

**ALCOHOL ABUSE AS A RISK FACTOR IN HIV INFECTIONS IN KIAMBU
COUNTY, CENTRAL KENYA**

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DECLARATION

This thesis is my original work and has not been presented for the award of a degree in any other university.

SignatureDate.....

Grace Wangari Kimemia

This thesis has been submitted with my approval as a university supervisor.

SignatureDate.....

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DEDICATION

I dedicate this work to my mother Emily Kimemia, my father Eric Kimemia and my husband John Thuku, who have always believed in me and ensured that nothing stopped me from achieving my goals.

And

To my daughter Tasha Thuku.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
AUDIT	Alcohol Use Disorder Identification Test
HIV	Human Immunodeficiency Virus
KNBS	Kenya National Bureau of Statistics
NACADA	National Campaign Against Drug Abuse
NASCOP	National AIDS and STIs Control Programme
NACC	National AIDS Control Council
NIAA	National Institute on Alcohol Abuse and Alcoholism
UNAIDS	United Nations Programme on Acquired Immunodeficiency Syndrome
WHO	World Health Organization

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ABSTRACT

The study concerned itself with the perceptions of alcohol abuse as a risk factor in HIV infections in Kiambu County, central Kenya. The study centred on two specific objectives; the first one was to assess the association between HIV infections and alcohol abuse in Kiambu County and the second examined the sexual behaviours of alcohol abusers in Kiambu County. The study was guided by the social exchange theory that postulates that people weigh potential benefits and risks of social relationships and when the risks outweigh the rewards, people may terminate or abandon such relationships.

Quantitative and qualitative research methods, especially, the survey, focus group discussions and case studies were used to collect the data. Quantitative data were analysed using the SPSS computer software programme and the presentation was then done in the form of figures and tables. Qualitative data were analysed thematically and interpreted on the basis of the study objectives and verbatim reporting was used to present some of the opinions of the qualitative findings.

A majority of alcohol abusers associated alcohol with risky sexual behaviours such as multiple partners, casual sex, having sex while drunk and having sex without the use of condoms. Therefore, alcohol abuse was seen as a risk factor in HIV infections. Others admitted that alcohol made them make poor judgments and, thus, putting them at a risk of contracting HIV. However, some attributed alcohol abuse to low libido, therefore, they did not engage in sexual intercourse. The study, therefore, recommends an open dialogue in order to develop appropriate, responsive and sustainable policies and the need for health education among alcohol abusers to bring about behavioural change. The study also recommends that the emerging trends of male-to-male rape and poor sexual performance among alcohol abusers be investigated. The study proposes similar studies to be conducted in other parts of the country since the study focused on Kiambu County yet the problem of alcohol abuse is rampant in other counties. Such studies should give more insights into alcohol abuse as a risk factor in HIV infections in order to come up with a lasting solution.

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 Introduction

Drug abusers are internationally recognized as one of the populations who are at a high-risk of contracting HIV. Similarly, drug abuse has been closely linked with HIV infections since the beginning of the epidemic (UNAIDS, 2013). Previously, alcohol abuse, one of the non-injecting drugs was not well acknowledged or documented as a contributing factor to the HIV/AIDS epidemic (WHO, 2011). However, this situation is changing, since there is an increasing amount of research being conducted on HIV/AIDS and alcohol. For instance, Hendershot and George (2007), Parry et al. (2009) and Chersich and Rees (2010) noted that researchers and policy makers globally are increasingly giving attention to the effects of alcohol abuse on sexual behaviours. This will ensure that there is a clearer scientific perspective on the relationship between alcohol abuse and HIV infections (WHO, 2014).

Globally, HIV continues to be a major public health challenge. In sub-Saharan Africa HIV prevalence rates among people aged 15-49 was estimated at 4.8% in 2014 (UNAIDS, 2014). In Kenya, HIV prevalence rate among people aged 15-49 years was estimated at 5.3% in 2014 (UNAIDS 2014). In other East Africa countries, Tanzania and Uganda, HIV prevalence rate among people aged 15-49 years was estimated at 5.1% and 7.4% in 2014, respectively (UNAIDS 2014). In Kenya, HIV prevalence rate varies from one county to the other with Homa Bay had the highest prevalence rate of 25.7% in 2013 and Wajir county with the lowest prevalence rate of 0.2% the same year (NASCOP and NACC 2014).

Worldwide alcohol consumption was an average of 6.2 litres while the African region had an average of 6.0 litres of pure alcohol consumed by persons aged 15 years and above (WHO, 2014). In Kenya, an average of 4.3 litres of pure alcohol per capita was consumed by individuals aged 15 years and above in 2010 (WHO, 2014). According to the World Health Organisation, 3.2% of Kenyans are alcohol abusers and furthermore 1.4% of alcohol abusers had a possible dependence on alcohol (WHO, 2014).

HIV/AIDS remains a health threat and new infections are increasingly attributed to heterosexual contact with a person who has, or is at a high-risk, for HIV infections such as alcohol abusers (NASCOP and NACC, 2012). Schacht et al. (2010) and George et al. (2009) supported the idea that alcohol fosters risky sexual behaviours through its effects on sexual arousal. Moreover, in sub-Saharan Africa, heterosexual transmission is the primary mode of HIV infections (NASCOP and NACC, 2012). UNAIDS (2013) further acknowledged that a decrease in condom use and/or an increase in the number of sexual partners further increases the risk of HIV infections in sub-Saharan Africa (Seme et al., 2005; Mackenzie and Karusa, 2007).

HIV interventions in many countries have yet to curb the spread of the epidemic. The limitations of the current interventions are due in part to the failure to address the social context of the risk behaviours which include substance abuse such as alcohol (Watt et al., 2012). Whereas alcohol abuse may encourage high-risk sexual behaviours as a result of altered cognitive and self-control ability, HIV infections, on the other hand, can lead an individual to alcohol abuse. In this case an individual infected by HIV may turn to drug abuse as a way of escaping the reality of the acquired status (Watt et al., 2012).

The contribution of alcohol abuse to the transmission of HIV has not been systematically examined, and most interventions neglect the role of alcohol abuse as an immediate variable, which may influence behaviours related to HIV (Fisher et al., 2007). Alcohol abuse before sexual intercourse may contribute to risky sexual behaviours. Fisher et al (2007) reported that few alcohol abusers engage in sexual intercourse while intoxicated and they are also likely to have more than one sexual partner compared to non-users. A survey carried out by NACADA in 2007 in Kenya found that in every 10 people with multiple sexual partners, 7 were alcohol abusers (NACADA, 2007). In addition, NASCOP and NACC, (2012) noted that individuals who consume alcohol before intercourse are 2.4 times more likely to become infected with HIV.

Cooper (2002) adds that individuals who consume alcohol prior to a sexual event are more likely to have intercourse and less likely to discuss sexual risks with a sexual partner. According to WHO (2005), the belief that alcohol facilitates or enhances sexual intercourse contributes towards the consumption of alcohol before sex. WHO (2011) further noted that alcohol is used as a facilitator in approaching the opposite sex. Alcohol abuse is, therefore, a contributing factor to risky sexual behaviours whereby alcohol impairs individual judgments and decision-making and increases risky sexual behaviours (Grant and MacDonald, 2005).

Alcohol is the most commonly used psychoactive substance and alcohol abuse is among the most prevalent behaviours associated with risky sexual behaviours for HIV and other sexually transmitted infections (STIs). Research conducted since the middle of the 1980s has repeatedly shown that alcohol abuse is related to risky sexual behaviours in several populations, especially among those with the highest rates of HIV infections (NACADA, 2010; Kalichman et al., 2007). The abuse of alcohol should, therefore, be recognized as a risk factor in the transmission of HIV (NACADA, 2010b).

1.2 Statement of the problem

In many African communities alcohol is a mainstay of local cultures, playing an important role in social gatherings, rites of passage and local economies, therefore, alcohol abuse should be considered when putting up strategies to curb the spread of HIV/AIDS pandemic (Ashley et al., 2006). Moreover, risky sexual behaviours account for a large number of opportunities for acquiring HIV infection, and alcohol abuse has been shown to increase high-risk sexual behaviours (WHO, 2005; Weiser et al., 2006). Moreover, the social dynamics that surround alcohol abuse, risky sexual behaviours and HIV infections and interaction between these issues warrant a search for alternative ways of dealing with the problem in diverse socio-cultural settings, if any interventions are to be effective (Ashley et al., 2006).

According to NASCOP and NACC (2014), Kiambu County had 4.4% prevalence of HIV infections in 2013 compared to Nairobi which had a prevalence rate of 8.0%. Furthermore, NACADA (2007) observed that Nairobi (18.6%) and central Kenya (17.7%) are among the leading regions in alcohol abuse. The Kenya Demographic and Health Survey 2008-2009 further revealed that in the central region of Kenya, 0.4% of individuals engaged in sexual intercourse while drunk and Nairobi (1.6%) had the highest number of individuals who engaged in sexual intercourse while drunk (Kenya National Bureau of Statistics [KNBS] and ICF Macro, 2010). Kiambu County, which is in the central region of Kenya, is therefore, among the regions with the highest number of people consuming both licit and illicit brews. Therefore, this study was designed to answer the following questions:

1. What is the association between HIV infections and alcohol abuse in Kiambu County, central Kenya?

2. What are the sexual behaviours of alcohol abusers in Kiambu County, central Kenya?

1.3 Research objectives

1.3.1 General objective

The overall objective of the study was to explore the effects of alcohol abuse on engagement in risky sexual behaviours and therefore risk of HIV infection in Kiambu County, central Kenya.

1.3.2 Specific objectives

1. To assess the association between HIV infections and alcohol abuse in Kiambu County.
2. To examine the sexual behaviours of alcohol abusers in Kiambu County.

1.4 Justification of the study

Alcohol abuse and unsafe sex are common behaviours and are responsible for a large proportion of the overall burden of HIV infections (WHO, 2005). However, very little literature exists on their associations and contributions to HIV infections in Kenya. This is in marked contrast to substantial literature on injecting drug use and HIV infections (WHO, 2005; Mathers et al., 2008; Gouws et al., 2006; Strathdee et al., 2010). Therefore, this research was an attempt to fill the gap and find out the perceived links between alcohol abuse and HIV infections. The study findings will be useful in generating empirical data on the perceived links between alcohol abuse and HIV infections in Kiambu County.

The study findings will also be useful to policy makers who may come up with campaigns and strategies against alcohol abuse as one of the behaviours that increase the risks of HIV infections.

The study findings should also be useful for health education among alcohol consumers in order to bring about changes in risky sexual behaviours.

1.5 Scope

The study only focused on the issues specified in the research objectives. The main concern of the study was to explore the perceived links between alcohol abuse and HIV infections in Kiambu County. To achieve this, the study focused on two thematic areas: alcohol abuse and HIV infections and sexual behaviours of alcohol abusers in Kiambu County. Although there are various reasons why people engage in risky sexual behaviours, the study only aimed at establishing alcohol-related sexual behaviours in Kiambu County. Any other issues outside this were left for other researchers to explore. The study was carried out in Kiambu County and in particular three urban centres, namely, Thika, Githunguri and Kiambu, therefore, the findings may not be generalized to represent the whole county or country.

1.6 Limitations of the study

Though alcohol abuse begins at a very tender age as evident in studies carried out among teenagers and young adults (Grucza et al., 2009, Ndirangu, 2008, Donovan and Molina, 2008, WHO, 2014, NACADA, 2010b), the study was unable to seek the opinions of teenagers and children below the age of 18 who are alcohol abusers and such opinions could have yielded additional information to the study. The findings from the study accounts for alcohol abusers, who are more than 18 years and therefore, cannot be generalized to the whole population in Kiambu County.

The ideal research method for testing whether alcohol abuse causes individuals to engage in high risky sexual behaviours is to administer alcohol to an experimental group and withhold from a control group (Wong et al, 2008). Further, our measure of alcohol intake ignored the fact that it often fluctuates, occurs over a long time and could have begun before or after individuals became infected with HIV. Since only a few individuals were aware of their HIV status, it is unlikely that the knowledge of HIV status could have influenced the reported or actual consumption of alcohol. The bias introduced by imprecisely measuring alcohol consumption resulted in an underestimation of the association of alcohol abuse and HIV infections, as individuals who had an occasional drink many years ago were excluded in the study.

1.7 Definitions of terms

Alcohol abuse: This refers to excessive use of alcoholic beverages.

Alcoholic: This refers to a person who frequently drinks too much alcohol and cannot control the abuse even if it is causing problems at home, work and financially.

Drug use: This refers to taking in of a drug by swallowing, smoking, injecting, chewing or inhaling.

Drug abuse: Self-administration of drugs for non-medical reasons, in quantities and frequencies which may impart inability to function effectively and which may result in physical, social and/or emotional harm.

