

# Alcohol and Substance use vis a vis HIV Sexual Risk Behaviours among freshman students at a Kenyan University College; Focus for Interventions

Moses Gitonga<sup>1\*</sup>, Monica Sinyard<sup>1,2</sup>, Grace Gachiri<sup>1</sup>

1. Kimathi University College of Technology, PO box 657 - 10100 Nyeri, Kenya
2. College of the Rockies(COTR), 2700 College Way, Cranbrook BC Canada V1C 5L7

\* mwangiguk@gmail.com

## Abstract

The study was to evaluate the perception of freshman students at Kimathi University College of Technology towards HIV/AIDS, sexual behaviours and drug use. A cross sectional study with a probability, two stage sampling method was used. 115 participated, 21.7% were female. Knowledge of HIV/AIDS was high, although behaviour did not reflect such. The number of participants that have engaged in sex is 57.9%, 65.1% of males. 45.5% state they do not use condoms. 48.3% having never been tested for HIV. Of these, 41.1% feel they have never been exposed to the virus. Participants who reported having consumed alcohol and other drugs were 27.2%, and 7.5% felt the use of drugs or alcohol increased the risk of sexually transmitted disease. Consumption of alcohol was significantly associated to having engaged in sex ( $p=0.003$ ) and non use of condoms ( $p=0.015$ ). Results show need for further intervention to change the attitude of the students.

**Keywords:** Freshman, Alcohol, Substance abuse, HIV, Risk behavior

## 1. Introduction

Since the beginning of the epidemic three decades ago, over 60 million people have been infected with the HIV virus and nearly 30 million people have lost their lives to AIDS (WHO, 2011). Eastern and Southern Africa remain the most heavily affected area by the HIV epidemic. In 2009, 34% of the total number of people living worldwide with HIV resided in 10 southern African countries (UNAIDS 2011).

Although HIV/AIDS has largely devastated many parts of Sub-Saharan Africa, progress has been made in combating this epidemic. Since the signing of the United Nations Declaration of Commitment to HIV/AIDS in 2001, Sub-Saharan Africa has seen a decline in the prevalence of new HIV infections by 14%, (approximately 400,000 less newly infected cases in 2008) (UNAIDS).

With the development of programs and awareness campaigns, such as the National HIV/AIDS Strategic Plan in Kenya, the knowledge and attitudes of people regarding HIV/AIDS is slowly changing. The Kenya Demographic and Health Survey 2008-2009 indicates that 6.3% of Kenyans between the ages of 15-49 are infected with the HIV virus. The prevalence of women within this age group is 8%, while the prevalence of men is 4.3%. The Kenya Demographic and Health Survey 2008-2009, state that the vast majority of participants (99% of women and 100% of men) in the study are familiar of the HIV/AIDS virus. Actual knowledge of HIV prevention was fairly high with 75% of women and 81% of men showing some knowledge, specifically the use of condoms as a main method of HIV prevention. These results show a marked improvement in knowledge of prevention methods in men and women between the ages of 15-19 since the 2003 Kenya Demographic and Health Survey. These statistics vary, however, across demographic factors such as education level, urban dwellers versus rural dwellers, province of residence, gender, and age (15-19 and above 20 years).

According to the Kenya Demographic and Health Survey 2008-2009, comprehensive knowledge of HIV/AIDS is defined as “knowing that both consistent use of condoms during sexual intercourse and also having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy looking person can have the AIDS virus, and knowing that AIDS cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS” (2008-2009). The survey found that only 49% of women and 56% of men had comprehensive knowledge regarding HIV/AIDS. The economic and education status of these groups also correlated with knowledge regarding HIV/AIDS. People in poor economic standing and those who are uneducated have less knowledge than those in higher economic standing and those who are educated.

