EAC/AMREF LAKE VICTORIA PARTNERSHIP (EALP) PROGRAMME

"ADDRESSING MOBILITY, VULNERABILITY AND GAPS IN INTEGRATED RESPONSE TO HIV&AIDS IN THE LAKE VICTORIA BASIN"

HIV SERO-BEHAVIOURAL STUDY IN SIX UNIVERSITIES IN UGANDA

FINAL REPORT

Study Team

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Participating Universities
Gulu University
Islamic university in Uganda
Kampala international university
Makerere University
Mbarara University of science and technology
Uganda Christian University

EALP Partners
EAC Secretariat
Lake Victoria Basin Commission (LVBC)
Interuniversity Council for East Africa (IUCEA)
Lake Victoria Fisheries Organization (LVFO)
African Medical and Research Foundation (AMREF)
Swedish International Development Agency (Sida)

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Acronyms and Abbreviations

ACP	AIDS Control Programme
AHC	AH Consulting Ltd
AIDS	Acquired Immunodeficiency Syndrome
AIS	AIDS Indicator Survey
AMREF	Africa Medical Research Foundation
ANC	Antenatal Clinics/Care
ANOVA	Analysis of Variance
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
CGS	Cross Generational Sex
DBS	Dry Blood Spots
DHS	Demographic and Health Survey
EAC	East African Community
ELISA	Enzyme Linked Immuno-sorbent Assay
FGD	Focus Group Discussions
HCT	HIV Counseling and testing
HCT	HIV Counselling and Testing
HIV	Human Immunodeficiency Virus
IUCEA	Inter University Council for East Africa
IUIU	Islamic University in Uganda
KIU	Kampala International University
MARPS	Most-at-Risk Population Surveys
MOH	Ministry of Health
MUST	Mbarara University of Science and Technology
NTT	National Technical Team
PMTCT	Prevention of Maternal –to-Child HIV Transmission
RH	Reproductive Health
STD	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
UAIS	Uganda AIDS Indicator Survey
UBOS	Uganda Bureau of Statistics
UCU	Uganda Christian University
UDHS	Uganda Demographic and Health Survey
UDHS	Uganda Demographic and Health Survey
UNCST	Uganda National Council of Science and Technology
UVRI	Uganda Virus Research Institute
VCT	Voluntary Counselling and Testing

A. EXECUTIVE SUMMARY

Background

There is inadequate information on the burden of HIV infection, and on the prevalence of the risk factors for HIV transmission among University students in Uganda. Routine sources of data such as HIV surveillance and national population-based AIDS Indicator surveys do not provide information on institutional populations such as University students. Moreover, these sub-populations require interventions to address the risk factors that expose them to HIV infection in their unique settings. In order to address this, the IUCEA conducted a baseline survey on HIV/AIDS in institutions of higher learning in Uganda. Similar studies were conducted in Kenya and Tanzania. The overall objective of the survey was to determine the prevalence of HIV and related risk factors among University students in Uganda. The survey provides information that will guide universities and their partners in mainstreaming HIV/AIDS prevention and control. AH Consulting in conjunction with national technical team with members from the Ministry of Health implemented the survey on contract with the Inter-University Council for East Africa and AMREF. A nation al Technical Working Group was set up to provide scientific oversight for the study.

Methods

The survey was cross-sectional in design and collected both qualitative and quantitative data. Semi-structured self administered questionnaires were used to collect data from 3,718 students randomly selected from 6 of 28 Universities in the Country. Data was collected on HIV/AIDS related knowledge, attitudes and sexual behaviours. Programme coverage data was also assessed on key indicators such as HIV counselling and testing and access to HIV/AIDS services.Venous blood was collected and tested for HIV at UVRI. Residual blood specimens were stored for future assessment for as yet unspecified biological tests. HIV tests and results were also offered in the field for respondents who wished to know their HIV status using the recommended rapid HIV testing algorithm for Uganda. Respondents who were HIV positive were referred to HIV treatment centres for support, care and treatment services.

Key informant interviews with at least 8 officials per University and 4 focus group discussions among students in each University were also conducted. These explored relevant themes for factors underlying the HIV epidemic in University settings and service availability and access.

Key Findings

Response Rate: Overall response to the behavioural component of the survey was 98.6% while overall acceptance to test for HIV was 95%, well above the national standard of 90% recommended for such surveys. Overall response rates were lowest in Uganda Christian University Mukono (89%) and highest in Makerere University (99.4%)

Background Characteristics of Respondents: 82% of University students were in the age-group 20 to 24 years, indicating that most university students are young people. A significant proportion of University students in Uganda are international students. Kampala International University has the highest proportion of international students (19%) followed by Makerere (7%) and IUIU (6.5%). Close to 90% of University students in Uganda are undergraduates, two thirds are on Arts courses and three quarters are on private sponsorship. Only 28% of students are resident within the university campus, meaning that students mostly reside in the communities surrounding the universities. The majority of students reported that they do not receive adequate funds for personal living expenses from their guardians, yet they spend significantly on academics, food and other living costs. A significant proportion of students are involved in employment: 16% of students have a regular job while 25% of students have an irregular job. Gulu University had the highest proportion of students who work as they study. Close to 90% of students own a mobile phone and about 28% own a television set. About one quarter of students undertake frequent short distance trips from their place of residence from the university every month. Makerere University had the highest level of short distance mobility among students while IUIU had the lowest. Additionally, about one quarter of students undertake at least one trip longer than 10 Kilometers every month. Long distance mobility was highest in Uganda Christian University and lowest in Mbarara University. The commonest reasons for mobility of students include visiting friends and family, going home and entertainment. One quarter of students reported taking alcohol and about one fifth of students who take alcohol take it more than five times in a month.

Knowledge, attitudes and perceptions related to HIV/AIDS among students: As expected, overall awareness about the existence of HIV/AIDS is high among students (97%). However, prevalence of comprehensive knowledge about HIV/AIDS was 71%, indicating that a significant proportion of students were not adequately aware on specific issues regarding HIV/AIDS. Knowledge about specific programmes like ART and PMTCT was moderate to low. Comprehensive knowledge about HIV was highest in Gulu University and lowest in Uganda Christian University. At 52%, the level of accepting attitudes towards people living with HIV/AIDS was low. A significant proportion of students have negative gender perceptions about relationships; close to one third of students believe that force is justified to get sex from a partner and over 50% of students (male and female) believe that males are obliged to provide materially for their female partners. 12% of students perceive themselves to be at high risk of HIV.

Sexual Behaviours and HIV related risk factors among students: Over three quarters (78%) of students in universities have ever had sexual intercourse. The proportion of students who have ever had sexual intercourse was highest in KIU (86%) and lowest in Mbarara University (69%). Sexual experience was also associated with age and year of study and higher among non-resident students and students on Arts courses as well as students who entered through mature entry schemes.

57% of students in universities have been involved in recent sexual activity (i.e. had sexual intercourse in the 12 months preceding the survey); about 74% of students who have ever had sexual intercourse had had sexual intercourse in the 12 months preceding the survey. This implies that about one quarter of students who have ever had sexual intercourse were practicing secondary abstinence. The median age at first sex for students is 18 years, and was higher among female students (19 years). Only 59% of students who have ever had sex used a condom at their first sexual encounter.

The majority of relationships in universities are temporary (73% of students are involved in temporary relationships) and 71% of students in temporary relationships have had sexual intercourse with their partner. About two thirds of students in temporary relationships who have had sexual intercourse with their partner did so within the first 6 months of the relationship. About three quarters (76%) of students in temporary relationships will have had sexual intercourse within 12 months of their relationship and 86% will have had sexual intercourse within two years. However, it was noteworthy that about 14% of students in temporary relationships have not had sexual intercourse with their partner after more than two years of dating. Sex with non-regular partners is highest in Makerere and lowest in Gulu universities. It is also highest in the age-group 15 to 19 years and lowest in the older age-groups.

Overall prevalence of cross-generational sex in universities is estimated at 5% for all students and 8% among sexually active students. Cross-generational relationships in sexually active students were higher among female students (9%) compared to males (6.5%). Kampala International University has the highest prevalence of cross-generational relationships among sexually active students (9%), followed by Makerere (8.6%) and IUIU (8.4%).

Overall prevalence of sex with multiple partners is high. It was estimated at 17% for all students and 24% among sexually active students. Occurrence of multiple sexual partnerships was highest in Kampala International University (where one in 3 sexually active students had more than one partner in the 12 months preceding the survey), followed by Makerere. It was lowest in Islamic University in Uganda. Occurrence of multiple sexual partnerships within the 12 months preceding the survey was also higher in students in the higher years of study, non-resident students, students with frequent short and long distance mobility and students who take alcohol

Overall prevalence of transactional sex was estimated at 3% for all students and 4% among sexually active students. It was highest in Kampala International University (5.4%) and Makerere University (4.6%). It was also higher among students with frequent short and long distance mobility, and students who took alcohol at the time of their last sexual encounter.
Overall prevalence of condom use at last sexual intercourse among sexually active students was only 51%, meaning that a significant proportion of students in universities do not use protection. It was higher among younger students and students in temporary relationships and significantly lower in students who had taken alcohol at their last sexual encounter (46%). Condom use at last

sexual intercourse was not different among students involved in high risk sexual behaviours and was generally low. Among students who had more than one sexual partner, condom use at last sexual intercourse was only 50%. Likewise, condom use at last sexual intercourse among students who had had a transactional partner in the 12 months preceding the survey was only 50%.

72% of sexually active students had ever been exposed to pornographic materials and the commonest forms were videos and print material. 18% had ever accessed internet based pornography. 12% of sexually active students reported that they had ever suffered physical abuse from a partner and 5% of sexually active students reported that they have ever suffered sexual assault from a partner.

While frequency of short and long distance mobility was not associated with the level of general sexual activity, it appeared to be highly linked to high risk sexual behaviours. Other factors that were linked to high risk sexual behaviours included alcohol taking, age, residency status and the university in which the student was.

The overall occurrence of STD related symptoms among students was moderately high; 10% of all university students reported having an STD related symptom in the 12 months preceding the survey. Occurrence of STD related symptoms was highest in KIU (12%), and lowest in Mbarara (4%). It was also higher among females (12%) compared to males (7%). It was highest in the age-group 36 to 40 years (20%) and lowest in the age-group 15 to 19 years (6%). It was significantly higher in off campus students (10.2%) and students who entered the universities through non-regular entry (15%). Occurrence of STD related symptoms was highest in those who have a regular partner (18%), those that did not use a condom at last sex (16%), students who had a cross-generational partner the last time they had sexual intercourse (18%) and those that had more than one sexual partner in the 12 months preceding the survey (17%).

HIV prevalence in Universities: Overall prevalence of HIV in universities is estimated at 1.2%, with the highest prevalence noted in Gulu (1.8%) and the lowest in Mbarara University (0.4%); however, the differences across universities were not statistically significant. Overall prevalence of HIV in universities is significantly lower than the national HIV prevalence, but represents an increase from a prevalence of 0.6% in a most-at-risk survey that included university students two years ago. Among male students, HIV was highest in the age-group 40 years and over (5.6%) while among female students, HIV prevalence was highest in the age group 35 to 39 years (14.3%) and the age-group 30 to 34 years (10.7%) and those who have ever been pregnant (3.4%). HIV prevalence was highest among those who had a cross-generational partner in the 12 months preceding the survey (3.2%), and those on private sponsorship. These findings should however be interpreted with caution, because overall, the number of HIV positive samples was low, thereby making the findings from the stratified analysis inadequate for reliable conclusions.

HIV/AIDS Core programme coverage among university students: About one half of university students (46.7%) receive HIV messages frequently (at least once every month). More importantly, the majority of students (71%) have ever discussed HIV related issues with their room-mates, indicating that peer-to-peer communication is an important channel for diffusion of HIV related information.

The most frequent sources of HIV messages for students were the radio (68%), TV or other audio-visual media including the internet (48%), parents and guardians (27%), Religious leaders (24%), seminars (23%), poster, pamphlets and print (21%), university HIV education activities (21%), bill boards (19%) and health workers (19%). 22% of students have received HIV related messages from peers and friends. 52% of students are members of at least one students association, implying that these associations could be useful in communicating to students about HIV/AIDS. The majority of students perceive the ABCs as the most important programmatic message they have received on HIV/AIDS (60%).

Overall, only about half of the students who have ever had sexual intercourse have ever gone out to obtain condoms. Female students were much less likely to have ever gone out to obtain condoms than male students. The majority of students who need condoms have to purchase them and only 37% of students received free condoms the last time they went out to obtain them. Condom sources most accessible to students include pharmacies and drug shops, private clinics, and health centres, showing that the majority of sources are outside their university premises. Access to freely distributed condoms was highest in Mbarara University and lowest in IUIU. Overall, about 64% of students feel that condoms are freely accessible when needed. The proportion of students who felt that condoms were easily accessible was highest in Mbarara and Gulu Universities (which have condom distribution programmes) and lowest in Uganda Christian University.

Among female students who have ever had sexual intercourse, the proportion that has ever been pregnant is highest in Gulu and lowest in Mbarara. It is also higher among students who reside off-campus, and those who had a regular partner the last time they had sexual intercourse. Overall occurrence of induced abortions in universities is high and is estimated at 7% of all female students. It was highest in KIU (11% of all female students) and lowest in Mbarara (3%).

At 9%, overall use of other contraceptives other than condoms was low in universities. Prevalence of contraceptives other than condoms was highest in KIU and IUIU (13%) and lowest in Makerere University.

At 72%, the proportion of students who have ever tested for HIV is moderately high. It was highest in Gulu (79%) and lowest in Mbarara Universities (67%). It was also highest in the age-groups 30 to 39 years (90%), students in the 3rd Year and above (over 80%), non-resident students (75%) and students on mature entry programmes (78%). The proportion of students who have tested for HIV more than once is also moderately high (two thirds of those who have ever tested).

The proportion of students who have ever tested for HIV was also higher among people who had regular sexual partners. On a positive note, it was higher among students who had ever had an STI. The majority of students have to pay for a HIV test, and the majority has to test from outside the university premises.

HIV/AIDS and Reproductive Health Policies, Programmes and Services in Universities: Key national documents for HIV/AIDS prevention and control (the National Strategic Plan and the Performance Monitoring and Measurement Plan) that have been rolled out by the Uganda AIDS Commission were not readily accessible in four of the 6 universities. Notably, three of the universities assessed (KIU, Gulu and Makerere) did not have a written University HIV policy, but Gulu had a policy in draft. Although some universities (UCU, MUST and IUIU) had plans and budgets for HIV prevention and care no single university had a performance measurement and monitoring plan document for HIV/AIDS activities and outputs.

All universities to a certain degree have HIV preventive activities including counseling and psychosocial support services and of a Code of Conduct for students. However, the level of access to these services by students and the enforcement of codes of conduct is inadequate. The level of HIV mainstreaming in activities of the universities was also inadequate. The level of involvement of university lecturers in HIV/AIDS prevention among students was low, except for some focal staff appointed by the universities to provide counseling services. However, students had many networks and associations that were involved in peer-to-peer HIV messaging and students' leaders also implemented some HIV related programmes.

Most key Informants and Focus group discussion participants were in agreement that behavioural risk factors for HIV/AIDS were highly prevalent among university students. Factors promoting high risk behaviour patterns among university students included location of the university, the sudden change to independence among new students, peer pressure, high and rising cost of living and inadequate enforcement of codes of conduct.

All the six survey universities had at least a facility for basic health services. However the range and level of services provided at each facility significantly varied between universities. All the universities have HIV counseling and testing service, treatment of opportunistic infections and Septrin prophylaxis provided by in-house counselors, laboratory technicians and clinicians. Besides the in-house VCT services, universities tend to get one-off VCT events from service providers outside the universities.

To varying extents there are condom distribution programmes to students in public universities but condom promotion is prohibited in religious affiliated universities (IUIU and UCU). ART, PMTCT and Referral links were outstandingly not provided by the facilities in most universities except IUIU and MUK.

There were over-whelming sentiments among student respondents that the quality of HIV services in universities was lacking or poor for most of the universities. Most respondents viewed the services as poor because stock-outs of drugs and supplies was rampant in the university infirmaries; there were long waiting times at the service points, and near to expiry dates condoms were provided. In large universities, access to the university hospitals was also a problem, and non-resident students had to seek services outside the university provisions.

Conclusion and Recommendations: These findings demonstrate that although the overall prevalence of HIV in Universities is lower than the national prevalence, the prevalence of HIV related risk factors is high, and there is a high likelihood that HIV prevalence in Universities may increase. Institutional frameworks for HIV/AIDS service delivery in most universities (including prevention, mitigation and control) have many gaps and access to HIV/AIDS services within universities inadequate. In addition, information management systems for HIV programme monitoring in universities are inadequate.

It is recommended that deliberate action is taken to support universities in mainstreaming HIV/AIDS prevention and control activities in their programmes, with the involvement of administrators, staff and students. There is also need to increase access to HIV/AIDS and Reproductive Health services for students.

B. MAIN REPORT

1. INTRODUCTION AND BACKGROUND

1.1 The HIV Epidemic in Uganda

Uganda has faced a severe and generalised epidemic of HIV/AIDS since the early 1980s. The epidemic has spread to all corners of the country, starting from major urban centres and now has spread to both urban and rural communities. While Uganda made major achievements in reducing the prevalence of HIV infection during the 1990s, recent information appears to suggest stagnation in the epidemic. HIV infection in Uganda is largely spread through hetero-sexual contact between infected and uninfected individuals. Data from the antenatal HIV sero-surveillance sites in the country indicated that by 2002, most of the new infections were occurring in younger ages 20 to 30 years (UNAIDS, UNICEF, 2002). Recent information however appears to indicate that most of the new HIV infections are occurring among older individuals and married couples, perhaps arising from marital infidelity or extramarital sex. There is also significant unrecognised HIV discordance that could be contributing to HIV transmission in couples.

The epidemic has had severe impacts manifested by the significant morbidity and mortality. The country has also experienced a big burden of orphans and vulnerable children arising from the death of young adults in the prime of their productive lives. This has exerted a significant burden on an already stretched health care system. It has also resulted in the expansion of the magnitude of the dependent population.

Recognizing the serious consequences of HIV/AIDS, the Government of Uganda established a national HIV/AIDS Control Programme in the Ministry of Health in 1986 to implement HIV/AIDS prevention and Control interventions. This was further augmented by the establishment of the Uganda AIDS Commission in 1990 which was mandated to coordinate a multi-sectoral national response for HIV/AIDS prevention and control.

The primary focus of HIV prevention over the years has been the promotion of sexual abstinence especially among young people, mutual faithfulness among individuals in union and consistent condom use especially during high risk sexual encounters (the ABC approach). In addition, other prevention programmes were piloted and implemented including; Prevention of Mother-to-Child HIV Transmission (PMTCT), Voluntary Counselling and Testing (VCT), blood transfusion safety, medical injection safety, infection control and treatment of sexually transmitted infections. In addition, interventions for care and treatment for infected individuals have been rolled out in the Country including programmes for Anti-Retroviral treatment (ART).

In order to monitor the implementation of the national response, the Government of Uganda, through the AIDS Control Programme in the Ministry of Health conducts routine sentinel

surveillance of HIV in sentinel surveillance sites. The antenatal HIV surveillance system is based on annual HIV serological surveys among pregnant mothers in selected sentinel surveillance sites distributed throughout the country. This has in recent years been complimented by periodic national population-based serological and sexual behavioural surveys. Demographic and Health surveys (DHS) with an AIDS module are conducted approximately every 5 years and provide information on HIV/AIDS related knowledge and sexual behaviour. The program also conducts periodic AIDS Indicator Surveys. The last survey was conducted in 2004/05 with a repeat survey planned for 2010. The above surveillance activities are augmented by programmatic information from other programmes such as blood transfusion, HIV testing programmes and research programmes especially those maintaining longitudinal cohorts.

1.2 HIV/AIDS Epidemic in Higher Institutions of Learning

University populations in Uganda are rapidly increasing. Makerere University is no longer the only University in the County and there are 27 other universities that have been established since 1987. Makerere University alone has a population of about 37,000 students.

There are anecdotes and reports that indicate that HIV/AIDS has had a significant impact on higher education institutions. The epidemic has affected students, their lecturers and non-teaching staff. The University environment provides unique challenges to the students, lecturers and communities. There are data that indicate a high prevalence of risky sexual behaviour among university students in East Africa. These behaviours include multiple sex partnerships, unprotected sex, transactional sex, cross-generational sex and sex for favours such as marks in exams. This has been compounded by peer pressure to conform to the expensive lifestyles associated with the University environment.

In six sub-Saharan Africa countries, studies among sexually active young women showed that the percentage of young people that had recent sex with a person 10 years or older range from 1% in Malawi to 21% in Nigeria. Other surveys indicate that the prevalence of cross-generational sex may even be higher in Uganda. Data from UDHS 2006 indicates that among sexually active young women between 15 to 19 years , 10% of respondents had sex with a male partner at least 10 years or older in the 12 months preceding the survey. This had however declined from 14% in the 2004-05 UAIS. Early initiation of sex was also found to be common. Early onset of sexual intercourse was associated with increased lifetime risk of HIV, STDs and unwanted pregnancy.

There are some interventions in Ugandan Universities to address the risky behaviours that promote HIV transmission in these communities. Mass media campaigns on television, radio, print media and bill-boards have been implemented in some Universities. In some Universities, door-to-door distribution of condoms and HIV awareness activities are

conducted for fresh men and women at the start of every academic year. HIV prevention clubs code named 'Go-Getters Clubs' have been formed to target behaviours such as cross-generational sex. These initiatives are limited and more will need to be implemented to address the HIV/AIDS epidemic in Universities.

1.3 Rationale for the HIV Sero-behavioural Survey for Universities

There is inadequate information on the burden of HIV infection and the risk factors for HIV transmission among University students in Uganda. Data on the status of the epidemic in University populations in the region has been largely anecdotal, or based on limited qualitative and quantitative rapid assessments. While HCT services are available in some university settings, there have been no surveys that provide a linked data set of HIV prevalence and behaviours of University students.

While large-scale national population-based surveys such as the UAIS and UDHS provide national estimates of the HIV/AIDS programme indicators at a national and regional level, they do not provide sub-population data for groups such as University students. Data for these Sub-populations can best be generated from special surveys.

In view of this and because of the impact of HIV/AIDS in University populations in the region, the IUCEA undertook a baseline survey on HIV/AIDS in universities in Uganda. Similar studies were conducted in Kenya and Tanzania. The information generated from this survey will be used to quantify the magnitude of HIV/AIDS and the risk behaviours for HIV transmission in this sub-population. The results of the survey are intended to facilitate the design of targeted interventions to reduce the spread of HIV and STDs spread in institutions of higher learning.

1.4 Objectives of the Survey

1.4.1 General Objective of the survey

The overall objective of this survey was to determine the prevalence of HIV and associated risk factors for HIV transmission among University students in Uganda so as to provide information for planning of interventions for HIV/AIDS prevention and control in University communities.

1.4.2 Specific objectives

The specific objectives were to:

i. Obtain estimates of the magnitude and distribution of HIV among University students in Uganda

ii. Estimate the Knowledge, Attitude, Behaviour and Practices related to HIV/AIDS among University students in Uganda.
iii. Obtain estimates of HIV/AIDS Core programme coverage indicators among University students in Uganda.
iv. Identify existing policies, programmes and services for promotion of Sexual health in Universities in Uganda.
v. Identify gaps in policies, programmes and services for promotion of Sexual health in Universities in Uganda.

2. METHODOLOGY

2.1 Overview of the Process

2.1.1 Survey planning and coordination

The Uganda chapter of the survey was part of a multi-national process that included simultaneous surveys in Universities in the Lake Victoria basin countries, namely Uganda, Kenya and Tanzania. The surveys were therefore preceded by regional level planning meetings that involved a technical team and consultants in the Eastern Africa region. A meeting was held in Nairobi to standardise the study protocols that were being developed by the different countries and develop a common understanding of the key variables of interest to the sponsoring body. Thereafter, the countries went on each to develop a separate protocol.

A team of 3 consultants (Epidemiologist, Public Health Specialist and Social Scientist) from AH consulting was constituted and provided with terms of reference and guidelines for conducting the survey in Uganda. This was followed by a proposal development process.

A National Technical Team (NTT) comprising of members from MOH, UAC, Uganda Bureau of Statistics and Ministry of Education was constituted. The NTT provided technical oversight, guiding the protocol development and survey design, performing quality checks of the data collection procedures and helped in addressing any challenges in the process. Further support and guidance was also provided through review/consultative regional and national meetings with EALP, IUCEA and AMREF. Through these meetings the survey protocol for Uganda was agreed upon and harmonised with those of Kenya and Tanzania.

The survey protocol was reviewed and improved with technical oversight from the National Technical Team of experts on HIV related surveys. It was reviewed and endorsed by EALP, IUCEA. The protocol was presented to the Institutional Review Board and the Science and Ethics Committee of the Makerere University School of Public Health and cleared by the National Council of Science and Technology.

2.1.2 Mobilisation

Since the survey was to involve drawing blood from respondents and collection of sensitive information from individuals, a high level of non response was anticipated. In order to minimise this, a robust mobilisation strategy spearheaded by the universities' administration was used. Prior to start of data collection, EALP/IUCEA met and sensitized the Vice Chancellors of the six Uganda survey Universities together with those from Kenya and Tanzania Universities where similar surveys were to be conducted. Members

of the survey teams visited each of six Universities and sensitized university administrators and students leaders. Various activities were thereafter planned to reach the entire University community to create awareness of the survey and encourage participation. Sensitisation meetings were held with groups of students, brochures and posters were printed and distributed to all the universities and numerous special announcements were made at the different places of worship at the universities for a period of two weeks. The purpose of the survey, its design and implementation, the need for students' participation, issues of confidentiality and reasons for anonymity for HIV testing as well as the benefits to the participants were emphasized. In each of the universities a site coordinator was appointed from the University administration to spearhead the mobilisation and was assisted by a team of Mobilisers who were students' representatives.

2.1.3 Recruitment and training of study team

The members of the data collection team were selected carefully based on clear set of qualifications and prior experience in related activities. A total of 56 members (8 site supervisors, 16 laboratory technicians, 16 counsellors and 16 interviewers) were recruited. The site supervisors were medical officers or social scientists with experience in conducting surveys and HIV related work. The laboratory team comprised of senior laboratory technicians specifically trained and with experience in HIV testing and, persons who had participated in the previous national Sero-Behavioural survey were given preference during recruitment. The counsellors where experienced senior counsellors recruited from HIV programs in both public and private health facilities and their day to day activities involved providing counselling services to clients. The interviewers were social workers and/or social scientists who had previously participated in HIV related studies.

The training of the survey team was held from February 15th to 19th 2010 at Tagy Hotel in Kampala. All the members of the survey team were trained together by a team of trainers from the School of Public Health and the Central Public Health Laboratory. The training consisted of an overview of the survey and its objectives, field protocol and procedures and a detailed description of all the section of the individual respondents' questionnaire and qualitative data tools, and techniques for obtaining consent. A practical session was organised for the trainees to demonstrate the organisation of a field data collection station; its lay out, the requirements and the flow of the respondents. The laboratory technicians were taken through the field process of collection, processing and storage of specimens including packaging for shipment to the UVRI for testing. On the fifth day of the training the members were sub-grouped into 8 study teams each with 7 members (1 site supervisor, 2 laboratory technicians, 2 counsellors and 2 interviews) and the team members were made known to each other.

2.2 Methods

2.2.1 Survey design

The survey utilised a descriptive and cross-sectional design with both qualitative and quantitative data collection methods. A semi-structured self administered questionnaire was used to collect data from a random sample of students selected from each of the six survey Universities. Venous blood was drawn from consenting respondents. Respondents who declined giving venous blood sample were requested to provide a DBS specimen from a finger prick for laboratory testing. Field HIV counseling and testing was offered to respondents who wished to know their HIV sero-status. All the samples were processed and transported to the Uganda Virus Research Institute for HIV testing. Key informant interviews were conducted for administrators, academic staff and non-academic staff using a semi-structured guide. Focus group discussions were also conducted with selected members of students' leaders.

2.2.2 Study sites

The survey was conducted in 6 Universities in Uganda. The Universities were purposively selected from a list of 28 Universities in Uganda. The selection criteria considered the size of population in each university, regional balance and ownership (government, private or faith-based). The selected universities are listed in Table 2-1 below:

Table 2-1: List of Universities selected for the survey

	University	Ownership	Enrolment	% Pop.
1.	Makerere University	Government	37,568	57.7
2.	Kampala International University	Private (For Profit)	7,656	11.8
3.	Uganda Christian University, Mukono	Private (Faith based)	7,175	11.0
4.	Islamic University in Uganda	Private (Faith based)	6,233	9.6
5.	Mbarara University	Government	3,730	5.7
6.	Gulu University	Government	2,753	4.2

2.2.3 Study Population

The study population primarily comprised of students enrolled in the selected 6 Universities (both residential and non-residential). The students were enrolled for the quantitative aspect of the survey that involved administration of a questionnaire to collect information on knowledge, attitude and behavioural data and collection of samples for biomarkers. They also participated in the qualitative aspect of the survey through focus Group discussions (FGDs). Universities' students' enrolment list was used as the sampling frame. The secondary study population comprised of the teaching and non-teaching staff in the selected Universities who were only involved in the qualitative aspects of the study.

The survey enrolled only Students who were in full or part time study for established University Courses during the year. Students who were on a dead year, away from campus

for a period longer than that of data collection, short-term courses or occasional studies not part of the established universities' courses were excluded.

2.2.4 Estimation of Sample Size

Sample size for the quantitative survey: In determining a suitable sample size for the quantitative aspect of the survey, two main issues were considered:

1. A sample size that is adequate to provide stable estimates of the prevalence of HIV in each of the targeted institutions
2. A sample size that would allow comparisons between Universities and stratification for important correlates of HIV infection and risk behaviours within each University

The sample size was therefore determined using the formula for assessment of proportions in cross-sectional studies for random sample procedures (Leslie Kish, 1964). The sample was designed to provide HIV prevalence estimates for each of the six Universities with a sampling error of 2 percent. In estimating the sample size for the survey sample, we used a national HIV prevalence estimate of 6.4 percent established in Uganda AIDS Indicator Survey (2004-05). The following assumptions were made:

- HIV prevalence of 6.4 percent among adults in the general population
- A design effect of 1 since simple random sampling was to be used at all levels of the survey
- An overall minimum response rate of 90% percent to adjust the sample size for non-response
- A precision of $\pm$2%

At 95 percent confidence level, and a sampling error of 10 percent for stratum specific estimates

$$n = \frac{z^2 p(1-p)}{d^2} \; X \; \frac{DEFF}{R}$$

Where z = 1.96 at 95% confidence level,

p=0.064 of 6.4%, the prevalence of HIV/AIDS, and 1-p = 1-0.064

d =*relative standard error* for the individual University estimates

DEFF = Design Effect

r = response rate

$$n = \frac{(1.96)^2 x\ 6.4\%\ (100\text{-}6.4\%)}{[(2\%])^2} \; X \frac{1.0}{90\%}$$

$$n = 639$$

A sample size of 639 students per University was required.

Because of the size of Makerere University compared to other universities, and the need to have sufficient samples to estimate key outcomes in all universities including the smaller universities, each university specific estimated sample size was adjusted guided by the estimated level of coefficient of variance (Cv) of the sub-samples within the overall sample. The adjusted sample sizes and their estimated Coefficients of Variance (Cv) are presented in table 2-2:

Table 2-2: Universities specific samples and their estimated Cvs

University	n1	Cv with de of 1
Makerere	850	13.90%
KIU	650	16.02%
UCU	620	16.27%
IUIU	630	16.54%
Mbarara	520	18.02%
Gulu	500	18.12%
Total	**3,710**	**6.65%**

Sample Size for the Qualitative Assessment: In each of the six universities, a total of 5 Key Informants were interviewed. They included: Two University administrators (one involved in policy formulation and the other in charge of student's welfare), one in-charge of the University Infirmary, one Students' leader and one senior teaching staff from a faculty.

In addition, a total of four FGDs were conducted in each University, two for female students and the other two for male students. Each FGD comprised of a homogenous group of 8 students' representatives purposively selected from students' leaders.

2.2.5 Sampling Procedures and Field Recruitment of Respondents

In each University, a complete electronic list of all the students enrolled in the University who were registered by the end of the 1st Semester of academic year 2009/10 was obtained from the Academic Registrars' offices. From these lists, computer based simple random sampling was conducted to generate the required sample for each University. The selected sample was sorted by faculty, course and year of study to ease location of the selected respondents. The sorted lists of sampled students were passed on to the Site Coordinator spearheading the mobilisation who worked with students' representatives and Mobilisers to trace each of the selected individual students during data collection.

During data collection a student on the sampled list was approached by the Mobilisers and notified that he/she had been randomly selected to take part in the survey and if she/he was willing to take part, he/she was requested to report to the data collection station in the University. A coupon was given to student to present to the study team as a confirmation

that the person turning up at the station is the sampled student but also to take a note of those that had turned up.

2.2.6 Data Collection Tools

Individual self administered questionnaire, Key Informant Interview Guide and Focus Group Discussion Guide were used in the survey. The content of the questionnaire was an adaptation of the model AIDS Indicator Survey questionnaires developed by the MOH and the Measure DHS programme but with significant modification of the measurements to capture HIV/AIDs related issues relevant or unique to University settings. The questionnaire collected basic information on characteristics of each respondent (age, sex, education, media exposure, employment, and religion.), reproductive history, status of guardianship and sponsorship, living arrangements and economic characteristics, short and long distance mobility. The questionnaire also collected information on knowledge about HIV/AIDS and exposure to specific HIV-related mass media programmes, attitudes towards people living with HIV/AIDS, knowledge and experience with HIV testing, knowledge and symptoms of other sexually transmitted infections (STIs) and male circumcision.

The survey tools were pre-tested on a group of students from Kyambogo University one week before the actual data collection. A team of 3 interviewers, 3 counsellors and 3 investigators conducted the pretesting at Kyambogo University. A total of twenty individual self administered questionnaires were completed by a group of students. The issues that were raised and lessons learnt from the pre-test exercise were used to adjust the tools and organised them in a logical manner.

2.2.7 Data Collection

2.2.7.1 The Behavioural Questionnaire

Data collection started on February 23, 2010 and lasted for a period of one month. Each University had one team with 7 members except Makerere which had 3 teams because of its size. Survey teams created data collection stations at each University in a centrally located place. At each University the site coordinator and the mobilisers recruited the respondents. Mobilisers used the sorted list of sampled students to locate study participants and requested them to participate in the survey. Sampled respondents who were not located on first attempt the recruiters made three call backs to trace them. When a sampled student turned up at the data collection station the interviewer explained in detail the process and upon consent a questionnaire was given out to be filled. The interviewers provided clarification on questions that were not clear to the respondents and checked for completeness of the questionnaire before the respondent was sent to the next point for blood sample draw. Completed data collection forms were logged in and appropriately labelled with a bar-code and handed over to the team leader by the

interviewers. The team leader also reviewed the questionnaires for completeness and keep them in a secured place for shipment to the survey offices at the AH Consulting Offices.

2.2.7.2 Field Specimen Collection, Processing and Storage

A temporary field laboratory with vacutainer needles and tubes, gloves, alcohol swabs HIV rapid test kits, cold boxes, centrifuge, pipettes, bio-hazard bags, filter paper and containers for sharps was set up at each data collection station. As part of the informed consent for the blood draw, the laboratory technicians explained the procedure, the fact that the equipment was clean and sterile, the confidentiality of the data, the tests to be performed on the blood sample and the fact that HIV testing for the sero-survey was anonymous. The respondents were also reminded that they could be tested for HIV status and results given the same day if they so wished.

From the respondents who consented for the blood draw, 4mls of venous blood were drawn with a vacutainer needle into a vacutainer tube with an anti-coagulant. A Dry Blood Spot was immediately prepared from the sample and part of the sample used to run an HIV rapid test for respondents who wished to know their HIV sero-status. The different parts of the sample were labelled with bar codes of the same anonymous survey number. The sample in the vacutainer tube was kept at room temperature overnight. Each morning before starting work plasma was separated and put in cryo-vials and kept in a deep freezer at a temperature of -20^0C for three day prior to transportation to UVRI. The DBSs were dried overnight in a box and stored at ambient temperature separated by glassine paper in zip-lock bags with desiccants.

The blood samples (plasma and DBSs) were retrieved from the field every 3 days and transported to UVRI in cold boxes. The samples were transported with a specimen transport form that indicated the bar code IDNO of the specimens and the total number of specimens in the cold box and the DBSs.

2.2.7.3 Specimen handling and HIV testing at the reference laboratory

Official testing for the HIV status of samples was conducted at the Uganda Virus Research Institute (UVRI) using standard procedures for sample handling and testing. Samples received at UVRI were checked against the specimen shipping forms after which they were registered electronically using a bar code reader. The HIV testing for the purpose of determining HIV prevalence for the survey was conducted at the Uganda Virus Research Institute. A sequential HIV testing algorithm was used consisting of the screening test MUREX 1.2.0 ELISA. Tests that were positive on Murex were re-tested using VIRONOSTIKA UNIFORM II plus o-ELISA. Discordant results were first re-tested through the same algorithm and if repeatedly discordant were tested on Western Blot. The residual samples after primary testing were kept in the laboratory at -70^0C for future testing of other biomarkers yet unspecified.

2.2.7.4 Quality control

All HIV-positive samples and 5% of negative samples were retested by the CDC laboratory in Entebbe using the same testing algorithm for quality assurance.

2.2.7.5 Field HIV Voluntary Counselling and Testing

Respondents who wanted to know their HIV sero-status were tested and results given on the same day. The counsellors provided pre-test counselling to the respondents before drawing blood. The laboratory technicians run a rapid HIV test on part of the collected sample following the standard Uganda Ministry of Health HIV rapid testing algorithm (Screening-Determine, Confirmatory-Stat-Park and Tiebreaker- Unigold). The samples that tested negative on the Abbot Determine test were given as negative while for samples which tested positive on Determine, a confirmatory test was run with Stat-pack and if they were still positive the results were given to the respondent as positive. Discordant results with Determine and Stat-pack, were subjected to a tiebreaker test (Unigold) and if the results were positive with the 'tie-breaker', they were given as positive while negative results with the 'tie-breaker' were provided to the respondent as negative. The laboratory technician sent the final field test results using a blinded test results card to the counsellor who gave out the results and post test counselling to the respondent upon presenting a corresponding coupon with a corresponding survey number. Respondents that tested HIV-Positive were referred for HIV support, care and treatment within the University health facilities or nearby service providers according to the respondent's choice.

2.2.7.6 Collection of Qualitative Data

Qualitative data was collected through Key Informant Interviews and Focus Group Discussions in each of the respective universities. These activities were conducted by the Site Supervisors, after the end of the quantitative surveys. The moderators recorded the proceedings and later transcribed them into written text. They were assisted in moderation of the sessions by the respective student leaders within the universities.

2.2.8 Handling of Medical Waste

Infection control and standard medical waste handling procedures were strictly observed. The generated wastes were properly segregated, bio-hazard medical wastes collected at the site and delivered to the incinerators where they were destroyed according to recommended and acceptable measures of disposing of medical wastes.

2.2.9 Data Management

At the time of Data Collection, each individual received a unique bar-code at the time they completed the questionnaire. This bar code was assigned by the laboratory team and attached to the questionnaire and to their blood samples. All questionnaires were transported from the field and safely stored at the AH Consulting offices. The

questionnaires were stored sorted by University, and were later serialised in ascending order of their codes.

A data entry interface was created, and a team of 6 data entrants entered the data using SPSS for Windows Version 17. A process of dual data entry was used, in which the team was split into two sub-teams and each entered the same set of data. Thereafter, frequencies were run for all the variables and the data was cleaned by assessing for inconsistencies in the outputs from the two data sets and resolving them by referring to the respective serialised questionnaires. Logic checks were conducted for a few key responses that were expected to be conditional.

2.2.10 Data Analysis

The cleaned data was exported to Microsoft Access and Stata 10 (Standard Edition). Analysis was done mainly using SPSS for Windows Version 17 and Stata 10. Categorical variables were analysed for counts, frequencies and proportions, while numerical data was analysed for measures of central tendency. Some key numerical variables like age, distance and time were re-categorised into logical categories and analysed for frequencies. Key outcome variables were identified and cross-tabulated with a set of background and behavioural variables to assess for associations. No multivariable analysis has been conducted.

2.2.11 Ethical Considerations

Participation in the study was voluntary, after full informed consent and respondents had the liberty to discontinue themselves from participation. All respondents received full explanation of the merits and demerits of the procedures. All respondents were issued with a unique numerical identifier in form of a Bar code. This was attached to their questionnaire, and later to their blood samples without reference to the list of sampled students. Those who wished to know their result in the field were issued with a voucher on which their numerical code was attached. Results were only disclosed to them when they presented this voucher, a few minutes after the testing had been conducted.

All respondents received pre and post test counselling before and after the HIV testing. There were a few ethical challenges that arose: three of the respondents were psychologically traumatised after receiving their test results; one of them initially rejected the results. A retesting was done that produced the same results. The other two reported that they had never had sexual intercourse. They underwent extensive counselling, and were given daily appointments for further counselling over the period of data collection; thereafter, they were referred to agencies involved in HIV related social support.
Telephone numbers were provided for the Principle Investigators and students that needed further information would call in and receive guidance. Overall the study had minimal ethical dilemmas.

3. BACKGROUND CHARACTERISTICS OF RESPONDENTS

Summary of Key Indicators

No.	Indicator	Status
1	General response rate to the Questionnaire	100.2%
2	General response rate for HIV Testing	96.3%
3	Percentage of University students aged 20 to 24 years	82%
4	Percentage of International students in Ugandan Universities	7%
5	Percentage of students on Undergraduate programmes	89%
6	Percentage of students who enter through regular entry	91%
7	Percentage of students on Arts Courses	67%
8	Percentage of students with no surviving biological parent	8%
9	Percentage of students on Private Sponsorship	74%
10	Percentage of students that are resident on campus	28%
11	Percentage of students who acknowledge receiving adequate funds for personal upkeep while at the university	34%
12	Percentage of students with a regular job	16%
13	Percentage of students involved in irregular jobs	25%
14	Percentage of students with a mobile phone	89%
15	Percentage of students with a Radio	46%
16	Percentage of students with a TV	28%
17	Average distance to university for non-resident students	3 Km
18	Percentage of non-residents residing within 5 Kilometers of University	93.5
19	Proportion of students with frequent short distance mobility	26%
20	Proportion of students with frequent long distance mobility	25%
21	Average number of times that students go out for parties in a month	3 times
22	Average number of nights spend away from place of residence in a month	2
23	Percentage of students who take alcohol	25%
24	Among students who take alcohol, percentage taking it more than five times in a month	20%

3.1 Response Rate to the Questionnaire and HIV Testing

The overall response to the survey was assessed at two levels: Whether a sampled student respondent to the questionnaire and whether they responded to the questionnaire and also provided a blood sample. A few blood samples that were provided were not adequate for the laboratory analysis. However, all samples were backed up by a DBS sample and therefore all respondents who provided a blood sample had a laboratory result. These findings are summarised in Table 3-1.

Table 3-1: Response to behavioural questionnaire and HIV Testing

	Expected Sample Size	Responded to questionnaire			Responded to questionnaire and provided a sample that was valid	
		No	Response Rate	% of total sample	No	%
Gulu	500	496	99.2	13.3	494	98.8
IUIU	630	620	98.4	16.7	615	97.6
KIU	650	643	98.9	17.3	635	97.7
Makerere	850	845	99.4	22.7	806	94.8
Mbarara	520	515	99.0	13.9	479	92.1
UCU	620	599	96.6	16.1	553	89.2
Total	**3770**	**3718**	**98.6**	**100**	**3582**	**95.0**

Overall response to the questionnaires was good, ranging from 99.4% response in Makerere University to 96.6% response in Uganda Christian University in Mukono. Overall response to the behavioural questionnaire was 98.6%. The main reason for non-response to the behavioural survey was the fact that some students were not traceable for the entire duration of the survey. One of the key challenges found was that some universities did not have an up-to-date nominal role showing currently registered students.

On the other hand, overall acceptance to provide a blood sample was lower than acceptance to fill the behavioural questionnaire and it averaged 95% for all universities. The highest non-response to provision of a blood sample was observed in Uganda Christian University where about 10% of the students that responded to the questionnaire declined to provide a blood sample, which lowered the real response rate in that university to 89%. Otherwise, all other universities had a response rate above 90%. These response rates compare favorably with the national requirements for such surveys to have at least 90% response.

The main reason for the good overall response was the intense mobilization and preparatory activities conducted in each of the targeted universities. In each university, the study team discussed with the university administrators the most appropriate strategy for mobilization and student peer mobilisers were used to trace and account for each student on the list of sampled students.

3.2 Background Characteristics of Respondents

In this section the background characteristics of the respondents sampled in the HIV Sero-behavioural Survey for Universities in Uganda are presented. These are discussed in 6 main categories including: Demographic characteristics (age, sex and religion), country or origin and citizenship, academic characteristics (respondents' year of study, classification of course undertaken, qualification pursued and nature of entry), respondents'

guardianship and sponsorship, living arrangements of respondents, and economic characteristics of the students. They are presented in form of proportions that show percentage distribution of these characteristics among students. The characteristics are presented by university, to provide a basis for assessing characteristics that differ across universities.

