DECLARATION

Student declaration.
This thesis is my original work and has not been presented for a degree in any other university.

Signature __________________________ Date __3/10/2016________________

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Supervisor declaration

This thesis has been submitted for examination with our approval as university supervisors

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DEDICATION

This work is dedicated to Almighty God for his sufficient grace. Secondly to my parents Mr & Mrs Onchonga.
ACKNOWLEDGMENT

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ABBREVIATION AND ACRONYMS

AIDS Acquired Immuno-Deficiency Syndrome
CU Community Unit
DF Degree of Freedom
EMCDDA European Monitoring Centre for Drugs and Drug Addiction
DSA Drugs and Substance Abuse.
DHIS District Health Information System
FGD Focused Group Discussion.
HIV Human Immunodeficiency Syndrome
INCB International Narcotics Control Board.
NACADA National Campaign against Drugs Abuse Authority.
SAMHSA Substance Abuse and Mental Health Services Administration
SPSS Statistical Package for Social Sciences
UN United Nations
WDR World Drugs Report.
WHO World Health Organization.
DEFINITION OF TERMS

**Drug**: It is a substance that due to its chemical nature affects physical, mental and emotional functioning. It can enter the body through chewing, inhaling, smoking, drinking or injection.

**Drug abuse**: Refers to misuse of any psychotropic substances resulting in changes in bodily functions, thus affecting the individual negatively; socially, economically and health wise.

**Community Unit**: As defined in this context comprises approximately 1,000 households or 5,000 people who live in the same geographical area, sharing resources and challenges. In most rural areas such a unit would be a sub-location.

**Psychoactive Substance**: Refers to any substance that when taken by a person can modify perception, mood, cognition, behaviour, or motor functions.

**Substance Abuse**: This includes the use of chemicals in excess of normally prescribed treatment dosage and frequency, even with knowledge that they may cause serious problems and eventually lead to addiction or even death.

**Youth**: Period between childhood and adulthood. As per the United Nations definition, youths are those persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States. All UN statistics on youth are based on this definition, as illustrated by the annual yearbooks of statistics.

**Drug Policy**: A brief statement outlining a government’s stand or position on procedures for dealing with drug-related issues. In Kenya, drug trafficking and abuse is considered a criminal offence under the Narcotics Drugs and Psychotropic Substances Control Act of 1994.
Drugs and substance abuse (DSA) continue to endanger the health and welfare of youths throughout the world. Substance abusers pose a threat to economic and social development. The dependence on drugs is often aggravated by low socio-economic development status, which undermines human socio economic development. Despite the problems caused by drugs and substance abuse, the magnitude and effects among youths in Samburu County is not known. The main objective of this study was to determine the magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu County, while the specific objectives were to determine types of DSA, the level of DSA, contributing factors to DSA and the effects of DSA among youths in Samburu County. The study utilized a cross-sectional study design. The study used both quantitative and qualitative data collection techniques. A total of 415 youths aged 15-24 were involved in the study. Simple random sampling was used to select one sub county of study. This was followed by selection of four community health units through the same method. At the selected community health units, research participants who fulfilled the inclusion criteria were selected through systematic random sampling. An interviewer-administered questionnaire was used to collect quantitative data and focused group discussion guide was used to gather qualitative data. The tools were pre-tested to test their reliability and validity. Quantitative data was analysed using SPSS. Chi- Square test was used to test for significance of association among study variables and odds ratio was used. 52 % of the respondents reported to be currently using drugs. Drugs commonly abused included miraa (33.3%), sniffed tobacco (24.1%), traditional liquor (20.4%), cigarettes (12.5%), alcohol (6.9%) and bhang (2.8%). Chi-square analysis demonstrated that drug use and gender of the respondents was statistically significant at 95% confidence level with $\chi^2=107.0$; df =1; p=0.0001. Odds ratio analysis showed that males were 9.5 times more likely to use drugs than female. Respondents reported that miraa was the drug commonly abused by males (55.9%) while females (51.1%) mostly abused sniffed tobacco. Markets and friends (88%) were the main sources of drugs and substances with sniffed tobacco (43.9%) and miraa (20.7%) being rated as the most readily available drugs. Peer pressure was reported by 48% of the respondents as the main factor that drives youths to DSA. 9.9% of the respondents admitted to have started using drugs after marriage citing lack of income and fights with spouses as the contributing factors to drug use after marriage. 56.6% of the respondents did not know of any health effects of DSA. Some of the recommended intervention to curb DSA in the study area included awareness creation, stringent measures to control the accessibility to DSA, functional youth friendly centres and health education on the effects of drug abuse. In conclusion, respondents agreed that war on drug abuse is achievable. It is envisaged that the study will inform the formulation and implementation of policies and interventions that can be applied across the region, Kenya and beyond.
CHAPTER ONE: INTRODUCTION

1.1: Background to the study

Drugs and substance abuse is a problem that all countries of the world have had to contend with for centuries. Drug and substance abuse continues to exert a significant pressure, with valuable human lives lost and productive years of many persons being lost (World Drug Report, 2014). Globally, it is estimated that 1 in 20 adults or a quarter of a billion people, used at least one drug in 2014. An estimated 207,400 drug related deaths were documented in 2014 and globally it is estimated that in 2014, over 29 million people who use drugs are estimated to suffer from drug use disorders and of those, 12 million are people who inject drugs of whom 14% are people living with HIV, the effect of drug use in terms of its consequences on health continues to be overwhelming (WDR, 2016).

