HIV Behavioural Surveillance Survey in Kajo Keji County, Central Equatoria State, Southern Sudan

IGAD - UNHCR

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ACKNOWLEDGEMENTS

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
BSS	Behavioral Surveillance Survey
CPA	Comprehensive Peace Agreement
CIDA	Canadian International Development Agency
GONU	Government of National Unity
GOSS	Government of Southern Sudan
HCT	HIV/AIDS Counseling and Testing
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
IDPs	Internally Displaced Persons
IGAD	Inter-Governmental Authority on Development
IRAPP	IGAD Regional HIV/AIDS Partnership Program
MARP	Most-at-Risk Population
MOH	Ministry of Health
MSM	Men who have Sex with Men
NAC	National AIDS Commission
NSACC	New Sudan AIDS Control Council
PMCTC	Prevention from Mother to Child Transmission
SSAC	Southern Sudan AIDS Commission
SSHASF	Southern Sudan HIV/AIDS Strategic Framework
SPSS	Statistical Package for Social Sciences
SPLA	Sudan People's Liberation Army
SPLM	Sudan People's Liberation Movement
STI	Sexually Transmitted Infection
UNAIDS	United Nations Joint Program on AIDS
UNHCR	United Nations High Commissioner for Refugees
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

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EXECUTIVE SUMMARY

Behavioral surveillance surveys (BSS) are monitoring and evaluation tools designed to track trends in HIV/AIDS - related knowledge, attitudes and behaviors in particular sites or in subpopulations. The BSS in Kajo Keji County was a cross sectional population based survey among conflict affected populations. Its objective was to establish baseline behavioral, knowledge and intervention exposure data in relation to HIV and AIDS among returnees and host community at the onset of IGAD Regional HIV/AIDS Partnership Program (IRAPP). This report outlines the methodology, findings, discussions and recommendations.

The sampling frame for the BSS was based on the 2008 Census Frame. The target population was individuals aged 15-49 years residing in the selected households. A structured questionnaire was adapted from the UNHCR *Manual for Conducting HIV Behavioral Surveillance Surveys among displaced populations and their surrounding communities*.

FINDINGS

Respondents' Background Characteristics: A total of 957 respondents (568 females, 389 males) were interviewed. All respondents were 15 – 49 years of age, with 45% of the sample aged 15-24 and 54% of the sample aged 25-49. Although most of the respondents' country of birth was Sudan, almost 20% had been born in Uganda and a few were born in other countries.

Marital Status: 66.1% of respondents were currently married. More women than men were divorced, separated or widowed. The mean age at first marriage was 19.1 years (men 21.5 years; women 17.7 years).

Education Level: About 17% of respondents had no education, while 32.4% had attended some school but had not completed primary school and 27% had completed primary. On average, men had attained a higher level of education than women.

Displacement and Mobility: Most of the respondents were relatively new to the community: 17% had moved to the community in the previous year, 31% had lived in the community for 3-5 years, and only 5% had always lived in area.

Circumcision: Only 9.4% of the men reported having been circumcised. 39.5% of the uncircumcised men reporting being interested in circumcision if it was affordable and safe. Circumcision among women was not common (<1%).

Regular Partners and Condom Use: For respondents who had reported regular sex partners in the past 12 months, about 95% of the women had one regular partner compared to 70% of the men. While 30% of men had multiple regular partners in the previous 12 months, just 3% of women reported multiple regular partners. Condom use with regular partners was minimal (8%).

Non Regular Partnership and Condom Use: About 8% of respondents had sex with a non regular partner in the previous 12 months. Significantly more men (16.8%) reported non regular sex partners than women (1.8%). Most of the men's casual sex partners were students (52.3%) while 17.3% of women's casual sex partners were farmers and businessmen.

Transactional Sex: Overall, 2.5% of respondents had had transactional sex. Condom use at last transactional sex was low (15%). Condom unavailability, partner objection and unplanned sex were cited as reasons for having unprotected sex.

Forced Sex: Forced sex was reported by 7.7% of respondents (10.5% of women, and 3.6% of men). Most reported incidents happened after the war. The perpetrators were often the regular partners.

Anal Sex: Five respondents (0.5%) had had anal sex in the previous 12 months. Of the five, two reported condom use at last anal sex.

Knowledge and Access to Condoms: Condom awareness was high (90.6%) but slightly higher among men than women. Almost all (99.7%) respondents cited protection against STI/HIV/AIDS as the main reason for use of condoms. Distance, unavailability of condoms, and fear of being seen purchasing condoms were the main obstacles hindering condom uptake.

Knowledge of HIV and its Transmission: Knowledge of HIV/AIDS was widespread, with 97.4% having heard about the disease. The majority of both men (84.7%) and women (79.5%) reported that staying faithful to one uninfected partner offered protection, and 22.6% of men and 30.2% of women reported that abstinence offered protection.

Misconceptions about HIV/AIDS Transmission and Prevention: Myths and misconceptions about HIV were prevalent, with 27.1% of respondents indicating that people can get HIV from mosquito bites and 19.2% by sharing food with an infected person. Seventeen percent (17%) reported that a healthy looking person cannot be infected with HIV.

Exposure and Access to HIV and AIDS Information: Only 49.6% of males and 42.6% of females had received information on HIV and AIDS in the previous 12 months. Of those who had heard about AIDS, 70% knew where a person could be tested for HIV.

HIV Testing and Counseling: About 45% of the respondents had ever been tested for HIV, with more women having tested than men, many through testing in antenatal clinics. An equal proportion of men and women (43%) had tested for HIV in the previous 12 months and about 90% of all respondents were willing to take an HIV test in future.

Recommendations: Based on the findings, the following policy, programmatic and research recommendations were made:

Policy and advocacy level

- Sustained political commitment and involvement of leaders is needed to support behavioral change, reduce stigma and discrimination.
- Faith based organizations and non-governmental organizations need to be engaged more in influencing public opinion on HIV and AIDS.
- Access to formal education should be enhanced for all children and young adults.

Information, education and communication/behavioral change communication (IEC/BCC)

- Intensify HIV awareness programs to address misconceptions and behavioral change.
- Intensify media based public HIV and AIDS education in order to build comprehensive knowledge and also address knowledge gaps. The use of local FM stations using the local language such as the Kajo Keji radio station is important.
- Develop intensive IEC programs, which take into account the specificity and heterogeneity of the population. These programs need to target the specific needs of each age group and prescribe appropriate courses of action e.g. delaying the age of sexual debut among young people.
- Promote abstinence, delayed sexual debut, and being faithful to one partner through faith- and school-based responses.
- Promote peer education, as well as the use of locally developed and culturally appropriate IEC materials and activities.

Program level

- Form and support Anti-AIDS clubs in Kajo Keji county schools to improve knowledge on HIV and AIDS among students at all levels and promote abstinence messages.
- Promote condom use, especially among sexually active individuals.
- Promote being faithful to one partner to create awareness of the risk associated with multiple sexual partners.
- Establish HIV testing structures in the community, such as youth centers and vocational training centers. Provider initiated counseling and testing should also be promoted.
- Promote correct and consistent use of condoms and ensure easy accessibility of both male and female condoms.

- Design programs to serve most-at-risk populations (MARPs) such as sex workers and men who have sex with men (MSM), since they have the potential of spreading HIV infection to the general population.
- Design and implement voluntary medical male circumcision program as a HIV prevention strategy.
- Integrate HIV testing into reproductive health services such as antenatal care for pregnant women and counseling for them and their spouses.
- Develop programs that involve the PLWHAs, religious and other opinion leaders in the community need to respond to stigma and discrimination in the county.
- Initiate and support programs for discouraging drug and alcohol use and abuse, particularly amongst the youth.
- Strengthen STI prevention and control programs provided by health institutions.

Research

- More qualitative research is needed to follow up on some of the issues emerging from this survey such as prevalence and magnitude of anal sex and MSM.

SUMMARY OF KEY KAJO KEJI BSS INDICATORS

Table 1: Baseline Core Indicator

Indicators	Male (%)	Female (%)
Young men and women aged 15-24 who have had sexual intercourse before the age of 15		
15-19 years	74.5 (76)	30.9 (43)
20-24 years	56.5 (35)	44 (55)
15-24 years	67.8 (111)	37.1 (98)
95% Confidence Interval	55.51-80.09	23.57-50.63
Never-married young people aged 15-24 who have never had sex		
15-19 years	53.9 (55)	56.1 (78)
20-24 years	14.5 (9)	8 (10)
15-24 years	39 (64)	33.3 (88)
95% Confidence Interval	22.10-55.90	19.37-47.23
[1]More than one sex partner in the past 12 months among men and women aged 15-49		
15-19 years	21.6 (22)	1.4 (2)
20-24 years	38.7 (24)	4 (5)
15-24 years	28 (46)	2.7 (7)
95% Confidence Interval	9.65-46.35	0.0 -19.68
25-49 years	28.4 (63)	2 (6)
95% Confidence Interval	12.65-44.15	0.0 -17.84
15-49 years	28.2 (109)	2.3 (13)
95% Confidence Interval	16.25-40.15	-9.22-13.82
Sex with a non-regular partner in the last 12 months among men and women aged 15-49		
15-24 years	26.8 (44)	1.9 (5)
95% Confidence Interval	8.29-45.31	15.02-18.82
25-49 years	9.5 (21)	1.7 (5)
95% Confidence Interval	-8.24-27.24	-14.32-17.72
15-49 years	16.8 (65)	1.8 (10)
95% Confidence Interval	3.95-29.65	-9.85-13.45
Condom use at last sex with a non-regular partner among men and women aged 15-49		
15-24 years	36.4 (16)	20 (1)
95% Confidence Interval	3.06-69.74	-
25-49 years	38.1 (8)	40 (2)
95% Confidence Interval	-9.49-85.69	-
15-49 years	36.9 (24)	30 (3)
95% Confidence Interval	9.60-64.20	-
Sex with a transactional partner in the last 12 months among men and women aged 15-49		
15-24 years	3 (5)	0.4 (1)
95% Confidence Interval	-	-
25-49 years	2.3 (5)	0.3 (1)
95% Confidence Interval	-	-
15-49 years	**2.6 (10)**	**0.4 (2)**
95% Confidence Interval		

[1] This indicator was constructed using only those who had more than one regular and non regular partner as number of transactional sex partners was not sought in the survey

Table 1: Baseline Core Indicator cont….

Condom use at last sex with a transactional partner in the last 12 months among men and women aged 15-49		
15-24 years	40 (2)	0
95% Confidence Interval	-	-
25-49 years	20 (1)	0
95% Confidence Interval	-	-
15-49 years	30 (3)	0
95% Confidence Interval	-	
Percent of men and women aged 15-49 received an HIV test in the past 12 months and know their results		
15-19 years	27.5 (28)	35.3 (49)
20-24 years	37.1 (23)	56.8 (71)
15-24 years	31.1 (51)	45.5 (120)
95% Confidence Interval	31.13-49.07	32.90-58.10
25-49 years	21.8 (84)	42.1 (126)
95% Confidence Interval	9.31-34.29	21.01-63.19
15-49 years	35 (135)	38.7 (218)
95% Confidence Interval	23.62-46.38	29.56-47.84
Percent of men and women aged 15-49 who had an STI symptom in the past 12 months and sought treatment at a health facility		
15-24 years	7.3 (12)	13.3 (35)
95% Confidence Interval	-13.52-28.12	-2.61-29.21
25-49 years	16.7 (37)	24.4 (73)
95% Confidence Interval	-0.30-33.70	10.47-38.33
15-49 years	12.7 (49)	19.2 (108)
95% Confidence Interval	-0.49-25.89	8.69-29.71
Percent of men and women aged 15-49 with comprehensive correct knowledge of HIV/AIDS		
15-24 years	29.3 (48)	20.5 (54)
95% Confidence Interval	-11.09-47.51	5.27-35.73
25-49 years	23 (51)	11.4 (34)
95% Confidence Interval	6.67-39.33	-3.71-26.51
15-49 years	25.7(99)	15.6 (88)
95% Confidence Interval	13.53-37.87	4.88-26.32
Percent of men and women aged 15-49 with accepting attitudes towards PLHIV		
15-24 years	14.6 (24)	14 (37)
95% Confidence Interval	-5.38-34.58	-1.81-29.81
25-49 years	15.3 (34)	12.7 (38)
95% Confidence Interval	-1.81-32.41	-2.27-27.67
Percentage of men and women aged 15-49 who have been reached by HIV prevention programs		
15-24 years	68.3 (112)	66.3 (175)
95% Confidence Interval	56.11-80.49	56.40-76.20
25-49 years	66.2 (147)	61.5 (184)
95% Confidence Interval	55.39-77.01	51.56-71.44
Percent of men and women aged 15-49 of women who were forced to have sex in the past 12 months		
15-49 years	-	17.6 (99)
95% Confidence Interval		6.99-28.21

Table 1: Baseline Core Indicator cont….

Percent of men and women aged 15 – 49 residing in current community for 12 months or less		
15-24 years	15.9 (26)	25.4 (67)
95% Confidence Interval	-3.98-35.78	10.66-40.14
	11.3 (25)	13.4 (40)
25-49 years	-6.25-28.85	-1.53-28.33
95% Confidence Interval		
15-49 years	13 (50)	19.4 (109)
95% Confidence Interval	-0.18-26.18	8.80-29.90
Percent of men and women aged 15-49 away from home for 4 or more weeks in the past 12 months		
15-24 years	37.8 (62)	36.7 (97)
95% Confidence Interval	20.73-54.87	23.13-50.27
25-49 years	24.8 (55)	15.4 (46)
95% Confidence Interval	8.66-40.94	0.65-30.15
15-49 years	30.3 (117)	20.1 (113)
95% Confidence Interval	18.52-42.08	9.65-30.55
[2]**Percent who visit the surrounding community one or more times in a month**		

[2] There was no camp and surrounding host community in this survey

CHAPTER 1: INTRODUCTION

Background information

This report contains the results of a Behavioral Surveillance Survey (BSS) conducted in Kajo Keji County, Central Equatoria State, Southern Sudan in September 2009. Behavioral surveillance surveys are standard monitoring and evaluation tools designed to track trends in HIV/AIDS-related knowledge, attitudes and behaviors in subpopulations at particular risk of infection, such as female sex workers, long distance truck drivers, police officers, estate workers, fishermen, male vendors, and female border traders. A BSS is a cross-sectional survey which can be conducted systematically to monitor changes in HIV/STI risk behaviors based on HIV and STI surveillance methods.

A BSS is usually carried out at regular intervals on a national or regional scale, depending on a country's needs. These surveys demonstrate evidence of progress of certain interventions, reveal lack of progress of others, and guide the design of more effective responses. Policymakers and key stakeholders use survey data to advocate for changes in policies, plans, and strategies. The overall goal of a BSS is to provide program managers and policy makers with baseline strategic information for programming, advocacy and monitoring.

BSS have been conducted in many countries in different parts and regions in the world. Most of these surveys have proved beneficial in understanding HIV and AIDS pandemics from regional and country-specific perspectives. In several countries, multiple rounds of BSS have already been conducted, with the trend data used to formulate new programs and to adapt existing ones.

Objectives of the Behavioral Surveillance Survey : The BSS in Kajo Keji County was a cross sectional population based survey among conflict affected populations, including returnees and surrounding host community. The aim was to establish baseline indicators on knowledge, attitudes and behaviors in relation to HIV/AIDS and STI at the onset of IGAD Regional HIV/AIDS Partnership Program (IRAPP). It is expected that such data and information would be used to guide future policy and programmatic interventions on HIV and AIDS in Kajo Keji and in Southern Sudan in general.

The specific objectives were to:

1. Establish baseline information on the knowledge, attitudes and behavior among returnees.
2. Improve the understanding of HIV risks and behaviors before, during, and after the displacement phase among the returnee population.
3. Provide information to guide policy formulation and HIV program planning response for the IRAPP Project.
4. Establish baseline data to allow for future evaluation of the HIV interventions and programs.

5. Provide data to allow comparison of indicators with other areas of the country and region.

Southern Sudan: Geo-Political Context : Southern Sudan covers an estimated 640,000 square kilometers and borders the Central African Republic, Democratic Republic of the Congo, Kenya, Uganda, and Ethiopia. In 2003, Southern Sudan was estimated to have a population of 7.5 million, excluding an estimated 4 million refugees and internally displaced persons (Lul 2007). The population is estimated to be growing rapidly at an annual rate of 3 percent, and is very young, with 53% of Southern Sudanese under the age of 18.