3.2.1 Demographic Characteristics of Respondents

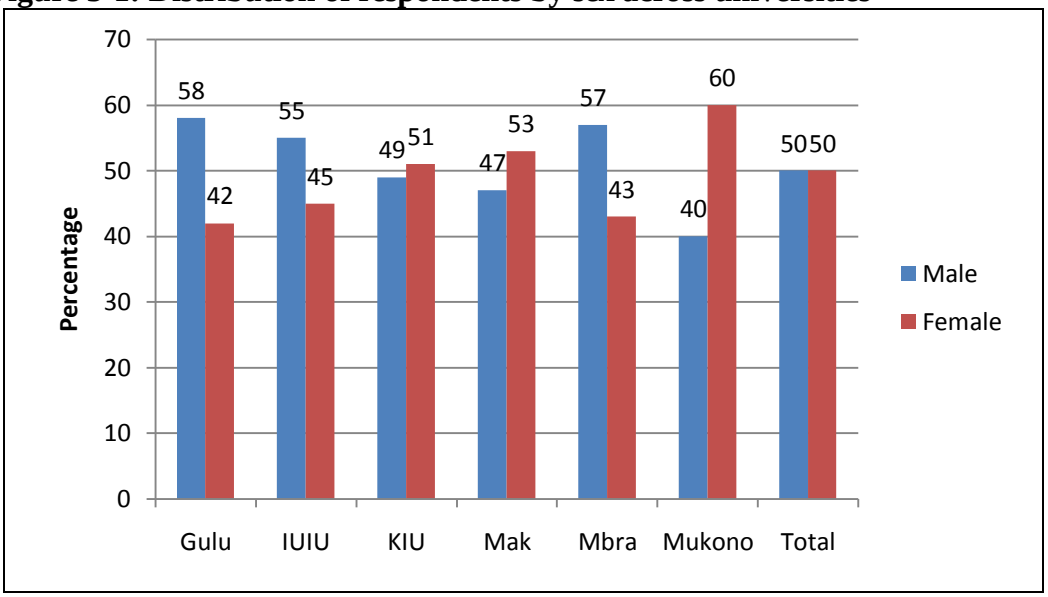
Table 3-2 shows the distribution of the HIV Sero-Behavioural Survey for Universities respondents by sex, age group and religion across the six survey universities.

Table 3-2: Distribution of respondents' sex, age and religion across universities

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
	n= 496	n= 620	n= 643	n= 845	n= 515	n= 599	n=3718	
	%	%	%	%	%	%	No	%
Sex	n=496	n=620	n=643	n=845	n=515	n=599	n=3718	100
Male	58.1	54.8	49.1	47.1	56.6	40.1	1874	50.4
Female	41.9	45.2	50.9	52.9	43.4	59.9	1844	49.6
Age	n=496	n=620	n=643	n=844	n=514	n=599	n=3716	
15-19	0.8	1.6	1.1	3.1	3.3	1.3	71	1.9
20-24	78.0	79.2	75.1	83.9	87.9	87.0	3043	81.9
25-29	13.5	11.6	19.0	11.4	7.8	8.3	447	12.0
30-34	5.2	3.5	2.8	1.2	0.8	1.5	89	2.4
35-39	1.6	1.6	1.1	0.4	0.2	1.5	38	1.0
40 and Over	0.8	2.4	0.9	0.1	0.0	0.3	28	0.8
Mean Age	23.5	23.7	23.5	22.4	22.2	22.6	n=3716	23.0
Religion	n=495	n=617	n=617	n=841	n=513	n=594	n=3677	
Catholic	46.7	12.6	30.1	30.3	37.6	22.9	1079	29.3
Protestant	29.9	18.0	37.1	36.3	38.2	52.9	1303	35.4
Evangelical	18.6	7.3	17.2	19.6	14.8	18.9	596	16.2
Other Christian	1.2	1.0	6.2	2.3	1.9	1.7	89	2.4
Moslem	3.0	60.9	8.1	10.3	6.8	2.9	580	15.8
Traditional	0.0	0.0	0.2	0.1	0.0	0.0	2	0.1
None/Other	0.6	0.2	1.1	1.1	0.6	0.9	28	0.7

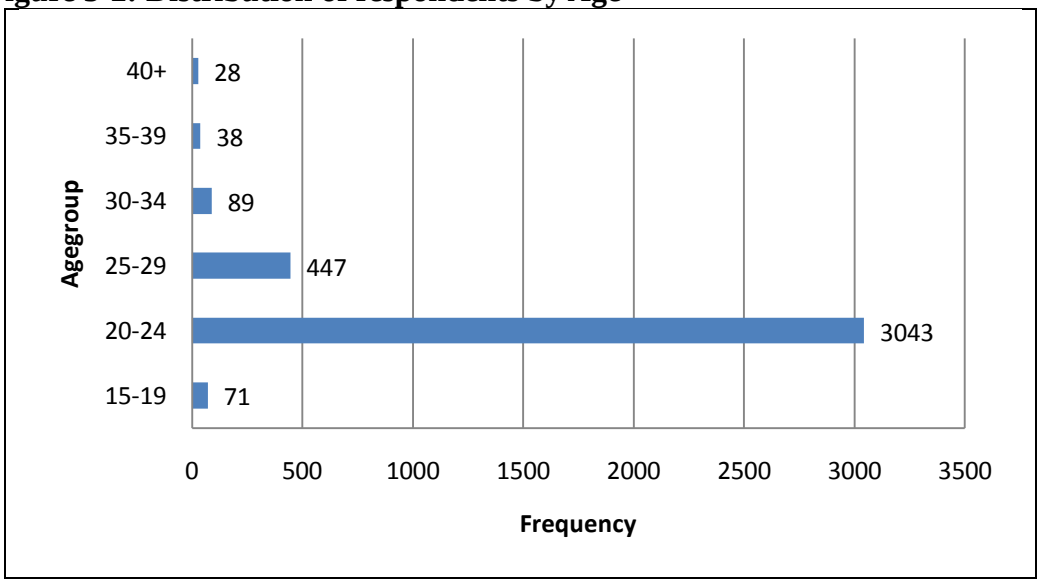
Sex Distribution of Respondents: The sex distribution of respondents in the overall sample was almost equal, with 50.4 percent of respondents being male and 49.6 percent being female. The proportion of male respondents was higher in Gulu, Islamic University and Mbarara Universities. However, the proportion of female respondents was higher in Kampala International University, Makerere University and Uganda Christian University. The almost equal sex distribution of respondents could be a reflection of the recent university admission policies that promote affirmative action is admission of female students.

Figure 3-1: Distribution of respondents by sex across universities



Distribution of respondents by Age: Across the six universities the majority of respondents were in the age group 20 – 24 years (82 percent of university students). The mean age of respondents was 23 years.

Figure 3-2: Distribution of respondents by Age



Distribution of respondents by other demographic characteristics: With regard to religion the most predominant religious denominations are presented in figure 2. Overall, Protestants constituted 35 percent of respondents, Catholics 29 percent while Muslims and Evangelicals each constituted 16 percent. The distribution of the religious denominations is close to what has been observed in other national surveys. The wide variation in the

distribution of religious denominations observed in IUIU and UCU is possibly a result of the religious affiliation of the two institutions.

3.2.2 Country of origin and Respondents' Home

Table 3-3 shows the percentage distribution of respondents' citizenship and home region in case of Ugandan citizens by participating university. Respondents are also re-categorized as either Ugandan or Non-Ugandan to show the distribution of international students in the universities. The table also shows the percentage distribution of the type of respondents' home (whether it is urban, semi-urban or rural.

Table 3-3: Distribution of respondents' Country of origin and type of residence

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
	%	%	%	%	%	%	No	%
Citizenship	n=491	n=616	n=636	n=833	n=509	n=585	n=3670	
Uganda	99.6	93.5	81.1	93.0	98.8	97.1	3427	93.4
Kenya	0.4	4.4	12.4	6.0	0.6	1.7	171	4.7
Tanzania	0.0	1.0	2.8	0.2	0.4	0.3	30	0.8
Rwanda	0.0	0.5	1.1	0.2	0.2	0.3	15	0.4
Burundi	0.0	0.0	0.2	0.0	0.0	0.0	1	0.0
Other African	0.0	0.6	2.4	0.4	0.0	0.5	25	0.7
Outside Africa	0.0	0.0	0.0	0.1	0.0	0.0	1	0.0
Ugandan citizenship	n=491	n=616	n=636	n=833	n=509	n=585	n=3670	
Ugandan	99.6	93.5	81.1	93.0	98.8	97.1	3427	93.4
Non-Ugandan	0.4	6.5	18.9	7.0	1.2	2.9	243	6.6
Region if Ugandan	n=489	n=574	n=513	n=778	n=508	n=569	n=3431	
Central	12.3	20.4	21.8	38.0	17.9	20.6	793	23.1
Western	13.3	8.4	36.8	29.2	64.4	33.6	1047	30.5
Eastern	14.5	63.1	26.5	22.9	10.8	30.9	978	28.5
Northern	59.9	8.2	14.8	9.9	6.9	14.9	613	17.9
Residence (Home)	n=492	n=610	n=631	n=837	n=510	n=583	3663	
City/Municipal	25.6	23.3	18.9	22.1	23.7	23.0	827	22.6
Town Council	34.8	37.5	45.5	46.0	28.8	51.1	1517	41.4
Trading Centre	12.6	13.1	12.7	11.4	13.9	9.9	446	12.2
Rural	27.0	26.1	23.0	20.5	33.5	16.0	873	23.8

A large proportion of respondents (93.4 percent) were Ugandan. However all the 5 East African Community countries are represented but numbers for other countries were minimal across the universities. Five percent of respondents were Kenyan while the rest of the countries had less than 1 percent. Looking at the representation of other countries out of the East African Community, less than 1 percent of the respondents were coming from other African countries while there was only one respondent whose home country was outside Africa. In total 7 percent of the respondents were non- Ugandans.

Kampala International University (KIU) had the largest proportion of students from outside Uganda. 12% of the students in KIU were Kenyans, 3% were Tanzanian, 1% was Rwandan and 2.4% were from other African countries. This distribution shows that Kampala International University has reasonable mixing of local and international students. Kampala International University was followed by Makerere University, which had 7% of respondents coming from countries outside Uganda. The majority were Kenyans (6% of respondents). Islamic University in Uganda (IUIU) also had a significant proportion of respondents from outside Uganda (6.5%) (4.4% of respondents from IUIU were Kenyans)

Among Ugandan respondents, the majority (31 percent) came from Western Uganda closely followed by Eastern Uganda while Northern Uganda had the least (17 percent). It is worth noting that there was a difference in distribution of respondents according to their regions of origin across the universities with universities in given regions having predominantly respondents coming from those regions especially for Gulu, IUIU and Mbarara universities. However, the three Universities located in the Central region (KIU, Makerere and UCU) do not have an outstanding tendency for admitting students from a particular region. The majority of the respondents reside in Town councils (41%), while about a quarter of students reside in rural homes. One fifth of students reside in Municipalities or cities.

3.2.3 Academic characteristics of respondents

In Table 3-4, the academic characteristics of the respondents are described by their year of study, time spent at the university, nature of entry, qualification pursued and category of course taken. Majority of the respondents were in their first academic year of study and the proportion decreased as the year of study increased in all the universities. The proportions of respondents in the different years spent at the university corresponded with those of similar year of study an indication that most students have normal academic progress.

The vast majority of respondents (89 percent) were undergraduate students and certificate or diploma, postgraduate students constituted only 11 percent of respondents. The proportion of respondents on regular entry was significantly higher than those from indirect or mature entry schemes which is a reflection of the commonest mode of entry into most universities. Besides Mbarara, about two thirds of the respondents were enrolled on Arts programs compared to the Science programmes. In Mbarara about 60% of respondents were on Sciences programmes. The observed variation of Mbarara is due to the fact that it predominantly offers science courses. In Uganda Christian University, over 80% of students are on Arts programme, representing the highest proportion of Arts students. These findings are summarised in table 3-4:

Table 3-4: Academic characteristics of respondents

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
	%	%	%	%	%	%	No	%
Year of study	n=492	n=618	n=640	n=843	n=511	n=596	n=3700	
1st	47.0	51.3	35.5	45.4	47.9	23.2	1541	41.6
2nd	32.5	26.1	38.3	24.3	28.6	38.6	1147	31.0
3rd	19.5	21.7	23.4	25.3	17.4	31.4	869	23.5
Over 3	1.0	1.0	2.9	5.0	6.0	6.9	143	3.9
Years spent at University	n=492	n=618	n=549	n=803	n=509	n=533	n=3412	
1	45.2	47.8	33.9	42.0	47.9	25.1	1375	40.3
2	32.9	24.2	37.2	24.7	28.5	31.5	1004	29.4
3	19.4	24.2	24.2	26.7	17.3	32.6	832	24.4
Over 3	2.5	3.8	4.7	6.7	6.3	10.7	201	5.9
Qualification pursued	n=485	n=602	n=631	n=837	n=503	n=583	n=3641	
Certif./Diploma	6.4	7.8	15.5	5.6	8.2	3.4	284	7.8
Undergraduate	93.0	82.9	80.2	92.4	90.9	94.0	3234	88.8
Postgraduate	0.6	9.3	4.3	2.0	1.0	2.6	123	3.4
Nature of Entry	n=468	n=569	n=599	n=786	n=477	n=552	n=3451	
Regular Entry	87.6	88.8	90.8	91.9	94.5	94.0	3151	91.3
Diploma Entry	11.5	8.6	7.7	6.1	4.4	4.2	241	7.0
Other	0.9	2.6	1.5	2.0	1.0	1.8	59	1.7
Course taken	n=487	n=611	n=637	n=838	n=514	n=595	n=3682	
Arts	65.1	77.3	73.0	61.9	40.3	81.2	2463	66.9
Sciences	34.9	22.7	27.0	38.1	59.7	18.8	1219	33.1

3.2.4 Guardianship and Sponsorship of students

Characteristics of main guardian

Because of the socio-economic challenges that affect education in Uganda, the status of a students' guardianship is an important part of their academic life. Table 3-5 shows the distribution of guardianship of the respondents and some of their characteristics.

Across the universities, the majority (67 percent) of the respondents had both their biological parents alive, while one quarter of respondents had one biological parent alive. About 8% of students had none of their biological parents alive. The proportion of students with one parent was higher in Gulu University compared to other universities.

Across the universities, about 80% of students are supported by biological parents as the main guardian. However, about 13% of students are looked after by an adopted parent, while 3% are looked after by their spouse. With regard to the sex of the main guardian, about two thirds had male guardians. In addition, over 95% of respondents' guardians were over 30 years of age. Many of the guardians are professionals (23 percent), salaried workers (24 percent) or involved in subsistence agriculture (20 percent). Petty businesses

account for 12 percent of the guardian's occupation with a very small proportion doing other occupations.

Table 3-5: Distribution of characteristics of main guardian of respondents

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
	%	%	%	%	%	%	No	%
Biological parents alive	n=490	n=612	n=637	n=840	n=515	n=596	n=3690	
Both alive	59.8	70.4	69.5	67.9	65.2	66.4	2469	66.9
One alive	30.4	22.2	25.7	22.7	25.0	25.8	923	25.0
None alive	9.8	7.4	4.7	9.4	9.8	7.7	298	8.1
Relation to guardian	n=475	n=600	n=621	n=834	n=509	n=578	n=3617	
Biological parent	77.9	80.5	78.3	80.9	76.4	82.9	2882	79.7
Adopted parent	14.5	9.5	12.6	15.0	17.9	10.9	483	13.4
Spouse	3.8	5.3	3.9	0.6	1.6	2.9	104	2.9
Boy /girl friend	0.2	0.3	0.3	0.1	0.0	0.2	7	0.2
Casual Friend	0.0	0.5	0.5	0.1	0.6	0.3	12	0.3
Family Friend	1.1	0.5	1.3	0.6	0.6	0.9	29	0.8
Employer	0.0	0.5	0.8	0.0	0.0	0.0	8	0.2
Charity	0.6	0.3	0.8	0.1	0.6	0.2	15	0.4
Religious minister	0.2	0.5	0.5	0.1	1.0	0.5	16	0.4
Politician	0.0	0.0	0.5	0.0	0.0	0.0	3	0.1
Other	1.7	2.0	0.6	2.4	1.4	1.2	58	1.6
Sex of main guardian	n=468	n=578	n=591	n=800	n=497	n=556	n=3490	
Male	60.7	74.4	67.5	64.5	72.2	68.0	2366	67.8
Female	39.3	25.6	32.5	35.5	27.8	32.0	1124	32.2
Age of main guardian	n=469	n=580	n=599	n=821	n=509	n=565	n=3543	
Below 20 years	0.2	0.5	0.3	0.6	0.8	0.5	18	0.5
20 to 30 years	4.7	5.3	7.7	4.4	3.9	3.0	172	4.9
30 to 60 years	76.1	76.4	77.8	80.9	74.5	86.7	2799	79.0
Above 60 years	19.0	17.8	14.2	14.1	20.8	9.7	554	15.6
Guardian's Occupation	n=474	n=600	n=619	n=828	n=510	n=576	n=3607	
Professional	16.7	18.8	21.5	24.4	23.1	33.2	836	23.2
Salaried work	23.8	18.8	27.0	26.2	22.0	26.9	877	24.3
Commercial agric.	2.3	4.8	6.0	4.5	4.5	2.8	153	4.2
Subsistence agric.	31.9	24.7	17.0	15.5	24.9	12.5	731	20.3
Petty business	11.0	15.7	12.0	11.1	11.4	7.8	415	11.5
Large business	3.2	8.3	8.4	9.1	7.1	7.3	270	7.5
Casual labour/Barter	2.3	1.5	1.0	2.7	1.6	0.9	61	1.7
Technician /Artisan	1.9	1.3	1.3	1.1	1.8	1.0	49	1.4
Other	5.7	5.2	5.2	5.0	3.3	6.8	187	5.2
Do not know	1.3	0.8	0.8	0.6	0.4	0.9	28	0.8
Sponsorship Type	n=484	N=595	n=619	n=836	n=511	n=579	n=3624	
Government	32.9	1.2	2.4	19.4	33.5	0.7	518	14.3
Private scholarship	9.9	10.8	18.9	6.7	4.1	12.8	380	10.5
Private no scholarship	56.6	86.6	76.4	73.4	61.4	85.8	2687	74.1
Other	0.6	1.5	2.3	0.5	1.0	0.7	39	1.1
Supported by others	n=449	n=553	n=592	n=811	n=488	n=543	n=3436	
Yes	53.9	52.1	52.5	56.7	54.3	51.0	1843	53.6
No	46.1	47.9	47.5	43.3	45.7	49.0	1593	46.4

Other sponsors of the respondent

Survey respondents were asked who their main sponsors were with regard to payment of university tuition and other academic fees. The results in Table 3-5 show that overall 74

percent of students are privately sponsored with no scholarships. The relatively big proportion of respondents on government sponsorship in Gulu, Makerere and Mbarara is due to the fact that these are public universities while IUIU, KIU and UCU are fully private. The proportion of students on Government sponsorship was highest in Mbarara University (34%) and Gulu (33%). In Makerere, 19% of the students were Government sponsored. However, even the private universities had a small proportion of Government sponsored students (1.2% in IUIU, 2.4% in KIU and 0.7% in UCU). About 50 percent of the respondents across all the universities received additional support from elsewhere other than from their main guardian and is an indication that most students have more than one source of support.

Table 3-6 further presents the nature of other entities that support the students while at university. Relatives (26 percent) and biological parents (20 percent) stand out as the most frequent sources of alternative support for students. Only 8 percent of the respondents support themselves for their studies. It is important to note that about 4% of students are supported by a casual friend.

Table 3-6: Nature of other entities that support students

Nature of other entities that support student	No n=3718	%
Self	312	8.4
Biological parent	743	20.0
Adopted parent	66	1.8
Relative	970	26.1
Spouse	75	2.0
Boy/girl friend	89	2.4
Casual Friend, Male	64	1.7
Casual Friend, Female	45	1.2
Family Friend	98	2.6
Employer	28	0.8
Charity	70	1.9
Religious ministry	47	1.3
Political office	20	0.5
Bursary	56	1.5
Other	30	0.8

3.2.5 Students' living arrangements

Places where students live and the ways they have meals were considered to be influential to their day today behavior. The living arrangements of respondents were therefore assessed with regard to whether a respondent was residing in or outside the university campus and their usual way of obtaining food while at the university.

The results in Table 3-7 show that apart from IUIU which has close to 72 percent of the respondents residing in university halls, the rest of the universities had about three

quarters of respondents residing outside the university premises. This is possibly explained by the earlier finding that the majority of students were privately sponsored and most of them are not accommodated in halls of residence within the universities. A significant number of respondents residing in hostels were in hostels not accredited by the universities.

Since most of the students are privately sponsored and not residing in university halls of residence it is not surprising that 73 percent of the respondents never eat university food and a significant number of them either cook or eat from a restaurant most of the time.

More than three quarters of the respondents in almost all the universities are sharing their rooms with another person. However, it was also noted that on average six percent of the respondents share a room with a room-mate of the opposite sex.

Table 3-7: Characteristic of living arrangements of respondents

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
	%	%	%	%	%	%	No	%
Residency status	n=483	n=561	n=629	n=830	n=508	n=573	n=3584	
University Hall	1.9	70.6	6.4	13.3	18.3	26.5	800	22.3
Within campus, not hall	9.1	1.1	6.8	4.8	3.0	6.8	187	5.2
At home with guardian	12.6	10.0	18.9	19.4	11.2	3.8	477	13.3
With relative	3.9	2.7	6.4	5.2	6.3	1.4	157	4.4
Hostel, accredited	24.4	7.1	10.0	14.6	13.8	14.1	493	13.8
Hostel, not accredited	27.5	0.7	18.8	26.6	18.1	35.8	773	21.6
Own apartment/room	2.9	1.6	9.9	2.9	5.5	3.0	154	4.3
Rented quarter	15.9	5.5	22.1	12.5	23.4	7.7	514	14.3
Other	1.7	0.7	0.8	0.6	0.4	0.9	29	0.8
Eats university food	n=475	n=587	n=625	n=835	n=504	n=588	n=3614	
Daily	4.6	22.5	6.6	11.6	13.9	39.1	592	16.4
Few times a week	1.3	7.2	2.1	6.9	4.8	6.6	182	5.0
Few times a month	0.2	3.2	0.6	0.6	1.0	1.5	43	1.2
Few times a term/sem.	0.8	10.4	2.6	2.2	3.8	6.0	153	4.2
Never	93.1	56.7	88.2	78.7	76.6	46.8	2644	73.2
Cooks for self	n=476	n=577	n=613	n=814	n=504	n=577	n=3561	
Daily	43.1	14.6	57.3	29.5	30.0	19.4	1143	32.1
Few times a week	24.6	9.7	18.3	21.0	24.0	21.5	701	19.7
Few times in a month	6.1	4.2	2.1	7.4	8.1	3.8	189	5.3
Few times a term/sem.	6.1	6.1	5.9	9.2	12.3	8.3	285	8.0
Never cooks	20.2	65.5	16.5	32.9	25.6	47.0	1243	34.9
Eating from restaurant	n=486	n=608	n=630	n=834	n=508	n=578	n=3644	
Daily	23.9	54.4	19.7	26.7	26.0	21.5	1050	28.8
Few times a week	29.4	19.9	29.4	31.3	29.9	27.2	1019	28.0
Few times in a month	8.0	5.1	15.6	12.2	11.0	13.8	406	11.1
Few times a term/sem.	21.8	13.5	24.3	18.7	20.5	22.1	729	20.0
Never	16.9	7.1	11.1	11.0	12.6	15.4	440	12.1
Has any room-mates	n=408	n=532	n=490	n=645	n=444	n=474	n=2993	
Yes	67.2	94.0	67.3	87.4	77.3	59.7	2294	76.6
Has any opposite sex room-mate	n=467	n=585	n=602	n=802	n=490	n=560	n=3506	
Yes	5.6	5.0	9.2	6.7	5.3	3.0	207	5.9

3.2.6 Economic characteristics of students

3.2.6.1 Adequacy of funds for students' subsistence

Since the majority of students in tertiary institutions are dependent on guardians and other entities, the economic characteristics of students are an important aspect of their day-to-day life at the university. Student' economic characteristics were assessed with regard to the level of funding support they receive for their day-to-day living costs and requirements as they undertake their studies. Findings on adequacy of funding support for living expenses, priority expenditures in an academic term, regular and non-regular employment participation and personal possessions are presented in this sub-section.

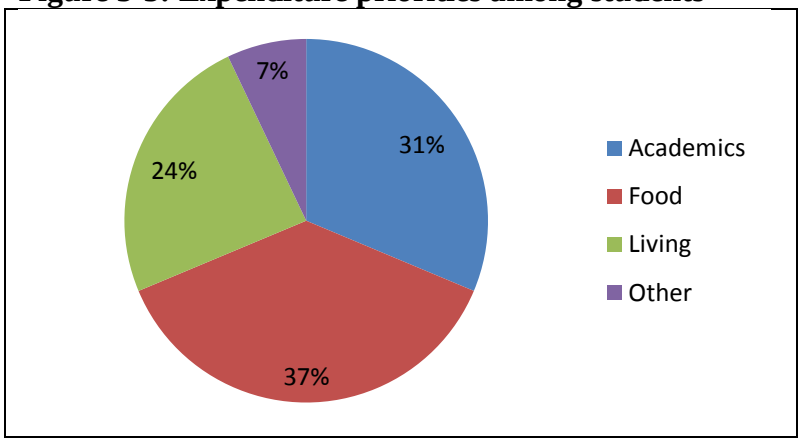
Funding support and Expenditures: Lack of sufficient funds for upkeep of students at the university may directly or indirectly affect social behaviors of university students. Funding gaps were assessed by asking each respondent to give estimates of money needed for upkeep in a semester, money actually received from the guardian and from other sources. The funding gap for each respondent and the average amount of the funding gap of the respondents for each university were computed. Generally the results in Table 3-8 show a relatively small funding gap for students' living expenses, ranging from 0 Uganda Shillings in IUIU to an average of 77 thousand Uganda Shillings in Mbarara University. Interestingly, students in Public Universities tended to have a larger funding gap on average, when compared to students in private universities.

Expenditure patterns and priorities: Figure 3-3 shows that the expenditure priorities for the students are majorly on food (37 percent), followed by academics (31 percent) and living expenses (25%) and this pattern is similar in all the survey universities. Students therefore incur the largest amount of their expenditure on food while at the university.

Table 3-8: Funds needed, funding gaps and expenditure priorities

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU	Total	
Average amount of funds needed and funding gaps	**'000**	**'000**	**'000**	**'000**	**'000**	**'000**	**'000**	**N**
Average amount of money needed for up-keep per semester	585	587	734	619	592	507	607	(2673)
Average amount of money actually received from guardian	294	388	545	396	351	354	394	(2673)
Average amount of money actually received from other entities	236	228	180	170	164	125	181	(2673)
Average total funds received from guardian and other sources	530	616	725	566	515	479	575	(2673)
Average funding gap	55	0	19	53	77	18	32	(2673)
Percentage expenditures in a semester/term	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**N**
Academics	31.1	29.3	41.5	29.9	27.9	35.4	31.2	(2673)
Food	40.5	41.9	35.8	35.9	38.8	29.4	37.1	(2673)
Living expenses	23.0	22.1	23.7	25.3	25.9	25.3	24.4	(2673)
Others	5.4	6.7	0.0	8.9	7.4	9.9	7.3	(2673)
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	

Figure 3-3: Expenditure priorities among students



Adequacy of funding support: Because adequacy of funding support for living expenses is a potentially important determinant of students' behaviour, an attempt was made to measure the proportion of students who reported receiving adequate funding support. Students were asked if they thought they received adequate funds for their personal and living expenses while at the university from their guardians and other supporting entities. Table 3-9 shows the students' perception of adequacy of funding for living expenses. The perception of respondents significantly differ with more female respondents report receiving adequate monetary support to meet personal needs than their male counterparts in all the six universities.

Apart from UCU where about 50 percent of the respondents reported receiving adequate monetary support, other universities had fewer students reporting that they received adequate funds. The largest proportion of students reporting inadequate funding was from Gulu University (78%).

Inadequate funding was also significantly higher among students who had lost a biological parent or both biological parents, privately sponsored students, students who had non-regular jobs and Ugandan students. In all instances more female respondents than their male counterparts think that they receive adequate monetary support to meet personal needs while at the university.

Table 3-9: Students' perceptions of adequacy of funding for living expenses

Think they receive adequate monetary support to meet to meet personal needs while at the university	Males		Females		Total	
	Say they receive adequate funds (%)	N	Say they receive adequate funds (%)	N	Say they receive adequate funds (%)	N
University						
Gulu	16.7	282	29.1	203	21.9	485
IUIU	23.7	334	39.2	268	30.6	602
KIU	29.4	303	42.8	318	36.2	621
Makerere	27.8	392	40.7	437	34.6	829
Mbarara	29.2	291	39.3	219	33.5	510
UCU	40.0	235	55.2	346	49.1	581
Biological Parents alive						
Both alive	30.0	1201	43.8	1209	36.9	2410
One alive	23.1	463	39.0	439	30.8	902
None alive	21.0	157	37.6	133	28.6	290
Sponsorship						
Government	25.6	336	38.6	176	30.1	512
Private	27.5	1460	42.6	1569	35.3	3029
Has regular job						
Yes	33.1	353	41.9	179	36.1	532
No	25.5	1306	41.7	1445	34.0	2751
Has non regular job						
Yes	24.0	591	37.4	257	28.1	848
No	28.8	1167	42.8	1430	36.5	2597
Course						
Arts	26.5	1087	44.2	462	34.8	2399
Sciences	29.0	734	42.3	1774	34.9	1196
Citizenship status						
Ugandan	26.5	1699	41.1	1645	33.7	3344
Non-Ugandan	40.8	120	55.6	117	48.1	237
Total	**27.4**	**1837**	**42.2**	**1791**	**33.8**	**3628**

3.2.6.2 Employment while studying

Table 3-10 shows that 16 percent of all students have regular jobs with more males than females reporting so. In addition 24 percent of the respondents hold non regular jobs. This implies that a significant proportion of students are involved in some form of paid employment while studying and some students supplement their funding needs while at the university using earnings from their jobs.

Table 3-10: Employment status of students

	Gulu	IUIU	KIU	Makerere	Mbarara	UCU		Total	
	%	%	%	%	%	%	No	Total	%
Has regular job	n=446	n=537	n=573	n=794	n=489	n=521		n=3280	
Male	22.0	21.5	23.9	22.9	17.8	16.2	355	1689	21.0
Female	15.7	10.4	9.8	12.9	8.2	7.9	180	1671	10.8
Total	19.3	16.6	16.6	17.6	13.7	11.1	535	3360	15.9
Has non-regular job	458	579	594	820	118	559			
Male	36.9	33.0	30.3	36.3	33.3	28.7	596	1785	33.4
Female	17.4	16.9	11.2	16.4	10.6	17.6	262	1726	15.2
Total	28.8	25.9	20.5	25.9	23.6	22.2	858	3511	24.4

3.2.6.3 Personal Possessions

Personal possessions are an important part of students' life and may indicate economic well being and what students treasure in their days to day life.

Table 3-11: Personal possessions while at the university

Has the following personal possessions	Gulu n=496	IUIU n=620	KIU n=643	Makerere n=845	Mbarara n=515	UCU n=599	Total n=3718	
	%	%	%	%	%	%	No	%
Phone	87.5	82.9	80.6	87.2	87.7	88.7	3186	85.7
Radio	49.2	38.2	46.3	45.6	51.6	45.6	1703	45.8
Carpet	58.7	32.7	52.7	55.4	68.0	55.9	1986	53.4
TV	10.1	16.3	32.5	31.4	17.1	27.9	880	23.7
Chairs/ table/desk	40.5	17.9	33.0	27.0	33.4	26.0	1080	29.0
Computer	14.1	13.2	24.1	27.1	23.7	29.2	833	22.4
Car, cycle	19.5	4.7	5.8	4.1	2.1	3.0	225	6.1
Cooking device	40.9	23.6	47.9	46.2	48.2	48.4	1585	42.6
Flat iron	41.1	42.1	55.5	60.7	62.7	71.2	2083	56.0
Refrigerator	2.8	2.1	7.5	8.2	3.1	6.5	199	5.4

Table 3-11 shows that the majority of students possess a mobile phone (86 percent). Flat irons and floor carpets are owned by over 50 percent of the respondents, while 46 percent and 43 percent own a radio and a cooking device respectively. Only 6 percent of the respondents own a car or motorcycle and the number is similar for refrigerators.

3.3 Short and Long Distance Mobility and related behaviours

Mobility of students is an important factor that may be associated with their behaviours. It is one of the variables that may be important in predicting behavioural risk factors among students. It was therefore important for the survey to devise a means of measuring mobility, so as to relate it to risk factors for HIV/AIDS. In this study, mobility was tiered at two levels: Short distance mobility and long distance mobility. Short distance mobility referred to movement for short distances from their place of residence during the academic term for reasons other than academic. Short distances were considered as distances within a five kilometer radius from place of residence, and students were categorised into those that move very frequently and those that move infrequently. On the other hand, long distances were defined as distances more than 10 kilometers from the students' place of residence during the academic terms and students were classified into those that undertook long distances frequently and those that did not. This section therefore presents key findings on mobility characteristics of students.

3.3.1 Short distance movements by students

3.3.1.1 Distance to the university for non-resident students

Respondents who were not resident at campus were asked to give an estimate of the distance moved from their residencies to campus during the normal term. In table 3-12 proportions of respondents for the different distances covered and the average distance covered for the different universities are presented.

Table 3-12: Distance to the university for off-campus students

	Gulu n=496	**IUIU** n=620	**KIU** n=643	**Makerere** n=845	**Mbarara** n=515	**UCU** n=599	**Total**(n=3718) No	%
Distance to the university								
0-2Km	78.0	93.1	74.2	73.8	83.7	90.0	3035	81.6
2-5Km	14.5	3.7	15.9	15.3	13.4	6.5	434	11.7
5-10Km	4.4	1.3	23.6	5.2	1.7	1.8	123	3.3
Over 10Km	3.0	1.9	27.8	5.7	1.2	1.7	126	3.4
Average distance to campus (Kilometers)	3.5	1.4	3.8	3.3	2.9	3.2	3.0	

Eighty two percent of all the respondents live in distance less than 2 kilometers to the university and only 3 percent cover a distance of more 10 kilometers to the university. KIU had a reasonably big number of respondents moving between 5 to 10 kilometers compared to the rest of the universities which is possibly a location factor since it is located on the outskirts in Kampala city. Considering the average distance covered by the respondents from the different universities, respondents in KIU had the longest distance (an average of 4 kilometers) covered by off campus respondents while IUIU has the shortest distance at an average of one and a half kilometers.

3.3.1.2 Frequency of Short distance Mobility for non-academic reasons

Definition and Measurement of Short Distance Mobility: Frequency of short distance mobility was measured by asking students the number of times they moved distances shorter than five kilometers from their place of residence while at the university for a reason other than academic in one month. Students were classified as having frequent short distance mobility if they moved out for short trips more than seven times a month (implying that they travelled out for at least a quarter of the days in a month or more). They were classified as having infrequent short distance mobility if they undertook fewer than 7 short distance trips in a month. The percentage distribution of short distance mobility categories by students is presented in table 3-13:

Table 3-13: Frequency of trips shorter than 5 kilometres for non-academic reasons

Frequency of travelling distances shorter than 5 Kilometers from residence at university per month	Males			Females			Total		
	0-7 times %	>7 times %	N	0-7 times %	> 7 times %	N	0-7 times %	> 7 times %	N
University									
Gulu	65.4	34.6	260	79.5	20.5	171	71.0	29.0	431
IUIU	72.2	27.8	270	88.4	11.6	199	79.1	20.9	469
KIU	69.5	30.5	269	82.7	17.3	254	75.9	24.1	523
Makerere	64.6	35.4	336	76.4	23.6	352	70.6	29.4	688
Mbarara	68.1	31.9	263	76.9	23.1	199	71.9	28.1	462
UCU	69.4	30.6	206	77.2	22.8	268	73.8	26.2	474
Year of study									
1st	68.8	31.2	685	79.5	20.5	605	73.8	26.2	1290
2nd	70.6	29.4	490	82.1	17.9	419	75.9	24.1	909
3rd	63.8	36.2	365	80.1	19.9	352	71.8	28.2	717
Over 3	62.1	37.9	58	69.5	30.5	59	65.8	34.2	117
Nature of Course									
Arts	67.2	32.8	943	80.4	19.6	1039	74.1	25.9	1982
Sciences	69.0	31.0	649	77.7	22.3	390	72.3	27.7	1039
Nature of entry									
Regular	68.2	31.8	1357	79.8	20.2	1265	73.8	26.2	2622
Non-Regular	62.3	37.7	146	79.8	20.2	89	68.9	31.1	235
Residency status									
On-campus	70.0	30.0	410	81.7	18.3	393	75.7	24.3	803
Off campus	66.9	33.1	1143	78.6	21.4	1002	72.4	27.6	2145
Has regular job									
Yes	57.1	42.9	301	65.5	34.5	139	59.8	40.2	440
No	70.6	29.4	1147	81.2	18.8	1184	76.0	24.0	2331
Has non-regular job									
Yes	64.6	34.4	522	72.9	27.1	210	66.9	33.1	732
No	69.8	30.2	1012	81.1	18.9	1162	75.8	24.2	2174
Citizenship status									
Ugandan	67.8	32.2	1489	79.9	20.1	1334	73.5	26.5	2823
Non Ugandan	72.0	28.0	100	80.9	19.1	89	76.2	23.8	189
Total	**68.0**	**32.0**	**1604**	**79.8**	**20.2**	**1443**	**73.6**	**26.4**	**3047**

Findings show that overall, 26% of students undertook short distance trips more than 7 times in a month for non-academic reasons and the other two thirds (74%) did not undertake short distance trips frequently. The proportion of students that took short distance trips frequently differed by university. Students in Gulu, Makerere and Mbarara Universities were the most mobile for short distances, compared to other universities. In addition, students with regular or non-regular jobs were significantly more mobile for short distances than students who had no job. Male students were also significantly more mobile for short distances than female students.

3.3.2 Long distance movements by students

3.3.2.1 Duration of travel from guardian's home

The universities have a significant proportion of students whose home areas are in districts that are distant from the universities. There are also a significant numbers of international students in some of the universities. Students who travel for longer than 12 hours are likely to spend a night on the way as they travel to the university to start an academic term

or back to their homes at the end of the academic term. This may have implications on behaviour and exposures. Table 3-14 shows the percentage distribution of respondents who travel for durations longer than 12 hours from their guardian's home to the university at the beginning of semester or term.

Table 3-14: Duration of travel from the respondent's home to university

Duration of travel from where their guardian lives to the university at beginning of semester/term	Male			Female			Total		
	Less than 12 Hrs	**Equal or longer than 12 Hrs**	**N**	**Less than 12 Hrs**	**Equal of longer than 12 Hrs**	**N**	**Less than 12 Hrs**	**Equal of longer than 12 Hrs**	**N**
University									
Gulu	81.5	18.5	260	90.6	9.4	171	85.2	14.2	431
IUIU	87.4	12.6	270	93.5	6.5	199	90.0	10.0	469
KIU	81.0	19.0	269	89.0	11.0	254	84.9	15.1	523
Makerere	78.0	22.0	336	88.1	11.9	352	83.1	16.9	688
Mbarara	81.4	18.6	263	85.4	14.6	199	83.1	16.9	462
UCU	85.9	14.1	206	85.8	14.2	268	85.9	14.1	474
Citizenship status									
Ugandan	82.3	17.7	1489	88.2	11.8	1334	85.1	14.9	2823
Non-Ugandan	81.0	19.0	100	95.5	4.5	89	87.8	12.2	189
Total	**82.2**	**17.8**	**1604**	**88.5**	**11.5**	**1443**	**85.2**	**14.8**	**3047**

The majority of respondents travel for less than 12 hours from their homes to the universities and the proportion of male and female are almost similar for all the 6 survey universities. However, about 15% of students travel for longer than 15 hours to reach their universities at the beginning of the academic terms. Makerere and Mbarara Universities have higher proportions of students that travel for over 12 hours than other universities.

3.3.2.2 Frequency of Long distance Mobility for non-academic reasons

Definition and Measurement of Long Distance Mobility: Frequency of long distance mobility was measured by asking students the number of times they moved distances longer than ten kilometers from their place of residence while at the university for a reason other than academic in one semester or term. Students were classified as having frequent long distance mobility if they moved out for long distances more than four times in a Semester or Term (a semester is approximately four months, implying that they undertook longer distance travel at least once and more than once in some months). They were classified as having infrequent long distance mobility if they undertook fewer than four long distance trips in a semester. The percentage distribution of long distance mobility categories by students is presented in table 3-15:

Table 3-15: Frequency of trips longer than 10 kilometres for non-academic reasons

Frequency of travelling distances longer than 10 Kilometers per term/semester University	Males			Females			Total		
	0-4 times %	Over 4 times %	N	0-4 times %	Over 4 times %	N	0-4 times %	Over 4 times %	N
Gulu	80.8	19.2	203	78.2	21.8	124	79.8	20.2	327
IUIU	75.1	24.9	221	87.5	12.5	160	80.3	19.7	381
KIU	70.2	29.8	245	74.4	25.6	277	72.2	27.8	472
Makerere	68.8	31.2	285	73.0	27.0	315	71.0	29.0	600
Mbarara	78.8	21.2	222	86.4	13.6	177	82.2	17.8	399
UCU	63.4	36.6	186	68.7	31.3	217	66.3	33.7	403
Year of study									
1st	76.2	23.8	542	78.8	21.2	486	77.4	22.6	1028
2nd	71.2	28.8	483	74.7	25.3	379	72.8	27.2	817
3rd	72.1	27.9	315	77.2	22.8	289	74.5	25.5	604
Over 3	56.9	43.1	58	78.9	21.1	57	67.8	32.2	115
Nature of Course									
Arts	71.3	28.7	802	75.8	24.2	865	73.7	26.3	1667
Sciences	75.0	25.0	552	79.5	20.5	341	76.7	23.3	893
Nature of entry									
Regular	72.9	27.1	1146	76.4	23.6	1055	74.6	25.4	2201
Other	67.9	32.1	131	76.5	23.5	81	71.2	28.8	212
Residency status									
On-campus	76.1	23.9	339	79.6	20.4	319	77.8	22.2	658
Off campus	71.4	28.6	990	76.0	24.0	859	73.6	26.4	1849
Has regular job									
Yes	63.4	36.6	279	70.9	29.1	127	65.8	34.2	406
No	75.1	24.9	964	77.2	22.8	995	76.2	23.8	1959
Has non regular job									
Yes	67.0	33.0	451	70.7	29.3	188	68.1	31.9	639
No	75.7	24.3	859	77.9	22.1	967	76.8	23.2	1826
Citizenship									
Ugandan	72.2	27.8	1268	76.9	23.1	1114	74.4	25.6	2382
Non Ugandan	79.8	20.2	84	77.4	22.6	84	78.6	21.4	168
Total	**72.8**	**27.2**	**1362**	**76.9**	**23.1**	**1220**	**74.7**	**25.3**	**2582**

Findings show that overall, 25% of students undertook long distance trips more than 4 times in a semester for non-academic reasons and the other two thirds (75%) did not undertake long distance trips frequently. The proportion of students that took long distance trips frequently differed significantly by university. Students in UCU and Makerere Universities were the most mobile for long distances, compared to other universities. In addition, students with regular or non-regular jobs were significantly more mobile for long distances than students who had no job. Male students were also significantly more mobile for long distances than female students. Students that do not reside on the campus and students that had spent more years at the university also significantly undertook more long distance trips.

3.3.3 Reasons for mobility of students

Reasons for mobility among students are presented in Table 3-16:

Table 3-16: Reasons for mobility among students

Most frequent reason for mobility	Males		Females		Total	
	%	N	%	N	%	N
Visiting a friend	44.3	1874	47.3	1844	45.8	3718
Visiting relative (s)	31.8	1874	34.2	1844	33.0	3718
Entertainment	28.4	1874	20.3	1844	24.4	3718
Group or club activities	18.7	1874	13.8	1844	16.3	3718
Excursion/Adventure	7.6	1874	5.6	1844	6.6	3718
Going home	23.1	1874	34.6	1844	28.8	3718
Work/business related	15.5	1874	7.3	1844	11.0	3718
Escorting friend/relative	13.9	1874	13.9	1844	13.9	3718
Other reasons	21.3	1874	17.6	1844	19.5	3718

The most frequent reasons given for moving out among students were visiting friends (46% of students), visiting relatives (33%), going home (29%) and entertainment (24%). However 16% of students reported going out for club activities as one of the main reasons for going out, and 11% reported work related commitments as the reason for mobility.

3.3.4 Entertainment related mobility

Table 3-17 shows the average number of times the respondents go out for entertainment related events in a semester/term. Irrespective of sex, respondents in Makerere, KIU and UCU had slightly higher frequency of movements out for parties, discotheques and nights spent away from their residences compared to those of upcountry universities (Mbarara, IUIU and Gulu).