Non-injection drug use: It refers to the methods of introducing a drug into the body by way of swallowing, inhaling, smoking, chewing or rubbing.

Risk factor: This is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or an infection.

Risky sexual behaviours: These are unsafe sexual behaviours that alcohol abusers engage in under the influence of alcohol among others. The sexual behaviours that can lead to increased risks of HIV infections.

Group sex: This refers to a form of sexual activity that involves two females and one male or vice versa.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This section reviews the existing literature on alcohol abuse, the sexual behaviours of alcohol abusers and the association between alcohol abuse and HIV infections and it similarly describes the theoretical framework and its relevance to the study. The section also outlines the assumptions that guided the study.

2.2 Literature review

2.2.1 Alcohol abuse

Alcoholic beverages are widely consumed throughout the world. According to Basangwa et al. (2006), alcohol is the most widely used and abused substance all over the world. Worldwide, an average of 6.2 litres of pure alcohol was consumed in 2010 by persons aged 15 years or older (WHO, 2014). According to survey findings by the National Center for Health Statistics, in 2012 in Africa between 18% and 21% of adults were lifetime abstainers, 16% were former drinkers and 63% considered themselves current drinkers with 9% being infrequent drinkers and 54% regular drinkers (Blackwell et al., 2014).

Likewise, in Kenya, an average of 4.3 litres of pure alcohol was consumed per capita by individuals aged 15 years and above in 2010 (WHO, 2014). The National survey on alcohol and drug abuse conducted by NACADA in 2012 shows that 13.3% of Kenyans currently consume alcohol and 30% of the population aged 15-65 years have ever consumed alcohol in their life

(Kasera, 2012). According to World Health organization (2011), in every 10 adults Kenyans, 7 of them abstained from alcohol abuse indicating that fewer people drink alcohol but they drink too much (WHO, 2011).

Alcohol abuse is associated with significant public health issues such as risky sexual behaviours leading to the transmission or progression of infectious diseases such as HIV/AIDS. According to the World Health Organisation 2014, alcohol abuse ranks among the top five risk factors. The others include first, child underweight, second, unsafe sex, third, alcohol, fourth, unsafe water and sanitation and, fifth, high blood pressure for disease, disability and death throughout the world. Yet, alcohol abuse remains a low priority in public policy (WHO, 2011). For instance, in Kenya surveys on alcohol and drug abuse did not provoke much concern until the early 1990s. This may have been as a result of the perception that it was not a major problem among the Kenyan populace (NACADA, 2007).

From the early years, alcoholic drinks were regularly consumed and had both ritual and social significance in Kenya. The preparation, consumption or offering of alcohol was done during initiations, marriage ceremonies, planting and harvesting ceremonies as well as when important cases were to be decided (Kenyatta, 1938). For instance, among Agikuyu during marriage ceremonies, a girl was expected to hand over a horn containing alcohol to her parents and those of her fiancée who in turn sipped and spit it out as a sign of consent (Kenyatta, 1938).

Customary laws regulated the preparation and consumption of alcoholic drinks. Women were expected to abstain or drink sparingly while young people were expected to prepare the drinks and drinking remained exclusively a preserve of the elders. Men were, however, expected to avoid drinking until they had married and had children of circumcision age (Barrows and Room,

1991). In the recent past, however, there is a strong consensus in Kiambu County that alcohol abuse is a major problem owing to the high levels of usage, increasing trends and ease of availability, affordability and accessibility (NACADA, 2010b).

A survey carried out by NACADA in 2010 in the central region of Kenya revealed that there are various reasons why people abuse alcohol in the area. For instance, in Kiambu area, 61.3% stated that alcohol consumption makes people relate well with the opposite sex. These relationships increase the chances of alcohol abusers engaging in sexual intercourse as they can relate well with the opposite sex (NACADA, 2010b).

A countrywide survey carried out by NACADA in Kenya in 2007 revealed the current usage of alcohol among persons aged 15-64 years was 14.2% (NACADA, 2007). In central region, 17.7% of the people consumed alcohol in the last one month prior to the study in 2007 and 0.4% engaged in sexual intercourse while drunk. In other regions, Rift Valley had 12.5% of individuals who consumed alcohol and 1.4% engaged in sexual intercourse while drunk, eastern region had 14.8% of individuals who consumed alcohol with 0.2% engaging in sexual intercourse while drunk (NACADA, 2007; Kenya National Bureau of Statistics [KNBS] and ICF Macro, 2010). This is illustrated in the table below.

Table 2.1: Alcohol usage, engaging in sex while drunk and HIV prevalence

Regions	Alcohol usage (%)	Engaged in sex while drunk (%)	HIV prevalence (%)
N. Eastern	0.0	0.0	0.9
Western	6.8	0.3	6.6
Rift Valley	12.5	1.4	4.7
Eastern	14.8	0.2	3.5
Nyanza	17.0	0.6	15.7
Central	17.7	0.4	3.8
Coast	18.6	1.0	4.3
Nairobi	18.6	1.6	4.9

Source: NACADA, 2007; Kenya National Bureau of Statistics [KNBS] and ICF Macro, 2010; NASCOP, 2013

With exception of North Eastern region, the table shows that there were quite a number of people who usually engages in sexual intercourse while drunk. With increasing evidence that alcohol abuse plays a pivotal role in HIV infections and disease progression in sub-Saharan Africa, an improved understanding of alcohol abuse as a behavioural risk factor related to HIV in different sub-populations is critical in order to reduce further the spread of the epidemic (WHO, 2005).

2.2.2 Alcohol abuse and HIV infections

One of the behaviours that may be implicated in the transmission of HIV is alcohol abuse. Various studies have been carried out in Africa and elsewhere to show the relationship between alcohol abuse and HIV infections. These include a study carried out in Moshi, Tanzania, which found that women whose male partners consumed alcohol on a daily basis and had other sexual partners were significantly more at risk of HIV infection (Msuya et al., 2006). These authors also noted that women who consumed alcohol either occasionally or daily had a higher HIV prevalence than those who did not. Married men also were reported to have more casual partnerships than married women and when they consume alcohol, they have an increased risk of unprotected sex and commercial sex (Msuya et al., 2006).

An unmatched case control study carried out in Addis Ababa, Ethiopia, among men and women visiting HIV testing and counseling centres found those persons who had used alcohol at some stage in their lives were significantly more likely to be HIV positive than those who never used alcohol (Seme et al., 2005). Also individuals who drank alcohol acknowledged that alcohol intake increased their sex desires which might be responsible for their HIV infections (Seme et al., 2005).

The consumption of local brews, or bottled alcohol, at least once a week was significantly associated with HIV infections among men but not among women in Tanzania (Mmbaga et al., 2007). In Tanzania, a majority of bar employees are women who are considered to be commercial sex workers. This meant that people who consume alcohol and engage in unprotected sexual intercourse with commercial sex workers, a group considered as high-risk, then they are exposing themselves to higher risks of HIV infections (Mmbaga et al., 2007).

Studies conducted among high-risk groups such as male hall patrons as well as bar and hotel workers in Zimbabwe and Tanzania found that HIV prevalence was positively associated with increasing frequency or quantity of alcohol use and abuse (Fritz et al., 2002; Kapiga et al., 2002). Another study carried out by Fisher et al. (2007) found that alcohol drinkers had more than a two-fold increased risk of being HIV positive compared with non-drinkers. Furthermore, recent drinkers were more likely to be HIV positive than less recent drinkers or non-drinkers.

A study carried out in Nairobi on alcohol use and HIV infections showed clearly from perceptions of people that alcohol use is linked to the possibility of HIV infections (NACADA, 2010a). The use of alcohol is likely to lower the chances of using a condom and increased multiple sexual partners. All these are forces that fuel risky sexual behaviours (NACADA, 2010a). However, a study carried out in a community in Moshi, Tanzania, found no significant relationship between HIV infections and alcohol abuse by men or women (Mitsunaga and Larsen, 2008). Nevertheless, what these studies have in common is that alcohol abuse predisposes individuals to greater risks to HIV infections.

2.2.3 Sexual behaviours of alcohol abusers

Sexual transmission accounts for an estimated 93% of new HIV infections in Kenya, with heterosexual intercourse representing 77% of incident infection (NASCOOP and NACC, 2012). With a significant proportion of the national population already infected, the risks of encountering HIV during a single episode of risky sexual behaviour are considerable. This means that relatively low levels of risk behaviours may nevertheless carry a substantial likelihood of transmission (NASCOOP and NACC, 2012).

The alcohol-sex linkage has serious implications for the health of a population due to the advent of the HIV infections. For instance, where people use alcohol before they engage in sex, the probability of unsafe sex taking place is higher (NACADA, 2010b). Ndetei et al. (2006) state that alcohol is the most commonly abused substance and together with HIV/AIDS are major public burdens in many parts of the world. The abuse of alcohol increases the risks of exposure to HIV through its association with high-risk sexual behaviours (Ndetei et al, 2006).

Alcohol abuse is associated with certain types of sexual activities and it often plays a role in unprotected casual sex, group sex and anal sex when participants in these activities are under the influence of alcohol (Kaiser Family Foundation, 2002). Furthermore, Maisto (2012) noted that men who have sex with men are at a higher risk of HIV infections especially under the influence of alcohol. Alcohol abuse may lead to early sexual debut, unprotected sexual intercourse and multiple sexual partners as well as putting people at a risk of contracting STIs including HIV/AIDS (Kaiser Family Foundation, 2002). Mackenzie and Karusa (2007) stated that 60% of Kenyans who consumed alcohol had multiple sexual partners. Thus, alcohol abuse may be seen to enhance risky sexual behaviours. WHO (2005) also notes that in Kenya alcohol abuse was believed to reduce fears connected with sex, encouraged risky sexual behaviours and provided extra power for sex.

Non-injection drug abuse such as alcohol abuse plays other less recognized roles in HIV transmission. For example, drug intoxication affects the mental status and the judgment of abusers, which in turn, can increase the likelihood that they engage in high-risk sexual behaviours (Parry et al., 2009). Similarly, addiction to drugs can further increase the exposure of users to unprotected sex as a means of obtaining drugs. Conversely, physiological consequences

of drug abuse may alter susceptibility to infections and interactions with HIV treatment drugs (Parry et al., 2009).

Alcohol abuse has repeatedly been recognized as a key correlate of risky sexual behaviours in several African populations including HIV positive individuals (Weiser et al., 2006). Heavy alcohol use in particular is thought to be associated with an increased likelihood of engaging in multiple risk behaviours such as multiple sexual partners, unprotected vaginal and anal intercourse, inconsistent condom use, and paying for or selling sex (Weiser et al., 2006). Since both heavy alcohol consumption and HIV infection compromise the immune system, it is likely that in combination; they also increase the risks of subsequent opportunistic infections, thereby, accelerating the progression of HIV to AIDS (Parry et al., 2009).

In most African countries, alcohol is consumed in small bars and other informal alcohol-serving establishments patronized by some individuals with their sexual partners (Fritz et al., 2002). Thus, the social context prevailing in these places combined with alcohol abuse may contribute to increased transmission of HIV by facilitating high-risk encounters (Mbulaiteye et al., 2000).

Simbayi et al. (2004) observe that HIV risk factors and high-risk sexual behaviours are related to drinking. Alcohol abuse has, for example, been associated with higher rates of unprotected sexual intercourse, failure to use condoms appropriately and increased sexual activity and/or a high number of sexual partners (Simbayi et al. 2004). This means that drinking in conjunction with sex might affect the mechanics of condom use, increasing the likelihood of improper use of a condom and, thus, failure in protection from disease transmission. Additionally, drinking may promote greater involvement in high-risk sex and/or less frequent use of condoms than otherwise if no alcohol consumption was involved. For instance, a study carried out by Fisher et al. (2007)

shows that drinking before sex is associated with sexual contacts that have a higher risk of HIV infections such as relationships that are impermanent, transitory or transactional.

Alcohol abuse is also associated with multiple and concurrent sexual partners where women in the context of heavy drinking take new partners who can entertain and buy them drinks (Watt et al., 2012). Moreover, alcohol abuse decreases the inhibitions of women and makes them either unwilling or unable to negotiate for safer sex. The association between drinking and HIV status suggests that alcohol use may amplify the current and future course of the epidemic (Watt et al., 2012). Alcohol abuse, therefore, correlates with having multiple sexual partners, sex with non-regular partners and engagement in transactional sex but not with a consistent use of condoms. Thus, effective interventions directed towards modifiable behaviour may have substantial impacts in reducing the devastating impacts of the epidemic in Kenya and the world.