The college years are, for many individuals, a time of curiosity and experimentation. It is often one's first taste of freedom and independence, leaving increased opportunity to make personal choices. It is for reasons such as this, that this age group is at an increased risk of becoming infected with HIV. In addition, peer pressure, lack of life experience, lack of knowledge, early sexual debut, multiple partners and alcohol and drug use add to the risk of contracting HIV (Rahnama, Rampal, Lye & Rahman, 2010). According to the Kenya Demographic and Health Survey (2008-2009), about half of youth, between the ages 15-24 years, have comprehensive knowledge of HIV/AIDS, including 48% of females and 55% of males. Approximately 65% of female participants and 84% of male participants stated they know where they can gain access to condoms, although

only 64 % of males and 40% of females in high risk groups (having sex with non-marital or non-cohabitant partners) claim to use condoms consistently. This demonstrates an increase in condom use, however, when compared to the Kenya Demographic Survey in 2003 in which only 25% of female and 47% of males reported the use of condoms. Drugs and alcohol are other contributing factors in the transmission of HIV virus among youth. The use of drugs and alcohol can inhibit an individual from making clear, wise choices and can often lead to risky behaviour such as unprotected sex, or sex with multiple partners over time (Inungu & Karl, 2006). This is in agreement with a study by Adefuye, Abiona, Balogun & Lukobo-Durrell (2009) who identified that individuals who engage in high risk sexual behaviours also engage in other high risk activities such as drinking or doing drugs. Therefore the role of drugs and alcohol in HIV transmission must be considered when implementing HIV/AIDS preventative strategies. Other factors that put youth at higher risk, as noted by Pappas, Jia & Khan (2011), is the decreased concern of risk of acquiring the disease, possibly due to the optimism about HAART (highly active antiretroviral therapy), the increase in likeliness to ignore safe sex promotion messages and belief that if their partner looks healthy, they are at no risk of acquiring the virus.

## 2. Method

This was a cross-sectional study. A probability, two stage sampling method was used. A total of 115 freshman students of Kimathi University College of Technology participated. Data was collected by a self administered structured questionnaire. STATA software was used for quantitative data analysis while themes from qualitative data were summarized on an MS Word document. Descriptive and inferential statistics were performed. The research protocol was subjected to ethical approval and consent was sought from individual participants, with participation being voluntary for the eligible participants.

## 3. Results

### 3.1 Response Rate

Participants in the survey included 115 freshman students at Kimathi University College of Technology April 2011 intake.

### 3.2 Socio-demographic characteristics of participants

Participants in the study were between the ages of 17- 22 years. Of this group 21.7% were female while 78.3% were male. 98.3% of participants were of Christian faith, while 1.7% were of another religion.

### 3.3 Knowledge and Attitude toward HIV/AIDS

All of participants in the survey (100%) claimed to have heard of HIV/AIDS with the most common source of information being teachers (31%) and teachers and health care workers combined (35%). When asked what the acronym HIV stands for 85.2% of participants responded correctly, while 76.5 % answered correctly when asked what the acronym AIDS stands for. The percentage of females that claim to have been tested for HIV is 54.2%, compared to 51.1% of males. Those who have never been tested for HIV account for 48.3% of participants. Of these, 41.1% believe they have not been exposed to HIV, while 25% stated they have not had an opportunity to test. VCT centres accounted for the most popular testing site (54.6%) followed by provider initiated counselling and testing at hospitals (18.2%).

Within the survey, 5 qualitative questions were asked of the participants: (i) How would you describe HIV/AIDS? (ii) How is HIV transmitted? (iii) What measures have you taken to protect yourself from HIV? (iv) List specific areas in which you wish the government of Kenya would improve in the fight against HIV/AIDS. (v) Does HIV/AIDS have any socio-economic significance to the economy of Kenya? The 3 most common answers for each question are listed below.

#### 3.3.1 How would you describe HIV/AIDS?

Eighty seven point eight percent (87.8%) of participants responded to this question. The most common theme within this question (41.6%) states that HIV/AIDS is a 'killer' or 'deadly' disease. Closely related to the first theme, 34.6% of respondents stated that HIV/AIDS was incurable. HIV/AIDS was described as a virus that affects the immune system of the body, rendering it helpless to fight other infectious diseases by 28.7% of the respondents.