Female respondents at UCU had the highest number of nights spent away from residence with an average of 3.3 times per month followed by male respondents at Makerere with an average of 3 times in a month. Female respondents at Makerere attend parties and discotheques more times on average than other universities (about 4 times on average) while those of IUIU attended the least times in a semester.

Overall and irrespective of sex, respondents in the age group 15-29 went out more frequently for parties or discotheques or spent a night out of residence than those 30 years and above (an average of 2 to 4 times per month). Respondents above 36 years are less involved in activities of parties and going to discotheques.

For both male and female students, off campus respondents were out for parties or a discotheque or spent a night away from their residence more frequently than the campus resident respondents. Similarly respondents on Arts courses, non Ugandan students and respondents with adequate funds were more likely to go out to parties, discotheques or spend nights away from their residences while at the university.

Table 3-17: Average number of times out for entertainment related events

Average number of times	Males				Females			
	Average no. of times out for parties in semester	Average no. of times out to discotheque in Sem.	Average no. of nights spent away from place of residence in month	N	Average no. of times out for parties in semester	Average no. of times out to a discotheque in sem.	Average no. of nights spent away from place of residence in month	N
University								
Gulu	2.4	2.8	1.4	256	2.7	2.3	2.4	186
IUIU	2.3	2.4	2.0	294	1.6	0.8	2.1	244
KIU	3.2	3.8	2.0	287	3.3	2.9	1.9	304
Makerere	3.4	3.8	2.9	379	3.9	4.1	2.8	407
Mbarara	2.7	2.8	1.9	272	2.5	2.6	1.9	204
UCU	3.6	3.1	2.1	218	3.5	2.9	3.3	321
Age								
15-19	2.0	4.1	1.9	24	3.2	2.3	3.5	44
20-24	3.1	3.4	2.1	1396	3.2	3.0	2.5	1611
25-29	2.6	2.8	2.1	320	2.4	3.0	2.5	122
30-34	2.1	1.1	2.1	61	1.7	0.5	1.8	28
35-39	1.3	0.6	2.2	28	2.0	0.5	0.0	8
40 and Over	1.7	0.0	1.7	18	0.5	0.0	2.8	9
Year of Study								
1st	2.5	2.9	1.9	715	3.1	3.4	2.5	680
2nd	3.1	3.4	2.1	525	3.3	2.8	2.5	509
3rd	3.4	3.5	2.4	393	3.0	2.5	2.3	403
Over 3	2.6	3.1	2.6	66	3.5	3.5	4.1	65
Residency status								
On-campus	2.7	2.5	2.2	484	2.8	2.3	2.4	484
Off campus	3.0	3.3	2.1	1152	3.3	3.2	2.5	1152
Course								
Arts	3.0	3.5	2.0	1216	3.3	3.2	2.7	1216
Sciences	2.9	2.7	2.3	433	2.9	2.4	2.1	433
Citizenship								
Ugandans	2.9	3.0	201	1574	3.1	2.9	2.5	1535
Non-Ugandans	3.0	4.9	2.6	117	4.3	3.6	3.0	111
Adequacy of funds								
Adequate	3.9	4.0	2.1	463	3.6	3.5	2.9	686
Not adequate	2.5	2.8	2.7	1209	2.9	2.5	2.3	933
Total	**3.0**	**3.2**	**2.1**		**3.2**	**3.0**	**2.5**	

3.3.5 Alcohol taking among students

3.3.5.1 Proportion of students that take alcohol

Alcohol use not only affects an individual's life style and behavior, but is also known to have an association with risk of HIV transmission. In this survey alcohol use was investigated by asking students whether they take alcohol. Respondents who reported taking alcohol were further asked the number of times they take alcohol in a month and the type on alcohol taken. In table 3-18, the proportions of respondents who reported taking alcohol for the different respondent's characteristics are presented.

Table 3-18: Alcohol taking by students and related characteristics

Alcohol taking by students	Males		Females		Total (n=3372)	
	%	N	%	N	%	N
University						
Gulu	33.6	256	17.7	186	26.9	442
IUIU	7.1	294	4.9	244	6.1	538
KIU	33.1	287	24.7	304	28.8	591
Makerere	31.4	379	26.3	407	28.8	786
Mbarara	30.1	272	17.2	204	24.6	476
UCU	37.2	218	28.0	321	31.7	439
Year of study						
1st	24.8	715	18.2	680	21.6	1395
2nd	28.2	525	22.4	509	25.3	1034
3rd	33.3	393	22.1	403	27.6	796
Over 3	36.4	66	30.8	65	33.6	131
Age						
15-19	33.3	21	26.2	42	28.6	63
20-24	27.0	1290	20.8	1470	23.7	2760
25-29	32.8	296	22.9	109	30.1	405
30-34	29.8	57	25.9	27	28.6	84
35-39	46.2	26	28.6	7	42.4	33
40 and Over	13.3	15	10.0	10	12.0	25
Nature of Course						
Arts	24.4	1011	21.3	1216	25.0	2227
Sciences	27.3	681	21.0	433	24.9	1114
Nature of entry						
Regular	29.3	1432	20.5	1134	24.9	2859
Diploma/Mature	25.0	156	27.8	83	26.2	271
Residency status						
On-campus	14.8	454	14.5	484	14.6	938
Off campus	33.5	1215	23.8	1152	28.8	2367
Has regular job						
Yes	34.8	330	23.2	164	31.0	494
No	24.8	1268	20.0	1418	22.2	2686
Citizenship						
Ugandans	27.8	1574	20.2	1535	24.0	3104
Non-Ugandans	35.0	117	30.6	111	32.9	228
Adequacy of funds						
Adequate	32.8	463	25.8	686	28.6	1149
Not adequate	27.0	1209	18.3	933	23.2	2142
Total	**28.4**	**1706**	**21.1**	**1666**	**24.8**	**3372**

Apart from IUIU, other universities had nearly equal proportions of respondents who reported taking alcohol. The notably small proportion of respondents taking alcohol in IUIU is possibly due to the Islamic affiliation of the university. Generally a significantly high proportion of male respondents take alcohol compared to female respondents. The number of both male and female respondents taking alcohol increased with the academic year of study with fewer respondents in the first year of study taking alcohol compared to second year and above, implying that students progressively learn to take alcohol as they get used to university life. However in all years of study more males take alcohol than the females.

The proportion of respondents taking alcohol significantly defers between age groups for both males and females. A slightly higher number of respondents in the age groups 15-19,

25-29 and 35-39 take alcohol compared to the age groups 20-24, 30-34 and 40 years and over.

The proportion of students who take alcohol was significantly higher among students that reside off campus compared to students that reside on campus, among students that had a regular job compared to those that did not have a regular job, and among non-Ugandan students compared to Ugandan students. The proportion of students who take alcohol was also significantly higher among students who reported receiving adequate funds from their guardians for their living expenses than those who reported receiving inadequate funds.

3.3.5.2 Other alcohol related behaviours

Students who take alcohol were asked about the approximate number of times they take alcohol in a month, and the main type of alcohol they take. The findings are presented in table 3-19:

Table 3-19: Other alcohol related behaviours

	Males		Females		Total	
	Freq	%	Freq	%	Freq	%
Number of times they take alcohol in a month						
Less than 5	352	75.9	279	83.8	631	79.2
5 to 9	51	11.0	36	10.8	87	10.9
10 to 19	38	8.2	13	3.9	51	6.4
20 to 30	17	3.7	3	0.9	20	2.5
Over 30	6	1.3	2	0.9	8	1.0
Main type of alcohol taken						
Spirits, gin, vodka	101	19.7	63	16.0	164	18.1
Beer	308	60.0	151	38.4	459	50.7
Wine, Wine related	46	9.0	141	35.9	187	20.6
Local brew	33	6.4	10	2.5	43	4.7
Other	25	4.9	28	7.1	53	5.8

The majority of students who take alcohol take it fewer than five times a month. However, about 10% of students take alcohol ten times or more in a month, and about 3.5% take it more than 20 times in a month. It is also worth knowing that a small but significant proportion of students (1%) take alcohol more than 30 times in a month.

With regard to the main types of alcohol taken by students, most students took beer (51%), while 21% took wine as the main form of alcohol. 18% reported that they mainly take spirits. Only 4% of students reported that they mainly take local brew. Male students were significantly more likely to report beer and local brew as the main form that they take, while female students were more likely to report that they mainly took wines.

Summary of observations on the overall response to the survey and background characteristics of respondents

i. At 98.6%, the response rate to the questionnaire was good; within universities, the lowest response rate to the questionnaire was recorded for Uganda Christian University (97%) and the highest for Makerere University (99%)

ii. At 95%, the proportion of people who accepted the HIV testing was also high and was above the recommended threshold of 90%. Response to blood testing was lowest in Uganda Christian University Mukono (89%) and highest in Gulu University (98.8%).

iii. The main reason for non-response to the questionnaire was failure to trace students. The main reason for non-response to the HIV testing was refusal by individual students to participate. The main reason for the good turn-up and the good response rates was the intense mobilization activities using students' peers.

iv. The majority of students in universities are in the age group 20 to 24 years; there are very few students below 20 years and also relatively few students above 25 years. There are a small but significant proportion of students that are below 20 years. This age stratification has an important bearing on the sexual behaviours of students.

v. A significant proportion of students in universities in Uganda are international students. Kampala International University has the largest proportion of students that are non-Ugandan (19%) followed by Makerere (7%) and IUIU (6.5%).

vi. The majority of students in universities enter though regular entry schemes, as opposed to mature or diploma entry schemes and the majority is under-graduate students. IUIU has the largest proportion of Graduate students (9%) compared to other universities. Gulu University has the largest proportion of students who entered the university under the mature entry schemes (11.5%)

vii. The majority of university students are private students, meaning that their tuition is paid for by private sponsors. UCU and IUIU have the largest proportion of students that are fully privately sponsored with no scholarship while Mbarara and Gulu have the largest proportion of Government sponsored students (about 33%). KIU and UCU have the largest proportion of students who are privately sponsored but with scholarships or bursaries (19% and 13% respectively).

viii. The majority of university students are on Arts programmes. Mbarara University has the largest proportion of students on sciences programmes (60%), while UCU has the largest proportion on Arts programmes (81%)

ix. The majority of University students are non-resident, meaning that they reside off-campus. IUIU has the largest proportion of students that are resident within campus (71%) and Gulu has the smallest proportion of resident students (2%). Among students who stay in off-campus hostels, the majority stay in hostels that are not accredited or registered by the universities, implying that the universities are able to account for them only during physical academic engagements.

x. The majority of students reported that they receive inadequate funds for personal upkeep while at the University. Uganda Christian University had the largest proportion of students that said they received adequate funds (49%) while Gulu had the lowest proportion that reported receiving adequate funds (21%)

xi. A significant proportion of students in universities is involved in regular or irregular employment. Gulu University had the largest proportion of students that were involved in some form of trade, while Uganda Christian University had the lowest.

xii. A high proportion of university students has access to a mobile phone and a significant proportion has access to television

xiii. The majority of non-residents students reside within 5 kilometers of their universities. Kampala International University had the longest average distance travelled by off-campus students to the university.

xiv. About one quarter of university students take frequent short distance trips for non academic reasons and about one quarter undertake frequent long distance trips for non academic reasons. The university with the highest prevalence of frequent short distance mobility was Makerere (29%) while students in Islamic University in Uganda had the lowest rate of short distance mobility

xv. The university with the highest prevalence of frequent long distance mobility was UCU (34%) while students in Mbarara University had the lowest rate of short distance mobility.

xvi. About one quarter of university students take alcohol recreationally. The proportion of students that take alcohol was highest in Uganda Christian University (49%); it was also higher among students in years above the third year, off campus students, non-Ugandan students and students who reported that they received an adequate amount of funds for personal upkeep. The proportion of students that take alcohol was significantly lower in IUIU (6%) compared to other universities, most probably because of its religious code. Trends also show that students learn to take alcohol as the years progress while they are at the university.

xvii. The most frequent reasons for mobility among students were visiting friends, visiting relatives, going home and going for entertainment

4. KNOWLEDGE, ATTITUDES AND PERCEPTIONS RELATED TO HIV/AIDS

Summary of Key Indicators

No	Indicator	Status
1	Percentage of students who are aware about HIV/AIDS	97%
2	Percentage of students that do not know any of the major means of HIV prevention	0.4%
3	Percentage of students that know all the 3 main ways of HIV prevention emphasized at programme level	76%
4	Percentage of students who believe that abstaining from sex is a realistic way of preventing HIV/AIDS	92%
5	Percentage of students who know that genital sores increase chances of HIV infection	74%
6	Percentage of students with adequate knowledge about ART	58%
7	Percentage of male students with adequate knowledge about PMTCT	38%
8	Percentage of female students with adequate knowledge about PMTCT	45%
9	Percentage of students with adequate knowledge about HIV discordance	44%
10	Prevalence of comprehensive knowledge about HIV/AIDS	71%
11	Percentage of students with accepting attitudes towards people living with HIV/AIDS	52%
12	Percentage of students that believe that force is justified to get someone to have sex	31%
13	Percentage of students who believe that force is justified to get someone to have sex if one had spent money on their partner	33%
14	Percentage of male students that believe that believe that males are obliged to provide materially for their female partners	52%
15	Percentage of female students that believe that believe that males are obliged to provide materially for their female partners	52%
16	Percentage of students who perceive themselves to be at high risk for HIV	12%
17	Percentage of students who did not use a condom at their last sexual intercourse who perceive themselves to be at high risk of HIV	15%

4.1 Knowledge about HIV/AIDS and its transmission

In this section HIV/AIDS-related knowledge among the respondents is presented. It focuses at basic knowledge on HIV transmission and prevention, comprehensive knowledge and knowledge on other HIV related issues like; HIV related risk factors, misconceptions on HIV transmission, anti-retroviral treatment, prevention of mother to child transmission of HIV and HIV discordance among couples.

4.1.1 Awareness about HIV

Knowing how HIV is transmitted is one of the requirements for individuals to take appropriate actions so as to protect themselves from acquiring the virus. Correct knowledge on transmission can also reduce stigma and discrimination against people living with HIV/AIDS. Awareness about HIV among most population groups in Uganda is generally high, and reflects the extent to which the disease is a burden to society in the country. Awareness about HIV in this survey was assessed by the proportion of respondents who indicated the most frequent mode of transmission of HIV (i.e. through unprotected sexual intercourse with an infected person) when prompted to mention the ways in which HIV is transmitted.

Table 4-1: Awareness about sexual transmission of HIV/AIDS

	Males		Females		Total	
	Freq	%	Freq	%	Freq	%
Unprotected sexual intercourse	1819	97.1	1796	97.4	3615	97.2
Sharing skin piercing instruments	1271	67.8	1271	68.9	2542	68.4
Mother to child	1358	72.5	1377	74.7	2735	73.6
Blood related/transfusion	1228	65.5	1231	66.8	2459	66.1
Shaking hands with infected person	37	2.0	22	1.2	59	1.6
Kissing	495	26.4	446	24.2	941	25.3
Non vaginal sexual intercourse	373	19.9	244	13.2	617	16.6
Do not know any	11	0.6	6	0.3	17	0.5

The results show a high level of awareness among males and females which is close to what has been observed in other surveys at the general population level. Over 97% of students mentioned sexual transmission as a mode of HIV transmission. It was however also noted that 24% of respondents reported that kissing was one of the means through which HIV is transmitted, implying that there were also misconceptions about the modes of HIV spread. In addition, although there were only small numbers, it is worth noting and also worrisome that at the level of a university education, some people do not know any way through which HIV is transmitted and some others still think that shaking hands with an infected person may result in transmission of HIV.

4.1.2 Knowledge of the main ways through which HIV is transmitted

There are four main ways in which HIV is transmitted and these include un-protected sexual intercourse with an infected person, sharing of skin piercing instruments, maternal to child transmission and through unsafe blood transfusions. Respondents were asked to mention the main ways through which HIV is transmitted. These findings are summarised in table 4-2:

Table 4-2: Knowledge of the 3 main ways in which HIV is transmitted

	Males						Females					
	Un-protected sex	Skin piercing Instruments	Maternal to Child	Blood related transfusion	Do not know any	N	Un-protected sex	Skin piercing Instruments	Maternal to Child	Blood related transfusion	Do not know any	N
University												
Gulu	97.6	72.6	79.9	70.8	0.7	288	97.6	73.1	80.3	66.8	0.0	208
IUIU	94.7	66.2	65.0	61.2	1.2	340	97.5	64.3	65.4	59.6	0.0	280
KIU	95.6	64.6	68.0	63.3	0.6	316	93.6	62.7	69.7	62.4	0.9	327
Makerere	98.5	61.8	70.9	61.1	0.5	398	98.4	66.2	69.6	60.4	0.4	447
Mbarara	97.6	71.2	76.4	68.5	0.3	292	99.6	76.7	87.9	79.4	0.4	223
UCU	98.8	74.6	77.9	72.1	0.0	240	98.1	74.4	81.3	76.3	0.0	359
Age												
15-19	95.8	75.0	87.5	62.5	0.0	24	97.9	59.6	76.6	61.7	0.0	47
20-24	97.0	67.1	71.8	63.9	0.6	1417	97.5	68.6	74.2	66.5	0.3	1626
25-29	97.5	67.8	71.8	69.0	0.6	323	96.8	73.4	76.6	69.4	0.0	124
30-34	98.4	82.0	83.6	80.3	0.0	61	96.4	78.6	89.3	75.0	3.6	28
35-39	93.3	73.3	73.3	80.0	0.0	30	87.5	75.0	75.0	75.0	0.0	8
40 +	100.0	55.6	72.2	61.1	5.6	18	100.0	90.0	80.0	80.0	0.0	10
Year of study												
1st	96.5	68.9	72.3	64.0	0.6	791	97.2	66.5	72.9	63.2	0.3	750
2nd	97.1	67.5	72.3	66.1	0.5	581	97.7	68.4	73.7	66.3	0.4	566
3rd	97.6	66.4	72.7	67.8	0.7	422	97.1	72.0	77.9	71.8	0.4	447
Over 3	100.0	69.0	74.6	66.2	0.0	71	98.6	80.6	81.9	79.2	0.0	72
Residency status												
On campus	97.1	67.2	70.7	63.6	0.4	481	97.8	66.0	70.9	65.0	0.2	506
Off campus	97.1	67.9	73.1	66.3	0.7	1326	97.3	69.9	75.9	67.7	0.4	1271
Sponsorship												
Government	98.8	69.8	80.1	69.2	0.3	341	98.3	69.5	78.0	70.6	0.6	177
Private	96.6	67.4	71.0	64.6	0.7	1831	97.3	68.9	74.3	66.5	0.3	1616
Course												
Arts	96.8	67.0	69.8	64.6	0.5	1110	97.4	68.9	73.9	66.1	0.4	1353
Sciences	97.6	68.8	76.2	66.8	0.7	744	97.5	69.9	78.0	69.5	0.0	472
Regular partner												
Partner regular	97.7	61.4	71.2	67.4	0.5	215	97.8	69.0	75.7	66.8	1.5	268
Not regular	97.4	68.5	71.9	65.2	0.7	1287	97.0	67.8	72.4	65.6	0.2	1078
Total	**97.1**	**66.2**	**72.5**	**66.5**	**0.6**	**1874**	**97.4**	**68.9**	**74.7**	**66.8**	**0.3**	**1844**

Overall, more than two thirds of the respondents mentioned the three main modes of HIV transmission which could be interpreted as a high level of basic knowledge on HIV transmission. Almost all students knew that HIV was spread through unprotected sexual

intercourse with an infected person. However, knowledge of other modes of transmission was lower; only 66% of male students and 69% of female students mentioned sharing of skin piercing instruments and only 72% of males and 75% of females mentioned maternal to child transmission as a major way of HIV transmission. Knowledge about the main modes of HIV transmission appeared to be evenly distributed across the different background characteristics of respondents.

4.1.3 Knowledge about HIV Prevention

HIV Prevention methods mentioned: To assess the methods of HIV prevention that are known by the majority of students, respondents were asked to mention the methods of HIV prevention known to them. Table 4-3 shows the proportion of men and women who mentioned a specific method of HIV prevention in this survey.

Table 4-3: HIV prevention methods mentioned by respondents

Knowledge of HIV Prevention methods	Males		Females		Total	
	Freq.	%	Freq.	%	Freq.	%
Abstain from Sex	1622	86.6	1603	86.9	3225	86.7
Always use Condoms	1806	96.4	1744	94.6	3550	95.5
Being faithful to a few partners	1685	89.9	1671	90.6	3356	90.3
Avoid sex with prostitutes	456	24.3	257	13.9	713	19.2
Avoid homosexuality or drug use	266	14.2	147	8.0	413	11.1
Avoid Blood Transfusions	166	8.9	162	8.8	328	8.8
Avoid Injections	63	3.4	55	3.0	118	3.2
Avoid Kissing and Mosquito bites	37	2.0	19	1.0	56	1.5
Ask spouse or partner to get tested	539	28.8	591	32.0	1130	30.4
Circumcision (self or partner)	195	10.4	110	6.0	305	8.2
None of these	41	2.2	43	2.3	84	2.3

It is not surprising that **A**bstinence from sex, always using **C**ondoms and **B**eing faithful were the most frequently mentioned methods of HIV prevention considering the fact that most HIV prevention campaigns advocate for the ABC strategy. The small proportion of male and female who mentioned avoiding sex with prostitutes, avoiding homosexuality and drug use should not go unnoticed since these are higher risk practices.

While knowledge among men was similar to that among women on most methods of HIV prevention, it was noted that significantly more male respondents than female respondents mentioned avoiding sex with prostitutes, avoiding homosexuality, avoiding injection drug use and circumcision as viable means on HIV prevention than the female students.

Knowledge of the main methods of HIV prevention: In this survey abstinence from sex, staying faithful to one sex partner and condom use were considered the main methods of HIV prevention since they are the most advocated methods in the majority of HIV prevention campaigns. Respondents were asked to mention the different ways through which HIV can be prevented. Proportions of respondents who mentioned each of the three

main methods and those who mentioned all the three methods were computed and the results are presented in Table 4-4.

In general, knowledge of the main HIV prevention methods was highest in Gulu University and lowest in UCU and about the same in the rest of the survey universities. Also worth noting is the low level of knowledge about methods of HIV prevention among students in the age group 40 years and above for both male and female (50 and 60 percent respectively).

Respondents' knowledge of the 3 main HIV prevention methods did not vary significantly by type of sponsorship, course taken, year of study and whether a respondent had a regular or non regular sexual partner.

For both male and female, off-campus students were more likely to mention all three of the main methods of HIV prevention than students that are resident on campus. The observed variation could be an indication of exposure to additional HIV prevention messages while away from campus.

Table 4-4: Knowledge of the 3 main ways of HIV prevention

	Males %					Females %				
	Staying faithful to one uninfected sex partner	Using a condom correctly every time they have sex	Abstaining from sex	Know all three	N	Staying faithful to one uninfected sex partner	Using a condom correctly every time they have sex	Abstaining from sex	Know all three	N
University										
Gulu	99.0	96.5	99.3	95.5	288	98.6	98.1	99.5	96.6	208
IUIU	87.1	98.2	80.6	69.4	340	87.5	99.3	79.6	68.6	280
KIU	88.9	96.8	96.8	84.8	316	87.2	92.0	97.6	80.4	327
Makerere	92.7	98.0	76.6	70.4	398	96.6	95.7	79.0	73.6	447
Mbarara	89.4	96.9	82.2	74.0	292	91.0	99.1	83.0	75.8	223
UCU	80.4	89.6	87.9	64.6	240	83.8	86.9	88.0	67.4	359
Age										
15-19	100.0	100.0	87.5	87.5	24	93.6	93.6	83.0	76.6	47
20-24	89.1	96.2	87.2	76.0	1417	90.5	95.0	87.0	75.7	1626
25-29	92.9	97.2	85.8	78.9	323	88.7	92.7	88.7	76.6	477
30-34	90.2	98.4	86.9	78.7	61	96.4	85.7	85.7	75.0	28
35-39	86.7	86.7	83.3	66.7	30	87.5	87.5	87.5	75.0	8
40 and Over	88.9	100.0	61.1	50.0	18	100.0	90.0	70.0	60.0	10
Year of study										
1st	90.4	97.0	88.9	78.6	791	92.1	94.3	86.5	76.7	750
2nd	87.8	95.5	85.2	72.8	581	89.2	93.3	89.6	76.1	566
3rd	91.5	96.0	84.6	76.8	357	89.7	96.2	86.1	74.3	385
Over 3	91.5	98.6	83.1	74.6	71	91.7	97.2	75.0	70.8	143
Residency status										
On campus	87.5	96.0	84.6	72.1	481	86.0	94.7	83.6	68.4	506
Off campus	90.9	96.4	87.0	77.5	1153	92.5	94.3	88.0	78.2	1119
Sponsorship status										
Government	92.4	96.8	84.5	76.8	341	92.7	97.7	85.9	79.1	177
Private	89.2	96.3	87.3	76.3	1490	90.6	94.3	87.1	75.5	1616
Course										
Arts	91.1	96.3	87.6	78.0	1110	91.2	94.4	87.4	76.6	1353
Sciences	88.4	96.4	85.0	73.8	747	89.0	95.1	85.8	73.1	472
Regular sex partner										
Regular	92.1	95.8	82.8	73.5	215	92.9	92.5	81.7	71.6	268
Non-regular	90.3	97.6	85.1	76.1	1287	91.2	96.4	84.6	74.9	1077
Total	**96.4**	**96.4**	**86.6**	**76.3**	**1874**	**94.6**	**94.6**	**86.9**	**75.7**	**1844**

It is interesting to note that abstinence which is the "most emphasised" HIV prevention method among students was the least mentioned HIV prevention method compared to condom use and staying faithful to one sex partner. This could be an indication that it may not be the most preferred method by the sexually active students' population.

4.1.4 Comprehensive knowledge about HIV

A respondent was considered to have comprehensive knowledge of HIV/AIDS if they were aware of HIV/AIDS **and** if in response to prompted questions, know that a healthy-looking person can transmit HIV, identify two major ways of preventing sexual

transmission of HIV, and reject two common misconceptions regarding the transmission of HIV. Table 4-5 shows respondents' level of HIV/AIDS comprehensive knowledge and the composite indicators used to assess it, presented by respondents' background characteristics.

Table 4-5: Comprehensive knowledge about HIV and associated characteristics

	1. A healthy-looking person can have HIV	2. People can protect themselves from HIV by using a condom correctly every time they have sex	3. People can protect themselves from HIV by staying faithful to one uninfected sex partner	4. One cannot become infected by sharing food with a person who has HIV	5. HIV is not transmitted by mosquito bites	1-5. Percentage with a comprehensive knowledge about HIV/AIDS	Total Number
University							
Gulu	95.7	97.2	98.8	96.7	92.6	82.7	480
IUIU	92.2	98.7	87.3	88.7	87.6	65.1	604
KIU	91.2	94.4	88.0	88.8	90.7	66.9	617
Makerere	94.6	96.8	94.8	92.9	91.2	75.6	828
Mbarara	93.6	97.9	90.1	90.2	91.4	70.5	509
UCU	96.5	88.0	82.5	95.8	94.4	67.3	588
Sex							
Male	93.1	96.4	89.9	91.1	90.7	70.1	1829
Female	94.8	97.6	90.6	93.1	91.8	72.4	1797
Age							
15-19	98.6	95.8	95.8	94.2	95.7	82.6	69
20-24	94.2	95.5	89.9	91.9	90.8	70.7	2970
25-29	91.3	96.0	91.7	92.7	93.6	73.3	434
30-34	94.3	94.4	92.1	92.0	89.7	68.2	88
35-39	94.3	86.8	86.8	100.0	94.3	80.0	35
40 and Over	92.9	96.4	92.9	92.6	92.9	75.0	28
Year of study							
1st	93.7	95.7	91.2	91.3	88.9	69.5	1500
2nd	94.3	94.4	88.5	91.8	93.7	70.8	1120
3rd	93.6	96.1	90.6	93.3	91.5	72.8	850
Over 3	95.1	97.9	91.6	95.7	94.9	82.6	138
Residency status							
On campus	93.7	95.3	86.7	92.2	90.1	67.6	963
Off campus	93.9	95.4	91.7	92.1	91.6	72.3	2531
Sponsorship							
Government	95.3	97.1	92.5	94.1	92.7	76.1	507
Private	93.7	95.3	89.9	91.8	91.1	70.7	3028
Course							
Arts	93.4	95.2	91.1	92.6	91.3	71.6	2395
Sciences	95.0	95.9	88.6	91.1	91.1	70.5	1197
Entry							
Regular	94.5	95.4	90.0	92.5	91.7	71.8	3079
Non-regular	92.1	95.7	93.0	90.0	90.0	71.3	288
Total	**93.9**	**95.5**	**90.3**	**92.1**	**91.2**	**71.3**	
Total Number	**3660**	**3718**	**3718**	**3650**	**3642**		**3626**

Overall, 71% of respondents had comprehensive knowledge about HIV/AIDS. The level of comprehensive knowledge significantly differed between universities, Gulu University having the highest at 83 percent and IUIU with the lowest at 65 percent.

Respondents in the age groups 15-19 and 35-39 have a higher level of comprehensive knowledge about HIV than the rest of the age groups. Notable also was the finding that respondents in the age-group 15- 24 years in this survey were about two times more likely to have comprehensive knowledge about HIV when compared to respondents in the same age group in the previous national sero-behavioral survey. This result should however be interpreted with caution since the last national sero-behavioral survey was conducted five years back and a lot has been going on in terms of HIV-related education.

More respondents above the 3rd year of study have comprehensive knowledge compared with those in lower years of study, which could be related to the course pursued since it is mostly science courses that are more than 3 year and some specific aspects of knowledge on HIV are science related. Comprehensive knowledge significantly defers between off-campus students and on-campus students, with more off-campus students knowledgeable about HIV/AIDS compared to their counterparts who reside on-campus.

4.1.5 Other HIV related knowledge

4.1.5.1 Knowledge of other issues related to HIV infection

Knowledge that genital sores increase the risk of HIV infection is higher (84 percent) in Gulu, about the same in Mbarara and UCU but slightly lower in IUIU and KIU. The proportion of students who reject the misconception that HIV is curable is high (more than 80 percent) in all universities though it is relatively higher in Gulu, IUIU, Mbarara and UCU compared to Makerere and KIU. These findings are summarised in table 4-6.

Table 4-6: Knowledge of other issues related to HIV infection

	Males		Females		Total	
	%	N	%	N	%	N
Know that genital sores increase risk of HIV infection						
Gulu	81.7	279	87.2	203	84.0	482
IUIU	67.2	329	67.4	276	67.3	605
KIU	67.1	301	66.0	309	66.6	610
Makerere	72.8	390	75.1	437	74.0	827
Mbarara	76.8	285	80.0	220	78.2	505
UCU	78.0	236	79.5	352	78.9	588
Total	**73.5**	**1820**	**75.2**	**1797**	**74.3**	**3617**
Reject the misconception that HIV is curable						
Gulu	93.3	283	91.2	304	92.4	487
IUIU	89.2	332	90.1	274	89.6	606
KIU	86.3	306	81.4	318	83.8	624
Makerere	88.7	390	79.7	444	83.9	834
Mbarara	94.5	290	89.5	220	92.4	510
UCU	88.6	237	90.6	351	89.8	588
Total	**90.0**	**1838**	**86.2**	**1811**	**88.1**	**3649**

4.1.5.2 Knowledge about Anti-retroviral treatment, PMTCT and Discordance

Knowledge about Anti Retroviral Treatment: Considering the recent advances in treatment of HIV and suppression of the virus through anti-retroviral treatment, knowledge about ART is a vital aspect of knowledge about HIV, especially in promoting improved quality of life and increasing life expectancy among people living with HIV/AIDS.

In Table 4-7, information on knowledge about antiretroviral treatment is presented. For both male and female students, over 80 percent of the respondents in all universities know that there are drugs that can prolong the life of a person with HIV. However, only about two thirds of respondents in Gulu and Mbarara Universities, 60 percent of respondents in UCU and Makerere and slightly more than half of the respondents in IUIU and KIU, know that ARVs need to be taken for life.

The proportion of students who know both facts about ART (that there are drugs that can prolong the life of those with HIV infection and that these drugs need to be taken for life) was among the male students highest in Mbarara University (67 percent) and lowest at IUIU (at 48 percent) while among the females it was highest in Gulu University (65 percent) and lowest in IUIU (at 49 percent).

Knowledge about PMTCT: Since Mother to Child Transmission of HIV is the second commonest mode of HIV transmission in Uganda, and since the majority of the survey

population was sexually active, it was important to assess the level of specific knowledge about PMTCT. The results are presented in Table 4-7.

Table 4-7: Knowledge about ART, PMTCT and Discordance by site

	Males				Females			
Knowledge about ART	**ARVs can prolong the life of a person with HIV**	**ARVs need to be taken for life**	**Know both**	**N**	**ARVs can prolong the life of a person with HIV**	**ARVs need to be taken for life**	**Know both**	**N**
Gulu	94.6	67.7	66.4	260	93.2	68.5	65.4	192
IUIU	83.1	50.8	48.2	296	86.1	51.2	48.8	252
KIU	87.2	53.2	51.9	281	83.2	55.4	52.5	298
Makerere	86.8	59.8	59.2	372	85.6	54.3	55.1	423
Mbarara	91.0	67.3	66.9	278	89.6	59.3	58.8	212
UCU	92.6	61.2	59.6	217	87.3	61.9	60.1	330
Total	**88.8**	**59.6**	**58.4**	**1704**	**86.9**	**57.8**	**56.3**	**1707**
Knowledge about PMTCT	**HIV can be transmitted through breast feeding**	**MTCT can be reduced by taking special drugs in pregnancy**	**Know both**	**N**	**HIV can be transmitted through breast feeding**	**MTCT can be reduced by taking special drugs in pregnancy**	**Know both**	**N**
Gulu	62.8	70.5	48.3	288	63.5	69.8	47.1	208
IUIU	44.1	64.6	28.5	340	59.3	77.7	44.3	280
KIU	51.3	66.7	32.3	306	53.8	75.5	42.8	327
Makerere	50.5	66.5	35.7	398	57.0	75.9	44.3	447
Mbarara	59.9	70.3	45.5	292	69.5	74.3	52.9	223
UCU	53.3	71.9	41.3	240	59.1	70.8	42.9	359
Total	**53.2**	**68.1**	**38.0**	**1874**	**59.4**	**74.2**	**45.1**	**1844**
If a person is infected with HIV, chances that partner is infected	**Always**	**Sometimes**	**Rarely**	**N**	**Always**	**Sometimes**	**Rarely**	**N**
Gulu	62.3	33.3	4.3	276	62.3	33.7	4.0	199
IUIU	42.9	45.7	11.3	326	50.9	44.5	4.5	265
KIU	40.5	52.8	6.6	301	38.1	53.1	8.8	307
Makerere	53.1	42.4	4.4	384	46.1	48.6	5.3	434
Mbarara	53.1	43.8	3.1	288	46.6	41.8	11.5	208
UCU	47.8	44.4	7.8	232	50.6	44.1	5.3	340
Total	**49.9**	**43.8**	**6.3**	**1807**	**48.2**	**45.4**	**6.4**	**1753**

Just over half of the male respondents (53 percent) know that HIV can be transmitted through breastfeeding and over two thirds (68 percent) know that MTCT can be reduced by mother taking special drugs in pregnancy but only 38 percent of the respondents know both.

Female respondents are more knowledgeable about PMTCT with 60 percent knowing that HIV can be transmitted through breastfeeding, 74 percent knowing that MTCT can be reduced by mother taking special drugs in pregnancy and 45 percent knowing both. Overall knowledge about PMTCT was below 50 percent among males and females in all universities although Gulu and Mbarara exhibited a slightly higher level of knowledge than other universities.

Knowledge about Discordance: In Uganda, it is known that HIV discordance rates are moderately high and about 50% of HIV infected couples in regular sexual partnerships are discordant. Respondents were asked whether if a person has HIV/AIDS, his or her sexual partner has the HIV always, almost always or sometimes. Table 28 shows the respondents knowledge about discordance.

Considering the current HIV discordance rates in Uganda (close to 50 percent) both the male and female respondents were only moderately aware of the issue of discordance because only 44 percent of males and 46 percent of female students respectively reported that if a person has HIV/AIDS then their partner may have HIV sometimes. Fifty percent of the male respondents and 49 percent of the female respondents believe that if a person has HIV/AIDS, then his or her sexual partner is always infected with HIV which is not true considering what is already known about HIV discordance in Uganda.

4.2 Attitudes to HIV/AIDS and gender related perceptions

4.2.1 Attitudes to relationships and perceived risk of acquiring HIV

This section presents findings on perceptions and attitudes related to challenges in relationships and risk to acquire to HIV. Gender related perceptions on roles of males and females in relationships are explored. In addition, students were asked about their perceived personal risk of acquiring HIV. Questions in this section were asked to all students involved in the survey.

4.2.1.1 Gender Perceptions in relationships

All students were asked about their perceptions on roles of men and women in relationships. They were asked to give their opinion on whether force is justified in order to get a partner to agree to sexual intercourse, and whether one is justified to coerce a partner into sex if they have spent money on them. Students were also asked about their perceptions on whether men are obliged to provide money and material support to their female partners. These findings are presented in table 4-8:

Table 4-8: Gender related perceptions about relationships

Perceptions on rights in relationships	Males		Females		Total	
	%	N	%	N	%	N
Force may be justified to get sex in a relationship	32.5	1874	30.0	1844	31.3	3718
Force may be justified if one has spent on partner	37.0	1874	28.8	1844	32.8	3718
Giving in to sex is justified if strong reason is given	37.0	1874	26.2	1844	32.1	3718
Males are obliged to provide for their girl-friends	51.9	1874	51.5	1844	51.7	3718

About 30% of students reported that that force may be justified to get sex in a relationship. Thirty three percent of students reported that force may be justified if one has spent money on a partner and 32% reported that giving in to sex was justified if strong reason was given.

4.2.1.2 Perceived Personal Risk of acquiring HIV

Students were asked whether they perceived themselves at risk to acquiring HIV. The proportions of students who perceive themselves to be at risk of acquiring HIV are presented in table 4-9, stratified by important background characteristics.

Table 4-9: Sexually active students' perceptions of risk of acquiring HIV by background characteristics

High self perception as at risk of HIV	Males who perceive they are at high risk of acquiring HIV		Females who perceive they are at high risk of acquiring HIV		Total who perceive they are at high risk of acquiring HIV	
	%	N	%	N	%	N
University						
Gulu	9.7	279	8.4	203	9.1	482
IUIU	16.3	326	17.0	270	16.6	596
KIU	16.0	306	13.2	310	14.6	616
Makerere	12.9	389	9.7	434	11.2	823
Mbarara	9.7	288	6.1	214	8.2	502
UCU	9.1	231	7.0	345	7.8	576
Age						
15-20	8.7	23	2.3	43	4.5	66
21-25	12.0	1376	10.2	1572	11.1	2948
26-30	15.2	316	12.0	117	14.3	433
31-35	11.9	59	19.2	26	14.1	85
36-40	11.1	27	0.0	8	8.6	35
Over 40	17.6	17	22.2	9	19.2	26
Year of study						
1st	11.8	769	10.6	724	11.3	1493
2nd	12.4	558	10.0	541	11.2	1099
3rd	15.0	414	10.6	435	12.7	844
Over 3	8.7	69	7.4	68	8.0	137
Residency status						
On campus	13.7	468	12.1	488	12.9	956
Off campus	12.7	1285	9.4	1224	11.1	2509
Sponsorship status						
Government	9.0	335	10.5	171	9.5	506
Private	13.5	1443	10.3	1556	11.8	2999
Course						
Arts	14.0	1071	11.5	1300	12.7	2371
Sciences	10.6	734	7.0	457	9.2	1191
Adequate funds						
Funds adequate	11.2	490	8.7	722	9.7	1212
Funds not adequate	13.2	1295	11.5	1004	12.4	2299
Total	**12.5**	**1819**	**10.3**	**1776**	**11.5**	**3595**

Overall, perceived risk of acquiring HIV differed significantly across universities, with the highest prevalence of perceived risk being observed in Islamic University in Uganda (17%) and Kampala International University (15%). Students in UCU and Mbarara Universities had the lowest perceived personal risk of acquiring HIV.

Students in the age group 26 to 34 years also perceived themselves to be at higher risk of acquiring HIV than other age groups (14%). In addition, students who did not receive adequate funds for personal upkeep while at the university also perceived themselves to be at higher risk of acquiring HIV.

The level of perceived personal risk of acquiring HIV was also analyzed by behavioural risk factors among the students, including whether they had ever had sexual intercourse, recent sexual intercourse, short and long distance mobility, sex with non-regular partners, multiple sexual partnerships, condom use at last sexual intercourse and experience of STI related symptoms. The findings are presented in table 4-10:

Table 4-10: Sexually active students' perceptions of risk of acquiring HIV by behavioural factors

	Males who perceive they are at high risk of acquiring HIV		Females who perceive they are at high risk of acquiring HIV		Total who perceive they are at high risk of acquiring HIV	
	%	N	%	N	%	N
Ever had sex						
Yes	13.2	1477	11.4	1312	12.4	2789
No	10.3	319	6.7	448	8.2	767
Sex in the last 12 months						
Yes	14.5	995	11.6	1050	13.0	2045
No	10.2	481	9.3	257	9.9	738
Short mobility						
Less Frequent	13.1	1060	10.6	1118	11.8	2178
More frequent	10.7	505	9.5	285	10.3	790
Long mobility						
Less Frequent	12.4	969	10.7	910	11.5	1879
More Frequent	13.8	362	9.5	275	11.9	637
Regular partner						
With regular partner	12.7	204	13.8	253	13.3	457
With non-regular	13.3	1254	10.8	1049	12.2	2303
Condom use at last sex						
Condom used	10.7	769	10.2	660	10.4	1429
Condom not used	16.1	671	13.1	623	14.7	1239
Age of last sexual partner						
<10 Years	13.3	1143	11.2	1083	12.3	2226
≥10 Years	18.8	85	15.5	110	16.9	195
Multiple sexual partners in last 12 months						
More than one	18.1	419	16.1	199	17.5	618
Only one	11.1	938	10.5	1047	10.8	1985
STI						
Had STI	20.5	127	18.7	219	19.4	346
Did not have STI	12.1	1419	9.9	1171	11.1	2590
Total	**12.5**	**1819**	**10.3**	**1776**	**11.4**	**3595**

In general, students who had ever had sexual intercourse (12%), those who had had sexual intercourse in the last 12 months (13%), and students with frequent long distance mobility perceived themselves to be at higher risk of acquiring HIV than other groups.

In addition, students who did not use a condom at their last sexual encounter, students who had multiple sexual partners in the 12 months preceding the survey and students who reported ever suffering a sexually transmitted disease in the 12 months preceding the

survey perceived themselves to be at a higher risk of acquiring HIV that the other groups. In general, female students perceived themselves to be at higher risk of acquiring HIV than male students.

4.2.2 Attitudes to abstinence

Abstinence from sex is one of the key messages emphasized in communication programmes among University students. It is therefore important to understand if students perceive abstinence as a viable means of protecting themselves from HIV. The findings are presented in table 4-11 by University.

Table 4-11: Students attitudes to abstinence

Abstaining from sex is a realistic way of avoiding HIV	Males		Females		Total	
	%	N	%	N	%	N
Gulu	91.5	283	95.1	205	93.0	488
IUIU	88.3	332	89.5	276	88.8	608
KIU	91.1	304	87.9	314	89.5	618
Makerere	91.0	391	90.7	441	90.9	832
Mbarara	90.5	284	95.4	219	92.6	503
UCU	90.7	236	97.7	353	94.9	589
Total	90.5	1830	92.5	1808	91.5	3638

Overall, more than 90% of students in Makerere, Mbarara, UCU and Gulu universities felt that abstaining from sex is a realistic way of avoiding HIV. These findings may imply that abstinence is acceptable to students as an option for avoiding HIV.

4.2.3 Accepting attitudes towards People Living with HIV

HIV related stigma is a major factor that affects the quality of life of people living with HIV/AIDS and may affect their ability to seek treatment. The level of acceptance for people living with HIV/AIDS was assessed using four questions, including whether students would accept to buy eats from a food vendor with HIV, whether they would agree to share a room with an HIV positive room-mate, whether they thought that their room-mate's HIV status should remain a secret and whether they thought that an HIV positive Lecturer should be allowed to continue teaching. Students who agreed to all four questions were considered to have an accepting attitude to people living with HIV/AIDS. These findings are presented in Table 33.

Overall, about 2% of students had an accepting attitude to people living with HIV/AIDS. The level of acceptance for people living with HIV/AIDS was almost similar across all the universities and sex. For virtually all universities and sex more than 80 percent of the respondents would buy and eats from a food vendor with HIV patient and would share a room with an HIV positive room-mate. Notably, 66 percent would prefer it to remain a

secret if their room-mate had HIV. Majority (95 percent) believe that an HIV positive lecturer should continue teaching.