2.3 Theoretical framework

This study was guided by the social exchange theory of Homans (1958). The primary concern of this theory is the behaviours of individuals when interacting with one another. Many other theorists such as Emerson (1962) and Blau (1964) continued to write about this theory. For example, Blau (1964) focused on the social exchange theory towards economic and utilitarian perspectives whereas the early works of Emerson (1962) on the theory intertwined with both the ideas of Homans (1958) and Blau (1964). Social exchange theory is based on the premises that the exchange of social and material resources is a fundamental form of human interaction. Specifically, the social exchange theory proposes that social behaviour is a result of an exchange process. The purpose of this exchange is to maximize benefits and minimize costs (Homans 1958).

According to this theory, people weigh the potential benefits and risks of social relationships. When the risks outweigh the rewards, people may terminate or abandon that relationship. The costs involve things that are seen as being negatives to the individual while benefits or rewards are things that the individual gets out of a relationship (Homans 1958). There are underlying assumptions that guide this theory. The first is that the behaviour of a person is in part determined by the desire of a person for personal benefits or rewards. The second is that activities or interactions that are positively reinforced will continue, while activities that do not yield sufficient benefits or rewards will be discontinued (Homans 1958).

2.3.1 Relevance of the theory to the study

Social exchange theory analyses the interaction between parties by examining the costs and benefits in relation to alcohol abuse. Interactions are only likely to continue if the gain more than loses. The theory assumes that the individual is not controlled externally but is completely able to make rational decisions based on what he or she views as a reward or cost of a particular behaviour. For example, a majority of people use alcohol as a way of having fun and relaxing therefore, if the abuse of alcohol leads one to engage in risky sexual behaviours, then the cost of alcohol abuse might be HIV infections.

Individuals in this case, will analyze the potential rewards gained when one uses alcohol and the costs of alcohol abuse, and if the costs outweighs the rewards, one may abandon the abuse of alcohol. In this research, the focus is on the perceived links between alcohol abuse and HIV infections and to find out if alcohol abusers are aware of the benefits and risks involved in their sexual behaviours.

2.3.2 Assumptions

1. There is an association between alcohol abuse and HIV infections.
2. Engagement in risky sexual behaviours can increase the chances of HIV infections.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section expounds the methodology used in this study. The research site, study design, study population, unit of analysis, research tools, sampling procedure and data analysis are presented. The problems encountered in the field and their solutions and the ethical issues relating to the study are similarly described here.

3.2 Research site

The study was conducted in Kiambu County which is located in central Kenya (Fig 3.2). It borders Murang'a County to the north and north-east, Machakos County to the east, Nairobi and Kajiado counties to the south, Nakuru County to the west, and Nyandarua County to the north-west (Fig 3.1). Kiambu County is predominantly rural but its urban population is rapidly increasing. According to the 2009 population census, Kiambu County has a population of 1,623,282 with 49% males and 51% females. The total number of households is 469,244 with a population density of 638 people per square kilometre and it covers an area of 2,543.4 square kilometers (Kenya National Bureau of Statistics [KNBS] and ICF Macro, 2010).

The main economic activities and industries in the county include farming, food processing, manufacturing (leather), mining (carbacid), textile (cotton), motor vehicle assembly as well as wholesale and retail trade (Kenya National Bureau of Statistics [KNBS] and ICF Macro, 2010). Kiambu County is predominately inhabited by Agikuyu and other ethnic groups living in the county includes the Luo, Abaluyia, Maasai, Akamba, Ameru and Kalenjin.

COUNTIES OF KENYA

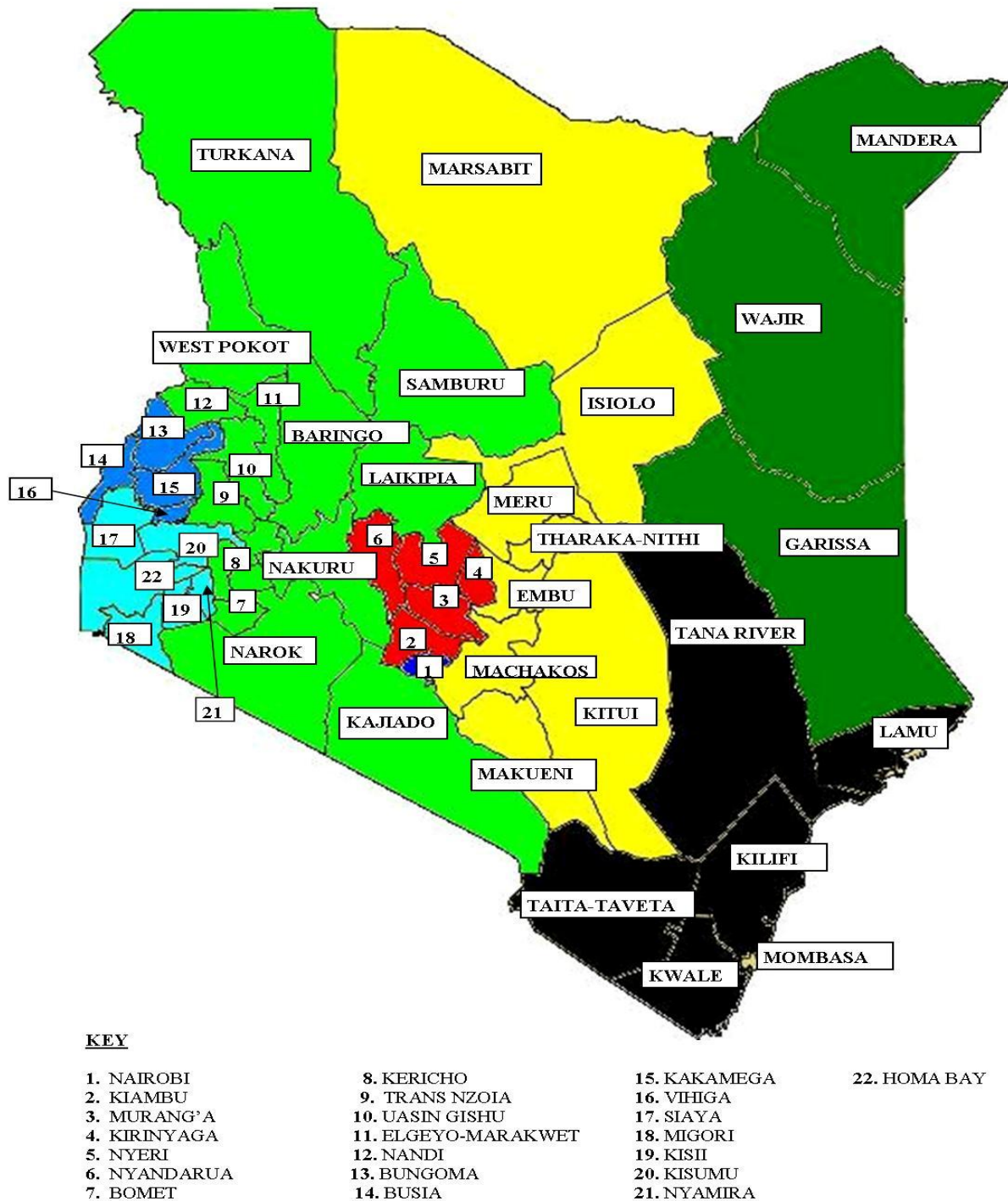


Fig 3.1Counties of Kenya

Google maps

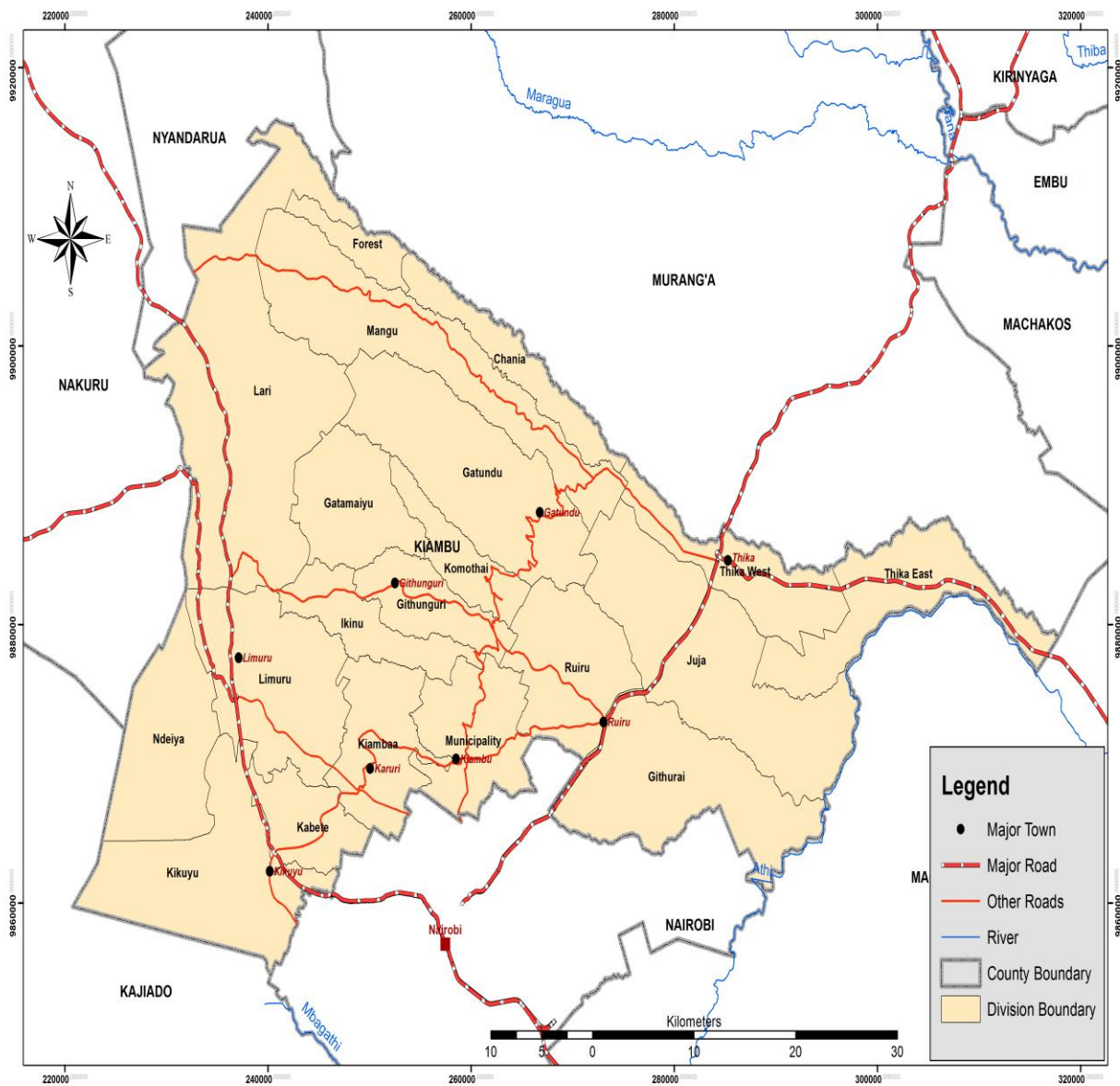


Fig 3.2 Kiambu County

Drawn by: Dennis Ojwang- GIS Officer, Crop Nutrition Laboratories Ltd.

3.3 Research design

The study used a cross-sectional design which involved collection of both qualitative and quantitative data. Qualitative data were collected using focus group discussions, structured interviews and case studies while quantitative data were collected through structured interviews.

3.4 Study population

The research focused on individuals aged 18 years and above and who are legally allowed to drink alcohol in Kenya. At the time of the study they formed the study population and the individual was the unit of analysis.

3.5 Sample population

The sample population was 100 alcohol abusers of the legal age of 18 years. The research adopted Slovin's formula to calculate the sample size as follows:

$n = N / 1 + (N(e)^2)$ Where n-sample size, N-population size, e-desired margin of error (Tejada and Punzalan, 2012).

Kiambu County has an estimated population of 1.6 million and the margin of error in this study is 10%.

$$n = 1,600,000 / 1 + (1,600,000)(0.1)^2$$

$$n = 1,600,000 / 1 + 160,000$$

$$n = 100$$

3.6 Sampling procedure

A sample of 100 respondents was purposively selected from the study population to participate in structured interviews. In the case studies, 12 informants were conveniently selected from a rehabilitation centre in Limuru town, Kiambu County. In the focus group discussions, 54 participants were purposively selected from the study population. The alcohol abusers were identified using the Alcohol Use Disorder Identification Test (AUDIT) to obtain a score (Babor et al., 2001). The scores of the AUDIT test were added and individuals who scored 8 and above were involved in the study.

Kiambu County has 11 major urban centres, namely, Thika, Ruiru, Gatundu, Limuru, Kabete, Githunguri, Kiambaa, Kikuyu, Kiambu, Lari and Karuri. Out of these, Kiambu, Githunguri and Thika were selected using simple random sampling. With the assistance of a contact person, alcohol abusers were then purposively and conveniently selected.

