

**FACTORS INFLUENCING DRUG ABUSE AMONG
SECONDARY SCHOOL STUDENTS IN UASIN GISHU
EAST SUB-COUNTY, KENYA**

BY

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DECLARATION

This study is my original work and has not been used for the award of a degree in any university.

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This work has been submitted to the university with my approval as university supervisor.

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DEDICATION

I dedicate this work to all secondary school students and their families who are struggling every day to overcome drug abuse. I also dedicate it to all my friends, relatives and clients who are struggling with drug addiction. Lastly I dedicate this research to my late uncle John, who died of alcohol related complications several years ago.

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ABBREVIATIONS & ACRONYMS

- LSD:** Lysergic acid diethylamide is also known as LSD, LSD-25, or acid is a crystalline compound, $C_{20}H_{25}N_3O$, derived from lysergic acid and used as a powerful hallucinogenic drug (the free Dictionary).
- ADA:** Alcohol and drug abuse
- NACADA:** National authority for the control and treatment of alcohol and drug abuse
- DALYS:** Disability –adjusted life years. Number of years lost due to death and disability
- YPLL:** Years of Potential Life Lost
- MTRH:** Moi Teaching and Referral Hospital.
- SES:** Socio economic status
- UNODC:** United Nations Office on Drug & crime

ABSTRACT

This study sought to examine the factors that influence alcohol and drug abuse among secondary school students in Uasin Gishu East Sub County. Alcohol and drug abuse poses a major public health problem in Kenya with consequences ranging from poor health to reduced economic productivity. Kenyan youth, a large proportion of whom is secondary school students face the greatest risk as they are targeted for recruitment into substance use by drug peddlers. There is a dearth of data on knowledge, attitude and practice regarding alcohol and drug use, as well as how various factors influence drug abuse among secondary school students in Uasin Gishu East Sub County, Kenya. This study sought to describe the factors that influence use of drugs, prevalence of drug use, and the knowledge of and attitude towards drug use among secondary school students in Uasin Gishu East Sub-county. The study objectives were to examine the social, economic, environmental and technological factors influencing drug abuse in Uasin Gishu East Sub County. The influence of knowledge and attitude regarding drug abuse was also explored. The research questions for which answers were sought in this study are; to what extent do social and economic factors influence drug abuse among secondary school students in Uasin Gishu East Sub County, what are the effects of environmental factors on drug abuse among secondary school students in Uasin Gishu East Sub county, and to what extent do media and technological factors influence drug abuse among secondary school students in Uasin Gishu East Sub county. The descriptive research design was adopted in this study. Data was collected from randomly selected teachers and students using interview schedules and self-administered questionnaires respectively. Multi stage random sampling and convenient sampling design were used to select student and teacher respondents respectively. Data were analysed using the statistical package for social sciences (SPSS) version 21. Measures of associations were calculated using Chi Square at 95% confidence level and conclusions drawn. The study found out that socially, there is a positive relationship between a student's drug abuse and; drug abuse by family member, drug abuse by best friend, and highest educational level of parents/ guardian. On the economic front, it was found out that there was a positive correlation between the amounts of pocket money a student received per term and drug abuse, and there was a statistically significant association between abuse of drugs and whether the parent/guardian owned a motor vehicle. The odds of a student taking any drugs were 2 times higher if their parent/guardian owned a motor vehicle, urbanite students were more prone to drug abuse than their rural counterparts, and the odds of a student taking any drugs were 4 times higher if they had access to the internet. The researcher recommends that measures be put in place to enforce existing laws governing drug sector, school curriculum be enriched to better handle drug abuse, and more research to be done to ascertain the long term effects of drug abuse in relation to age of onset of drug use.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally, it is estimated that in 2012, some 243 million people (range: 162 million-324 million) corresponding to some 5.2 per cent (range: 3.5-7.0 per cent) of the world population aged 15-64 had used an illicit drug — mainly a substance belonging to the cannabis, opioid, cocaine or amphetamine-type stimulant (ATS) group — at least once in the previous year (United nations, 2014). Drug use continues to exact a significant toll, with valuable human lives and productive years of many persons being lost. An estimated 183,000 (range: 95,000-226,000) drug-related deaths were reported in 2012. That figure corresponds to a mortality rate of 40.0 (range: 20.8-49.3) deaths per million among the population aged 15-64 years.

Globally, harmful use of alcohol causes approximately 3.3 million deaths every year (or 5.9% of all deaths), and 5.1% of the global burden of disease is attributable to alcohol consumption. We now have an extended knowledge of the causal relationship between alcohol consumption and more than 200 disease and injury conditions in individuals, most notably alcohol dependence, liver cirrhosis, cancers and injuries, including the new data on causal relationships between the harmful use of alcohol and the incidence and clinical outcomes of infectious diseases such as tuberculosis, HIV/AIDS and pneumonia. Worldwide alcohol consumption in 2010 was equal to 6.2 litres of pure alcohol consumed per person aged 15 years or older, which translates into 13.5 grams of pure alcohol per day. A quarter of this consumption (24.8%) was unrecorded, i.e., homemade alcohol, illegally produced or

sold outside normal government controls. Of total recorded alcohol consumed worldwide, 50.1% was consumed in the form of spirits. (WHO, 2014).

Previously, the World Health Organization (WHO) estimated that there were 2 billion people who consumed alcoholic beverages and 76.3 million with diagnosable alcohol use disorders (WHO, 2004). Alcohol consumption has health and social consequences; alcohol dependence, and other biochemical effects of alcohol. It causes chronic diseases and contributes to serious outcomes that kill or disable at a relatively young age, resulting in the loss of many years of life due to death or disability. In 2012, about 3.3 million deaths, or 5.9% of all global deaths, were attributable to alcohol consumption. In the same year, 139 million DALYs (disability-adjusted life years), or 5.1% of the global burden of disease and injury, were attributable to alcohol consumption (who 2014).

The volume of alcohol and the pattern of the drinking have been shown to determine the health outcomes (WHO, 2004). There is a causal relationship between alcohol consumption and more than 60 types of disease and injury. Alcohol is estimated to cause about 20–30% of oesophageal cancer, liver cancer, and cirrhosis of the liver, homicide, epileptic seizures, and motor vehicle accidents worldwide (WHO, 2002). Alcohol causes up to 1.8 million deaths (3.2%) and a loss of 58.3 million (4% of total) of Disability-Adjusted Life Years (DALY) (WHO, 2002). Unintentional injuries alone account for about one third of the 1.8 million deaths, while neuro-psychiatric conditions account for close to 40% of the 58.3 million DALYs (WHO, 2002). The burden of alcohol varies in different and within countries. Alcohol consumption is a significant risk factor for disease burden in low mortality developing countries and the third largest risk factor in developed countries.

In Europe alone, alcohol consumption was responsible for over 55,000 deaths among young people aged 15–29 years in 1999 (Rehm & Eschmann, 2002). According to a series of studies evaluated by Enoch Gordis, director of National Institution of Alcohol Abuse and Alcoholism (NIAAA), 40% of those who begin drinking at age 15 and 25% of those who begin to drink at age 17 are at risk of establishing a damaging habit of alcohol abuse that will be hard to break. By contrast, only 10% of those who first try alcohol at ages 21 or 22 are at risk (Ted Gottfried, 2005). A study conducted by Johan & Jonas in Sweden revealed that there was a positive relationship between violence and binge drinking among Swedish youth (Johan & Jonas, YEAR). Alvaro Castillo's study on Alcohol-Attributable Mortality and Years of Potential Life Lost (YPLL) conducted in 2009 estimated that the total number of deaths attributable to alcohol consumption was 9.8% (8,753) of all deaths in Chile in 2009. The total estimated YPLL attributable to alcohol were 195,475 contributing 21.5% of total YPLL for that year in Chile.

In Africa, a study on secondary school students knowledge of the dangers associated with alcohol, tobacco and marijuana done in Anambra State, Nigeria found that students were not aware of most of the dangers associated with alcohol, tobacco and marijuana (Nwankwo, C.A, Obi, J.S., & Nwosu). In Ilorin, Nigeria, an analysis of responses on the current and lifetime use of eleven substances of abuse, their frequency of use, and the effect of gender and school location on use trends was done. It revealed that although a significant increase in current use rates was recorded for alcohol, cannabis, mild stimulants and hypnosedatives, all of these substances (except stimulants) showed a shift towards less frequent use in 1993. The only consistent gender effect was found for smoking, which remained significantly a male activity (Adelekan, 1993).

In Uganda, Everest Mukana(2005) studied peer group influence, alcohol consumption and secondary school students' attitudes towards school. His findings were interesting in that there was no significant relationship between peer group influence and alcohol consumption. However, the study showed that there was a positive significant relationship between alcohol consumption and student's attitude towards school (Everest, 2005).

In Kenya, alcohol and drug abuse is a serious public health issue to the extent that the Senate wanted alcohol and drug abuse declared a national disaster (Daily nation, Saturday July 6th, 2013). The senators opined that classifying the problem that had wrecked the lives of many youths as a national disaster would make it easier for authorities to focus and deal with it.

The national Authority for the Campaign Against Alcohol And Drug Abuse (NACADA)'S 2012 rapid situation assessment of drugs and substance abuse in Kenya showed that 5.5% of Kenyans were dependent on alcohol; 4.5 % were dependent on tobacco; 1.5% were dependent on miraa while 0.4% were dependent on bhang use (NACADA 2012).

Previous studies have revealed early engagement by Kenyan youth in alcohol and drug abuse. Ndeti et al(2010), in an article published by Routledge found that alcohol, tobacco, Khat and bhang (cannabis) were the most reported substances of use, with user prevalence rates of 5.2%, 3.8%, 3.2% and 1.7% respectively. Past month and past year prevalence rates ranged between 0.6% & 3.2% and 0.3%& 4.1% for all drugs respectively. Tobacco use was initiated at 10 years, while cannabis, hard drugs, *khat* and alcohol were initiated at 11, 12, 13 and 15 years of age respectively.

In an earlier study by Ndetei et al on patterns of drug abuse in public secondary schools, he found that alcohol and cigarette use were common and begun as early as before age 11. There was also a gradual decline in the percentage of students reporting first use with increase in age (Ndetei, 2009).

However, a study published by Kenya's NACADA in 2010 on drug use among secondary school students in Nairobi, drug use in the six months preceding the study showed that alcohol was the most commonly used at 18.5%. Other drugs used by students in secondary schools in the six months preceding the study showed that miraa was used by 15.7%, cigarettes 8.1%, hang 6.37%, Kuber 2.3%, heroin 2.0%, Cocaine 1.6%, Amphetamines/Madrax 1.6%, and inhalants/glue was used by 1.4%.

Past month drug use prevalence according to the same study revealed that alcohol was the most consumed at 10.4%, followed by Miraa, cigarettes, Bang, Kuber, Heroin, Cocaine, Amphetamine/Madrax and inhalants/glue at 11.2%, 5.8%, 4.7%, 2.0%, 1.6%, 1.4%, 1.3% and 1.1% respectively. The two sets of statistics vary considerably, indicating that there are many variables that influence drug abuse in different environments, Hence my interest in undertaking this study in Uasin Gishu East Su County.

1.2 Statement of the problem

Alcohol and drug abuse present a significant public health problem with far reaching ramifications ranging from poor health outcomes to diminished production in all sectors of the economy, insecurity and non-attainment of national development goals (NACADA, 2007). Intoxicants alter the state of a person's mental, social and physical well-being thereby influencing his/her thoughts, realities, decisions and

actions. AS a participant in rehabilitation of clients struggling with addiction and dependence on alcohol and other drugs at the Moi Teaching And Referral Hospital Eldoret, the researcher strongly believes that the authorities should focus on prevention of drug abuse rather than treatment, owing to the fact that there is low success rate- 42% of full recovery in patients treated in MTRH Alcohol and Drug Abuse Rehabilitation Centre in the last 3 years.

Alcohol and drug abuse problems during adolescence are the single most predictive factor for adult drug dependence. Kenyan youth, a large proportion of whom is secondary school students face the greatest risk as they are targeted for recruitment into substance use by drug peddlers. There is a dearth data on knowledge, attitude and practice regarding alcohol and drug use, as well as how various factors influence drug abuse among secondary school students in Kenya and particularly in Uasin Gishu East Sub County. The formal education system is one of the most pervasive agents of socialization and therefore an understanding of the factors that place the adolescent at risk of alcohol and drug abuse is critical for the development of sound preventive policies (Ridolfo, B., Stevenson C.E., 1998). Furthermore, the few studies that have been undertaken in Kenya regarding prevalence of drug abuse give varying sets of statistics (see chapter 1.2 of this document), indicating that each area possesses its unique contextual factors that influence teenage drug abuse. This study sought to investigate the influence of social, economic, environmental, and technological factors on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub County.

1.3 Purpose of the study

The purpose of this study was to describe the factors that influence alcohol and drug use among secondary school students in Uasin Gishu East sub County, Kenya. The researcher believed that a thorough understanding of these factors would contribute to formulation of sound policies to guide alcohol and drug use in the Kenya.

1.4 Research Objectives

The objectives that this study sought to achieve are;

1. To determine the influence of social factors on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub-County.
2. To examine how economic factors influence drug abuse among secondary school students in Uasin Gishu East Sub county.
3. To assess the influence of environmental factors on drug abuse among secondary school students in Uasin Gishu East Sub-County
4. To ascertain the influence of technology on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub county.

1.5 Research Questions

This study sought to answer the following questions:

1. How do social factors influence alcohol and drug abuse among secondary school students in Uasin Gishu East Su County?

2. To what extent do economic factors influence alcohol and drug abuse among secondary school students in Uasin Gishu East Su County?
3. What is the influence of environmental factors on abuse of alcohol and other drugs among secondary school students in Uasin Gishu East Sub-County?
4. What is the influence of technology on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub county?

1.6 Significance of the study

The researcher believes that the findings of this study would form the baseline for subsequent studies on similar research problems. It would indicate the magnitude and distribution of alcohol and drug abuse and its contributing factors. This would be useful in designing preventive intervention programs against early alcohol and drug use, hence improving the disability adjusted life years of our citizens and contributes to economic growth.

1.7 Assumptions

This study assumed that the sample were representative of all the students within Uasin Gishu East Sub county, the teachers and students' responses were objective and fell under the margin of error.

1.8 Limitations of the study

Since this is a cross sectional study, the association between factors influencing uptake of alcohol and/or drugs and its uptake were not assumed as causation. Accessibility of some of the schools is bound to be a challenge as most roads are feeder and earth roads. Fear of disclosure by students regarding their drug use habits may lead to dishonesty. Remedy: use of research assistants to collect data; presence of teachers was minimised during data collection time.

