexual intercourse?	1 = Yes 2 = No 99= Don't know <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
402.	Have you had any unusual genital discharge in the past 12 months?	1 = Yes 2 = No 99= Don't know <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
403.	Have you had any genital ulcers or sores in the past 12 months?	1 = Yes 2 = No 99= Don't know <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	IF <b>NO</b> TO BOTH <b>402</b> AND <b>403</b> , GO TO <b>501</b>
404.	During the last time you had genital discharge, ulcer or sore, did you seek treatment?	1 = Yes 2 = No 99= Don't know <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	IF <b>NO</b> GO TO <b>406</b>
405.	Where was the FIRST place that you went for treatment?  <i>Only one answer possible</i>	1 = Public health center 2 = Private health center 3 = Traditional practitioner <input type="checkbox"/> 4 = Pharmacy 5 = Friend or relative 6 = Other (specify) _____  <i>Note: Responses should be revised to include locally relevant locations</i>	
406.	During the last time you had a sexually transmitted infection did you inform your sexual partner(s)?	1 = Yes, all of them 3 = Some of them, not all <input type="checkbox"/> 3 = No, none of them	

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

N°	QUESTIONS –	ANSWERS	SKIP
501.	Have you ever heard of HIV or a disease called AIDS?	1 = Yes 2 = No	_ _  IF NO, GO TO 614
502.	<b>Refugees only: Cross-check: 105=Yes</b> Do you think there are more cases of HIV/AIDS in your community or the surrounding local community?	1 = My (refugee) community 2 = Surrounding local community 99= Don't know	_ _ _
503.	<b>Nationals only: Cross-check: 106=2</b> Do you think there are more cases of HIV/AIDS in your community or the refugee community?	1 = My (surrounding local) community 2 = Refugee community 99= Don't know	_ _ _
504.	Can people protect themselves from HIV infection by staying faithful to one uninfected faithful sex partner?	1 = Yes 2 = No 99 = Don't know	_ _ _
505.	Can people protect themselves from HIV infection by using a condom correctly every time they have sex?	1 = Yes 2 = No 99 = Don't know	_ _ _
506.	Can people protect themselves from HIV infection by abstaining from sex?	1 = Yes 2 = No 99 = Don't know	_ _ _
507.	Can people get infected with HIV through a mosquito bite?	1 = Yes 2 = No 99 = Don't know	_ _ _
508.	Can people get infected with HIV by sharing a toothbrush with someone who is infected?	1 = Yes 2 = No 99 = Don't know	_ _ _
509.	Can people get infected with HIV by having anal sex with a male partner and not using a condom?	1 = Yes 2 = No 99 = Don't know	_ _ _
510.	Can a person get infected by HIV by getting injected with a needle that was already used by someone else?	1 = Yes 2 = No 99 = Don't know	_ _ _
511.	Can people get infected with HIV by sharing food with someone who is infected?	1 = Yes 2 = No 99 = Don't know	_ _ _
512.	Is it possible for a healthy-looking person to have HIV, the virus that causes AIDS?	1 = Yes 2 = No	_ _ _



		99 = Don't know	
513.	Can a pregnant woman with HIV/AIDS, transmit the virus to her unborn child during pregnancy or delivery?	1 = Yes 2 = No 99 = Don't know	_ _ _
514.	Can a woman with HIV/AIDS transmit the virus to her baby during breastfeeding?	1 = Yes 2 = No 99 = Don't know	_ _ _
515.	If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret?	1 = Yes (keep it secret) 2 = No 99 = Don't know	_ _ _
516.	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for him in your own household?	1 = Yes 2 = No 99 = Don't know	_ _ _
517.	If a teacher was infected with the virus that causes AIDS, should he/ she be allowed to continue teaching?	1 = Yes 2 = No 99 = Don't know	_ _ _
518.	Would you buy fresh vegetables from a shopkeeper who was infected with the virus that causes AIDS?	1 = Yes 2 = No 99 = Don't know	_ _ _
519.	Should young adolescents be taught how to use condoms?	1 = Yes 2 = No 99 = Don't know	_ _ _
520.	Do you think you are at risk for getting HIV?	1 = Yes, high risk 2 = Yes, moderate risk 3 = No risk 99 = Don't know	_ _ _