3.7 Data collection methods

3.7.1 Structured interviews

In this study, a structured questionnaire, with both open- and closed-ended questions, was administered to generate information on alcohol use-related risky sexual behaviours and their association to HIV infections in Kiambu County. Respondents were required to answer a set of questions in the AUDIT test to determine whether they were alcohol abusers or not. The respondents who scored 8 points and above in the AUDIT test were then required to respond to a set of questions in a standardized format that related to the research questions (Appendix C).

3.7.2 Focus group discussions

Focus group discussions were conducted with individuals who did not participate in the survey. The participants were also required to respond to a set of questions in the AUDIT test to determine whether they were alcohol abusers or not. The participants who scored 8 points and above in the AUDIT test were invited for a focus group discussion that was conducted on a later date. In each urban centre, two focus group discussions were carried out, one consisting of males and the other of females. Participants who participated in the focus group discussions were as follows: Kiambu urban centre had 10 males and 9 females, Thika had 8 males and 10 females while Githunguri had 9 males and 8 females. A focus group discussion guide (Appendix D) was used to collect the data. The focus group discussions enabled a verification of the information obtained from the structured interviews.

3.7.3 Case studies

Case studies were carried out with volunteers at the rehabilitation centre in Limuru town, Kiambu County. Informants in the case studies were similarly required to answer a set of questions in the AUDIT test to determine whether they were alcohol abusers or not. The informants who scored 8 points and above in the AUDIT test and they reported to be HIV infected at the time of the study were involved in the research. A case study guide (Appendix E) was used to collect qualitative data to explore their perceptions of alcohol abuse as a risk factor in HIV infections, in Kiambu County.

3.7.4 Secondary sources

Relevant literature from journals, books, articles, the Internet, theses and dissertations were used to gather background information to the study. In addition, these sources continued to act as reference materials throughout the study.

3.8 Data processing and analysis

Quantitative data from the questionnaires were categorized, arranged, summarized and analyzed using the Statistical Package for the Social Sciences (SPSS). The findings were then presented using tabulations, figures and percentages. On the other hand, qualitative data, collected through focus group discussions and case studies, were organized, summarized and analyzed thematically. The findings were presented in direct quotations and selected comments. All the quotes in the local language (Gikuyu) were translated into English and incorporated in the main text.

3.9 Problems encountered in the field and their solutions

Several challenges were faced while in the field. For instance, there was some level of reluctance by some bar owners to allow their clients to be interviewed. This was as a result of the fear of losing them when they got exposed to the dangers of alcohol consumption. The researcher took time to explain to the bar owners the research objectives and whoever accepted, their clients were interviewed. In those rare cases where the bar owner declined, the researcher moved to a different bar.

In some cases, the drinking dens were too dim, therefore, permission was sought from the owner and the respondents to use a torch or in some cases interviews were conducted somewhere else.

In many cases, the respondents agreed to relocate to a different place in order to conduct the interviews. Women respondents were difficult to get and they could only be found during weekends. In such instances, the researcher resolved to collect data on Saturdays and Sundays.

In yet other places, clients demanded to be interviewed even though they were too drunk to even comprehend a question. The researcher took time to explain to such individuals the reasons why one should be sober during interviews. After persuasion, the individual would promise the day, time and place where we could meet and conduct the interview. In some cases, the respondents would keep their word and meet for interviews when sober. In most cases the respondents would demand for a bottle of beer before responding to the questions. Such respondents were excluded from the study.

On many occasions, respondents demanded alcohol before the interview claiming that all research projects were funded either by the government or non-governmental organizations (NGOs). In such cases, the researcher explained the purpose of the research and further produced copies of an introductory letter from the Institute of Anthropology, Gender and African studies (IAGAS) and a research permit from the National Council of Science and Technology (NCST) to verify that the research findings were to be use for educational purposes mainly. However, some respondents were persistence in their demands to be compensated and such respondents were excluded from the study.

The Alcoholic Drinks Control Act (2010), famously known as Mututho law, restrict the opening and closing times for bars in Kenya. In order to meet the respondents, the most convenient time was weekday afternoons and weekends. The researcher, therefore, adjusted the schedule to fit into the respondents' availability. Also the respondents were easily distracted during interviews

by their friends and their favourite songs from the bar. Therefore, the limited time available and other distractions extended data collection periods beyond the researcher's estimated time.

3.10 Ethical considerations

The principle of informed consent was complied with to ensure that the respondents knowingly and willingly agreed to participate in the research and those willing to withdraw from the study at any particular time were free to do so. The anonymity and confidentiality of the participants were guaranteed by using pseudonyms in reporting the findings. This concealed the identities of the respondents for their safety, dignity and privacy.

CHAPTER FOUR

ALCOHOL ABUSE AS A RISK FACTOR IN HIV INFECTIONS

4.1 Introduction

This chapter presents an analysis of the data obtained from the fieldwork. The findings are presented in two thematic areas in line with the study objectives. The thematic areas include first, alcohol abuse and HIV infections and second, the sexual behaviours of alcohol abusers in Kiambu County, central Kenya.

4.2 Socio-demographic profiles of the respondents

The study consisted of a total of 100 respondents of which 61% was males and 39% was females. The respondents were asked to state their ages. The results of the study revealed that a majority of the respondents were aged 23-27 years with males 10% and females 7%. The respondents aged 58 years and above were only 3% with males 2% and females 1% as summarized below in Fig. 4.1.

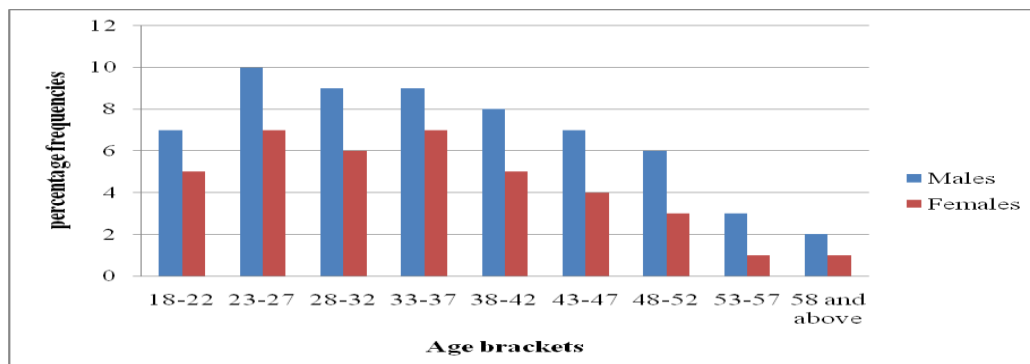


Fig. 4.1: The ages of respondents

The respondents were asked to state their occupations. A majority of them indicated that they had a source of income either through formal employment or self-employment. Specifically, 41% males and 21% females were formally employed while 15% males and 16% females were self-employed. The other 5% male and 2% female respondents stated that they were not involved in any kind of employment (Table 4.1).

Table 4.1: The occupations of respondents

Occupation	Males (%)	Females (%)	Total (%)
Employed	41	21	62
Self-employed	15	16	31
Unemployed	5	2	7
Total	61	39	100

The respondents were requested to note their levels of education. The study findings show that many of them had attained secondary school education and above. Twelve percent (12%) males and 16% females were Form Four leavers, followed by 14% males and 4% females who had attained college education while 9% males and 6% females had a university degree. However, a quarter of the respondents (17% males and 8% females) had attained education up to Class Eight level while 5% males and 3% females had dropped out of school before Class Eight. The other 4% males and 2% females had no formal education (Table 4.2).

Table 4.2: The level of education of respondents

Level of education		Males (%)	Females (%)	Total
No formal education	4	2	6	
Class 1-7	5	3	8	
Class 8	17	8	25	
Form 4	12	16	28	
College	14	4	18	
University	9	6	15	
Total	61	39	100	

The respondents were required to indicate their marital statuses. Many respondents had been married at one time or another in their lives with 38% males and 22% females currently married while 16% males and 9% females were single. The other 4% males and 6% females were separated while 1% males and 2% females were widowed. However, 2% males were divorced but no female respondents indicated that they were divorced at the time of the study (Table 4.3).

Table 4.3: The marital status of respondents

Marital status	Males (%)	Females (%)	Total (%)
Single	16	9	25
Married	38	22	60
Divorced	2	0	2
Separated	4	6	10
Widowed	1	2	3
Total	61	39	100

4.3 Alcohol abuse and AUDIT test

The AUDIT test revealed that 26% males and 18% females had a higher risk of alcohol abuse followed by 23% males and 11% females who had an increasing risk of alcohol abuse. Respondents who had a possible dependence on alcohol abuse were 12% males and 10% females (Table 4.4).

Table 4.4: Alcohol abuse by gender

Gender	Increasing risk (8-15)	Higher risk (16- 19)	Possible dependence (20+)	Total (%)
Males (%)	23	26	12	61
Females (%)	11	18	10	39
Total	34	44	22	100

Note: From the AUDIT test, a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

Study findings from the AUDIT test further revealed that respondents aged 23-27 years and 33-37 years (8%) were the most affected age groups by increasing risk of alcohol abuse. The least affected by increasing risk of alcohol abuse were aged 58 years and above (1%). At a higher risk of alcohol abuse, the most affected respondents were aged between 28-32 years and 38-42 years (8%). In addition, respondents aged 53-57 and 58 years and above (2%) were the least affected by higher risk of alcohol abuse as presented in Table 4.5 below. The most affected age group by possible dependence on alcohol consumption were aged 28-32 years (4%). However, no respondent aged 58 years and above had a possible dependence on alcohol consumption as summarised in Table 4.5 below.

Table 4.5: Alcohol abuse by ages

Ages in years	Increasing risk (8-15) (%)	Higher risk (16-19) (%)	Possible dependence (20+) (%)	Total (%)
18-22	4	5	3	12
23-27	8	6	3	17
28-32	3	8	4	15
33-37	8	5	3	16
38-42	2	8	3	13
43-47	4	4	3	11
48-52	3	4	2	9
53-57	1	2	1	4
58 above	1	2	0	3
Total	34	44	22	100

Note: From the AUDIT test, a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

The AUDIT test findings revealed that 20% respondents who were employed had an increasing risk of alcohol abuse, followed by self-employed (13%). However, 1% unemployed respondents had an increasing risk of alcohol abuse. The findings further unveiled that the most affected

category by a higher risk of alcohol abuse were employed 30%, followed by self-employed (9%). The other 5% who were unemployed had a higher risk of alcohol abuse. In the possible dependence category, the most affected group was employed (12%), followed by self-employed (9%). For the unemployed respondents, only 1% had a possible dependence on alcohol abuse (Table 4.6).

Table 4.6: Alcohol abuse by occupations

Occupation	Increasing risk (8-15)	Higher risk (16-19)	Possible dependence (20+)	Total
Employed (%)	20	30	12	62
Self-employed (%)	13	9	9	31
Unemployed (%)	1	5	1	7
Total (%)	34	44	22	100

Note: From the AUDIT test a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

The AUDIT test moreover showed that the most affected category by increasing risk of alcohol abuse was Form Four leavers and college respondents (9%). One percent who had an increasing risk of alcohol abuse did not have formal education. In the higher risk category of alcohol abuse, the most affected group was the Form Four leavers (11%), followed by Class Eight (10%). However, 1% of the respondent with no formal education had a higher risk of alcohol abuse as portrayed in Table 4.7. In the possible dependence on alcohol abuse category, the most affected

groups were Class Eight with 9%, followed by Form Four leavers (5%). On the other hand, no respondent with Class 1-7 education had a possible dependence on alcohol abuse (Table 4.7).

Table 4.7: Alcohol abuse by education

Level of education	Increasing risk (8-15)	Higher risk (16-19)	Possible dependence (20+)	Total
No education %	1	1	5	7
Class 1-7 (%)	6	4	0	10
Class 8 (%)	4	10	9	23
Form four (%)	9	11	5	25
College (%)	9	9	2	20
University (%)	5	9	1	15
Total (%)	34	44	22	100

Note: From the AUDIT test, a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

The AUDIT test disclosed that the most affected marital status by increasing risk of alcohol abuse were married (23%) followed by single respondents (9%). In the higher risk of alcohol abuse category, the most affected group were married couples (24%) followed by single respondents (11%). On the other hand, 7% separated respondents were at a higher risk of alcohol abuse. In the category of possible dependence on alcohol abuse, the group largely affected were

married (13%), followed by single respondents (5%) In addition, divorced and separated had 1% each of possible dependence on alcohol abuse (Table 4.8).