Sudan gained independence in 1956 but has since seen two protracted civil wars (1955-1972 and 1983-2005) between the North and the South. The war that began in 1983 was the longest-running conflict in Africa and resulted in about 2 million deaths, an estimated 4 million people displaced (with over 600,000 refugees in neighboring countries), bombardment of vast areas, and destruction of social service and economic infrastructure.

On January 9, 2005, under the auspices of Inter-Governmental Authority on Development (IGAD), the Comprehensive Peace Agreement (CPA) was signed by the Government of the Republic of the Sudan and the Sudanese People's Liberation Movement (SPLM). This Comprehensive Peace Agreement (CPA) provided for a permanent ceasefire and security arrangement implementation modalities, elaborated protocols on power and wealth-sharing, and laid out plans for a referendum on the self determination for the people of South Sudan in 2011.

The 20 years of civil war, however, had rendered existing government structures in Southern Sudan extremely weak, if not non-existent. Post-conflict Southern Sudan is therefore focusing on reconstruction as well as the creation of state structures, policies, governance mechanisms, and legal instruments, against the backdrop of very weak institutional capacity.

HIV and AIDS Situation in South Sudan: There is limited epidemiological data on HIV in Southern Sudan due to lack of a national HIV and AIDS surveillance system (Boo, 2007). The genesis of HIV and AIDS in Southern Sudan cannot be traced through case reporting, due to the effects of the war and displacement, in a setting devoid of HIV surveillance systems. Data from various sentinel surveillance sites operated by Non-Governmental Organizations (NGOs) have however demonstrated that Southern Sudan has not been insulated from the AIDS epidemic. The two protracted conflicts have resulted in vulnerability of the populations to the risk of HIV infection, primarily due to disruption of societal structures, disintegration of family and household units and frequent mixing of sexual networks between high risk groups (see also Waal *et al,* 2008).

Southern Sudan has recently experienced increased mobility of military personnel, commercial transporters, and international workers. The prevailing peace, trading opportunities and influx of people have contributed to the mushrooming of the commercial centers along the transport corridors. The region is also at high risk of an HIV epidemic due to cultural practices such as tattooing, scarification, polygamy, and widow inheritance. Southern Sudan is also surrounded by countries with higher HIV prevalence: Kenya, Ethiopia, Democratic Republic of Congo and Uganda.

HIV and AIDS Statistics: In 2003 the Sudan's HIV prevalence was estimated to be 2.6% and the epidemic was considered to be generalized. In 2007, Southern Sudan had an estimated HIV prevalence of 3.1% (Lul 2007). However, due to limited availability of HIV statistical data, a conclusive picture of HIV prevalence in Southern Sudan has yet to be established.

Following the CPA in 2005, the ensuing peace in Southern Sudan has opened up more opportunities for trade and commerce. The region is increasingly attracting a lot of trade from the neighboring countries but it is also becoming a major business destination especially for the private sector. Southern Sudan is also experiencing high population mobility, frequent mixing of sexual networks, and a heightened exposure to HIV. Peace in Southern Sudan has also led to massive population surge as roads are built, IDPs relocate, returnees repatriate, ex-combatants transit to civilian life, commercial transporters travel to and from the country, and workers from other countries arrive (e.g., aid/relief workers, private enterprise).

ANC data suggest the existence of a generalized epidemic, and while the existing ANC sites do not adequately represent the entire region, it does appear that HIV prevalence varies widely within Southern Sudan. There is a higher concentration of HIV in towns than in rural areas. HIV prevalence is higher among women than men, and higher in areas that have experienced higher population mobility and possibly contact with other countries.

Despite major gaps in data and limitations in interpreting available evidence, HIV prevalence among the adult population is estimated at between 2.6% and 3.1% and roughly 214,000 Southern Sudanese adults are estimated to be living with HIV with many more at risk of infection (Boo, 2007)

Factors that have been identified as driving the epidemic in Southern Sudan include:

- Low levels of knowledge and misconceptions about HIV/AIDS
- High levels of stigma, discrimination, and denial regarding HIV/AIDS
- The low status of women and girls, polygamy,
- Poverty, gender inequality and limited accessing social services, including health services and legal recourse
- Harmful traditional practices (e.g., scarification, wife inheritance, etc) (see SSAC, 2008)

South Sudan's Response to HIV and AIDS: In 1995, AIDS was identified as the second-most critical issue facing New Sudan after the war by the late Chairman and Leader of SPLM/SPLA, Dr. John Garang. In April 2001, Dr. Garang launched Southern Sudan's first HIV/AIDS National Conference and charged it with responsibility of developing a National HIV and AIDS policy. This resulted in the development of a document entitled the *HIV/AIDS Policy and Control Strategies for the New Sudan in* September 2001 whose aim was to prevent the spread of HIV and mitigate its effects on the people of New Sudan to ensure economic development and progress (see also Government of South Sudan, 2008)

In 2001, the New Sudan National AIDS Council was created, with its chair reporting to the Chair of the SPLM (and in post-CPA, the President of Southern Sudan). In 2006, the Southern Sudan AIDS Commission (SSAC) was created. The mandate of SSAC is to initiate and recommend policies and strategies for curbing and combating the spread of HIV and AIDS in Southern Sudan and to create general awareness about the threat of the disease to the whole society. It is also mandated to, inter alia;

- The "three ones" Principle;
  - One agreed HIV/AIDS Action Framework that provides the basis for coordinating the work of all partners.
  - One National Coordinating Authority, with a broad based multisectoral mandate
  - One agreed upon Country Level Monitoring and Evaluation System".
- Provide national leadership in planning, supervision and support of HIV/AIDS programs.
- Initiate and recommend policies, regulations and strategies for curbing and combating the spread of HIV/AIDS and to expand and coordinate the national response to HIV/AIDS.
- Foster national and international linkages among all stakeholders through proper coordination of all HIV/AIDS prevention and control programs and activities within the overall national multi sectoral strategy.
- Reduce the vulnerability of individuals and communities to HIV/AIDS and to contribute in alleviating the socio-economic and human impact.
- Promote and protect the rights of both infected and affected persons (see SSAC, 2008).

Policy Environment: In 2007, the Government of Southern Sudan inaugurated its national HIV and AIDS policy. This policy seeks to address current and emerging challenges, including (SSAC, 2008):

- Weak data base due to weak or inadequate epidemiological and behavioral surveillance systems
- Challenges posed by post-conflict reconstruction including postwar psychosocial trauma in the war inflicted population of Southern Sudan.

- Limitation of resources to deal with HIV and AIDS
- Challenges presented by massive repatriation of returnees/ IDPs, influx of international aid workers, burgeoning private enterprise and concomitant arrival of investors and workers as well as population movement instigated by environmental degradation.
- Limited capacities among service providers, and
- Coordination of HIV and AIDS responses from external players and local players at the different levels of government.

The development of the *GOSS 2007 HIV/AIDS Policy* was inspired and influenced by existing treaties, conventions, declarations, policies, and other instruments, including: the Millennium Development Goals, the 2001 Declaration of Commitment on HIV/AIDS by UN General Assembly Special Session on HIV/AIDS, the 1948 Universal Declaration of Human Rights, the 1976 International Covenant on Economic, Social and Cultural Rights, the 1979 Convention on the Elimination of All Forms of Discrimination Against Women, the 1986 African Charter on Human People's Rights, the 1989 Convention on the Rights of the Child, the 1994 International Conference on Population and Development, Cairo, and the 1995 Fourth World Conference on Women, Beijing.

CHAPTER 2: SURVEY METHODOLOGY

This chapter describes the study design, study area and population, sampling and data collection methods, and data processing.

Survey design: This was a cross-sectional survey conducted among returnees in Kajo Keji County, comprising of 5 payams (administrative units). The study utilized a two-stage sampling design to select the study sample

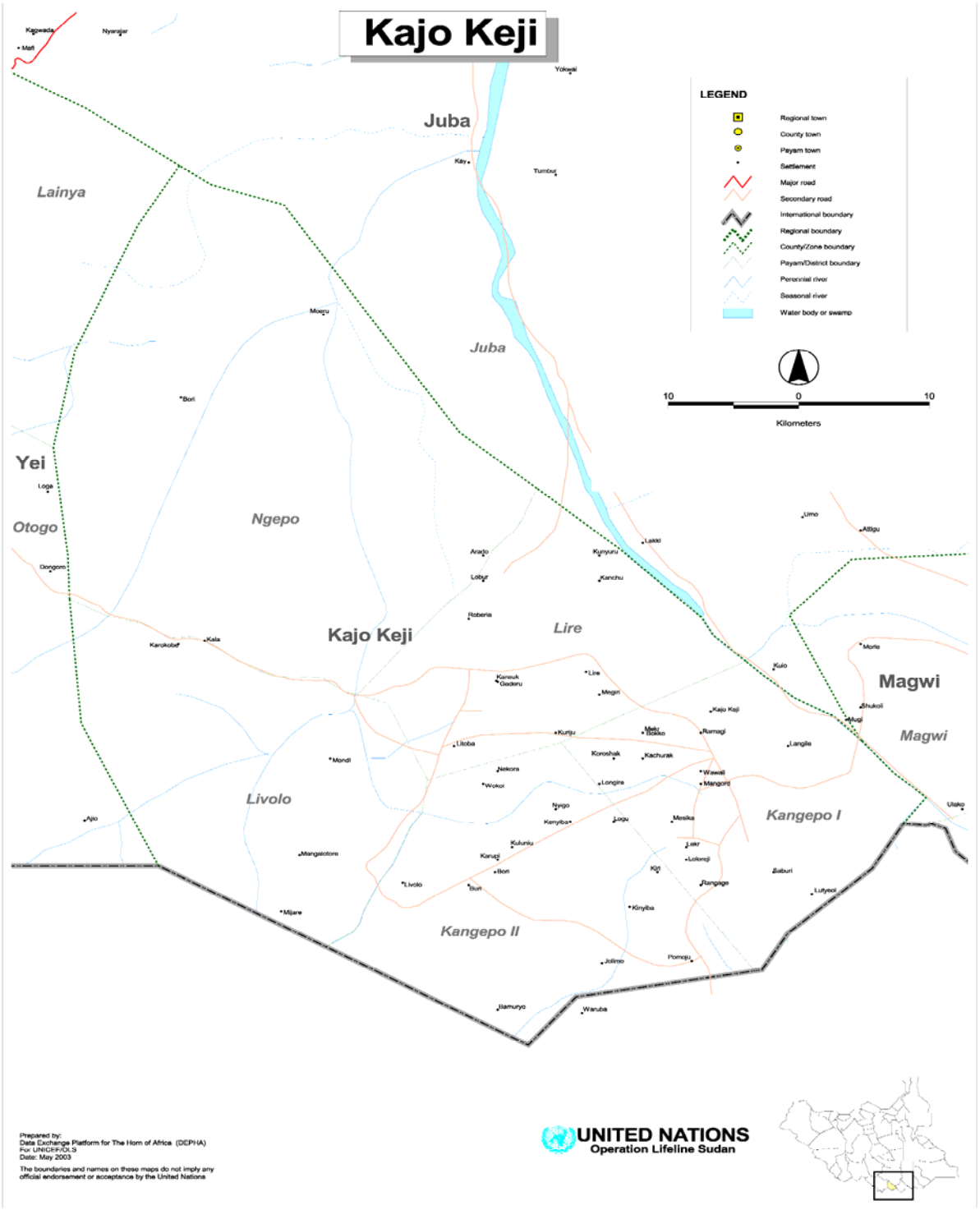
Study Area: Description

Kajo Keji County is located at the extreme southern end of Southern Sudan and covers an area of roughly of 113,000 square kilometers. It is bordered by Uganda in the South, Yei County in the West, Juba County in the North and the River Nile in the East. Kajo-Keji has an estimated population of about 150,000 people, but this population has been increasing steadily due to the influx of returnees from exile, mainly from Uganda (UNMIS, 2007).

Kajo Keji is located in the tropical rainforest and has moderate soil fertility. Administratively, Kajo-Keji County is composed of five districts called payams that are further subdivided into bomas. The five payams that constitute the county include: Kang'apo I, Kang'apo II, Lire, Liwolo, and Nyepo. Nearly all the inhabitants of Kajo Keji are peasant farmers and speak a local dialect Kuku.

Kajo Keji County has been ravaged by decades of war in Sudan and the spillover from the conflict in Northern Uganda between the Lord's Resistance Army rebels and the Uganda government. Much of the population in Kajo Keji County fled to Uganda during the war, with of those who fled residing in refugee camps for more than 20 years. As peace returns to Southern Sudan, Kajo Keji is now enjoying a period of relative stability and citizens are enthusiastically returning to rebuild their lives and communities.

Map 1: Kajo Keji County



The area also hosts large numbers of internally displaced people as a result of ethnic conflicts and cattle rusting activities. Due to the protracted war, the social and economic infrastructure has suffered from neglect and destruction. Most of the physical infrastructure including school buildings, health clinics, and community centers has also been destroyed during the war. Basic services, particularly education and health, are practically nonexistent in most parts of the county. Schools are poorly equipped, teachers lack training, and enrollment is particularly low as many children remain at home. Since UNHCR started voluntary repatriation of refugees from Northern Uganda in May 2006, Kajo Keji County has been faced with the challenge of integrating returnees into the existing structures.

Sampling methodology

Sample Size Determination

The sample size was estimated based on the following 2 key behavioral indicators related to HIV/AIDS risks:

1. Percentage 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. Percentage of youth aged 15-24 in 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.

Given the lack of previous information, for the sake of sample size calculation, both percentages were assumed to be 50%, the figure that would yield the most conservative (largest) sample size.

The estimation formula for the sample size is:

$$n_h = (z^2)\,(r)\,(1\text{-}r)\,(f)\,(k)/\,(p)\,(\tilde{n})\,(e^2), \text{ where}$$

z= 95% confidence interval = 1.96=2

r= key behavioral indicator related to HIV/AIDS risk (50%)= 0.5

f= default value of design effect = 2

k= non response rate (15%) = 1.15

p= population proportion (15- 49 years)= 47%= 0.47

n'= average household size = 6

e= margin of error (10%) = 0.1=0.1r=0.1*0.5=0.05

n= required sample size(number of sample households)= 354 households

Sampling procedure: According to the 2008 Census, the average household size was 6, and 47% of individuals were 15-49 years old, meeting age criteria for the study. The sample size was calculated to be 1054 individuals including 15% provision for non-response and a design effect of 2.

A two-stage sampling design was used to select the sample. In the first stage, we listed all enumeration areas by population and selected 27 enumeration areas (EA) by probability proportionate to size. In the second stage, 13 household were sampled from each EA. The survey team was directed to the central location of the EA by a village elder. The direction to start was randomly selected by spinning a pencil. All the households in that direction were listed. The starting household was randomly picked and third consecutive household was sampled until the required number of households was sampled. Consenting eligible survey subject were identified and interviewed using a structured questionnaire.

Table 2: Distribution of Enumeration Areas by Number of Households

Payam	Population	Households	EA	%	Selected EAs
Kang'apo I	44,788	7,162	36	23	6
Kang'apo II	53,389	9,750	52	33	8
Lire	31,438	5,277	24	15	4
Liwolo	43,732	7,369	30	19	6
Nyepo	23,075	2,994	15	10	3
Total	196,422	32,552	157	100	27

Eligibility criteria: Inclusion criteria: All consenting persons aged 15-49 and living and sharing meals with the household for more than a fortnight.

Exclusion criteria: - Did not meet inclusion criteria.

- Incoherent or mentally challenged

Study Instrument : The survey questionnaire was a modified version based on Family Health International (FHI) BSS guidelines and the UNHCR *Manual for conducting HIV Behavioral Surveillance Surveys amongst displaced populations and their surrounding communities* (UNHCR, GLIA & World Bank 2008). The questionnaire comprised of a consent form, identification/control form, household data form and the individual questionnaire. The household data form was used to list household members in the selected households and also to assess household response to the individual questionnaire. It was used to monitor call backs to households for eligible respondents who were not interviewed for a variety of reasons.

Issues covered in the questionnaire included:

Background characteristics including age, education, occupation, religion, nationality

- Alcohol and drug use
- Circumcision
- Military activity
- Sexual history and risk behavior
- Sexually Transmitted Infections
- Knowledge, opinions and attitudes towards HIV/AIDS
- Exposure and access to interventions

The questionnaire was translated from English to Bari language, commonly spoken by the local population in Kajo Keji County, and translated from Bari language back to English language, to provide a final check.

Validation of Study Instruments: The study team reviewed all questions in the instrument. The study instruments were pre-tested in villages outside the study area. Following this, questions found in need of further revision were edited and re-arranged accordingly. As a result, some questions were modified and others added, in order to adapt the instrument to the Kajo Keji context.