1.9 Delimitation

This study is limited itself the concept of drug abuse among secondary school students in Uasin Gishu Sub County and not any other concept. Data was gathered from secondary school students and teachers in Uasin Gishu East Sub county in June 2014. This period was chosen because it falls within the middle of a three term academic calendar when there are no interruptions in the school activities.

1.10 Definition of significant Terms

For the purpose of this study the following operational terms are used and imply as indicated:

Drug: The Mariam Webster dictionary defines a drug as something and often an illegal substance that causes addiction, habituation, or a marked change in consciousness. The term will be used in this study to mean a substance of abuse not exclusively a food.

Substance: refers to alcohol and drugs of abuse

Substance/drug abuse: Is habitual use of drugs to alter one's mood, emotion or state of consciousness.

Dependence: Refers to inability to function normally without taking a drug/substance. Dependence can be physical or psychological.

Miraa: is a natural plant containing a stimulant

Kuber: Is a tobacco like product which is often laced with cocaine or heroin.

Addiction: Refers to continuous use of a substance/drug despite obvious negative effects

Mode of education: Means whether the student is a boarder or a day scholar.

Type of school: Whether mixed or single sex school

School culture/ management style: Means whether strict following of rules or laissez faire management

Low volume school: School with less than 160 students

High volume school: School with more than 160 students

Social factors: Factors emanating from day to day relations between the students and significant others, namely family and friends. Specific parameters include the person(s) with whom the student lives, highest education level of parents/guardians, and drug use by family member and best friend.

Economic factors: Is determined by level of parent/ guardian's income. High income level is denoted by being a government employee, large scale farmer or business person, ownership of a motor vehicle, living in a house of 4 rooms and above, owned house built of cement and blocks (permanent house), receiving pocket money over Ksh. 3000. Low parental income is denoted by being unemployed, small scale farmer, not owning a motor vehicle, living in a house of 3 rooms and below, renting/owning a house built of materials such as timber, mud and iron sheets on the walls /floor (temporary house), and receiving pocket money less than Ksh. 3000 per term.

Environmental factors: Include mode of schooling whether boarder or day scholar, living in rural or urban area, living in a leafy suburb, middle income or slum area, distance to nearest source of alcoholic drinks, and frequency of inspection of personal belonging by teachers.

Technological factors: Denoted by access to gadgets such as television set, computer, radio, smart phone, dvd/cd players; length of time spent watching TV per day, access to the internet and for what purpose, and whether anyone controls internet content accessed.

1.11 Organization of the Study

This study presents the epidemiology of the problem in chapter one and discusses factors influencing drug abuse such as social, economic, environmental and technological factors. Effect of knowledge about and attitude towards drugs on drug abuse, and age of drug use onset in different countries are also discussed. Chapter two

focuses on literature review where it compares several other studies that have been done in the same research topic. Chapter three outlines the methodology to be used in conducting the study, whereas chapter four and five deal with the data analysis, presentation of findings, discussions, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the existing literature concerning alcohol and drug abuse among secondary school students is discussed in order to bring the concept of drug abuse into perspective and to understand previous works on teenage drug abuse. Prevalence of alcohol and drug abuse among secondary school students is discussed here briefly as a measure of the dependent variable. A discussion of the factors influencing drug abuse such as social, economic, environmental and technological factors in different settings is also provided.

Consumption of intoxicating substances negatively affects mankind in the health, social, economic and political spheres. Intoxicants alter the state of a person's mental, social and physical well being thereby influencing his/her thoughts, realities, decisions and actions. This has informed the global consensus by all nations to seek control and/or prevent drug abuse (Ridolfo, B., and Stevenson C.E). Alcohol use is related to a wide range of physical, mental and social harms(Breslau, N., & Peterson, E. L.). Most health professionals agree that alcohol affects practically every organ in the human body. Alcohol consumption was linked to more than 60 disease conditions in a series of recent meta-analyses (English et al., 1995; Gutjahr, Gmel & Rehm, 2001; Ridolfo& Stevenson, 2001; Single et al.,1999).

The 1980s witnessed a dramatic upsurge of clinical and investigative interest in the assessment, prevention, and treatment of substance abuse in children and youth (Horan & Straus, 1987; Kaminer & Bukstein, 1992). The impetus toward increased

activity in this area is, in part, based on epidemiological findings documenting the scope and magnitude of the problem. Indeed, despite recent evidence of diminished usage rates of some substances (tobacco, cocaine) in younger populations, levels of use and abuse in the United States are still the highest of any nation in the world (Holden, Moncher, & Schinke, 1990).

Another reason for the acceleration of efforts directed toward this problem is the burgeoning body of research attesting to the deleterious consequences of substance abuse in children and adolescents (Newcomb & Bentler, 1988). Specifically, data have accumulated that document the relationship between high rates of substance use and a wide range of social, emotional, academic, and behaviour problems in youth (Kandel, Davies, Karus, & Yamaguchi, 1986).

2.2 Prevalence of drugs and alcohol abuse

Use of illicit drugs mostly begins during the early ages of adolescents among schoolchildren. The annual prevalence of heroin use in Ontario, Canada, between 1977 and 1987 was $1.4 \pm 2.3\%$ (NACADA, 2007). In New York, 1% of young adults had used heroin by the age of 18 years (Single, E. et al.). Up to 25% of school going children in United Kingdom use drugs, with $2 \pm 5\%$ using them weekly and with a peak prevalence at 14 ± 16 years of age (Beal, A. C., Ausiello, J., & Perrin, J. M., 2001). Another US study by Johnson et al., found that 52% of 8th-graders have tried alcohol, 41% have tried cigarettes, and 20% have tried marijuana. By 12th grade, these rates are substantially higher, with large numbers of adolescents engaging in regular drug use (Johnson et al., 2001).

The prevalence of heroin use by students in Jamaican survey that assessed the prevalence of illicit drug use among high-school students was found to be unexplainably high at 15% (Sobiyo, et al.,1999). Furthermore, the proportions of male students who used illicit drugs (cocaine, heroin, marijuana, and opium) were significantly higher than female. In the Bahamas, male students were found to be more likely than female students to use marijuana and cocaine (Rehm, J. et al.).In Barbados, 31% of psychiatric hospital admissions were found to be related to drug abuse, with Cocaine and marijuana being the most commonly abused illicit drugs (Holden, G.W., Moncher, M.S., & Schinke, S.P., 1990). In Trinidad and Tobago, the all time prevalence has been found to be 8% for marijuana use and 2% for cocaine use among secondary schoolchildren (Best, D., Gross, S., Manning, V., Gossop, M., Witton, J., & Strang, J., 2005). A study of four high-schools in Jamaica found that 60% of children had tried one or more drugs, including marijuana, and 1.3% had used cocaine (Behrendt, S., Wittchen, H.-U., Hofler, M., Lieb, R., & Beesdo, K., 2009).

A households study in western Jamaica found that 9.4% used cocaine, with 6.2% in the age group 15±24 years. Most users start while in school (Bronfenbrenner, U., 1999). A Jamaican national survey on the use of drugs in 1989 found that 78% of males and 40%of females used at least one of four drugs (alcohol, cocaine, marijuana and tobacco) (Bushman BJ, Huesmann R.). In 1991, 14% of teenage males and 1% of females were current users of marijuana. In addition, 4.8% of teenage children in urban areas used cocaine and/or crack (Newcomb, M.D and Bentler, P.M., 1988).

In Brazil, up to 35% of high school students tend to engage in binge drinking (defined as drinking five or more doses of alcohol on one occasion). This drinking behavior pattern is often frequently carried out by teenagers at parties and nightclubs.

This is despite the sale of alcoholic beverages and entry into nightlife environments being prohibited to adolescents younger than 18 years of age in this country (Sanchez et al., 2011).

A south African study of the extent of problematic alcohol and other drug use within selected South African workplaces revealed that employed men were more likely to experience alcohol-related problems than women, the latter demonstrating a higher percentage of drug-related problems. The majority of referrals to the Employee Assistance Professionals emanated from the public, industrial and financial sectors. Alcohol and Other Drug-related problems were also found to significantly impact on employee work performance.(Harker B.N., Dada S., Linda B, Myers B, Parry C., 2012.)

A Ugandan study on burden of alcohol use among police in Kampala found seventy six respondents (73.1%) reporting that they had ever used alcohol in their lifetime, and sixty six (63.5%) reporting that they currently used alcohol. The majority of respondents started the use of alcohol in the age bracket 15-19 years, but 8 (7.7%) began alcohol use before the age of 10 years (Emilio et al., 2006). Another Ugandan study of secondary school students in Kampala, by Basangwa in 1994 reported that alcohol was the commonest substance that 63% of the respondents used followed by cigarettes and hard drugs (Johnston LD, O'Malley PM, Bachman JG.). Studies from elsewhere in Africa confirm the widespread use of alcohol by students with prevalence rates varying from 40% to 77% (Gureje et al., 1992; Adelekan et al., 1992; Nielsen et al., 1989).

A study of the patterns of drug abuse in public secondary schools in Kenya (2009) revealed that alcohol and cigarette use were common and begun as early as

before age 11.. Also revealed was that 5.3% of the students were active smokers, at least 9.3% of the students had consumed alcohol in the preceding 30 days of the study, and drug use by both boys and girls was almost similar. Another study on the prevalence of substance abuse in secondary schools in Kisumu (Kabuki E.,2011), revealed that the most abused substance was alcohol(9.1%) followed by local brew *changaa*(8.12%),*bhang/* Marijuana (8.4%), tobacco (7.45%), and miraa(5.74%) among other drugs. This is contrasting with findings in another study by Maithya (2009) which revealed that drug abuse is significantly related to age, and that the highest frequency of reported drug abusers is age between 20 and 22 years, and very few cases of drug abuse among students aged between 14-16 years. These findings also seem to differ with those of Ndeti et al (2010) who, in an article published by Routledge found that alcohol, tobacco, Khat and bhang (cannabis) were the most reported substances of use, with user prevalence rates of 5.2%, 3.8%, 3.2% and 1.7% respectively. Past month and past year prevalence rates ranged between 0.6% & 3.2% and 0.3%& 4.1% for all drugs respectively (Maithya, R.W., 2009)). In view of these data sets which seem to vary from one study to the other, I plan to elicit data on prevalence of drug use among secondary school students in Uasin Gishu East Sub county.

2.3 Influence of social factors on alcohol and drug use

Family history of substance abuse is an important family-level risk factor for substance abuse. Australian data confirms parent substance used to be an important predictor of more frequent youth substance use. The more members of a household, including siblings, who use a drug, the greater the child's risk of early initiation of use

of that drug. Parental criminality or antisocial behaviour has also been linked to substance use problems in offspring (Mitchell P. et al, 2001)

According to the 2014 WHO report on alcohol consumption and health, a family history of alcohol use disorders is considered a major vulnerability factor for both genetic and environmental reasons. Parental alcohol use disorders have been found to negatively affect the family situation during childhood. Parents with alcohol use disorders display particular patterns of alcohol consumption and thereby increase the likelihood that their children will develop drinking patterns associated with high risk of alcohol use disorders when they are introduced to alcohol. Heavy drinking by parents affects family functioning, the parent–child relationship and parenting practices, which in turn affects child development adversely (Latendresse et al., 2008). The mistreatment of children, including sexual abuse, physical abuse and neglect, may also lead to childhood psychopathology and later to problem drinking (Shin et al., 2009).

Emotional, social and physical transformations that can expose young people to emotional and health vulnerabilities are the main features of adolescence period. In this stage of development, young people begin to engage in risky behaviors, such as alcohol/drug use and unsafe sex (Pharo et al., 2011).

Nightlife environment is a great opportunity for the youth to engage in alcohol consumption and often predisposes them to risky sexual practices as alcohol is known to promote sexual encounters (Lomba et al., 2009). There is a belief among the youth that alcohol consumption can improve sexual performance and increase sexual pleasure (Stoner et al., 2007). A study has shown that English young adults who drank and used illegal drugs had more sexual partners and had engaged in more episodes of

unsafe sex compared with the alcohol or drugs than non users (Bellis et al., 2008). Binge drinking episodes were causally associated with unsafe sex and sexual violence among adults in Africa (Chersich et al., 2007).

Peer pressure has been showed by studies to be an important factor favoring the onset of early adolescent smoking (Evans, 1976) and is probably also involved in the onset of alcohol and drug abuse (McAlister, 1979). From this evidence, it's apparent that training students to resist specific social pressures toward tobacco, alcohol, and drug use may reduce the frequency of those behaviors.

According to ecological theories of human development (Bronfenbrenner, 1999), adolescent behavior, including substance use, is affected by proximal social contexts such as peers and family, as well as more distal settings such as schools and neighborhoods. Moreover, these contexts do not affect behavior independently of each other but, rather, interact to produce unique effects based on specific combinations of influences in each setting.

The stage of initiation of substance use affects significantly the risk of future substance use disorders and other negative outcomes. Lower educational achievement and early onset sexual behavior has been shown to increase substance use (Odgers et al., 2008). Even among adolescents with no history of conduct problems, initiation of alcohol or poly substance use before age 15 increase by over 50% the risk of substance use dependence and criminal convictions in adulthood, acquisition of herpes infection, and early pregnancy in females (Odgers et al., 2008).

A study of Gender and racial differences in smoking of long/ultra-long and king size cigarettes among U.S. adult smokers between 1999 and 2012 revealed that

despite overall declines in current smoking of long/ultra-long cigarettes during the 1999 through 2012 period, the proportion of smokers of long/ultra-long brands increased in recent years, with over a third (38.7%) of current smokers reporting smoking of long/ultra-long cigarettes during 2011/2012. Current smokers of long/ultra-long cigarettes were more likely to be female compared to males, of black race compared to whites, or aged 45-64, or ≥ 65 years, compared to 18-24 year olds.(Agaku IT, Vardavas CI, Ayo-Yusuf OA, Alpert HR, Connolly GN, 2013). The authors conclude that Specific gender, age and race/ethnic characteristics of smokers of long/ultra-long cigarettes were noted, hence potentially contributing to the widening of health disparities, and that cigarette rod length should be considered an important aspect of cigarette engineering/design in regulatory efforts to reduce the burden of tobacco-related disease.

Earlier smoking is associated with a greater likelihood and severity of nicotine addiction and difficulties quitting (Breslau and Peterson, 1996), and earlier cannabis initiation increases the risk of later cannabis abuse and dependence (Behrendt et al., 2009). Ihezue, (1989), in a study of sociodemographic factors of aetiological significance to drug abuse among medical students in a Nigerian university, male sex, poor performance in examinations, drug taking among close friends and peers, and a family background of lower socio economic status correlated positively with presence of substance abuse.