Table 4.8: Alcohol abuse by marital status

Marital status	Increasing risk(8-15)	Higher risk (16-19)	Possible dependence (20+)	Total
Single (%)	9	11	5	25
Married (%)	23	24	13	60
Divorced (%)	0	1	1	2
Separated (%)	2	7	1	10
Widowed (%)	0	1	2	3
Total (%)	34	44	22	100

Note: from the AUDIT test, a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

4.4 Alcohol abuse and HIV infections

The respondents were expected to point out how many drinks containing alcohol they took on a typical day. Ten percent males and 14% females indicated that on a typical day they took 1 or 2 drinks, 24% males and 11% females took 3 or 4 drinks while 15% males and 12% females took 5

or 6 drinks. On the other hand, 9% males and 2% females took at least 7-9 drinks in one drinking spree while 3% males took 10 or more drinks on a typical day.

During the last one year, respondents were supposed to explain how often they found that they were unable to stop drinking once they had started. Many of the respondents (25% males and 19% females) were able to control their drinking while 17% males and 10% females found themselves not able to stop drinking less than monthly. In other instances, 9% males and 5% females were unable to stop drinking at least monthly followed by 6% males and 3% females who could not control their drinking weekly. Meanwhile, 4% males and 2% females were unable to stop drinking on a daily basis.

The respondents were further required to indicate how often they failed to do what was expected of them because of drinking in the previous year. Many of the respondents (20% males and 14% females) indicated that they have never failed to do their duties because of drinking followed by 16% males and 17% females who failed their expected responsibilities less than monthly. Thirteen percent males and 5% females failed in their expected responsibilities monthly, 9% males and 2% females failed on a weekly basis while 3% males and 1% females failed to do what was expected of them almost daily and sometimes daily due to drinking.

A year prior to the study, the respondents were requested to reveal how often they were unable to remember what happened the night before because they had been drinking. Many of the respondents (30% males and 20% females) could remember what happened the night before even if they had been drinking. However, twenty one percent of the males and 12% females could not remember what happened the night before less than monthly followed by 6% males and 4% females who could not remember on a monthly basis while 3% males and 2% females

could not recall what happened on a weekly basis. The other 1% males and 1% females were unable to recollect their memories daily or almost daily on what happened the night before because they had been drinking.

The respondents were requested to recall how often in the previous year they needed an alcoholic drink first thing in the morning to get going after a night of heavy drinking. Thirty one percent males and 21% females could start their day without an alcohol drink. However, 17% males and 10% females needed an alcoholic drink less than monthly, 6% males and 5% females on a monthly basis while 5% males and 3% females needed an alcoholic drink on a weekly basis. On a daily basis, 2% males had an alcohol drink to start their day while no female respondents needed an alcoholic drink in the morning.

The respondents were expected to explain how often during the last one year prior to the study they had a feeling of remorse or guilt after drinking. The study findings show that many of the respondents (27% males and 16% females) felt remorseful monthly, followed by 14% males and 10% females weekly. Eleven percent males and 7% females were remorseful on a daily basis while 6% males and 4% females less than monthly. However, 3% males and 2% females never felt guilty after drinking.

Respondents were supposed to recollect whether they have ever been personally injured or someone else has been injured as a result of their drinking. Forty one percent males and 30% females have never been injured or harmed someone else while drunk. Eleven percent males and 6% females were injured or injured someone else while drunk but not in the last one year prior to the study. The respondents who admitted to have been injured or injured someone else while drunk in the last one year prior to the study were 9% males and 3% females.

Respondents were asked if a relative, friend or health professional had expressed concern about their drinking or suggested they cut down. Many of the respondents (31% males and 21% females) noted that people have shown concern about their drinking and suggested that they cut down or quit altogether. However, twenty percent males and 11% females indicated that no one has ever shown concern about their drinking. The other 10% males and 7% females stated that people had shown concern about their drinking in the previous years but not in the last 12 months.

Participants in the focus group discussions were requested to explain how HIV is transmitted. The respondents noted various ways of how HIV is transmitted as demonstrated by the sample responses below.

A male respondent aged 27 years narrated that HIV is transmitted through unprotected sexual intercourse:

HIV/AIDS is transmitted in most cases through unprotected sex. When a man and a woman engage in sexual intercourse without the use of condoms and maybe one of them is HIV positive, the likelihood of infecting the other person is very high.

A male respondent aged 19 years stated thus:

Though it is very common for HIV/AIDS to be transmitted through unprotected sex, in the recent past there has been a documentary by one of the local media showing how people in Mombasa who are sharing needles to inject drugs are at a higher risk of HIV infections. If one person in a group of people injecting drugs is HIV positive the whole group may be infected in the long run.

A female respondent aged 35 years remarked:

Another way HIV/AIDS is transmitted is through mother-to-child. Women in these areas are encouraged to attend antenatal clinics and to deliver in a hospital in order to avoid infecting the newborns.

A male respondent aged 24 years had read an article that pointed out that HIV infections can be transmitted through blood to blood transfer:

In rare cases, biting that involves blood-to-blood transfer between individuals involved in a fight where one may be HIV positive is another way HIV is transmitted.

Informants in the case studies were requested to reveal their HIV status. Seven male and three female informants indicated that they were HIV positive. Such respondents were further asked to state how long they had known their HIV status. Most of them (30% males and 10% females) stated that they had lived with the knowledge of their HIV status for periods ranging between 3 and 5 years followed by 10% males and 20% females who knew their status for a period of 2 years and below. However, 20% males reported to have known their status for periods ranging from 6 to 8 years and 10% males had known their status for 9 years and above (Table 4.9).

Table 4.9: Duration of knowledge of HIV status

Number in years	Males (%)	Females (%)	Total (%)
0-2 years	10	20	30
3-5 years	30	10	40
6-8 years	20	0	20
9 years and above	10	0	10
Total	70	30	100

The same informants were required to state whether they were alcohol abusers at the time of the diagnosis. The study findings revealed that eight informants were alcohol abusers as shown by their AUDIT test scores of more than an aggregate of 8. The AUDIT test further revealed that 40% males and 20% females had developed a possible dependence on alcohol, followed by 20% males and 10% females who had a higher risk of alcohol abuse. The other 10% females had an

increasing risk of alcohol abuse. However, no male had an increasing risk of alcohol abuse (Table 4.10).

Table 4.10: Levels of alcohol abuse

Levels of alcohol abuse	Males	Females	Total
Increasing risk (8-15)	0	10	10
Higher risk (16-19)	20	10	30
Possible dependence (20+)	40	20	60
Total	60	40	100

Note: From the AUDIT test, a score of 8-15 points indicates an increasing risk of alcohol abuse, 16-19 points represent a higher risk of alcohol abuse while a score of 20 and above represents a possible dependence on alcohol (adopted from Babor et al., 2001).

The informants were further asked whether they would link their time and incidence of infections to alcohol abuse. Only four males and two females were willing to respond to this question with three males and one female linking their contracting the virus when they were drunk. Sample responses from individuals who linked their HIV infection to alcohol abuse are presented below:

A male teller at a local bank aged 29 years stated that:

I had unprotected sex with a woman at the pub. I was too drunk to care. It was alcohol that gave me the courage to dare her even after she seemed reluctant to accept. You see, we had sex without using a condom while still at the dancing floor. In this area during mugithi nights the dancing floors are crowded and some witty men like me take advantage and engage in sex, commonly known as quickies. I highly suspect that was the time I contracted the disease.

A male matatu driver aged 31 years remarked:

We got home late in the night and we did not carry condoms with us...I was a bit sober when I had sex with her in the morning. However, I couldn't look for a condom in the morning since most shops were still closed. I also did not have any money...I had drunk it all...I never had sex again until when I visited the VCT. I could have not contracted the disease from my wife since we had not had sex for a long time. That was the only intercourse I had had in a very long time...So I suspect I contracted the disease in that escapade.

A 19 year old male student narrated that he always engaged in sex while drunk and in most cases with commercial sex workers. He further also added that he didn't use protection in these sexual acts.

I started drinking alcohol while still in high school and after high school I used to work as a casual labourer at a tea factory. I used all my earnings on alcohol and women. I always engaged in sex while drunk and most of the times with prostitutes. I cannot recall a time I ever had sex while sober. If I had engaged in sex while not intoxicated, maybe I could have been more careful and used a condom to prevent being infected with HIV.

A 23 year old female working as a bar attendant stated that although she would take alcohol occasional, she would engage in sex only when intoxicated.

I was an occasional drinker and I could only engage in sex while drunk. One day I was not feeling well and when I went to the hospital, the doctor advised me to take an HIV test and it turned out to be positive...I was so furious with myself and I could not accept to die alone. Since I suspected I was infected during one of the sexual encounters when I was totally drunk, I decided to sleep around with any man who was willing to without the use of condoms and end up infecting as many men as possible.

The informants were further requested to indicate the considerations they made after discovering that alcohol abuse was the likely factor for contracting HIV. Three males and one female reported that they continued drinking larger quantities of alcohol to comfort themselves. They eventually became alcohol addicts as illustrated by their sample responses below:

A male teller at a local bank aged 29 years noted that after he discovered his HIV status he continued to take more alcohol as narrated below:

Once I discovered that I was HIV positive, I started drinking more alcohol to forget my current status. I could not live a moment of my life while sober. Alcohol became my closest friend and I turned my house into a mini bar. I was not concentrating at work and I was given several warnings on failure to meet my obligations. My boss was concerned about the sudden change of behaviour and sought professional help on my behalf. I am grateful for this rehabilitation centre because it has helped me overcome my alcohol addiction.

A male matatu driver aged 31 years stated that:

My wife started accusing me of infidelity and requested me to take an HIV test if I wanted to continue enjoying conjugal rights. The test turned out to be positive and she ran away. Eventually, I became so depressed and turned to alcohol. I used to take alcohol everyday and my health deteriorated. I was later diagnosed with liver disease and I was given some medication together with Antiretroviral (ARVs) drugs. After sometime, I abandoned treatment and turned to alcohol again.

A 19 year old male student recounted how he became an alcoholic when he tested HIV positive:

I am here at the rehabilitation centre to seek professional help. I became an alcohol addict after I discovered I was HIV positive. I did not have any hope of living a normal life until my parents brought me here. Though I can only blame alcohol for my misfortunes, I have accepted my status and ready to live without drinking or using any other drugs for that matter.

A 23 year old female working as a bar attendant remarked that after she realised that she was HIV infected she became a commercial sex worker as a source of income.

As a bar tender, I used to drink occasionally and sleep around with men. Once I discovered that I was HIV positive, I started drinking alcohol every day. Later on, I was fired and turned to prostitution to earn a living and have money for alcohol.

4.5 Sexual behaviours of alcohol abusers

The respondents were supposed to specify the number of sexual partners they currently had. A majority of them, 21% males and 14% females, reported that they had two sexual partners, followed by 16% males and 17% females who had one steady sexual partner. Respondents who admitted to have three sexual partners were 14% males and 6% females while 8% males and 2% females had four. On the other hand, only 2% of male respondents reported that they had more than five sexual partners (Fig. 4.2).

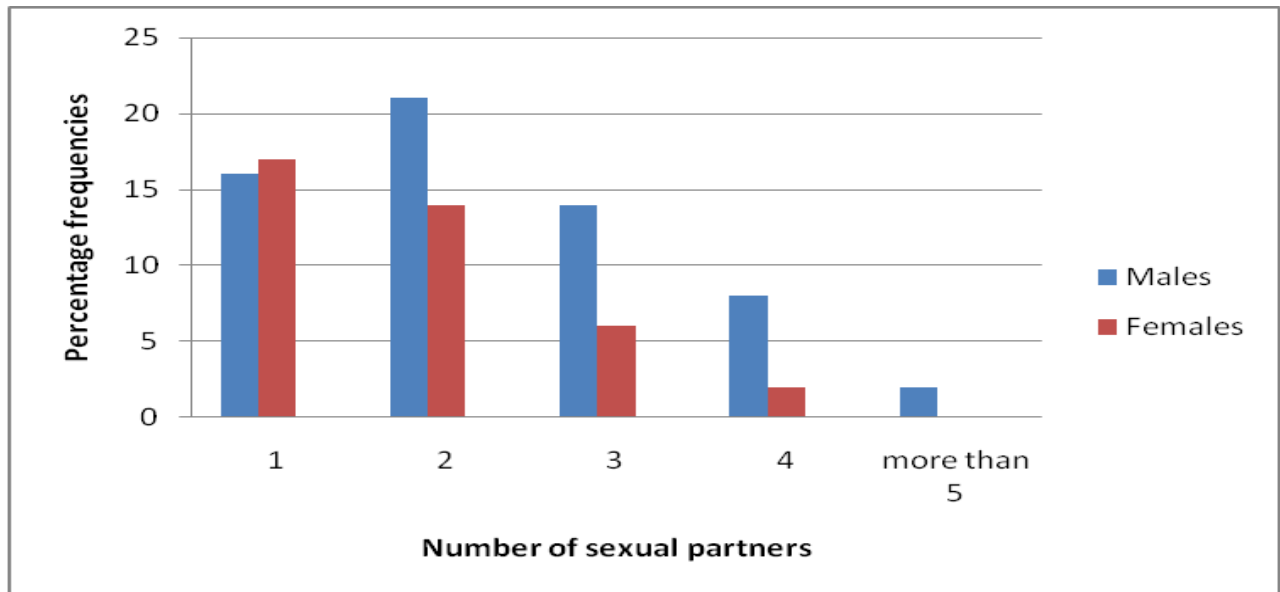


Fig. 4.2: Number of sexual partners

The respondents were required to explain whether they ever had casual sexual partners. Forty seven percent males and 23% females admitted to have had casual sexual partners. The other 14% males and 16% females declared that they have never had casual sexual partners.