#### 3.3.2 How is HIV transmitted?

All survey participants responded to this question. The majority of participants (95.7%) identified sexual intercourse as a method of HIV transmission. Some respondents specifically referred to unprotected sex, while other just simply stated sexual intercourse. The second most common theme noted was the sharing of sharp objects such as needles and razors (62.6%). Blood transfusion was noted by 53% of participants as a method of transmission of HIV followed by mother to child transmission (47%) through pregnancy and childbirth.

#### 3.3.3 What measures have you taken to protect yourself from HIV?

The response rate was 98.3% of participants. Of these respondents, 73.5% listed abstinence as measures taken to protect themselves from the virus. However, some of these same participants responded yes to being sexually active, or listed 'abstinence when possible' as protection taken. Using condoms was listed by 29.2% of

participants as measures taken to protect themselves, while 9% stated they refuse to share sharp objects.

### 3.3.4 List specific areas in which you wish the government of Kenya would improve in the fight against HIV/AIDS

Sixty eight point seven percent (68.7% of participants responded to this question. An increase in availability and affordability of condoms was listed by 38% of respondents as an area government can improve in the fight against HIV/AIDS. Some suggested free condoms should be more accessible and the availability of condoms in rural areas must increase. Some respondents (36.7%) felt there is a need for an increase in awareness programs and HIV/AIDS education. An increase in accessibility and affordability of ARV's was noted by 27.1% of participants as an area in which the government can become more effective in fighting the HIV/AIDS problem.

### 3.3.5 Does HIV/AIDS have any socio-economic significance to the economy of Kenya?

About half (49.6%) of participants responded to this question. Loss of man-power in the economy due to death and illness was listed by 48.1% of respondents as the largest socio-economic impact of HIV/AIDS on the Kenyan economy. Secondly, 28.1% referred to the large amount of money and resources being allocated to HIV awareness, drug cost and hospital stay, as resources that, if not needed for HIV/AIDS and its associated problems, could be used for growth of the economy in other sectors. Overall loss of economic growth due to loss of skilled labour force, allocation of government resources on HIV/AIDS related issues and increase in poverty was listed by 15.8% of respondents as the socio-economic significance HIV/AIDS has on the economy of Kenya.

### 3.4 Sexual Behaviour

According to the survey 57.9% of the freshman students have engaged in sex, 33.3% of females and 65.1% of males. The mean age of sexual debut was 16.5 years with 30% of respondents having used a condom at first sexual debut. The number of respondents who state that they did not use condoms is 45.5% and only 49.2% participants reported always using condoms while having sex. The belief that condoms offer absolute protection from sexually transmitted infections was listed by 36% of participants. With regards to condom use and pleasure, 23.1% females reported that condoms reduced pleasure of sex compared to 54.6% of males. Currently, 26.6% of participants have sexual partners with 28.6% having multiple sexual partners at present.

### 3.5 Drug and Alcohol Use

Of the participants in the survey, 27.2% have reported consuming alcohol and other drugs such as cigars and miraa(khat), with 11% reporting regular use of these substances. There was no consumption of other hard substances. A moderate number (18.6%) of respondents state they have friends who engage in drugs, with 41.6% of these stating that drugs are a major problem affecting some of their friends. Only 7.5% of participants stated that drugs increased risk of STI's due to the lack of sound judgement and behavioural changes leading to unprotected sex. Consumption of alcohol was significantly associated to having engaged in sex ( $p=0.003$ ) and non use of condoms ( $p=0.015$ ).

## 4. Discussion

A significant number of the participants in this study reported consumption of alcohol, cigars and khat. Alcohol consumption is associated with risky sexual behaviors, including unprotected sexual intercourse and multiple sex partners (Cooper, 2002; Santelli et al., 1998). This current study similarly showed a significant association between alcohol use and risky sexual behaviour.

The level of knowledge of student participants in this study is quite high in regards to modes of transmission of HIV and actions which can be taken to protect oneself from contracting the virus. The preventative actions reported, however, such as the low percentage of people using condoms, suggests students may have unrealistic ideals about their ability to develop disease and the perception that bad things only happen to other people. With ideals such as this, the practice of safe sex is not viewed as a necessity and, therefore, not practiced consistently. This is in agreement with a study conducted by Rahnama et al., (2010) on the attitudes of students in a university in Malaysia, who also noted that condom use was low, and it was felt that perceptions of risk of participants in contracting HIV were unrealistic.