A Kenyan report on the status of drug and substance abuse in the year 2012 revealed that about 10% of children who have ever consumed alcohol have friends who take alcohol, compared to only 5% of those whose friends did not take alcohol. Moreover, those who have ever taken alcohol were likely to report that a close

relative was using one drug or the other (NACADA 2012). Another study by Susan Gitau, an addiction counselor with Elewa Ulevi Consultancy Services based in Nairobi found out that the reasons students gave for using drugs include peer pressure, death of a loved one, low self-esteem and to acquire a sense of belonging. The study also lists the risks associated with drug use among students as poor parent –student relationship, seeking sensational feeling and superficial peer drug use. However, this study uses actual scientific tests for substance among students by taking urine and blood samples in participating schools and colleges in Kenya (N=452) between May and July 2012 (Gitau, S. 2012)

Maithya R's study which was conducted in central division of Machakos District in 2009 and which targeted public secondary schools found out that there is a significant relationship between drug abuse and use of drugs by other family member. She also came up with a variety of factors that contribute to drug abuse such as curiosity, acceptance by peers and ignorance as to the dangers of drugs. However her study respondents among the student population were form twos and form three students from nine out of 28 schools. This in my opinion is not representative of the student population as the unique characteristics of fourth and first formers may have been missed out. A survey report released by NACADA in 2004 says that, young people between 10 and 24 years, whose parents use or sell alcohol and other drugs, are likely to abuse the substances. At times youth, including students who sell on behalf of parents, are themselves exposed to substance abuse in due course.

A study of drug abuse in public secondary schools in Kenya by Ndetei M. revealed that living with a male relative such as a father or a step-father increased the tendency of lifetime drug use, and so did living with brothers and sisters. The reverse

was true for those living with grandparents/non relatives. Smoking and alcohol consumption were also associated with living with druthers and sisters. Mother's education was significantly associated with use and non-use of alcohol, with the percentage of students who used alcohol increasing with higher levels of mother's education. Interestingly, a study of peer group influence, alcohol consumption and secondary school students' attitudes towards school in Uganda revealed that there was no significant relationship between peer group influence and alcohol consumption

2.4 Economic factors and drug abuse

According to the WHO alcohol report released in May 2014, it is generalized that the greater the economic wealth of a country, the more alcohol is consumed and the smaller the number of abstainers. As a rule, high-income countries have the highest alcohol per capita consumption (APC) and the highest prevalence of heavy episodic drinking among drinkers (WHO, 2014). Surveys and mortality studies, particularly from the developed world, suggest that there are more drinkers, more drinking occasions and more drinkers with low-risk drinking patterns in higher socioeconomic groups, while abstainers are more common in the poorest social groups.

Berg, (1970) in an article in the International journal of addiction states that an increased use of dependence-producing drugs has been reported among adolescents from middle and upper socioeconomic classes. Previous research has shown that adolescents with low socioeconomic status (SES) are more likely to engage in substance abuse, as are adults with high SES. Yet a new study by Humensky J. Reveals that adolescents with high SES (measured by parental education and household income) are also at risk for substance abuse. It found that higher SES

among adolescents was associated with greater rates of binge drinking and marijuana and cocaine use in early adulthood. There was no significant correlation between high SES in adolescence and crystal methamphetamine or other drug use (Humensky, J., 2011). Study author analyzed data on 9,872 adolescents taken from the National Longitudinal Survey of Adolescent Health (Add Health). Add Health tracks students in grades 7-12 and their parents, and includes a follow-up interview when respondents are 18-27 years old. Results showed that higher parental education was associated with higher odds of binge drinking and marijuana use and cocaine use in early adulthood. Higher household income in adolescence was associated with a higher probability of binge drinking and marijuana use.

Closer home, in a study conducted in Kisumu Kenya, Nyathuoro J. found out that sociodemographic factors influencing drug and substance abuse were gender (Odds ratio=1.90), mothers marital status at birth ($p=0.03$), number of siblings ($p=0.01$) and area of residence ($p=0.02$). Some family environmental factors influencing drug and substance abuse were mother's educational level and leisure time ($p=0.01$) family health (Odds ratio=2.70 and expectation from parents (Odds ratio=0.30)..

2.5 Environmental Factors influencing alcohol and drug use

Alcohol abuse appears to have a genetic component, although the magnitude and mechanism of such a factor are not yet clear. No evidence yet exists that can separate genetic and family environmental contributions to drug abuse. In general, so far only environmental and intra psychic factors have been implicated in drug use and abuse among children and teenagers, although it seems likely that genetic factors may contribute more to drug abuse than use (Newcomb, 1989).

Majority of studies have given attention on urban and suburban youth because drug use has been thought of primarily as an urban problem, arising in poor American neighborhoods and ghettos. However, rural America has been assumed to be somewhat immune to such alcohol and drugs abuse problems. Many recent studies have shown that in different regions, with different populations, and at different times, certain substance-use behaviors are prevalent among rural youth (Sarvela et al., 1986; Swaim et al., 1990). Swaim et al., in their study of three small rural communities in the Rocky Mountain region of America, found that the 12th-grade students in their sample had significantly higher rates of alcohol and LSD use when compared with national data, but lower rates of use for marijuana, uppers, downers, and tranquilizers (Swaim et al., 1986). Sarvela et al., studied age of first use of alcohol and other drugs in a sample of approximately 4000 central and southern Illinois junior and senior high school students and found that use rates for most substances were similar to national data. However, rural youth began drinking alcohol earlier than their urban counterparts. In addition, 58% of high school seniors had driven after drinking or using other drugs (Sarvela et al., 1990).

Other studies that have examined the role of environmental risk factors involved in substance use has focused primarily on the roles of proximal influences of parents and peers (Beal et al., 2001; Best et al., 2005; Johnson et al., 2002; O'Donnell et al., 2008). In contrast, less is known about the effects of more distal contexts, such as schools and neighborhoods, and interactions between proximal and distal settings. School environment have been found to be a fertile ground in initiation and continued use of alcohol, tobacco, and marijuana among early adolescents. Poor parenting practices and deviant peer affiliations has been shown to be consistent environmental exposures to substance abuse (Sylvie et al., 2010).

Sherri, B., Wolfgang A. M. & Aveyard, P., in a study about school culture as an influencing factor on youth substance use found out that value-added education was associated with reduced risk of early alcohol initiation (OR (95% CI) 0.87 (0.78 to 0.95) heavy alcohol consumption (OR 0.91 (0.85 to 0.96) and illicit drug use (OR 0.90 (0.82 to 0.98)) after adjusting for gender, grade, ethnicity, housing tenure, eligibility for free school meal, drinking with parents and neighbourhood deprivation. They concluded that the prevalence of substance use in school is influenced by the school culture, and that understanding the mechanism through which the school can add value to the educational experience of pupils may lead to effective prevention programmes.

Relatively bigger proportions of children who think that drugs are readily available in school were likely to have ever used alcohol (NACADA 2012), and boarding students had experienced significantly more problems related to alcohol than day scholars (Ndeti M. 2008). Shikuku's Busia study found out that mixed day schools had higher level of alcohol consumption than other school categories (Shikuku M.), whereas NACADA'S study on role of school environment in alcohol and drug abuse among students, evidence from public secondary schools in Nairobi found out that drugs were mostly abused when students were on their way home, during weekends at school, during school outings, during school trips and during dinner at school competitions. These are times when students are least supervised. The findings also demonstrated that friends, their homes, fellow students and kiosks/shops near schools were the major sources of alcohol and drugs used in schools.

Kingendo's study of the incidence of substance abuse among secondary school students in Nairobi province showed that school and family stress and drug availability contributed to drug use, boys abused drugs more than girls and drug abuse was more prevalent in mixed schools than other categories of schools. (King'endo M, 2010)

2.6 Effect of technology on alcohol and drug abuse

According to the World drug report 2014, the online marketplace for illicit drugs is becoming larger and more brazen, now capitalizing on technological advancements in private web transactions and virtual online currency to protect the identities of suppliers, consumers and website administrators. Buyers and sellers are connecting online via "dark net" sites and most often traffic drugs directly through the postal service. UNODC global seizure data indicate that over the past decade, there was a 300 per cent increase in cannabis seizures obtained through the postal service between 2000 and 2011, the majority of which are coming from seizures reported from countries in Europe and the Americas.

The prevalence of media use among young people is very high. It varies by age group with eight to 18-year-olds spending an average of 7.4 hours per day using media and 1.5 hours per day using a computer outside of school work. Furthermore, 80% of teens have some type of gaming console (Rideout et al., 2010; Lenhart et al., 2010). Bad content television programs or computer and video games are associated with adverse health outcomes including interpersonal violence (Bushman et al., 2006). Research also links frequent media use and other risk behaviours and outcomes

such as obesity, earlier sexual activity, earlier alcohol and drug use, and heavier use of a range of substances (Laurson et al., 2008; Hanewinkel et al., 2009)

Furthermore, more frequent TV use, computer/video game use and use of both TV and computers/video games were significantly associated with several of the risk behaviours (Hanewinkel et al., 2009). The associations between video and computer use and involvement in physical fights has been demonstrated by many studies (Gentile et al., 2004; Roberts et al., 2003). These associations have are controversial. The content and ratings of video and computer games and the ages for which some games may be appropriately introduced and used by youth are crucial. Early initiation of alcohol has significant short- and long-term health implications and the media technology has been associated with increase uptake of drugs and illicit substances.

In a study of the Associations between Electronic Media Use and Involvement in Violence, Alcohol and Drug Use among United States High School Students, Denniston, M. (2011) found out that Overall, 35.4% (95% CI=33.1%-37.7%) of students reported frequent television (TV) use and 24.9% (95% CI=22.9%-27.0%) reported frequent computer/video game use. A number of risk behaviors, including involvement in physical fights and initiation of alcohol use before age 13, were significantly associated with frequent TV use or frequent computer/video game use, even after controlling for sex, race/ethnicity and grade.

Shikuku's study on Busia District students' perception on alcohol and drug abuse in Secondary schools revealed that modern media (cellphone, internet, radio and television set) influence the student use of alcohol due to their aggressive advertisements and proximity. The researcher sought to elicit the possible influence of

technology on drug abuse in secondary school students in Uasin Gishu East Sub County.

2.7 Theoretical framework

This study is based on Albert Bandura's social learning theory, which states that most human behavior is learnt observationally through modeling. Bandura demonstrated that from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Alert Bandura, 1970). An adolescent who gets exposed to a tobacco smoking father is likely to take after his father as a role model to end up smoking too. The environment in which a child is brought up is likely to determine future behavior of that child, for example living in unplanned settlement areas like slums where crime and rampant illicit drug use is common, is likely to instill similar behavior in a growing adolescent. This theory is complemented by the differential association theory, proposed by Edwin Sutherland, (1973) which explains how criminal behavior is transmitted. It postulates that criminal behavior is learned and the principal learning occurs in intimate personal groups. The effectiveness of learning depends on the degree of intensity, frequency, and duration of the association. According to Sutherland, drug use will be initiated when there is an excess of deviant associations (drug abusers) over non deviant associations.

The behaviorism learning theory is also supportive of the social learning theory. John B. Watson (1878-1958) and B. F. Skinner (1904-1990) are the two principal originators of behaviorist approaches to learning who postulated that all forms of behavior are conditional, resulting from learned responses to certain stimuli.

An individual selects one response instead of another because of prior conditioning and psychological drives existing at the moment of the action (Parkay & Hass, 2000).

Behaviorists assert that the only behaviors worthy of study are those that can be directly observed; thus, it is actions, rather than thoughts or emotions, which are the legitimate object of study. Behaviorist theory does not explain abnormal behavior in terms of the brain or its inner workings. Rather, it posits that all behavior is learned habits, and attempts to account for how these habits are formed. If the probability of behaviour goes up after the removal of a stimulus, then negative reinforcement has occurred.

2.8 Conceptual framework

In this study, drug use was the dependent variable, whereas the socio economic, environmental and technological factors were the independent variables. Knowledge and attitude of the students concerning drugs serves as the intervening variable.

It was postulated that independent variables-social, economic, environmental as well as technological factors, each works independently to impact on drug abuse. However, the knowledge about and the attitude towards alcohol and drug abuse among the students had a moderating effect on the dependent variable (see figure 1 on page 30)

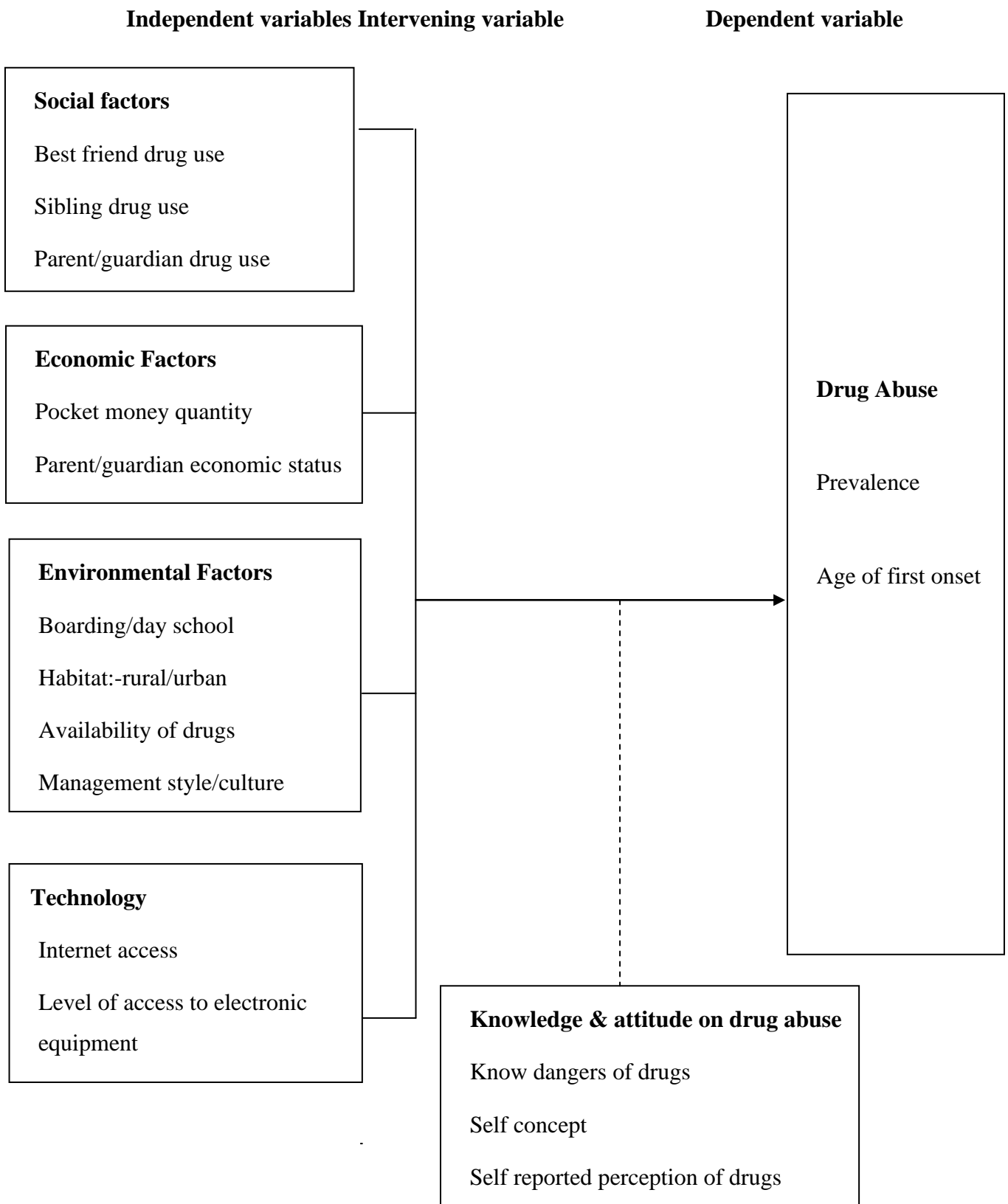


Figure 1: Conceptual Framework

The independent variables postulated to influence drug abuse in this study were social factors, economic, environmental and technological factors. Social factors like the presence of a family member who abuses drug has been shown by other studies to be associated with drug abuse by teenagers. The same applies to drug abuse by close friend(s) and parents, particularly mother and this study sought to find out if this is so in Uasin Gishu East Sub County. This study also sought to ascertain the influence of economic factors such as parents income on drug abuse. Economic status was measured using the amount of pocket money accessed to by a student per term, type of housing, which is whether temporary or permanent, parents' main source of income and number of rooms contained in their main house at home.