The respondents who had ever had casual sexual partners were further requested to state the number of casual sexual partners they ever had in the past twelve months. Twenty three percent males and 12% females had two casual sexual partners, followed by 18% males and 10% females who had three. The respondents who had one casual partner in the last 12 months were 12% males and 11% females while 7% males and 4% females had four. The other 1% males and 2% females had more than five casual sexual partners in the past 12 months (Fig. 4.3).

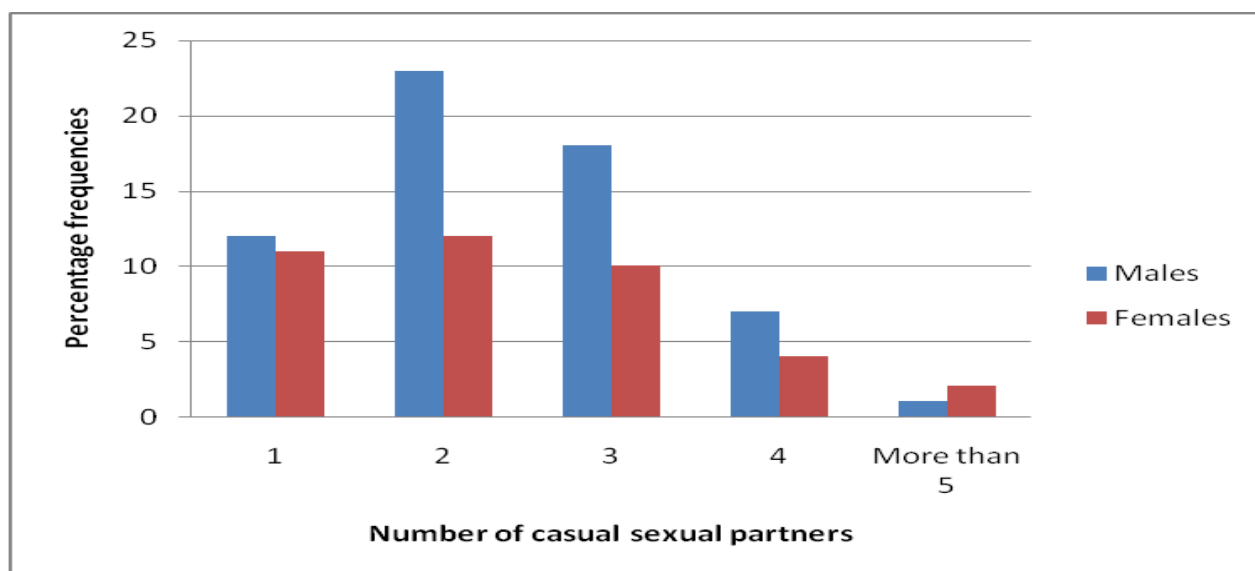


Fig. 4.3: Number of casual sexual partners

On further probing whether they used a condom with the casual partners, 39% males and 14% females reported that they did use condoms while 13% males and 18% females did not. The other 9% males and 7% females reported that they only used condoms sometimes with the casual partners.

The respondents were expected to explain whether they ever engaged in sexual intercourse while drunk. Thirty five percent males and 24% females had sex while drunk. The other 26% males and 15% females have never had sex while drunk. The respondents who had sex while drunk were further supposed to state whether they used condoms. Thirty percent males and 24% females did not use condoms in these sexual encounters while 23% males and 10% females used condoms. The other 8% males and 5% females used condoms sometimes while drunk.

The research also sought to ascertain whether the respondents used condoms with their regular or steady sexual partners such as their wives, girlfriends, husbands and boyfriends. More than half of the male respondents (54%) and 28% females reported that they did not use condoms in their

steady relationships. Seven percent males and 9% females admitted that they used condoms consistently and correctly. The other 2% females used condoms sometimes in their steady relationships (Table 4.11).

Table 4.11: Prevalence of condom use in Kiambu County

Condom use		Casual partner	While drunk	Steady relationship
Use condoms (%)	Males	39	23	7
	Females	14	10	9
Did not use condoms (%)	Males	13	30	54
	Females	18	24	28
Sometimes use condoms (%)	Males	9	8	0
	Females	7	5	2

The respondents were to specify whether they ever talked to their sexual partners about the use of condoms before having sex. Many of the respondents, 51% males and 32% females, reported that they have never talked to their partners about protection. Ten percent males and 7% females acknowledged that they had talked to their partners about the use of condoms.

The respondents who reported to have ever talked to their partners about the use of condoms were further required to explain the reaction of their partners when they initiated the talk on the use of condoms. The reactions are illustrated by some of the respondents' responses below:

A male casual labourer aged 38 years demonstrated how condom is viewed in marriages and it is only accepted as a method of family planning.

I introduced the use of condoms in our conversation with my wife as a method of family planning. Since my wife had developed severe side effects from other methods of family planning, the doctor advised that we use safe days. But when I want sex and it is not a safe day I normally request my wife that we use condoms. In my case, therefore, a condom is primarily a method of family planning but not for any other reason. My wife was very pleased with my idea since she did not want to conceive every year.

Condom is not readily accepted in the study population as illustrated by a female mobile phone shop attendant aged 22 years who remarked that:

In many cases, men are shocked that I want them to use condoms...Some wonder how a beautiful girl like me can be HIV positive. Some get furious that after spending a substantial amount of money on entertainment, I cannot sleep with them without a condom.

However, a male working as a customer service officer aged 31 years described how condom is acceptable just for a short duration in relationships as narrated.

I always make a point of using a condom and talk to my partner about it. In most cases, the women feel appreciated and see me as a responsible young man. However, when the relationship is steady, they reject to use condoms owing to the fact that they know me better.

The research sought to ascertain the reasons why some respondents had never talked to their partners about the use of condoms. Some of the reasons are cited below:

A married male programme officer aged 49 years lamented that discussing use of condom in marriages is viewed as a sign of unfaithfulness.

In marriage, it is very hard to introduce the topic of condoms or use condoms with your partner. Since my work involves a lot of travelling, there is this one time I was away for over three months and one night while drinking I was approached by a beautiful woman and I took her to my room and we had sex without protection. When I went back to my

wife and tried to use condoms with her since I feared I might have been infected with HIV, she became furious and accused me of infidelity. I tried to explain the reasons why I wanted to use condoms but that only made the matters worse because she eventually left me. After visiting a VCT later in life, I was not HIV positive but when I reach out for her to come back, she still insists that it is just a matter of time and I will not escape HIV infections forever. She believes that whenever I am away on assignment I engage in reckless sexual behaviours.

A 45 year old married Police Officer noted that:

I have been married for the past 20 years and I trust my wife very much. I have never thought of discussing with her about the use of condoms and I know she would be surprised if I requested her we use condoms. The use of condoms in marriage is a sign of unfaithfulness.

A 26 year old female nurse stated that:

I got married recently and we took an HIV test and we are also planning to take the tests every year. I do not see the need to talk about the use of condoms since we shall be visiting voluntary counseling and testing centres regularly. I also trust my husband and I hope he will remain faithful.

In this study population condom is portrayed as a male responsibility as discussed by a married woman aged 27 years working as a receptionist who stated that:

The use of condoms is a very delicate topic and it should be a man's responsibility to initiate it. As a woman, I do not see the need to start discussing the use of condoms with my husband unless am willing to quarrel with him. Furthermore, it is not women's roles in our society to introduce matters relating to sex and initiating the topic would only raise suspicion of unfaithfulness.

And also single male student aged 21 years observed that:

It is mandatory for me to use condoms so long as I am not married. Every time I engage in sex I must use condoms. It is very hard to know who is HIV positive and to be on the safe side I normally use condoms. Therefore, I do not need to discuss with a woman about the use of condoms.

The respondents were mandated to state what they considered risky sexual behaviours. The study findings revealed that 21% males and 16% females considered having unprotected sex as risky sexual behaviour while 13% males and 9% females cited having multiple partners. Prostitution,

as a risky sexual behaviour was cited by 9% males and 6% females. On the other hand, 10% males and 5% females considered having sex while drunk as a risky sexual behaviour. Other emerging trends that the respondents considered as risky sexual behaviours were group sex as noted by 5% males and 1% females and male-to-male rape as cited by 3% males and 1% females. In addition, anal sex was considered by 1% females as a risky sexual behaviour (Table 4.12).

Table 4.12: Risky sexual behaviours

Risky sexual behaviours	Males (%)	Females (%)	Total (%)
Unprotected sex	21	16	37
Multiple partners	13	9	22
Prostitution	9	6	15
Sex while drunk	10	5	15
Group sex	5	1	6
Male-to-male rape	3	1	4
Anal sex	0	1	1
Total	61	39	100

The participants in the focus group discussions were expected to describe some of the sexual behaviours of alcohol abusers. The participants were further supposed to state if such sexual

behaviours put an individual at a risk of HIV infections. Sample responses from the discussions are noted below:

A Kiambu male focus group participant acknowledged that alcohol abusers sometimes have unprotected sex while drunk with partners they hardly knew.

A majority of alcohol abusers engage in sex without the use of condoms. This is because they might be too drunk to use one or all the shops where they can access condoms at a normal rate are closed. Although most bars sell condoms, they do so at exorbitant prices... At this bar, a packet of condoms goes for Kshs. 100. I believe having sex without the use of condoms with a person you do not know very well puts one at a higher risk of HIV infections.

Some alcohol abusers engage in sexual intercourse with people they have just met. People meet in clubs and a friendship develops within hours and they start dancing together. Eventually, they leave the club hand in hand and end up having sex. This is commonly known as “chips funga”, literally, casual sexual intercourse. Casual sex puts an individual at a high-risk of HIV infections.

A Githunguri female focus group participant further added that alcohol abusers may not be in a position to make rational decision as illustrated below:

When we drink, we are not in a position to make informed decision. We find ourselves having sex without using condoms and when we use one, we might not use it well and it might come off or tear off during sex. This put us at a risk of contracting HIV and other sexually transmitted diseases.

Another participant introduced the issues of young women who have sex with old men and in such a relationship he doesn't think the young women have the power to negotiate for use of condom.

It is a common occurrence in this area to see an old man drinking in the company of a young woman. The old men buy alcohol for their partners and at the end of the day, the women pay in kind through sex. From what we hear from these women, it is impossible to convince most of these old men to use condoms. From what we have read and learnt in HIV seminars, people in sugar daddies and/or mummies relationships are at a high-risk of HIV infections.

A Githunguri female focus group participant reported that having more than one sexual partner in the area was a common practice among alcohol abusers.

Men who drink moderately are notorious when it comes to sexual behaviours. Many men drink in the company of women and it is a rare case to see a married couple drinking together. Married men leave their wives at home to look after the children and since they need company when drinking they resort to having what is commonly known here as “kept women” or in Kiswahili “mpango wa kando” literally, secret lover. Having multiple sexual partners is a common practice among alcohol abusers in this area. This sexual behaviour puts alcohol abusers at a higher risk of HIV infections.

Some women once they realize that their partners died of AIDS, they may turn to alcohol. The woman may be HIV positive but live in denial. While on their drinking spree they sleep around with different men. It is, therefore, possible that they might spread HIV infections if indeed they are positive.

There is emerging rape cases among alcohol abusers as narrated by a Thika male focus group participant:

Some men find themselves in drinking dens where there are no women and in such cases, some men wait for their fellow men to get drunk and then have sex with them. These they commonly do without the other person’s consent. In some instances, they buy alcohol for their victims and later rape them.

And a Githunguri female focus group participant:

In some cases, men who are too shy to approach women hover around bars and clubs waiting for women to get drunk. When the woman is too drunk and defenseless, these men end up raping them.

However, some participants believed that alcohol abusers do not engage in sex while drunk since they are not able to rise to the occasion. This is because some alcohol, especially cheap locally brewed ones, lowers the libido. A male participant in a focus group discussion in Githunguri lamented as follow:

My wife left me because I could not perform in bed. You see, everything was okey until when I started taking alcohol and I was not able to rise to the occasion. As a result, my wife went away. I was also beating her very much when I came home and when she dared question where I was coming from or ask for money for the upkeep of the family. I could not maintain my wife financially, sexually and also emotionally.