In addition, only about half of the student participants in this study have ever been tested for HIV, with 41% feeling they have never been exposed to the disease and 25% stating they have never had the opportunity. According the Kenya Demographic and Health Survey (2008-09) these results compare with the national average where only 57% of women and 40% of men have ever been tested and received results.

Pappas, Jia & Khan (2011) suggest that the attitude of the youth and their non-chalance towards HIV/AIDS may stem from the fact that this generation is growing up during a time when AIDS is a treatable disease. This age group missed the devastating effects this disease had on previous populations and it has not had to witness as many people around them dying from the disease. To many of the youth today, HIV/AIDS is just another disease such as diabetes or cancer.

Adequate knowledge was also demonstrated on the effects of HIV/AIDS on a society and the roles in which government can potentially play in the fight against the epidemic. The qualitative responses stating the decline in economic growth due to loss of man power, skilled labourers, redirection of allocation of government resources

and increased poverty are all in agreement with Boutayeh (2009), who states HIV/AIDS is impeding development and reversing social and economic gains that many African countries have been striving to attain.

A university setting is in the ideal position to educate and create awareness about HIV/AIDS. Here, there is an accumulation of a large number of youth within the high risk age group of contracting the virus. There is ample opportunity to provide education, health promotion and prevention information and free and confidential testing. Adefuye et. al (2009) identifies the need to take advantage of the improved communication and information delivery methods easily available with common technology. The use of college student TV, student blogs, student newspapers and sending preventative messages via registered student mobile phones are all unique opportunities in a university setting to ensure preventative messages are reaching the students.

It should be noted that Kimathi University College of Technology does have a mandatory HIV/AIDS common course which is completed by all students attending the university. Though respondents were given the survey prior to the start of this course, it may provide the basis for change in attitude towards safe sexual practice. It is imperative that students recognise their susceptibility to HIV/AIDS and acknowledge that the virus discriminates against no one when it comes to becoming infected. Knowledge itself is not enough to change perspectives and attitudes toward HIV/AIDS. Social and cultural aspects of society need to be considered as well (Maimaiti et. al 2010).

## 5. Conclusion

The participants of the survey demonstrated a high level of knowledge with regards to HIV/AIDS, further, a substantive number have engaged in alcohol and other substances of addiction. However, it is the report of their actions that is of grave concern. The low percentage of participants who have been tested and their condom use is a disturbing finding. The high correlation between the consumption of alcohol and risky sexual behaviour is another area which must be addressed. These results further demonstrate the need for continued education, but more importantly, interventions to change attitudes towards the disease. A university setting is a prime atmosphere to conduct activities such as a day of free testing on campus and HIV/AIDS awareness programs. Until the attitudes of people change and it is recognized that this deadly disease can affect everyone, unnecessary infection will continue and HIV/AIDS will continue to ruin lives.

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**Table of Key variables**

		<b>Frequency</b>	<b>Percent</b>
<b>Age</b>	17 – 22	115	100.00
	Total	115	100.00
<b>Sex Distribution</b>	Male	90	78.26
	Female	25	21.74
	Total	115	100.0
<b>Ever engaged in sex</b>	Yes	62	57.94
	No	45	42.06
	Total	107	100.0
<b>Ever tested for HIV</b>	Yes	59	51.75
	No	55	48.25
	Total	114	100.0
<b>Religion</b>	Christians	113	98.26
	Muslims	2	1.74
	Total	115	100.0
<b>Number of current sex partners</b>	0	79	73.83
	1	20	18.69
	2	5	4.67
	4	2	1.87
	5	1	0.93
	Total	107	100.0
<b>Top best media of behavior change communication cited</b>	Internet		
	Television	29	26.13
	Radio	18	16.22
	Church	16	14.41
		9	8.11