The environmental factors that were likely to influence student drug abuse according to this study include the mode of schooling (boarding or day schooling), nature of habitat (rural or urban), and closeness of sources of drugs such as wines and spirits shops and bars. These are indicators of access to and availability of drugs of abuse. The school management system (strict or laissez faire) was an environmental factor considered important in influencing drug abuse. This was measured using whether or not teachers inspect students belongings in school, and how frequently this is done.

This study also embarked on the influence of technology on drug use. Technological indicators included the electronic equipment student could access for example television sets, DVD players, computers and smartphones. Access to the internet, and whether that access was controlled or not was a key factor in assessing the influence of technology on drug abuse. This study singled out student knowledge of and attitude towards alcohol and drug abuse as a moderating variable. Its indicators were knowledge of basic facts about drug abuse and their feeling towards drug abuse.

The dependent Variable was drug abuse, which was indicated by prevalence of drug abuse, age of first onset of drug abuse and presence of drug related disciplinary cases in secondary schools in Uasin Gishu East Sub County. The students self-reported and peer reported drug abuse, together with their teachers reports of drug abuse disciplinary cases were indicators of prevalence of drug abuse.

2.9 Summary of knowledge gaps

Alcohol and drug abuse present a significant public health problem with far reaching ramifications ranging from poor health outcomes to diminished production in all sectors of the economy, insecurity and non-attainment of national development goals (NACADA, 2007). Alcohol and drug abuse problems during adolescence are the single most predictive factor for adult drug dependence. Kenyan youth, a large proportion of whom is secondary school students face the greatest risk as they are targeted for recruitment into substance use by drug peddlers. The formal education system is one of the most pervasive agents of socialization and therefore an understanding of the factors that place the adolescent at risk of alcohol and drug abuse is critical for the development of sound preventive policies (Ridolfo, B., Stevenson C.E., 1998). There is limited data on knowledge, attitude and practice regarding alcohol and drug use, as well as how various factors influence drug abuse among secondary school students in Kenya and particularly in Uasin Gishu East Sub county. the few studies that have been undertaken in Kenya regarding prevalence of drug abuse give varying sets of statistics (see chapter 1.2 on page 3 of this document), indicating that each area possesses its unique contextual factors that influence teenage drug abuse. Furthermore, I have not come across any study of factors influencing drug abuse among secondary school students in Uasin Gishu County, let alone Uasin Gishu East Su County. The choice of Uasin Gishu East Sub county is informed by the fact that the institution where I work (MTRH) is situated within Uasin Gishu East Sub county, and also to cut transport costs due to proximity of the study area to my workplace.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses how the study is designed, methods and tools of collecting, analysing and presentation of data. Furthermore, a plan of how the sampling procedure and design and ethical considerations of the study are presented. The study was carried out in Uasin Gishu East Sub County, Eldoret, Kenya. The sub County is administrative area within the large Uasin Gishu County. It borders Nandi County to the east, Baringo County to the west and Elgeyo Marakwet County to the south.

3.2 Research Design

This study has employed descriptive cross sectional research design with the aim of determining the influence of various factors on drug abuse among secondary schools students and has assessed the uptake of alcohol and drugs among the target population. A cross sectional school facility survey was conducted in all the sampled schools within the Sub County. This design was chosen because it allows collection of large amount of information at one point in time. It also allows collection of information from the natural environment without researcher's interference (Njenga, A., 2009).

3.3 Target population

The target population for this study was 12,955 comprising of 12,493 students and 462 teachers of public secondary schools in Uasin Gishu East Sub County. Their

gender distribution was as follows: male and female teachers were 230 and 232 respectively, whereas the male and female representation of students was 5,658 and 6,835 respectively.

3.4 Sample Size and Sampling Technique

Here, a discussion of the sampling design that was used in the study is given. The appropriate sampling design is crucial in ensuring good representation of the study population, hence validity of the findings.

3.4.1 Sample Size

The sample size was determined using the V. Krejcie and W. Morgan table. Hence sample size for students was 374, whereas two teachers per school comprising of the head teacher and the disciplinarian/ guidance and counseling master which comes to 96. Hence sample size was 470.

3.4.2 Sampling Technique

Multi stage random sampling procedure was used in order to ensure a good representation of the target population of students. The schools were divided into two; high volume(schools with over 260 students) and low volume(schools with not more than 260 students), 260 being the median population of all the schools in Uasin Gishu East Sub county.

Proportionate random sampling was used to select number of respondents from each of the strata. There were 48 public secondary schools in the sub county, comprising of 18 High volume, and 30 low volume schools. Using proportionate sampling method by K. & Morgan,

Proportionate sample members = sample population x sample size

Total population

$$\begin{array}{l} \text{No of schools sampled: High volume schools} \quad \frac{18 \times 42}{48} \\ \hspace{15em} = 16 \text{ schools:} \end{array}$$

$$\begin{array}{l} \text{Low volume schools} \quad \frac{30 \times 42}{48} \\ \hspace{15em} = 26 \text{ schools.} \end{array}$$

$$\begin{array}{l} \text{For high volume schools: } \frac{7,634 \times 374}{12,494} \\ \hspace{15em} = 229 \end{array}$$

Results to 229 respondents from 16 high volume schools, hence I picked 14 respondents from each of the high volume schools.

$$\begin{array}{l} \text{For low volume schools: } \frac{4,859 \times 374}{12,493} \\ \hspace{15em} = 145 \end{array}$$

This equals 145 respondents from 26 low volume schools, hence I selected 6 respondents from each low volume school.

Simple random sampling method was used to select the schools from each stratum. The 18 high volume schools were listed alphabetically then assigned numbers, after which 2 schools were eliminated by picking out 2 papers from a box. Same applied to the 26 low volume schools.

Systematic random sampling technique was used to select students to participate from the selected classes. This is because systematic random sampling ensures that the sample is spread more evenly over the entire population, is easier to use and less costly. (Kothari C.R., 2009). For the teachers, one discipline master/

guiding and counseling representative and the headmaster/his/her representative were selected conveniently.

3.5 Data collection instruments

Data was collected using a self-administered questionnaire among the students, whereas an interview schedule was used to gather information from the teachers. The self-administered questionnaire was chosen because the audience / respondents were literate, and to allow free expression of ideas by students. Section A of the questionnaire comprised of sociodemographic data such as age, gender and religion. Section B embarked on social and economic factors such as peer influence and parent/guardian drug abuse, section C sought information on the economic factors like amount of pocket money a student received per term and parent/ guardian economic status. Section D gathered information on the school and home environmental factors such as boarding/ day schooling, urban/rural set up, slum/up market residence, availability and accessibility of drugs. Section E was designed to elicit information regarding media and technology such as access to electronic media, the internet and existence of any control of content accessed by the students, whereas section F was designed to gather information concerning knowledge and attitude of students regarding drug abuse. The interview schedule was preferred when seeking information from teachers because they are experts capable of giving in-depth pertinent information.

3.5.1 Pilot of the instrument

Piloting of the data collection instruments was undertaken in Eldoret west Sub County using a public school. This was meant to ensure similarity of the pilot and target population, without interfering with the actual target population.

3.5.2 Validity of the instrument

The instruments were scrutinized by the supervisor of the study to judge the items on their appropriateness of content, and to determine all the possible areas that needed modification so as achieve the objectives of the study. The expert determined whether the items in the questionnaires and interview guides adequately represented all the areas that needed to be investigated and improvements made after piloting the instruments.

3.5.3 Reliability of the instrument

On reliability of the research instruments, the questionnaire was also pilot-tested. The Split-half procedure was used to test the reliability of the students' and teachers' questionnaires after the pilot testing. This procedure was chosen over other methods such as Kuder-Richardson approaches for its simplicity. Twenty pilot questionnaires were administered for this purpose in a school that is not within the area under study but very similar to the schools in the study area. This was done in order to avoid contaminating the study population. The questionnaires so selected were divided into two equal halves, taking the odd- numbered against the even-numbered items. After administration to the pilot group, separate scores were assigned to every respondent on the two halves. The scores of the halves were analyzed, computed and then correlated using the split-half measure of reliability. The

reliability of the scores as a whole was then estimated using the Spearman-Brown Prophecy formula and found to be 0.76. This index was greater than 0.5 and closer to +1. This means that there was a positive correlation between the even numbered statements and the odd numbered ones. In this case the questionnaire can be said to be reliable.

3.6 Data collection Procedure

Data collection was undertaken after recruiting two research assistants. Teachers or any person who was likely to be perceived to represent authority in the school were not allowed in the data collection site/room so as to encourage the students to be free to express themselves.

To ensure confidentiality, filled questionnaires were dropped in a box at the exit point of the room where the participants had been gathered, after which the box was coded. This was done in all the sampled schools. The teachers were interviewed by the researcher or research assistants only.

3.7 Data analysis technique

Filled questionnaire were checked for completeness and coded by the researcher. They were then entered to SPSS version 21. Presentation of data: tables, were used to condense information, and presented it in a clear format and highlighted relationships and trends.

Interview tools were reviewed every day for accuracy and completeness. SPSS version 21 statistical package was used with clearly defined measurable terms. Parallel data entries will be done to improve accuracy. Afterwards, more variables

were created for data coding and various variables assigned numerical value for easier quantitative analysis. Data was also checked carefully to ensure it is consistent and that coding and entry would be accurately entered.

3.8 Ethical considerations

The research proposal was reviewed and approved by management of the school and local administration. A formal letter of permission from county commissioner and sub county education office was sought before the data collection commenced. Consent from the student was obtained before recruitment. Confidentiality of information was maintained strictly by pass-warding its access and ethical conduct of research was strictly adhered to. Cases of serious drug abuse and substance abuse by a student were referred for treatment.

3.9 Operational Definition of Variables

The following table highlights the key variables, their indicators and how they were measured and analysed:

Table 3. 1: Operationalization of Variables

Objectives	Variables	Indicators	Measurement scale	Tool of analysis	Types of tools
To determine the influence of social factors on drug abuse	Dep. Variable: Drug abuse. Indep. Variable: Social factors	Incidence of drug abuse. Peer, sibling, parent, & family member drug use	Nominal	Descriptive statistics	Frequency distribution tables
Examine economic factors influencing drug abuse	Dep. Variable: Drug abuse Indep. Variable: Economic factors	Drug use incidence Student pocket money, Parent/ guardian income:-type of house, source of income, own a motor vehicle or not, own/ rented house.	Ordinal Scale	Descriptive	Frequency distribution tables
Assess the effects of environmental factors on drug abuse among secondary school students in Uasin Gishu East Sub county	Dep. Variable: Drug abuse Indep. Variable: Environmental factors	Incidence of drug abuse Habitat:- Rural/urban Residence:- slum/up market Type of school:- mixed/ single gender Distance to nearest wine shop from	Ordinal	Descriptive statistics table	Frequency diagrams

		school School culture/ management style			
Effects of media and technology on drug abuse	Dep. Variable Drug abuse Indep. Variable: Media and technology	Incidence of drug abuse Internet Access Level of access to electronic and print media	Interval	Descriptive statistical tales	Frequency distribution tables
Effects of knowledge about and attitude towards alcohol and drugs on drug abuse	Dep. Variable:- Drug abuse Indep. Variable:- Knowledge about and attitude towards drug abuse	Drug abuse incidence Knowledge on facts concerning drug abuse Self reported attitude on drug abuse	Ordinal	Descriptive statistical tables	Frequency distribution tables

CHAPTER FOUR

DATA ANALYSIS PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter discusses the Questionnaire response rate, Demographic characteristics of the respondents, and also looks at the responses to the particular aspects of the questionnaires. This chapter also presents association of social factors, economic factors, environmental factors, and media & technology with drug abuse among secondary school students in Uasin Gishu East Sub County. Moreover, a presentation of the knowledge and attitude of the students towards alcohol and drug abuse is given, in addition to the teachers perspective on drug abuse which assesses the teachers' world view relating to the prevalence of drug related indiscipline cases, and the association of drug abuse and: amount of pocket money a student accesses, the type of schooling- day or boarding and the student's family background.

4.2 Questionnaire Return Rate

Questionnaires were given to 374 students but only 353 were returned to the researcher, giving a response rate of 94.4%. This was due to some students choosing not to answer the questions. A total of 82 interview schedules for the teachers were also sent, of which only 51 were returned, representing 60.7% response rate. This was as a result of some teachers claiming to be too busy, whereas others gave appointments to the researcher but failed to turn up. The findings of this study are based on the total responses, that is, 353 questionnaires and 51 interview schedules.

4.3 Background characteristics of the respondents

Here, a discussion of the demographic characteristics of the respondents such as age and gender is given.