During the training of field team the validity of the instruments was further checked by reviewing the context, language and sequencing of questions. For example, following the pre-test and consultation with local leadership, the section dealing with anal sex was moved to the last part of the questionnaire in order to minimize the loss of information should a participant decide to discontinue participation. The enumerators simulated data collection by taking turns to ask questions to each other in English and then in local languages during training. This role playing was followed by a review of the internal consistency of the questionnaire, phraseology, and appropriateness of use and application of certain words and terminologies in the local context.

Study Team: The study team was made up individuals representing various stakeholders including Southern Sudan AIDS Commission, Ministry of Health, UNHCR Southern Sudan, Juba, and a UNHCR consultant as the Principal Investigator for the survey. Field teams included staff from the UNHCR Kajo Keji Office, Central Equitoria State AIDS Commission and locals drawn from the returnees and the host community.

Team recruitment and training: The field team comprised of 24 people: the logistician (in-charge of logistics), fifteen enumerators (with two reserves), five field supervisors, one data entry supervisor, and two data entry clerks. These team members were mainly drawn from the local population in Kajo Keji County because the team needed to be able to communicate in the local Bari language. Locally recruited

personnel were also likely to be more familiar with the local environment and to find easy acceptance in the community. All the team members were subject to a resume review and an oral interview.

The selected candidates then went through five day training from 26th to 30th October 2009 on theoretical and practical aspects of the study. The training reviewed the goals and objectives, interviewing techniques, study populations of interest, household and participant recruitment, eligibility criteria, ethical issues including informed consent, piloting and pre-testing of questionnaire, data collection, field procedures, code of conduct for field workers, review of all the data collection tools, role playing, data editing, management and auditing. The logistician for responsible for advance planning for the field work, and availability of transport and other requisite supplies for the field work. The actual data collection members were grouped into five teams of 4 members 3 research assistants (two male and one female) and one supervisor. Each of these teams was to cover one payam. The data entry team comprised of three people: one data entry supervisor, and two data entry clerks. The data entry supervisor was in charge of preparing the data entry template, supervising data entry and ensuring safe custody of all data and filled questionnaires. The data entry clerks were in charge of entering all data from the field in an orderly manner.

Data Collection: Prior to the start of data collection, a launching ceremony organized by the Central Equitoria State AIDS Commission in conjunction with the Directorate of HIV/AIDS, Government of Southern Sudan, the Southern Sudan AIDS Commission, and UNHCR in Kajo Keji. The ceremony, which was presided over by the County Commissioner, was aimed at making the public aware that the BSS was going to take place in their county and to secure the community's cooperation. This event was well attended, and attracted the participation of community, local government officials and NGO representatives. The launching ceremony was also covered well by the two local radio stations in Kajo Keji. Daily advertisements of the BSS were also placed with the Kajo Keji Radio Station for the period of the field work.
In the days preceding the field work the field supervisor to each of the five teams met with the Payam administrators and boma leaders in the survey areas to give them the letter of introduction and apprise them of the upcoming data collection exercise in their jurisdiction and secure their cooperation and assistance. All the team members including supervisors carried official letters of introduction and wore identifying name badges. Data collection took place over a period of 21 days from November 2 to November 21, 2009.

Interviews were conducted by reading out the questions while seated face to face with the respondents. Responses were written down immediately in the spaces provided in the questionnaire. After the interview, interviewers conducted quality checks and clarified any unclear responses in the households. On average, each interviewer

conducted approximately 6 interviews in a day. The completed questionnaires were reviewed daily by team supervisors. The Principle Investigator also reviewed 10 percent of the questionnaires from each team daily and before submission to the data entry team. Any queries were followed up by supervisors.

The team supervisors also met with the logistician and the Principle Investigator at the end of each day for a debriefing on that day's activities and to plan for the following day's work.

Enrolment criteria: Eligible household members aged 15-49 were included in this survey. Any individual who had not been living and sharing meals with the household for more than a fortnight was excluded.

Household replacement: A household was considered abandoned if neighbor(s) reported that nobody lived in that household for more than 1 month or inhabitants had moved out. An abandoned household was not replaced.

Absent potential respondents: Details of absent potential respondents were taken and attempts made to get in contact with them by booking an appointment at a suitable time of the day, or tracing them to the market, hospital or workplace as the case was, if feasible and the household concurred. Those who could not be traced after 3 visits were recorded "absent" and not replaced.

Refusal to participate: If the interviewer failed to convince the household to participate or the selected respondent declined to participate, no attempt was made to select another one. The household head or respondent was simply recorded as "non-response". The survey supervisor was informed about those household heads and respondents that had declined and visited them to confirm the refusal. If the household head or respondent agreed to be interviewed the supervisor would then conduct the interview.

Ethical Considerations: The BSS protocol and tools were reviewed and cleared by the MOH/GOSS Ethical Review Board. Participation was strictly voluntary and measures were taken to assure the respect of anonymity, dignity and freedom of participants. During training, interviewers were trained on the importance of obtaining informed consent (written and oral), avoiding coercion, to stop the interview whenever the respondent felt uncomfortable and keep the study information private and confidential.

Informed Consent: Oral and written informed consent was obtained from each respondent. However, potential respondents who could not effectively participate in the study on account of infirmity such as being mentally challenged were excluded

from the survey. Parental or legal guardian's consent was obtained for minors aged 15-17 years old.

Confidentiality and Privacy: One household data form was used to collect demographic information regarding a selected household. Each household member was identified by name, age, sex, relationship to head of household (HH) and whether the respondent had agreed to participate or not as well as whether the interview had been conducted or not. After all household members were interviewed, personal identifying marks were erased and the household data form was kept under lockable cabinet accessible only by the logistician.
One questionnaire was used to collect information per respondent and no personal identifying marks were written. All persons working on the project were trained and asked to maintain high level of confidentiality

Data Management and Processing: The processing of data began shortly after the field work commenced. Following pre-test results, an Epi Info data entry screen was developed for the Kajo Keji BSS. The data entry was conducted in the field by trained three data entry clerks in Epi Info. This data was periodically reviewed and cleaned. SPSS for Windows version 12 was used for data analysis. Quantitative data analysis followed standard statistical guidelines. Means and their standard deviations were used to analyze continuous variables whereas frequencies were used to analyze the distribution of categorical variables. Graphical displays such as bar charts were used to illustrate distributions. Questionnaire data was analyzed in phases.

Limitations of the Survey: The findings of the BSS should be interpreted in the light of certain limitations. First, interviewer bias cannot be ruled out since most of the interviewers were from Kajo Keji. Secondly, as in any interview-based surveys, it is possible that respondents may not have accurately answered some of the sensitive questions, or may have had difficulties in recalling information. This might occasionally result in inconsistencies in the responses given. Third, the scope of this survey was limited to obtaining quantitative indicators. The questionnaire was highly structured with limited probes and mostly included closed ended responses which provided little qualitative information. Fourth, because returnees and the local population are rather mixed, no attempt has been disaggregate the two categories.

Despite these limitations, the findings of this survey are consistent with the findings of other BSS surveys in neighboring countries with similar HIV and AIDS epidemic profiles. The data generated through this BSS is therefore valuable for policy and programmatic planning.

CHAPTER 3: RESULTS

Socio-Demographic Characteristics: A total of 957 respondents (568 females, 389 males) were interviewed, reflecting a male-female ratio of 1: 1.5. This gender imbalance was at least partly due to the fact that many men were away working in urban areas or elsewhere.

The respondents were recruited from 5 Payams: Kang'apo I (26.2%, n=251), Kang'apo II (27.9%, n= 267), Lire (13.6%, n=130), Liworo (18.9, n=181) and Nyepo with (13.4%, n=128).

Table 3: Socio-Demographic characteristics of the respondents

Characteristics	Male		Female		Total	
	n=389	%	n=568	%	n=957	%
Age						
15-24 years	164	42.2	264	46.5	428	44.7
25-49 years	222	57.1	299	52.6	521	54.4
15 – 49 years	386	99.2	563	99.1	949	99.2
No response	3	0.8	5	0.9	8	0.8
Country of birth						
Kenya	2	0.5	2	0.4	4	0.4
Rwanda	0	0.0	2	0.4	2	0.2
Uganda	75	19.3	111	19.5	186	19.6
Congo(DRC)	0	0.0	2	0.4	2	0.2
Sudan	311	79.9	451	79.4	762	79.6
No response	1	0.3	0	0%	1	0.1
Relationship status						
Currently Married	237	60.9	396	69.7	633	66.1
Never Married	3	0.8	4	0.7	7	0.7
Divorced/Separated	12	3.1	40	7.0	52	5.4
Widow/widower	5	1.3	23	4.0	28	2.9
No Response	132	33.9	105	18.5	237	24.8
Education level						
None	23	5.9	142	25.0	165	17.2
Primary Incomplete	113	29.0	197	34.7	310	32.4
Primary complete	107	27.5	151	26.6	258	27.0
Secondary Incomplete	53	13.6	32	5.6	85	8.9
Secondary +	92	23.7	45	7.9	137	14.3
No response	1	0.3	2	0.4	2	0.2
Religious affiliation						
Catholic	94	24.2	103	18.1	197	20.6
Protestant	284	73.0	457	80.5	741	77.4
Muslim	7	1.8	6	1.1	13	1.4
Others	2	0.5	0	0.0	2	0.2
No response	2	0.5	3	0.5	5	0.5

There were more female respondents than male in this survey, and more respondents aged 25-49 years than aged 15-24 years. Though most of the respondents' country of birth was Sudan, a considerable number of the respondents had been born in other countries, especially Uganda.

Of the respondents interviewed, 75.4% (n=722) indicated that they had ever been married but 66.1% (n=633) reported to be currently married. More women than men reported that they were divorced, separated, or widowed. Some 23.3% of the respondents were in polygamous marriages, most of whom were women 71.7% to 28.3% of men. The mean age at first marriage for the whole sample was 19.1 years. Men had a higher mean age at first marriage of 21.5 years compared to women's 17.7 years.

Most respondents had either not completed primary (32.4 %) or had completed primary only (27%). Those with secondary education or more were only 14.3%. Of religions, the protestant faith was most represented, with 77.4% of the respondents claiming membership. The Catholics and Muslims formed 20.6% and 1.4%, respectively, of the sample.

Income : More men (27.8%) than women (12.3%) mentioned that they earned a monthly wage or salary. In addition, a majority (64.2%) of the respondents reported that they earned a living in agricultural sector. Others were spread in sectors like trading and public services both with 7.3% and private services with 5.1%.

Table 3b: Respondents economic activity

Characteristics	Male		Female		Total	
	n=389	%	n=568	%	n=957	%
Economic activity						
None	16	4.1	41	7.2	57	6.0
Agriculture	224	57.6	390	68.7	614	64.2
Trading	23	5.9	47	8.3	70	7.3
Pastoralism	1	0.3	0	0.0	1	0.1
Transport	4	1.0	1	0.2	5	0.5
Fishing	1	0.3	0	0.0	1	0.1
Crafts	8	2.1	9	1.6	17	1.8
Private Services	20	5.1	29	5.1	49	5.1
Public Services	52	13.4	18	3.2	70	7.3
Humanitarian	4	1.0	3	0.5	7	0.7
Others	13	3.3	9	1.6	22	2.3
No response	23	5.9	21	3.7	44	6.0

More respondents (35.8%) could read easily in Bari language, the local language, than any other language, followed closely by English at 32.4% as shown in Table 4.
Therefore, Bari and English should be widely used to pass any messages.

Table 4: Language Proficiency

Variables	Easy		Difficult		Do not read at all	
	n	%	n	%	n	%
English	302	32.4	216	23.2	415	44.5
Arabic	16	1.9	39	4.6	800	93.6
Bari	330	35.8	195	21.1	398	43.1
Madi	22	2.6	39	4.6	782	92.8
Swahili	20	2.4	27	3.2	788	94.4

Displacement and Mobility: Only a small proportion (5.0%) of the respondents reported that they have always lived in the local community. More respondents reported that they had lived in the community for 3-5 years (30.7%) or for more than 5 years (24.3%).

More men (31.2%) than women (20.1%) indicated that they had left their residence for more than a month in the previous year. The main reasons cited for being away included: family related reasons (41.7%), school related (17.4%), trade (10%), holiday (8.3%), employment (7.0%), and religion (7.0%).

Table 5: Respondent's Mobility

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Length of stay in community**						
Always	25	6.4	23	4.0	48	5.0
Less than 6 months	23	5.9	48	8.5	71	7.4
6-11 months	28	7.2	61	10.7	89	9.3
1-2 years	66	17	134	23.6	200	20.9
3-5 years	132	33.9	162	28.5	294	30.7
More than 5 years	103	26.5	130	22.9	233	24.3
Unknown	4	1.0	9	1.6	13	1.4
No Response	8	2.1	1	0.2	9	0.9
[b] **Time after departing country of birth**						
Less than 1 year	42	13.4	63	14.1	105	13.8
1-2 years	33	10.5	40	8.9	73	9.6
3-4 years	39	12.4	37	8.3	76	10.0
5 years and above	200	63.7	308	68.8	508	66.7
[b] **Countries transited**						
One Country	139	40.3	223	42.6	362	41.7
Two Countries	168	48.7	249	47.5	417	48.0
Three and more Countries	8	2.3	10	2.0	18	2.1
No answer	30	8.7	42	8.0	72	8.3
[c] **Left residence for more than a month in the past year**						
Yes	117	31.2	113	20.1	230	24.5
No	258	68.8	450	79.9	708	75.5
[c] **Reason for being away**						
Employment	11	9.4	5	4.4	16	7.0
Trade	17	14.5	6	5.3	23	10.0
Family related	38	32.5	58	51.3	96	41.7
Political reasons	3	2.6	3	2.7	6	2.6
Military related	1	0.9	2	1.8	3	1.3
School -related	24	20.5	16	14.2	40	17.4
In jail	1	0.9	0	0	1	0.4
Holiday	4	3.4	15	13.3	19	8.3
Religion related	13	11.1	3	2.7	16	7.0
Other	5	4.3	5	4.4	10	4.3

[a] Denominator: Total sample (Men=389; women=568; Total= 957); [b] Denominator: Those born in other countries; (Men=313; women=447; Total= 760) [c] Denominator: Left residence in the previous 12 months for more than a month (Men=375; women=562; Total= 937)

Sexual Behavior: Patterns in sexual behavior and partnerships were examined to assess risky behavior among respondents. Sexual intercourse was defined as penetrative vaginal or anal sex in this survey.

Sexual debut: The mean age of sexual debut for all respondents was 17.8 years. The mean age at sexual debut for men was higher at 18.7 years compared to that of women at 17.2 years.

Condom knowledge, use and access: Condom awareness was quite high within the study population (90.6%). Awareness was however higher among men compared to women (X^2= 13.802; p=000). The lowest level of awareness was among women aged 25-49, at 84.3%, while the highest level of condom awareness was among men aged 15-24, at 97%. The most commonly cited use for condoms by almost all the respondents (99.7%) was protection against STI/HIV/AIDS.

Despite the high condom awareness, the use of condoms among those who had ever had sex was low, with 33.7% of men and 14% of women reporting ever having used a condom. The low condom use is consistent with trends observed elsewhere in Africa. For example, condom use has been found to be consistently low in groups with lowest education in Cameroon, Tanzania and Zambia (Adair 2008).

Table 6: Knowledge of and Access to Condoms

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Ever heard of condom**						
15-24 years	159	97.0	244	92.4	403	94.2
25-49 years	205	92.3	252	84.3	457	87.7
15 – 49 years	364	94.3	496	88.1	860	90.6
[b] **Ever used condom**						
Yes	100	33.7	64	14.0	164	21.8
No	267	89.9	430	94.3	697	92.6
Don't know	1	0.3	4	0.8	5	0.7
[c] **Where can one obtain condoms**						
Pharmacy	11	3.0	17	3.4	28	3.3
Health Facility	131	36.0	172	34.7	303	35.2
Market	9	2.5	12	2.4	21	2.4
Friends	0	0.0	2	0.4	2	0.2
Shop	14	3.8	12	2.4	26	3.0

Table 6: Knowledge of and Access to Condoms Cont….