Table 4-12: Attitudes towards people living with HIV/AIDS

	Would buy eats from a food vendor with HIV	Would share a room with a HIV positive room-mate	Would like it to remain a secret if their room-mate had HIV	Would like a lecturer to continue teaching even if they had HIV	All	N
University						
Gulu	86.8	86.9	66.8	96.3	53.3	484
IUIU	81.3	88.8	62.1	94.4	50.5	606
KIU	77.8	82.4	66.0	92.5	48.1	619
Makerere	83.1	82.7	65.1	94.6	49.7	829
Mbarara	84.8	88.3	70.0	96.3	55.5	508
UCU	82.9	87.0	68.4	98.3	53.6	584
Sex						
Male	84.3	87.2	63.0	95.8	50.5	1824
Female	80.9	84.2	69.4	94.8	52.4	1806
Total	**82.6**	**85.7**	**66.2**	**95.3**	**51.5**	
Total Number	**3655**	**3658**	**3640**	**3663**	**3630**	

Summary of observations on knowledge and attitudes to HIV and gender relations

i. The overall level of awareness about HIV/AIDS is high among students; the level of comprehensive knowledge about HIV/AIDS is moderately high among students
ii. The level of comprehensive knowledge about HIV differs significantly across universities, with Gulu University having the highest level (83%) and Uganda Christian University having the lowest (67%)
iii. Comprehensive knowledge about HIV/AIDS was higher among students in the higher years of study and higher among non-resident students.
iv. Knowledge of other important issues related to HIV is moderate to low; for instance, knowledge that genital sores are associated with HIV infection is moderately high; knowledge about ART is moderate, and knowledge about PMTCT is low, in both male and female students but especially among the female students
v. The level of accepting attitudes towards HIV/AIDS is low among students, without significant variation between universities.
vi. Overall the level of perceived risk for HIV among students is moderate. Perceived risk of HIV was highest in Uganda Christian University. It was also related to age of respondent, being on an Arts or Sciences course and being whether a student received adequate funds for upkeep. Self perceived risk was higher among women.
vii. There was also a higher self perception of risk among students that were involved in behaviours related to risk. Students who had ever had sexual intercourse and those who had sexual intercourse within the 12 months prior to the survey perceived

themselves at higher risk than the alternative groups. In addition, students with frequent mobility perceived themselves to be at higher risk of HIV. Students who did not use a condom at their last sexual encounter, those who had an STI and those who had multiple sexual partners were more likely to perceive themselves to be at high risk of HIV than the other groups.

5. SEXUAL BEHAVIOURS AND HIV RELATED RISK FACTORS AMONG STUDENTS

Summary of key indicators

No	Indicator	Status
1	Percentage of students who have ever had sexual intercourse	78%
2	Percentage of students who are sexually active (have had sex in the 12 months preceding the survey)	57%
3	Among students who had ever had sexual intercourse, percentage that had recent sexual intercourse (i.e. in the 12 months preceding the survey)	74%
4	Median age at first sexual intercourse	19 years
5	Percentage of students who have ever had sex who used a condom at their first sexual encounter	59%
6	Percentage of students in temporary relationships	73%
7	Among students in temporary relationships, percentage who have had sexual intercourse with their partner	71%
8	Among sexually active students, percentage who had sex with a non-regular partner in the 12 months preceding the survey	79%
9	Among sexually active students, condom use at last sexual intercourse	51%
10	Overall prevalence of cross-generational sex in universities	5%
11	Prevalence of cross-generational sex among sexually active students	8%
12	Overall prevalence of sex with more than one partner	17%
13	Prevalence of sex with more than one partner among sexually active students	24%
14	Overall prevalence of transactional sex in universities	3%
15	Prevalence of transactional sex among sexually active students	4%
16	Condom use at last sex among students who had more than one sexual partner in the 12 months preceding the survey	50%
17	Condom use at last sex among students who had a transactional sexual partner in the 12 months preceding the survey	50%
18	Among students who have ever had sexual intercourse, percentage who have ever been exposed to pornographic materials	72%
19	Among students who have ever had sexual intercourse, percentage who have ever suffered physical abuse from a partner	12%
20	Among students who have ever had sexual intercourse, percentage who have ever suffered sexual assault from a partner	5%
21	Overall percentage of students who report having an STD related symptom in the 12 months preceding the survey	10%
22	Percentage of female students who report having an STD related symptom in the 12 months preceding the survey	12%

5.0 Introduction

This chapter presents information on the sexual behaviour of University students. It is known that the main mode of spread of HIV/AIDS is through unprotected sexual intercourse with infected persons. It is therefore important to understand the sexual behaviours of students that predispose them to acquiring HIV. This section presents findings on the age at which university students initiate sex and the behaviours associated with the first time they had sexual intercourse. The section will also explore the relationships between sexual partners, condom use at last sex in the 12 months preceding the survey, sex with non regular partners and relationship networks among university students. In addition, information shall be presented on high risk sex, including multiple sexual partners, cross-generational sex, transactional sex and condom use among persons involved in high risk sex. Information will also be presented on other experiences related to sex, including adventures undertaken by students, occurrence of same sex relationships and prevalence of sexual and gender based violence among university students.

5.1 First experience of sexual intercourse

5.1.1 Proportion of students who had ever had sexual intercourse

The proportion of students who are sexually active is an important indicator of the total population at immediate risk of acquiring HIV/AIDS in Universities. It also shows the extent to which abstinence is prevalent in universities. Respondents were therefore asked to mention if they had ever had sexual intercourse in their lifetime. Sexual intercourse was defined as penetrative sex between two persons. Overall, 78% of university students had ever had sexual intercourse, representing about four fifths of the respondents. This implies that up to 22% of the students (Over one fifth) were abstaining from sex. The proportion of students who had ever had sex was higher among male students (83%) compared to the female students (74%) and the difference was statistically significant.

Characteristics associated with whether a student had ever had sexual intercourse

The background characteristics of students who have ever had sexual intercourse were compared with similar characteristics for those who have never had sexual intercourse. They were compared by university, year of study, residency status, sponsorship status and mobility. These findings are presented in the table 5-1:

Table 5-1: Characteristics associated with whether a student had ever had sexual intercourse

	Males		Females		Total	
	%	N	%	N	%	N
University						
Gulu	87.2	284	80.8	208	81.9	492
IUIU	84.1	334	79.8	272	82.2	606
KIU	90.0	311	83.0	323	86.4	634
Makerere	82.9	391	74.1	440	78.2	831
Mbarara	74.9	291	61.9	223	69.3	514
UCU	78.5	237	66.7	357	71.4	594
Age						
15-19	66.7	24	38.6	44	48.5	68
20-24	79.5	1396	73.7	1611	76.4	3007
25-29	91.3	320	88.5	122	90.5	442
30-34	98.4	61	92.9	28	96.6	89
35-39	96.4	28	75.0	8	91.7	36
40 and Over	100.0	18	100.0	9	100.0	27
Year of study						
1st	78.9	776	69.4	736	74.3	1512
2nd	83.1	574	75.4	562	79.3	1136
3rd	87.6	418	81.5	444	84.5	862
Over 3	84.5	71	70.8	72	77.6	143
Residency status						
On campus	77.1	477	73.1	501	75.1	978
Off campus	84.7	1310	75.5	1262	80.2	2572
Sponsorship status						
Government	74.6	339	67.4	175	72.2	514
Private	84.2	1467	75.0	1598	79.4	3065
Course						
Arts	85.3	1091	76.2	1337	80.3	2428
Sciences	78.3	741	68.7	469	74.5	1210
Short distance mobility						
Less Frequent	83.0	1074	73.9	1139	78.3	2213
More frequent	81.0	511	73.9	291	78.4	802
Long distance mobility						
Less Frequent	82.8	981	74.4	929	78.7	1910
More Frequent	83.5	370	75.0	280	79.8	650
Citizenship status						
Ugandans	82.3	1708	74.6	1678	78.4	3386
Non-Ugandans	84.6	123	72.4	116	78.7	239
Entry						
Regular	81.5	1548	73.6	1562	77.5	3110
Non-regular	90.6	171	85.7	126	88.6	297
Total	**82.5**	**1848**	**74.3**	**1823**	**78.4**	**3671**

From the table above, findings show that the proportion of students who have ever had sexual intercourse differed significantly across universities. At 86%, Kampala International University had the highest proportion of students who have ever had sexual intercourse, while Mbarara University of Science and Technology had the lowest proportion of students who have ever had sexual intercourse (69%).

The proportion of students who have ever had sexual intercourse also differed significantly across age-groups. The proportion of students that had ever had sexual intercourse increased significantly with the age of the student. Among students aged 15 to 20 years, 49% had ever had sexual intercourse while among students aged over 40 years, 100% had had experience with sexual intercourse.

The proportion of students who had ever had sexual intercourse was also significantly higher among 2nd and 3rd Year students compared to the 1st Year students, higher among students that reside off-campus compared to those residing on campus, and higher among privately sponsored students compared to Government sponsored students. The proportion of students who had ever had sexual intercourse was also higher among students on an Arts course (80%) compared to those on a sciences course (75%). It was also higher among students who entered the universities through a mature entry or diploma scheme (89%) compared to those that were admitted through regular entry, probably because most students admitted through alternative entry procedures are in the higher age-groups than those admitted through the regular entry procedures.

However, frequent short and long distance mobility were not significantly associated with the likelihood of having ever had sexual intercourse.

5.1.2 Age at first sexual intercourse

Among students who have ever had sexual intercourse, age at first sexual intercourse was determined and classified by whether their first sexual intercourse was in the following age groups: Less than 15 years, 15 to 19 years, 20 to 24 years, 25 to 29 years and over 30 years. The percentage distribution of respondents who had their sexual debut in each of these age-groups is presented in Table 5-2 below. In addition, the mean and median age at first sexual intercourse was computed and compared by university, sex, year of study, residency status, sponsorship and other background characteristics of students. Findings are presented in the table 5-2:

Table 5-2: Age at first sexual intercourse and related characteristics

	Age at first sexual intercourse					Overall		
	<15	15-19	20-24	25-29	≥30	Mean	Median	N
University								
Gulu	8.3	50.8	37.3	3.6	0.8	18.6	19	386
IUIU	4.4	55.3	38.3	1.7	0.4	18.7	19	481
KIU	7.8	55.7	34.2	2.3	0.0	18.5	19	512
Makerere	8.8	51.7	37.4	1.9	0.2	18.5	19	633
Mbarara	9.4	48.2	41.2	0.9	0.3	18.5	19	340
UCU	7.7	47.9	41.5	2.7	0.2	18.7	19	405
Sex								
Male	11.6	54.2	31.2	2.7	0.3	18.1	18	1453
Female	3.3	49.4	45.6	1.6	0.1	19.1	19	1304
Year of study								
1st	8.0	59.2	31.0	1.7	0.2	18.3	18	1087
2nd	7.4	51.3	38.3	2.8	0.2	18.6	19	856
3rd	8.1	42.9	47.0	1.9	0.1	18.9	19	694
Over 3	5.6	42.1	48.6	3.7	0.0	19.6	20	107
Residency status								
On campus	5.4	54.9	38.6	1.0	0.1	18.6	19	710
Off campus	8.5	50.8	37.9	2.6	0.2	18.6	19	1970
Sponsorship status								
Government	10.1	48.9	39.0	1.7	0.3	18.5	19	356
Private	7.4	52.4	37.7	2.3	0.2	18.6	19	2326
Course								
Arts	6.5	51.8	39.1	2.3	0.2	18.7	19	1871
Sciences	10.3	51.9	37.5	2.0	0.1	18.3	19	862
Short dist. mobility								
Less Frequent	7.7	51.5	38.7	1.9	0.2	18.6	19	1674
More frequent	9.5	54.4	34.6	1.3	0.2	18.2	18	610
Long dist. mobility								
Less Frequent	7.5	52.1	37.9	2.3	0.2	18.6	19	1449
More Frequent	10.3	52.9	35.2	1.4	0.2	18.2	19	503
Citizenship status								
Ugandans	7.5	52.2	38.0	2.1	0.2	18.6	19	2543
Non-Ugandans	9.4	50.0	36.7	3.3	0.6	18.6	18	180
Age category								
15-19	15.6	84.4	N.A	N.A	N.A	16.6	17.5	32
20-24	7.7	54.4	38.0	N.A	N.A	18.4	19	2198
25-29	8.4	40.7	43.6	7.3	N.A	19.3	20	383
30-34	4.7	40.0	34.1	21.2	N.A	20.2	19	85
35-39	6.3	43.8	25.0	25.0	0.0	19.8	20	32
40 and Over	0.0	32.0	56.0	8.0	4.0	20.7	19	25
Entry								
Regular	7.9	51.9	38.4	1.6	0.2	18.5	19	2304
Non-regular	6.3	48.6	36.5	8.2	0.4	19.2	19	255
Total	**7.7**	**51.9**	**38.0**	**2.2**	**0.2**	**18.6**	**19**	**2757**

Findings show that the majority of students initiate sex during the age group 15 to 19 years (52%). However, it was noted that about 8% of students initiated sex before the age of 15 years, which is of particular concern because this is a very young age. Thirty eight percent of students initiated sex in the age-group 20 to 24 years (i.e. in the age group

where the majority of university students are), implying that about 40% of students initiate sex while at the University.

The overall mean age at first sexual intercourse for students was 18.6 years, with a median of 19 years. Males were more likely to initiate sex at a lower age compared to female student. The median age at first sexual intercourse for male students was 18 years while that for female students was 19 years. Findings also show that current 1st year students initiated sexual intercourse at an earlier age than students in the higher years. Further to this, younger students in the universities (those aged 15 to 20 years) were more likely to have initiated sexual intercourse at a lower age than the older students, implying that the age at first sexual intercourse seems to be declining over time for students. The median age at first sexual intercourse for students aged 15 to 20 years was 17.5, while that for students aged 30 to 25 years was 20 years.

Students with more frequent short and long distance mobility were also more likely to have initiated sex at an earlier age than students with less frequent short and long distance mobility. Regular entry students were also more likely to have initiated sex early than students from mature or alternative entry schemes.

5.1.3 Condom use at first sex

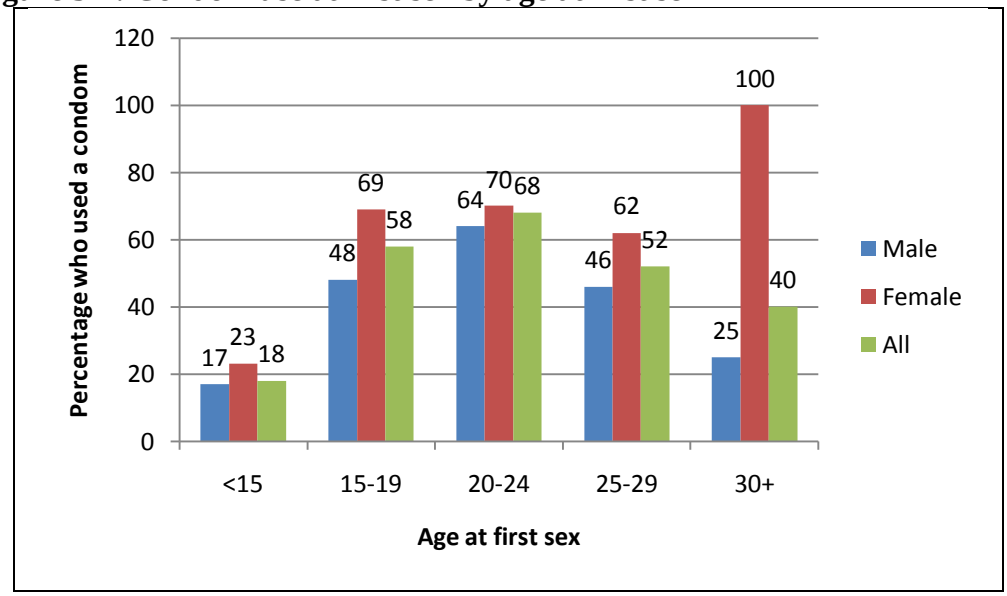
Condom use at first sex is an important indicator of the extent to which young people are in control of their reproductive life and are ready to use measures that prevent STDs and unwanted pregnancies at the time of their sexual debut. Students that had ever initiated sex were asked if they used a condom the last time they had sex. Key findings are summarised in the table 5-3:

Table 5-3: Condom use at first sex by university and by age at first sex

Condom was used at first sexual intercourse	Males		Females		Total	
	%	No	%	No	%	No
University						
Gulu	56.4	234	76.2	168	64.7	402
IUIU	47.1	280	67.9	218	56.2	498
KIU	51.3	279	65.7	271	58.4	550
Makerere	51.1	325	67.5	323	59.3	648
Mbarara	41.7	218	62.3	138	49.7	356
UCU	54.1	185	67.2	238	61.5	423
Age at first sexual intercourse						
<15	16.7	168	23.1	39	17.9	207
15-19	48.3	785	68.9	640	57.5	1425
20-24	64.2	453	70.4	592	67.8	1045
25-29	46.2	39	61.9	21	51.7	60
≥30	25.0	4	100.0	1	40.0	5
Total	**50.2**	**1521**	**67.7**	**1536**	**58.5**	**2877**

Findings show that overall the level of condom use at first sexual intercourse is low. Only 59% of students used a condom at their debut sexual intercourse. Condom use at first sex was much higher among female students (68%) compared to male students (50%). Condom use at first sex was much lower for people that initiated sex before the age of 15 years, and was highest for people that initiated sex in the 20 to 24 years age-group. Condom use at first sex was also lower for people that initiated sex after 30 years (Only 40% used a condom at first sex during this age-group).

Figure 5-1: Condom use at first sex by age at first sex



The figure further illustrates that condom use at first sex increases with age for both sexes and peaks among those who initiate sex in the age-group 20 to 24. Thereafter, it declines in those who initiate sex in the older age-groups.

5.1.4 Other Experiences at first sexual intercourse

Other experiences at the first sexual intercourse were also explored, including experiences of pressure for sex, promise of rewards, pressure by peers, and psychological preparedness for sex at the time of their first sexual intercourse. These findings are summarised in Table 5-4:

Table 5-4: Other experiences at first sexual intercourse

Experiences at first sexual intercourse	Male		Females		Total	
	No	%	No	%	No	%
Pressure for sex					n=2891	
Was pressurized	116	7.6	317	23.3	433	15.0
Pressurized partner	50	3.3	47	3.5	97	3.4
Both agreed to it	1197	78.2	826	60.7	2023	70.0
Do not remember	138	9.0	113	8.3	251	8.7
Do not know	30	2.0	57	4.2	87	3.0
Promise of rewards					n=2872	
Was promised	22	1.4	92	6.8	114	4.0
Promised partner rewards	55	3.6	13	1.0	68	2.4
None promised	1346	88.3	1137	84.3	2483	86.5
Do not remember	101	6.6	106	7.9	207	7.2
Pressured by peers					n=2871	
Was pressured	379	24.9	215	16.0	594	20.7
Was not pressured	1064	69.8	1066	79.1	2130	74.2
Do not remember	81	5.3	66	4.9	147	5.1
Psychological preparedness					n=2865	
Was prepared	870	57.2	551	41.0	1421	49.6
Was not prepared	384	25.3	532	39.6	916	32.0
Do not remember	132	8.7	82	6.1	214	7.5
Do not know/Was confused	134	8.8	180	13.4	314	11.0

About 15% of students reported that they were pressurized for sex by their partner at the time of their first sexual intercourse. Females were more likely to report having been pressured for sex at their first sexual intercourse (23%) compared to the males. Likewise, 3% of respondents admitted to pressuring their partner for sex at the time of their first sexual intercourse and this seemed to be equal among the male and female students.

Twenty one percent of students reported that they had experienced pressure from their peers to have sex at the time they had they had their first sexual intercourse. Pressure by peers was higher among male students (25%) compared to female students (16%).

About 7% of female students and about 1.5% of male students reported that their partner promised them some material rewards at the time of their first sexual intercourse. In general only 50% of respondents reported that they were psychologically prepared for sex at the time of their first sexual intercourse; male students were more likely to report that they were psychologically prepared at the time of their first sexual intercourse than female students (57% and 41% respectively).

5.2 Relationship Networks

Relationships characterized by temporary commitment are an important part of the sexual behaviours of students in tertiary institutions. It is therefore important to explore the extent to which students are involved in these temporary relationships, their duration, the

prevalence of sexual activity within these relationships, and other characteristics of these relationships.

5.2.1 Relationships with temporary commitment

University students who had ever had sexual intercourse were asked if they had a current boy-friend or girl friend. A 'boyfriend or girl friend' was defined a non-marital 'live-in' or 'non-live in' partner with whom they have a romantic relationship with, regardless of whether they have had sexual intercourse with them or not. Findings are summarised in the table 5-5:

Table 5-5: Proportion of students in a temporary relationship by university

Among those who have ever had sex, Currently has a boy/girl-friend to whom you are romantically linked	Males		Female		Total	
	%	N	%	N	%	N
Gulu	64.7	235	84.5	168	73.0	403
IUIU	68.7	281	86.1	217	76.3	498
KIU	72.5	280	84.3	268	78.2	548
Makerere	65.1	324	74.8	326	70.0	650
Mbarara	56.4	218	81.2	138	66.0	356
UCU	64.5	186	78.5	238	72.4	424
Total	**65.7**	**1524**	**81.0**	**1355**	**72.9**	**2879**

Overall, 73% of students who had ever had sexual intercourse reported that they currently had a temporary non-marital partner to whom they were linked romantically (Described as a boy-friend or girl-friend in this survey). This type of relationship was higher among the females (81%) compared to the males (66%). These findings therefore show that the prevalence of temporary relationships is high among sexually active university students.

5.2.2 Duration of temporary relationships

Respondents who had a current temporary partner (boy-friend or girlfriend to whom they are romantically linked) were asked about the duration of their relationship with their current partner. These findings are presented in table 5-6:

Table 5-6: Duration of relationship among those in a temporary relationship

Among those with a current boy/girl friend to whom they are romantically linked	Males		Female		Total	
	N	%	N	%	N	%
Duration of relationship						
0-6 months	285	26.6	231	20.2	516	23.3
7-12 months	185	17.3	214	18.7	399	18.0
13-24 months	256	23.9	259	22.6	515	23.2
25-60 months	282	26.4	361	31.5	643	29.0
61 to 120 months	61	5.7	72	6.3	133	6.0
Over 120 months	1	0.1	9	0.8	10	0.5
Short and longer duration						
Duration Less than one year	470	43.9	445	38.8	915	41.3
Duration longer than one year	600	56.1	701	61.2	1301	58.7
Mean duration (Months)	**24.4**	**1070**	**28.7**	**1146**	**26.7**	**2216**

Overall, 41% of current temporary relationships among university students had lasted less than one year, and about one quarter of these relationships had lasted 6 months or less. Female students were more likely to have longer temporary relationships than male students.

5.2.3 Sexual intercourse within temporary relationships

Respondents that have ever had sexual intercourse and have a current boyfriend/ girlfriend with whom they are romantically linked were asked if they have had sexual intercourse with their current boy/girl-friend. The majority of students in a temporary relationship had had sexual intercourse with their partner. These findings are summarised in Table 5-7:

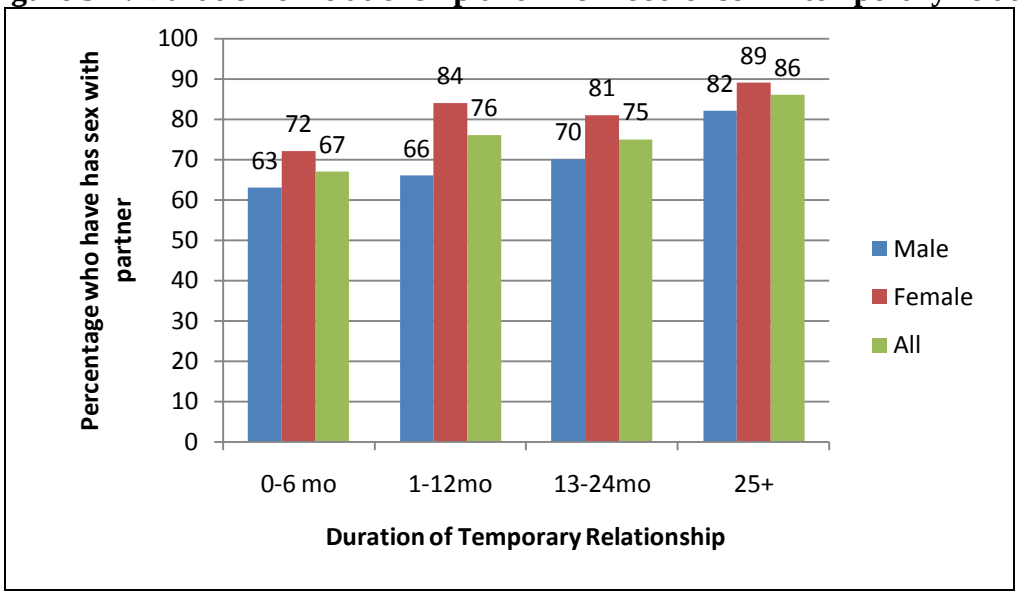
Table 5-7: Proportion who have had sexual intercourse with current boy/girl friend

Among those with a current boy/girl friend to whom they are romantically linked, sexual intercourse with current partner	Males Has had sexual intercourse with partner		Females Has had sexual intercourse with partner		Total Has had sexual intercourse with partner	
	%	N	%	N	%	N
Duration of temporary relationship						
0-6 Months	62.6	278	71.7	223	66.7	501
7-12 Months	65.7	181	84.3	210	75.7	391
13-24 Months	69.5	249	80.9	251	75.2	500
≥25 Months	82.4	330	88.5	426	85.8	756
Total (By duration)	**71.1**	**1038**	**82.6**	**1110**	**77.0**	**2148**
Total (All)	**65.3**	**1189**	**76.6**	**1226**	**71.1**	**2415**

71% of students in temporary relationships had had sexual intercourse with their partner. The likelihood of sexual intercourse with temporary partners increased with the duration of the temporary relationship. Two thirds of those in relationships that were 6 months or shorter had had sexual intercourse with their temporary partner, while 86% of those in

relationships longer than 2 years had had sexual intercourse with their partner. A small but significant number of students in temporary relationships practice abstinence for more than two years (14%).

Figure 5-2: Duration of relationship and likelihood of sex in temporary relationships



5.2.4 Lifetime number of temporary relationships

Since the majority of relationships at university level are temporary relationships, and the majority have sexual intercourse with their sexual partners even within 6 months of their relationships, the rate of partner change is an important indicator of the stability of these relationships and a proxy indicator of risk among university students. Students who had ever had sexual intercourse were asked about the total number of temporary relationships they have ever had over their lifetime. Findings are presented in Table 5-8:

Table 5-8: Number of romantically linked lifetime boy-friends

Among those who have ever had sex,	Males		Female		Total	
	Freq	%	Freq	%	Freq	%
Number of boy/girl friends with whom they have ever had a romantic relationship						
None	16	1.2	5	0.4	21	0.8
1	363	26.7	585	43.9	948	35.2
2	384	28.3	411	30.8	795	29.5
3	252	18.6	186	13.9	438	16.3
4	111	8.2	73	5.5	184	6.8
5	77	5.7	40	3.0	117	4.3
6-10	113	8.3	28	2.1	141	5.3
Over 10	42	3.2	6	0.4	48	1.8
Total Number	**1358**		**1334**			

From the table, 35% of sexually active students have had only one temporary partner in a life-time; however, 64% of the students have had more than one temporary relationship and 7% had had over 5 such relationships in their life-time.

5.3 Recent Sexual Activity

5.3.1 Duration since last sexual intercourse

Recent sexual intercourse (defined as sex within the last 12 months preceding the survey) is an important indicator of the proportion of students that is sexually active, and has current risk of acquiring HIV/AIDS. The behaviours related to the most recent sexual intercourse are therefore an important indicator of the current prevalence of risky and low risk sexual practices. Respondents who have ever had sexual intercourse were asked about the time since their most recent sexual intercourse, categorized as indicated in Table 5-9 below. They were then classified into those who had had sex within the last 12 months (classified as sexually active) and those who had had their last sexual encounter over 12 months ago (classified as secondary abstinence).

Table 5-9: Duration since last sexual intercourse among students who had ever had sex

	Males		Females		Total	
	N	%	N	%	N	%
Duration since last sexual intercourse						
Less than a week ago	223	14.7	269	19.9	492	17.1
Less than a month ago	428	16.3	280	20.7	528	18.4
Months ago	554	36.5	536	39.7	1090	38.0
1 to 2 Years ago	213	14.0	135	10.0	348	12.1
> 2 years ago	187	12.3	71	5.3	258	9.0
Do not recall	94	6.2	59	4.4	153	5.3
Sex within last 12 months						
Had sex within last 12 mo	1025	67.5	1085	80.4	211	73.5
Had sex over 12 months ago	494	32.5	265	19.6	729	26.5

74% of students who had ever had sexual intercourse had had sexual intercourse within the last 12 months. This implies overall that 57% of university students are sexually active (i.e. have had sexual intercourse within the 12 months preceding the survey). Moreover, 36% of sexually active students had had sexual intercourse within the last one month preceding the survey. These findings indicate that a large proportion of students have had recent sexual contact.

5.3.2 Relationship to Person with whom they last had sexual intercourse

Sex with non-regular sexual partners is an important aspect of university life since most students engage in temporary relationships. Students who had had sex in the last 12 months preceding the survey were asked about their relationship to the person with whom

they last had sex. These were then classified as regular sexual partners or non-regular sexual partners. A regular sexual partner was defined as a 'live-in' partner (One whom they are staying with on a regular basis, either married to them or cohabiting with them). A non-regular partner was defined as any other 'non- live-in partner'. These findings are presented in Table 5-10 below.

Findings show that only 19% of university students who had had sex in the last 12 months preceding the survey had sexual intercourse with a regular sexual partner the last time they had sexual intercourse. 11% of students who had sexual intercourse within the last 12 months had had their last sexual intercourse with a husband or wife, and 8% had had their last sexual intercourse with a cohabiting partner. The majority of sexually active students had sexual intercourse with a person they considered their boy-friend or girl-friend. These findings further show the importance of relationships with temporary commitment among university students.

Table 5-10: Relationship with last sexual partner among students who had sex in the last 12 months

	Males		Females		Total	
	N	%	N	%	N	%
Relation with person with whom they last had sex						
Husband/Wife	112	11.0	119	11.0	231	11.0
Cohabiting partner	68	6.7	105	9.7	173	8.3
Boy /girl friend	687	67.6	805	74.7	1492	71.3
Casual friend	116	11.4	38	3.5	154	7.4
Transactional	24	2.4	2	0.2	26	1.2
Other	9	0.9	8	0.7	17	0.8
Sex with a non-regular sexual partner in last 12 months						
Regular partner	180	17.7	224	20.8	404	19.3
Non-regular partner	836	82.3	853	79.2	1689	80.7
Total Number	**1016**	**100**	**1077**	**100**	**2093**	**100**

It was also noted that 7% of university students who had had sexual intercourse in the 12 months preceding the survey had sex with a casual partner the last time they had sexual intercourse. A casual partner was defined as any temporary partner that does not fit the description of a 'boy-friend or girl-friend' and is not a transactional partner. 1.2% of students who had sexual intercourse in the last 12 months had their last sexual intercourse with a transactional sexual partner (i.e. a sexual partner with whom they exchanged favours for sex).

A number of factors were found to be associated with the likelihood of sex with a regular or non- regular sexual partner at the last time the students had sexual intercourse among those who had sex in the last 12 months. The prevalence of sex with a non-regular partner at the time of last sexual intercourse differed significantly across universities. Makerere

University and Mbarara University had the highest prevalence of sex with non-regular partners (86% and 85% respectively). On the other hand, Gulu University and the Islamic University in Uganda had the highest prevalence of sex with regular partners (28% and 24% respectively).

Sex with non-regular partners also differed significantly across age-groups. As expected, students aged 15 to 24 years were more likely to have had sexual intercourse with a non-regular sexual partner, than older students. Over 90% of sexually active respondents that were aged 40 years and above had had sexual intercourse with a marital or cohabiting partner the last time they had sexual intercourse. In the age group 35 to 29 years, over 80% of sexually active individuals had had sexual intercourse with a regular sexual partner the last time they had sexual intercourse and in the age group 30 to 35 years, 68% engaged with a regular sexual partner. Findings therefore show that the likelihood of sex with a regular partner increases with age. This was expected because older students are more likely to be in marital of committed relationships that younger students.

Students who were resident on the university campuses and students who entered the university through the regular entry schemes were also more likely to have had sexual intercourse with a non-regular partner at the time of last sexual intercourse. This is probably explained by the fact that older students are less likely to be on-campus residents and the majority is admitted through alternative admission processes (diploma or mature entry schemes).

Frequent short and long distance mobility were not found to be associated with the likelihood of sex with non-regular partners. In addition, the students course (whether Arts or Sciences) and their year of study were not associated with likelihood of sexual intercourse with a non-regular partner. These characteristics are summarised in Table 5-11 below:

Table 5-11: Sex with a non-regular partner in the last 12 months and associated characteristics

Sex with a non-regular partner in last 12 months	Males		N	Females		N	Total		N
	Regular Partner %	Non-regular Partner %		Regular Partner %	Non-regular Partner %		Regular Partner %	Non-regular Partner %	
University									
Gulu	31.1	68.9	151	24.1	75.9	137	27.8	72.2	288
IUIU	22.1	77.9	163	26.1	73.9	165	24.1	75.9	328
KIU	16.6	83.1	223	23.4	76.6	222	20.0	80.0	445
Makerere	9.5	90.5	231	18.0	82.0	261	14.0	86.0	492
Mbarara	13.6	86.4	118	15.8	84.2	101	14.6	85.4	219
UCU	16.9	83.1	130	17.3	82.7	191	17.1	82.9	321
Age									
15-19	0.0	10.0	10	15.4	84.6	13	8.7	91.3	23
20-24	10.2	89.8	704	16.7	83.3	942	13.9	86.1	1646
25-29	19.6	80.4	214	41.4	58.6	87	25.9	74.1	301
30-34	66.7	33.3	45	71.4	28.6	21	68.2	31.8	66
35-39	79.2	20.8	24	100.0	0.0	5	82.8	17.2	29
40 and Over	94.4	5.6	18	100	0.0	9	96.3	3.7	27
Year of study									
1st	15.8	84.2	336	18.0	82.0	400	17.6	83.0	766
2nd	18.3	81.7	322	20.5	79.5	336	19.5	80.5	658
3rd	19.4	80.6	273	25.3	74.5	300	22.5	77.5	573
Over 3	16.3	83.7	49	16.7	83.3	36	16.5	83.5	85
Residency status									
On campus	15.8	84.2	222	15.3	84.7	288	15.5	84.5	510
Off campus	18.4	81.6	767	23.1	76.9	762	20.7	79.3	1529
Sponsorship									
Government	18.6	81.4	167	19.8	80.2	91	19.0	81.0	258
Private	17.9	82.9	829	20.8	79.2	958	19.1	80.9	1787
Course									
Arts	18.3	81.7	640	20.3	79.7	795	19.4	80.6	1435
Sciences	16.9	83.1	373	22.4	77.6	272	19.2	80.8	645
Short distance mobility									
Less Frequent	16.8	83.2	596	19.2	80.8	673	18.0	82.0	1269
More frequent	18.4	81.6	283	18.3	81.7	175	18.3	81.7	1727
Long distance mobility									
Less Frequent	18.7	81.3	535	19.5	80.5	553	19.1	80.9	1088
More Frequent	14.7	85.3	224	22.0	78.0	177	18.0	82.0	401
Entry									
Regular	14.3	85.7	837	18.6	81.4	912	16.6	83.4	1749
Non-regular	44.7	55.3	114	44.9	55.1	89	44.8	55.2	203
Total	**17.7**	**82.3**	**1016**	**20.8**	**79.2**	**1077**	**19.3**	**80.7**	**2093**

5.3.3 Age of last sexual partner and cross-generational sex among students

Students were asked to mention the age of the person with whom they last had sexual intercourse. Among those who know the age of their most recent sexual partner, the

average age of the last sexual partner was 22 years for male students and 27 years for female students, meaning that female students were more likely to have an older sexual partner than male students.

5.3.3.1 Prevalence of cross-generational sex among sexually active students

Cross-generational sex is defined as sex with a person who is 10 or more years older. For respondents who had had sex in the last 12 months and knew the age of their last sexual partner, the age difference between the respondent and their last sexual partner was computed. Those who did not know the age of their most recent sexual partner were asked if they thought their partner was 10 or more years older than them. Respondents were then stratified into those who had or thought they had sex with a person 10 or more years older than them (cross-generational sex) and those that had sexual intercourse with a person less than ten years older or younger than them.

The prevalence of cross-generational sex among sexually active students within the 12 months preceding the survey was about 8%. Prevalence of cross-generational sex among sexually active students in the 12 months preceding the survey was higher among female students (9%) compared to male students (6.5%), but the difference was only marginally significant.

The prevalence of cross-generational sex among sexually active students within the 12 months preceding the survey was also higher among students who had had sexual intercourse with a regular partner the last time they has sexual intercourse than among those who had sexual intercourse with a non-regular partner.

5.3.3.2 Characteristics associated with cross-generational sex

Other characteristics associated with the likelihood of cross-generational sex among sexually active students are summarised in the Table 5-12 below:

Table 5-12: Characteristics associated with cross-generational sex in the 12 months preceding the survey

Difference between respondents' age and age of last sexual partner	Males			Females			Total		
	<10 Yrs %	≥10 Yrs %	N	<10 Yrs %	≥10 Yrs %	N	<10 Yrs %	≥10 Yrs %	N
University									
Gulu	93.9	6.1	132	93.1	6.9	131	93.5	6.5	263
IUIU	91.4	8.6	139	91.8	8.2	147	91.6	8.4	286
KIU	90.8	9.2	185	91.1	8.9	202	91.0	9.0	387
Makerere	94.6	5.4	204	88.7	11.3	239	91.4	8.6	443
Mbarara	97.1	2.9	102	90.4	9.6	94	93.9	6.1	196
UCU	93.2	6.8	118	93.0	7.0	171	93.1	6.9	289
Age									
15-19	100.0	0.0	7	91.7	8.3	12	94.7	5.3	19
20-24	95.5	4.5	602	91.6	8.4	862	93.2	6.8	1464
25-29	95.2	4.8	189	91.0	9.0	78	94.0	6.0	267
30-34	93.0	7.0	43	73.7	26.3	19	87.1	12.9	62
35-39	50.0	50.0	22	80.0	20.0	5	55.6	44.4	27
40 and Over	47.1	52.9	17	87.5	12.5	8	60.0	40.0	25
Year of study									
1st	94.2	5.8	311	90.7	9.3	375	92.3	7.7	686
2nd	91.4	8.6	279	92.6	7.4	309	92.0	8.0	588
3rd	94.6	5.4	239	90.5	9.5	262	92.4	7.6	501
Over 3	93.5	6.5	46	87.9	12.1	33	91.1	8.9	79
Residency status									
On campus	92.6	7.4	189	92.5	7.5	268	92.6	7.4	457
Off campus	93.4	6.6	668	90.4	9.6	700	91.9	8.1	1368
Sponsorship status									
Government	95.9	4.1	145	90.8	9.2	87	94.0	6.0	232
Private	92.9	7.1	717	91.3	8.7	869	92.0	8.0	1586
Course									
Arts	93.9	6.1	545	91.3	8.7	728	92.5	7.5	1273
Sciences	92.2	7.8	332	90.7	9.3	248	91.6	8.4	580
Short distance mobility									
Less Frequent	93.7	6.3	508	91.6	8.4	618	92.5	7.5	1126
More frequent	93.7	6.3	252	93.4	6.6	167	93.6	6.4	419
Long distance mobility									
Less Frequent	94.4	5.6	466	91.6	8.4	511	92.9	7.1	977
More Frequent	92.1	7.9	190	88.6	11.4	158	90.5	9.5	348
Adequate funds									
Funds adequate	92.2	7.8	231	90.5	9.5	390	91.1	8.9	621
Funds not adequate	93.6	6.4	637	91.4	8.6	569	92.5	7.5	1206
Total	**93.3**	**6.7**	**880**	**91.2**	**8.8**	**984**	**92.2**	**7.8**	**1864**

Kampala International University had the highest prevalence of cross-generational sex among sexually active students in the 12 months preceding the survey (9%), followed by Makerere University (8.6%). However, the occurrence of cross-generational sex did not differ significantly across universities.

The occurrence of cross-generational sex in the 12 months preceding the survey was associated with the age and increased with the age of the respondents. Prevalence of cross-generational sex among sexually active students was 5% among students aged 15 to 19 years, 7% among students aged 20 to 24 years, 13% among students aged 30 to 34 years and 44% among students aged 35 to 39 years.

5.3.4 Condom use at last sex

Students who had sexual intercourse within the 12 months preceding the survey were asked if they used a condom the last time they had sexual intercourse. Key findings and correlates of condom use at last sexual intercourse are summarised in Table 5-13:

Table 5-13: Among students who had sex in the last 12 months, Condom use at last sex

	Males		Females		Total	
	Condom was used		Condom was used		Condom was used	
	%	N	%	N	%	N
University						
Gulu	55.0	149	55.2	259	55.0	282
IUIU	44.5	164	42.6	101	44.8	324
KIU	51.9	216	42.3	215	47.1	431
Makerere	59.5	227	50.5	184	57.2	486
Mbarara	52.2	115	54.9	133	47.7	216
UCU	55.1	127	45.0	160	52.4	311
Age						
15-19	50.0	10	53.8	13	52.2	23
20-24	58.6	689	50.8	921	54.2	1610
25-29	47.2	212	38.6	83	44.7	295
30-34	33.3	45	35.0	20	33.8	65
35-39	21.7	23	0.0	5	17.9	28
40 and Over	11.1	18	10.0	10	10.7	28
Residency status						
On campus	54.4	215	51.8	280	52.9	495
Off campus	52.9	754	48.2	745	50.6	1499
Sponsorship status						
Government	53.0	164	54.5	88	53.6	252
Private	53.1	814	48.1	939	50.4	1753
Course						
Arts	53.8	632	50.3	778	51.8	1410
Sciences	52.3	363	44.2	265	48.9	628
Short distance mobility						
Less Frequent	54.4	588	48.3	658	51.2	1246
More frequent	52.4	273	51.5	171	52.0	444
Long distance mobility						
Less Frequent	54.4	528	45.2	542	49.7	1070
More Frequent	50.7	217	52.9	170	51.7	387
Adequate funds						
Funds adequate	64.5	259	50.0	422	55.5	681
Funds not adequate	49.6	724	48.1	605	48.9	1329
Regular partnership						
With regular partner	27.1	177	34.7	216	31.3	393
With non-regular	59.0	815	52.8	831	55.9	1646
Duration of relationship						
Up to 12 months	54.7	329	49.0	349	51.8	678
Over 12 months	50.8	445	47.7	545	49.1	990
Entry						
Regular	53.7	821	50.4	890	52.0	1711
Diploma	46.9	112	30.3	89	39.6	202
Alcohol taken at last sex						
Alcohol taken	50.5	91	41.0	100	45.5	191
Alcohol not taken	53.9	890	49.7	943	51.8	1833
Total	**53.3**	**998**	**49.0**	**1052**	**51.1**	**2050**

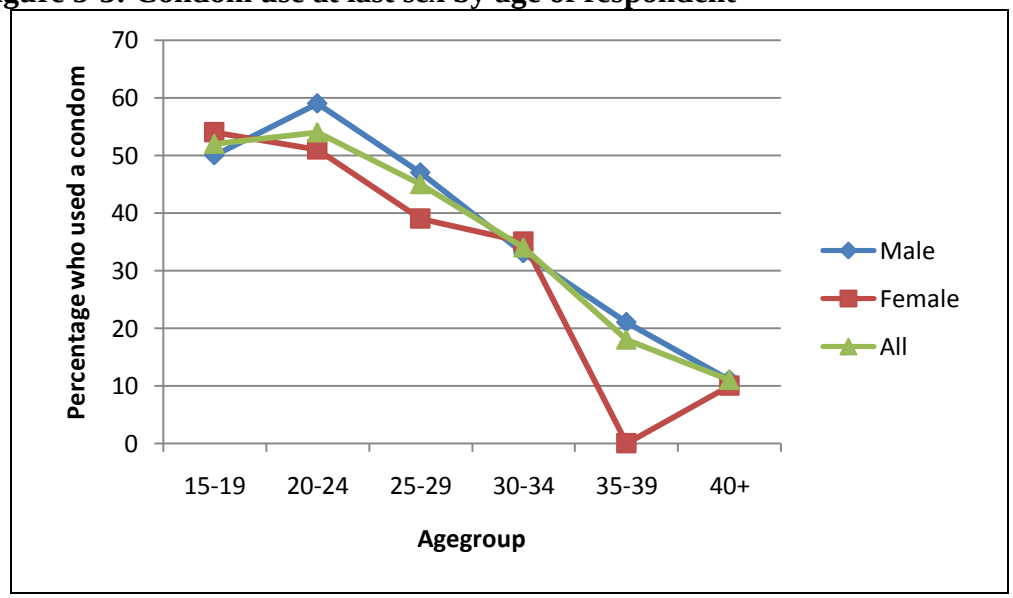
Overall, despite the fact that about 80% of students had a non-regular sexual partner the last time they had sexual intercourse, condom use at last sexual intercourse was generally

low among students. Among students who had sexual intercourse in the last 12 months, only 51% used a condom the last time they had sexual intercourse. Although males were more likely to have used a condom at last sexual intercourse within the 12 months preceding the survey than female students, the difference was not statistically significant.