4.3.1 Gender characteristics of respondents

The Male to Female ratio of the student respondents was 1:1, that is, 50.1% males and female 49.9%. This is illustrated in the table below:

Table 4. 1: Gender distribution of students

Gender	frequency	percentage
Female	186	49.9
Male	188	50.1
Total	374	100.0

The gender distribution of teacher respondents was in the ratio of 1:1, as there were a total of 26 male respondents representing 50.9% and 25 female respondents representing 49.1%. as shown in the table below:

Table 4. 2: Gender distribution of the teacher respondents

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	26	51.0	51.0	51.0
Valid female	25	49.0	49.0	100.0
Total	51	100.0	100.0	

4.3.2 Age distribution of the respondents

On average the age of the respondents was 16.8 ± 1.6 years with a range of 13 to 24 years. Almost all (99.4%) of the respondents were Christians, Muslims and Hindus were 1(0.3%), 1(0.3%) respectively.

1.3.3 Prevalence of alcohol and drug abuse among secondary school students in Uasin Gishu East Sub County.

The table below presents the response to whether a student had ever taken/ used alcohol or any other drug:

Table 4. 3: Whether one has ever taken alcohol or any other drug

		Have you ever taken alcohol		Total
		Yes	No	
Have you ever Taken any drug	Yes	48	8	56
	No	65	232	297
Total		113	240	353

The above figures shows the number of respondents who said have taken alcohol or any other drugs in their life time. About 113(32%) confessed they have taken alcohol while 56(16%) have taken other drugs. There was significant association between taking alcohol and other drugs $\chi^2 (1) = 88.199$, $p < 0.001$. This seems to represent the fact that, based on the odds ratio, the odds of student taking other drugs were 21.4 times higher if they were taking alcohol than if were not taking alcohol (OR 21.4, 95% CI: 9.6 – 47.5), and was statistically significant ($p < 0.001$).

1.3.4 Other drugs abused

The researcher wanted to find out other drugs abused by the students (other than alcohol), and the results were as shown in the table below:

Table 4. 4: Other drugs abused

Name of the drug taken	Frequency	Percent of Cases
Miraa	38	70.4%
Bhang	17	31.5%
Cigarette	23	42.6%
Kuber	7	13.0%
Cocaine	1	1.9%

The data above shows that the most commonly used drugs are alcohol, khart, cigarettes, bhang (cannabis sativa), Kuber, and cocaine in that order. This is in agreement with Kibuka E's study that showed that the most abused substance was alcohol(9.1%) followed by local brew *changaa*(8.12%),*bhang*/ Marijuana (8.4%), tobacco (7.45%), and miraa(5.74%) among other drugs. (Kibuka, E., 2011)

The average age at which the student started abuse drugs was 14 ±2years and ranged from 8 to 18 years. This is contrasting with findings in another study by Maithya (2009) which revealed that the highest frequency of reported drug abusers is age between 20 and 22 years, and very few cases of drug abuse among students aged between 14-16 years (Maithya, 2009). This disparity may be due to contextual differences among the different populations under study.

4.3.5 Time when last used drug(s)

To further demonstrate the prevalence of drug abuse among students, the researcher wanted to reveal how recent the last episode of drug abuse was. The table

below shows the time the student said took the drug last, where half (50%) had taken more than 6 months prior to the time of the data collection, only 7(8.1%) had taken the drug within 7 days.

Table 4. 5: When did you last use the drug?

Time period	Frequency	Percent
within last 7 days	7	8.1
within last 30 days but more than 7 days	10	11.6
within last 6 months but more than 30 days	26	30.2
more than 6 months	43	50.0
Total	86	100.0

The results demonstrate an 8.1% and 11.6% drug use cases within the week and month preceding the study respectively. A further 30.2% and 50% prevalence of drug use within the 6 months and over 6 months period preceding the study was demonstrated respectively. This implies that drug abuse is rife among the population under study, thereby agreeing with previous studies by Ndeti, Maithya and Kibuka, that drug abuse is rampant among secondary school students.

4.3.6 Person who introduced student to drugs

To find out how students begun the vice of drug abuse, the researcher asked the respondents to state who first introduced them to drugs, and the results were as follows:

Table 4. 6: Person who introduced who them to drugs

Person	Frequency	Percent
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Friend	83	88.3
Parent	6	6.4
Teacher	3	3.2
Uncle	2	2.1
Total	94	100

According to the respondents majority (88.3%) were introduced to drugs abuse by their friends as compared to those introduced to by parent, teacher and uncle contributing to 6.4%, 3.2%, 2.1% respectively . This underscores the heavy influence that peer group has onset of drug abuse.

4.3.7 Peer Reported Drug Abuse

Further evidence of drug abuse among the student under study was given by fellow students reporting on their peers' indulgence in the habit. When asked whether they knew of any student(s) who abuse drug in the school, and to list the drugs abused by fellow students, about 135(44.7%) of the respondents said they knew of a student(s) in school who uses drugs. The table below illustrates the name of the drug alleged to be abused by other students:

Table 4. 7: The name of drug(s) abused by other students

Name of drug	Frequency	Percent of Cases
Alcohol	86	62.3%
Kuber	38	27.5%
Miraa	27	19.6%
Bhang	16	11.6%
Cigarette	11	8.0%
Cocaine	2	1.4%

Heroin	1	0.7%
Total	181	

Most (62.3%) of the student abused alcohol followed by Kuber and Miraa constituting to 27.5%, 19.6% respectively, the least abused drug was Heroin with only 1(0.7%) student known to have used. It is notable that Kuber now overtakes Miraa, bhang and cigarettes as the reported most abused drug among the population under study, compared to table 4.5, indicating that Kuber is more commonly abused than was self-reported by the users. The prevalence of drug abuse among secondary school students elicited in this study confirms that drug abuse is rampant among secondary school students, but a higher prevalence (32% for alcohol) than most of previous studies like the one done by Kabuka whereby the prevalence of substance abuse in secondary schools in Kisumu (Kabuka E.,2011), revealed that the most abused substance was alcohol(9.1%) followed by local brew *changaa* (8.12%),*bhang*/ Marijuana (8.4%), tobacco (7.45%), and miraa(5.74%) among other drugs

4.3.8 Teachers view on drug abuse in schools

To corroborate the prevalence of drug abuse among the study population further, the researcher sought to find out from the teachers whether drug abuse was a problem in schools, and the response was to the affirmative as shown in the table below:

Table 4. 8: Teachers’ view on drug abuse in schools

Frequency	Percent	Valid Percent	Cumulative Percent
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Yes	43	84.3	84.3	84.3
No	8	15.7	15.7	100.0
Total	51	100.0	100.0	

With 84% of the teachers stating that drug abuse was a problem in schools, this confirmed that information from the students was true.

4.3.9 Reasons why teachers thought drug abuse was a problem in schools

The teachers who answered to the affirmative to drug abuse being a problem in schools were further asked why they thought so, the response to which are contained in the table below:

Table 4. 9: Reason why drug abuse is a problem

Theme	Frequency
Affects performance	affect brain for learning, affects performance, 17
	affects learning
Affects discipline	brings indiscipline, 17
	lack proper control 2
	Drop outs 6
	lead to absenteeism 1
Teenage effects	coz of the youth they like trying anything for 2
	fun
Accessibility	Influence from peers 4
	drugs are easily accessed by student 2
	especially alcohol in mini bottles

exposure to market place, availability of 2
money and media adverts

Majority of the teachers associated drug abuse to poor performance (33%), indiscipline (33%), and dropping out of school (12%). This indicates that drug abuse negatively affects the life of students in schools.

4.3.10 Disciplinary cases related to drug abuse

Teachers were asked if they had ever handled disciplinary cases relating to drug abuse. 41.2% of teachers answered to the affirmative whereas 58.8% of them answered to the contrary. Of those who answered to the affirmative, the researcher asked for the number of disciplinary cases handled in the last year, the response was as follows:

Table 4. 10: Number of cases handled in one year period prior to the study

Number of cases	Frequency	Percent
1	6	33.3
2	7	38.9
3	4	22.2
10	1	5.6
Total	18	100.0

The response above indicate that drug related indiscipline was rampant in secondary schools in Uasin Gishu East Sub County, thereby confirming the fact that drugs are abused by students and with negative consequences in Uasin Gishu Sub County.

4.4 Influence of Social Factors on Drug Abuse

The researcher looked at various social factors that could influence drug use among the study population. These include the person(s) with whom the respondent lives, the educational level of the parents, drug abuse by close relative and/or parent, and attributes of best friend- whether abusing drugs or not.

4.4.1. Person with whom the respondent lives

The table below presents the persons with whom the respondents live

Table 4. 11: Person with whom the student lives at home

Person	Frequency	Percent
Both parents	233	67.9
Mother only	71	20.7
Father only	16	4.7
Grand parents	14	4.1
Siblings	5	1.5
Guardians	4	1.2
Total	343	100

Majority (67.9%) of the student lived with both their parents, followed by those who lived their mother's only (20.7%). Those who lived with father only, grand parents, siblings, or guardian constituted 4.7%, 4.1%, 1.5%, 1.2% respectively of the total respondents, which is a replica of the general Kenyan population.

4.4.2 Highest education level attained by Mother and Father

The researcher wanted to know the relationship between the breadwinner's education level and student drug use. The results were as shown in the table below:

Table 4. 12: Highest attained education level by mother and father

Education level	Mother		Father	
	Frequency	Percentage	Frequency	Percentage
None	12	3.6	7	2.3
Primary	89	26.6	64	21.1
Secondary	146	43.7	112	36.8
Middle Level				
College	52	15.6	65	21.4
University	35	10.5	56	18.4
Total	334	100	304	100

The table above shows the highest education level attained by the students' parents (father and mother) where most of the parents (36.8% fathers and 43.7% mothers) had attained secondary education followed by those who had attained primary school education level (26.6% mothers and 21.1% fathers).

The association between drug abuse and mother's highest education level was statistically significant $\chi^2 (1) = 12.399$, $p=0.015$. Moreover, the association between drug abuse and father's highest education level was statistically significant $\chi^2 (1) = 13.648$, $p=0.015$. These findings agree with Humensky, J.'s findings which showed that higher parental education was associated with higher odds of binge drinking and marijuana use and cocaine use in early adulthood. Higher household income in adolescence was associated with a higher probability of binge drinking and marijuana use. The results also agree with Ndetei's study of drug abuse in Public secondary schools in Kenya that found the percentage of students who used alcohol increasing with higher levels of mother's education and Maithya (2009) study whereby the percentage of students who used alcohol was found to increase with higher levels of

mother’s education. It can therefore be generalized that other factors held constant, the higher your mother’s education level, the higher the chances of you engaging in teenage drug abuse as a teenager.

4.4.3 Presence of family member using drugs

The researcher wanted to know the association between drug use by family member and drug use by students. About 45% of the respondents said that, some of their family members used drug. Those family members who take drugs are shown in figure below:

Table 4. 13: Family member who use drugs

Family member	Frequency	Percent
Father	90	57.3
Sibling	42	26.8
Uncle	17	10.8
Grand Parent	3	1.9
Mother	3	1.9
Cousins	2	1.3
Total	157	100

Father was mentioned by 57.3% of the respondents followed by sibling and uncle constituting to 26.8%, 10.8% respectively. The rest of the family members mentioned are as illustrated in the figure above. There was significant association between use of drugs and whether the respondents’ family member used drugs $\chi^2 (1) = 7.414, p=0.006$. This seems to represent the fact that, based on the odds ratio, the odds of student taking any drugs were 2 times higher if any of their family member was taking drugs (OR 1.89, 95% CI: 1.192 – 2.996), and was statistically significant ($p=0.007$). This agrees with the 2014 WHO report on alcohol consumption and

health, which states that a family history of alcohol use disorders is considered a major vulnerability factor for both genetic and environmental reasons. It also agrees with NACADA'S 2012 report that students who have ever taken alcohol were likely to report that a close relative was using one drug or the other, and Maithya R's study which found out that there is a significant relationship between drug abuse and use of drugs by other family member. It can therefore be generalized that a student stands a higher chance of abusing drugs if a family member abuses drugs.

4.4.4 Drug use by best friend

The researcher wanted to know whether there is a relationship between respondents' behavior and drug use by best friend, the results were as follows:

Table 4. 14: Drugs used by best friend

Drugs Name	Frequency	Percent Of Cases
Alcohol	42	72.4%
Kuber	9	15.5%
Bhang	9	15.5%
Cigarette	6	10.3%
Miraa	6	10.3%

Only 18.4% of the respondents said that their friends used drugs. Majority(72.4%) of the best friend took alcohol as compared to other drugs such as Kuber (15.5%), Bhang (15.5%), Cigarette (10.3%) and Miraa (10.3%). There was significant association between use of drugs and whether the respondents' best friend used drugs $\chi^2 (1) = 20,384, p < 0.001$. Based on the odds ratio, the odds of student taking any drugs were 4 times higher if their best friend was taking drugs (OR 3.597, 95% CI: 2.022 – 6.398), and was statistically significant ($p < 0.001$). This is in agreement with NACADA's 2012 report on the status of drug and substance abuse which

revealed that about 10% of children who have ever consumed alcohol have friends who take alcohol, compared to only 5% of those whose friends did not take alcohol.

4.5 Economic factors influencing drug abuse

This study looked at the economic factors that were likely to influence drug abuse such as the amount of pocket money a student receives per term, the ownership of a motor vehicle by parent/guardian, type of house- whether rented or owned and the materials used to construct the house. The estate in which one lives in most urban areas is also a parameter that can be used to measure economic status.

4.5.1 Amount of Pocket Money per Term

The amount of pocket money received by a student per term was used by the researcher as one measure of economic status of the student. Asked to state the average amount of pocket money received per term, the students responded as follows:

Table 4. 15: Amount of money student receive as pocket money per term

Amount in Ksh	Frequency	Percent
Less than 500	163	49.7
501-1000	92	28
1001-3000	53	16.2
3001-5000	9	2.7
Over 5000	11	3.4
Total	328	100

Almost half of the students interviewed said they receive less than KSh. 500 per term as pocket money, 28% said they receive between Ksh501-1000. The distribution of the amount received per term is as shown in the table above which

puts majority of the students in lower economic status (receiving below Ksh.3000 per term). Use of drugs was positively correlated with amount of money given to the student per term as pocket money $r = .13$, $p=0.019$. The more pocket money a student received per term, the higher the chances of abusing drugs.