**SECTION VI: EXPOSURE and ACCESS to INTERVENTIONS (15 questions)**

N°	QUESTIONS	ANSWERS	SKIP
601.	Have you received information on HIV/AIDS in the past 12 months?	1 = Yes 2 = No <span style="float: right;"> _ _ </span> 99 = Don't know	IF <b>No</b> , GO TO <b>603</b>
602.	From what sources have you received information on HIV/AIDS in the past 12 months?  <i>Unprompted question. Record all answers given</i>	<p><b>Mass media</b></p> 1 = Radio <span style="float: right;"> _ </span> 2 = TV/ Video <span style="float: right;"> _ </span> 3 = Newspaper <span style="float: right;"> _ </span> 4 = Poster/pamphlet <span style="float: right;"> _ </span> <p><b>Health services</b></p> 5 = Health facility <span style="float: right;"> _ </span> 6 = VCT center <span style="float: right;"> _ </span> 7 = ANC/MTCT center <span style="float: right;"> _ </span> <p><b>People</b></p> 8 = Community health worker <span style="float: right;"> _ </span> 9 = Friend <span style="float: right;"> _ </span> 10 = Family member <span style="float: right;"> _ </span> 11 = Person living with HIV/AIDS <span style="float: right;"> _ </span> 12 = Peer outreach worker <span style="float: right;"> _ </span> <p><b>Other places</b></p> 12 = School <span style="float: right;"> _ </span> 13 = Place of worship <span style="float: right;"> _ </span> 14 = Public meeting <span style="float: right;"> _ </span> 15 = Others (specify) _____ <span style="float: right;"> _ </span> <p><b>Note: Other locally relevant responses should be added including specific interventions being conducted in the camp/community</b></p>	
603.	From what sources would you <i>prefer</i> to receive information on HIV/AIDS?  <i>Unprompted question. Record all answers given</i>	<p><b>Mass media</b></p> 1 = Radio <span style="float: right;"> _ </span> 2 = TV/ Video <span style="float: right;"> _ </span> 3 = Newspaper <span style="float: right;"> _ </span> 4 = Poster/pamphlet <span style="float: right;"> _ </span> <p><b>Health services</b></p> 5 = Health facility <span style="float: right;"> _ </span> 6 = VCT center <span style="float: right;"> _ </span> 7 = ANC/MTCT center <span style="float: right;"> _ </span> <p><b>People</b></p> 8 = Community health worker <span style="float: right;"> _ </span> 9 = Friend <span style="float: right;"> _ </span> 10 = Family member <span style="float: right;"> _ </span> 11 = Person living with HIV/AIDS <span style="float: right;"> _ </span> 12 = Peer outreach worker <span style="float: right;"> _ </span>	

N°	QUESTIONS	ANSWERS	SKIP
		<b>Other places</b> 12 = School <input type="checkbox"/> 13 = Place of worship <input type="checkbox"/> 14 = Public meeting <input type="checkbox"/> 15 = Others (specify) _____ <input type="checkbox"/>	
604.	Do you know a place where a person can be tested for HIV?	1 = Yes <input type="checkbox"/> 2 = No 99 = Don't know	IF NO OR DON'T KNOW, GO TO 606
605.	Where can a person be tested for HIV?	1 = In local community 2 = In refugee camp <input type="checkbox"/> 3 = In both sites 99 = Don't know	
606.	Have you ever been tested for HIV? <i>(State that you do not want to know the result of the test)</i>	1 = Yes <input type="checkbox"/> 2 = No 99 = Don't know	IF NO, GO TO 612
607.	When was the last time you were tested for HIV?	1 = In the past 12 months 2 = 1-2 years ago 3 = 3 or more years ago <input type="checkbox"/> 99 = Don't know	
608.	The last time you were tested for HIV was it voluntary or mandatory?	1 = Voluntary 2 = Mandatory <input type="checkbox"/> 99 = Don't know	
609.	The last time you were tested for HIV did you receive counselling?	1 = Yes <input type="checkbox"/> 2 = No 99 = Don't know	
610.	The last time you were tested for HIV, where did you go to get tested? <b>Only one answer possible.</b>	<b>Public sector</b> 1 = Hospital <input type="checkbox"/> 2 = Health facility government 3 = Clinic/ family planning 4 = Mobile Clinic <b>Private Sector</b> 5 = Private hospital/ Clinic 6 = Pharmacy 7 = Private medical doctor 8 = Mobile clinic 9 = Traditional healer 10 = Other (Specify) _____	
611.	The last time you were tested for HIV did you obtain the result of the test? <i>(State again that you do not want to know the test result)</i>	1 = Yes 2 = No <input type="checkbox"/> 99 = Don't know	

612.	Would you go for an HIV test in the future?	1 = Yes 2 = No 99 = Don't know	IF <b>YES</b> , GO TO <b>614</b>
613.	What is the <i>primary</i> reason you don't you want to go for a test? <i>Only one answer possible</i>	1 = Don't know where to go for a test 2 = Sure of not being infected 3 = Afraid of the result 4 = Afraid of the blood taking 5 = (Afraid of) catching an infection 6 = Fear of stigmatisation 7 = Don't think testing is confidential 8 = Too expensive 9 = Other (Specify) _____ 99 = Don't know	
614.	<b>Women only</b> Have you been pregnant in the past 5 years?	1 = Yes 2 = No	IF <b>NO</b> , END INTERVIEW
615.	<b>Women only</b> When you were pregnant did you go to an ante-natal clinic?	1 = Yes 2 = No 99 = Don't know	

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

**End of the interview: \_\_/\_\_/h**