Community health worker	6	1.6	1	0.2	7	0.8
No answer	26	7.1	19	3.8	45	5.2
Don't know	110	30.2	166	33.5	276	32.1
[c] Constraints to obtaining condoms						
Too far away (Geographical)	25	6.9	39	7.9	64	7.4
Too expensive	5	1.0	19	3.8	24	2.8
Not open at convenient hours	6	1.2	11	2.2	17	2.0
Not available	19	3.8	32	6.5	51	5.9
Fear of being seen	24	4.8	17	3.4	41	4.8
Health workers attitude	1	0.2	7	1.4	8	0.9
No answer	50	10.1	46	9.3	96	11.2
Don't know	74	20.3	122	33.5	196	22.8
[a] Ever heard of female condom						
15-24 years	98	59.8	128	48.5	226	0.5
25-49 years	121	54.5	109	36.5	230	44.1
15 – 49 years	219	56.7	237	42.1	456	48.1
[b] Ever used female condom						
Yes	7	2.4	7	1.2	14	1.5
No	212	71.4	236	41.5	448	46.8
No response	170	43.7	325	57.2	495	51.7
Willingness to use female condoms if available						
Yes	91	41.6	71	30.0	162	35.5
No	106	48.4	120	50.6	226	49.6
No answer	0	0.0	5	2.1	5	1.1
Don't know	20	9.1	40	16.9	60	13.2
No response	2	0.9	2	0.4	2	0.4

[a] Denominator: Total sample (See appendix 1): [b] Denominator: Ever had sex (See appendix 2): [c] Denominator: Ever heard of condom (See appendix 5): [d] Denominator: heard of female condoms (See appendix 6)

The respondents who had heard of condoms were asked if they knew where to obtain them. About 45% respondents reported knowing where to access condoms.

The health facility was cited as the most preferred source of condoms across gender and age. However, 39% of respondents who had reported they had heard of condoms did not know where to get condoms. In addition, only 24.9% of the respondents

reported that they could obtain a condom every time they needed one; a greater proportion being men (36.5%) compared to women (16.6%). Other obstacles cited as constraints to accessing condoms included: geographical distance (12.9%), unavailability of condoms (10.3%) and fear of being seen purchasing condoms (8.2%).

A sizeable proportion of the respondents (35.8%) reported that they were willing to use the female condom if it were available. Of men who had heard of female condoms, 32.7% knew where such condoms could be obtained, compared to 26.4% women.

As shown in Table 6, 93.7% of the 25-49 year-old respondents had ever had sex compared to 61.9% of the 15-24 year-old respondents (X^2= 13.452, p= 0.000). For those aged 15-24 years, 11.6% of men and 10.2% of women had had sexual intercourse before the age of 15 years.

Table 7: Sexual Activity among the Respondents

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Ever had sex**						
15-24 years	95	57.9	170	64.4	265	61.9
25-49 years	202	91.0	286	95.7	488	93.7
15-49 years	297	76.3	456	81.0	753	79.3
[b] **Condom use at last sex**						
15-24 years	25	26.3	15	8.8	40	15.1
25-49 years	24	11.9	18	6.3	42	8.6
15-49 years	49	16.5	33	7.2	82	10.9

[a] Denominator: Total sample (See appendix 1): [b] Denominator: those who have ever had sex (See appendix 2)

Overall, condom use at last sex was low for both age groups and sexes at about 11% while only 7.6% thought that they could have used condoms at last sex but did not.

About 7% and 9% of young men and women respectively, aged 15-24 years were never married and had never had sex.

Regular Sexual Partners: In this survey, a regular sexual partner was defined as spouse or a live-in partner sexual partner.

Table 8: Regular sex partners

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Had a regular partner in the last 12 months**						
15-24 years	52	31.7	136	30.3	188	43.9
25-49 years	174	78.4	215	71.9	389	74.7
15 – 49 years	226	58.5	351	62.3	577	60.8
[b] **Number of regular partners in the last 12 months**						
1 Partner	157	69.5	332	94.6	489	84.7
2 Partners	55	24.3	4	1.1	59	10.2
3 or more partners	12	5.3	6	1.7	18	3.1
No response	2	0.9	9	2.6	11	1.9
[b] **Nationality of the most recent regular partner**						
Kenyan	5	2.2	4	1.1	9	1.6
Ugandan	12	5.3	8	2.3	20	3.5
Congolese (DRC)	1	0.4	0	0.0	1	0.2
Sudanese	205	90.7	331	94.3	536	92.9
Ethiopian	0	0.0	1	0.3	1	0.2
No response	3	1.3	7	2.0	10	1.7
[b] **Age of the most recent regular partner**						
Below 19 years	60	26.5	22	6.3	82	14.2
20-24 years	45	19.9	46	13.1	91	15.8
25-49 years	86	38.1	152	43.3	238	41.2
50 years and above	0	0.0	17	4.8	17	2.9
Don't know	32	14.2	104	29.6	136	23.6
No response	3	1.3	10	2.8	13	2.3
[b] **Used condom at last sex with regular partner**						
Yes	30	13.3	19	5.4	49	8.5
No	185	81.9	306	87.2	491	85.1
Don't Know	4	1.8	7	2.0	11	1.9
No response	7	3.1	19	5.4	26	4.5

[a] Denominator: Ever had sex (See appendix 2): [b] Denominator: Had a regular partner in the previous 12 months (See appendix 3)

About 75% of respondents aged 25-49 were in regular relationships in the previous 12 months compared to about 44% of respondents aged 15-24. Women aged 15-24 years were more likely to be in a regular relationship than their male counterparts, but the difference was not statistically significant.

Of those who had a regular partner in the past 12 months, more female respondents (94.6%) had just one regular partner compared to the male respondents (69.5%).

More men (29.6%) reported to have had multiple regular partners in the previous 12 months compared to 13.3% of women (X^2= 12.568, p =0.000). Results show that 92.9% of the most recent regular partners were of Sudanese nationality. Other nationalities of the regular partners include Kenyan (1.6%), Ugandan (3.5%), Congolese (DRC) (0.2%) and Ethiopian (0.2%).

A significant proportion of the respondents' most recent regular partner's age was between 25-49 years for both men (38.1%) and women (41.2%). However, a substantial number of men (26.5%) had partners who were below 19 years old.

Table 9 presents distribution of condom use with regular partners in the last 12 months for men and women aged 15-49 years.

Table 9: Condom use with regular partner in the last 12 months among by age group

[a] Age	Men		Women		Total	
	N	%	n	%	n	%
15-24	13	25	7	5.1	30	16
25-49	17	9.8	12	5.6	29	7.5
15-49	30	13.3	19	5.4	49	8.5

[a] Denominator: Total Sample (See appendix 3)

Condom use with regular partners is very minimal at only 8.5%. The difference between men and women is statistically significant, with male respondents reporting more condom use than female respondents.

Non Regular Partnership

A non regular, or casual, sex partner was defined as any sexual partner different from the one with whom the respondent lives or is married to and from whom the respondent did not receive or give money, gifts or favors for sex.

Table 10: Non Regular Partnerships

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] Had a non regular partner in the last 12 months						
15-24 years	44	26.8	5	1.9	49	11.4
25-49 years	21	9.5	5	1.7	26	5.0
15-49 years	65	16.8	10	1.8	75	7.9
[b] Number of non regular partners in last 12 months						
1 Partner	25	38.5	7	72.7	32	42.7
2 Partners	19	29.2	2	18.2	21	28.0
3 or more partners	20	30.8	1	9.1	21	28.0
No response	1	1.5	0	0.0	1	1.3
[b] Nationality of the most recent non regular partner						
Rwandese	4	6.2	0	0.0	4	5.3
Ugandan	7	10.8	1	10	8	10.7
Sudanese	54	83.1	9	90	63	84.0

Table 10: Non Regular Partnerships Cont….

[b] Age of the most recent non regular partner						
Below 19 years	40	61.5	2	20.0	42	56.0
20-24 years	7	10.8	4	40.0	11	14.7
25-49 years	7	10.8	3	30.0	10	13.3
50 years and above	0	0.0	1	10.0	1	1.3
Don't Know	11	16.9	0	0.0	11	14.7
[b] Taken alcohol at last sex with non regular partner						
Yes	20	30.8	5	50.0	25	25
No	45	69.2	5	50.0	50	75
[b] Condom use at last sex with non regular partner						
Yes	24	36.4	3	30.0	27	36
No	41	64.5	7	70.0	48	64
[c] Main reason for not using a condom at last sex with non regular partner						
No Condoms available	12	29.3	2	28.6	14	29.2
Free condoms not available	1	2.4	1	14.3	2	4.2
Too expensive	4	9.8	0	0.0	4	8.3
Partner Objected	1	2.4	1	14.3	2	4.2
Don't like them	1	2.4	0	0.0	1	2.1
Trust Partner	2	4.9	0	0.0	1	2.1
Didn't think of using one	2	4.9	0	0.0	2	4.2
Unplanned sex	2	4.9	0	0.0	2	4.2
Didn't think necessary	2	4.9	0	0.0	2	4.2
No response	14	34.1	4	57.1	18	37.5
[b] Consistent condom use with non regular partner						
Every time	10	15.4	1	10.0	11	14.7
Frequently	6	9.2	1	10.0	7	9.3
Sometimes	8	12.3	1	10.0	9	12.0
Never	26	40.0	6	60.0	32	42.7
Don't know	2	3.1	0	0.0	2	2.7
No response	13	20.0	1	10.0	14	18.7
[b] Profession of the most recent casual partner						
Businessman	2	3.1	5	50.0	7	9.3
Student	34	52.3	1	10.0	35	46.7
Driver/Truck driver	0	0.0	1	10.0	1	1.3
Farmer	2	3.1	4	40.0	6	8
Military/police	1	1.5	2	20.0	3	4
Commercial sex worker	1	1.5	0	0.0	1	1.3
Others	9	13.8	0	0.0	9	12

[a] Denominator: Total sample (See appendix 1) : [b] Denominator: Had sex with a casual partner (See appendix 4) [c] Denominator: Men=41: Women= 7: Total= 48

Among all respondents, about 8% had sex with a non regular partner in the previous 12 months. Men were significantly more likely to report non regular sex partnership (16.8%) than women (1.8%). Sex with non regular partners was more common among

respondents aged 15-24 years. In addition, men aged 25-49 years reported more non regular partners (9.5%) than women aged 15-24 years and women aged 25-49 years (1.9% and 1.7% respectively). As indicated in the Table 9, most male respondents who had casual partners in the previous 12 months reported having multiple partners, and for men and women, casual partners were mainly Sudanese.

Overall, most of the respondents' (78.9%) recent non regular partners had never been married with the proportion being higher for men at 81.5% compared to women at 63.7%. Most mens' non regular partners were students (52.3%); for women, non regular partners were mainly businessman and farmers (50% and 40% respectively). About 10% women reported to have had casual sex with truck drivers. However, there were possibilities of underreporting due to cultural inhibitions and stigma associated with the practice.

More women (45.5%) compared to men (30.8%) reported that alcohol was not involved the last time they had sex with a casual partner. Further analysis revealed that in cases where any of the partners had taken alcohol during sex with a casual partner, 29.6% of the respondents did not use a condom. However, with female respondents, whether the male partners had taken alcohol or not, a majority (83.3%) reported not having used a condom. Overall, more men (36.4%) compared to women (27.3%) reported using condoms during last sex with a casual partner.

Table 11 presents the distribution of condom use with non regular sex partners across age group and gender.

Table 11: Condom Use with Non Regular Partners

[a] Age	Men		Women		Total	
	n	%	n	%	n	%
15-24	16	36.4	1	20	17	34.7
25-49	8	38.1	2	40	10	38.5
15-49	24	36.9	3	30	27	36

[a] Denominator: Total Sample (See appendix 4)

Unavailability of condoms was the most common reason given by the respondents who did not use condoms with casual partners. Other reasons cited included partner objection, not liking them, trusting their partner, and thinking it was not necessary. Not realizing the risk of having unprotected sex with casual partners has the potential of increasing HIV transmission, particularly since 58.8% having reported multiple casual partners. In addition, 42.1% of the respondents who had had sex with casual partners reported not to have used condoms in the previous 12 months. Only 18% of the respondents used condoms consistently, while 11.5% used condoms half of the time and 14.8% used condoms less than half of the time.

Transactional Sex

Transactional sex was defined as sex in exchange for money, gifts or favor.

Table 12: Transactional sex among respondents who have ever had Sex

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Ever had sex in exchange for money, a gift or favor**						
15-24 years	9	5.5	3	1.1	12	2.8
25-49 years	11	5.0	1	0.3	12	2.3
15-49 years	20	5.2	4	0.7	24	2.5
[b] **Had sex in exchange for money, a gift or favor in the last 12 months**						
Yes	10	50.0	2	50.0	12	50.0
No	4	20.0	0	0.0	4	20.0
No response	6	30.0	2	50.0	8	40.0
[b] **Last sex in exchange for money, a gift or favor, involved alcohol**						
Yes	3	15.0	0	0.0	3	12.5
No	6	30.0	2	50.0	8	33.3
No response	11	55.0	2	50.0	15	62.5
[b] **Used condom at last sex in exchange for money, a gift or favor**						
Yes	3	15.0	1	25.0	4	16.7
No	6	30.0	3	75.0	9	37.5
No response	11	55.0	0	0.0	11	45.8
[b] **Consistency of condom use in transactional sex in the last 12 months**						
Every time	1	5.0	1	25.0	2	8.3
Sometimes	2	10.0	0	0.0	2	8.3
Never	4	20.0	2	50.0	6	25.0
Don't know	1	5.0	1	25.0	2	8.3
No response	12	60.0	0	0.0	12	50.0

[a] Denominator: Total sample(See appendix 1) : [b] Denominator: Ever had transactional sex

Few respondents (2.5%) indicated they had ever had transactional sex, although there were possibilities of denial and underreporting due to social and cultural disapproval of transactional sex. While 15% (3/20) of men reporting transactional sex in the past 12 months reported condom use during transactional sex, no women reported condom use during transactional sex in the last 12 months.

Various reasons were cited for not using a condom at last transactional sex and this included unavailability of condoms, partner objection, trusting partner, and unplanned sex. These reasons are similar to those cited for non-use of condoms with non regular partners. The pattern of consistent condom use with non regular and transactional partners appears similar.

Forced sex

Forced sex is sex without consent. As shown in Table 13, more women than men reported having experienced forced sex; women aged 25-49 years were more likely to report forced sex (12.1%) compared to women aged 15-24 years (8.7%).

Table 13: Forced sex

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Ever been forced to have sex**						
15-24 years	6	3.7	23	8.7	29	6.8
25-49 years	8	3.6	36	12.0	44	8.4
15-49 years	14	3.6	59	10.5	73	7.7
[b] **Period when forced to have sex**						
Before war	2	14.3	13	22.0	15	20.5
During the war	3	21.4	14	23.7	17	23.3
After the war	6	42.9	32	54.2	38	52.1
No response	3	21.4	0	0	3	4.1
[b] **Who forced you to have sex**						
Regular partner	13	92.9	54	91.5	67	91.8
Other family member	1	7.1	3	5.1	4	5.5
No response	0	0.0	2	3.4	2	2.7

[a] Denominator: Total sample (See appendix 2): [b] Denominator: Ever had forced sex

More than twice as many respondents reported to have experienced forced sex after the war than before or during the war. It would appear, therefore, that the war may not have directly contributed to forced sex for both men and women in Kajo Keji. Ninety-two percent (92%) of both men and women named the perpetrator of forced sex as a regular partner. About 22% of those who reported to have had forced sex had experienced it in the previous 12 months.

Anal Sex : A small proportion of respondents (0.5%) indicated that they had had anal sex in the previous 12 months. Of the five respondents, two reported condom use with partners. Since anal sex is culturally unaccepted, it is possible that it was under-reported. There is, therefore, a need to conduct a more in depth qualitative study of anal sex as a social and sexual practice in order to uncover its contribution to the spread of HIV in the county.

Co-Factors to HIV Transmission: Sexually Transmitted Infections (STI): Data was collected to assess people's knowledge of STIs as well as their health-seeking behaviors when they are having STI symptoms. The symptoms of interest were genital ulcers, sores and/or unusual discharge.

Most of the respondents (91.4%) had heard of diseases that can be transmitted through sexual intercourse, with no statistically significant difference between men

and women's awareness. Thirty six percent (36%) of women compared to 25% of men reported having experienced an unusual discharge and 41.5% women and 26.8% men indicated that they had had genital ulcers or sores in the past 12 months. Overall, 12.7% of men and 19.2% of women who had had an STI symptom in the last 12 months sought treatment at a health facility. A public health centre was cited as the place most of the respondents sought treatment, with women more likely to seek treatment there than men.

Though more women (79.7%) than men (72.7%) reported that they had informed all their sexual partners of their sexually transmitted infection, the difference was not statistically significant (X^2=5.627; p=0.131). However, 10.2% men and 5.8% women did not inform any of their sexual partners that they had contracted sexually transmitted infection.