4.5.2 Teachers' thoughts on pocket money and drug abuse

To corroborate the response from students, the researcher sought to know the teachers thinking about drug abuse in relation to the amount of pocket money a student receives. The teachers were asked whether the two variables were related and majority 42(82.4%) of the teachers said that there is an association between the amount of pocket money a student receives and drug abuse tendency. The teachers were probed further to state why they thought the amount of pocket money received by a student was related to drug abuse, and their response was as contained in the table below:

Table 4. 16: Reasons why amount of pocket influences drug abuse

Theme	Frequency
More money make acquisition of drugs easy	10
More money high risk of drug abuse among students	8
More money extra money used for leisure	2
More money motivate the student to buy drugs	4
More money than required student might use the extra for buying drugs	7
Those from wealthy families are more affected	1
Those with more money abuse more harder/more expensive drugs	1

Too much money leads to temptation	1
Non response	9
Total	42

Majority (37%) of the teachers associated more pocket money with ease of acquisition of drugs, 19% associated more pocket money with higher risk of drug abuse. The results are in agreement with Berg, (1970) who, in an article in the International journal of addiction states that an increased use of dependence-producing drugs has been reported among adolescents from middle and upper socioeconomic classes; Humensky, J., 2011 whose findings indicated that higher household income in adolescence was associated with a higher probability of binge drinking and marijuana use.

4.5.3 Ownership of Motor Vehicle by Parent

Another parameter used by the researcher to measure the economic status of a student was whether the parent/guardian owned a motor vehicle or not. The table below shows the respondents scores about ownership of motor vehicle by parent/guardian

Table 4. 17: Whether ever taken drugs and if parent/guardian owned a motor vehicle

parent/guardian own a motor vehicle	whether ever taken any drug		Total
	Yes	No	
Yes	58	65	123
No	55	145	200

Total	113	210	323
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Majority (62%) of the students' parent do not own a motor vehicle indicating low economic status of majority of students under study as it is in Kenya generally. There was a statistically significant association between abuse of drugs and whether the parent/guardian owned a motor vehicle $\chi^2 (1) = 12.935, p < 0.001$. Based on the odds ratio, the odds of student taking any drugs were 2 times higher if their parent/guardian owned a motor vehicle (OR 2.352, 95% CI: 1.469 – 3.767), and was statistically significant ($p < 0.001$).

4.5.4 Description of parent's house

To measure the economic status of the student further, information was sought as to whether their parent's house was permanent or temporary, rented or owned by finding out the materials used to construct residential house of respondents' parents/guardians. Most high end families would have their houses made of tiles, cement and blocks, whereas timber, iron sheets, mud, and other temporary materials would be utilized in poorer sections for construction. The results were as follows:

Table 4. 18: Description of parent house wall material

Wall materials	Description of parents' house at home		Total
	Own house	Rented house	
Timber	68	2	70
Iron sheet	17	6	23
Bricks	101	24	125
Mud	95	14	109
Total	281	46	327

More of the rented houses were made of bricks (52%) or mud (30.4%) on the walls, as compared to the owned houses the proportions were lower 35.9% and 33.8% for brick and mud walls respectively. The presence of mud walls indicates a low economic status of at least 30% of the respondents, which is commensurate with the presence cases of extreme poverty in sections of Kenyan society.

Table 4. 19: Floor material of the main house

Floor material	Description of parents' house at home		Total
	Own house	Rented house	
Mud	117	14	131
Cement	125	27	152
Tiles	32	5	37
Total	274	46	320

Most of the respondents indicated the material of the floor of the main house as Mud and Cement 40.9%, 47.5% respectively. Indicating that majority of study population come from poor rather than well to do backgrounds, which corresponds with the general wealth distribution in Kenya.

Table 4. 20: Number of rooms for the main house

Number of rooms	Frequency	Percent
1	17	5
2	41	12.1
3	124	36.5
4	70	20.6
5	47	13.8

6 & above	41	12.1
Total	340	100

Most (36.5%) of the respondents indicated 3 as number of rooms in their main house, followed by 4 at 20.6%, and 5 (13.8%) as shown in the figure above. This is indicative of generally low economic status of the respondents because with majority living in houses three rooms or below, many lack the luxury of descent living.

4.5.5 Parents Main Source of income

The researcher wanted to understand the respondents' parents main source of income in order to know their economic status, the results of which are presented in the table below:

Table 4. 21: Parent main source of income

Source of income	Frequency	Percent
Small scale farmer	105	31.7
Business person	103	31.1
Government employee	58	17.5
Unemployed	45	13.6
Large scale farmer	20	6
Total	331	100

Most of the respondents indicated that small scale farmer and business as 31.7% each and 31.1% respectively, others were government employees, unemployed and large scale farmer at 17.5%, 13.6%, 6% respectively. The economic status of the population under study was low as shown by the parameter discussed above, which is in agreement with the Kenyan wealth distribution

generally, whereby for example income distribution of workers employed in the formal sector is in the form a pyramid. Thus the highest wage from 0 to 90% level is 15,000 a month. From 91% - 99 % the wage rockets to Kshs 100, 000. And the 1% above the 99% level earn beyond Kshs 100,000 a month. Thus the top 1% can be considered as the economic, social and political elite. And the nine percent below may be categorized as the various levels of the emerging middle class. The remaining 90% who earn 15,000 (highest) to 0 monthly are workers and peasants in urban and rural areas. (Development policy management forum, 2014).

The data gathered puts majority of the respondents in the lower income bracket and associates higher income with higher incidence of drug abuse. The results are in agreement with Berg, (1970) who, in an article in the International journal of addiction states that an increased use of dependence-producing drugs has been reported among adolescents from middle and upper socioeconomic classes; Humensky, J., 2011 whose findings indicated that higher household income in adolescence was associated with a higher probability of binge drinking and marijuana use; and the WHO alcohol report released in May 2014, which generalized that the greater the economic wealth of a country, the more alcohol is consumed and the smaller the number of abstainers. However, it is clear that other factors play a key role as only a minority of the respondents fall under the high income bracket whereas the general drug abuse prevalence is high (32% for alcohol consumption.)

4.6 Environmental factors influencing Drug abuse

In this section, the researcher looked at the environmental factors that are likely to have a bearing on drug abuse, such as type of schooling- whether day scholar

or boarder, distance from school to the nearest wine and spirits shop or bar, nature of habitat- rural/urban, and the strictness or lack thereof by school management.

4.6.1 Type of Schooling

Most (57.2%) of the respondents were day scholars and (42.8%) were boarders. The association between drug abuse and the kind of schooling mode was not significant $\chi^2 (1) = 1.076, p=0.3$. This implies that the type of schooling of a student does not influence one's use of drugs. This is contrary to Ndetei whose study indicated that boarding students had experienced significantly more problems related to alcohol than day scholars (Ndetei M. 2008). However, the researcher sought the opinion of teachers concerning whether the type of schooling influences drug abuse. Majority 37(72.5%) of the teachers believed that there is an association between the drug abuse tendency and the type of schooling. Majority (84%) of teachers believed that day scholars were more prone to drug abuse than boarders.

4.6.2 Nature of Habitat/ home area

The researcher sought to know whether the rural versus urban residence had any bearing on drug abuse among the population under study. The table below gives the distribution of the respondents' home of residence:

Table 4. 22: Nature of home area and drugs abuse cases

Area category	Have you ever taken any drug		Total
	Yes	no	
Urban	65	67	132
Rural	54	154	208
Total	119	221	340

As shown in the table above, most (61.2%) of the students come from rural area as compared to those who hailed from the urban area. The association between drug abuse and the nature of the home in terms of rural and urban was statistically significant $\chi^2 (1) = 19.239, p < 0.001$. The odds of student taking any drugs were 3 times higher if they come from urban area than rural area (OR 2.767, 95% CI: 1.745 – 4.387), was statistically significant ($p < 0.001$). This implies that urbanite students are more prone to drug abuse than their rural counterparts, thereby agreeing with Sarvela et al's ascertain that drug use had been thought of primarily as an urban problem, arising in poor American neighborhoods and ghettos. Majority (77.6%) of the urban areas were described as middle income estates, compared to Leafy suburbs mentioned by 10.5% and slum areas mentioned by only 11.9%.

4.6.3: Closeness to a wines and spirits shop/bar

Slightly above half (54%) of the respondents said they did not know of any wines and spirit shop around their school. However 46% said they knew of a wine and spirit shop around their school and they indicated the distance of the wine and spirit shop from the school as shown in the figure below. Whether one knew of a wine and spirit shop around the school or not was not statistically associated with drugs abuse, $\chi^2 (1) = 1.348, p = 0.246$, neither was the distance from the wine and spirit to school $r = .074, p = 0.336$. This indicates that the closeness to a wines shop may not be an important factor in influencing drug abuse.

Table 4. 23: Distance from school to wine and spirit shop

Distance	Frequency	Percent
Within 100 meter	12	7
100-500 meters	48	28.1

500 mtr-1 km	45	26.3
1-2km	53	31
Over 2 km	13	7.6
Total	171	100

Most of the wine and spirit shops were indicated to be between 100-500 meters, 500meters- 1Km and 1-2Km by 28.1%, 26.3%, and 31% of the respondents respectively. This indicates that some (over 35%) of the outlets do not adhere to the requirement of the alcohol control act which outlaws the establishment of bars or any alcoholic outlets within a radius of 300 metres from learning institutions for persons aged below 18 years.

4.6.4: School supervision- inspection of students' belongings

The researcher wanted to gauge the level of supervision of students by the teachers by finding out from the students and teachers whether and how often inspection of students belonging was done. Inspection of students belonging is known to deter students from smuggling illegal substances such as drugs to school. Most (40.9%) of the student respondents said inspection of their belongings by their teacher was done once per term, 26.2% said it was not done, only 11.3 said it is done on a monthly basis while 21.6% said it is done weekly. Majority 41(80.4%) of the respondents said they performed inspection of students belongings in school, but 10(19.6%) said they do not do inspections.

Table 4. 24: How often inspection is done per term- Response from Teachers

	Frequency	Percent
1	15	48.4

2	6	19.4
3	9	29.0
6	1	3.2
Total	31	100.0

Most 15(48.4%) of the respondents who said they do inspection, did it only once per term. This means that majority of the respondents were poorly supervised in school. This could be due to the high number of day scholars (57%) among the study population.

4.7: Influence of Technology on drug abuse

The researcher explored the effects of technology on drug abuse, particularly unsupervised access to electronic and print media.

4.7.1 Electronic equipment accessed by respondents

A survey of the electronic equipment to which the respondents have access was done, which indicated that majority (74.8%) of the respondents had access to radio at home and also television was mentioned by 49.3%. the least mentioned equipment was Tablet/I pad with only 0.9% (*see table 4.25 below*).

Table 4. 25: Electronic Equipment student have access to at home

Equipment name	Frequency	Percent of Cases
Television	168	49.3%
Radio	255	74.8%
Cd Player	44	12.9%
Dvd Player	43	12.6%
Computer/Laptop	35	10.3%
Tablet/Ipad	3	0.9%

4.7.2 Number of hours spent watching television per day

In order to tell the importance students place on television viewing, the researcher wanted to know how long the respondents take watching television per day, and the results revealed that most (37%) said they watch television for less than 1 to 2 hours, 35% said less than 1 hour, 14.6% said more than 5 hours while 13% said 2-5 hours. This underscores the length of time spent on television viewing among the youth in the society, and the possible effect of uncontrolled programs can have on the consumers, including glorification of harmful substances.

4.7.3 Access to the internet

The researcher sought to know whether students accessed the internet in the period prior to the study. It was revealed that Majority (62.1%) of the student interviewed said they do not have access to internet at home or school whereas 37.9% had access. This implies a relatively low population of the respondents access the internet, which, in my view, can be associated with poverty and rural habitat as shown by the demographic presentation of this report.

4.7.4 Purpose for which the internet was used

Of the 37.9% who had access to internet, their use of the internet was sought by the researcher and found out that students used the internet for various purposes as indicated in the table below.

Table 4. 26: Purpose for which internet was used

Theme	Comments	Frequency
Charting	• browsing, charting with friends on social media platforms	40
Buy goods	• buying goods and getting news from outside the world	1
Education	• get answer to some questions like science, history	5
	• Doing research e.g. homework given at school	51
	• Education/e-learning	21
	• downloading music	12
Entertainment	• download Movies	7
	• download pornography movies	3
	• Download games	4
Communication	• Download pictures	1
	• communication purpose	2

From the table above, a few students said they use the net to download pornographic movies, others use it for socialization (n=40), download music (n=12) implying that negative influences can emanate from the internet use. However, there are positive use for the internet as stated by the responses such as education and general knowledge.

4.7.5 Control of internet access

The researcher wanted to know whether anyone controlled the content accessed by students who had the privileged to access the net. It was found out that of those respondents who access internet at home or school, only 34.2% said there was someone who controls what they access in the internet, but the rest (65.8%) said no one regulated what they access in the internet. There was significant association between use of drugs and whether the respondents had access to internet $\chi^2 (1) = 42.242, p < 0.001$. Based on the odds ratio, the odds of student taking any drugs were 4 times higher if they had access to internet (OR 4.726, 95% CI: 2.915 – 7.661), and was statistically significant ($p < 0.001$), implying that access to internet is a significant factor influencing drug abuse among secondary school students,

especially if uncontrolled. This is in agreement with the assertion that research links frequent media use and other risk behaviours and outcomes such as obesity, earlier sexual activity, earlier alcohol and drug use, and heavier use of a range of substances (Laurson et al., 2008; Hanewinkel et al., 2009), and Denniston, M. (2011) U.S findings that Overall, 35.4% (95% CI=33.1%-37.7%) of students reported frequent television (TV) use and 24.9% (95% CI=22.9%-27.0%) reported frequent computer/video game use. A number of risk behaviors, including involvement in physical fights and initiation of alcohol use before age 13, were significantly associated with frequent TV use or frequent computer/video game use, even after controlling for sex, race/ethnicity and grade.

4.8: Knowledge and attitude towards drug abuse

The researcher wanted to know the respondents standing regarding the moderating variable-knowledge and attitude concerning drug abuse.

4.8.1 Knowledge concerning drug abuse

To gauge the students' knowledge about drugs the researcher tested whether the students were aware of basic facts concerning drugs and drug abuse. The findings were as contained in the table below:

Table 4. 27: Whether aware of the harms of using drugs

Response	Aware of the harms		Consider knowledgeable	
	Frequency	Percent	Frequency	Percent
Strongly agree	200	59.7	160	51.6
Agree	111	33.1	105	33.9
Disagree	18	5.4	28	9.0
Strongly disagree	6	1.8	17	5.5
Total	335	100.0	310	100.0

Majority (93.1%) of the respondents had been taught about dangers of using drugs. Also 93.1% of the respondents knew that use of drugs caused harm to a person's health. About 92.8% of the students said they were aware of the harms of using drugs, and also 85.5% said they consider themselves knowledgeable about drug use as shown in figure above. This implies that the respondents were knowledgeable in matters drug abuse.