Condom use differed significantly across universities. Condom use at last sex was lowest in Islamic University in Uganda and Kampala International University (45% and 47% respectively), and highest in Makerere and Gulu Universities (57% and 55% respectively). Prevalence of condom use at last sexual intercourse among sexually active students was less than 60% in all universities.

Condom use at last sexual intercourse was higher in students who were younger, compared to older students.

Figure 5-3: Condom use at last sex by age of respondent



Condom use at last sex among people aged 15 to 24 years was about 53%, compared to 34% among people aged 30 to 34 years; this trend was expected because as observed earlier, older students were more likely to be in married or cohabiting relationships.

Condom use was lower among students who had sex with a regular sexual partner at the last time they had sexual intercourse (31%) compared to those who had a non-regular partner (56%). It was also lower among students who had entered the university through mature or diploma entry schemes (40%) compared to those who had been admitted through regular entry (52%) probably because of the age difference and difference in likelihood of being in married or cohabiting relationships for students admitted in alternative entry schemes.

Condom use at last sexual intercourse was also associated with whether students received adequate funds for personal upkeep or not. Students who reported that they received adequate funds for personal upkeep were more likely to have used a condom at their last sexual encounter within the last 12 months (56% used a condom at the last sexual encounter) than students who reported that they did not receive adequate finds for upkeep (49% used a condom).

Condom use was lower among sexually active students who had a temporary relationship (boy/girl friend relationship) that was longer than 12 months (49%) compared with use among those who had a relationship shorter than 12 months (52%), indicating that condom use declines over time.

Condom use at last sex within the l2 months preceding the survey was lower among students who had taken alcohol at the time of their last sexual intercourse (46%) compared to those who had not taken alcohol (52%), and the difference was statistically significant (p=0.035). This implies that alcohol use among students, especially around the time of sexual intercourse may have an influence on condom use.

5.3.5 Other experiences at last sexual intercourse

The assessment also explored other experiences related to the last sexual intercourse among students who had sexual intercourse within the last 12 months, including pressure for sex, promise of rewards, alcohol intake, narcotics use and use of aphrodisiacs or sex stimulants. Key findings are presented in Table 5-14:

Table 5-14: Other experiences related to the last sexual intercourse in sexually active students

At the time of their last sexual intercourse in last 12 months…	Males		Females		Total	
	Freq	%	Freq	%	Freq	%
Pressure for sex	N=1487		N=1337		N=2824	
Was pressurized	79	5.3	145	10.8	224	7.9
Pressurized partner	44	3.0	22	1.6	66	2.3
Both agreed to it	1297	87.2	1104	82.6	2401	85.0
Do not remember	67	4.5	66	4.9	133	4.7
Do not know	0	0.0	0	0.0	0	0.0
Promise of rewards						
Was promised	19	1.3	56	4.2	75	2.6
Promised partner	54	3.6	15	1.1	69	2.4
None promised	1358	90.7	1208	90.6	2566	90.6
Do not remember	66	4.4	55	4.1	121	4.3
Took some alcohol before	N=1490		N=1342		N=2832	
Had taken	72	4.8	30	2.2	102	3.6
Partner had taken	18	1.2	61	4.5	79	2.8
Both had taken	32	2.1	35	2.6	67	2.4
None had any	1319	88.5	1167	87.0	2486	87.8
Do not remember	49	1.7	49	3.7	98	3.5
Took some narcotics before	N=1499		N=1342		N=2841	
Had taken	12	0.8	1	0.1	13	0.5
Partner had taken	13	0.9	12	0.9	25	0.9
Both had taken	1	0.1	1	0.1	2	0.1
None had taken	1422	94.9	1276	95.1	2698	95.0
Do not remember	51	3.4	52	3.9	103	3.6
Took some aphrodisiacs before	N=1554		N=1423		N=2977	
Yes	512	3.3	12	0.8	64	2.1
No	1502	96.7	1411	99.2	2913	97.9

8% of students reported that they felt they had been pressured for sex at the time of their last sexual intercourse and 2% reported that they had pressured their partner. Female students were more likely to report that they had been pressured for sex (11%) compared to male students (5%); On the other hand, male students were more likely to report having pressured their partner (3%) compared to female students (1.6%).

About 3% of respondents reported that they were promised some rewards at the time of their last sexual intercourse, and this was more likely among female students (4%) compared to the male students (1%); conversely, male students were more likely to promise rewards (4%) compared to female students (1%).

Among students who reported having sexual intercourse in the last 12 months, about 9% of respondents reported that either they or their sexual partner had taken some alcohol at the time of their last sexual intercourse. Alcohol taking before sexual intercourse was higher for male students than for female students.

About 2% of students reported taking some sex enhancing before their last sexual intercourse, and this was higher among the male students (3%) compared to the female students (0.8%). In addition, about 0.5% of students reported having used narcotic drugs like marijuana just before their last sexual intercourse, and this was higher among male students.

5.4 Higher Risk Sex

HIV/AIDS is mainly spread through unprotected sexual intercourse with an infected partner. There are known factors that increase the risk of contact with infected persons and hence the spread of HIV infection including multiple sexual partners, cross-generational sex and sex with commercial sex workers or prostitutes. The occurrence of these behaviours among university students was explored and findings compared by different population sub-groups in the universities. This sub-section presents key findings related to the occurrence of high risk sexual behaviours among university students and associated background characteristics and behaviours.

5.4.1 Overall Prevalence of higher risk sexual practices in universities

The prevalence of three higher risk sexual behaviours (multiple sexual partners within the last 12 months, cross-generational sex in the last 12 months and sex with a transactional partner in the last 12 months) was computed for the universities (the denominator being all university students). This information is summarised in Table 5-15:

Table 5-15: Prevalence of higher risk sexual practices in universities in Uganda

	Among all male respondents, occurrence of a higher risk behaviour			Among all female respondents, occurrence of a high risk behaviour			Among all respondents, occurrence of a higher risk behaviour		
	No	**N**	**%**	**No**	**N**	**%**	**No**	**N**	**%**
More than one sexual partner in last 12 months									
Gulu	47	288	16.3	24	208	11.5	71	496	14.3
IUIU	62	340	18.2	23	280	8.2	85	620	13.7
KIU	118	316	37.5	50	327	15.3	168	643	26.1
Makerere	106	398	26.6	50	447	11.2	156	845	18.4
Mbarara	47	292	16.1	19	223	8.5	66	515	12.8
UCU	49	240	20.4	39	359	10.8	88	599	14.7
Total	**429**	**1874**	**22.9**	**205**	**1844**	**11.1**	**634**	**3718**	**17.1**
Cross-generational sex									
Gulu	13	288	4.5	10	208	4.8	23	496	4.6
IUIU	19	340	5.6	18	280	6.4	37	620	6.0
KIU	22	316	7.0	23	327	7.0	45	643	7.0
Makerere	16	398	4.0	33	447	7.4	49	845	5.8
Mbarara	8	292	2.7	12	223	5.4	20	515	3.9
UCU	9	240	3.8	15	359	4.2	24	599	4.0
Total	**87**	**1874**	**4.6**	**111**	**1844**	**6.0**	**198**	**3718**	**5.3**
Sex with a transactional partner									
Gulu	8	288	2.8	0	208	0.0	8	496	1.6
IUIU	9	340	2.6	5	280	1.8	14	620	2.2
KIU	25	306	7.9	10	327	3.1	35	643	5.4
Makerere	33	398	8.3	6	447	1.3	39	845	4.6
Mbarara	7	292	2.4	2	223	0.9	9	515	1.7
UCU	7	240	2.9	5	359	1.4	12	599	2.0
Total	**89**	**1874**	**4.7**	**28**	**1844**	**1.5**	**117**	**3718**	**3.1**

The overall prevalence of sex with multiple sexual partners in universities in Uganda was estimated at 17% of all students. The prevalence of sex with more than one partner in the 12 months preceding the survey was highest in Kampala International University (26%), followed by Makerere University (18%); it was lowest in Mbarara University (13%). Sex with multiple sexual partners was highest among male respondents (23%) compared to female respondents (11%) and this was also reflected in the university specific findings. In all universities, the prevalence of multiple sexual relationships was higher among male students compared with female students.

The overall prevalence of cross-generational sex among all students in the universities involved in the survey was 6%. The overall prevalence of cross-generational sex was highest in Kampala International University (7%), followed by Islamic University in Uganda (6%) and lowest in Mbarara University (4%); however, it should be noted that overall, the difference in prevalence of cross-generational sex across universities was not statistically significant. Overall, cross generational sex was slightly higher in female students (6%) compared to males (4%) and the same picture was reflected in all

universities except Kampala International University where prevalence was equal for males and females (7%).

Overall prevalence of sex with a transactional partner in the 12 months preceding the survey was 3% among all university students surveyed. The prevalence of sex with a transactional partner in the 12 months preceding the survey was highest in Kampala International University (5.4%), followed by Makerere University (4.6%), and lowest in Mbarara University and Uganda Christian University, Mukono.

Findings therefore indicate that Kampala International University and Makerere University have the highest prevalence of higher risk sexual behaviours among students.

5.4.2 Characteristics associated with higher risk sexual behaviours in students

5.4.2.1 Characteristics associated with transactional sex

Higher risk behaviours among students who had had sexual intercourse in the 12 months preceding the survey were compared for different categories of students to assess the characteristics associated with these behaviours. Table 5-16 presents key findings on factors associated with the likelihood of sex with a transactional partner among students who had sexual intercourse in the 12 months preceding the survey.

Findings show among students who had sexual intercourse in the last 12 months, the likelihood of sex with a transactional partner was associated with the university in which the student was. Sex with a transactional partner, among students that had sexual intercourse in the last 12 months was highest in Kampala International University and Makerere University.

Students with more frequent long distance mobility were also more likely to be involved in transactional relationships than students with infrequent long distance mobility. In addition, sexually active students who take alcohol and students who had taken alcohol at the time of their last sexual encounter were more likely to be involved in transactional sex than students who do not take alcohol or who did not take alcohol at their last sexual encounter. Transactional sexual relationships were also significantly higher among males (6%) compared to females (2%).

However, the occurrence of transactional sex did not seem to differ significantly across age-groups, year of study, residency status, course, short distance mobility and adequacy of funding support.

Table 5-16: Sex with a transactional partner in the 12 months preceding the survey and associated characteristics

	Among males who had sexual intercourse in the last 12 months, sex with a transactional partner		Among females who had sexual intercourse in the last 12 months, sex with a transactional partner		Among all students who had sexual intercourse in the last 12 months, sex with a transactional partner	
	%	N	%	N	%	N
University						
Gulu	3.5	226	0.0	157	2.1	383
IUIU	3.2	283	2.3	222	2.8	505
KIU	8.9	280	3.6	280	6.3	560
Makerere	10.3	320	1.8	326	6.0	646
Mbarara	3.3	210	1.4	139	2.6	349
UCU	3.8	183	2.1	237	2.9	420
Age						
15-19	0.0	14	0.0	19	0.0	33
20-24	6.6	1099	2.0	1187	4.2	2286
25-29	4.5	288	2.7	112	4.0	400
30-34	1.8	57	0.0	27	1.2	84
35-39	3.8	26	16.7	6	6.3	32
40 and Over	5.9	17	0.0	9	3.8	26
Year of study						
1	5.6	606	2.1	526	4.0	1132
2	6.3	474	2.2	418	4.4	892
3	5.9	356	1.9	363	3.9	719
>3	6.8	59	2.1	47	4.7	106
Residency Status						
On campus	5.2	367	2.4	368	3.8	735
Off campus	6.2	1085	2.0	961	4.2	2046
Course						
Arts	6.2	918	2.2	1015	4.1	1933
Sciences	5.6	572	1.8	331	4.2	903
Short mobility						
Less frequent	5.4	889	1.9	839	3.7	1728
More frequent	7.0	398	2.3	222	5.3	620
Long mobility						
Less frequent	4.8	799	2.5	693	3.7	1492
More frequent	9.5	294	1.8	222	6.2	516
Entry						
Regular	6.2	1241	2.0	1154	4.2	2395
Diploma	3.9	155	1.8	112	3.0	
Adequate funds						
Funds adequate	7.9	379	1.7	534	4.3	913
Funds adequate	5.9	1097	2.3	790	4.1	1887
Regular partner						
Regular partner	4.8	209	1.6	255	3.0	464
Non-regular partner	6.3	1231	2.2	1029	4.5	2260
Taking alcohol						
Takes alcohol	11.0	427	2.8	290	7.7	717
Does not take alcohol	4.0	952	2.1	953	4.3	1905
Alcohol taken at last sex						
Alcohol taken	31.0	116	1.7	118	16.2	234
Alcohol not taken	3.9	1319	2.2	1168	3.1	2487
Total	**5.9**	**1502**	**2.1**	**1361**	**4.1**	**2863**

5.4.2.2 Multiple sexual partners

The occurrence of sex with more than one sexual partner in the last 12 months was compared for different background and behavioural characteristics among students who had sex in the last 12 months. Students were asked if they had more than one sexual partner over the 12 month period preceding the survey, and the number of partners they had. Table 5-17 presents key findings on factors associated with multiple sex relationships among sexually active students:

Table 5-17: Prevalence of multiple sexual partnerships among sexually active students and associated characteristics

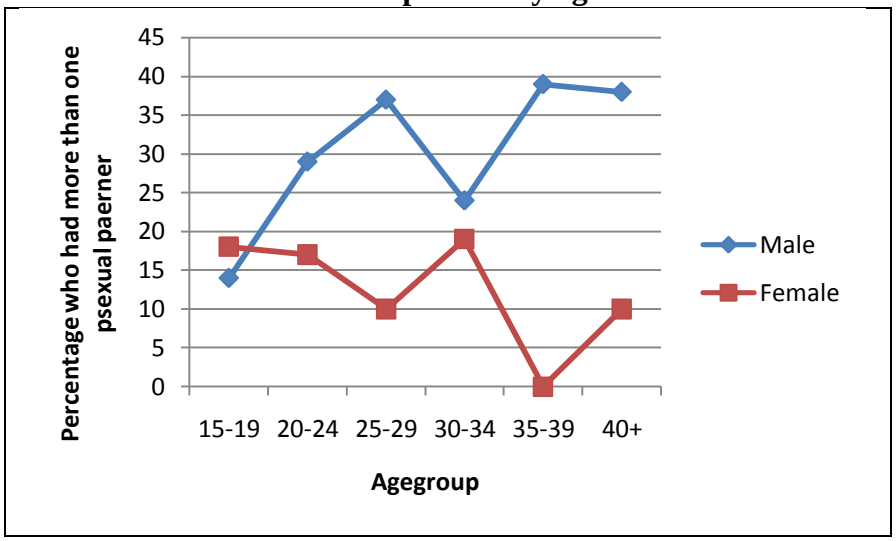
Sexual intercourse with 2 or more partners in last 12 months	Among males who had sex in the last 12 months, sex one or more partners			Among females who had sex in the last 12 months, sex one or more partners			Among all who had sex in the last 12 months, sex one or more partners		
	One Partner	Two or more	N	One Partner	Two or more	N	One Partner	Two or more	N
University									
Gulu	77.2	22.8	206	84.0	16.0	150	80.1	19.9	356
IUIU	76.3	23.7	262	89.0	11.0	210	82.0	18.0	472
KIU	55.0	45.0	262	81.3	18.7	267	68.2	31.8	529
Makerere	64.9	35.1	302	84.0	16.0	312	74.6	25.4	614
Mbarara	76.0	24.0	196	84.0	15.4	123	79.3	20.7	319
UCU	71.0	29.0	169	82.7	17.3	226	77.7	22.3	395
Age									
15-19	85.7	14.3	14	82.4	17.6	17	83.9	16.1	31
20-24	70.6	29.4	1024	83.5	16.5	1120	77.3	22.7	2144
25-29	62.9	37.1	264	89.8	10.2	108	70.7	29.3	372
30-34	76.4	23.6	55	80.8	19.2	26	77.8	22.2	81
35-39	60.9	39.1	23	100.0	0.0	6	69.0	31.0	29
40 and Over	62.5	37.5	16	90.0	10.0	10	73.1	26.9	26
Year of study									
1st	75.9	24.1	556	85.9	14.1	498	80.6	19.4	1054
2nd	67.4	32.6	445	83.6	16.4	391	75.0	25.0	836
3rd	61.8	38.2	335	83.8	16.2	345	72.9	27.1	680
Over 3	64.3	35.7	56	75.0	25.0	48	69.2	30.8	104
Residency status									
On campus	76.2	23.8	365	86.7	13.3	368	81.4	18.6	733
Off campus	66.9	33.1	1005	83.1	16.9	902	74.6	25.4	1907
Sponsorship status									
Government	73.4	26.6	233	90.0	10.0	110	78.7	21.3	343
Private	68.8	31.3	1136	83.3	16.7	1140	76.1	23.9	2276
Course									
Arts	68.4	31.6	851	83.6	16.4	955	76.4	23.6	1806
Sciences	70.4	29.6	534	85.2	14.8	318	75.9	24.1	852
Short mobility									
Less Frequent	71.5	28.5	815	84.4	15.6	789	77.9	22.1	1604
More frequent	65.1	34.9	384	81.7	18.3	213	71.0	29.0	597
Long mobility									
Less Frequent	71.4	28.6	748	84.1	15.9	646	77.3	22.7	1394
More Frequent	58.8	41.2	284	79.3	20.7	213	67.6	32.4	497
Adequate funds									
Funds adequate	68.8	31.3	352	84.3	15.7	503	77.9	22.1	855
Funds not adequate	69.5	30.5	1021	83.6	16.4	751	75.5	24.5	1772
Entry									
Regular	68.4	31.6	1160	84.0	16.0	1092	76.0	24.0	2252
Non-regular	72.7	27.3	139	84.1	15.9	107	77.6	22.4	246
Taking alcohol									
Takes alcohol	54.4	45.6	390	70.3	29.7	279	61.0	39.0	669
Does not take alcohol	76.3	23.7	941	88.9	11.1	945	82.6	17.4	1866
Alcohol taken at last sex									
Alcohol taken	42.5	57.5	106	73.6	26.4	110	58.3	41.7	216
Alcohol not taken	70.8	29.2	1222	84.1	15.9	1100	77.1	22.9	2322
Total	**69.3**	**30.7**	**1397**	**84.1**	**15.9**	**1288**	**76.4**	**23.6**	**2685**

Occurrence of multiple sexual relationships among sexually active students differed significantly across universities. In Kampala International University, about one in every 3 students who had sexual intercourse in the last one year preceding the survey was involved with more than one sexual partner. Multiple sexual relationships also increased with the year of study, but not age of the student.

Multiple sexual relationships were also higher among students who are not resident on the university campuses, higher among students with frequent short distance mobility and students with frequent long distance mobility and were also higher among students who reported that they received inadequate funds from their guardians.

Multiple sexual relationships were significantly higher among students who take alcohol (42% of students who take alcohol), and among students who had taken alcohol at the time of their last sexual intercourse (42% of students who had taken alcohol at their last sexual encounter).

Figure 5-4: Sex with more than one partner by age and sex



From the figure, we see that while sex with more than one partner tended to increase with increasing age among males, it tended to reduce with increasing age among females.

Number of partners among students who had more than one sexual partner: Among students who had had more than one sexual partner, 68% had 2 partners, while 32% had more than two partners. 0.5% students involved in multiple sexual relationships had had more than 5 sexual partners in 12 months. These findings show a high rate of partner change in universities.

5.4.3 Condom use at last sexual encounter among people with high risk behaviour

An assessment was conducted on the level of condom use at the last sexual encounter among students that had high risk sex in the 12 months preceding the survey. Table 5-18 highlights key findings on the level of condom use at last sex among people that had more than one sex partner:

Table 5-18: Condom use at last sexual encounter among students that had multiple sexual partners in the last 12 months

Among people that had two or more sexual partners, condom use	Male				Female				Total			
	Among high risk	N	Among low risk	N	Among high risk	N	Among low risk	N	Among high risk	N	Among low risk	N
University												
Gulu	52.2	46	54.7	150	43.5	23	56.7	120	49.3	69	55.6	270
IUIU	44.3	61	52.5	177	39.1	23	51.5	169	42.9	84	52.0	346
KIU	51.3	115	52.7	131	42.0	50	48.2	193	48.5	165	50.0	324
Makerere	53.8	104	60.1	188	64.0	50	56.2	249	57.1	154	57.9	437
Mbarara	51.1	45	49.7	145	52.6	19	43.8	96	51.6	64	47.3	241
UCU	51.0	49	58.8	114	47.4	38	55.4	166	49.4	87	56.8	280
Total	**51.0**	**420**	**54.8**	**905**	**49.3**	**203**	**52.6**	**993**	**50.4**	**623**	**53.6**	**1898**
Among people who had transactional sex at the last sexual encounter University												
Gulu	33.3	6	54.4	136	-	-	54.3	127	33.3	6	54.4	263
IUIU	57.1	7	44.0	150	0.0	3	46.1	152	40.0	10	45.0	302
KIU	63.2	19	50.5	190	28.6	7	42.9	203	53.8	26	46.6	393
Makerere	57.7	26	59.7	196	50.4	4	55.9	245	56.7	30	57.6	441
Mbarara	20.0	5	53.3	107	-	-	42.0	100	20.0	5	47.8	207
UCU	66.7	6	55.7	115	33.3	3	51.4	175	55.6	9	53.1	290
Total	**55.1**	**69**	**53.0**	**899**	**29.4**	**17**	**49.4**	**1002**	**50.0**	**86**	**51.1**	**1896**

Overall, condom use at last sex was lower among students who had more than one sex partner compared to those who had only one sexual partner in the 12 months preceding the survey. Condom use at last sexual encounter was comparable among people who had a transactional sex partner with those that did not have a transactional partner in the 12 months preceding the survey.

5.5 Other experiences regarding sexual intercourse

Respondents were asked about other experiences regarding sexual intercourse, sexual adventures and related practices. Key findings are summarised in Table 5-19:

Table 5-19: Other experiences related to sexual behaviour of students

	Males		Female		Total	
	%	N	%	N	%	N
Ever had 'one-off' sexual intercourse within 48 hours of meeting someone	11.2	1503	4.2	1349	7.9	2852
Ever had more than one romantic boy/girl friend but running them concurrently	32.7	1487	19.5	1419	26.3	2906
Ever had sexual intercourse with another person when in a relationship with a person considered as their boy/girl friend	37.9	1497	19.9	1420	29.1	2917
Ever had a relationship in which main intention was to obtain material gains/money from partner	5.9	1566	12.3	1444	9.0	3010
Ever had a sexual act when there are more than two people in room	9.9	1529	5.5	1386	7.8	2915
Ever had an intimate relationship with a person of the same sex	5.5	1519	3.8	1375	4.7	2894
Ever been exposed to any pornographic material	79.5	1514	64.2	1387	72.1	2901

Eight percent of students who had ever had sexual intercourse reported that they had ever had one-time sexual intercourse with a person of with a person they had known for less than 48 hours. This occurred more in the male respondents (11%) compared to the female respondents (4%).

Twenty six percent of sexually active students reported that they have ever had more than one temporary partner and running them concurrently. In addition, 29% of respondents had ever had sexual intercourse with another person while they were in a relationship with a partner to whom they were temporarily committed. These findings show a relatively high rate of concurrent temporary relationships among students, and their occurrence was higher among males than female students.

Nine percent of sexually active respondents reported that they have ever had a relationship in which their main intention was to obtain material gains or money from their partner. This was higher among females (12%) compared to the males (9%).

Eight percent of sexually active students reported that they have ever had sexual intercourse when there were more than two people in the room. This was higher among male respondents (10%) compared to the females (5.5%).

Seventy two percent of sexually active students reported that they have ever been exposed to pornographic materials. This was higher among the males (80%) compared to the females (64%). Among those who have ever been exposed to pornographic materials, the commonest forms that they had been exposed to in the 12 months preceding the survey were videos (49%), newspapers (21%), internet based material (18%) and magazines (17%). Others included printed graphics (7%) and pamphlets (5%). Findings therefore

show that students have a fairly high level of access to and exposure to pornographic materials.

5.6 Experiences of physical and sexual abuse

Sexual and gender based violence is an important aspect of sexual life and in the general population women tend to be more disproportionately at risk. Students were asked if they have ever experienced physical abuse or if they have ever suffered sex related violence of any form. These findings are summarised in Table 5-20:

Table 5-20: Experience of sexual and gender based violence

	Male		Female		Total		P
	%	N	%	N	%	N	Value
Ever suffered physical abuse or ever abused partner							
Gulu	8.0	237	17.1	164	11.7	401	
IUIU	12.5	297	13.7	226	13.0	523	0.233
KIU	10.9	285	15.8	291	13.4	576	
Makerere	7.7	324	11.5	340	9.6	664	
Mbarara	7.8	218	12.2	139	9.5	357	
UCU	9.3	193	12.7	245	11.2	438	
Total	9.5	1554	13.7	1405	11.5	2959	
Ever been raped or suffered any form of sexual assault							
Gulu	1.3	233	9.8	164	4.8	397	<0.001*
IUIU	2.1	292	5.6	232	3.6	524	
KIU	3.6	278	11.3	291	7.6	569	
Makerere	3.6	329	14.4	341	9.1	670	
Mbarara	3.2	216	14.0	143	7.5	359	
UCU	3.1	194	15.9	251	10.3	445	
Total	2.9	1542	12.0	1422	7.3	2964	

Eleven of sexually active students report that they have ever been physically abused by a partner and this was higher in females (14%) compared to the males (9.5%).

5.7 Reproductive Health Problems and STIs

The occurrence of Sexually Transmitted infections in a population is a proxy indicator of populations at highest risk of HIV infection among sexually active individuals. Sexually transmitted infections arise from a sexual network of at least three persons and are also known to increase the risk of HIV infection. This section presents findings on reported occurrence of STD related symptoms among students in universities, where they sought care, and the occurrence of other reproductive health related problems.

5.7.1 Occurrence of STIs related symptoms among sexually active students

To estimate the burden of STIs among students, all students, regardless of whether they were sexually active were asked if they if they had had any STI related symptom in the 12

months preceding the survey months from which the overall estimated occurrence of STD related symptoms among university students was computed. The denominators for this assessment were all students who participated in the survey and responded to the respective questions. The occurrence of STD related symptoms and background characteristics associated with occurrence of STD related symptoms are presented in Table 5-21:

Table 5-21: Students who had an STI related symptom in the 12 months preceding the survey by background characteristics

Suffered from an STI or a disease they think is an STI in last 12 months	Males		Females		Total	
	%	N	%	N	%	N
University						
Gulu	9.3	280	12.6	207	10.7	487
IUIU	7.6	331	14.2	267	10.5	598
KIU	8.8	306	16.0	303	12.4	619
Makerere	7.7	388	14.4	436	11.3	824
Mbarara	3.8	287	5.0	221	4.3	508
UCU	4.7	236	10.5	352	8.2	588
Age						
15-19	4.2	24	6.7	45	5.8	69
20-24	6.3	1380	12.1	1587	9.4	2967
25-29	7.6	316	17.8	118	10.4	434
30-34	14.8	61	21.4	28	16.9	89
35-39	17.9	28	28.6	7	20.0	35
40 and over	22.2	18	10.0	10	17.9	28
Year of study						
1st	6.8	768	11.4	727	9.0	1495
2nd	6.7	564	14.6	549	10.6	1113
3rd	8.4	416	12.7	440	10.6	856
Over 3	5.6	71	7.0	71	6.3	142
Residency status						
On campus	3.8	468	11.5	497	7.8	965
Off campus	8.2	1294	13.1	1237	10.6	2531
Sponsorship status						
Government	7.2	334	12.9	171	9.1	505
Private	7.0	1454	12.4	1577	9.8	3031
Course						
Arts	7.3	1076	13.3	1315	10.6	2391
Sciences	6.8	735	10.6	464	8.3	1199
Adequate funds						
Funds adequate	7.3	494	10.7	737	9.3	1231
Funds not adequate	6.9	1299	14.2	1007	10.1	2306
Citizenship						
Ugandan	7.3	1686	13.1	1654	10.2	3340
Non-Ugandan	5.6	124	5.2	116	5.4	240
Entry						
Regular	6.8	1539	12.2	1539	9.5	3078
Non-regular	11.2	170	19.5	123	14.7	293
Total	**7.1**	**1828**	**12.5**	**1796**	**9.8**	**3624**

The overall prevalence of STD related symptoms in the one year preceding the survey was 10% with the highest prevalence occurring among females (12.5%) compared to the males (7%). The prevalence of STD related symptoms was highest in Kampala International University (12%) and Makerere University (11%) and was lowest in Mbarara University (4%). Occurrence of STD related symptoms was also associated with the age of the students; it was highest in the older age groups (20% in the age group 36 to 40 years and 18% on those aged over 40 years, compared to 6% in the age group 15 to 19 years and 9% in the age group 20 to 24 years).

Occurrence of STD related symptoms was also associated with the year of study. It was highest among those in the 2nd and 3rd year of study (11%). Occurrence of STDs was also significantly higher among students that reported receiving inadequate funds from their guardians compared with those who reported that the received adequate funds. It was also higher among Ugandan (10%) students compared to non-Ugandans (5.4%). It was also significantly higher among students that entered the universities through the mature entry schemes (15% compared to those that came in through the regular admission process.

5.7.2 Behavioral factors associated with occurrence of STI related symptoms

Self reported occurrence of STD related symptoms among students was compared across behavioural risk factors among students that had sexual intercourse in the 12 months preceding the survey. These findings are shown in Table 5-22:

Table 5-22: Prevalence of STD related symptoms in the last 12 months by behavioural characteristics

Suffered from an STD or a disease they think is an STD in last 12 months	Males		Females		Total	
	%	N	%	N	%	N
Regular partner						
With regular partner	15.1	212	20.6	262	18.1	474
With non-regular	7.2	1262	14.8	1056	10.7	2318
Condom use at last sex						
Condom used	5.0	782	11.9	671	8.1	1453
Condom not used	12.3	675	19.5	626	15.8	1301
Age of last sexual partner						
<10 Years	7.9	1158	14.9	1099	11.3	2257
≥10 Years	11.9	84	22.7	110	18.0	194
Multiple sexual partners in last 12 months						
Only one	5.5	948	13.7	1064	9.8	2012
More than one	14.0	420	24.2	201	17.4	621
Duration of relationship						
Less than 12 moths	8.8	465	15.8	436	12.2	901
Over 12 months	7.3	586	14.9	685	11.4	1271
Transactional						
Yes	17.4	86	25.0	28	19.3	114
No	7.7	1382	15.1	1306	11.3	2688

Among sexually active students, the occurrence of STD related symptoms in the 12 months preceding the survey was significantly higher among students who had sex with a non-regular partner at the time of their last sexual intercourse. It was also significantly higher among students that did not use a condom at the time of their last sexual encounter and significantly higher among people who had sex with a cross-generational partner at the time of their last sexual intercourse. The occurrence of STD related symptoms was also higher among students who reported having more than one sexual partner in the 12 months preceding the survey.

5.7.3 Treatment seeking for STI related symptoms among students

To validate the self reported occurrence of STD related symptoms among students, and to assess the STD related symptoms most common in university students, all students were asked if they developed any of the STD related symptoms highlighted in Table 5-23. Most of the symptoms presented to the students were STD related. Students were also asked if they sought treatment for their symptoms and where they sought treatment. This was to gain a better understanding on where students are more likely to seek assistance in case they have a reproductive health related problem.

Table 5-23: STI related symptoms in the 12 months preceding the survey and associated health seeking behaviour

STI related symptoms and care seeking	Males (n=1874)		Females (n=1844)		Total (n=3718)	
	N	%	N	%	N	%
Ever developed any of the following symptoms from your reproductive organs in the last 12 months						
Itching of private parts	379	20.2	646	35.0	1025	27.6
Whitish discharge	84	4.5	390	21.2	474	12.8
Non-whitish discharge	30	1.6	86	4.7	116	3.1
Ulcers/small wounds	99	5.3	105	5.7	204	5.5
Abnormal swellings	85	4.5	115	6.2	200	5.4
Pain on passing urine	147	7.8	135	7.3	282	7.6
Pain in lower abdomen	80	4.3	265	14.4	345	9.3
Never suffered from any	19	1.0	528	28.6	547	14.7
Among those who have developed any of these symptoms sought treatment or help						
Yes	348	46.3	846	69.1	1194	60.4
No	404	56.7	378	30.9	782	39.6
Among those who sought help where help was sought						
University Hospital	104	27.3	326	36.3	430	33.6
Student leader i/c health	8	2.1	8	0.9	16	1.3
Other student leader	3	0.8	1	0.1	4	0.3
Room-mate or friend	16	4.2	18	2.0	34	2.7
Parent/Guardian	24	6.3	89	9.9	113	8.8
Lecturer/community member	3	0.8	0	0.0	3	0.2
Relative/sister/brother	7	1.8	13	1.5	20	1.6
Government Health center	59	15.5	96	10.7	155	12.1
Clinic/Drug Shop/Pharmacy	139	36.6	317	35.3	456	35.7
Other (Specify)	17	4.5	30	3.3	47	3.7

The most frequently occurring STD related symptoms among students is itching of the genital areas (28%), followed by abnormal discharges (13%), pain in the lower abdominal areas (9%) and pain on passing urine (8%). These symptoms were more reported among female respondents compared to males.

The majority of students who had suffered from an STD related symptom reported that they sought treatment. However, about 40% did not seek treatment. Among those that sought treatment, the majority went to a dispensing retailer (clinic or drug shop or a pharmacy) (36%) or to the university infirmary (34%). 12% went to a government health centre and 9% sought help from their guardian. About 3% sought help from their room-mate.

5.7.4 Occurrence of other Reproductive Health problems

To estimate the burden of other reproductive health related problems in universities, students were asked if they had ever suffered from any other reproductive health problem while at the university. These findings are summarised in Table 5-24

Table 5-24: Occurrence of other reproductive health related problems among students

Ever suffered any other problems related to reproductive system	Males		Females		Total	
	%	N	%	N	%	N
Gulu	8.5	258	13.6	199	10.7	457
IUIU	10.5	294	12.0	266	11.3	560
KIU	9.5	275	11.0	310	10.3	585
Makerere	12.3	359	10.0	429	23.9	788
Mbarara	12.5	264	11.2	206	11.9	470
UCU	6.2	210	10.8	332	9.0	542
Total	**10.2**	**1660**	**11.2**	**1742**	**10.7**	**3402**

10% of students had ever suffered from another reproductive health problem other than an STD. These problems were reported mostly from Makerere University where 24% of students reported ever having suffered from other Reproductive Health problems.

Summary of observations on sexual behaviours and HIV related Risk factors

i. A large proportion of students in Universities had ever had sexual intercourse and a significant proportion of these are sexually active. However, about 26% of students who have ever had sexual intercourse were practicing secondary abstinence. Overall, 57% of students had had sexual intercourse in the 12 months preceding the survey, implying that the proportion of students practicing abstinence was 43%. The proportion of students who have ever had sexual intercourse was highest in KIU and lowest in Mbarara University. Sexual experience was also associated with age and year of study. It was higher among non-resident students, private students, students on Arts courses, and students that entered the universities from non-regular entry.
ii. Males were likely to initiate sex earlier than female students. Likewise, students on sciences courses, students with more frequent short distance mobility and more frequent long distance mobility were more likely to have initiated sexual intercourse early
iii. There is a high prevalence of temporary relationships among university students, and the majority of sexual relationships are among non-regular partners. Among students in temporary relationships, 71% have had sexual intercourse with their partner. About two thirds of students in temporary relationships who have had sexual intercourse with their partner do so within 6 months of the relationship. About three quarters (76%) of students in temporary relationship will have had sexual intercourse within 12 months of their relationship and 86% will have had sexual intercourse within two years.

However, it was noteworthy that about 14% of students in temporary relationships have not had sexual intercourse with their partner after more than two years of dating. Sex with non-regular partners is highest in Makerere and lowest in Gulu universities. It is also highest in the age-group 15 to 19 years and lowest in the older age-groups.

iv. Prevalence of sex with more than one sexual partner among sexually active students was high. Almost a quarter of sexually active students had had more than one sexual partner in the 12 months preceding the survey. Occurrence of multiple sexual partnerships was highest in Kampala International University (where one in 3 sexually active students had more than one partner in the 12 months preceding the survey), followed by Makerere. It was lowest in Islamic University in Uganda. Multiple sexual partnerships is also higher in students in the higher years of study, non-resident students, students with frequent short and long distance mobility and students who take alcohol

v. A significant proportion of students are engaged in cross-generational relationships. These relationships are higher among female students. Kampala International University has the highest prevalence of cross-generational relationships, followed by Makerere.

vi. Prevalence of transactional sex was at 3%. It was highest in Kampala International University and Makerere University. It was also higher among students with frequent short and long distance mobility, and students who took alcohol at the time of their last sexual encounter.

vii. Overall condom use at last sexual intercourse was low. It was higher among young students and students in temporary relationships. It was lower in students who had taken alcohol at their last sexual encounter. Condom use at last sexual intercourse was not different among students involved in high risk sexual behaviours and was generally low.

viii. It was noted that while frequency of short and long distance mobility was not associated with general sexual activity, it appeared to be highly linked to high risk sexual behaviours. Other factors that were linked to high risk sexual behaviours included alcohol taking, age, residency status and the university in which the student was.

ix. The overall occurrence of STD related symptoms among students was moderately high; occurrence of STD related symptoms was highest in KIU (12%), and lowest in Mbarara (4%). It was also highest among females (12%) compared to males (7%).

x. The occurrence of STI related symptoms was also highest in the age-group 36 to 40 years (20%) and lowest in the age-group 15 to 19 years (6%). It was also highest in the 2nd and 3rd year students (10.6%), off campus students (10.2%) and students who entered the universities through non-regular entry (15%)

xi. Occurrence of STIs was highest in those who have a regular partner (18%), those that did not use a condom at last sex (16%), people who had a cross-generational partner

the last time they had sexual intercourse (18%) and those that had more than one sexual partner in the 12 months preceding the survey (17%).

xii. The most frequent places where students seek care for STD related symptoms were clinics and drug shops (36%), university infirmaries (34%), and government Health centers (12%).

xiii. The University sero-behavioural survey has stored the samples generated from the respondents at the Uganda Virus Research Institute. It is therefore possible to conduct follow up tests for syphilis, Herpes Simplex virus and other biomarkers for STIs when resources are available.

6. MAGNITUDE AND DISTRIBUTION OF HIV AMONG UNIVERSITY STUDENTS

Summary of Key Indicators

No	Indicator	Status
1	HIV prevalence among university students	1.2%
2	HIV prevalence among those who had a cross-generational partner in the 12 months preceding the survey	3.2%
3	HIV prevalence among female students who have ever been pregnant	3.4%
4	HIV prevalence among those who have never had sexual intercourse	0.4%
5	HIV prevalence in the university with the highest prevalence (Gulu)	1.8%
6	HIV prevalence in the university with the lowest prevalence (Mbarara)	0.4%

6.1 HIV Prevalence among University students

All students who consented to having their blood drawn were tested for their HIV. The purpose of this assessment was to determine the prevalence of HIV among university students and to provide university specific estimates of prevalence. This section presents key findings on HIV prevalence among university students, stratified by key correlates.

6.1.1 HIV Prevalence by university and sex

Overall prevalence of HIV among university students was determined for all students that provided a blood sample. The overall prevalence of HIV in Universities in Uganda was estimated at 1.2%. Prevalence by university and sex is presented in table 6-1.

Table 6-1: HIV Prevalence among students by sex and University

	Males		Females		Total	
	%	N	%	N	%	N
University						
Gulu	1.0	287	2.9	207	1.8	494
IUIU	0.9	336	2.2	279	1.5	615
KIU	1.3	310	1.2	325	1.3	635
Makerere	0.8	383	1.2	423	1.0	806
Mbarara	0.0	275	1.0	204	0.4	479
UCU	1.8	226	0.9	327	1.3	553
Total	**0.9**	**1817**	**1.5**	**1739**	**1.2**	**3582**

HIV prevalence was highest in Gulu University (1.8%) and lowest in Mbarara University (0.4%). Prevalence among universities was much lower than the overall national HIV prevalence of 6.4% determined at the last HIV sero-behavioural survey of 2004-2005. HIV prevalence among university students was higher in female students (1.5%) compared to male students (0.9%).

6.1.2 HIV Prevalence by age

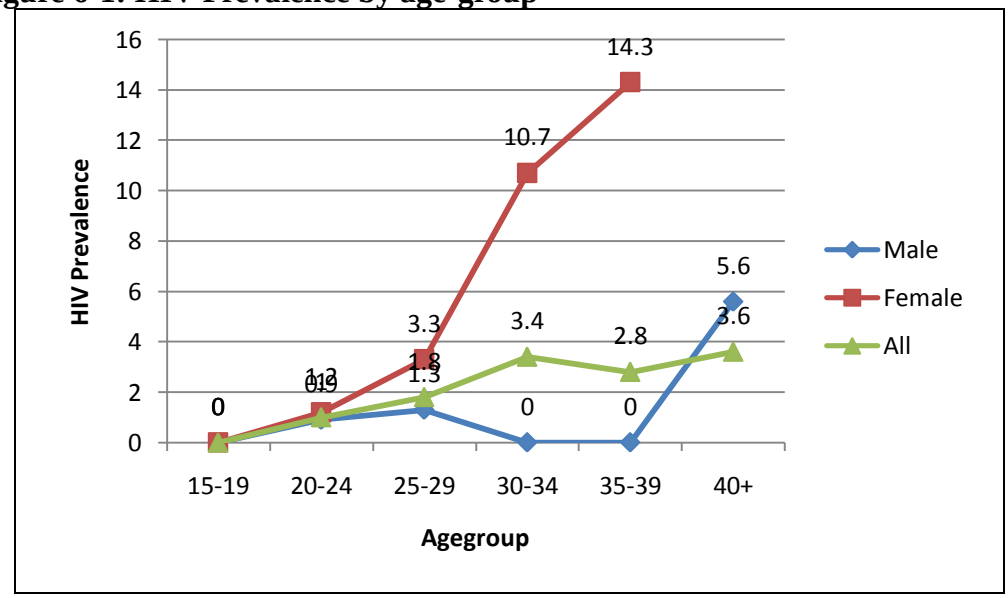
The national HIV sero-behavioural survey for 2004-2005 indicated the age specific HIV prevalence rates by age-group. Findings on age specific HIV prevalence from the University sero-behavioural survey are indicated in table 6-2:

Table 6-2: HIV Prevalence by Age

	Males		Females		Total		
	%	N	%	N	National Prevalence	Prevalence in Universities	N
Age							
15-19	0.0	24	0.0	44	1.5	0.0	68
20-24	0.9	1370	1.2	1555	4.7	1.0	2925
25-29	1.3	315	3.3	120	7.6	1.8	435
30-34	0.0	60	10.7	28	10.3	3.4	88
35-39	0.0	29	14.3	7	9.6	2.8	36
40 and over	5.6	18	0.0	10	8.8	3.6	28

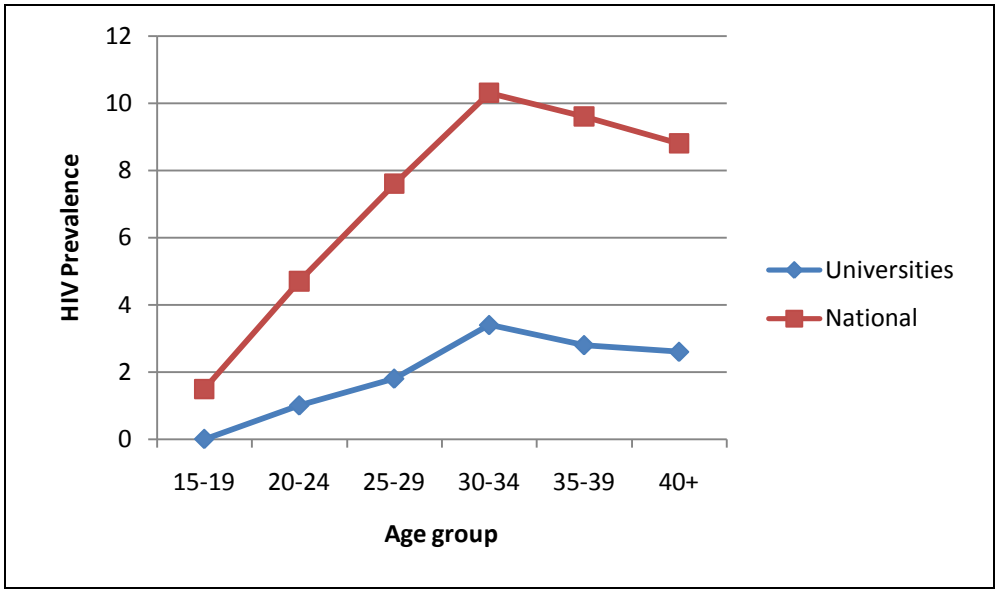
The prevalence of HIV among university students varied with the age of respondents. HIV prevalence was less than 0.1% among students in the age-group 15 to 19 years, and was highest in the age-group 30 to 34 years (3.4%). Notably, the prevalence of HIV among female students aged 30 to 39 years (14.3%) and was 10.7% among females aged 30 to 34 years. These findings should however be interpreted with caution because of the relatively small number of HIV positive samples that were obtained makes stratified analysis inadequate.