Table 14: STI knowledge, infection and treatment seeking behavior in the previous 12 months

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] **Ever Heard of Sexually Transmitted Infections**						
Yes	359	93.5	509	89.9	868	91.4
No	23	6.0	52	9.2	75	7.9
Don't know	2	0.5	5	0.9	7	0.7
[a] **Had unusual Discharge in the last 12 months**						
Yes	95	24.9	200	35.3	295	31.1
No	287	75.1	363	64.1	650	68.6
[a] **Had genital ulcers or sores in the last 12 months**						
Yes	102	26.8	233	41.5	335	35.6
No	275	72.4	327	58.3	602	64.0
[b] **Sought treatment for genital discharge, ulcer or sores**						
Yes	49	24.9	110	25.4	159	26.4
No	16	8.1	26	6.0	42	7.0
No response	132	67	297	68.6	429	71.1
[c] **First place where treatment was sought**						
Public Health Centre	28	57.1	85	77.3	113	71.1
Private clinic	18	36.7	20	18.2	38	27.3
Traditional healer	2	4.1	5	4.5	7	5.0
No Response	1	2.0			1	0.7

Table 14: STI knowledge, infection and treatment seeking behavior in the previous 12 months **Cont….**

[b] Informed sexual partner						
Yes, all of them	72	36.5	184	42.5	256	40.6
Some of them	4	2.0	10	2.3	14	2.2
No, None of them	20	10.2	25	5.8	45	7.1
No response	101	51.3	214	50.6	315	50.0

[a] Denominator: Total sample (men=389; women=568; total=957): [b] Denominator: Those reporting genital discharge, ulcer or sore (men=197; women=433; total=630): [c] Denominator: Those who sought treatment (men =49; women =110; total=159)

These findings suggest partner disclosure of STIs infection is still low among sexual partners and this would likely to result in STIs being transmitted to sexual partners.

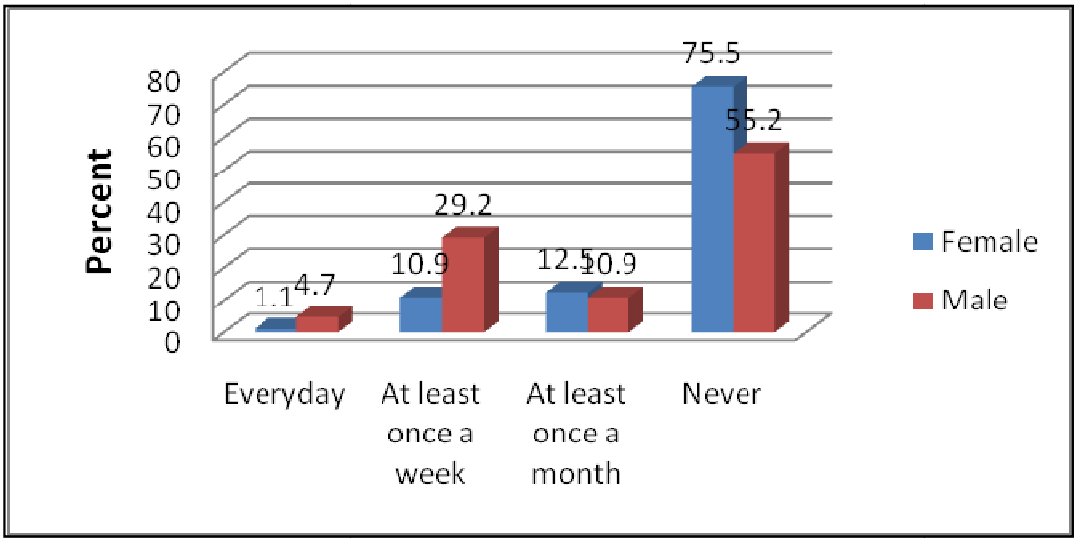
Circumcision: Only 9.4% of the men interviewed in this survey reported having been circumcised. A third of these men were circumcised before their 10th birthday and a quarter were circumcised after the age of 20 years. The mean age at circumcision was 18.7 years. Of the uncircumcised men 39.5% were willing to be circumcised if it was affordable and safe.

Female circumcision did not appear to be a common practice among the residents of Kajo Keji, as only 0.5% of women interviewed reported having been circumcised and in all cases it occurred before the age of 10 years.

Regarding preference for a circumcised partner, almost an equal percentage of men (12.2%) and women (12.3%) indicated they would prefer a circumcised partner. However, the majority of men (78.9%) and women (70.5%) indicated that they would rather have a partner that is not circumcised.

Alcohol and Substance Abuse: About two thirds (67.3%) of all the respondents had not taken alcohol in the month preceding the survey with more women reporting not to have taken (75.5%) compared to men (56.2%). The difference between the genders was statistically significant (X^2=9.348, p=0.000). In addition, slightly more men (17.2%) reported to have taken drugs not prescribed by a doctor compared to women (16.4%) in the 12 months preceding this survey. However, the differences were not statistically significant. A slightly higher proportion of men aged 25-29 years (18.4%) compared to women of the same age (16.5%) had taken drugs not prescribed by a doctor. On the other hand, 16.1% of women aged 15-24 years old had taken drugs compared to 15.1% of men in the same age group.

Figure 1: Alcohol Consumption in the Previous Month



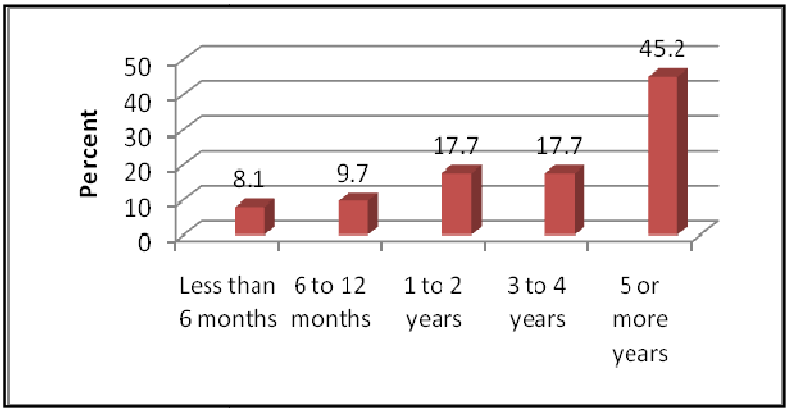
Apart from the use of herbs and other concoctions from traditional healers, which was commonly reported, especially among women, the use of illicit drugs/injecting and other drugs not prescribed by a doctor did not appear to be a common practice in Kajo Keji.

Table 15: Drugs not prescribed taken in the last 12 Months

Drugs taken	Males (n)	Females (n)	Total
Marijuana	0	1	1
Khat/miraa	0	0	0
Heroin	0	0	0
Opium	2	0	2
Amphetamines	2	3	5
Drugs/Herbs from traditional healer	35	68	103
Cigarettes/Tobacco	12	1	13
If injected Drugs	11	5	16
Total	**62**	**78**	**140**

Military Activity: Despite Southern Sudan's protracted civil war, only 15.1% of the men and 1.2% of the women interviewed in this survey had ever been involved in any military activities. Figure 2 shows the length of time they had been involved in military activities.

Figure 2: Length of time involved in the military and or paramilitary or police



As shown in Figure 2, 45.2% of male respondents who reported involvement in the military, paramilitary or police were involved for 5 or more years. About 40.4% of the men with a military history reported current involvement in the military, paramilitary or police although no woman reported current involvement in the military or police activities.

Figure 3: Duration after leaving Military

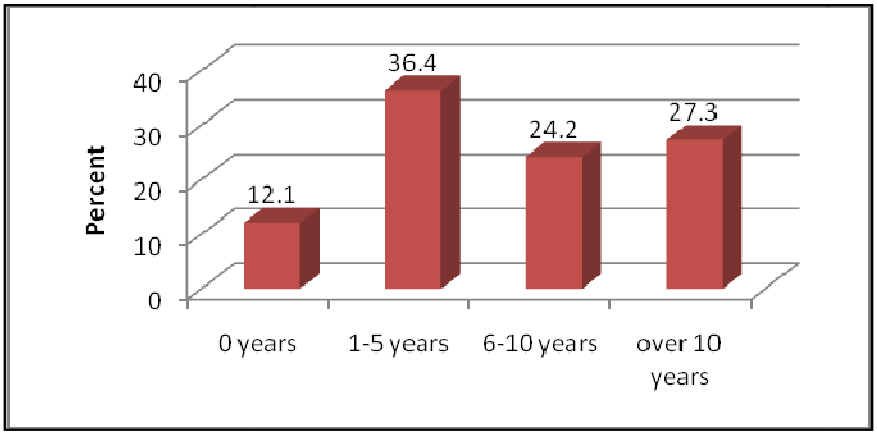


Figure 3 shows the number of years that have elapsed since the respondents left the military, paramilitary or police. As indicated, most of the respondents (36.4%) had left the military 1 to 5 years before the survey, or probably after the signing of the Comprehensive Peace Agreement. Nonetheless, a substantial number of respondents had been involved in military activities for more than 6-10 years (24.2%) or for over 10 years (27.3%).

HIV Knowledge, Opinions and Attitudes

Knowledge of HIV/AIDS was assessed to identify areas where more information is needed.

Table 16: Knowledge of HIV and its transmission

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] Ever heard of HIV or AIDS	381	97.9	545	96.0	926	96.8
[b] Protection by staying faithful to one uninfected faithful partner	320	84.0	434	79.6	754	81.4
[b] Protection by using condom every time correctly when having sex	260	68.2	288	52.8	548	59.2
[b] Protection through abstaining from sex	86	22.6	165	30.3	251	27.1
[b] Sharing a toothbrush with an infected person is risky	186	48.8	260	47.7	446	48.2
[b] Anal sex with a male partner without a condom is risky	194	50.9	232	42.6	426	46.0
[b] Sharing needles may lead to infection	331	86.9	469	86.1	800	86.4
[b] Infected woman can infect an unborn child during pregnancy or delivery	245	64.3	325	59.6	570	61.6
[b] Breastfeeding can transmit HIV if mother is infected	208	54.6	310	79.6	518	55.9

[a] Denominator: Total sample (men=389; women=568; total=957): [b] Denominator: Ever heard of HIV or AIDS (men=381; women=545; total=926)

As shown in Table 16, awareness of HIV and AIDS was almost universal among all the respondents (97.4%).

The respondent's opinion was sought on whether they thought the people of Kajo Keji or foreigners were more likely to have higher cases of HIV. Thirty eight percent (38%) of respondents thought that the local community was more likely to have HIV cases compared to 34% of respondents who thought that foreigners were more likely to have HIV cases.

Opinions on abstaining, being faithful to one uninfected partner and using condoms (ABC) varied among the respondents. A majority of both men (84.7%) and women (79.5%) indicated that staying faithful to one uninfected partner would protect one from HIV, while 22.6% men and 30.2% female reported that abstaining from sex could protect one from HIV infection.

Sharing needles was perceived by most of the respondents as a predisposing factor to HIV infection, with no significant statistical difference between male and female respondents. However, less than half of the respondents who had indicated that they had heard of HIV did not think that having anal sex with a male partner was risky.

About 62% of the respondents who had heard of HIV indicated that a mother could transmit HIV to the child during pregnancy, with more men (64.5%) knowing of mother to child transmission than women (59.4%). Furthermore, 54.7% of men compared to 56.8% of women also knew that a woman could transmit HIV to her baby while breastfeeding. This difference was statistically significant (X^2= 26.559; p=0.000). Overall, more women had the comprehensive correct knowledge on HIV compared to men. More of the older men had the knowledge compared to the younger men but the difference was not statistically significance (X^2=1.694; p=0.638).

Table 17: Misconceptions about HIV/AIDS Transmission and Prevention

[a] Variables	Male		Female		Total	
	n	%	n	%	n	%
People can get HIV from mosquito bites	86	22.6	165	30.2	251	27.1
People can get HIV by sharing food with an infected person	64	16.8	114	20.8	178	19.2
A healthy looking person cannot be infected with HIV	64	16.8	95	17.3	159	17.1

[a] Denominator: Ever heard of HIV or AIDS (men=381; women=545; total=926)

Table 17 suggests that myths and misconceptions on HIV transmission and prevention exist in the Kajo Keji community. About 27% of all the respondents interviewed indicated that people can get HIV from mosquito bites while 19.2% indicated possibilities of contracting HIV by sharing food with an infected person.

Respondents who correctly identified two major ways of preventing HIV sexual transmission (use of condoms and limiting sex to one faithful and uninfected partner), rejected two common misconceptions (transmission by mosquitoes or sharing of food with an infected person), and knew that a healthy-looking person can transmit HIV were said to have the comprehensive correct knowledge on HIV/AIDS.

Table 18: Comprehensive correct knowledge on HIV

[a] Indicator	Male		Female		Total	
	n	%	n	%	n	%
Men and women aged 15-49 with comprehensive correct knowledge of HIV/AIDS	99	25.7	88	15.6	187	19.7
Men and women aged 15-24 with comprehensive correct knowledge of HIV/AIDS	48	29.3	54	20.5	102	23.8
Men and women aged 25-49 with comprehensive correct knowledge of HIV/AIDS	51	23	34	11.4	85	16.3

[a] Denominator: Total Sample (See appendix 1)

Table 18 shows that the respondents' comprehensive knowledge on HIV transmission and prevention is low.

Table 19: Accepting attitudes towards people who are infected with HIV/AIDS

[a] **Variables**	**Male**		**Female**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
If a family member is infected with HIV, it should remain a secret	150	39.4	232	42.6	382	41.3
Would **not** care at home of a relative sick with AIDS	71	18.6	112	20.6	183	19.8
HIV positive teacher should **not** be allowed to continue teaching	217	57.0	303	55.6	520	56.2
Would **not** buy vegetables from an HIV positive shopkeeper	156	40.9	255	46.8	411	44.4
Young adolescents should **not** be taught how to use condoms	103	27.0	198	36.3	301	32.5

[a] Denominator: Ever heard of HIV or AIDS: (men=381; women=545; total=926)

More women than men had accepting attitudes towards people living with HIV but the difference was not statistically significant (X^2=2.782; p=0.249). More than a half of all male and females respondents (58.5% and 56.5%) interviewed opined that a HIV positive teacher should not be allowed to continue teaching in the school. About a fifth of the respondents (19.7%) reported that they would not care at home for a relative sick with AIDS. The difference between the genders was not statistically significant.

About a third of respondents (32.4%) opined that young adolescents should not be taught how to use condoms. When asked about their chances of getting HIV, 34.7% of the respondent thought that they stood no chance of getting HIV, but the difference between men and women was not statistically significant (X^2=10.129: p=0.072). Overall, 21.7% of the respondents regarded themselves as having a good chance of getting HIV.

Exposure and Access to Interventions

Sources of Information on HIV/AIDS: Among the respondents who had heard of HIV and AIDS, only 49.6% of males and 42.6% of females had received information on HIV and AIDS in the previous 12 months. The respondents reported to have received the information about HIV/AIDS from a wide variety of sources.

Table 20: Sources of Information on HIV/AIDS (ranked by most frequently cited)

[a] Variable	Male		Female		Total	
	n	%	n	%	n	%
Radio	129	33.9	148	27.2	277	29.9
Community health worker	62	16.3	63	11.6	125	13.5
Health facility	44	11.5	66	12.1	110	11.9
School	33	8.7	47	8.6	80	8.6
Place of worship	32	8.4	37	6.8	69	7.5
Public meeting	29	7.6	21	3.9	50	5.4
Peer outreach worker	15	3.9	28	5.1	43	4.6
Friend	18	4.7	17	3.1	35	3.8
VCT center	11	2.9	19	3.5	30	3.2
ANC/PMTCT	8	2.1	16	2.9	24	2.6
TV/Video	9	2.4	9	1.7	18	1.9
Newspaper	6	1.6	4	0.7	10	1.1
Family member	5	1.3	3	0.6	8	0.9
Poster/Pamphlets	2	0.5	4	0.7	6	0.6
People living with HIV/AIDS	2	0.5	2	0.4	4	0.4

[a] Denominator: Ever heard of AIDS (men=381; women=545; total=926)

As shown on Table 20, radio was reported by most respondents as their preferred source of information on HIV/AIDS followed by community health worker, health facility, school, place of worship and public meeting (in that order). Furthermore, as indicated on Table 21, radio again reported to be the most preferred source on HIV/AIDS information followed by community health worker, and health facility.