4.8.2 Source of information on drug abuse

The researcher wanted to know who was responsible for informing the students about drug abuse and the response was as shown in the table below:

Table 4. 28: Who taught respondent about drug use

Person	Frequency	Percent of Cases
Friend	62	20.6%
parent/guardian	112	37.2%
Teacher	183	60.8%
Total	357	118.60%

Majority (60.8%) of the respondents mentioned teacher as the person who taught them about drug use, followed by parent/guardian with 37.2% and friend was mention by only 20.6%. This implies that majority of the respondents received information from credible sources-teachers and parents as opposed to friends. However, the minority who said to have received information concerning drug abuse from friends cannot be assumed. More Strategies aimed at reducing misinformation of students should be sought and implemented

4.8.3 Attitude towards drug abuse

The researcher sought the attitude towards drug abuse among secondary school students in Uasin Gishu Sub County using a likert scale of selected statements to which the students responded and the results were as shown in the table below:

Table 4. 29; Attitude towards drug abuse

Statements	Strongly agree	Agree	Disagree	Strongly disagree	Total
I care about myself and my health	78	21.7	0.3	0	100
No one cares if I used drugs	7.5	14.2	24.4	53.9	100
It is too hard to stop using drugs	29.5	17.8	22.5	30.1	100
Using drugs make people "cool"	8	14.2	31.3	46.6	100
I like how drugs make me feel	2.7	4.2	31	62	100
Drugs make me powerful	4.5	4.8	27.5	63.2	100

According to the answer given by the respondents as per the above statement, its shows that majority of the students had a positive attitude against drug use. Statistical tests of the dependent variable against selected statements revealed as follows that: the association between drug abuse and the whether alcohol is addictive was statistically significant $\chi^2 (1) = 12.523$, $p=0.001$, and the association between drug abuse and whether it is too hard to stop using drugs was statistically significant $\chi^2 (1) = 5.178$, $p=0.023$. This implies that the knowledge about drug abuse have an influence on drug abuse.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The chapter discusses summary, conclusion, recommendations, contribution to the body of knowledge and suggested areas for further research in the following sub themes:

5.2 Summaries of the findings

Based on the data and other information obtained and analyzed to answer the research questions of the study, a number of research findings were presented in chapter four. The findings are summarized in this section.

5.2.1 Demographic characteristics of respondents

The gender distribution for respondents in both teachers and students was at a ratio of 1:1, with the average age of students being 16.8 ± 1.6 years. The prevalence rate of alcohol was 32% (n=113), whereas that of other drugs was 16% (n=56). This seems to represent the fact that based on the odds ratio; the odds of student taking other drugs were 21.4 times higher if they were taking alcohol than if were not taking alcohol. The average age at which the student started abuse drugs was 14 ± 2 years and ranged from 8 to 18 years, and majority (88.3%) of the respondents were introduced to drugs abuse by their friends as compared to those introduced to by parent, teacher and uncle contributing to 6.4%, 3.2%, and 2.1% respectively.

5.2.2: Influence of Social factors on Drug abuse

The association between parents highest education level and drug abuse was found to be statistically significant in this study- the higher the parents' education level, the higher the probability of drug abuse. This could be associated with opulent lifestyle and exposure of teenagers to drugs in social places.

Association between drug use of a student and drug use by a family member was found to be statistically significant, pitting the odds of a student taking drugs at 2 times more if a family member was taking drugs. Moreover, there was significant association between use of drugs and whether the respondents' best friend used drugs $\chi^2 (1) = 20,384, p<0.001$. Based on the odds ratio, the odds of student taking any drugs were 4 times higher if their best friend was taking drugs (OR 3.597, 95% CI: 2.022 – 6.398), and was statistically significant ($p<0.001$).

5.2.3 Influence of economic factors on drug abuse

This study found that use of drugs was positively correlated with amount of money given to the student per term as pocket money $r = .13, p=0.019$, and there was a statistically significant association between abuse of drugs and whether the parent/guardian owned a motor vehicle $\chi^2 (1) = 12.935, p<0.001$. Based on the odds ratio, the odds of student taking any drugs were 2 times higher if their parent/guardian owned a motor vehicle (OR 2.352, 95% CI: 1.469 – 3.767), and was statistically significant ($p<0.001$). The higher the family income, the higher the chance of a student abusing drugs.

5.2.4 Environmental factors influencing Drug abuse

The association between drug abuse and the mode of schooling was not found to be significant $\chi^2 (1) = 1.076$, $p=0.3$. This implies that the type of schooling of a student –whether he/she is a boarder or a day scholar does influence one’s use of drugs.

The association between drug abuse and the nature of the home in terms of rural and urban was statistically significant $\chi^2 (1) = 19.239$, $p<0.001$. The odds of student taking any drugs were 3 times higher if they came from urban area than rural area (OR 2.767, 95% CI: 1.745 – 4.387), was statistically significant ($p<0.001$). This implies that urbanite students are more prone to drug abuse than their rural counterparts. In addition, whether one knew of a wine and spirit shop around the school or not was not statistically associated with drugs abuse, $\chi^2 (1) = 1.348$, $p=0.246$, neither was the distance from the wine and spirit to school $r= .074$, $p=0.336$. This indicates that the closeness to a wines shop may not be an important factor in influencing drug abuse.

5.2.5: Influence of Technology on Drug Abuse

There was significant association between use of drugs and whether the respondents had access to internet $\chi^2 (1) = 42.242$, $p<0.001$. Based on the odds ratio, the odds of student taking any drugs were 4 times higher if they had access to internet (OR 4.726, 95% CI: 2.915 – 7.661), and was statistically significant ($p<0.001$), implying that access to internet is a significant factor influencing drug abuse among secondary school students, especially if uncontrolled.

5.3: Conclusion

This study has found out that all the factors- social, economic, environmental and media technological factors play a role in influencing drug abuse among secondary school students in Uasin Gishu East sub County. The high prevalence of drug abuse was a key indicator of the dependent variable of this study. Whether one has a drug abusing friend, sibling or parent or not, and parents' highest educational level, were found to influence whether a student engaged.

Economic factors influence drug abuse by way of easing access to drugs by students who get excess pocket money to purchase the drugs. Wealthy families are more likely to expose their children early to legal drugs such as alcohol and cigarettes through parties and stocking the drugs at home, oblivious of what the children would do with it. Conversely, extreme poverty may predispose students to drugs, for example if the guardians deal in drugs to survive. The economic status of the respondents of this study was quite low whereas the drug abuse prevalence was high, thereby underscoring the presence of other factors influencing drug abuse other than economic.

The environment in which one lives has been confirmed by this study to influence drug abuse. The odds of a student taking drugs were three times higher if he/she was urbanite than the contrary. The knowledge of a nearby alcoholic drinks outlet was not significant a factor influencing drug abuse, but this study demonstrated that many alcoholic drinks outlets contravene the alcohol control act because they are situated within 600 meters from secondary schools in Uasin Gishu East Sub County.

The association between access to the internet and drug abuse has been demonstrated by this study. The long hours spent watching television by students in and out of school has also been demonstrated, so is the fact that many teenagers access the internet without the control of adults. This took place despite the fact that cybercrime, including drug trafficking via the have been known to exist.

From the findings of this study, it is clear that the youth begin abusing various substances quite early in life which impacts negatively on their education, physical and psychological well being, and ultimately hurt the economy. The earlier we prevent the youth from indulging in drugs the better, as confirmed by Ted Gottfried who found that 40% of those who begin drinking at age 15 and 25% of those who begin to drink at age 17 are at risk of establishing a damaging habit of alcohol abuse that will be hard to break. By contrast, only 10% of those who first try alcohol at ages 21 or 22 are at risk (Ted Gottfried, 2005).

5.4: Recommendation

The influence of the various factors on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub County has been demonstrated. Suggestions of how to mitigate for the vice that has negatively affected society for generations are discussed here:

5.4.1: Social Factors and drug abuse

Strict enforcement of the legal provisions that restrict exposure of young people to social places where alcohol is sold, whether they are alone or in the company of their parents/ guardians would save the wealthy and middle class

teenagers from anguish. Drug abusing parents/ guardians should be banned from stocking liquor at homes where young people can access. Parents should be cautious of the relatives who visit or live with them as those are known to influence unsuspecting teenagers into drug abuse. To wade off the influence of friends, public awareness programmes should be emphasized to target all ages with information about drug substances and the dangers involved with emphasis on abstinence from all forms of drugs.

5.4.2: Economic factors

Peer guidance among parents, stakeholders concerning the amount of money their children access and the dangers associated with that should be pursued. Schools need to establish a mechanism to control the amount of pocket money that their students access. Discussions pertaining how to protect the youth from the legal drugs, especially among the middle to upper class citizens, should be initiated. This is because the legal drug are dangerous to the young mind and body of the teenager and also serve as gate ways to the hard illicit drugs.

5.4.3: Environmental factors

Having been revealed that urbanite teens abuse drugs more than their rural counterparts, and with today's social dynamics that alienate the parent from the child from a relatively early age- thanks to schooling for children and long working hours among the parents/guardians, the teachers must be empowered to provide more support to the pupils and students regarding drug abuse. Avenues to be explored include curriculum enrichment and stronger guidance and counseling departments in schools.

5.4.4: Technological factors

Legislation regarding control of the media, especially the rogue internet is needed. This can be addressed even more easily through the current devolved government units. Restricted advertisement of addictive substances should continue, regulatory agencies like the National Authority For the Campaign Against Drug Abuse (NACADA) and the Kenya Bureau of Standards should be strengthened and left to run devoid of political interference in order to deliver quality services to Kenyans. More importantly, parents and teachers must be sensitized to provide leadership regarding access to internet content by minors. Some youngsters today become more tech savvy than their ignorant parents, hence high risk of exposure to harmful information.

5.5: Contribution to the body of Knowledge

The table below enumerates the contribution that this study has made to the body of knowledge:

OBJECTIVE	CONTRIBUTION/BODY OF KNOWLEDGE
<p>To determine the influence of social factors on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub-County.</p>	<p>There is a positive relationship between parents level of income and student drug abuse.</p> <p>Drug use by a relative influences students to abuse drugs.</p>
<p>To examine how economic factors influence drug abuse among secondary school students in Uasin Gishu East Sub county.</p>	<p>Presence of a drug abusing best friend contributes to an individual student's drug abuse tendencies.</p> <p>The more the pocket money a student accesses, the higher the probability of drug abuse.</p> <p>The more economically endowed the parents are, the higher the prevalence of drug abuse among secondary school students in Uasin Gishu Sub County.</p>
<p>To assess the effect of environmental factors on drug abuse among secondary school students in Uasin Gishu East Sub-County.</p>	<p>There is no significant association between type of schooling and drug abuse. Neither boarders nor day scholars are more prone to drug abuse than the other.</p> <p>Urbanite secondary school students abuse drugs more than their rural counterparts in Uasin Gishu East Sub County.</p>
<p>To ascertain the effect of technology on alcohol and drug abuse among secondary school students in Uasin Gishu East Sub county.</p>	<p>The chances that a student abuses drugs is 4 times higher if he/she accesses the internet, especially if uncontrolled.</p>

5.6 Suggestions for further research

This study suggests that local study be done which correlates the onset of drug abuse and the individual's functionality, productivity and morbidity/ mortality later in life. This would ascertain the relationship between age of onset of drug abuse and future behavioral aspects of the drug abusers.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Serial number **Date**.....

SECTION A: Socio-demographics

The following questions are about you. The information that you give is confidential and you do not have to answer the questions if you do not want to.

1. Gender----- (a)Male (b) Female
2. Age.....(years)
3. What is your religion?(tick in the appropriate box)

(a) Muslim (b)Hindu (c) Christian (d) Budhist

Others (specify).....

SECTION B: Prevalence of drug abuse

Please tick your answer in the appropriate choices below:

1. Have you ever taken alcohol (e.g. beer, spirits ,wine, busaa, chang'aa, Kangara)?

2. (a) Yes (b) No

3. Have you ever taken any drug such as Khat/Miraa, Bhang/ marijuana, cigarette, Kuber, tobacco, Cocaine, Heroine?

(a) Yes(b) No

4. If yes, which ones? (list the drugs you have ever used in your life)

.....
.....

.....
.....

5. How old were you when you first used the drug(s)?
..... (years)
6. When did you last use the drug(s)? (a) Today
(b) Within the last seven days
(c) within the last 30 days but more than 7 days
(d) within the last 6 months but more than 30 days
Other (specify)
7. Who introduced you to drugs? (a) Friend (b) Sibling
(c) Parent (d) Teacher
Other (specify).....
8. Do you know a student/ students who use drugs in this school?
(a) Yes (b) No
9. If yes to question 7 above, which drugs? (a) Cigarettes
(b) Bhang (c) Khat/Miraa (d) Alcohol
(e) Cocaine (f) Heroine
(g) Kuber
Other(specify).....

SECTION C: SOCIAL FACTORS

1. Whom do you live with at home? (a) Both parents (b) Mother only (c) Father only (d) Siblings (e) grand parents
(f) Other (specify).....
2. What is your mother's highest education level attained? (a) None
(b) Primary school (c) Secondary school (d) Middle level college (certificate/diploma) (e) University
3. What is your father's highest level of education attained? (a) None
(b) Primary school (c) Secondary school (d) Middle level college (certificate/diploma) (e) University
4. Does any of your family members use drugs? (a) Yes (b) No
5. If yes, whom? (a) Father (b) Mother (c) Sibling (brother/sister)
Other(specify).....

6. Does your best friend use drug(s)? (a) Yes (b) No
7. If yes, which drug(s)? (a) Cigarettes (b) Bhang (c) Khat/Miraa
 (d)Alcohol (e)Cocaine (f)Heroin (g)Kuber
 Other(specify).....

SECTION D: ECONOMIC FACTORS

1. How much pocket money (in Kshs.) do you receive per term?
 (a) Less than 500 (b) 501-1000 (c) 1001-3000 (d) 3001-5000 (e) Over 5000
2. Do your parents / guardian own a motor vehicle (Car, tractor, lorry, matatu, bus, etc.)? (a) Yes (b) No
3. Which of the following best describes your parents' house at home? (a)Own house (b)Rented house (c) Other (specify).....
4. Remember your main house at home? What material is the wall made of? (a) Timber (b) iron sheets (c) blocks/ bricks and cement (d)Mud (e) Other (specify).....
5. How about the floor of your main house, what material is it made of?
 (a)Mud (b)cement (c) tiles (d) other (specify).....
6. How many rooms does your main house at home contain?
 (a) 1 (b) 2 (c) 3 (d) 4 (e) 5 (f) 6 and above
7. What is your parents' main source of income? (a) government employee (b) business person (c) large scale farmer (d) small scale farmer (e) unemployed (f) Other specify.....