A female participant in Kiambu focus group discussion narrated that:

In this area you will see men and women sleeping in the ditches, along the roads or on the bar chairs until morning. Others are seen in full daylight staggering after a drinking spree on the locally brewed alcohol. These men and women are not in a position to engage in sex due to an excessive abuse of alcohol.

Some of the alcohol abusers are also believed to be so committed to their drinks that they hardly think of sexual intercourse at any time. In Thika, a female focus group participant stated thus:

Some alcohol abusers worship alcohol, they have no desire for the opposite sex. Njohi niyo mutumia wake, or locally, alcohol is their wife. In such cases, men are seen at the drinking dens early in the morning and they may not go home until the den is closed in the middle of the night. Alcohol decreases sexual urges and, hence, they do not engage in sex at all. Those who are not yet married yet are not in a hurry to get married since all they think about is alcohol and family matters are abandoned.

Participants were further asked to explain the reasons why they sometimes took alcohol before having sex. Many of them reported that it is a common belief that alcohol increases sexual urges and especially moderate drinking of beer increases their libido. One male participant in a Kiambu focus group discussion noted as follows:

At my age, I do not have the energy of a young man, therefore, I always take alcohol before going on a date or when planning to have sex with a woman that I would really like to impress with my sexual prowess. Alcohol normally gives me the urge to have sex. While drunk I am able to perform my sexual duties as a man better than when sober.

A female participant in a Thika focus group discussion stated that alcohol normally gives her the courage to engage in sexual escapades.

I am not comfortable having sex with older men. In some cases I find myself drinking in the company of old men who may end up demanding for sex after a drinking spree. In such instances, I make sure that I am totally drunk. Alcohol gives me the courage to engage in sex with people I would otherwise not have sex with while sober.

And also as noted by a male participant in a Githunguri focus group discussion:

I always take alcohol before sex in order to reduce tension experienced when delving into issues of sex. It is sometimes very hard for me to talk about sex with a new partner especially the one I have just met when sober. When I take alcohol, I am more relaxed and confident and I can approach any woman including strangers and strike a conversation that will lead to sex.

Finally, the participants in the focus group discussions were supposed to express their opinions on whether dealing with the issue of alcohol abuse can help curb HIV infections. Many of the participants stated that dealing with alcohol abuse can drastically reduce HIV infections as illustrated below:

A male participant in a Kiambu focus group discussion remarked:

I think if we deal with the issue of alcohol abuse, we can curb HIV infections because alcohol alters one's ability to make better decisions during sex such as the use of condoms. Therefore, a reduction of alcohol abuse will help people make informed and rational decisions when sober.

A female participant in a Thika focus group discussion stated:

You will find out that in this area prostitutes hang around bars and night clubs to entice their clients. When their clients are drunk they lure them with their sexy bodies and skanty dressing. Men as well as women who engage in sex with the prostitutes while drunk would not dare do the same while sober. If the issue of alcohol abuse is dealt with amicably it would curb the spread of HIV infections. This is because people would not engage in sex while drunk and with prostitutes who are categorized as a high-risk group in the fight against HIV/AIDS.

However, a few participants were of the opinion that dealing with the issue of alcohol abuse will not have much effect on HIV infections citing the following reasons.

A male participant in a Githunguri focus group discussion remarked that:

Alcohol cannot solely be blamed for HIV infections. There are those individuals who have never tested alcohol yet they are HIV positive. Therefore, alcohol is not to be blamed but irresponsible sex. Everyone who engages in risky sexual behaviours is at a risk of HIV infections whether sober or drunk.

A male participant in a Thika focus group discussion stated thus:

Dealing with the issue of alcohol in this area will primarily solve family issues but not HIV infections. Many alcohol abusers runaway from home and spend all their earnings on alcohol, hence, causing strains in their marriages.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses and makes conclusions about the study findings on the perceptions of alcohol abuse as a risk factor in HIV infections in Kiambu County, central Kenya. These are followed by recommendations that might be necessary in stemming alcohol abuse in the study site in particular and Kenya in general. In addition, other related research areas not covered in this study are recommended for further studies.

5.2 Discussion

5.2.1 Alcohol abuse and HIV infections

The study findings suggest that more men than women abuse alcohol in Kiambu County. Furthermore, the AUDIT test revealed that more men than women had a possible dependence on and at a high risk of, alcohol abuse. These findings agree with studies carried out by Nolen-Hoeksema (2004) and Blackwell et al., (2014) which stated that women consistently drink less than their male counterparts.

The most affected by alcohol abuse were males aged 23-27 years while the least affected were females aged 53 years and above. These study findings correlate with previous study by NACADA (2010b) which pointed out that there was high alcohol consumption among males aged 25-34 years, however, alcohol consumption declined with reference to ages 55 and above.

Similarly, those most affected by alcohol abuse were either formally employed or self-employed while the least affected were those with no sources of income. The AUDIT test further established that respondents with a source of income were most affected by increasing risk of alcohol and they also had a possible dependence on alcohol abuse. This is in congruence with other studies which observed that a majority of the alcohol abusers had a source of income either through employment or self employment (Birech et al., 2013; Hettige and Paranagama, 2005). Hettige and Paranagama (2005) further noted that drinking is not much associated with unemployment, as the unemployed respondents could not afford it.

It is also worth to note that the most affected group by increasing risk of alcohol and was at a higher risk of alcohol abuse had attained at least secondary school education. Respondents who had dropped out of school at Class Eight level had a possible dependence on alcohol abuse. However, the least affected by alcohol abuse did not have formal education. These findings correlate with the conclusions by Weiser et al. (2006) who observed that in Botswana those with a higher education level are more likely to drink, hence, depicting alcohol as a symbol of high socio-economic status. Likewise, Birech et al. (2013) pointed out that alcohol abusers are fairly educated with a majority attaining upper primary and secondary education.

The study established that more married couples are at a higher risk or possible dependence on alcohol abuse while the least affected were divorced respondents. This is in congruence with a study carried out in the Nandi community in Kenya by Birech et al. (2013) which found that most of the respondents (96.7%) who took alcohol were married. The study further established that the least affected by alcohol abuse were either separated or divorced (Birech et al., 2013).

In congruence with WHO (2011) it is clear from the study population that a majority of the respondents had a drink containing alcohol at least 2-4 times in a month and on a typical day a majority took 3 or 4 drinks with incidences of daily drinking. Although there were cases where respondents had more than six drinks on one occasion, the study further established that a third of the respondents never had more than six drinks on one occasion. The study findings are similar with WHO's (2011) observation that fewer people in sub-Saharan Africa drink alcohol but they drink too much. In a few cases, the study population noted that they were unable to stop drinking once they started, however, a majority of the respondents were not addicted to alcohol.

The population under study fulfilled its daily responsibilities even after drinking alcohol with few cases of negligence. Furthermore, half of the respondents could not remember what had happened the previous night after drinking alcohol. In most cases, the respondents noted that they needed an alcoholic drink first thing in the morning after a heavy night of drinking to curb hangovers. It is worth noting that after drinking almost all respondents had felt remorseful or guilty. Furthermore, the study population was not aggressive and someone had shown concern over its drinking habits and suggested a cut down. The study findings are contrary to the observation by Gmel and Rehm (2003) that alcohol plays a role in decreased productivity, increased unintentional injuries and aggression against others.

It is common knowledge among the respondents that HIV is transmitted mainly through heterosexual intercourse without the use of condoms in cases of infected partners. This is in congruence with a study carried out by NASCOP and NACC (2012) which noted that in Kenya, new HIV infections are primarily transmitted through heterosexual intercourse with persons who have or are at a higher risk of HIV infections such as alcohol abusers. The population in this study is also aware that sharing needles among infected persons, as commonly found among

drug addicts, increases the chances of HIV transmission as also observed by UNAIDS (2013). The population is moreover aware of the mother-to-child mode of transmission as another way through which HIV is transmitted. Though rare, biting that involves blood-to-blood transfer may be another mode of HIV transmission.

The study respondents who knew their HIV status had lived with the knowledge for more than 3 years. The study further ascertained that almost all the respondents who identified themselves as HIV positive were alcohol abusers at the time of the diagnosis. Consistent with these findings, respondents in a study by Fisher et al. (2007) observed that alcohol abusers are more likely to be HIV positive compared to non-drinkers. Furthermore, the respondents in our study confidently linked the time and incident of HIV infections to alcohol abuse arguing that they could not make rational or informed decisions while engaging in sex. These findings are also similar to those noted by Grant and MacDonald (2005) who argued that alcohol impairs individual judgment and decision-making, hence, increases risky sexual behaviours.

The study further established that there was a likelihood that the study population acquired HIV infections since it engaged in sex while drunk and some did not care about the consequences of having unprotected sex. Previous studies by Fisher et al. (2007) and Seme et al. (2005) found that respondents who had used alcohol at some stage in their lives were significantly more likely to be HIV positive. Weiser et al. (2006) established that approximately 40% of men and 20% of women in the study carried out in Botswana claimed to drink regularly before sex.

In some instances, the respondents were too drunk to use condoms properly and it ended up coming off or tearing exposing them further to HIV infections. These study findings, therefore, agree with studies carried out by Weiser et al. (2006), Kalichman et al. (2007) and Gerbi et al.

(2009) that associated heavy drinking with increased likelihood of engaging in risky sexual behaviours such as multiple partners and inconsistent use of condoms.

Respondents who had established that they were HIV positive continued drinking even more as a way of escaping the reality of their HIV status and subsequently ended up being alcohol addicts. However, some individuals in the study population, especially females, were bitter with their acquired status and, therefore, turned to prostitution. According to Watt et al. (2012), alcohol abuse can encourage risky sexual behaviours and also HIV positive individuals may turn to alcohol as a way of escaping their acquired status. The study found that some respondents were at a rehabilitation centre since alcohol abuse had significantly led to a progression of HIV to AIDS and in some cases, liver disease. This study is in agreement with the findings by WHO (2011) and Parry et al. (2009) that stated that alcohol abuse plays a significant role in the transmission and progression of HIV/AIDS.

5.2.2 Sexual behaviours of alcohol abusers

The study established that some alcohol abusers had more than one sexual partner. In fact, a majority of them had at least two or more sexual partners. This shows a high incidence of multiple sexual partners among alcohol abusers in the study region who are predisposed to the risk of HIV infections. Previous studies by Mackenzie and Karusa (2007), UNAIDS (2013) and Seme et al. (2005) noted that an increase in the number of sexual partners increases the risk of HIV infections.

This study further found that beside having more than one sexual partner, alcohol abusers occasionally had casual sex commonly referred to in Kiswahili as *chips funga* whereas others had secret lovers which literally translates to in Kiswahili as *mpango wa kando*. Specifically, in

the past one year prior to the study, a majority of the alcohol abusers had at least two casual sexual partners. The study further established that alcohol abusers rarely used condoms with their casual sexual partners or secret lovers putting them at a higher risk of HIV infections as observed also by study findings reported by UNAIDS (2013).

It is also worth noting that although many alcohol abusers have other sexual partners such as secret lovers and frequent casual sexual partners, the use of condoms is neither popular nor consistent in their steady relationships with wives, girlfriends, boyfriends and/or husbands. A study carried out by Bauni and Jarabi (2003) in Nakuru District, Kenya, also concludes that the use of condoms is low within married and stable sexual relations. Papo et al. (2011) and Waithaka and Bessinger (2001) also pointed out lower levels of condom use in regular partnership in studies carried out in Kilifi and Nairobi respectively. Furthermore, the future prospects of condom use in such relations is rather bleak (Bauni and Jabari, 2003).

Many alcohol abusers admitted to have had sex while drunk and more than half did not use condoms in such sexual escapades. The study further established that the use of condoms among alcohol abusers is not popular citing reasons such as condoms are expensive and unavailable at certain times of the night and also alcohol alters cognitive and self-control abilities to make proper sexual decisions. In a state of drunkenness, it might also be difficult to use condoms appropriately. In consistent with these study findings, Simbayi et al. (2004) pointed out that having sex while drunk affects the mechanics of condom use, thus, increasing the likelihood of improper use of condom.

In congruence with a previous study by WHO (2005), alcohol abusers are in most cases reluctant to discuss condom use with their partners with the female respondents claiming that it is their

male partners who are supposed to initiate such talks. Other reasons why some respondents never talked to their partners about the use of condoms include that they trusted their partners and discussion on condoms use would raise suspicions. Consistent with the study findings, respondents in a study by Bauni and Jabari (2006) associated condoms with unfaithfulness and, therefore, not acceptable in most stable sexual relationships. Moreover, the introduction of condom use in a long-term relationship, where they have not been previously used, threatens the trust that is implied, whether it exists or not, in most of such relationships. Because of being associated with infidelity, possession or use of condoms within a marriage or in a steady relationship implies lack of trust of a partner, hence, a potential cause for a breakup.