Table 21: Preferred Sources of Information on HIV/AIDS (ranked by most frequently cited)

Variable	Male		Female		Total	
	n	%	n	%	n	%
Radio	234	60.2	323	56.9	557	58.2
Community health worker	180	46.3	272	47.9	452	47.2
Health facility	96	24.7	166	29.2	262	27.4
Place of worship	107	27.5	155	27.3	262	27.4
Peer outreach worker	96	24.7	141	24.8	237	24.8
Public meeting	77	19.8	138	24.3	215	22.5
School	74	19	95	16.7	169	17.7
TV/Video	43	11.1	41	7.2	84	8.8
VCT center	24	6.2	51	9.0	75	7.8
ANC/PMTCT	13	3.3	41	7.2	54	5.6
Newspaper	22	5.7	18	3.2	40	4.2
People living with HIV/AIDS	11	2.8	19	3.3	30	3.1
Friend	11	2.8	19	3.3	30	3.1
Poster/Pamphlets	12	3.1	10	1.8	22	2.3
Family member	6	1.5	7	1.2	13	1.4

HIV Counseling and Testing (HCT): Sixty eight percent (68%) of the 625 respondents who had heard of AIDS knew a place that a person could be tested for HIV and almost all of them (99.5%) knew one could get tested at the local hospital/clinic/ VCT centre.

Table 22: HIV Testing and Counseling

Variables	Male		Female		Total	
	n	%	n	%	n	%
[a] Ever been tested for HIV	146	37.5	269	47.3	415	43.4
[b] Last test voluntary	87	59.6	115	42.8	202	48.7
[b] Last test included pre- test counseling	115	78.8	219	81.4	334	80.5
[a] Last test – received results	136	35.0	249	43.8	385	40.2
[a] Willingness to test in future	344	88.4	500	88.0	844	88.2

[a] Denominator: men=389; women=568; total=957: [b] Denominator: men=146; women=269; total=415:

Table 22 shows that 44.9% of the respondents had ever been tested for HIV, with more females than males having been tested. About 60% of men and 43% of women reported that they had been tested in the previous 12 months. Only 43.4% of the respondents interviewed reported having ever tested for HIV, while 88.2% were willing to take an HIV test in the future.

Public health facilities were most preferred for HIV testing. About 73% of all the respondents who had been tested reported that they had been tested last in a

government hospital and a further 13.7% and 8.5% were tested in a government health facility and mobile clinic respectively. Use of private clinic/hospital, private doctor and mobile clinics facilities for HIV testing was minimal at 2.0%, 0.2% and 1.2% respectively.

Access to Services : Table 23 shows the respondents who had received an HIV test in the past 12 months and knew their results by disaggregated by age and sex.

Table 23: Received an HIV test in the past 12 months and know their results

[a] Indicator	Male		Female		Total	
	n	%	n	%	n	%
Men and women aged 15-49 received an HIV test in the past 12 months and know their results	135	35	218	38.7	353	36.9
Men and women aged 15-19 received an HIV test in the past 12 months and know their results	28	27.5	49	35.3	77	32.0
Men and women aged 20-24 received an HIV test in the past 12 months and know their results	23	37.1	71	56.8	94	50.3
Men and women aged 15-24 received an HIV test in the past 12 months and know their results	51	31.1	120	45.5	171	40.0
Men and women aged 25-49 received an HIV test in the past 12 months and know their results	84	21.8	126	42.1	210	40.3

[a] Denominator: Total Sample (See appendix 1)

Thirty seven percent (37%) of respondents had been tested for HIV and received results in the previous 12 months. Table 24 summarizes the reasons cited by those unwilling to take the test.

Table 24: Reasons for unwillingness to take HIV test

Variables	Male		Female		Total	
	N	%	n	%	n	%
Don't know where to get tested	1	3.8	1	7.7	2	6.2
Sure of not being infected	16	61.5	25	64.1	41	63.1
Afraid of the test	2	7.2	4	10.3	6	9.2
Afraid of the blood taking	1	3.8	1	2.6	2	3.1
Fear of stigmatization	1	3.8	1	2.6	2	3.1
Don't think test is confidential	0	0.0	1	2.6	1	1.5
Don't know	3	11.5	1	2.6	4	6.2
Others	2	7.7	3	7.7	5	7.7

A majority (63%) of the respondents reported that they would not want to go for an HIV test because they were sure of not being infected. Other reasons cited for reluctance to get tested for HIV included: being afraid of the test, not knowing where to get tested, not having time to take the test; trusting their partner(s), and being too old to get HIV.

About 51% of women indicated that they had been pregnant in the previous 5 years. Ninety five percent (95%) of these women reported that they had attended antenatal clinic when they were pregnant.

CHAPTER 4: DISCUSSION AND CONCLUSION

This BSS was aimed at establishing baseline indicators on knowledge, attitudes and behaviors in relation to HIV/AIDS and STI among returnees and surrounding host populations.

Discussion

Socio-demographic characteristics: A total of 957 respondents (568 females, 389 males) were interviewed in this survey, the gender imbalance resulting from the fact that in many cases women were found at home and many men were away when interviews were conducted. Men reported higher educational attainment compared to women, a trend similarly observed in the 2004 Kakuma BSS (GLIA and UNHCR 2004).
Literacy rates were low as a majority of the respondents had a primary level of education or less. Higher level of educational attainment has been associated with lower HIV risk and safer sex practices (Hargreaves and Boler 2006). However, a recent World Bank Study demonstrates that it is schooling rather than educational status that influences behavioral response to HIV. In that World Bank study schooling is viewed as one of the most consistent predictors of protective behavior condom use, use of counseling and testing, discussion of between spouses and knowledge about HIV/AIDS (see de Walque, 2009). This World Bank appears to give credence to our finding that limited schooling explains why most of our respondents had low comprehensive knowledge on HIV and AIDS.

Displacement and mobility: Most of the respondents had been displaced and were returnees mainly from Uganda. There was a lot of movement in and out of Kajo Keji County, with about 25% of the respondents having left county for more than a month in the past one year due to issues such as school and family needs. This high mobility within the population has the potential to influence HIV transmission in the county.

Sexual behavior: The mean age of sexual debut was 17.8 years. The mean age at sexual debut for men was higher at 18.7 years compared to that of women at 17.2 years.

Knowledge and Condom Use: Use of condoms was low and inconsistent even though respondents reported risk behavior. Condom use with regular partners was minimal at only 8.9%, with slightly more men reported condom use compared to women.

Non regular partners: There were high levels of sex with non regular partners, especially among youth. About one-tenth of men aged 25-49 years reported having sex

with a non regular partner. It is particularly important to observe that most of the men's casual partners were students while women more commonly had casual sex partners who were farmers or military/paramilitary/police. Military personnel are trained to take risks, a behavior that can carry over into their personal lives and increase their risk of contracting and transmitting HIV. HIV prevalence has also been reported to be significantly higher among the men in uniformed services than among other groups. Those in military service also tend to have more frequent contact with sex workers. Because they are often posted or required to travel for extended periods away from home or must await housing before sending for their families. Military personnel infected with HIV and other sexually transmitted infections may also serve as a bridge group between sex workers and the general population (Ritzenthaler, 2005).

Transactional sex: Transactional sex and multiple sexual partners coupled with drug abuse and non-use of condoms was common, especially among men. This finding is not entirely uncommon. Studies have demonstrated a close linkage between transactional sex, drug and substance abuse and the incidence of HIV. A recent study in South Africa showed that transactional sex place both man and women at increased risk for HIV, and is also associated with gender-based violence (Dunkle et al. 2004). The prevalence of transactional sex in Kajo Keji calls for more interventions including the promotion of behavior change messages and increased availability of condoms in social places such as local pubs, and lodgings where transactional sex in likely to take place.

Forced Sex: Forced sex was prevalent, with 7.7% ever forced to have sex. However, women more commonly reported being forced to have sex (10.5%) compared to men (3.6%). This study found that the majority of those who suffered forced sex had been raped after the war, and the main perpetrators were their regular partners. Forced sex or sexual coercion stems from power imbalances between men and women. Forced sex is an important public health concern with serious implications for reproductive health and HIV/AIDS prevention. Forced sex has been associated with injuries that may enhance transmission of sexually transmitted infections including HIV. This implies the need for more public education on gender based violence.

Anal sex: A small proportion of respondents (0.5%) reported having had anal sex. Of these 40% (2/5) reported condom use with partners. It is possible that the prevalence of anal sex in the area was under-estimated. Thus, there is need for more qualitative studies to explore the extent and magnitude of anal sex. There is also a need for programs to promote sex and lubricants as well as support services to reduce risks of HIV infections among men who have sex with men.

Access of Condoms: The most cited sources of condoms were the public health facilities, but about 39% of respondents did not know where to get them. The

protective value of condoms in the fight against HIV and AIDS is well established and documented. Male and female condoms provide protection against pregnancy and significantly lower users' risk of acquiring sexually transmitted infections (STIs) including HIV. To be effective, they must be used consistently and correctly. The findings in this survey that close to two-fifths of the respondents who had heard of condoms did not know where to get a condom demonstrates an urgent need for condom to expand distribution and promote their use.

Sexually transmitted infections: Symptoms associated with sexually transmitted infections were commonly reported, with 31% and 41% reporting unusual discharge and genital ulcers respectively. Of those reporting genital discharge, ulcer or sore, 10.2% of men and 5.8% of women had not informed their sexual partners about their infections, but about 79% did seek treatment.

This further reinforces the need to educate the public on the importance of seeking treatment for STIs and disclosing their illness to their sexual partners. This would reduce the incidence of STIs/HIV in Kajo Keji. It may also be necessary to increase the range of public and private facilities that treat people with STIs in Kajo Keji.

Circumcision: About 10% of the men interviewed in this survey reported having been circumcised, while 40% of the uncircumcised men indicated willingness to get circumcised if assured the procedure would be safe and affordable. Recent studies suggest that male circumcision is a protective factor against HIV infection.

Randomized clinical trials have confirmed male circumcision reduces a man's chance of HIV infection during vaginal sex. The results of these studies in Kenya, Southern Africa, Nigeria and Uganda showed that medical circumcision lowers the risk of HIV transmission from a woman to a man by about 60 percent (Magoha 1999; Szabo and Short 2000; Weiss et al. 2000; FHI 2009). Results from this survey suggest that safe male circumcision services should be provided as part of a comprehensive HIV prevention package.

HIV and AIDS Knowledge: Awareness of HIV/AIDS was almost universal (94.7%) among the respondents. However, comprehensive knowledge of HIV and AIDS was low at 19.7%. A key fundamental public health strategy to reduce the risk of HIV/AIDS is to increase levels of awareness and knowledge about the disease.
This study further found that the main source and also the preferred source of information on HIV and AIDS was the radio. These findings attest to a need for more public HIV and AIDS education that adequately addresses knowledge gaps.

Accepting Attitudes: High levels of unaccepting attitudes for people living with HIV and AIDS were reported. More than a half of all males and females opined that a HIV positive teacher should not be allowed to continue teaching in the school while a fifth reported that they would not care at home for a relative sick with AIDS. Studies on youth in Ghana, Zambia and Burkina Faso demonstrate a clear influence of the community environment on shaping HIV-related stigma (Stephenson 2009). In line with this, our findings demonstrate that HIV related stigma and discrimination is still a challenge to HIV control and prevention efforts in Kajo Keji and needs to be addressed. The finding further demonstrates that despite high awareness levels of HIV and AIDS in the general population, the social stigma attached to HIV and AIDS is still high. This implies the social tolerance of persons living with HIV is still low, and this problem needs to be urgently addressed through increased public HIV and AIDS education.

Exposure to interventions

HIV Testing and Counseling: About 45% of the respondents interviewed reported having tested for HIV, and 88.2% were willing to take an HIV test in the future. HIV counseling and testing (HCT) is also provided in antenatal clinics to pregnant women. In this study, about 62% of the women indicated that they had been pregnant in the previous 5 years while 95.8% of the women reported that they had attended ante-natal clinic when they were pregnant. HCT is has the dual benefits of preventing new HIV infections and increasing access to care and treatment (including antiretroviral therapy). This has also been demonstrated in a recent study in Uganda on the social context of the clients and their experience discussing HIV test results with others, where it was found that disclosure is critical to HIV prevention for three major reasons. First, individuals who learn they are HIV negative may change their behavior in order to protect themselves against HIV infection. Second, especially for those who test HIV positive, disclosure to a spouse or regular partner is essential to prevent HIV transmission; and thirdly, disclosure allows a person easy access to social or medical services that may be available (Nsabagasani and Yoder 2006). This finding suggests that there is need to make HCT services readily available to the general population of Kajo Keji. Antenatal clinics could also be used to promote HCT in the community.

Conclusion: This was the first behavioral surveillance survey to be conducted in Kajo Keji County. The survey was conducted to estimate the level of HIV/STI-related behaviors among the returnees and the local population. The findings of this survey therefore have profound policy and programmatic implications to the control HIV in the County.

The study observed awareness of HIV and AIDS was almost universal (94.7%) but comprehensive knowledge of HIV and AIDS was low at 19.7%. This was accompanied by high levels of unaccepting attitudes for PLWHA. In order to encourage the local community to develop positive attitudes to PLWHA and also in order to reduce HIV and

AIDS-related stigma and discrimination, there is need for increased public HIV and AIDS education.

Symptoms of STIs, including discharge and genital ulcers, were fairly common and only a minority of those who suffered from these infections sought treatment. Cases of infected persons not informing their sexual partners of their infections were also common. This finding reinforces the need for public education on the importance of seeking treatment for STIs and for disclosing infections to sexual partners.

Because of the poorly developed educational and economic infrastructure, residents travel within and across borders to Uganda and Kenya in search for economic opportunities, health care, and education, as well as for family-related reasons. This mobility is a possible conduit for HIV into Kajo Keji County. Transactional sex is common, but the use of condoms is low and inconsistent. It is instructive that while more than 90% of respondents reported to have heard of condoms, 39% of those respondents did not know where to get them. The most cited possible sources of condoms were public health facilities. This implies there is need for enhanced HIV and AIDS public awareness on condoms, increase public access to condom and to promote condom use in Kajo Keji.

Abstinence from sex was not perceived as a sustainable strategy for protecting oneself from HIV infection. Thus, while promoting abstinence especially among youth, it may also be useful to also stress faithfulness and condom use. This would widen the choices available to people in Kajo Keji to limit the spread of HIV. Despite the fact that male circumcision dramatically reduces a man's chances of HIV infection during sex, and the expressed willingness on the part of uncircumcised male to accept to be circumcised, male circumcision was still very low. Concerted efforts should be made to provide safe and affordable male circumcision services in Kajo Keji as part of a comprehensive HIV prevention package.

The uptake of HCT in Kajo Keji was low. However, 88.2% of the respondents indicated willingness to take an HIV test in the future. Because of the dual benefits of preventing new HIV infections and increasing access to care and treatment, HCT should be promoted in both VCT centres and antenatal clinics.

CHAPTER 5: RECOMMENDATIONS

Based on the study findings, the following policy, programmatic and research recommendations are made:

Policy and advocacy level

- Sustained political commitment and involvement of leaders is needed at all levels to support behavioral change and stigmatization and discrimination reduction programs and initiatives.
- Religious organizations, governmental and non-governmental organizations need to be engaged more in influencing public opinion on HIV and AIDS and related high-risk behaviors
- Education level among the people of Kajo Keji is very low, with the majority reporting primary level education or less. Access to education should be increased for all children and young adults of school going age as this will contribute to higher ages at sex debut and first marriage, better knowledge of condom use and better health care-seeking behavior.

Information, education and communication/behavioral change communication (IEC/BCC)

- Document myths and misconceptions and developed appropriate awareness responses.
- Intensify efforts to provide public HIV and AIDS education in order to build comprehensive knowledge and also address knowledge gaps. The use of local FM stations using the local language such as the Kajo Keji Radio Station is important.
- Educate parents on how to promote dialogue and open communication with their children on matters of HIV and AIDS in order to reinforce positive behavior.
- Develop IEC programs, which take into account the specificity and heterogeneity of the population. These programs need to target the specific needs of each age group and prescribe appropriate courses of action e.g. delaying the age of sexual debut among young people.
- Promote abstinence in order to minimize the level of premarital sex amongst the youth. Condoms use should also be promoted especially among adults in Kajo Keji.
- Promote peer education as well as the use of locally developed and culturally appropriate IEC materials and activities. For example, there is need to develop more IEC materials in the local Bari language.