SECTION E: ENVIRONMENTAL FACTORS

1. What mode of schooling are you registered under? (a) boarder (b)day scholar

2. What is the nature of your home in terms of urban and rural setting? (a) Rural area (b) Urban area
3. If your answer to question 2 above is urban, how would you classify your estate to be? (a) Leafy suburb (b) slum area (c) Middle income estate (d) other(specify).....
4. Do you know of any wines and spirits shop or bar around your school? (a) Yes (b) No
5. If your answer to question 4 above is yes, how far away from the school is it situated? (a) Within 100 meters (b) 100-500 meters (c) 500metres-1km (d) 1-2KM (e) Other(specify).....
6. How often do teachers inspect your belongings in the school dormitories/classrooms? (a) Weekly (b) Monthly (c) Once per term (d) Never (e) other(specify)

SECTION F: TECHNOLOGICAL FACTORS

1. Which of the following equipment do you have access to at home? (Tick the appropriate boxes) (a) Television set (b) Radio (c) Compact Disc(Cd)player (d)/Digital Versatile Disc(Dvd) player (e) Computer/laptop (f) Tablet/ I pad(g)Smart Phone
2. For how long do you watch television at home?(a)Less than 1 hour (b) 1-2 hours (c) 2-5 hours (c) more than 5 hours
3. Do you access the internet at home or in school? (a) Yes (b) No
4. If your answer to question 3 above is yes, in what purposes do you use the internet for? (state)
.....
.....
.....
5. Does anyone control how and what you access in the internet? (a)Yes (b) no.

Section G: knowledge and attitude towards drug abuse

Please circle your appropriate response from the choices given;

Knowledge;

1. Have you ever been taught the dangers of using drugs?

- a) Yes
- b) No

2). Is the use of drugs harmful to a person's health?

- a) Yes
- (b) No
- (c) I don't know

3). I am aware of the harms of using drugs

- a) Strongly agree
- (b) Agree
- (c) Disagree
- (d) Strongly disagree

4). I consider myself knowledgeable about drug use

- a) Strongly agree
- (b) Agree
- (c) Disagree
- (d) Strongly disagree

5). Alcohol impairs a person's judgment

- a) Yes
- b) No/ I don't know

6). Using alcohol can kill someone

- a) Yes
- b) No/ I don't know

7). Alcohol is addictive

- a) Yes
- b) No/ I don't know

8). Who taught you about drug use?

- a) Friends
- b) Parents/guardians
- c) Teachers

Attitude;

1). I care about myself and my health;

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

2) No one cares if I used drugs;

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

3). It is too hard to stop using drugs;

- a) Strongly agree
- b) Agree
- c) Disagree
- d) Strongly disagree

4). Using drugs makes people “cool”;

- a) strongly agree
- b) agree
- c) disagree
- d) strongly disagree

5). I like how drugs make me feel;

- a) strongly agree
- b) agree

- c) disagree
- d) strongly disagree

6). Drugs make you feel powerful;

- a) strongly agree
- b) agree
- c) disagree
- d) strongly disagree

APPENDIX II: INTERVIEW SCHEDULE

Serial number/code..... Date.....

I am going to ask you a few questions about drug abuse. Please feel free to decline to answer any question at any time during our interview.

- 1) Interviewee's gender.....
- 2) For how long have you been in this school?.....
- 3) Do you perform inspection of your students' belongings..... If yes, how often?.....
- 4) Do you think drug abuse is a problem in schools.....
- 5) why?.....
.....
- 6) Have you ever handled any case of drug abuse in this school?
- 7) How many cases in the last year,.....6 months
One month
- 8) In your own assessment, do you see any gender bias in drug abuse?
.....
- 9) Do you think there is any association between a student's family background and drug abuse? (Probe)
.....
.....
- 10) In your opinion, is there any association between drug abuse and type of schooling (day scholar / boarders)
.....
.....
- 11) Is there any association between amount of pocket money a student receives and drug abuse?
.....
- 12) Do you control the pocket money given to your students? if yes, how?
.....

APPENDIX III: CONSENT FORM

Factors influencing uptake of drugs and alcohol among secondary school students within Uasin Gishu Sub County

You must read this greeting to the respondent and proceed with the interview only after he/she gives consent.

Good morning/afternoon, Madam/Sir. My name is MOSES KOMEN. I am here today from University of Nairobi, Eldoret campus to collect information and data for the study on alcohol and drug abuse.

I will be asking you questions on demographics and public health issues related to drugs and alcohol abuse. All information you provide will remain confidential.

Benefits

This is a research project and the findings may be used by the Government's policy makers and health providers to design appropriate policies and plans to provide better alcohol and drug abuse prevention and treatment services in future. Your participation will help us to gain a better understanding of drug related issues affecting young people.

Risks

Am aware of the fact that some of the questions regarding immunizations may be sensitive and time consuming. Everything you will tell me will be kept confidential. Under no circumstance will we link your name to the data during analysis and dissemination of the study findings. **If you choose not to participate, it will not affect you in anyway. If you feel uncomfortable in the course of the survey, you can withdraw at any time.** If you agree to participate, it will take 15 minutes to complete the interview. If you have any further questions during the period and in the future, please do not hesitate to contact the research team using the telephone numbers below.

May we proceed? Verbal consent: Yes.....No.....

Date

Thank you for participating.

Contacts for the research team,

Mr. Moses Komen

UNIVERSITY OF NAIROBI, P.O BOX NAIROBI, Kenya

Phone; 0721602232, **E- Mail address;** komenmos@gmail.com

APPENDIX IV: KREJCIE AND MORGAN SAMPLE SIZE TABLE

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	238
15	14	110	86	290	165	850	265	3000	241
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

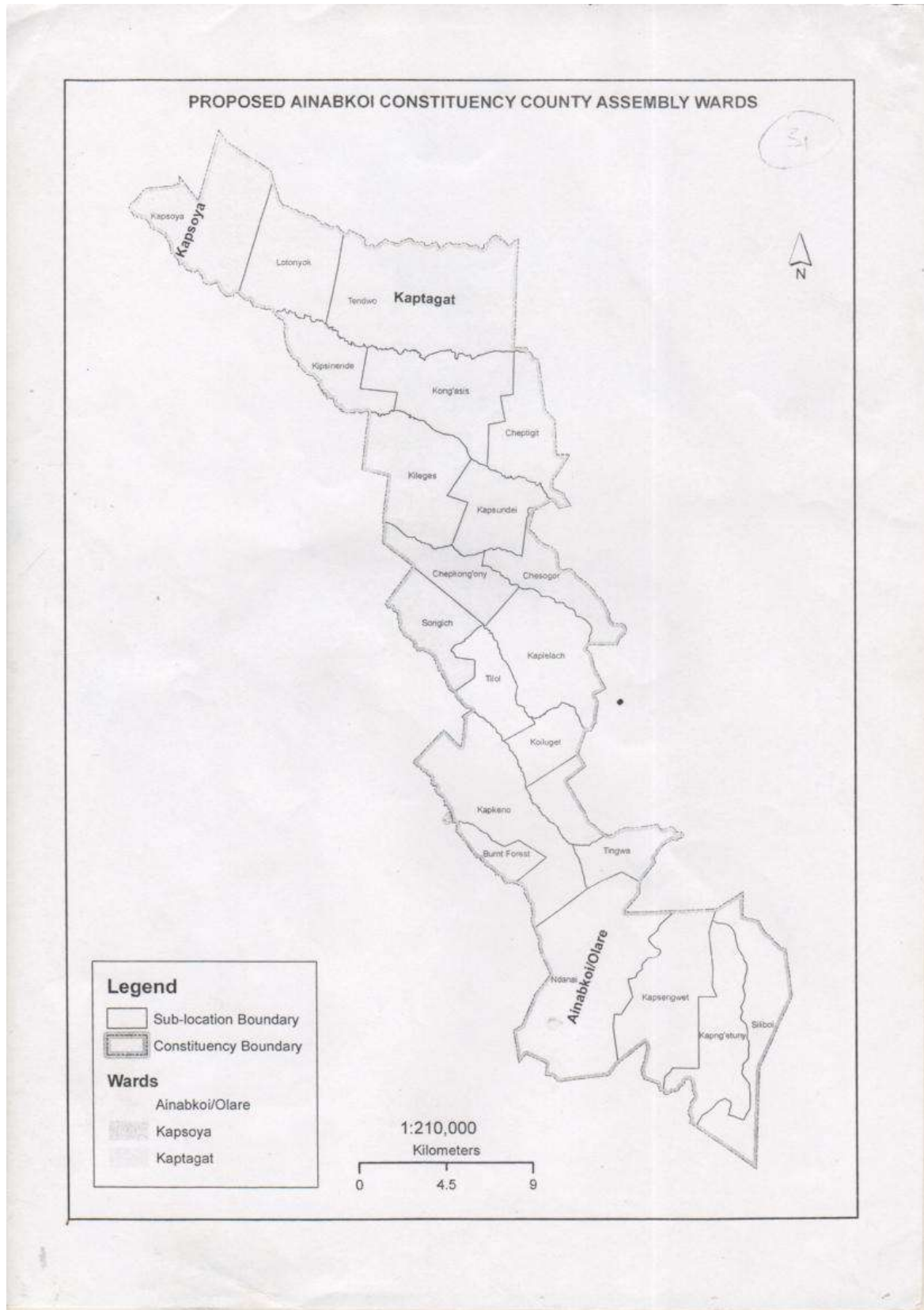
Note: "N" is population size "S" is sample size.

Krejcie, Robert V. Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970.

Proportionate sample members = $\frac{\text{Total population} \times \text{sample size}}{\text{Total population}}$

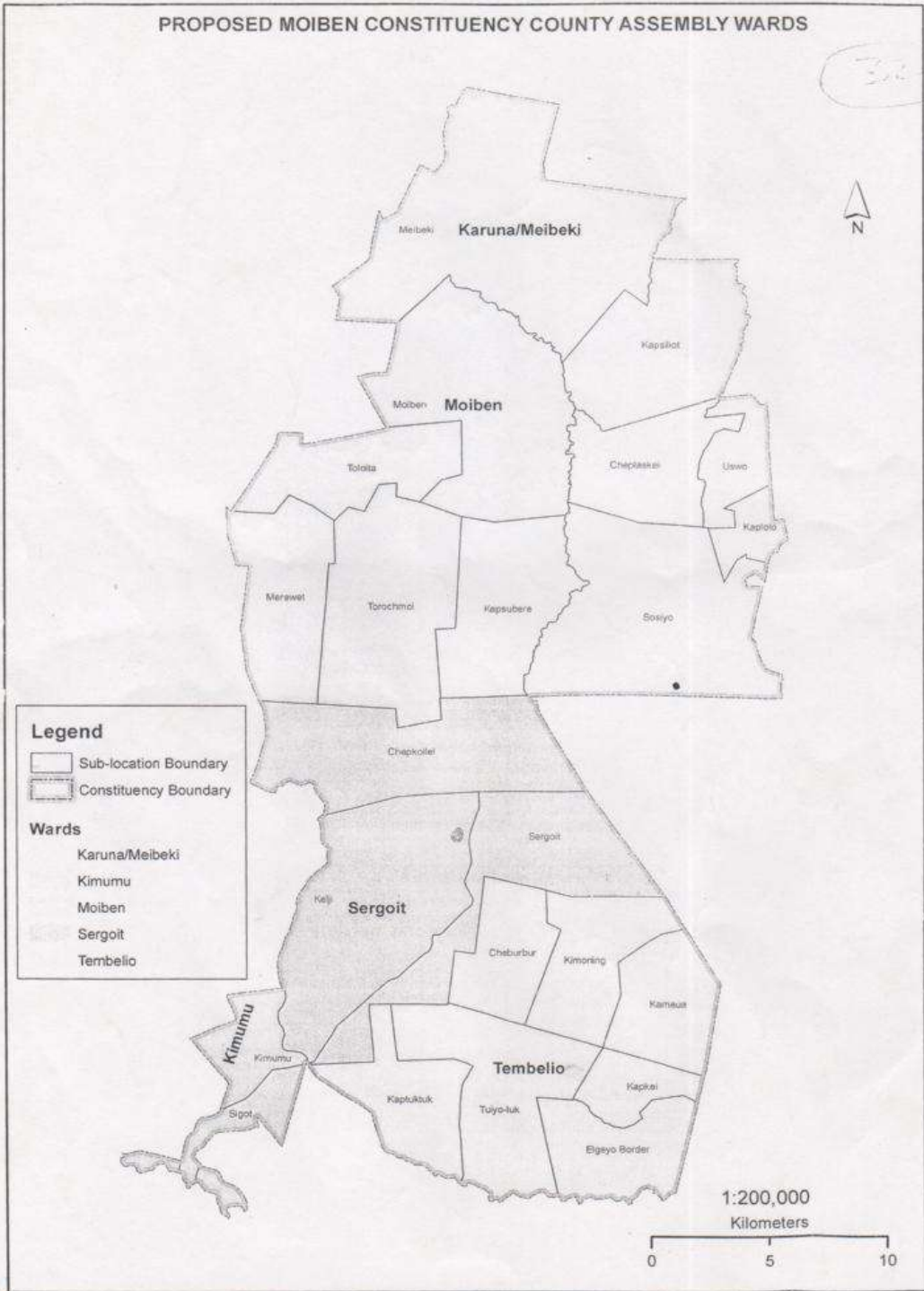
Total population

APPENDIX V: MAP OF STUDY AREA



PROPOSED MOIBEN CONSTITUENCY COUNTY ASSEMBLY WARDS

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APPENDIX VI: RESEARCH PERMIT

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 2165

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:

MR. MOSES KOMEN KIPLUKEI
of UNIVERSITY OF NAIROBI, 0-30100
eLDORET, has been permitted to conduct
research in Uasin-Gishu County
on the topic: FACTORS INFLUENCING
DRUG ABUSE AMONG SECONDARY
SCHOOL STUDENTS IN UASIN GISHU
EAST SUB-COUNTY, KENYA

For the period ending:
15th December, 2014

Permit No : NACOSTI/P/14/0174/2237
Date Of Issue : 4th July, 2014
Fee Received :Ksh 1,000

Applicant's Signature

Secretary
National Commission for Science, Technology & Innovation



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

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When replying please quote

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P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

4th July, 2014

NACOSTI/P/14/0174/2237

Moses Komen Kiplukei
University of Nairobi
P.O.Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Factors influencing drug abuse among secondary school students in Uasin Gishu East Sub-County, Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Uasin-Gishu County** for a period ending **15th December, 2014.**

You are advised to report to **the County Commissioner and the County Director of Education, Uasin-Gishu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Uasin-Gishu County.