Discussions about the use of condoms among married couples was strictly as a method of family planning. If the topic of the use of condoms is not used as family planning method, it raises the issue of infidelity in marriages. A previous study by Bauni and Jabari (2006) also noted that the respondents contend that the only reason to use a condom, other than preventing a pregnancy, is because of trusting a sexual partner. The study established that single respondents were more likely to use condoms as many of them had formed a habit of using one.

The study further found that males are shocked and displeased when a female requests the use of condoms. Male alcohol abusers in most cases buy alcohol for their female counterparts anticipating to engage in sex on their own terms. Watt et al. (2012) further observed that women in the context of heavy drinking take new partners who can entertain and buy them drinks. Moreover, alcohol abuse decreases the inhibitions of women and makes them either unwilling or unable to negotiate for safer sex. On the other hand, females in the study population were very pleased when their partners discussed with them the use of condoms or the use of one. This

study, therefore, is in agreement with the findings by Cooper (2002) which observed that it is unlikely for individuals who drank prior to intercourse to discuss the use of condoms.

The study respondents were aware of the risky sexual behaviours that predispose an individual to a higher risk of contracting HIV. Some of the risky sexual behaviours mentioned by the respondents were engaging in sex while one is still drunk, unprotected sex, multiple partners, prostitution, group sex and, in some cases, male-to-male rape. This is in congruence with other studies which associated alcohol abuse with certain sexual activities such as unprotected casual sex, group sex, anal sex and use of alcohol before sex (WHO, 2005; Zablotska et al., 2006). In addition, Luchters et al. (2011) noted that 11.8% of men in a study carried out in Mombasa, Kenya, had experienced male-to-male rape or assault. Some alcohol abusers may as well have sex with persons whose partners had died of AIDS and this increases their chances of HIV infections. The finding is in agreement with studies carried out by Kaiser Family Foundation (2002), Mackenzie and Karusa (2007) and Simbayi et al. (2004).

This study found that the habit of consuming alcohol before having sex is common among alcohol abusers because it is believed that alcohol increases one's urge to have sex. Previous studies by Zablotska et al. (2006), Schacht et al. (2010), Seme et al. (2005) and George et al. (2009) agree with these findings that some respondents associated alcohol with increased sexual desires. Similarly, alcohol is a way of reducing tension experienced when one needs to introduce the subject of sex as noted by studies carried out by NACADA (2010a) and Fisher et al. (2007). Conversely, people buy alcohol for others in order to be paid in kind while for others alcohol abuse before sex gives them the courage to have casual sex even with persons they are not physically attracted to. WHO (2011) also noted that alcohol is used as a facilitator in approaching the opposite sex.

The respondents were aware that dealing with the issue of alcohol abuse can help curb HIV infections because individuals will be in a better position to make informed and rational decisions. These findings concur with a previous study by Morojele et al. (2006) which argues that alcohol influences risky sexual behaviours through its effects on cognitive processes such as reasoning skills, judgment and sense of responsibility. Since commercial sex workers are categorized as a high-risk group in the fight against HIV/AIDS, dealing with the issue of alcohol abuse will drastically reduce the number of prostitutes who hang around bars to entice their drunk clients. Indeed, numerous studies have demonstrated that potential sexual partners or prostitutes are common in drinking establishments (Purcell et al., 2001; Reidner et al., 2003; Ao et al., 2003; Lewis et al., 2005; Kalichman et al., 2007).

However, a few respondents were of the opinion that dealing with the issue of alcohol abuse will not have much effect in reducing the risk of HIV infections but will primarily solve marital problems that are rampant in the county. These findings agree with a study carried out by Immonje (2007) which noted that in Kenya the problem of alcoholism has affected a reasonable part of the adult population with the media reporting of women protesting about neglected sex roles by alcoholic spouses. According to Immonje (2007), the consumption of alcohol is an issue that no Kenyan can afford to ignore, whether they do not drink it at all or those who drink only occasionally. This is because directly or indirectly this consumption affects nearly every Kenyan and at one point or another casts a pall over their lives.

This study further established that although a majority of the respondents attributed alcohol abuse as a risk factor in HIV infections, in some instances, it may inhibit HIV transmission. This is because some alcohol abusers may not engage in sex since they are too drunk to indulge in any activity. However, it is worth to note that some respondents linked alcohol abuse especially the

locally brewed ones, to low libido. Moreover, some alcohol abusers are always preoccupied with alcohol and literally treat alcohol as their wives to the extent that they hardly think about sex. Therefore, there is no significant relationship between alcohol abuse and HIV infections as noted by Mitsunaga and Larsen (2008).

However, this study shows that there is a general perception among the respondents that alcohol abuse increases the risk of exposure to potentially risky sexual behaviours that increases the chances of contracting HIV as observed by a study carried out in Nairobi (NACADA 2010a) which concludes that alcohol abuse increases the chances of HIV acquisition (Zablotska et al., 2006 and Tumwesigye et al., 2012). Furthermore, studies carried out in South Africa by Morojele et al. (2006) and Kalichman et al. (2007) pointed out that there are strong links between alcohol consumption and risky sexual behaviours. It is also clear from the study that alcohol abuse can as well be attributable to reduced rates of HIV infections since some alcohol abusers are not in a position to engage in sex after excessive drinking. These findings concur with other studies by explaining how alcohol abuse impairs male's ability to become aroused and ejaculate (Peugh and Belenko, 2001, Johnson et al. 2004). Similarly, the studies of women have shown that larger doses of alcohol reduce the ability to become aroused and experience orgasms (Johnson et al. 2004).

5.3 Conclusions

Based on the findings, the study concludes that the study population most affected by alcohol abuse are middle-aged Form Four leavers who had a source of income. Married couples were also greatly affected by alcohol abuse, however, they never neglected their duties and responsibilities. People in the social circles of alcohol abusers were extremely concerned by their

drinking habits. Moreover, a majority of the respondents were not addicted to alcohol and a few who were addicts had sought help in rehabilitation centres for recovery. The study population was also aware of how HIV infection is transmitted and the risky sexual behaviours that puts an individual at a higher risk of HIV infections.

The study similarly concludes that alcohol abuse puts individuals at a higher risk of HIV infections as a result of careless sexual tendencies while drunk. Such practices that put these individuals at a higher risk include the tendency to have more than one sexual partner, occasional casual sexual partners, engaging in sex while drunk, the tendency of not discussing condom use with partners as well as not using condoms properly or consistently. In some instances, alcohol abusers engaged in male-to-male rape while drunk which puts them at a higher risk of acquiring HIV infections.

Moderate alcohol abuse was attributed to increased sexual urges whereas excessive abuse, to some extent, reduces incidences of sexual intercourse. This is because people who drink excessively are not able sometimes to engage in sexual activities. The type of alcohol one consumes was also cited as a contributing factor with a majority reporting that cheap and locally brewed liquors reduces one's libido, thus, leading to no sexual intercourse. It also clear from the study that alcohol abuse can as well be attributed to a reduced rate of HIV infections since some alcohol abusers are not able to have sex after excessive alcohol abuse. Due to the small number of respondents who identified themselves as being HIV positive and further linked their HIV status to alcohol abuse, the relationship between alcohol abuse and HIV infection is not conclusive.

5.4 Recommendations

Based on the major findings and conclusions of this study, the following recommendations are suggested. The emerging male-to-male rape practice as reported by some respondents should be investigated further. This is because gay people are a risk group in HIV infections and coupled with alcohol abuse the risk may even be higher.

The issue of sexual performance among the respondents was evident especially among alcohol abusers who took locally brewed liquor. Therefore, there is a need for further studies to ascertain whether there is any link between alcohol abuse and sexual performance.

It is also essential to develop appropriate, responsive and sustainable policies to curb the issue of alcohol abuse. The government and other responsible bodies should design a strategy to control alcohol abuse which was found to be responsible for the spread of HIV infections. There should be a strong commitment from the government and other responsible bodies to discourage the flourishing advertisement of alcoholic drinks in the mass media. Furthermore, in order to avert alcohol abuse in Kiambu County, the community should be able to embrace positive perceptions towards stopping the vice.

Alcohol was found to be a significant risk factor in HIV infections in the study population. The need for health education to bring about behavioural changes and further studies to identify the prevalence and the role of alcohol in the exposure to HIV infections in the community are recommended.

The study had a few respondents who identified themselves as being HIV positive. Due to this limited number of respondents from the general population, a survey focusing on those coming

to voluntary counseling and testing centres (VCTs) is likely to yield more respondents. Therefore, a study focusing on those visiting these testing centres is recommended.

This study was restricted to Kiambu County, central Kenya, and yet alcohol abuse affects the entire country. Therefore, it is of importance that similar studies be replicated in other parts of the country to determine the association between alcohol abuse and HIV infections.

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APPENDICES

APPENDIX A

STATEMENT OF CONSENT

Hi, my name is Grace Kimemia. I am from the University of Nairobi and I am carrying out a study on the perceived links between alcohol abuse and HIV infection in Kiambu County. I am interested to know your perception on the issue and some of the sexual behaviours of alcohol abusers. You have been purposively selected to be one of the respondents in this study and I hope you are free to engage in the discussion. Any information that may identify you as a participant will not be given to anyone and the information given shall only be used for this study. You are free to withdraw from the study at any time and you are not under any obligation to respond to all questions. Thank you.

.....

Respondent signature

.....

Date

APPENDIX B

AUDIT TEST

Questions	0	1	2	3	4	Your Score
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times per month	2-3 times per week	4 or more times per week	
2. How many drinks containing alcohol do you have in a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have six or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last	Never	Less than	Monthly	Weekly	Daily or	

year have you been unable to remember what happened the night before because you had been drinking?		monthly			almost daily	
7. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor or another health professional expressed concern about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
Total						

Adopted from Babor et.al (2001)

Note: Questions 1 through 8 are scored 0, 1, 2, 3 or 4.

Questions 9 and 10 are scored 0, 2 or 4 only.

The AUDIT that elicits a score of 8 or more indicates harmful alcohol abuse.

APPENDIX C

QUESTIONNAIRE FOR STRUCTURED INTERVIEWS

1. Gender

A) Male

B) Female

2. How old are you?

3. What is your marital status?

A) Single

B) Married

C) Divorced

D) Separated

E) Widowed

4. Please indicate your highest level of education?

A) No education

B) Class 1-7

C) Class 8

D) Form 4

E) College

F) University

5. What is your occupation?

6. How many sexual partner(s) do you have?

A) 1

B) 2

C) 3

D) 4

E) More than 5

7a) Have you ever had casual sexual partner(s)?

A) Yes

B) No

b) If yes, how many casual sexual partners did you have in the past 12 months?

.....

c) Did you use a condom with the casual partner(s)?

A) Yes

B) No

C) Sometimes

8a) Have you ever engaged in sexual intercourse while drunk?

A) Yes

B) No

b) If yes, did you use a condom?

A) Yes

B) No

C) Sometimes

9) Do you use condoms in steady relationships?

A) Yes

B) No

C) Sometimes

10a) Have you ever talked to your sexual partner about protection/use of condom before having sex?

A) Yes

B) No

C) Sometimes

b) If yes, what was their reaction?

.....

.....

.....

c) If no, why?

.....

.....

.....

11a) In your own opinion, do you think alcohol users are at high-risk of HIV infection?

A) Yes

B) No

b) Why do you think so?

.....

.....

THANK YOU FOR YOUR PARTICIPATION

APPENDIX D

INTERVIEW GUIDE FOR FOCUS GROUP DISCUSSIONS

1. How is HIV/AIDS transmitted?
2. What do you consider as risky sexual behaviours?
3. Describe some of the sexual behaviours of alcohol abusers?

Probe:

- a) number of sexual partners
 - b) number of casual sexual partners
 - c) use of condoms
4. Do such sexual behaviours put an individual at a risk of HIV infection?
 5. What are some of the reasons that cause individual to drink alcohol before sex?
 6. In your own opinion, do you think if we deal with the issue of alcohol abuse we can curb HIV infection?

THANK YOU FOR YOUR PARTICIPATION

APPENDIX E

INTERVIEW GUIDE FOR CASE STUDIES

1. Are you aware of your HIV status? If yes, would you share it with me?
2. For how long have you been aware that of your HIV status?
3. Were you alcohol consumers at the time of diagnosis?
4. Would you link the time and incident of your infection to alcohol abuse?
5. What considerations did you make after discovering that alcohol abuse was the likely factor for you contracting the disease?

THANK YOU FOR YOUR PARTICIPATION