Figure 6-1: HIV Prevalence by age-group



Prevalence across all age groups was lower than the national age specific prevalence when both males and females are combined. This is further illustrated in the figure below:

Figure 6-2: HIV prevalence by age-group in universities compared with the national prevalence



6.1.3 HIV Prevalence by other background characteristics

HIV prevalence was computed by other back-ground characteristics of students. These findings should however be interpreted with caution because the small number of HIV positive samples resulted into inadequate counts in some strata.

Table 6-3: HIV Prevalence by other background characteristics of respondents

	Males		Females		Total	
	%	N	%	N	%	N
Year of study						
1st	0.7	769	1.1	713	0.9	1482
2nd	0.7	565	1.8	550	1.3	1115
3rd	1.7	406	0.9	429	1.3	835
Over 3	1.4	70	4.7	64	3.0	134
Residency status						
On campus	0.4	469	1.8	489	1.1	958
Off campus	1.0	1282	1.4	1211	1.2	2493
Sponsorship status						
Government	0.0	332	0.6	170	0.2	502
Private	1.1	1444	1.6	1545	1.4	2989
Course						
Arts	0.9	1082	1.2	1298	1.1	2380
Sciences	1.0	718	2.0	449	1.4	1167
Adequate funds						
Funds adequate	1.0	482	1.7	719	1.4	1201
Funds not adequate	0.9	1299	1.4	995	1.1	2294
Entry						
Regular	0.9	1520	10.3	1509	1.1	3029
Non-regular	0.6	169	4.0	124	2.0	293
Total	**0.9**	**1817**	**1.5**	**1739**	**1.2**	**3582**

The HIV prevalence was highest among students who had spent more years at the university (3%), and especially among female students who had spent more years at the university (4.7%). It was also significantly higher among privately sponsored students (1.4%) compared to government sponsored students (0.2%). HIV prevalence was also higher among students on non-regular entry or mature entry schemes (2%) compared to those that were admitted through regular entry (1.1%).

6.1.4 HIV Prevalence by behavioural characteristics

HIV prevalence among university students was computed by other behavioural characteristics known to be associated with risk. These findings are presented in Table 6-4, but should also be interpreted with caution, because of the small number of HIV positive results that resulted into inadequate counts in some strata.

Table 6-4: HIV Prevalence by other behavioural characteristics

	Males		Females		Total	
	%	N	%	N	%	N
Short mobility						
Less Frequent	0.8	1059	1.4	1097	1.1	2156
More frequent	1.4	499	1.4	279	1.4	778
Long mobility						
Less Frequent	0.5	966	1.8	893	1.1	1859
More Frequent	2.0	357	1.1	273	1.6	630
Regular partner						
With regular partner	1.0	208	2.3	260	1.7	468
With non-regular	1.0	1250	1.7	1039	1.4	2289
Condom use at last sex						
Condom used	0.8	772	2.0	656	1.3	1428
Condom not used	1.2	669	1.8	623	1.5	1241
Age of last sexual partner						
<10 Years	0.8	1152	1.7	1083	1.2	2235
≥10 Years	4.9	82	1.9	105	3.2	187
Multiple sexual partners						
Only one	1.2	943	1.5	1043	1.4	1986
More than one	1.2	413	3.5	199	2.0	613
STI						
Had STI	3.1	130	2.3	221	2.6	351
Did not have STI	0.8	1399	1.3	1154	1.0	2553
Ever been pregnant						
Yes	NA	NA	3.4	244	3.4	244
No			1.3	1261	1.3	1261

HIV prevalence was higher among students with more frequent short distance mobility and long distance mobility, but the differences were not statistically significant. It was also higher among respondents that last had sexual intercourse with a regular partner (marital or cohabiting partners) that those who last had sex with non-regular partners but the difference was also not statistically significant. This is probably related to the average age of people with regular partners (National HIV prevalence peaks in the age-group 30 to 39 years).

HIV prevalence was significantly higher among students who had a cross-generational sexual partner in the 12 months preceding the survey (3.2%) compared to those than those who had a partner less than 10 years younger or older (1.2%). It was higher among students who had multiple sexual partners (2.0%) compared to those that did not (1.4%) and also higher among students who reported STD related symptoms (2.6%) than those who did not (1.0), but the differences were not statistically significant.

HIV prevalence among female respondents was higher among those who have ever been pregnant (3.4%) compared to those who had never been pregnant (1.3%) and the difference was statistically significant.

6.1.5 HIV Prevalence among students who have never had sexual intercourse

It is known that there are alternative modes of HIV transmission other than sexual intercourse. In particular, HIV transmission can occur through pregnancy and child birth. The HIV prevalence was computed for both sexually active students and those who had never had sexual intercourse. Findings are presented in table 6-5:

Table 6-5: HIV prevalence among students who have never had sexual intercourse

	Males		Females		Total	
	%	N	%	N	%	N
Ever had sex						
Has ever had sex	1.1	1482	1.8	1306	1.4	2788
Has never had sex	0.3	311	0.5	439	0.4	750

The overall HIV prevalence was markedly higher among students who had ever had sexual intercourse (1.4%) compared to those who had never (0.4%). Overall, there are a small number of HIV positive samples from students that reported never having has sexual intercourse.

Conclusions on HIV prevalence in University students

i. Overall prevalence of HIV in universities is significantly lower than the national HIV prevalence, but represents an increase from a prevalence of 0.6% in a most-at-risk survey conducted two years ago.
ii. Among male students, HIV was highest in the age-group 40 years and over (5.6%). Among female students, HIV prevalence was highest in the age group 35 to 39 years (14.3%) and the age-group 30 to 34 years (10.7%). These findings should however be interpreted with caution, because overall, the number of HIV positive samples was low, thereby impacting on precision in stratified analysis for this variable.
iii. HIV prevalence highest among those who had a cross-generational partner in the 12 months preceding the survey (3.2%), those who have ever been pregnant (3.4%) and those on private sponsorship
iv. The overall number of HIV positive students was low, thereby making the findings from the stratified analysis inadequate for reliable conclusions.
v. HIV prevalence among students who had never had sexual intercourse was 4%, implying that there is a small but significant proportion of students who are infected with HIV from other known methods of HIV transmission, especially maternal and child transmission.

7. HIV/AIDS CORE PROGRAMME COVERAGE AMONG UNIVERSITY STUDENTS

No	Indicator	Status
1	Percentage of students that receive HIV related messages frequently	47%
2	Percentage of students that are members of a students' association	52%
3	Most frequent source of HIV/AIDS messages	Radio (68%)
4	Most important message received on HIV/AIDs	Follow the ABCs (60%)
5	Among students who have ever had sexual intercourse, percentage who have ever gone out to obtain condoms on their own initiative	51%
6	Among those who have ever gone out to obtain condoms, percentage who received free condoms the last time they went out to obtain them	37%
7	Among students who have ever had sexual intercourse, percentage who have ever received condoms through free condom distribution programmes	36%
8	Percentage of students who feel that condoms are easily accessible to them when needed	64%
9	Proportion of students who have ever tested for HIV	72%
10	Among students who ever tested for HIV, percentage that have tested more than once	67%
11	Among students who have ever tested for HIV, percentage that tested within the university premises	43%
12	Among students who have tested for HIV, percentage that got a free test the last time they tested	20%
14	Proportion of students currently willing to test for HIV	96%
14	Proportion of students who know where to get a HIV test when needed	93%
15	Among female students who have ever had sexual intercourse, percentage that have ever been pregnant	16%
16	Overall prevalence of induced abortions in female students universities	7%
17	Most frequently used method of pregnancy prevention other than condoms	Natural methods (3%)
18	Current use of contraceptives other than the male condom	9%
19	Among female students who have ever had sexual intercourse, percentage who have ever used a female condom	2.5%

7.1 Dissemination of HIV/AIDS and Reproductive Health Messages

There is a diversity of HIV/AIDS education programmes in Uganda, and most of these target young people. There have also been many university specific HIV/AIDS education and promotion programmes. It was therefore necessary to understand the level of diffusion of HIV/AIDS and Reproductive Health related messages among students, and to assess the most common channels of communication that are accessible to them. In this sub-section, key findings on the level of diffusion of HIV/AIDS related messages are presented.

7.1.1 Frequency of HIV/AIDS and Reproductive Health related messages

Table 7-1 shows the diffusion of HIV messages among the students at the universities. Students were asked about the frequency with which they received HIV messaging while at the university. They were also asked if they ever discussed HIV related issues with their room-mates, if they had ever consulted any one on a reproductive health issue and who they consulted most.

Noticeably, while 39 percent of the students hear or receive HIV/AIDS messages on a weekly basis and 18 percent every month, a reasonably big number (19 percent) rarely hear or receive HIV/AIDS messages. These findings show that a significant number of students do not access HIV messages on a regular basis.

Table 7-1: Dissemination of HIV messages among students

Diffusion of RH messages	Males		Females		Total	
	N	%	N	%	N	%
How often you hear or receive HIV/AIDS messages						
About every Week	762	41.9	635	35.6	1397	38.8
About every Month	323	17.8	323	18.1	656	17.9
After Several Months	188	10.3	252	14.1	440	12.2
Irregularly	221	12.2	204	11.4	425	11.8
Rarely	324	17.8	371	20.8	695	19.3
Ever discussed HIV issues with room-mate						
Yes	1260	70.5	1275	72.3	2535	71.4
No	528	29.5	489	27.7	1017	28.6
Ever consulted any one on a Reproductive health issue						
Yes	832	51.7	996	60.2	1828	56.0
No	777	48.3	659	39.8	1436	44.0
Among those who consulted, who was consulted						
University Hospital	141	17.4	151	17.4	292	17.4
Student leader for health	36	4.4	15	1.7	51	3.0
Other student leader	33	4.1	13	1.5	46	2.7
Room-mate or friend	176	21.7	180	20.7	356	21.2
Lecturer/community	21	2.6	13	1.5	34	2.0
Parent/Guardian	114	14.1	167	19.2	281	16.7
Relative/sister/brother	44	5.4	57	6.6	101	6.0
Health center	126	15.5	93	10.7	219	13.0
Private Clinic/Drug Shop/Pharmacy	73	9.0	142	6.4	215	12.8
Hall/Hostel care-taker	3	0.4	2	0.2	5	0.3
Other (Specify)	44	5.4	35	4.0	79	4.7

The majority of respondents (72 percent) have ever discussed HIV issues with their room-mates while a significant 56 percent of respondents have ever consulted someone on Reproductive health issues. For those respondents who consulted someone, room-mates or friends ranked highest among the people that were most likely to be consulted (at 21 percent) followed by the University hospitals and their parents or guardians each at 17 percent. Other students consulted health workers in health centres (13%) or private clinics or dispensing shops (13%).

7.1.2 Most frequent source of HIV messaging

Respondents were asked to mention their most frequent source of HIV related messages and the most important message they think that they have received from this source. This facilitates a better understanding of the most accessible channel of communication on HIV/AIDS for students, and whether key programmatic messages are valued by students. Table 7-2 shows the most frequent source of HIV messages and most important message on HIV for the respondents during the Sero behavioural survey.

Table 7-2: Most frequent source of HIV messages and most important message received on HIV

	Freq	N	%
From which sources have you learnt most about HIV/AIDS			
Radio	2522	3718	67.8
TV/Film/Video/The Internet	1795	3718	48.3
Posters/Pamphlets/Brochures	788	3718	21.2
Billboards/Notices	710	3718	19.1
University HIV Education activities	774	3718	20.8
Health workers outside University	711	3718	19.1
Student Leaders	230	3718	6.2
Lecturers/University Administrators	328	3718	8.8
Religious Leaders	877	3718	23.6
Family/Parents/Guardians/Relatives	1013	3718	27.2
Friends/Peers	829	3718	22.3
Groups/Associations	421	3718	11.3
Seminars/Workshops/Talks	868	3718	23.3
Entertainment events/Artistes/Drama	549	3718	14.8
Visits/Outreaches by Health Educators	386	3718	10.4
Non-student community members	255	3718	6.9
Political leaders	178	3718	4.8
Most important message received			
Follow the ABCs	2168	3638	59.6
Avoid sex with prostitutes	128	3638	3.5
Avoid sex with persons with many partners	237	3638	6.5
Avoid sex with Homosexuals or Lesbians	8	3638	0.2
Avoid Injecting drug use	8	3638	0.2
Avoid Blood Transfusions	8	3638	0.2
Avoid Injections	2	3638	0.1
Avoid discrimination of people with HIV	199	3638	5.5
Anti-Retroviral drugs are available	266	3638	7.3
Get tested for HIV	210	3638	5.8
Know the HIV status of your sexual partner	387	3638	10.6
AIDS is a Killer; Don't Take Chances	17	3638	0.5

The majority of respondents (68 percent) receive the HIV messages from radio as the most frequent source of HIV messages, followed by TV/Film/Video/Internet, which reaches 48 percent of the respondents. These findings show that alternative media like TV/Video and the internet, which are not accessible by many people in Uganda, are otherwise accessible to students and may be used as a viable means of communicating to them regarding HIV/AIDS.

Other important sources of information for students include parents and guardians (27%), religious leaders (24%), seminars (23%) and friends and peers (22%). University HIV education activities (i.e. specific programmes organized by universities), were mentioned by 21% of respondents, indicating that their visibility was present, but they need to be more prominent in influencing HIV education messaging among students.

Other findings show that student leaders were not a frequent source of HIV messaging for students. Student leaders reach only about 6 percent of the respondents with HIV messages. Furthermore, political leaders came in lowest at 5 percent as sources of information on HIV for students.

The most important message received by the students is to follow the ABCs (mentioned by 60 percent of respondents) while 10 percent think that the most important message is for one to know the HIV status of their sexual partner. Only 7 percent of the respondents considered the message on avoidance of sex with persons with many partners, 6 percent considered getting tested for HIV while 4 percent considered avoiding sex with prostitutes as the most important messages on HIV that they have received.

7.1.3 Involvement of students associations in HIV/AIDS related messaging

In many universities, students have informal organisations to which they belong. These may be academic associations, cultural associations or religious associations. These associations could be an important source of HIV messages for students. The University sero-survey therefore probed the extent of membership to associations among students and the types of students associations that provide HIV messages most frequently.

7.1.3.1 Membership to Students associations

Table 7-3 shows membership to students associations by students in the different universities.

Table 7-3: Membership to students' associations

Currently a member or has been a member of any students' association	Males		Females		Total	
	%	N	%	N	%	N
Gulu	55.6	268	56.0	193	55.7	461
IUIU	55.7	300	53.3	261	54.5	561
KIU	62.4	303	56.1	312	59.2	615
Makerere	49.1	387	36.8	437	42.6	824
Mbarara	61.3	279	56.5	216	59.2	495
UCU	49.3	221	41.2	328	44.4	549
Total	**55.5**	**1758**	**48.1**	**1747**	**51.8**	**3505**

Over half of the respondents (52 percent) are members of Students Associations with more male respondents (56 percent) than their female counterparts (48 percent) involved in the activities of associations. Membership to associations was highest in KIU and Mbarara Universities where 59% of students were involved in students' association activities.

7.1.3.2 Types of Associations most frequently involved in HIV activities

The respondents who were members of any association were asked which associations they had received HIV messages from, so as to assess the types of students association that are most likely to provide HIV messages.

The results in Table 7-3 show that most students get get the messages from Academic Associations (30 percent) and Political or Social causes groups (29 percent). Entertainment and Religious groups reached out to about 17 percent each for the respondents. Only 5 percent of students who are members of an association reported that they have never received a HIV message from the association in the 12 months preceding the survey.

Table 7-4: Types of students associations from which students have received HIV messages

Types of association from which you have received HIV/AIDS Health Education in last 12 months	No	% of 1815	% of All
Academic Association	553	30.4	17.9
Social Association	420	23.1	11.3
Sports and Recreational Association	87	4.8	2.3
Entertainment association	300	16.5	8.1
Drama group	108	6.0	2.9
Religious Group or Association	300	16.5	8.1
Political or Social causes group	529	29.1	14.2
People from the same home area	60	3.3	1.6
Youth development Association	215	11.8	5.8
Cultural Association	275	15.0	7.3
Other	74	4.1	2.0
Never received information	89	4.9	2.4

7.2 Availability and Access to condoms

Availability and access to condoms is an important determinant of sexual and reproductive health among sexually active population, and likelihood of condom use in populations with frequent non-committed relationships. There is wide variability in access to condoms in different populations. It was therefore important to understand the dynamics of condom availability in universities. This section presents findings on availability and access to condoms among university students. The findings relate only to students who had ever had sexual intercourse at the time of the survey.

7.2.1 Experiences in relation to obtaining condoms

Sexually active students that have ever gone out to obtain condoms

Students who have ever had sexual intercourse were asked if they have ever gone out to obtain condoms on their own initiative. Overall, male students were more likely to go out to obtain condoms (73% of male students who have ever had sexual intercourse) than female students (only 27% of female students who have ever had sexual intercourse).

Table 7-5: Sexually active students who have ever gone out to obtain condoms

Ever gone out to obtain condoms personally	Male		Female		Total	
	%	N	%	N	%	N
University						
Gulu	76.4	229	35.1	148	60.2	377
IUIU	70.0	273	20.2	213	48.1	486
KIU	77.9	267	32.8	274	55.1	541
Makerere	73.2	321	24.6	317	49.1	638
Mbarara	67.5	212	25.6	129	51.6	341
UCU	71.1	180	25.6	234	45.4	414
Age						
15-20	43.8	16	17.6	17	30.3	33
21-25	71.0	1085	25.8	1148	47.7	2233
26-30	80.4	285	38.1	106	69.1	391
31-35	79.6	54	46.2	26	68.8	80
36-40	79.2	24	14.3	7	64.5	31
Over 40	64.7	17	30.0	10	51.9	27
Year of study						
1st	67.2	603	22.3	497	49.9	1100
2nd	74.5	463	28.6	420	52.7	883
3rd	78.3	351	32.2	342	55.6	693
Over 3	83.1	59	24.5	49	56.5	108
Short mobility						
Less Frequent	74.7	878	25.9	808	51.3	1686
More frequent	71.9	405	28.8	212	57.1	617
Long mobility						
Less Frequent	73.4	800	27.7	669	52.6	1469
More Frequent	77.9	294	25.6	211	56.0	505
Adequate funds						
Funds adequate	77.5	378	28.8	518	49.3	896
Funds not adequate	71.6	1076	26.0	766	52.6	1842
Total	**72.9**	**1482**	**27.1**	**1315**	**51.3**	**2797**

Personal initiatives to acquire condoms were highest in Gulu, KIU and Mbarara Universities where over 50% of students had ever gone out to obtain condoms. Personal initiatives to acquire condoms were also significantly higher in the older age categories compared to the younger ones and were also higher in students in higher years of study. Students with frequent short distance mobility were also more likely to have ever gone out to obtain condoms on their initiative. These findings are summarised in table 7-5

7.2.2 Sources of condoms accessible to students

Students who had ever had sexual intercourse were asked where they can get condoms when they need them. Students' responses on possible sources of condoms are summarised in table 7-6:

Most students thought that condoms were most accessible from a pharmacy or drug shop (24%), followed by government health units (21%) and general hospitals and the

university infirmaries (19% and 18% respectively. In addition, a significant proportion of students obtained condoms from shops or vendors (18%).

Table 7-6: Students responses on where they can access condoms when needed

Where they can get condoms when needed	Male		Female		Total	
	N	%	N	%	N	%
Government Health Unit	460	24.6	310	16.8	770	20.7
Private Hospital/clinic	416	22.0	283	15.4	699	18.8
University Hospital	388	20.7	280	15.2	668	18.0
Pharmacy/Drug-shop	501	26.7	384	20.8	885	23.8
NGOs	196	10.5	111	6.0	307	8.3
Condom distributor	201	10.7	130	7.1	331	8.9
Student leaders	130	6.9	74	4.0	204	5.5
Other community leader	31	1.7	18	1.0	49	1.3
Shop or vendor	434	23.2	245	13.2	679	18.3
Friend/Relative	313	16.7	87	4.7	400	10.8
Lodge/Hotel	79	4.2	53	2.3	132	3.6
Night Club/Discotheque	47	2.5	20	1.1	67	1.8
Other place	48	2.6	33	1.8	81	2.2
Do not know any	120	6.4	286	15.5	406	10.9

Where students obtained condoms the last time they went out to procure them: Students who have ever had sexual intercourse and had ever gone out to obtain condoms were asked where they obtained condoms the last time they went out to obtain the condoms and whether they obtained free condoms or paid for them.

Most of the students who had ever had sexual intercourse and had ever gone out to obtain condoms personally sought them the last time from a private hospital/clinic (23%), a pharmacy/drug shop (20%) and a government health unit (19%). More than 60% of students who had ever gone out to obtain condoms personally had obtained free condoms the last time they went out. The highest proportion of those who obtained free condoms was from UCU and KIU universities. These findings are summarised in Table 7-7:

Table 7-7: Where condoms were obtained by students the last time

	Male		Female		Total	
	N	%	N	%	N	%
Where condoms were obtained the last time they sought them						
Government Health Unit	216	19.0	75	18.3	291	18.8
Private Hospital/clinic	251	22.1	97	23.7	348	22.5
University Hospital	96	8.5	42	10.3	138	8.9
Pharmacy/Drug-shop	221	19.5	94	23.0	315	20.4
NGOs	54	4.8	11	2.7	65	4.2
Condom distributor	35	3.1	7	1.7	42	2.7
Student leaders	13	1.1	3	0.7	16	1.0
Other community leader	2	0.2	2	0.5	4	0.3
Shop or vendor	160	14.1	48	11.7	208	13.5
Friend/Relative	71	6.3	10	2.4	81	5.2
Lodge/Hotel	5	0.4	1	0.2	6	0.4
Night Club/Discotheque	1	0.1	0	0.0	1	0.1
Other place	11	1.0	19	4.6	30	1.9
Condoms were provided free when last obtained						
Gulu	42.6	195	35.6	87	40.4	282
IUIU	30.1	226	28.6	91	29.7	317
KIU	30.1	236	42.5	153	35.0	389
Makerere	42.2	256	40.8	130	41.7	386
Mbarara	46.8	171	51.1	47	47.7	218
UCU	32.5	154	24.7	81	29.8	235
Total	**37.2**	**1238**	**37.2**	**589**	**37.2**	**1827**

7.2.3 Condom distribution in universities

There have been a number of HIV/AIDS programmes that target distribution of condoms among students. Students who have ever had sexual intercourse were asked if they had ever received free condoms while at the University and whether they felt that the condoms were easily accessible to them when they needed them.

The proportion of students who reported ever having received free condoms while at the university was lowest in Islamic University in Uganda (6%) and highest in Mbarara University (55%). This was probably liked to the fact that Mbarara University has a regular condom distribution programme for students.

Overall, about 64 percent of students felt that condoms were easily accessible when needed. The proportion of students who felt that condoms were easily accessible was highest in Mbarara and Gulu Universities and lowest in Uganda Christian University. These findings are summarised in table 7-8:

Table 7-8: Access to free condoms and perceptions about access to condoms in universities

	Male		Female		Total	
	%	N	%	N	%	N
Ever received free condoms while at the University						
Gulu	43.4	228	31.5	149	38.7	377
IUIU	6.7	285	4.7	215	5.8	500
KIU	38.3	282	46.8	278	42.5	560
Makerere	59.6	314	44.3	327	51.8	641
Mbarara	59.2	211	49.3	130	55.4	341
UCU	28.7	188	16.7	228	22.1	416
Total	**39.3**	**1508**	**32.7**	**1327**	**36.2**	**2835**
Feel that condoms are easily accessible						
Gulu	72.4	228	77.6	156	74.5	384
IUIU	64.0	289	57.1	212	61.1	501
KIU	68.7	284	70.9	275	69.8	559
Makerere	70.8	318	72.0	318	71.4	636
Mbarara	75.6	213	78.8	137	76.9	350
UCU	57.8	185	56.8	229	57.2	414
Total	**68.4**	**1517**	**68.1**	**1327**	**63.8**	**2844**

7.3 Use of pregnancy prevention methods other than condoms

Sexually active students are prone to un-wanted pregnancy and since overall prevalence of condom use among students was 51%, it is important to assess other ways in which students protect themselves from getting pregnant. The use of other contraceptive methods among university student apart from condoms is an important indicator of the extent to which family planning methods are a factor in the reproductive life of university students, since most of them are engaged in non-committed relationships. The University sero-behavioural survey of 2010 included a women's questionnaire that explored experiences related to pregnancy and contraception among students. This aspect of the questionnaire was only administered to female students. This section presents key findings on use of other contraceptives among female students.

7.3.1 Pregnancy and related experiences

Students who have ever been pregnant

Female students who had ever had sexual intercourse were asked if they had ever been pregnant. Table 7-9 presents key findings on the proportion of students who have ever been pregnant, stratified by important background characteristics of students.

Overall, 16% of sexually active female students had ever been pregnant. The proportion of sexually active students who had ever been pregnant differed significantly across universities. It was highest in Gulu University (26%) and lowest in Mbarara University (10%).

As expected, the proportion of students who have ever been pregnant was highest in the older age groups compared to the younger age groups. Six percent of the sexually active students in the age group 15 to 19 years reported ever been pregnant while 80% of those aged 40 years and over had ever been pregnant.

None resident students were also more likely to have ever been pregnant than resident students. As expected, students who had sex with a regular partner the last time they had sexual intercourse were more likely to have ever been pregnant compared to those that had sex with a non-regular partner. This was probably because most of these students were in committed relationships.

Table 7-9: Among female students who have ever had sexual intercourse, proportion that have ever been pregnant

Ever been pregnant	No	N	%
University			
Gulu	43	164	26.2
IUIU	36	242	14.9
KIU	58	333	17.4
Makerere	53	378	14.0
Mbarara	16	163	9.8
UCU	49	284	17.3
Age			
15-19	1	18	5.6
20-24	173	1339	12.9
25-29	46	151	30.5
30-34	20	33	60.6
35-9	7	12	58.3
40 and over	8	10	80.0
Year of study			
1st	81	599	13.5
2nd	88	500	17.6
3rd	75	401	18.7
Over 3	10	58	17.2
Residency status			
On campus	54	428	12.6
Off campus	198	1107	17.9
Sponsorship status			
Government	19	139	13.7
Private	231	1383	16.7
Course			
Arts	195	1142	17.1
Sciences	57	405	14.1
Short mobility			
Less Frequent	114	968	14.9
More frequent	47	264	17.8
Long mobility			
Less Frequent	130	799	16.3
More Frequent	54	254	21.3
Regular partner			
With regular partner	112	280	40.0
With non-regular	139	1160	12.0
Total	**255**	**1564**	**16.3**

More than one pregnancy and desire to have a child

Sexually active female respondents who have ever been pregnant were asked the number of times ever been pregnant. Generally, 61% of female students who have ever been pregnant have been pregnant only once in their life time, while 40% has had more than one pregnancy. Islamic University in Uganda had the highest proportion of students that

have had more than one pregnancy (61% of all female students who have ever been pregnant).

Table 7-10: Females who have had more than one pregnancy among those who have ever been pregnant

Number of times ever been pregnant	Once		More than once		N
	Freq.	%	Freq.	%	
University					
Gulu	22	55.0	18	45.0	40
IUIU	13	39.4	20	60.6	33
KIU	32	59.3	22	40.7	54
Makerere	35	71.4	14	28.6	49
Mbarara	11	73.3	4	26.7	15
UCU	30	71.4	12	28.6	42
	143	**61.4**	**90**	**38.6**	**233**

Occurrence of induced abortions among students

Induced abortions are illegal in Uganda if the life of the mother is not in danger. Induced abortions not only lead to pregnancy wastage but if conducted by unqualified persons or in un-safe and un-sanitary environments, they put the life of the mother at risk. They are one of the leading causes of maternal mortality in Uganda. The prevalence of induced abortions among sexually active students indicates the extent to which students are not in control of their reproductive life and their choices with regard to contraception. Sexually active female students were asked if they have ever had an induced abortion. The overall prevalence of induced abortions among female students in Universities was computed and is presented in Table 7-11:

Table 7-11: Occurrence of induced abortions among female students by university and age group

Ever had an induced abortion	No	N	% of Women
University			
Gulu	20	208	9.6
IUIU	17	280	6.1
KIU	35	327	10.7
Makerere	28	447	6.3
Mbarara	7	223	3.1
UCU	22	359	6.1
Age			
15-20	2	47	4.2
21-25	108	1626	6.6
26-30	12	124	9.7
31-35	3	28	10.7
36-40	2	8	25.0
Over 40	2	10	20.0
Total	**129**	**1844**	**7.0**

Overall, the prevalence of induced abortions in universities is high. Seven out of every one hundred female students in universities reported that they have ever had an induced abortion. Prevalence of induced abortions was highest in Kampala International University where 11% of all female students have ever had an abortion, and lowest in Mbarara University (3% of all female students). Prevalence of induced abortions also was highest among female students in the age group 36-40 years, compared to other age groups.

Desire to have a child in the next one year

Female students who had ever had sexual intercourse were asked about the desire to have a child in the next one year. The findings are summarised in Table 7-12:

Table 7-12: Desire to have a child in the next one year among sexually active female students

Desire to have a child in the next one year		Freq	N	%
University				
	Gulu	44	208	21.1
	IUIU	93	280	33.2
	KIU	114	327	34.8
	Makerere	101	447	22.6
	Mbarara	35	223	15.7
	UCU	63	359	17.5
Total		**450**	**1844**	**24.4**

Overall, 24% of sexually active female students reported that they desired to have a child in the next one year. Desire to have a child was highest in Kampala International University and lowest in Mbarara University.

7.3.2 Knowledge and use of other pregnancy prevention methods apart from Condoms

Female students who had ever had sexual intercourse were asked about their awareness of pregnancy prevention methods, whether they have ever used them and whether they were currently using them. Current use meant that the method was in use at the time of the survey or at the time of their last sexual encounter. These findings are summarised in Table 7-13:

Table 7-13: Knowledge, ever use and current use of family planning methods other than male condoms

Pregnancy Prevention Methods	Ever Heard			Ever used			Current Use		
	Freq	N	%	Freq	N	%	Freq	N	%
Male or Female Sterilization	773	1844	41.9	42	1844	2.3	21	1844	1.1
Oral pills	809	1844	43.9	194	1844	10.5	37	1844	2.0
IUD	572	1844	31.0	28	1844	1.5	19	1844	1.0
Injection	830	1844	45.0	87	1844	4.7	23	1844	1.2
Implants like Norplant	667	1844	36.2	30	1844	1.6	12	1844	0.7
Diaphragm/Cap/Spermicides	639	1844	34.6	29	1844	1.6	4	1844	0.2
Lactation/standard days/withdrawal	608	1844	33.0	131	1844	7.1	57	1844	3.1
Emergency contraception	642	1844	34.8	170	1844	9.2	26	1844	1.4
Female condom	844	1844	45.8	48	1844	2.5	18	1844	0.9

Overall, the level of awareness of other pregnancy prevention methods besides the male condoms was low. The most known methods were the female condom (46%), injectable contraceptives (45%) and oral contraceptive pills (44%).

Ever use of these methods of contraception was even lower. The most frequent method ever used were oral contraceptives (11% of sexually active female respondents had ever used them) and the natural methods (standard days method, withdrawal and Lactational amenorrhea), which had been used by about 7% of sexually active female students.

Current use of contraceptive methods other than condoms among female students was also low. The commonest method in current use by sexually active female respondents was the natural methods (3%), followed by the oral contraceptive pills (2%) and infections (1.2%). Female condoms were only in current use by 1% of female respondents. Overall contraceptive prevalence for methods other than the male condom among students was 9% and this was highest in Kampala International University (13%) and lowest in Makerere University (5%). These findings are presented in table 7-14:

Table 7-14: Contraceptive prevalence among female students

Current Use of any method of family planning apart from male condoms	No	N	%
Gulu	18	208	8.6
IUIU	31	280	11.0
KIU	44	327	13.4
Makerere	24	447	5.3
Mbarara	12	223	5.4
UCU	33	359	9.2
Total	**162**	**1844**	**8.8**

Knowledge of where to obtain contraceptives

Female students who have ever had sexual intercourse were asked whether they knew any place where they can acquire other pregnancy prevention methods besides the male condoms. Findings are indicated in table 7-15:

Table 7-15 : Knowledge of where to obtain other pregnancy prevention methods apart from male condoms

Know of a place where to obtain other pregnancy prevention methods apart from male condoms		Frequency	N	%
University				
	Gulu	111	208	53.3
	IUIU	148	280	52.9
	KIU	183	327	56.0
	Makerere	201	447	45.0
	Mbarara	117	223	52.5
	UCU	181	359	50.4
Total		**941**	**1844**	**51.0**

Overall, 51% of sexually active female students were knew where to obtain other pregnancy prevention methods apart from male condoms.

7.4 HIV Counseling and Testing

HIV counseling is an important aspect of prevention and treatment programmes. By knowing their status, students can initiate actions to preserve their status if HIV negative and they can initiate positive living and treatment to avoid opportunistic infections and lead a better quality of life if HIV positive. VCT is therefore an important entry point into HIV treatment. The prevalence of HIV counseling and testing among university is therefore an important indicator of positive actions to control HIV at individual level among students. This section presents findings on HCT prevalence and associated factors, the demand for HCT. Questions in this section were asked to all students involved in the survey, regardless of whether they were sexually active or not.

7.4.1 Prevalence of HIV testing and associated characteristics

The proportions of students who have ever tested for HIV is presented in table 7-16, stratified by important background characteristics:

Table 7-16: Proportion of students who have ever tested for HIV by background characteristics

Ever tested for HIV	Males who have ever tested for HIV		Females who have ever tested for HIV		Total who have ever tested for HIV	
	%	N	%	N	%	N
University						
Gulu	77.7	265	80.7	202	79.0	467
IUIU	69.9	320	63.5	260	63.3	580
KIU	73.2	302	78.6	309	75.9	611
Makerere	70.9	385	75.2	436	73.2	821
Mbarara	64.1	287	69.9	216	66.6	503
UCU	71.2	226	76.3	346	74.3	572
Age						
15-19	45.5	22	45.0	40	45.2	62
20-24	67.5	1343	73.7	1562	70.8	2905
25-29	75.8	314	87.5	120	79.0	434
30-34	91.7	60	92.9	28	92.0	88
35-39	81.3	28	87.5	8	88.9	36
40 and above	70.6	17	60.0	10	66.7	27
Year of study						
1st	64.7	748	65.8	711	65.3	1459
2nd	72.7	549	75.8	541	74.2	1090
3rd	74.6	410	84.6	436	79.8	846
Over 3	76.1	71	81.9	72	79.0	143
Residency status						
On campus	61.9	467	66.7	496	64.4	963
Off campus	72.6	1261	76.8	1220	74.6	2481
Sponsorship status						
Government	68.3	331	69.7	175	68.8	506
Private	70.1	1415	74.9	1544	72.6	2959
Course						
Arts	72.2	1055	76.4	1294	74.5	2349
Sciences	66.1	717	68.5	460	67.0	1177
Adequate funds						
Funds adequate	64.8	480	71.8	721	69.0	1201
Funds not adequate	71.9	1271	75.8	997	73.6	2268
Entry						
Regular	69.3	1498	73.8	1514	71.6	3012
Diploma mature	78.8	165	77.0	122	78.0	287
Total	**69.9**	**1785**	**74.3**	**1769**	**72.1**	**3554**

Overall, 72% of the surveyed students had ever tested for HIV and in all universities at least 60% of the students reported ever having tested for HIV. Prevalence of HIV testing was highest in Gulu University (79%) and lowest in Islamic University in Uganda (63%).

Students in the age group 30 to 39 years were more likely than other age groups to have ever undertaken a HIV test. Students in the higher years of study (80%), students that reside off campus (75%), students on Arts courses (75%), students that entered the university on diploma and mature entry schemes (78%) were more likely to have ever

tested for HIV than other students. In addition, prevalence of HIV testing was higher in female students (74%) compared to male students (70%).

Overall, the prevalence of HIV testing among university students is moderately high, and shows a good level of diffusion of HIV testing services in this population.

The proportion of students who had ever tested for HIV was also compared for other behavioural characteristics related to risk of HIV. Table 7-17 presents key findings from this analysis:

Table 7-17: Proportion of students who have ever tested for HIV by other behavioural characteristics

	Males		Females		Total	
	%	N	%	N	%	N
Short mobility						
Less Frequent	69.2	1045	73.5	1110	71.4	2155
More frequent	71.1	492	78.2	285	72.9	777
Long mobility						
Less Frequent	70.5	948	74.8	904	72.6	1852
More Frequent	69.6	358	74.1	274	71.5	632
Regular partner						
With regular partner	83.3	204	85.2	256	84.3	460
With non-regular	71.9	1234	79.0	1042	75.1	2276
Condom use at last sex						
Condom used	72.8	760	78.5	661	75.4	1421
Condom not used	74.9	660	82.2	589	78.4	1277
Age of last sexual partner						
<10 Years	73.9	1138	81.4	1087	77.6	2225
≥10 Years	70.2	84	75.5	106	73.2	190
Multiple sexual partners in last 12 months						
Only one	70.0	944	83.5	1062	78.6	617
More than one	76.3	917	77.7	200	74.1	2006
STI						
Had STI	70.5	948	74.8	904	79.7	340
Did not have STI	69.6	358	74.1	274	72.7	2562

Findings show that students who had sexual intercourse with a regular partner at the time of their last sexual intercourse, students who had only one partner in the 12 months preceding the survey were more likely to have ever tested for HIV. These findings indicate that lower risk groups are more likely to have ever tested for HIV. On a positive note, students who had an STD related symptom in the 12 months preceding the survey were more likely to have ever tested for HIV.

7.4.2 Other issues related to HIV testing

Among those who had ever tested for HIV, the students were asked about the number of times they have ever tested for HIV and other experiences at the last time of HIV testing.

They were asked about where they tested for HIV and whether the HIV test was provided for free. The results in Table 7-18 shows that two thirds of students who have ever tested for HIV have tested more than once, further confirming the earlier conclusion that uptake and acceptance of HIV counseling and testing is moderately high among students in universities.

Table 7-18: Experiences at the last time of HIV testing

	Males (n=1221)		Females (n=1304)		Total (n=2266)	
	N	%	N	%	N	%
Number of times ever tested for HIV						
Once	380	34.7	361	30.8	741	32.7
More than once	714	65.3	811	69.2	1525	67.3
Where did they test from the last time they tested						
Tested within university	513	42.0	572	43.9	43.0	1085
Tested outside university	708	58.0	732	56.1	57.0	1440
Was the test free or paid for the last time they tested						
Free	218	17.6	278	21.2	19.5	496
Paid for	1020	82.4	1033	78.8	80.5	2053

The majority of students who have tested for HIV had their last HIV test conducted outside the university (57%), and 81% reported that their last HIV test was provided for free. These findings show that students have reasonable access to HCT services, and these services are mostly free. They show that students are able to access HCT services even outside their university premises. It may also indicate that students prefer to conduct HIV testing from outside the university premises.

Demand for HIV testing

To assess the existing demand for HIV testing, students were asked whether they would have liked to have themselves tested for HIV at the time of the study. Findings are presented in Table 7-19

Table 7-19: Proportion of students who would like to take a HIV test

	Males		Females		Total	
	%	N	%	N	%	N
Would like to test for HIV now						
Gulu	96.1	256	98.4	184	97.0	440
IUIU	94.2	308	97.3	255	95.6	563
KIU	99.3	281	99.3	296	99.3	577
Makerere	94.3	352	95.0	378	94.7	730
Mbarara	90.9	252	92.9	197	91.8	449
UCU	95.7	211	97.9	292	97.0	503
Total	95.1	1660	97.3	255	95.9	3262
Know where they can get tested						
Gulu	95.6	249	93.8	178	94.8	427
IUIU	90.6	299	93.0	257	91.7	556
KIU	87.6	267	91.5	295	89.7	562
Makerere	91.6	346	93.2	384	92.5	730
Mbarara	96.8	251	93.3	199	95.3	450
UCU	94.6	205	94.1	290	94.3	495
Total	**92.6**	**1617**	**93.1**	**1603**	**92.9**	**3220**

More than 90% of students reported that they would have liked to test for HIV at the time of study and this was observed in all universities. In addition, over 90% of students reported that they knew where they could get tested for HIV. These findings further confirm that the willingness to test for HIV is widespread in universities and there is a good opportunity for uptake of these services if regularized in universities or if programmes for students are regularized in HIV/AIDS service centres.

Summary of Observations on HIV/AIDS core programme coverage for students

i. About one half of university students (46.7%) receive HIV messages frequently (at least once every month). More importantly, the majority of students (71%) have ever discussed HIV related issues with their room-mates, indicating that peer-to-peer communication is an important channel for diffusion of HIV related information.

ii. Students with minor reproductive health problems most often consulted their roommates (21%), their parents and guardians (17%), the university infirmaries (17%), health centres (13%) and drugs vending outlets (13%)

iii. The most frequent sources of HIV messages for students were the radio (68%), TV or other audio-visual media including the internet (48%), parents and guardians (27%), Religious leaders (24%), seminars (23%), poster, pamphlets and print (21%), university HIV education activities (21%), bill boards (19%) and health workers (19%). 22% of students have received HIV related messages from peers and friends.

iv. The majority of students perceive the ABCs as the most important programmatic message they have received on HIV/AIDS (60%).

v. Overall, only about half of the students who have ever had sexual intercourse have ever gone out to obtain condoms. Female students were much less likely to have ever gone out to obtain condoms than male students

vi. Condom sources most accessible to students include pharmacies and drug shops, private clinics, and health centres, showing that the majority of sources are outside their university premises.

vii. Access to freely distributed condoms was highest in Mbarara University and lowest in IUIU; in addition, access to free condoms from other distribution points was highest in Mbarara University and lowest in IUIU

viii. Overall, the majority of students who need condoms have to purchase them; only 37% of students received free condoms the last time they went out to obtain them

ix. The proportion of students who felt that condoms were easily accessible was highest in Mbarara and Gulu Universities and lowest in Uganda Christian University

x. Among female students who have ever had sexual intercourse, the proportion who have ever been pregnant is highest in Gulu and lowest in Mbarara. It is also higher among students who reside off-campus, and those who had a regular partner the last time they had sexual intercourse

xi. Overall occurrence of induced abortions in universities is high among female students. It was highest in KIU (11%) and lowest in Mbarara (3%).

xii. Overall, use of other contraceptives other than condoms was low. Prevalence of contraceptives other than condoms was highest in KIU and IUIU (13%) and lowest in Makerere.

xiii. The proportion of students who have ever tested for HIV is moderately high. It was highest in Gulu (79%) and lowest in Mbarara Universities (67%). It was also highest in the age-groups 30 to 39 years (90%), students in the 3rd Year and above (over 80%), non-resident students (75%) and students on mature entry programmes (78%).

xiv. The proportion of students who have tested for HIV more than one is also moderately high

xv. The proportion of people who have ever tested for HIV was also higher among people who had regular sexual partners, and those who had one partner. On a positive note, it was higher among people who had ever had an STI.

xvi. The majority of students have to pay for a HIV test, and the majority has to test from outside the university premises.

8. HIV/AIDS POLICIES, PROGRAMMES AND SERVICES IN UNIVERSITIES

Availability of HIV policies is a key factor that affects HIV programming in universities. In this section, HIV-related policies, programs and services at the universities are presented. It includes availability of policies, plans programs, availability and range of HIV related services and respondents' perception on the quality of reproductive health and HIV/AIDS services in the respective universities. Also proposed are the possible ways to improve HIV related services at universities. The information was collected by a set of questions to key informants and focus groups of male and female students at each university.

8.1 Availability of HIV Related Policies and Services in Universities

8.1.1 Availability of Policies and plans for HIV related services

Availability of a mainstream plan for HIV/AIDS services it is the organized way of implementing programs and the only way in which an institution can benchmark progress, measure the success of a given program.

In Table 8-1, findings from the key informant interviews of university administrators and students' representatives on the availability of HIV related policies, and programs are summarized.

The National Strategic Plan for HIV/AIDS Prevention and Control is considered as the key the guiding document for all HIV programs in the country. University administrators were asked about the availability of this document, and evidence for its use in policy formulation. Findings from the Key Informants show that these documents were only available in two of the 6 universities (MUST and IUIU), and the rest of the universities did not have one.

Notably, three of the universities assessed (Kampala International University, Gulu and Makerere University did not have a written University HIV policy. However, Gulu University had a policy in draft, but it had not yet been passed by the university administration. It is also worth noting that even though some universities (UCU, MUST and IUIU) reported having in place documented plans for HIV prevention and care and also have budgets for HIV/AIDS activities; no single university had a performance measurement and monitoring plan document. The national PMMP document had also not been disseminated to the universities and University administrators.