Program level

- Form and support Anti-AIDS clubs in Kajo Keji county schools to improve knowledge on HIV and AIDS among students at all levels and promote abstinence messages.
- Promote messages to encourage being faithful to one partner
- Intensify HIV public awareness using appropriate IEC materials across gender and age categories.
- Promote 'know your HIV status' messages to encourage uptake and sustainable behavioral change and HIV testing. The VCT services should be made more accessible.
- Expand HIV testing facilities including stand alone community based testing sites in youth centers, vocational training centers where feasible. Provider initiated counseling and testing should also be promoted in the health facilities.
- Expand condom distribution networks and promote correct and consistent use of condoms.
- Design programs for MARPs such as sex workers and their clients, to address the mixed epidemic that appears to be experienced in South Sudan
- Design and implement a voluntary medical male circumcision as part of comprehensive HIV prevention strategy.
- Capitalize on high ANC attendance as a window of opportunity to provide routine counseling and testing services to pregnant women.
- Develop programs that involve the PLWHAs, religious and other opinion leaders in the community to respond to stigma and discrimination in the county.
- Initiate and support programs to address substance abuse, especially alcohol use, amongst the youth.
- Target life skills training to young people, especially females (e.g. skills for negotiating safer sex), and include issues such as gender based violence.
- Strengthen STI prevention and control programs provided by health institutions

Research

- Conduct more qualitative research to follow up on some of the issues emerging from this survey such as extent and magnitude of anal sex and men who have sex with men (MSM).

REFERENCES

1. Adair, T. 2008, *Condom use in Higher-Risk Sex: trends and determinants in Five sub-Saharan Countries – DHS Working paper No. 34,* USAID, Calverton, Maryland.

2. Boo, T. 2007, The HIV Situation in Southern Sudan: An Overview of Available Data with Comments upon Program Implications. Juba: Global AIDS program – Sudan & U.S. Centers for Disease Control and Prevention.

3. Dunkle K.L., Jewkes R.K., Brown H.C., Gray G.E., McIntryre J.A., & Harlow S.D. 2004, "Transactional sex among women in Soweto, South Africa: prevalence, risk factors and association with HIV infection", *Soc Sci Med***,** vol. 59, no. 8, pp. 1581-92.
4. De Walque. 2009, **"**Does Education Affect HIV Status? Evidence from five African Countries", *World Bank Review,* vol. 23, no. 2, pp. 209-233.

5. GLIA & UNHCR. 2004, *Behavioral Surveillance Survey among Refugees and Surrounding Host Population*, *Kakuma, Kenya*, UNHCR, Nairobi, Kenya.

6. Government of South Sudan. 2008, *South Sudan HIV/AIDS Policy,* GOSS, Juba, Sudan.

7. Lul, R. 2007, July 9, "The HIV/AIDS Epidemic in Southern Sudan", presentation at GOSS HIV/AIDS NSF and Policy Development Stakeholders' Workshop, Rumbek, Sudan.

8. Magoha G.A.O. 1999, "Circumcision in various Nigerian and Kenyan hospitals", *East African Medical Journal,* vol. 76, no. 1, pp. 583-86.

9. Mann J., Stine C., & Vessey J. 2002, "The role of disease-specific infectivity and number of disease exposures on long-term effectiveness of the latex condom", *Sexually Transmitted Diseases,* vol. 29, no. 6, pp. 344-49.

10. Nsabagasani X. & Yoder P.S. 2006, *Social Dynamics of VCT and Disclosure in Uganda*, Macro International Inc., Calverton, Maryland.
11. Ritzenthaler, R. 2005, *On the Front: HIV/AIDS and the Uniformed Services*, FHI, Arlington, Virginia.

12. South Sudan AIDS Commission (SSAC). 2008, Southern Sudan HIV/AIDS Policy. Juba: SSAC/Ministry of Health

13. Szabo R. & Short R. 2000, "How does male circumcision protect against HIV infection?", *British Medical Journal,* vol. 320, pp. 1592-94.

14. Spiegel P.B., Rygaard, Bennedsen A., Claass A., Bruns L., Patterson N., Yiweza D., & Schilperoord M. 2007, "Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: A systematic review", *Lancet* vol. 369, pp. 2187-95.

15. Stephenson, R. 2009, "Accepting attitudes toward people living with HIV (PLHIV)",
*AIDS Care***,** vol. 21, no. 4, pp. 403-410.

16. UNHCR, GLIA & World Bank. 2008, *Manual for Conducting HIV Behavioral Surveillance Surveys among displaced populations and their surrounding communities*, UNHCR, Geneva.

17. UNAIDS. 2006, *HIV/AIDS Integrated Report South Sudan, 2004-2005,* UNAIDS, Geneva.

18. UNAIDS & WHO. 2004, *UNAIDS/WHO Policy Statement on HIV Testing*, UNAIDS, Geneva.

19. UNMIS. 2007. Sudan Return and Reintegration Operations 2007 Annual Report. Juba: UNMIS

20. Waal, A; Klot, J; Mahajan, M, Huber, D; Frerks, G and M'Boup, S. 2008, HIV/AIDS, Security and Conflict: New Realities, New Responses. Amsterdam: SSRC

21. Weiss H., Quigley M., & Hayes R. 2000, "Male circumcision and risk of HIV infection in sub-Saharan Africa: a systematic review and meta-analysis", *AIDS,* vol. 14, no. 15, pp. 2361-70.

APPENDIX I: ADDITIONAL DATA

Appendix 1: Total sample disaggregated by age and sex

Age	Men	Women	Total
15-19 Years	102	139	241
20-24 years	62	125	187
15-24	164	264	428
25-49 years	222	299	521
15-49 years	386	563	949
No response	3	5	8
Total	389	568	957

Appendix 2: Those who have ever had sex

Age	**Male**		**Female**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
15-24 years	95	58.3	170	64.6	265	62.2
25-49 years	202	92.7	286	96.3	488	94.8
15 – 49 years	297	76.3	456	80.3	753	78.7

Appendix 3: Those with a Regular Partner in the past 12 Months

Age	**Male**		**Female**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
15-24 years	52	23.0	136	38.7	188	32.6
25-49 years	174	77.0	215	61.3	389	67.4
15 – 49 years	226	58.1	351	61.8	577	60.3

Appendix 4: Had a Non Regular Partner in the past 12 Months

Age	**Male**		**Female**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
15-24 years	44	26.8	5	0.8	49	11.4
25-49 years	21	9.5	5	1.8	26	6
15 – 49 years	65	16.7	10	5.81.8	75	7.9

Appendix 5: Ever heard of condom

Variables	Male		Female		Total	
	n	%	n	%	n	%
15-24 years	159	98.1	244	92.8	403	94.8
25-49 years	205	93.6	252	84.6	457	88.4
15 – 49 years	364	93.6	496	87.3	860	89.9

Appendix 6: Ever heard of female condom

Variables	Male		Female		Total	
	n	%	n	%	n	%
15-24 years	98	61.6	128	52.5	226	56.1
25-49 years	121	59.6	109	43.3	230	50.3
15 – 49 years	219	60.2	237	47.8	456	53

APPENDIX II: SURVEY INSTRUMENT IN ENGLISH

KAJO KEJI BEHAVIOURAL SURVEILLANCE SURVEY (BSS)

(MINISTRY OF HEALTH, SSAC & UNHCR)

Serial number of questionnaire
|___|___|___|___|

IDENTIFICATION
COUNTRY ..... .|___|___|___|
STATE ……..... |___|___|
COUNTY ..... …..|___||___|
PAYAM……|___||___|
BOMA……..|___|___|___|
EA. No/CLUSTER No. ……|___|___|___|
HOUSEHOLD No. ……...|___|___|___|
VILLAGE..... …..|(NAME)

NAME AND CODE OF INTERVIEWER

_____ |____|____|____|

CONTROL				
NAME DATE	CONTROL ON FIELD LEVEL ----------|__||__| ----------	CONTROL IN CENTRAL OFFICE ----------|__| ----------	DATA ENTRY CLERK 1 ----------|__| ----------	DATA ENTRY CLERK 2 ----------|__| ----------
REMARKS				

Date of interview: __/__/ day

Start of interview: __/__/ h /__/__/min

APPENDIX II: SURVEY INSTRUMENT IN ENGLISH Cont….

Participant Information Sheet (one per household)

Serial number of household	Participant number	Age (yrs)	Gender 1. M 2. F	Relationship to the head of household 1. Household Head 2. Spouse 3. Son/ Daughter 4. Father/ Mother 5. Brother/ Sister 6. Other relative 7. Living in household but not a relative	Visit 1	Visit 2	Visit 3
					1 = Refusal 2 = Individual not eligible 3 = Questionnaire completed 4 = Questionnaire partly completed 5 = Household member absent 6 = Others (Specify) ***(for each household member record the correct answer)***		

CONSENT FORM

Hello, my name is ……. I represent the Ministry of Health, Government of South Sudan (GoSS), South Sudan AIDS Commission (SSAC) and UNHCR. We are asking some questions related to risk of HIV, the virus that causes AIDS. The objective of these questions is to find out about beliefs and behaviour regarding HIV and AIDS.

The survey will enable a better understanding of the HIV and AIDS situation in Kajo Keji County and also provide useful information on how to improve HIV and AIDS programmes. Your household has been randomly selected to participate in this survey. I will be asking you questions about yourself, your beliefs, attitude and behaviour on HIV and AIDS. If you are willing to participate, we will ask you some questions that take about 45 minutes.

Some of the questions I will ask are sensitive in nature, but I want to reassure you that your name will not be recorded any where, and any information you give us will be treated in strict confidence. Participation is entirely voluntary and you have right to refuse to answer all or some of the questions and you can stop the interview at any time without penalty of any kind. I appreciate your participation as your answers are highly valued and important. If you should have any concerns resulting from your participation in this survey, you may wish to contact: The Directorate of Planning, Research and Health System Development, Ministry of Health, Government of South Sudan on Tel: + 256 477112360 or +249 (0)126434426 or email: achaber@yahoo.co.uk

Thank you in advance for your participation.

Do you consent to participate in the interview?

Verbal and written consent provided:

❑ Yes

❑ No. It would be helpful if you could tell me why you don't want to participate.

_____

_____ _____

Signature of Interviewer (witness) Date

SECTION I: BACKGROUND CHARACTERISTICS (35 questions)

N°	QUESTIONS	ANSWERS	SKIP
A. SOCIO-DEMOGRAPHIC			
101.	**Record sex of the respondent**	1 = Male 2 = Female |___|	
102.	How old are you? **Record age in years**	Record number of years 98= no answer |___|___| 99 = DON'T KNOW	
103.	In which country were you born?	1 = Kenya 2 = Rwandan 3 = Uganda 4 = Somalia 5 = Congo (DRC) |___|___| 6 = Burundi 7 = Sudan 8= Ethiopia 9= Eritrea 10 = Other (Specify) _____	
104.	What is your current nationality?	1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Somali 5 = Congolese (DRC) |___|___| 6 = Burundian 7 = Sudanese 8= Other (Specify) _____ 98= no answer 99= don't know	
105.	What is your religion?	1 = Catholic 2 = Protestant 3 = Muslim 4= Orthodox Christian |___| 5= Other (Specify) _____	
106.	What is the highest level of schooling you have completed? **(different from a literacy program)**	0 = Have never attended school 1= Did not complete primary/ Basic education 2 = Primary/ Basic 3 = Did not complete secondary education 4 = Secondary |___| 5 = College 6 = University	
107.	How easy is it for you to read a paper written in i. English ii. Arabic iii. Bari iv. Madi v. Swahili vi. Other language? ***CIRCLE ONE ANSWER FOR EACH QUESTION***	1 = Easy 2 = Difficult 3 = Do not read at all 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3	
108.	Do you earn a monthly wage or salary?	1 = Yes 2 = No |___|	
109.	In what sector do you earn a living? ***(Only one answer is possible. Record the principal income sector.)***	0 = None 1 = Agriculture 2 = Trading 3 = Pastoralism 4 = Transport |___|___| 5 = Fishing 6 = Crafts 7 = Private services 8 = Public services 9 = Humanitarian or development group 10 = Other (Specify) _____	
110.	How long have you been living in the community where you currently live?	1 = Always 2 = Less than 6 months 3 = 6-11 months 4 = 1-2 years |___|___| 5 = 3-5 years 6 = More than 5 years 99 = Don't Know	

SECTION I: BACKGROUND CHARACTERISTICS (35 questions) Cont....

N°	QUESTIONS	ANSWERS	SKIP
111.	How long ago did you leave the country where you were born?	Record number of years 98= no answer |___|___| 99 = UNKNOWN	
112.	How many countries have you transited through or lived in since you left your home country, including the country where you currently live?	Record number of countries 98= no answer |___|___| 99 = UNKNOWN	
113.	In the last 12 months have you been away from the community where you currently live for one continuous month or more?	1 = Yes 2 = No |___|___| 98= no answer 99 = UNKNOWN	If **NO** go to **115**
114	Why were you away from this place for one month or more?	1 = Employment 2 = Trade 3 = Family-related 4 = Political reasons 5 = Military-related |___|___| 6 = School-related 7 = In jail 8 = Health-related 9 = Holiday 10 = Religion-related 11 = Other (specify) _____	
115	Have you ever been married or lived as if married? (traditional, religious or legal)	1 = Yes 2 = No |___|___| 98= no answer 99 = UNKNOWN	If **NO** go to **120**
116	How old were you when you first married or lived as married?	Age in years 98= no answer |___|___| 99= don't know	
117	What is your current relationship status?	1 = Currently married 2 = Never married 3 = Divorced/Separated |___|___| 4 = Widow/ Widower 98= no answer 99 = UNKNOWN	If not currently married go to **120**
118	Are you in a monogamous or polygamous marriage?	1 = Monogamous 2 = Polygamous |___|___| 98= no answer 99 = UNKNOWN	
119	Are you currently living with your spouse or a long-term sexual partner?	1 = Yes 2 = No |___|___| 98= no answer 99 = UNKNOWN	
B. ALCOHOL AND DRUG USE			
120	In the past 4 weeks, how often have you had drinks containing alcohol?	1 = Everyday 2 = At least once a week |___|___| 3 = At least once a month 4 = Never 98= no answer 99 = UNKNOWN	
121	Have you taken any drugs that were not prescribed by a health professional in the past 12 months? (This can include orally, sniffing, injection, other locally common methods for using drugs) **Note: A health professional does not include traditional medical practitioners**	1 = Yes 2 = No |___|___| 98= no answer 99 = UNKNOWN	If **NO** go to **125**
122	What drugs have you taken?	1 = Marijuana |___| 2 = Khat/miraa |___| 3 = Heroin |___| 4 = Opium |___| 5 = Amphetamines |___| 6 = Drugs/herbs from traditional healer |___| 7 = Other (Specify) _____ |___| 98= no answer 99 = UNKNOWN	

SECTION I: BACKGROUND CHARACTERISTICS (35 questions) Cont....