All universities to a certain degree have HIV preventive activities, Counseling and Psychosocial Support Services and of a Code of Conduct for students. In case of IUIU the

much stricter Sharia Law and other religious codes are used to guide code of conduct at the university. Key institutional Frameworks are summarised in the table below:

Table 8-1: Frameworks for HIV Planning and Mainstreaming in the Universities

Availability of Item/activity:	University					
	KIU	UCU	MUST	IUIU	MUK	GULU
University policy on HIV control	No	Yes	Yes	Yes	No	No
National Strategic Plan for HIV prevention and control document	No	No	Yes	Yes	Yes	No
Performance measurement and monitoring Plan Document	No	No	No	No	No	No
Monitoring System for HIV/AIDS activities	No	No	Yes	Yes	No	No
Management information System for HIV Issues	No	Yes	Yes	Yes	No	No
Existence of HIV coordination Structure and focal office	No	Yes	Yes	Yes	Yes	No
Budget for HIV/AIDS activities	No	Yes	Yes	Yes	No	No
Good will and Budgetary Provision for HIV/AIDS research in University	Yes	Yes	Yes	Yes	Yes	No
Presence of Code of Conduct (rules and regulations)	Yes	Yes	Yes	Yes	Yes	Yes
Plan for HIV control, prevention and care	No	Yes	Yes	Yes	No	No
Preventive activities	Yes	Yes	Yes	Yes	Yes	Yes
Counseling and Psychosocial Support Services	Yes	Yes	Yes	Yes	Yes	Yes
Faculty Level plans for mainstreaming HIV/AIDS	No	Yes	No	Yes	No	No
Mainstreaming HIV/AIDS in Curricula	Yes	Yes	Yes	No	No	Yes

The specific institutional arrangements varied by university and some best practices were noted from some universities including the following:
In Kampala International University, the university administration has assigned an office for coordination of all HIV related activities. This office implements several programmes including counseling. They also organize HIV testing camps on a regular basis, in association with the AIDS Information Centre.

Mbarara University has a HIV policy that stipulates prevention services within the university. The university has an active condom distribution programme. In Gulu, a position has been created for at senior administrative level for a University Counselor. The

Sister in-charge is involved in regular counseling of students and also organizes VCT camps for the students. Gulu University also implements a policy for mass VCT for new students as they report to the university.

In Makerere University, issues to do with students' well-being are handled by the Dean of Students. Because of the size of the university, specific programmes for HIV/AIDS awareness are implemented by several agencies including the Students' Guild (which has a Minister for Health), the University Hospital (which provides a range of Reproductive health Services), religious chaplaincies, evangelical groups that come from outside and other related actors.

8.1.2 Staff Involvement in HIV related activities

Fighting HIV should be a shared responsibility of the entire universities' community; students, academic staff, administrators and support staff. University staff involvement in HIV/AIDS related activities was investigated by asking the key informants and focus group discussion members to what extent academic and non academic university staffs were involved in HIV- related activities at campus.

The majority of key informants in all universities mentioned that staff is involved in HIV activities but at minimal levels. Likewise most FGDs in all universities it was mentioned that most university staffs are not directly involved in most HIV related activities. University staff gets involved in HIV activities only if it is part of their designated scope of work as university staff. A given example is the staff members that are dedicated to provide counseling services and university hospital staff who provide reproductive health services.

The health departments generally provide clinical care, while the university administration provides for an office for counseling and psycho-social support. Academic staff provide lectures and HIV issues are only mentioned if the subject to be talked about contains HIV awareness and prevention messages for example during orientation weeks for fresh students in most Universities or part of the content of the course being taught. To illustrate this, some Key Informants had the following to say:

> **IUIU, KI -** *"the academic staff members are developing a policy on HIV/AIDS care and support for students who are HIV positive and together with the non academic staff we sat and formulated the HIV/AIDS workplace policy for IUIU, the first of its kind in Uganda"*

> **KIU, KI -** "*In administration, we work with institutions or organisations that come up to sensitize the students on matters concerning HIV/AIDS. These usually connect to the students' body through the office of the dean of students... we also have a*

counseling department that is staffed to handle issues of HIV/AIDS psychosocial support...."

KIU, KI – *"The lecturers are involved in one way or another. We have several courses with the units that cover issues on HIV such as human rights including the rights of HIV+ people, developments studies covers provision of HIV services in the general community in a developmental perspective"*

8.1.3 Student networks and involvement in HIV activities

An assessment of student's networks and their involvement in HIV related activities was noted. This helps to give a better understanding formal and informal groups involved in HIV activities and the nature of activities they were involved in. Overall, it was noted that students are involved in many association activities and networks; some of these are formal while the others are informal. These networks are rather similar across the six universities even though there were a few unique situations to particular universities.

Across all universities, the following were listed; cultural associations, guild associations, faculty based associations, students clubs, political and religious associations. Additionally Go Getters Clubs, Youth Alive, cultural groups like 'Nkoba-za-Mbogo', 'Basoga-Nsete', International Students Associations, Scripture Union, Political Party affiliations, Young Men/women's Christian Associations, Rotaract clubs, Pan African and Red Cross group were mentioned. Peer projects were specifically in MUST, IUIU and Gulu Universities.

The role students' networks play in HIV activities include but are not limited to: Mobilization of students to take up the services and sensitization about HIV/AIDs prevention measures and also encouraging fellow students to get involved in HIV-related activities; Provide health education for behaviour change among fellow students including counseling and social support like the case of MUST and IUIU peer educators; Promote cultural and religious values that are vital in HIV/AIDS prevention; and also take part in provision of HIV related service to students including condom distribution,

8.1.4 Proposed Strategies for mainstreaming of HIV/AIDS activities in Universities

Strategies for increasing university involvement in HIV/AIDS activities

Given that the policy environment in most universities is not deliberate about HIV/AIDS, the following strategies were proposed for mainstreaming of HIV/AIDS activities:

1. Facilitate universities to develop HIV/AIDS Policies and to implement them
2. Facilitate universities to develop HIV action plans and integrate them into their strategic plans
3. Facilitate universities to develop systematic communication strategies on Sexual and

Reproductive Health and to provide budget funding for them
4. Facilitate universities to develop workplace policies on HIV/AIDS and policies and strategies on treatment and support for students affected by HIV/AIDS

Strategies for increasing university staff involvement in HIV/AIDS activities

Given that the involvement of the staff in HIV activities is minimal, the following strategies were proposed to improve their involvement:

1. Creating more awareness among the staff members on the need to get involved and help students
2. Developing and implementing HIV polices at the universities clearly stating their roles;
3. Training staff to equip them with the necessary skills to enable them help students in their activities;
4. Involve academic staff in leadership of the different associations of students to provide guidance and direction;
5. Encouraging university administrations to get involved in mobilization of students for different activities and,
6. Broadening university policy to mainstream HIV activities in all functions and activities, whether academic, recreational or social

Strategies for increasing students' involvement in HIV/AIDS activities

Strategies that were mentioned by students to improve in their involvement in HIV activities included the following:

1. More training of the members to improve on their peer education skills;
2. Provide more funding to the students' associations to train more members;
3. University administrations should work closely with the associations/networks to strengthen them and increase motivation for members;
4. Should be more flexible in their sensitization campaigns in terms of times that it is done to cater for both day and evening students

8.2 Behavioral Patterns of students

8.2.1 Risk behaviours among students

To most KIs from all the six universities students have high risk behavioral patterns like prostitution, and multiple sexual partnerships, cross generational and transactional sex, unsafe sex, cohabiting, rampant alcohol and substance abuse. There are variations in feelings on the magnitude of risk behavioral patterns by the KIs from the different universities as evidenced by following statements from the KIs:

KIU, KI- "*The behaviour of students at this university can be termed as terrible...";*

KIU, KI – *"You see, me I come from Somalia, a country where it is not allowed for a man and woman to stay together unless they are officially married, but here you find students living together as man and wife while pursuing their academics. There is a lot of vulnerability especially for girls, students visit bars and brothels regularly in the evening and over weekends";*

IUIU, KI *– "The good thing is that this is an Islamic institution with very strict rules governing students, therefore they are controlled and don't move easily to go and engage in activities that are high risk. There are no discos, no free movement around, our rules have helped and Islamic teachings have kept students morally upright"*

The students' leaders had nearly similar feelings about students' behavioural patterns with all FGD agreeing that students have high risk behavioral patterns characterized by a lot of cohabiting, unprotected/unsafe sex, transactional sex, cross generational sex, frequent night clubbing and substance and alcohol abuse. One of the FGD participants had the following to say:

UCU, FGD female *– "The behaviour patterns of some students are really bad, there is a lot of coupling at campus, and students go for disco dances at night. Some students cohabit in hostels and others do bad things at night in the dark.....".*

8.2.2 Factors promoting the behavioral patterns

Regarding the factors promoting high risk behaviour patterns among university students, almost similar factors were mentioned even though some are specific to some universities. These included location of the university, the sudden change to a free and independent life-style among new students, peer pressure, high and rising cost of living and inadequate enforcement of codes of conduct.

Location of the university was an important factor in influencing student's behaviour. Universities located in urban suburbs bustling with entertainment and all sorts of activities lure students into risky behaviours. To illustrate this, a Key Informant from Kampala International University said:

KIU, KII – *"because the university is located in the city at the heart of Kabalagala- a place steaming with numerous bars, brothels and night clubs, students will abuse alcohol and 'Khat' for entire weekends- this is one of the major catalysts for high risk behaviours at the university".*

Transitioning of students from a stricter environments at home or boarding secondary schools to the university environment provides them with many challenges in controlling their choices. Secular universities provide a lot of freedom to students most of whom are either adolescents or young adults which influence their behaviour. Many of these students are not yet experienced enough to make proper choices on life's issues. As illustrated by some KIs and in some FGDs:

> ***MUK, FGD females*** *– "when the students join universities, they get freedom that they are not used to, which makes them to think that they need to enjoy to cover up for lost time when they were still in secondary schools";*
>
> ***KIU, KII****- "The students have a lot of freedom since they are viewed as adults and many of them do not stay in proper hostel facilities. The girls dress provocatively and there is a lot of activities going on in the bars by the university students."*
>
> ***KIU, KI –*** *"that is a sensitive issue here... with more than 90% of students being between their teenage and early adulthood and because of this they are in a hyper active stage that is associated with high risk behaviour- this has caused a big problem in terms of promiscuity. The students who come from humble backgrounds come to be exposed to a society that is very promiscuous and where nobody cares about their sexual lives...."*

Peer pressure among students, curiosity and wanting to adventure were also mentioned by KIs and in FGDs in most of the universities as important factors that promote negative behaviours among students. Students come from different backgrounds and therefore have different levels of experience in social issues when they come to the universities. In addition, some students come from richer families and therefore have more personal possessions than others.

> ***IUIU, FGD females –*** *"Peer pressure is an important factor……., for example girls want to compete with each other; say if one has a TV, radio or fridge one will also find other possible means of acquiring these items if the parents or guardians cannot afford to buy for them, they involve themselves in cross generational sex";*
>
> ***KIU, FGD males*** *– "Girls admire other girls who have got a lot and so are influenced to take up some sick people who can provide them with all they want or need";*

The high costs of living amidst resource constraints force some students go out of the way to look for survival means and afford expensive items. Many universities are located in metropolitan centres that have a high cost of living. Most students are privately sponsored,

without scholarships and yet they have to spend on food and non-food items during the semester.

The mixing of male and female students at residential hostels was also cited as one factor leading to increased sexual immorality. This is brought about by the diverse living conditions of students, policies of hostel owners and the fact that many students' hostels are not accredited to the universities. Some of these issues are illustrated in the following quite:

> ***KIU, KII –*** *"housing arrangements are not favorable... many of the students make private arrangements where they share with the opposite sex".*

There are also myths and misconceptions among students about the way HIV spreads. Some of these perceptions were cited as likely to increase risky behaviours among students. Some of these are illustrated in the quite below:

> ***KIU, FGD males*** *– "the beliefs that expose the students like the belief that circumcised boys cannot contract HIV"*

It follows then that HIV messages on measures that are not fully preventive (e.g. condom use, microbicides use and circumcision) should tailored to address any misconceptions that they may generate themselves.

However, there were other mitigating factors that affected student's behaviours positively. In almost all universities, new students underwent some orientation, in which they received a series of talks from counselors within the universities. In other universities, there were strong religious networks that recruited students and talked to them about morals and behaviour as early as possible when they reported to the universities. Some of these movements came from outside the universities, but had strong synergies with the university.

In addition, the strict rules and regulations for the religious founded universities were found to have an influence on positive non-risky behaviour. One of the key informants had the following to say***:***

> ***IUIU, KII*** *– "our code of conduct based on the religious background has helped to control the students. Of course a few may go astray but we don't get tired of trying to bring them back to the fold"*

8.2.3 Strategies proposed to address high risk behaviours among students

Members of the FGDs and the KIs proposed the following as ways of limiting the high risk behavioural patterns of the students:

1. Counsel Students on proper positive behaviour irrespective of their HIV sero-status; provision of routine counseling and testing service to ensure students know their sero status;
2. Use of innovative appealing modern ways of communication so as to reach students such as messages on their mobile or email;
3. Tap on the strength of religious leaders to play a crucial role in shaping students , (chaplains, Imams and the pastors);
4. Continuous counseling of students throughout their university lives and also sharing with them more information about HIV/AIDS and its dangers;
5. Enforce some basic measures concerning the code of conduct for students

   One member from the ***MUK, FGD females***- *"Need to enforce a dressing code; girls should avoid wearing dresses that expose parts of their bodies to minimize incidents of indecent dressing";*
6. University administration should endeavour to accredit hostels that accommodate large numbers of students and negotiate with them to enforce some guidelines. Some Key Informants and FGDs recommended separate hostels for male and female students.
7. Provide adequate condoms to reduce unsafe sex and lastly Introduce loan schemes for needy students to meet university costs including tuition

8.3 Availability and perceived quality of HIV/AIDS services

8.3.1 Range of RH and HIV/AIDS Services available in the Universities

HIV/AIDS services were in two main categories: Preventive services and treatment and Support services. Preventive services include education events, condoms promotion and condom distribution, Voluntary Counseling and Testing, PMTCT and IEC activities. On the other hand treatment services include treatment of opportunistic infections, Septrin prophylaxis, and provision of ART and Referral links for further care.

All the six survey universities had at least a facility for basic health services. However the range and level of services provided at each facility significantly varied between universities. In Table 8-2, the availability of the different HIV and Reproductive Health services is presented per university.

Table 8-2: HIV/AIDS Services at Infirmary/University health facility

Availability of Service	Universities					
	KIU	UCU	MUST	IUIU	MUK	GULU
Condoms and Condom Distribution	Yes	No	Yes	No	Yes	Yes
Health Education Events	No	Yes	Yes	Yes	Yes	Yes
IEC Materials	No	Yes	Yes	Yes	Yes	Yes
Treatment of Opportunistic Infections	Yes	Yes	Yes	Yes	Yes	Yes
Septrin Prophylaxis	Yes	Yes	No	Yes	Yes	Yes
Presence of Referral Links	No	Yes	Yes	Yes	Yes	Yes
ART	No	No	No	Yes	Yes	No
PMTCT	No	No	No	Yes	Yes	No
VCT	Yes	Yes	Yes	Yes	Yes	Yes
Home/Residence Visits	No	No	No	No	Yes	Yes

All the universities have HIV counseling and testing service, treatment of opportunistic infections, and giving Septrin prophylaxis provided by in-house counselors, laboratory technician/s and clinician. Besides the in-house VCT services universities tend to get one-off VCT events from service providers outside the universities. To varying extents there are condom distribution programmes to students in public universities but condom promotion is prohibited in religious affiliated universities (IUIU and UCU). ART, PMTCT and Referral links were outstandingly not provided by the facilities in most universities except IUIU and MUK.

8.3.2 Perceived quality of Services

Quality of health service is one of the factors that influence access and uptake of services. During the Key Informant Interviews and FGDs, students' attitudes to HIV services in universities were probed. There were over-whelming sentiments among respondents that the quality of HIV services in universities was lacking or poor for most of the universities. The different perceptions are represented in the following statements from the KIs and FGDs:

> ***IUIU, KII*** - *"well we have basic services and the number of students is big and the facilities may not be adequate....."*

> ***IUIU, FGD*** females- *"there is also no free interaction between students and the counselors because there are certain issues that are not talked about in the counseling sessions because they are not supposed to be talked about due to the Sharia law or conflict with the Islamic religion e.g. condoms are not talked about, yet this is very important*

IUIU, FGD females- *"despite the university offering VCT services, this is not complemented with treatment for HIV/AIDS, this makes the package incomplete and yet the women are not allowed to go out..."*

On the contrary one of the KIs in IUIU thinks the services are of good quality and had this to say; ***IUIU, KII*** – *"the quality of services is quite high..... all our standards conform to the MOH guidelines in all aspects of service provision. We have a medical department manned by highly qualified staff, a counseling department, labour ward and even admission facilities. We also carry out PMTCT though on a small scale"*

UCU, FGD females- *"inside the university, there are poor quality services, there is a lot of stigma and discrimination, no confidentiality and people do not talk about sexuality freely because it is a Christian university"*

KIU, KII – "*on a scale of 1 to 10, I would give 4 for quality... The university lacks a clear structure to handle HIV/AIDS issues- no HIV office, no HIV focal person. No policy.... no budget"*

KIU, FGD female – *"There is no better quality because if someone is HIV positive, s/he has to look for his/her own way getting treatment"*

KIU, FGD male - *"Counseling given is not appropriate. e.g. using caring words instead of encouraging during counseling"*

Gulu, FGD female- *"the services are not good, we don't have an independent HIV/AIDS clinic in the university. Also VCT services are offered from open places and if students see you going there, they think that you are ill"*

MUST, FGD male- *"The services are controlled by mostly students which sometimes has no confidentiality, so they end up using outside services"*

MUK, FGD Male- *"...talk about condoms, I personally heard some complaints by students that the condoms they were not effective... some of them were like the expiry date is soon reaching.... so they are not of the quality you would expect in such an institution because you know, many things happen"*

In addition most respondents viewed the services as poor because stock out of drugs and supplies was rampant in the university infirmaries; there were long waiting times at the service points, and near to expiry dates condoms were provided. In large universities, access to the university hospitals was also a problem, and non-resident students had to seek services outside the university provisions.

8.3.3 Proposed ways to improve the quality of HIV and Reproductive Health services

Generally most KIs and members from the FDGs proposed the following as possible ways to improve the quality of HIV and Reproductive Health Services in Universities:

1. Developing university policies on HIV control and prevention and care;
2. University administrations work closely with the student bodies to ensure proper services that are demand driven are provided;
3. Improve facilities to ensure the demand by large student populations is met;
4. Providing testing services within the university regularly and ART services; this was illustrated

   IUIU, FGD *female*- *"HIV testing should be done on a daily basis instead of monthly so as to capture everybody since the students will be coming during their free time any day of the week and this will reduce workload for the health workers involved in the testing and also minimize of rushing or even forgetting about the service since it will be more routine";*
5. Investing more resources into the health facilities of the universities and the other preventive services, stock up university facilities
6. The government through ministry of health should also aid university health services to uplift the quality since they also serve communities around the universities;
7. Recruiting more qualified staff to provide better services, e.g. counselors
8. Also training of existing staff members to enhance their skills in service provision; Holistic provision of services in a one stop centre for students

8.4 Accessibility and factors influencing access to HIV/AIDS services

8.4.1 University administrators' and students' views on accessibility to services

According to most Key Informants, Reproductive and HIV services in universities are fairly accessible to most of the students. However, some Key Informants reported that some students are not aware about particular services and therefore they do not utilize them.

In some universities that are faith-based, certain services like family planning methods are restricted and not made accessible to students. Even IEC materials relating to these are not distributed. One of the key informants had the following to say:

KIU, KI- *"the services here are limited and only reach a limited number of students because of lack of an organized system to reach the rather big students body. Access is limited by service availability and awareness by students. If these can be improved, access will be improved as well"*

Contrary to the University administrators, most students he students reported in the Focus group discussions that the services were not accessible to all students. Only 4 of the 24 FGDs agreed unanimously that Sexual and Reproductive Health services were accessible to all. Factors that were found to influence access to HIV services by students included the following:

i. Lack of knowledge about the existing services in the university;
ii. Negative attitudes towards HIV/AIDS at some universities, creating fear, stigma and discrimination and thus inability to reach the service points;
iii. Non availability of some services and lack of confidentiality and privacy;
iv. Large numbers of student viz-a-viz the small workforce hampers some students from accessing these services;
v. Failure to provide some services because of religious restrictions especially at Christian and Muslim founded universities;
vi. Belief that the quality of services provided is not up to the required levels also hampers access. One of the FGD participants was quoted as follows:

Gulu, FGD male – *"the sex of the counselors is important, they should always provide both a female and male counselor. But in Gulu, we only have female counselors, so this scares away some male students to go for counseling",* Gulu, FGD female- *"students think the quality of services being provided is sub standard e.g. they think the condoms distributed to them are fake"*

8.4.2 Strategies proposed to increase students' access to services

The following strategies were suggested by the key informants as ways of improving access to service:

1. Create awareness among all the students of the available services to ensure the access and utilize them;
2. Direct more resources to university facilities to increase the range of services being offered; equip university facilities to be more appealing to students;
3. Ensure consistency in the services provided - Some services are not accessible at certain periods in time because of resource constraints;
4. Mainstreaming of HIV/AIDS issues into the university curricula. One of the key informants had the following to say:

KIU, KII *–"to improve on access, we will need to institute measures to cover the gaps identified above. These measures will help us draw up a plan to implement activities based on the university calendar- HIV/AIDS issues should be mainstreamed into the students in class teachings. We can make this compulsory for all students with a specific mark awarded"*

Focus group discussions also mentioned the following strategies as ways to improving access to services:

5. Sensitization of students to create awareness about the available products and services –As These sentiments are illustrated in the following quote from one of the FGD participants:

   MUK, FGD males- *"I think if you engage associations..... and put them on board, they can get the services, because they usually meet on weekly basis and they discuss..... If you pass through association leaders, i think you can carry out your work effectively";*

6. Recruit more qualified personnel in the health facilities and equip the facilities*;*
7. Training more student peer counselors to help access many more students that don't reach the services;
8. Increase service points so that all students are served. One of the FGD participants had the following to say:

   MUST, FGD males *– "improve on the way of giving services and convenience, e.g. for the ladies, you put condoms in their bathrooms and they will be taken immediately"*

9. DISCUSSION AND RECOMMENDATIONS

9.1 Discussion of Key Findings

9.1.1 Background characteristics of University students

Since the majority of university students are young people in the reproductive years, programmes should be designed to target them in a way that increases their access to services. However, university programmes should also reach out to older students, since they form a significant proportion of the students' population.

Some universities had a significant proportion of University students are international students, especially KIU, Makerere and IUIU and programmes should be designed in a way that they reach out to this population. International students ought to be oriented in the framework for HIV control in Uganda, and should be made aware of the programmatic services available.

The percentage of university students that are resident on the campuses is small compared to non-resident students. This implies that a significant proportion of students reside in the community and have to access a significant part of their services from outside the campus. University HIV/AIDS services should be designed in a way that they are able to reach the vast majority of students that are not resident.

There were indications that students face many financial challenges while at the university. The majority of students are privately sponsored; they have to pay the university dues and also incur significant expenditures on personal living costs. About 40% of students have to engage in employment regularly or irregularly to meet their financial needs. Financial pressures are therefore likely to remain a significant factor in influencing students' sexual behaviours.

The fact that the majority of university students own a mobile phone provides an opportunity for improving peer-to-peer communication on HIV/AIDS. Social networking through mobile telephony is therefore a viable means of communicating to students regarding HIV/AIDS prevention and services available. In addition, since a significant proportion of students have access to televisions and computers, these media are also viable as a means of HIV messaging.

9.1.2 Knowledge, attitudes and perceptions related to HIV/AIDS among students

The survey found that while overall awareness about HIV/AIDS was high among students, the level of comprehensive knowledge regarding HIV/AIDS was moderate. This indicates that a significant proportion of students were not adequately aware on specific issues regarding HIV/AIDS. HIV education programmes in universities should therefore

emphasize specific issues regarding HIV. Awareness about specific programmes like ART and PMTCT should be promoted and programmes should also emphasize that discordance among couples is high in Uganda.

A significant proportion of students has negative gender perceptions about relationships and believes that force is justified in order to get a partner to have sex or that males are obliged to provide materially for their female partners. There was also a significant prevalence of gender based violence and abuse. 12% of sexually active students reported that they had ever suffered physical abuse from a partner and 5% of sexually active students reported that they have ever suffered sexual assault from a partner. However, although female students were more likely to be the victims, there is a significant proportion of male students that has ever suffered from physical assault from their female partners (9%). There is need to increase gender education among students, so as to change their attitudes to the role of males and females in relationships.

9.1.3 Sexual Behaviours and HIV related risk factors among students

Over three quarters of students in universities have ever had sexual intercourse. In addition, the finding that 57% of students have had recent sexual intercourse implies that the majority of university students are sexually active. The median age at first sexual intercourse for university students was found to be 18 years, which is significantly higher than that in the general population. However, it also implies that about one half of university students initiate sex before they join the universities. One the other hand however, a significant proportion of students join the universities before initiating sex. Sex education programmes in universities should therefore target students as soon as they are admitted.

A significant percentage of students is abstaining from sexual intercourse in the universities. From the available data, about 22% of university students have never had sexual intercourse. In addition, the data shows that about one quarter of students who have ever had sexual intercourse had not had sex in 12 months preceding the survey and were therefore practicing secondary abstinence. In total therefore, about 43% of students were not sexually active in the 12 months preceding the survey. This implies that there is a place for promotion of abstinence among students. Programmes that encourage students to delay sex or to take up secondary abstinence are therefore relevant for a section of students.

The majority of relationships in universities are temporary non-marital relationships. However, even in these temporary relationships, students are likely to engage in sexual intercourse. The findings showed that 71% of students in temporary relationships have had sexual intercourse with their partner and two thirds of these initiate sex within the first 6 months of their relationships. Overall prevalence of sex with multiple partners is high. At

24% among sexually active students, one in every four sexually active students is engaged in frequent partner change. HIV messages in Universities should therefore dwell on the issue of building trusting relationships and faithfulness within relationships.

However, even within temporary relationships, about 25% of couples delayed sexual intercourse for over a year and 14% had not had sex with their partners for over 2 years. These findings also indicate that abstinence and delay of sex is relevant to a significant proportion of students.

A significant proportion of students in universities engage in high risk sex. Overall prevalence of cross-generational sex in universities is estimated at 5% for all students and 8% among sexually active students and cross-generational relationships in sexually active students were higher among female students. As already indicated one quarter of sexually active student were engaged with more than one sexual partner. Overall prevalence of transactional sex was estimated at 4% among sexually active students. These findings show that an estimated 10% of students are engaged in high risk sexual practices. University HIV prevention programmes should therefore develop communication strategies that will appeal to this section of students. While frequency of short and long distance mobility was not associated with the level of general sexual activity, it appeared to be highly linked to high risk sexual behaviours. Other factors that were linked to high risk sexual behaviours included alcohol taking, age, residency status and the university in which the student was.

As observed in the data, some universities had a significantly higher prevalence of high risk sexual behaviours than others. Kampala International University was leading in prevalence of all high risk behaviours. One in 10 sexually active students in KIU was involved in a cross-generational relationship and one in three sexually active students had more than one partner in the 12 months preceding the survey. One in 20 sexually active students in KIU was recently involved in transactional sex. Makerere University follows closely, with almost similar findings. These two universities should institute a more intensive HIV education programme and students support activities to reduce the occurrence of these behaviours.

There was a general observation that prevalence of condom use among sexually active students was low. Prevalence of condom use at last sexual intercourse among sexually active students was 51%. Based on the finding that only 19% sexually active students had sexual intercourse with a marital or cohabiting partner, it implies that close to 31% of students who had sexual intercourse with a non-regular non-marital partner did not use a condom at their last sexual intercourse. This implies that a significant proportion of students that ought to protect themselves do not do so. Moreover, condom use at last sexual intercourse was not different among students involved in high risk sexual

behaviours and was generally low. These findings further show that there is a high potential for increase in new HIV infections among university students.

The role of alcohol in promoting risky sex among students was also noted. About 25% of students reported that they take alcohol and this was highest in Uganda Christian University (40%) and lowest in IUIU (6%). It was observed that condom use at last sexual intercourse was significantly lower in students who had taken alcohol at their last sexual encounter (46%). Availability and exposure to pornographic materials was also high, the majority being videos and print material. A significant proportion of university students (18%) have ever accessed pornographic materials from the internet. These issues should be included in any communication package developed for HIV and reproductive health education in universities.

The overall occurrence of STD related symptoms among students was moderately high.. Unfortunately, only 60% of these students sought treatment and the majority sought treatment from outside the university premises. Occurrence of STD related symptoms was highest in KIU. It was also higher among females, and among the older age-groups. More importantly however, occurrence of STD related symptoms was highest in those who have a regular partner. This finding shows that couples in committed relationships are at significant risk and university HIV/AIDS and Reproductive methods should come up with viable means of reaching these students. As expected, findings also show that occurrence of STD related symptoms was higher in those that did not use a condom at last sex (16%), students who had a cross-generational partner the last time they had sexual intercourse (18%) and those that had more than one sexual partner in the 12 months preceding the survey (17%). These risk factors are already known and re-affirm the need for vigilance in addressing these behaviours among university students. This sub-population that reported having an STD related symptom perhaps represents those at highest risk of acquiring HIV and universities should set up a strong STD prevention and treatment programmes accessible to students.

9.1.4 HIV prevalence in Universities

Overall prevalence of HIV in universities is significantly lower than the national HIV prevalence, but represents an increase from a prevalence of 0.6% in a most-at-risk survey that included university students two years ago. Based on the behaviour profile observed among students, there is a likelihood that HIV in universities may increase and there is therefore need to increase prevention services in universities.

Observed prevalence of HIV was higher in the older age-groups, both among males and females and was also higher among female students who have ever been pregnant. These findings show that university HIV prevention programmes should not only target the

young people, but should be expanded to include older students, mature entry students and pregnant students.

9.1.5 HIV/AIDS Core programme coverage among university students

The general observation was that a section of students did not receive HIV messages frequently.

The most frequent sources of HIV messages for students were the radio (68%), TV or other audio-visual media including the internet (48%), parents and guardians (27%). Involvement of other media including religious leaders, seminars, print materials, posters and health workers needs to be increased. Findings also show that there is an important role for peer-to-peer mechanisms of communication. While the majority of students perceive the ABCs as the most important programmatic message they have received on HIV/AIDS, the significant prevalence of risky sexual behaviours indicates that there is complacency among students. HIV messages should therefore be packaged in a way that addresses this complacency.

Although most students reported that condoms were easily accessible, other findings show that there are gaps. The majority of students who need condoms have to purchase them and only 37% of students received free condoms the last time they went out to obtain them. Condom sources most accessible to students include pharmacies and drug shops, private clinics, and health centres, showing that the majority of sources are outside their university premises. Access to freely distributed condoms was inadequate, and represents an area where universities need to improve.

Female students are also significantly less empowered to obtain condoms on their own initiative and this gender gap must be addressed. This is further demonstrated that the proportion of sexually active female students who have ever been pregnant is high. In addition, overall occurrence of induced abortions in universities is high among female students (7%), especially in KIU. This is also linked to the finding that overall use of other contraceptives other than condoms was low in universities. Universities therefore need to address this trend by increasing the availability and information on contraceptives, so as to increase the options available to students who want to control their fertility.

Overall access and uptake of VCT in universities is moderately high, as indicated by the finding that 72% of students have ever tested for HIV. However, the majority of students have to pay for a HIV test and the majority test from outside the university premises. VCT services should be made widely available in universities.

9.1.6 HIV/AIDS and RH policies, programmes and services in Universities

The general observation was that universities were lacking in their level of operationallisation of the National Strategic Plan for HIV/AIDS control and prevention,

and these documents should be disseminated to universities. Information management systems for HIV/AIDS as well as monitoring and evaluation systems are also lacking in most universities. While some universities have developed policies for HIV/AIDS prevention and control, this trend should be adopted by all institutions and the policies should be operationallised.

Availability of direct HIV/AIDS and Reproductive health services is not tailored to the size of universities and the growing numbers of students, most of whom are off-campus and private students. There were also gaps in the level of involvement of university administrators and lecturers in HIV prevention activities. Students on the other hand appeared to be vigilant and there were many student led peer-to-peer activities, mostly supported by agencies from outside the universities.

While all the six survey universities had at least a facility for basic health services, the range and level of services provided at each facility significantly varied between universities and in some universities, the service delivery points were not marched to the size of the university or the diversity of students' background characteristics. As a result, the students FGDs were almost unanimous in their observation that access to quality HIV/AIDS and Reproductive Health services was lacking in all universities.

9.2 Recommendations

These findings demonstrate that although the overall prevalence of HIV in Universities is lower than the national prevalence, the prevalence of HIV related risk factors is high, and there is a high likelihood that HIV prevalence in Universities may increase. Institutional frameworks for HIV/AIDS service delivery in most universities (including prevention, mitigation and control) have many gaps and access to HIV/AIDS services within universities inadequate. In addition, information management systems for HIV programme monitoring in universities are inadequate. There is also need to increase access to HIV/AIDS and Reproductive Health services for students. The following recommendations on priorities for scaling up HIV/AIDS services in universities are made:

9.2.1 Recommendations on priority areas for HIV/AIDS communication and support

i. Universities should design programmes that target both the young people and older students
ii. Universities should develop programmes targeted for special groups including international students, freshmen and women and non-resident students
iii. Strategic use of other media that are accessible to students for mass-communication on HIV/AIDS including radios and TVs and innovations using media like mobile phones and computers

iv. Developing messages that promote comprehensive knowledge about HIV/AIDS and specific programmes like VCT, PMTCT and ART and specific issues like discordance
v. Designing messages that promote faithfulness and commitment in temporary relationships for sexually active students
vi. Designing messages that promote abstinence, secondary abstinence and delay of sexual intercourse among specific sub-groups of students who are already practicing these behaviours
vii. Developing messages that target gender misconceptions in relationships as well as sexual and gender based violence for both male and female perpetrators
viii. Increasing the frequency of messages that discourage frequent partner change, transactional sex and cross-generational sex
ix. Increasing the frequency of messages that promote condom use in all non-marital sexual relations, and especially in high risk sexual acts
x. Develop and disseminate messages that target alcohol use and demonstrate its link to high risk behaviours and its effect on critical decisions regarding sex
xi. Strengthening STD screening and treatment for students as a means of targeting the most-at-risk groups
xii. Expanding the use of available channels for HIV communication including TV and radio, but also increasing the use of seminars, peer educators, print material, religious leaders and students' associations
xiii. Increasing the availability of free condoms by increasing condom service delivery points in universities as well as distribution programmes for free condoms
xiv. Increasing the availability of information and services for pregnancy prevention and contraception among students that want to control their fertility
xv. Increasing the availability of free VCT services within the university premises

9.2.2 Recommendations in policy and institutional frameworks for HIV/AIDS

It is recommended therefore that action is taken to support universities at administration level in mainstreaming HIV/AIDS prevention and control activities in their programmes, with the involvement of administrators, staff and students. In particular, the following are recommended:

i. Development and operationallisation of HIV policies, workplans and budgets for all universities
ii. Exploring how university codes of conduct can be used to promote positive behaviours but in a realistic way that acknowledges the nature of students' life
iii. Mainstreaming HIV/AIDS in all university programmes and increasing the involvement of lecturers in HIV prevention
iv. Providing deliberate support to student led peer-to-peer HIV education programmes in addition to the external support they receive, but using them to communicate priority messages as indicated in the previous section

v. Increasing HIV/AIDS service delivery points so that they are commensurate with the size of universities and accessible to all students including non-resident students, pregnant students and mature students.

vi. Improving the quality of services in these service delivery points so that they are a 'one-stop centre' for students to access both HIV/AIDS and reproductive health services. In particular, ensuring that universities offer a full range of reproductive health services to students, given that this population is young and sexually active.

APPENDICES

Appendix 1: Behavioural Assessment Questionnaire

HIV/AIDS SERO-BEHAVIOURAL SURVEY FOR UNIVERSITIES IN UGANDA: STUDENTS′ QUESTIONNAIRE

CONSENT

Introduction: Good morning/afternoon. My name is (Interviewer), and I am part of the team conducting a study to assess the burden of HIV among University students in Uganda. Before we proceed, I would like to seek your permission.

Purpose: The Inter-university Council for East Africa (IUCEA), in collaboration with AMREF, the AIDS Control Programme of the Ministry of Health and the Uganda AIDS Commission would like to conduct a HIV/Sero-behavioural survey among university students in Uganda. The same exercise is on-going in Kenya and Tanzania. The purpose of this survey is to assess the burden of HIV among University students, the associated factors, and vulnerability to HIV infection and to assess available policies and strategies to prevent the spread of HIV and to provide care and treatment to those that are infected with HIV. The overall aim of this survey is to obtain information to enable planners at the University, National and at International levels, to design appropriate interventions to prevent the spread and mitigate the impacts of HIV/AIDS in Universities.

CONSENT FORM A: CONSENT TO PARTICIPATE IN THE SURVEY INTERVIEW

Research Procedure and Confidentiality: Because of limited resource and feasibility, we cannot study the entire population of the university, so we are taking a representative random sample of students from six Universities in the country. You have been selected through a random process. We are requesting you to participate in the study which comprises of two aspects. In the first instance, we request that you take part in a self-administered interview questionnaire. After that, you will be requested to consent to provide a blood sample for confidential HIV testing and storage for Syphilis and HSV2 testing in future Participation in this study is voluntary and the purpose of this form is to obtain your consent to participate. If you choose to take part, I will provide to you a questionnaire to complete. You are not obliged to answer any questions if you do not feel comfortable to do so. To ensure confidentiality, unique identifications have been used your name will not appear anywhere on the questionnaire and the questionnaire will be stored in a sealed envelope and will not be accessible to anyone else on this campus. The questionnaire will take you about 30 minutes to answer all the questions. For most of the questions, there is no right or wrong answer; what is important is to get your opinion. Your decision to participate will not affect your position on this campus and/or community. If you have questions before you proceed, please ask me. It is your choice to choose to participate in the survey. You are also free to stop at any stage of the survey should you feel uncomfortable. Do you consent to participate in the interview for the survey?

Please circle: Yes or No.

I have been fully explained about this survey and understand its purpose and objectives. I understand the details and have been informed about the requirements and hereby agree to participate in the survey

Signature of respondent _____Date_____
Signature of interviewer _____Date_____

If you have any questions regarding the survey, please do not hesitate to call the Principal investigator, Dr. Roy Mayega at +256 772 412455 or Dr. JB Ddamulira at +256 772 414939 the co-investigator. In case of an ethical issue related with the survey, contact the MUSPH IRB chairperson Prof. Fred W Mangen P.O.BOX 7072, Kampala

PART A: TO BE COMPLETED BY THE DATA COLLECTION TEAM

SECTION 1: IDENTIFICATION

001	**RESPONDENTS' SURVEY NUMBER:**	**Attach Bar Code or Number here** **Ensure it sticks properly**	
	PARTICULARS OF THE INTERVIEW		
002	**RESPODENTS' UNIVERSITY:**	MAKERERE UNIVERSITY	**1**
		MBARARA UNIVERSITY	**2**
		KAMPALA INTERNATIONAL UNIV.	**3**
		UGANDA CHRISTIAN UNIVERSITY	**4**
		GULU UNIVERSITY	**5**
		ISLAMIC UNIVERSITY IN UGANDA	**6**
003	**DATE OF INTERVIEW:**	*Indicate DD/MM/YYYY*	
004	**RESPONDENTS' YEAR OF STUDY:**	1ST YEAR	**1**
		2ND YEAR	**2**
		3RD YEAR	**3**
		4TH YEAR	**4**
		5TH YEAR	**5**
	RECORD OF TRACING VISITS		
005	**RESPODENT SEEN AT:**	1ST VISIT	**1**
		2ND VISIT	**2**
		3RD VISIT	**3**
		4TH VISIT	**4**
		5TH VISIT	**5**
	RESULT		
006	**OUTCOME**	QUESTIONNAIRE COMPLETED AND BLOOD SAMPLE TAKEN	**1**
		ONLY COMPLETED THE QUESTIONNAIRE/DECLINED TO GIVE BLOOD SAMPLE	**2**

	ENDORSEMENT		
		NAME	**SIGN**
	LEAD INTERVIEWER:		
	TEAM SUPERVISOR:		
	DATA ENTRY CLERK:		

PART B: TO BE COMPLETED PRIVATELY BY THE RESPODENT

SECTION 1: BACKGROUND CHARACTERISTICS OF RESPONDENT

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
101	**What is the total number of years you have spent at the University?**	*Indicate total number of years including repeated years. Uncompleted years should also be counted as full years*		
102	**What is your sex?**	Male Female	**1** **2**	
103	**What is your age?**	*Indicate your age in completed years*		
104	**What is your religion?**	Catholic Protestant Evangelical/Born-again Other Christian Denomination Moslem Traditional/Animist None/Other	**1** **2** **3** **4** **5** **6** **7**	
105	**Is your home area *(where you stay during holidays)* rural, urban or semi-urban?**	Large City or Municipality Urban-Town Council Trading Centre Rural (i.e. Village)	**1** **2** **3** **4**	
106	**What is your Country of current citizenship?**	Uganda Kenya Tanzania Rwanda Burundi Other African Country Country Outside Africa	**1** **2** **3** **4** **5** **6** **7**	 **Skip to 108** **Skip to 108** **Skip to 108** **Skip to 108** **Skip to 108** **Skip to 108**
107	**If you are a citizen of Uganda, from which region do you come?**	Central Western Eastern Northern	**1** **2** **3** **4**	
108	**Are you a certificate/diploma, degree or graduate student?**	Certificate/Diploma Under-graduate degree Post graduate degree or diploma	**1** **2** **3**	
109	**Are you on the regular entry or mature entry scheme?**	Regular Entry Diploma or Mature Entry Other	**1** **2** **3**	
110	**Indicate the classification of the course you are doing at the university *(Select one category that best describes your course)***	Sciences, Pure (i.e. BSc Flat) Bio-Medical Sciences, Public Health, Environmental Health Veterinary Medicine Engineering	**1** **2** **3** **4**	

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
		Agricultural Sciences, Food science	**5**	
		Computing, Information Technology, Statistics	**6**	
		Education in Sciences	**7**	
		Forestry/Nature/Environmental Studies	**8**	
		Arts, Pure (i.e. BA Flat)	**9**	
		Legal Law	**10**	
		Social Works, Social Sciences, Psychology, Development Studies, Urban Planning	**11**	
		Library , Information/Mass Communication/ Journalism	**12**	
		Economics, Business, Administration	**13**	
		Finance, Accounting, Auditing	**14**	
		Education in Arts	**15**	
		Fine Art, Music, Sports, Tourism, Catering	**16**	
		Religious studies	**17**	
		Political Science/Peace, Conflict Studies	**18**	
		Adult and Continuing Education	**19**	
		Other study area not specified	**20**	

SECTION 2: GUARDIANSHIP AND SPONSORSHIP

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
201	**Are any of your biological parents alive?**	Yes, both are alive Yes, one of them is alive None of them is alive	**1** **2** **3**	
202	**What is your relationship to your main guardian? (*by main guardian, we mean the main person who usually takes care of you and supports you; if they are parents and both are alive, refer to the head of household)***	Biological parent Adopted parent or Relative Spouse (Husband/Wife) Boy friend/girl friend/Fiancé (é) Casual Friend, not relative Family Friend, not relative Employer Member of a charitable organization Religious minister, not relative Public Figure/Politician, not relative Other	**1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**	
203	**What is the sex of your main guardian?**	Male Female	**1** **2**	
204	**What is the estimated age of your main guardian? (*Provide an estimate even if***	Below 20 years 20 to 30 years 30 to 60 years	**1** **2** **3**	

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
	you do not know)	Above 60 years	**4**	
205	**What is the occupation of your main guardian?**	Professional or specialized occupation	**1**	
		Salaried employment/office work	**2**	
		Commercial agriculture	**3**	
		Subsistence agriculture/Peasant	**4**	
		Small (Petty) business	**5**	
		Large business/commerce	**6**	
		Casual labour and barter	**7**	
		Technician /Mason/Artisan/Crafts	**8**	
		Other	**9**	
		Do not know	**10**	
206	**What is the marital status of your main guardian?**	Single and Never Married	**1**	
		Married, Cohabiting	**2**	
		Married /cohabiting but polygamous	**3**	
		Divorced, Widowed-Not remarried	**4**	
		Divorced, Widowed-Remarried	**5**	
		Do not know	**6**	
207	**Apart from your main guardian, are there other persons or entities that support your day to day living?**	Yes	**1**	
		No	**2**	**Skip to 209**
208	**If yes, what is the designation of these people or entities? *(Circle all that apply)***	I support myself	**1**	
		Biological parent	**2**	
		Adopted parent	**3**	
		Relative	**4**	
		Spouse	**5**	
		Boy friend/girl friend, Fiancé (é)	**6**	
		Casual Friend, Male	**7**	
		Casual Friend, Female	**8**	
		Family Friend, not relative	**9**	
		Employer	**10**	
		Charitable organization or person	**11**	
		Religious ministry or organization	**12**	
		Public Figure/Politician/Political Office	**13**	
		Administrative Office/Bursary	**14**	
		Other	**15**	
209	**What is the category of your sponsorship at the University?**	Government	**1**	
		Private, with a scholarship	**2**	
		Private, without a scholarship	**3**	
		Other	**4**	

SECTION 3: LIVING ARRANGEMENTS AND ECOMOMIC CHARACTERISTICS

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
Living Arrangements				
301	**What is your residency status while at the university?**	University Hall of residence	**1**	**Skip to 304**
		Reside within campus but not in hall	**2**	**Skip to 304**
		Reside at home, with guardian	**3**	
		Stay with relative	**4**	
		Hostel, accredited by university	**5**	
		Hostel, not accredited by university	**6**	
		Own apartment or room	**7**	
		Rented apartment/quarter or room	**8**	
		Other	**9**	
302	**If you do not live within the university, what is the distance from your place of residence to the university?**	*Indicate Distance in Kilometers <u>from the place where you stay while studying</u>*		
303	**What means do you usually use to travel to the university?**	Walk	**1**	
		Taxi, bus or train	**2**	
		Motor-cycle or bicycle (boda-boda)	**3**	
		Motorcycle or bicycle or (personal)	**4**	
		Car	**5**	
		Other means	**6**	
304	**How often do you eat food provided by the university?**	Daily	**1**	
		A few times a week	**2**	
		A few times in a month	**3**	
		A few times in a term/semester	**4**	
		I never eat University food	**5**	
305	**How often do you cook for yourself in a semester or term while at the University?**	Daily	**1**	
		A few times a week	**2**	
		A few times in a month	**3**	
		A few times in a semester	**4**	
		I never cook at all while at the university	**5**	
306	**How often do you eat food from a restaurant, canteen, hotel or eating house during the semester?**	Daily	**1**	
		A few times a week	**2**	
		A few times in a month	**3**	
		A few times in a semester	**4**	
		I never eat food from a restaurant	**5**	
Economic characteristics				
307	**What is the estimated amount of money that you <u>need</u> for up-keep and daily living in one semester or term? *(excluding accommodation and tuition)***	*Provide total estimate in Uganda Shillings*		

308	**How much of this money do you actually get from your guardian? (*excluding accommodation and fees)***	*Provide total estimate in Uganda Shillings*		
309	**How much of this money do you actually get from other people or entities that support you?**	*Provide total estimate in Uganda Shillings*		
310	**What percentage of your total expenditure do you spend on each of the following living costs while at the university? (*Indicate in percentages; provide estimates)***	1.Academics (Books, photocopy, internet)		
		2. Food		
		3. Personal expenses (Clothing, food, housekeeping, electricity, water, phone)		
		4. Entertainment and others		
311	**Do you have any regular side job or income generating activity or business in addition to being a student?**	Yes	**1**	
		No	**2**	**Skip to 313**
312	**What is the estimated amount of income from the side job or business per semester or term?**	*Provide total estimate in Uganda Shillings (If it is not a paid job, indicate zero)*		
313	**Do you undertake any non-regular informal jobs periodically for the purpose of earning some money?**	Yes	**1**	
		No	**2**	
314	**In general, do you think you get an adequate amount of money to cater for your up-keep needs in a semester?**	Yes	**1**	
		No	**2**	
315	**Do you have any of the following possessions in person? (*Circle the items that you poses in person from this list)***	A radio	**1**	
		A TV	**2**	
		A carpet	**3**	
		Personal chairs, table or desk	**4**	
		Personal computer	**5**	
		A car, motorcycle or bicycle	**6**	
		A hot plate, kettle, other cooking device	**7**	
		A flat iron	**8**	
		A mobile phone or fixed phone	**9**	
		A refrigerator	**10**	
317	**How many roommates do you have? (*Persons with***	*Indicate number of room-mates; if your room is not shared with any other person, indicate 0)*		

	whom you share the room where you sleep on a regular basis)			
318	**Do you have any room-mate that is of the opposite sex as yours?**	Yes No	**1** **2**	

SECTION 4: SHORT AND LONG DISTANCE MOBILITY

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
401	**About how long does it take you to travel from your actual home to the university, either at the beginning of the semester or when reporting for academic engagements?**	*Indicate duration of travel in hours from the place where you stay during holidays*		
402	**About how many times do you travel a distance shorter than 5 kilometers from your place of residence in one month for a reason other than academic?**	*Give an estimate of the number of times*		
403	**What is the most frequent reason for leaving your place of residence and going out in such cases? *(Circle all that apply)***	Visiting a friend Visiting relative (s) Entertainment/Socialization Group or club activities Excursion/Adventure/Camping/Site Going home Work/business related Escorting a friend/relative Other reasons	**1** **2** **3** **4** **5** **6** **7** **8** **9**	
404	**About how many times do you travel a distance longer than 10 kilometers from your residence while at university in one semester/term for a non academic reason?**	*Give an estimate of the number of times you travel for long distances from the place where you stay during the semester or term*		
405	**Do you take alcohol?**	Yes No	**1** **2**	 **Skip to 408**
406	**If yes, about how many times do you take alcohol in a month?**	*Give an estimate of the number of times*		
407	**Indicate the main type of alcohol that you usually take**	Spirits, gin, vodka Beer Wine, Wine related Local brew	**1** **2** **3** **4** **5**	

		Other		
408	**About how many times do you go out for parties <u>in one semester or term</u>?**	*Give an estimate of the number of times*		
409	**About how many times do you go out to a discotheque <u>in one semester or term</u>?**	*Give an estimate of the number of times*		
410	**About how many times did you spend a night away from your place of residence <u>in the last one month</u>?**			
411	**In cases where you do not sleep at your place of residence, indicate the alternative places where you have ever slept *(Circle all that apply)***	At home	**1**	
		At a casual friends' place, a male	**2**	
		At a casual friends' place, female	**3**	
		At a relative's place	**4**	
		At a camping site	**5**	
		At my boy friend/girl friends' place	**6**	
		At a lodge, hotel, motel	**7**	
		In a car	**8**	
		Other place	**9**	

SECTION 5: SEXUAL BEHAVIOUR AND PERCEPTIONS

Now, we need to ask you some questions about your sexual activity, in order to gain a better understanding of some life issues. Some of the questions require information on very private issues. As indicated earlier, all information shall be analyzed anonymously and we shall not tag any of your responses to your name. Please be as honest and open as possible because we want a correct estimate of the occurrence of these behaviours.

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
Sexual Debut				
5101	Have you ever had sexual intercourse?	Yes	1	
		No	2	**Skip to 701**
5102	If yes, how old were you when you **first** had sexual intercourse?	*Indicate age at in completed years*		
5103	The <u>first</u> time you had sex was a condom used?	Yes	1	
		No	2	
5104	The <u>first</u> time you had sexual intercourse, were you verbally, emotionally or physically pressured into having sex, or did you pressurize your	Was pressurized	1	
		I pressurized my partner	2	
		We both agreed to it	3	
		Do not remember	4	
		Do not know	5	

	partner?			
5105	The first time you had sexual intercourse, were you promised some material or monetary reward or did you promise your partner a reward?	Yes, I was promised some rewards Yes, I promised my partner rewards No rewards promised Do not remember	1 2 3 4	
5106	The first time you had sexual intercourse, was it as a result of pressure from your peers?	Yes No Do not remember	1 2 3	
5107	The first time you had sexual intercourse did you feel you were psychologically and emotionally ready for sex?	Yes No Do not remember Do not know/Was confused	1 2 3 4	
Relationships and Relationship Networks				
5201	Have you ever had a boy-friend or girl friend (*a person with whom you are in a romantic relationship)*?	Yes No	1 2	 **Skip to 5208**
5202	If yes, do you currently have a boy-friend or girl-friend to whom you are romantically linked?	Yes No	1 2	 **Skip to 5205**
5203	How long have you been in a romantic relationship with your current boy-friend or girl-friend?	*Indicate number of years and months*		
5204	Have you had sexual intercourse with your current boy/girl-friend?	Yes No	1 2	
5205	How many boy-friends/girl friends have you had a romantic relationship with in your life?	*Indicate Number of lifetime boy-friends/girl friends*		
5206	Have you ever had more than one romantic boy/girl friend but running them concurrently?	Yes No	1 2	
5207	Have you had sexual intercourse with another person while you were in a relationship with a person you	Yes No	1 2	

	considered your boy/girl friend?			
5208	Have you ever had a relationship in which your main intention was to obtain material gains or money from your partner?	Yes No	1 2	
Recent Sexual Activity				
5301	When was the last time you had sexual intercourse	Days ago (less than a week) Weeks ago (less than a month) Months ago (less than a year) One to two years ago More than two years ago Do not recall	1 2 3 4 5 6	
5302	What was your relationship with the person with whom you last had sex?	Husband/Wife Cohabiting partner Boy /girl friend not living with me Casual friend Commercial sex worker Other	1 2 3 4 5 6	
5303	Do you know the age of this man or woman?	Yes No	1 2	 **Skip to 5305**
5304	If yes, how old is the man or woman with whom you last had sexual intercourse?	*Indicate his/her age in completed years*		**Skip to 5306**
5305	If you don't know your partner's age, do you think he/she is at least 10 years older or younger than you?	Yes No Do not know for sure	1 2 3	
5306	The last time you had sexual intercourse, was a condom used?	Yes No Do not recall/Do not know	1 2 3	
5307	The last time you had sexual intercourse, were you verbally, emotionally or physically pressured into having sex, or did you pressurize your partner?	Yes, was verbally pressurized Yes, I verbally pressurized partner No, we both agreed to it Do not remember	1 2 3 4	
5308	The last time you had sexual intercourse, were you promised some material or monetary reward or did you promise your partner some reward?	Yes, I was promised reward Yes, I promised my partner reward No, no rewards were promised Do not remember	1 2 3 4	

5309	The last time you had sexual intercourse did you or your partner take some alcohol in the hours preceding the act?	Yes, I had had some alcohol Yes, my partner had had some alcohol Yes, both of us had had some alcohol No, none of us had had any alcohol Do not remember/Do not know	1 2 3 4 5	
5310	The last time you had sexual intercourse did you or your partner take some drugs like marijuana, opium, cannabis or heroin before the act?	Yes, I took some Yes, my partner took some Yes, both of us took some No, none of us took some Do not remember/Do not know	1 2 3 4 5	
5311	Have you ever taken some aphrodisiacs *(drugs that enhance sexual desire)*?	Yes No	1 2	
5312	Have you had sexual intercourse with more than one person in the last 12 months?	Yes No	1 2	**Skip to 5314**
5313	If yes, how many different people have you had sex with in total in the last 12 months?	*Indicate number of different people with whom you have had sexual intercourse in the last one year*		
5314	In the last 12 months, have you paid anyone or been paid to have sex?	Yes, I have been paid for sex Yes, I have paid someone for sex No	1 2 3	
5315	Have you ever had a 'one-off' sexual act (fling or adventure) with a casual partner within 48 hours of having met them?	Yes No Do not remember	1 2 3	
5316	Have you ever had a sexual act when there are more than two people in the room?	Yes No	1 2	
5317	Have you ever had any intimate relationship with a person of the same sex as you?	Yes No	1 2	
5318	Have you ever seen or been exposed to any pornographic material or one that contains lewd sexual graphics in your life?	Yes No	1 2	**Skip to 5320**
5319	If yes, which type of materials have you been exposed to in the last 12 months *(Circle all that apply)*	Videos/Films Print materials-stand alone graphics Print materials-Newspapers Print materials-Pamphlets Print materials-Magazines Internet materials Others	1 2 3 4 5 6 7	

5320	Have you ever suffered abuse or have you ever abused any your romantic or intimate partners involving physical contact like beating, slapping, pushing or punching?	Yes, ever suffered abuse Yes, ever abused partner No Not sure if it amounted to that Do not remember	1 2 3 4 5	
5321	Have you ever been raped or suffered any form of sexual assault?	Yes No	1 2	
Access to Condoms				
5401	From which of these places can you get condoms when you need them while at the university *(Indicate all that are accessible to you)*?	Government Hospital/Health Centre Private Hospital/clinic University Hospital Private Pharmacy/Drug-shop NGOs involved in condom distribution Condom distributor Student leaders in-charge of health Other leader in the community From shop or vendor Friend/Relative Lodge/Hotel Night Club or Discotheque Other place not indicated here Do not know any	1 2 3 4 5 6 7 8 9 10 11 12 13 14	
5402	Have you ever gone out to obtain condoms in your life?	Yes No	1 2	 **Skip to 5405**
5403	If yes, where did you go to seek the supply of condoms the <u>last</u> time you went out to get them	Government Hospital/Health Centre Private Hospital/clinic University Hospital Private Pharmacy/Drug-shop NGO involved in condom distribution Condom distributor Student leader in-charge of health Other leader in the community From shop or vendor Friend/Relative Lodge or Hotel Night Club or Discotheque Other place not indicated	1 2 3 4 5 6 7 8 9 10 11 12 13	
5404	Did you get free condoms or you purchased them?	I purchased them I got free condoms Do not remember/recall	1 2 3	
5405	Have you ever received free condoms while at the University?	Yes No	1 2	

5406	Do you feel that condoms are easily accessible to you when you need them?	Yes No	1 2	

SECTION 6: USE OF PREGNANCY PREVENTION METHODS (FOR FEMALE RESPONDENTS ONLY; MALE RESPODENTS SHOULD SKIP TO THE NEXT SECTION)

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
601	Have you ever been pregnant?	Yes No	1 2	 **Skip to 605**
602	If so, how many times have you ever been pregnant?	*Indicate Number of Times*		
603	How many children do you have now?	*Indicate number of own biological children*		
604	Have you ever had an induced abortion?	Yes No	1 2	
605	Do you desire to have a child in the next one year?	Yes No	1 2	
606	Apart from the male condom, which of the following pregnancy prevention methods have you <u>ever heard</u>, <u>ever used</u> and are <u>currently using</u>? *(By current use, we mean at the last time you had sexual intercourse or presently) (For <u>each</u> method, circle options relevant to you;* ***if you are currently using a method, it means you have <u>ever used</u> it; if you have ever used a method, it means you have <u>ever heard</u> of it; you may have ever heard a method, but never used it; if you have never heard a method, do not circle any option)***			
6061	FEMALE OR MALE STERILIZATON	Ever Heard Ever Used Current Use	1 2 3	
6062	ORAL PILLS	Ever Heard Ever Used Current Use	1 2 3	
6063	IUD	Ever Heard Ever Used Current Use	1 2 3	
6064	INJECTION *(e.g. Depo Provera)*	Ever Heard Ever Used Current Use	1 2 3	
6065	IMPLANTS LIKE NORPLANT	Ever Heard Ever Used Current Use	1 2 3	
6066	DIAPHRAM OR CERVICAL CAP OR SPERMICIDES	Ever Heard Ever Used Current Use	1 2 3	
6067	LACTATIONAL AMENORRHEA/	Ever Heard Ever Used	1 2	

	RHYTHM/STANDARD DAYS OR WITDRAWAL	Current Use	3	
6068	EMERGENCY CONTRACEPTION:	Ever Heard Ever Used Current Use	1 2 3	
6069	FEMALE CONDOM	Ever Heard Ever Used Current Use	1 2 3	
607	Do you know of a place where you can obtain contraceptive methods apart from condoms?	Yes No	1 2	

SECTION 7: PERCEPTIONS AND ATTITUDES TO CHALLENGES IN RELATIONSHIPS

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
701	Do you think a person is justified in using some level of force to get their partner to have sex with them at any stage in their relationship?	Yes, for sure Yes, partly/It depends on the situation No/Not for any reason	1 2 3	
702	Do you think a person who has spent some reasonable amount of money on a partner is justified in using some level of force to have sex with them?	Yes, for sure Yes, partly/It depends No/Not for any reason	1 2 3	
703	Do you think a person who is pressured into having sex with a partner should give in if a strong reason is given	Yes, for sure Yes, partly/It depends on the reason No, not for any reason	1 2 3	
704	Do you think that boys are obliged to provide material and monetary support to their girl-friends?	Yes for sure Yes, partly No	1 2 3	
705	What do you think is the acceptable period of dating before someone has sexual intercourse with a partner?	*Indicate years and months*		

SECTION 8: REPRODUCTIVE HEALTH PROBLEMS

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
801	Have you suffered from a Sexually Transmitted Disease or a disease you think is an STD in the last 12 months?	Yes No I had symptoms but am not sure Don't Know	1 2 3 4	
802	Have you ever developed any of the following symptoms in the last 12 months *(Circle all that you have ever suffered from)*	Itching of your private parts Whitish discharge from private parts Non-whitish discharge in private parts Ulcers or small wounds in private parts Abnormal swellings in private parts Burning pain on passing urine Pain localized in the lower abdomen Problems related to menstruation Never suffered from any	1 2 3 4 5 6 7 8 9	**Skip to 805**
803	If any of the above, did you seek treatment or help?	Yes No	1 2	**Skip to 805**
804	If yes, from who?	University Hospital Student leader in-charge of health Other student leader Room-mate or friend Parent/Guardian Lecturer/community member Relative/sister/brother Government Health center Private Clinic/Drug Shop/Pharmacy Hall/Hostel care-taker Other (Specify)	1 2 3 4 5 6 7 8 9 10 11	
805	Have you **ever** suffered any other problems related to your reproductive system?	Yes No	1 2	

SECTION 9: KNOWLEDGE ABOUT HIV AND ITS TRANSMISSION

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
Knowledge				
901	Indicate the main ways through which HIV is transmitted *(Tick all that apply)*	Unprotected sexual intercourse	1	
		Sharing skin piercing instruments	2	
		Mother to child	3	
		Blood related/transfusion	4	
		Shaking hands with infected person	5	
		Kissing	6	
		Non vaginal sexual intercourse	7	
		Do not know any	8	
902	*Many people think in different ways about HIV/AIDS. Please indicate whether you agree or disagree about these statements:*			
9021	It is possible for a healthy looking person to have the virus that causes HIV/AIDS	Yes	1	
		No	2	
		Do not know	3	
9022	One can get HIV/AIDS by sharing food, utensils or clothes with a person who have HIV/AIDS	Yes	1	
		No	2	
		Do not know	3	
9023	One can get AIDS by being bitten by a mosquito	Yes	1	
		No	2	
		Do not know	3	
9024	Abstaining from sex is a realistic way of avoiding HIV	Yes	1	
		No	2	
		Do not know	3	
9025	One can get HIV/AIDS by being bewitched	Yes	1	
		No	2	
		Do not know	3	
9026	Genital sores greatly increase chances of getting HIV infection	Yes	1	
		No	2	
		Do not know	3	
903	From the following list of options, indicate the ways most applicable to <u>you</u> in protecting yourself from getting HIV *(Multiple responses allowed but do not exceed 3)*	Abstain from Sex	1	
		Always use Condoms	2	
		Limit sex to few partners/stay faithful	3	
		Avoid sex with prostitutes	4	
		Avoid homosexuality or drug use	5	
		Avoid Blood Transfusions	6	
		Avoid Injections	7	
		Avoid Kissing and Mosquito bites	8	
		Ask spouse or partner to get tested	9	
		Circumcision (self or partner)	10	
		Other	11	

		None of these	12	
904	Have you heard of any drugs that can cure HIV?	Yes No	1 2	
905	Have you heard of any drugs that can prolong the life of a person with HIV/AIDS?	Yes No	1 2	 **Skip to 908**
906	What drugs do you know? *(Circle all that apply)*	Anti-Retroviral drugs Herbal drugs That treat opportunistic infections Nutritional supplements Traditional medicine Alternative therapies like Yoga Do not know	1 2 3 4 5 6 7	
907	How long should a person with HIV/AIDS, who has started on ARVs, take the ARVs?	Less than one year One to two years More than two years For Life Do not know	1 2 3 4 5	
908	If a person has HIV/AIDS, does his/her sexual partner have the HIV always, almost always or sometimes?	Always Almost always Some times Likely but not commonly Rarely	1 2 3 4 5	
909	If a pregnant woman or mother has HIV, in which stages can the virus be transmitted to the child *(Indicate all you know of)*	During pregnancy During delivery Breast feeding None of the three Do not know	1 2 3 4 5	
910	Are there drugs that can be given to a mother with HIV to reduce the chances of infecting the baby?	Yes No Do not know	1 2 3	
Attitudes				
911	If you knew that a food canteen vendor at the University has the AIDS virus, would you buy eats from that person?	Yes No	1 2	
912	If a room-mate of yours got infected with the virus that causes AIDS, would you share with them a room next year?	Yes No	1 2	

913	If a room-mate of yours got infected with the virus that causes HIV/AIDS, would you like it to remain a secret or not?	Yes No	1 2	
914	If your lecturer has the HIV virus, should they be allowed to continue lecturing or not?	Yes No	1 2	
915	Based on your personal self evaluation, what are the chances that you might get infected with HIV?	Very Likely Somewhat likely No chance at all Already have HIV or AIDS Don't know, not sure, it depends	1 2 3 4 5	

SECTION 10: HIV COUNSELING AND TESTING

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
1001	Have you ever tested for HIV?	Yes No	1 2	 **Skip to 1006**
1002	If yes, when was the last time you tested for HIV?	*Indicate **Month** and **Year (MM,YYYY)***		
1003	The last time you tested for HIV, did you test from within the university or outside the university?	From within the university From outside the university	1 2	
1004	The last time you tested for HIV, were you given a free test or you paid for it	I paid for it It was a free test	1 2	
1005	How many times have tested for HIV/AIDS in your lifetime?	*Indicate number of times*		**Skip to 1101**
1006	Would you like to test for HIV now?	Yes No	1 2	
1007	Do you know where you can get tested if you wanted to know your HIV status	Yes No	1 2	

SECTION 11: DIFFUSION OF REPRODUCTIVE HEALTH AND HIV/AIDS MESSAGES

Code	Questions and Filters	Coding Categories	Code *(Circle)*	Skip
1101	How often do you hear or receive HIV/AIDS and Reproductive Health education messages?	About every Week About every Month After Several Months Irregularly Rarely	1 2 3 4 5	

1102	Have you ever discussed HIV and Reproductive Health issues with your room-mate?	Yes No	1 2	
1103	Have you ever personally consulted any one on an issue regarding a Reproductive health problem or question?	Yes No Do not remember	1 2 3	**Skip to 1105** **Skip to 1105** **Skip to 1105**
1104	If yes, which person or entity did you <u>first</u> consult?	University Hospital Student leader in-charge of health Other student leader Room-mate or friend Lecturer/community member Parent/Guardian Relative/sister/brother Government Health center Private Clinic/Drug Shop/Pharmacy Hall/Hostel care-taker Other (Specify)	1 2 3 4 5 6 7 8 9 10 11	
1105	From which sources have you learnt most about HIV/AIDS? *(Multiple responses allowed but do not exceed 3 sources)*	Radio TV/Film/Video/The Internet Posters/Pamphlets/Brochures Billboards/Notices University HIV Education activities Health workers outside University Student Leaders Lecturers/University Administrators Religious Leaders Family/Parents/Guardians/Relatives Friends/Peers Groups/Associations Seminars/Workshops/Talks Entertainment events/Artistes/Drama Visits/Outreaches by Health Educators Non-student community members Political leaders Other sources	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
1106	What is the most important message that you think you have learned from this source? *(Indicate only one)*	Follow the ABCs Avoid sex with prostitutes Avoid sex with persons with many partners Avoid sex with Homosexuals or Lesbians Avoid Injecting drug use Avoid Blood Transfusions	1 5 6 7 8 9	

		Avoid Injections	10	
		Avoid discrimination of people with HIV	11	
		Anti-Retroviral drugs are available	12	
		Get tested for HIV	13	
		Know the HIV status of your sexual partner	14	
		AIDS is a Killer; Don't Take Chances	15	
		Other	16	
1107	Are you currently a member or have you been a member of any students' association or network at the university?	Yes	1	
		No	2	**END**
1108	If yes, indicate the types of association from which you have received an HIV/AIDS or Reproductive Health Education in the last one year	Academic Association	1	**END**
		Social Association	2	
		Sports and Recreational Association	3	
		Entertainment association	4	
		Drama group	5	
		Religious Group or Association	6	
		Political or Social causes Pressure group	7	
		People from the same home area	8	
		Youth development Association	9	
		Cultural Association	10	
		Other	11	
		Never received information from them	12	

End of the Questionnaire!

Now we would like to counsel you for a HIV test. The test is necessary in order for us to be able to provide accurate data. The test will not be tagged to you in person, and you have the option to test anonymously. However, if you wish to know your results, the sample will be tested and results given to you after post test counseling. For this, you will be given an identifier in form of a number. When you present this number, you will receive your results, after post-test counseling. We now request you to proceed for pre-test counseling. You will make your decision as to whether to provide us with the blood sample after you have received the counseling

CONSENT FORM B: CONSENT FOR COLLECTION, HIV TESTING AND STORAGE OF SAMPLE FOR FUTURE SYPHILLIS & HSV2 TESTS

Purpose

This is the second aspect of the HIV/Sero-behavioural survey among university students in Uganda. This part of the study is to assess the burden of HIV among University students. The overall aim of this survey is to obtain information to enable planners at the University, National and at International levels, to design appropriate interventions to prevent the spread and mitigate the impacts of HIV/AIDS in Universities.

Research Procedures

If you agree to participate in this second part of the study, a sample of approximately 1 teaspoon of your blood will be taken from your hand for HIV testing. HIV tests will be conducted centrally at UVRI, so the sample will be prepared and shipped to Entebbe. HIV testing is anonymous, the results will not be given to you unless you request. However, if you wish to know your HIV sero status, we will conduct rapid tests for HIV from here and the results will be

provided. We would like also to store part of your sample in the UVRI laboratory for syphilis and Herpes Simplex Virus-2 tests to be conducted in future, but it will not be possible for the results of those tests to be returned to you. Your sample will only be used for the purpose and tests explained but will not be used for any other purpose not explained herein. .

Risks and Discomforts

There are no major risks related with the drawing of blood. The process of drawing blood however will cause some discomfort/slight pain at the site for short while. Very rarely there may be bruising, excess bleeding and infection. However, precautions have been taken to avoid and manage such in case occurs. There could be social harm related with HIV testing a result of stigma, however supportive post test counseling will be provided to overcome this. Your sample will be identified only by a code and procedures are in place to keep these codes private. Investigators using the stored samples in the future will not have access to the codes.

Possible Benefits

For individuals who wish to know their sero-status, HIV rapid tests will be conducted and results returned to the individuals after pre and post test counseling. Those that will test negative will be counseled on risk reduction, while those that will be found to be HIV infected supportive counseling will be provided and referred for HIV/AIDS care and support programmes. Other people may benefit in the future from the information we learn by studying your samples. The study will also inform the University, Government and Partners on how best to improve interventions for HIV prevention and AIDS care and support for students and host communities in the region. Lastly by taking part in this research, you will contribute to progress in science and medicine.

Voluntary Participation

Taking part in this study is voluntary. You may chose not to participate or discontinue participation at any time without a penalty or a loss of benefits to which you are otherwise entitled. If you decide not to participate or to discontinue participation, your decision will not affect your future relations with the Inter-university Council for East Africa (IUCEA), AMREF, and the AIDS Control Programme of the Ministry of Health or the Uganda AIDS Commission.

Decision

I have been informed about this survey and understand its purpose and objectives. I understand the details and have been informed about the requirements and potential risks. I also fully understand that the results of the HIV test can only be revealed to me on the condition that I undergo a pre- and post-test counseling as per the National Guidelines for HCT and that syphilis and HSV-2 tests may be conducted on my blood sample in future. The results of the tests will remain anonymous and can only be identified by an assigned code number.

I hereby agree to have my blood drawn using a vein-puncture prick, tested for HIV and part stored for future test of syphilis and HSV-2

Signature of respondent _____Date_____

Signature of person drawing blood: _____Date_____

RECORD OF LABORATORY TEST:

Laboratory Sample Provided: ***If Lab sample is provided, the person drawing blood should update question 006 in Section 0 (at the beginning of the questionnaire) i.e. the question in 'Outcome'***

Appendix 2: Qualitative Procedures Guide

HIV/AIDS SERO-BEHAVIOURAL SURVEY FOR UNIVERSITIES IN UGANDA: QUALITATIVE PROCEDURES GUIDE

Part A: Checklists

IDENTIFICATION:

	UNIVERSITY	**MAKERERE UNIVERSITY**	
		MBARARA UNIVERSITY	
		KAMPALA INTERNATIONAL	
		UGANDA CHRISTIAN, UCU	
		GULU UNIVERSITY	
		ISLAMIC UNIVERSITY IN UGANDA	

Part A: Central Level Key Informants

	Comments
University Administrator (Policy)	
• Knowledge about national HIV Policy	
• Presence of University Level Policy on HIV control	
• Availability of the National Strategic Plan for HIV/AIDS Prevention and Control Document	
• Availability of the Performance Measurement and Monitoring Plan (PMMP) Document	
• Presence of Management Information System for HIV issues	
• Existence of a HIV and AIDS co ordination structure, Focal Office and budget for HIV and AIDS activities	
• Good will and budgetary Provision for HIV and AIDS research in universities	
• Code of Conduct (Rules and Regulations)	
• Presence of Code of Conduct	
• Ways in which code of conduct is operationallized and efficacy	
University Administrator (Students' Welfare)	
• Availability of a plan for HIV Control Prevention and Care in the University	
• Ways in which policy is implemented	
• Presence of a budget line for HIV related activities	
• Presence of a Monitoring system for HIV/AIDS Activities	
• Preventive Activities	
• Counseling and Psychosocial Support Services	

• Behaviours and High risk behaviours of students and factors that promote them		
• Students' involvement in HIV prevention activities		
• Challenges related to HIV Prevention in the University		
In-charge University Infirmary or Hospital		
Existence and Range of HIV and Reproductive Health preventive, curative and promotive services		
Range of the entire range of services related to HIV and Reproductive Health		
Reproductive Health Services		
Antenatal and Obstetric Care	• Registration, examination, BP recording • Identification of high risk cases • Promotion of good nutrition • Provision of Iron and folic acid, tetanus vaccination • Presumptive treatment of Malaria • Attending to unexpected labour and deliveries • Laboratory tests: urine for protein, sugar • Syphilis screening test (rpr carbon) • Normal deliveries • Management of minor obstetric complications according to LSS guidelines • Referral of obstetric emergencies and complications of mother or baby • Resuscitation and care of the new born (BCG, OPV 0, tetracycline eye ointment) • Post abortion care including MVA for incomplete abortions • Treatment of concurrent illness of the mother • Regular maternal and peri-natal mortality review meetings • Simple premature unit for moderate prematurity and low birth weight babies • Provision of Emergency Obstetric care including caesarean sections • Manual vacuum extraction of incomplete abortion • Manual removal of the placenta • Blood transfusion • Post Abortion Care (MVA or Sharp Curettage) • Management of Complicated pregnancies and deliveries • Laparotomy and Laparoscopy • Major obstetric and gynecological surgery • Special care unit	
Post-natal care	• Implementation of the 12 steps to successful breast feeding • Vitamin A supplementation to mothers within 6 weeks after delivery • Administration of OPV 0 and BCG • Nutrition education • Education on child care • Examination of mother and baby	

	• Identification of complications, cervical examination (unaided or aided visual inspection) and detection of STDs • Weighing of babies	
Family Planning Services	• Provision of FP counseling and selected FP methods • Health Education on MCH/FP • Identification and management of minor gynecological problems • Referral of gynecological problems where indicated • Insertion and removal of IUDs; Norplant • Norplant insertion and removal (mobile or static) • Long-term/ Permanent methods (static and outreaches)	
Adolescent Reproductive Health	• Provision of Integrated ARH services (FP, STI/HIV/AIDS counseling, prevention and treatment, ANC, Tetanus Toxoid) • Adolescent Friendly Health Clinics	
Gender based violence	• Detection of GBV • Counseling and treatment of physical and psychological trauma • Referral of cases to appropriate agencies • Legal procedures (e.g. assessments, police statements)	
HIV/AIDS Services		
Prevention		
• Condoms		
• Condom Distribution		
• Health education events		
• IEC Materials		
Treatment and Care		
• Treatment of Opportunistic Infections		
• Septrin Prophylaxis		
• Presence of Referral links		
Specific Programmes		
• ART		
• PMTCT		
• VCT		
• Counseling and Psychosocial Support Services		
• Home/Residence visits		
Utilization of these services		
• Burden on the available services		
• Who accesses them?		
• What is the level of Utilization?		
Students Guild Minister for Health		
Range of programmes and services targeted to students		
Adequacy of these services		
Constraints and challenges		
HIV/AIDS activities in students' associations		
Dean of an academic faculty		
• Presence of the relevant documents regarding the National HIV Strategic Plan		

• Presence of a faculty level plan for mainstreaming HIV/AIDS	
• Mainstreaming HIV and Curricula	
• HIV Related Attrition from both students and Staff	

General Comments:

Part B: Focus Group Discussion

University Name	
Focus Group No.	
No. of participants	
Date	
Start time	
End time	
Name of Moderator	
Name of Rapporteur	

1. What is range of HIV/AIDS services available to students within and outside the university?
2. What is the quality of HIV/AIDS services being provided? How can these services be improved?
3. Are the HIV/AIDS services accessible to all students within the University? What factors influence access of HIV/AIDS services by students?
4. What can be done to improve the access to HIV/AIDS by students by the different actors?
5. What students' networks or associations exist within the University? What role do these networks play in HIV/AIDS activities? What can be done to improve their involvement in HIV/AIDS activities?
6. What are your views about the behavioural patterns of students including high risk behaviours?
7. What factors promote their behavioural patterns? What can be done to limit high risky behaviours among students?
8. What is the extent of involvement of academic staff, non academic staff and communities outside the university in HIV/AIDS activities? What can be done to improve their involvement in HIV/AIDS activities?
9. Do you have any questions or comments regarding our topic of discussion?

THANK YOU FOR YOUR TIME AND COOPERATION

Part C: Key Informant Interview Guide – Academic and Non Academic Staff

University Name	
Name of Key informant	
Position held	
Department/Unit	
Date	
Start time	
End time	
Name of Moderator	
Name of Rapporteur	

1. To what extent are academic/non academic staffs involved in HIV/AIDS activities within the University? For students and staff.
2. What can be done to improve their involvement in HIV/AIDS activities?
3. What are your views about the behavioural patterns of students including high risk behaviours?
4. What factors promote their behavioural patterns? What can be done to limit high risky behaviours among students?
5. What is range of HIV/AIDS services available to the University community within University within and outside the university?
6. What is the quality of HIV/AIDS services being provided? How can these services be improved?
7. Are HIV/AIDS services accessible to the University community within and outside the University? What factors influence access of HIV/AIDS services by University community?
8. What can be done to improve the access to HIV/AIDS by students by the different actors?
9. Do you have any questions or comments regarding our topic of discussion?

THANK YOU FOR YOUR TIME AND COOPERATION

Appendix 3: Details of Variables Assessed

Evaluation Indicators Main Items Sub-items		Necessary Information/Data	Source of Information	Methods
Demographic Factors	Background and demographic characteristics	• Age, Sex • County of Origin • Year of study • Course • Residence status • Nature of course (fulltime or part-time) • Nature of guardian, • Sponsorship (government/private) • Estimated Amount of subsistence money received per semester • Employment status if any • University Ownership	Students	Structured Questionnaire
Mobility and Sexual Behaviour Linkage	Current and Previous Sexual Behaviour and experiences	• Sexual debut • Frequency of sexual activity • Type of sexual activity • No of Sexual partners	Students/Staff/ Community	Structured Questionnaire
	HIV Related Knowledge	• Basic Knowledge about HIV/AIDS • Knowledge about means of Infection • Knowledge about methods of Prevention	Students	Structured Questionnaire
	Practices related to HIV Prevention	• Condom Use • Abstinence • Faithfulness • Recent change in sexual activity	Students	Structured Questionnaire/FGDs
	Attitudes to HIV Prevention	• Personal values • Perceived ability to avoid HIV (Self-efficacy) • Attitudes to VCT • Perceptions on abstinence • Perceptions on faithfulness	Students/Staff/Community	Structured Questionnaire/FGDs

Evaluation Indicators Main Items	Sub-items	Necessary Information/Data	Source of Information	Methods
		• Perceived faithfulness of current and recent partners • Misconceptions about HIV, its transmission and prevention • Prevalence of stigma		
	High risk Behaviour and related Experiences	• Consistency of condom use • Experience of SGBV • Experience of pressure to engage in sex for favours • Cross-generational sex • Engagement in Sex for gifts • Engagement in Sex for marks • Alcohol and drugs use • Multiple Partners • Partner change • Recent STD or STD like incident • Peer influences and their effect on behaviour among university students	Students/Staff/Community	Structured Questionnaire/FGD/KIs
	Diffusion of information on HIV	• Sources of information • Frequency of messages	Students/Administrators	Structured Questionnaire/FGD/KIs
	Experiences of available HIV services	• Perceived access to services • Perceived quality of services • Perceived affordability of services	Students	Structured Questionnaire/FGDs
	Student networks for HIV Prevention	• Involvement of academic and other associations • Student led projects on behaviour change	Heads of academic associations	KIs
	Mobility	• Frequency of Short distance mobility • Frequency of Long distance mobility • Behaviour during short-term mobility • Behaviour during long-term mobility	Students/Staff/ community	Structured Questionnaire/FGDs/KIs
Sero-Prevalence	HIV	• HIV • Sampling strategy(to take cognizance of the provider initiated HIV Testing and Counseling Approach) • Precision level at 0.01 (99% CI)	Students	Sero-survey

Evaluation Indicators Main Items	Sub-items	Necessary Information/Data	Source of Information	Methods
		• The faculty/department to form the sampling frame • Other Key Characteristics(gender, year of study, type of sponsorship, residence, faculty e.t.c)		
Policies and Administration	Availability of Policy framework for HIV control	• Knowledge about national HIV Policy • Presence of University Level Policy on HIV control • Ways in which policy is implemented • Presence of a budget line for HIV related activities • Presence of MIS for HIV issues • Mainstreaming HIV and Curricula • Presence of Code of Conduct • Existence of a HIV and AIDS co ordination structure, Focal Office and budget for HIV and AIDS activities • Good will and budgetary Provision for HIV and AIDS research in universities • Code of Conduct (Rules and Regulations)	Administrators	KIs
	Involvement of administrators and student leaders	• Involvement of administrators in HIV related behaviour change • Involvement of religious leaders • Involvement of Lecturers and student mentors • Involvement of student leaders • Involvement of PLWHAS in university activities	Administrators, religious leaders, Lecturers, student leaders,	KI Interviews
	HIV and AIDS MIS	• Existence of the MIS • Link to the national/regional system		
	Gender and RBA mainstreaming	• Existence of policies on sexual harassment and physically disabled challenged • Implementation of the policies		
	HIV and AIDS mainstreaming into the curriculum	• Level of mainstreaming (integration, fusion or mainstream)		
Service Provision	HIV prevention, care and support activities and services	• Preventive activities available • Effectiveness of these activities • Linkage with MoH/Participation in national activities/programmes	Administrators, Heads of Hostels, students	KI Interviews, Questionnaire

Evaluation Indicators Main Items	Sub-items	Necessary Information/Data	Source of Information	Methods
		• General services available (STI Treatment) • Specific services available (VCT/HCT/ARVs/PMTCT/PEP, condom distribution) • Utilization • Support Groups • Effectiveness of these activities • Counseling services and capacity • Treatment of STDs • Challenges	Students/ Administrators/Service delivery units at Residence, Faculty, University and Community level	Structured Questionnaire/ Level based Facility Checklist/KI Interviews
Partnerships and Collaborations	Locally (inter university etc), inter government organs, nongovernmental, donors(NGOs) and development partners, Regional and International organization	• Existing Partnerships • Linkages and networking at national and regional levels • Challenges in networking and collaborations		

Appendix 4: List of Field Teams

University	Site Coordinator	Supervisor	Lab. Tech	Counsellor	Interviewer
MUK	Kalungi Magdalene	Mr. Ali Halage	Aguma Aron	Dinah Muhumuza	Magala Enock
			Nandala Micheal	Regina Kaudha	Akech Stella
	Mr. John Ekudu	Mr. Kyambadde Michael	Nahabwe Charles	Nawume Atuhirwe	Mr. Walyawula Felix
			Bandoho Bosco	Richard Kawooya	Ms. Barbra Basimwa
	Mr. Matovu Charles	Dr. David Lubogo	Gyavira Tumusiime Kasule	Mary Kyabanabwe	Tenywa Ronald
			Ogwanga Nelson	Katongole Lawrence	Ms.Kanyesigye Edith
MUST	Elizabeth Kyamanywa	Dr. Denis Nansera	Irama Max	Ruth Namara Mugisha	Mwebaze Pidson
			Sam Mugasira	Stonebell Arinaitwe	Mr. Rugwira Tonny
UCU	Mr. Kyakulaga C	Dr.Simon Muhumuza	Joseph Nkodyo Kabalega	Pelagia N Tusiime	Mr. Stephen Tusingwire
			Ochaya Denis	Faraddah Nakazzi	Mr. Nabali Joseph
KIU	Margaret Muhwezi	Dr. Sebulime Gerald	Tusabe Harrison	Hilda Nankya	Nassaka Rose
			Nalwadda Margrate	Nicholas Natwijuka	JB Isunju
Gulu	Sr. Margaret & Dr.	Dr. Magombe Ignatious	Clay Komakech	Olanya Christine Olye	Alanyo Evelyne
			Obol James Henry	Loramamoi Kenneth	Amony Carolyne/Andrew
IUIU	Dr. Kigongo	Dr. Norbert Mubiru	Mugonyi Apollo	Mungesa Geofrey	Netuwa James
			Acham Vicky	Lumbasi Lydia	Rebecca Ario

Appendix 5: Key References

1 *Ministry of Health: The National HIV Sero-survey, 2004/2005*

2 *Ministry of Health, UBOS, ORC Macro, Demographic and Health Survey, 2006*

3 *Leon Gordis: Epidemiology*

4 *Grunseit and Kippax. 1993. Effects of Sex Education on Young People's Sexual Behavior. Geneva: World Health Organization, p. 5–6.*

5 *About Makerere University 2007. Facts and figures 2007. [online] Kampala, Uganda. Available from http://makerere.ac.ug/makerereuniversity-facts&figures. [Cited 16 July 2008].*

6 *Ministry of Health (MOH) [Uganda] and ORC Macro. 2006. Uganda HIV/AIDS Sero-behavioural Survey 2004-2005. Calverton, Maryland, USA: Ministry of Health and ORC.*

7 *Kiragu et al. 2007. The Straight Talk Campaign in Uganda: Impact of Mass Media initiatives. Full report Available at www.popcouncil.org/pdfs/horizons/UgandaStraightTalk.pdf. Accessed 8th July 2008 Hope, Ruth. Addressing Cross-Generational Sex: A Desk Review of Research and Programs, (Washington, DC: PRB, 2007). http://www.igwg.org/pdf/Addressing-CGSex.pdf. Accessed July 18th, 2008*

8 *HIV/AIDS Survey Indicators Database, www.measuredhs.com/hivdata/ind_detl.cfm?ind_id=62&prog_area_id=9, accessed on July 1, 2008.*

9 *Gregson et al. 2001. "Sexual Mixing Patterns and Sex-Differentials in Teenage Exposure to HIV Infection in Rural Zimbabwe," Lancet 359 (2002): 1896-1903;*

10 *Kelly et al. 2002 "Age Differences in Sexual Partners and Risk of HIV-1 Infection in Rural Uganda," Journal of Acquired Immune Deficiency Syndrome 32, no. 4 (2003): 446–51.*

11 *Adesegun et al. 2007. Predictors of early sexual initiation among a nationally representative sample of Nigerian adolescents. Available at http://www.biomedcentral.com/1471-2458/8/136N.*

12 *Luke and K. Kurz, Cross-generational and Transactional Sexual Relations in Sub-Saharan Africa: Prevalence of Behaviour and Implications for Negotiating Safer Sexual Practices (Washington, DC: ICRW/PSI, 2002).UNAIDS Fact Sheet on sub-Saharan Africa, http://data.unaids.org/pub/FactSheet/2008/epi07_fs_regionalsummary_subsafrica_en.pdf Accessed on July 18th, 2008.*

13 *Luke N. and Kurz K. 2002. Technical Consultation on Married Adolescents WHO/UNFPA/Population Council, (Geneva: 2003).*

14 *Weissman A. et al. 2004. "Listening to Girls Respond to Cross-Generational Sex" (abstract presented for Panel Session A5, Global Health Council Annual Conference, 2004, Washington, DC), Available at* www.globalhealth.org/conference_2007.

15 *Weissman A. et al. 2004. "Cross-generational Relationships: Using a `Continuum of Volition' in HIV-Prevention Work among Young People,". Available at* www.globalhealth.org/conference_2007

16 *Feldman-Jacobs C. and Worley H. 2008. Cross –Generational sex: Risks and opportunities. Population reference Bureau. Available at www.igwg.org.*

Appendix 6: Consultants Team

Technical

Roy William Mayega (Principle Investigator) (Study Epidemiologist)
John Bosco Ddamulira (Study Disease Control Specialist)
Barbara K. Tabusibwa (Study Health Systems Specialist)
Herbert Rwamibazi (Project Director and CEO, AH Consulting)

Administration

Mr. Herbert Rwamibazi (Project Director)
Mr. Morgan Mukasa (Project Manager)
Mr. Edmond Macheli
Ms. Diana Tumuhairwe Sharone

Partners' Local Liaison

Eva Musimenta (AMREF)
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Prepared by

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