N°	QUESTIONS	ANSWERS	SKIP
123	Have you injected any drugs that were not prescribed by a health professional in the past 12 months? **Note: A health professional does not include traditional medical practitioners**	1 = Yes 2 = No 98= no answer 99 = UNKNOWN |___|	If **NO** go to **128**
124	Have you taken any drugs that were not prescribed by a health professional in the past 12 months? (this include orally, sniffing, injection, other locally common methods for using drugs)	1 = Yes 2 = No 98= no answer 99 = UNKNOWN |___|	
C. CIRCUMCISION			
125	Some men and women have been circumcised, have you been circumcised?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	If **No**, go to **127**
126	At what age were you circumcised?	Record number of years 98= no answer 99 = don't know	
127	If you could choose, would you prefer a sexual partner who was circumcised or not circumcised?	1 = Circumcised 2 = Not circumcised 98= no answer 99 = don't know |___|___|	
128	**MEN ONLY** Would you be interested in getting circumcised if it was affordable and safe?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	
D. MILITARY ACTIVITY			
129	Have you ever been involved in any official or unofficial military, paramilitary or police activities?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	If **NO** go to **201**
130	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 4 = 3 to 4 years 5 = 5 or more years 98= no answer 99 = don't know |___|___|	
131	Are you currently involved in military, paramilitary or police activities?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	If **YES** go to 201
132	How long ago did you leave your military, paramilitary or police activities?	Record number of years If less than one year, record 00 98= no answer 99 = don't know |___|___|	

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

N°	QUESTIONS	ANSWERS	SKIP
A. SEXUAL ACTIVITY			
201.	Have you ever had sexual intercourse? (Sexual intercourse is defined as penetrative vaginal or anal sex)	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	IF **NO**, go to **234**
202.	At what age did you first have sexual intercourse?	Age in years | 98= no answer 99 = don't know |___|___|	
203.	The last time you had sex, did you use a condom?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	If YES go to **205**
204.	The last time you had sex, did you ever think you could have used a condom?	1 = Yes 2 = No 98= no answer 99 = don't know |___|___|	

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

N°	QUESTIONS	ANSWERS	SKIP
B. REGULAR SEX PARTNERS			
205.	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) **Cross check: If 120 does not equal 1, then probe to make sure the definition of "regular partner" is understood**	1 = Yes 2 = No |___|___| 98= no answer 99 = don't know	If **No** go to **208**
206.	How many regular partners did you have sex with in last the 12 months?	Record number |___|___| 98 = No answer 99 = Don't know	
207.	What was the nationality of your most recent regular partner?	1 = Kenyan 2 = Rwandese 3 = Ugandan 4 = Somali 5 = Congolese (DRC) 6 = Burundian |___|___| 7 = Sudanese 8 = Ethiopian 9 = Eritrean 10 = Other (Specify) _____ 99 = Don't know	
208.	How old was your most recent regular partner?	Record age in years 98= no answer |___|___| 99 = Don't know	
209.	The LAST TIME you had sex with your regular partner, did you use a condom?	1 = Yes |___|___| 2 = No 98= no answer 99 = Don't know	
C. NON REGULAR PARTNERSHIP			
210.	Have you had sex with a casual partner in the past 12 months? **(A casual sex partner is defined as any sexual partner different from the one with whom you live or are married to and from whom you did not receive or give money, gifts or favours for sex)**	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No** go to **219**
211.	How many casual partners did you have sex with in last the 12 months?	Record number |___|___| 98 = No answer 99 = Don't know	
212.	What was the nationality of your most recent casual partner?	1 = Kenyan 2 = Rwandan 3 = Ugandan 4 = Somali 5 = Congolese (DRC) |___|___| 6 = Burundian 7 = Sudanese 8= Ethiopia 9= Eritrea 10= Other (Specify) _____	
213.	How old was your most recent casual partner?	Record age in years |___|___| 98 = No answer 99 = Don't know	
214.	What was the marital status of your most recent casual partner?	1 = Currently married 2 = Never married 3 = Divorced/Separated |___|___| 4 = Widow/ Widower 5 = Other (Specify) _____ 98 = No answer	

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

N°	QUESTIONS	ANSWERS	SKIP
		99 = Don't know	
215.	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= Civil servant 13= Other (Specify) _____ 98 = No answer 99 = Don't know	
216.	The last time you had sex with a casual partner, had either of you taken any alcohol?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
217.	The last time you had sex with a casual partner did you use a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No** go to **219**
218.	Who suggested using a condom the last time you had sex with a casual partner?	1 = My partner 2 = Myself |___|___| 3 = Joint decision 98 = No answer 99 = Don't know	Go to **220**
219.	What was the *main* reason you did not use a condom the last time you had sex with a casual partner? ***Record only one answer***	1 = No condoms available 2 = Free condoms not available 3 = Too expensive 4 = Partner objected 5 = Don't like them 6 = Used other contraceptive |___|___| 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) _____ 98 = No answer 99 = Don't know	
220.	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 98 = No answer 99 = Don't know	

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

N°	QUESTIONS	ANSWERS	SKIP
D. TRANSACTIONAL SEX			
221.	Have you ever had sex in exchange for money, a gift or a favour?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No** go to **234**
222.	The last time you exchanged sex, was it for money, a gift or a favour?	1 = Money 2 = Gift |___|___| 3 = Favour 4= More than one thing (e.g.: Money and gift, money and favour, gift and favour) 98 = No answer 99 = Don't know	
223.	Who was the last person with whom you exchanged sex for money, a gift or a favour?	1 = Civil servant 2 = Person from local community 3 = Military, paramilitary, police |___|___| 4 = Humanitarian or development worker 5 = Other (Specify) _____ 98 = No answer 99 = Don't know	
224.	During which period in your life did you exchange sex for money, a gift or a favour? ***Record all answers***	**A. Before war** |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know **B. = During the war** |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know **C. = After war** |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know	
225.	Have you had sex in exchange for money, a gift or a favour in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No** go to **234**
226.	In the past 12 months, how many partners did you have sex with in exchange for money, a gift or a favour?	Record number |___|___| 98 = No answer 99 = Don't know	

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

N°	QUESTIONS	ANSWERS	SKIP
227.	Who was the last person with whom you exchanged sex for money, a gift or a favour?	1 = Civil servant 2 = Person from local community 3 = Military, paramilitary, police |___|___| 4 = Humanitarian or development worker 5 = UN peacekeeper 6 = Other (Specify) _____ 98 = No answer 99 = Don't know	
228.	How old was the last person with whom you exchanged sex for money, a gift or a favour?	Record age in years |___|___| 98 = No answer 99 = Don't know	
229.	The last time you exchanged sex for money, a gift or a favour, had you taken any alcohol?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
230.	The last time you exchanged sex for money, a gift or a favour, did you use a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No** go to **232**
231.	Who suggested using a condom the last time you exchanged sex for money, a gift or a favour?	1 = My partner 2 = Myself |___|___| 3 = Joint decision 98 = No answer 99 = Don't know	Go to **233**
232.	What was the *main* reason you did not use a condom the last time you exchanged sex for money, a gift or a favour? ***Record only one answer***	1 = No condoms available 2 = Free condoms not available 3 = Too expensive 4 = Partner objected 5 = Don't like them 6 = Used other contraceptive |___|___| 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) _____ 98 = No answer 99 = Don't know	
233.	In the past 12 months, how often did you use a condom with **ALL** of the people with whom you exchanged sex for money, a gift or a favour?	1 = Every time 2 = Frequently (more than 50% of the time)	

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

N°	QUESTIONS	ANSWERS	SKIP
		3 = Sometimes (less than 50% of the time) 4 = Never |___|___| 98 = No answer 99 = Don't know	
E. FORCED SEX			
234.	Have you ever been forced to have sex against your will?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	If **No**, go to **301**
235.	During which period in your life were you forced to have sex? ***Record all answers***	**A. Before war** |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know **B. = During** the war |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know **C. = After war** |___|___| 1 = Yes 2 = No 98 = No answer 99 = Don't know	
236.	Who forced you to have sex? ***More than one answer can be given. Record all answers***	1 = Regular partner |___| 2 = Family member other than regular partner |___| 3 = Non-family member |___|___| 98 = No answer |___|___| 99 = Don't know |___|___|	If **Regular partner or other family member (1 or 2) only,** go to **240**
237.	If you were forced to have sex by a non-family member, who forced you? ***More than one answer can be given. Record all answers***	1 = Civil servant |___| 2 = Person from local community |___| 3 = Military, paramilitary, police |___| 4 = Humanitarian or development worker |___| 5 = UN peacekeeper |___| 6 = Other (Specify) _____ |___| 98 = No answer |___|___| 99 = Don't know |___|___|	
238.	Have you been forced to have sex against your will in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No**, go to **301**
239.	How many times were you forced to have sex in the past 12 months?	Provide Number |___|___| 98 = No answer	If Not 0, go to 241

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

N°	QUESTIONS	ANSWERS	SKIP
		99 = Don't know	
240.	Who forced you to have sex? ***More than one answer can be given. Record all answers***	1 = Regular partner |___| 2 = Family member other than regular partner |___| 3 = Non-family member |___| 98 = No answer |___|___| 99 = Don't know |___|___|	If **Regular partner or other family member only,** go to **242**
241.	If you were forced to have sex by a non-family member, who forced you? ***More than one answer can be given. Record all answers***	1 = Civil servant |___| 2 = Person from local community |___| 3 = Military, paramilitary, police |___| 4 = Humanitarian or development worker |___| 5 = UN peacekeeper |___| 6 = Other (Specify) _____ |___| 98 = No answer r|___| 99 = Don't know |___|	
242.	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 98 = No answer 99 = Don't know	

SECTION III: MALE and FEMALE CONDOMS (11 questions)

N°	QUESTIONS	ANSWERS	SKIP
301.	Have you ever heard of condoms?	1 = Yes 2 = No |___| 98 = No answer 99 = Don't know	If **NO**, go to **401**
302.	What do you think condoms are used for? **Unprompted question. Record all answers**	1 = Protects against STI/HIV/AIDS |___| 2 = Prevents pregnancy |___| 3 = Family Planning |___| 4 = Other (Specify) _____ |___| 98 = No answer |___| 99 = Don't know |___|	
303.	Have you ever used a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
304.	Do you know where you can obtain a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
305.	Where do you usually get condoms? **Only one answer possible**	1 = Pharmacy 2 = Health facility 3 = At the market 4 = From my friends |___|___| 5 = At the shop 6 = Community health worker 7 = Other (Specify) _____ 98 = No answer 99 = Don't know	
306.	Can you obtain a condom every time you need one?	1 = Yes 2 = No |___| 98 = No answer 99 = Don't know	If **YES,** go to **308**

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

N°	QUESTIONS	ANSWERS	SKIP
307.	What is the *main* constraint to obtaining a condom every time you need one? ***Only one answer possible***	1 = Too far away (geographical access) 2 = Too expensive 3 = Places not open at convenient hours 4 = Not available |___|___| 5 = Fear of being seen 6 = Health worker's attitude 7 = Other (specify) _____ 98 = No answer 99 = Don't know	
308.	Have you ever heard of a female condom?	1 = Yes 2 = No |___| 98 = No answer 99 = Don't know	If **NO**, go to **401**
309.	Have you ever used a female condom?	1 = Yes 2 = No |___| 98 = No answer 99 = Don't know	
310.	Would you/your partner be willing to use a female condom if available?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
311.	Do you know where you can obtain a female condom?	1 = Yes 2 = No |___| 98 = No answer 99 = Don't know	

SECTION IV: SEXUALLY TRANSMITTED INFECTIONS (7 questions)

N°	QUESTIONS	ANSWERS	SKIP
401.	Have you ever heard about diseases that can be transmitted through sexual intercourse?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
402.	Have you had any unusual genital discharge in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
403.	Have you had any genital ulcers or sores in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **NO** to both **402 AND 403**, go to **501**
404.	Since the last time you had genital discharge, have you continued to have sex?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **NO** go to **407**
405.	During the last time you had genital discharge, ulcer or sore, did you seek treatment?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
406.	Where was the FIRST place that you went for treatment? ***Only one answer possible***	1 = Public health centre 2 = Private clinic 3 = Traditional healer/doctor/ practitioner |___|___| 4 = Pharmacy 5 = Friend or relative 6 = Other (specify) _____ 98 = No answer 99 = Don't know	
407.	During the last time you had a sexually transmitted infection did you inform your sexual partner(s)?	1 = Yes, all of them 2 = Some of them, not all |___|___| 3 = No, none of them 98 = No answer 99 = Don't know	

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 |___| 98 = No answer 99 = Don't know	If **NO**, go to **614**
502.	In the Kajo Keji area, are HIV/AIDS cases more among foreigners, or among members of your community?	1 = Community 2 = Foreigners |___|___| 98 = No answer 99 = Don't know	
503.	Can people protect themselves from HIV infection by staying faithful to one uninfected faithful sex partner?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
504.	Can people protect themselves from AIDS virus by using a condom correctly every time they have sex?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
505.	Can people protect themselves from HIV infection by abstaining from sex?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
506.	Can people get infected with HIV through a mosquito bite?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
507.	Can people get infected with HIV by sharing a toothbrush with someone who is infected?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
508.	Can people get infected with HIV by having anal sex with a male partner and not using a condom?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
509.	Can a person get infected by HIV by getting injected with a needle that was already used by someone else?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
510.	Can people get infected with HIV by sharing food with someone who is infected?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	

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

511.	Is it possible for a healthy-looking person to have HIV, the virus that causes AIDS?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
512.	Can a pregnant woman with HIV/AIDS, transmit the virus to her unborn child during pregnancy or delivery?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
513.	Can a woman with HIV/AIDS transmit the virus to her baby during breastfeeding?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
514.	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 98 = No answer 99 = Don't know	|___|___|
515.	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for him/her in your own household?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
516.	If a teacher is infected with the virus that causes AIDS, should he/ she be allowed to continue teaching?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
517.	Would you buy fresh vegetables from a shopkeeper who is infected with the virus that causes AIDS?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
518.	Should young adolescents be taught how to use condoms?	1 = Yes 2 = No 98 = No answer 99 = Don't know	|___|___|
519.	What are the chances that you might get HIV?	1 = Good chance 2 = Moderate chance 3 = No chance 4 = Already infected with HIV 98 = No answer 99 = Don't know	|___|___|

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

N°	QUESTIONS	ANSWERS	SKIP
601.	Have you received information on HIV and AIDS in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No**, go to **603**
602.	From what sources have you received information on HIV/AIDS in the past 12 months? ***Unprompted question. Record all answers given***	***Mass media*** 1 = Radio |___| 2 = TV/ Video |___| 3 = Newspaper |___| 4 = Poster/pamphlet |___| ***Health services*** 5 = Health facility |___| 6 = VCT centre |___| 7 = ANC/PMTCT centre |___| ***People*** 8 = Community health worker |___| 9 = Friend |___| 10 = Family member |___| 11 = Person living with HIV/AIDS |___| 12 = Peer outreach worker |___| ***Other place***s 13 = School |___| 14 = Place of worship |___| 15 = Public meeting |___| 16 = Others (specify) _____ |___|	
603.	From what sources would you *prefer* to receive information on HIV/AIDS? ***Unprompted question. Record all answers given***	***Mass media*** 1 = Radio |___| 2 = TV/ Video |___| 3 = Newspaper |___| 4 = Poster/pamphlet |___| ***Health services*** 5 = Health facility |___| 6 = VCT centre |___| 7 = ANC/MTCT centre |___| ***People*** 8 = Community health worker |___| 9 = Friend |___| 10 = Family member |___| 11 = Person living with HIV/AIDS |___| 12 = Peer outreach worker |___| ***Other place***s 13 = School |___|	

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

N°	QUESTIONS	ANSWERS	SKIP
		14 = Place of worship |___| 15 = Public meeting |___| 16 = Others (specify) _____ |___|	
604.	Do you know a place where a person can be tested for HIV?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	If **No or Don't know**, go to **606**
605.	To your knowledge, where can a person be tested for HIV?	1 = In local community (hospital/clinic//VCT centre) 2 = In refugee camp |___|___| 3 = In both sites 98 = No answer 99 = Don't know	
606.	Have you ever been tested for HIV? ***(State that you do not want to know the result of the test)***	1 = Yes |___|___| 2 = No 98 = No answer 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 |___|___| 98 = No answer 99 = Don't know	
608.	The last time you were tested for HIV did you yourself ask for the test, was it offered to you and you accepted, or was it required?	1 = I asked for the test 2 = It was offered and I accepted |___|___| 3 = It was required 98 = No answer 99 = Don't know	
609.	The last time you were tested for HIV did you receive counselling?	1 = Yes |___|___| 2 = No 98 = No answer 99 = Don't know	
610.	The last time you were tested for HIV, where did you go to get tested? ***Only one answer possible.***	**<u>Public sector</u>** 1 = Hospital |___|___| 2 = Health facility government 3 = Clinic/ family planning 4 = Mobile Clinic **<u>Private Sector</u>** 5 = Private hospital/ Clinic 6 = Pharmacy 7 = Private medical doctor 8 = Mobile clinic 9 = Traditional healer 10 = Other (Specify) _____	

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

N°	QUESTIONS	ANSWERS	SKIP
611.	I do not want to know the result, but, the last time you were tested for HIV did you obtain the result of the test? ***(State again that you do not want to know the test result)***	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
612.	Would you be willing to go for an HIV test in the future?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **Yes**, go to **614**
613.	What is the **main** reason you do not want to go for a test? ***Only one answer possible***	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.	**Women only** Have you been pregnant in the past 5 years?	1 = Yes 2 = No |___|	If **No**, go to **701**
615.	**Women only** When you were pregnant did you go to an ante-natal clinic?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	

SECTION VII: HIGH RISK BEHAVIOUR (6 questions)

A. ANAL SEX

701.	Have you had anal sex with a man or a woman in the past 12 months? **Anal sex included both penetrative and receptive anal intercourse**	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No**, end Interview
702.	Women only: The last time you had anal sex with a man, did you or your partner use a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	
703.	Men only: Have you had anal sex with a man in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No**, go to **705**
704.	Men only: The last time you had anal sex with a man, did you or your partner use a condom?	1 = Yes 2 = No |___|___|	

SECTION VII: HIGH RISK BEHAVIOUR (6 questions) Cont ....

		98 = No answer 99 = Don't know	
705.	Men only: Have you had anal sex with a woman in the past 12 months?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	If **No**, end the Interview
706.	Men only: The last time that you had anal sex with a woman, did you or your partner use a condom?	1 = Yes 2 = No |___|___| 98 = No answer 99 = Don't know	

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

End of the interview: __/__/ h /__/__/