Drugs and substance abuse has permeated all strata of the society with the youth being the most hit. Most users fall between the ages of 16-30 years while experimentation with drugs begins as early as four years old (Gacicico, 2001). The youths and particularly students are vulnerable owing to peer pressure, media influence, poor guidance and role modelling (Muchemi, 2013)

African region still remains a major hub for most of the drugs and substances of abuse. Currently Africa is the second largest continent for production, trafficking and consumption of Cannabis Sativa (UNODC, 2005). Nearly 16 countries have attested abuse of opiates, with prevalence rates between 0.01 to 0.8 percent for the population above 15 years. Cocaine has also been reported in Africa region and majority of those involved with these drugs are youths who are in school and out of school (Basangwa, 2006).
Kenya and other developing countries have not been immune from the torment of drugs use, abuse and dependence. Conferring to analyses by Population Communication Africa (Masita, 2004), virtually every youth in Kenya at one time in his or her lifetime experiments with drugs particularly cigarettes and alcohol. The report continues to illustrate that the main worry is the high proportions of these youths who ultimately becomes addicted, risking their own health and safety and instigating distress to peers and family.

A report by NACADA indicates that 13.3% of the population in the country are using alcohol, 9.1% tobacco, 4.2% miraa, 1% bhang and 0.1% heroine. Apparently cannabis Sativa is the most undoubtedly available illicit drug in the country at 49% trailed by cocaine and heroin in that order. In terms of accessibility, Traditional liquor is easily accessible substance in the country followed by wines and spirits and chang’aa in that order. An estimated 30% of citizens aged 15-65 have at least consumed alcohol in their lives. In terms of tobacco smoking, 17% of men smoke tobacco while 2.1% of women use tobacco. The most alarming thing is that in Kenya, the median age of first time misuse of drugs has gone to a low of 10 years (NACADA, 2012).

Drugs and substance use and abuse is swayed by several factors such as gender, the family history and also influence of parents and guardians. Males are more likely to abuse drugs and other substances with an estimated ratio of 5:1 (Emmite and Swierzewski, 2008). Studies have shown that irrespective of family history of drugs and substance abuse, non-existence of parental guidance, unadorned and recurrent family conflict, and poor relationship can accelerate drugs and substance abuse in youths (Randerson, 2007). Use and abuse of drugs among youths can be seen as a way of coping with stress, anxieties, and uncertainty of aging (Ngeno, 2008).
Individual factors and environmental influence are key factors contributing to drug use among youths globally. In his study, Kalix (2008) illustrates that; use of intoxicants in Kenya can be sketched as far back as pre-colonial periods when traditional liquor and other drugs were abused as part of the traditions of the society. During those days, the societies had structures, plusses and tenets that stringently guided the use of these substances. Consumption of these substances was generally a privilege of the elders, more often than not, of the male elders. Acuda (2009) points out that the definite existence of drug abuse, as a socio economic setback was very minimal because of sound social edifices and institutions that lived back then.

In the urban setups currently, drugs and substance abuse is rampant and on the rise (Maithya, 2012). Unprecedented liberal use of these substances exceptionally among the youths has resulted in augmented crimes and domestic vehemence. It is projected that the prevalence of HIV/AIDS among injecting drug users in the country is between 69 and 87 % (Kerechio, 2008).

The use of drugs and substances cause substantial health and social harms for the people who use them and also for others in their families and society (World Drug Report, 2012). Drugs and substance abuse is a causal factor for intended and unintended harms and social and psychological harm to those abusing and their families.

1.2: Problem statement
Drugs and substance abuse among youths in Kenya has become a serious problem. The trend shows continuous increase of drugs and substance abuse among youths. Regrettably, drug addiction by youths impedes their socio-economic development (Boyd, 2005; NACADA, 2007; Nyassy, 2008). As such, Youths aged between 15-24 years are most disproportioned as they transition from childhood to adulthood
(Kiambathi, 2007). Data from Maralal County referral hospital shows an increased number of cases of mental and behavioural disorders attributed to drugs and substance abuse among youths 15-24 years (DHIS, 2013). This situation is further compounded by high levels of poverty and illiteracy among youths in Samburu County; an arid and semi-arid nomadic pastoralist region. It is on this context that this study was carried out to determine the magnitude and perceived socio-economic effects of drugs and substance abuse among youths in Samburu County.

1.3: Justification
Eradicating drugs and substance abuse among youths 15-24 years is still a mirage worldwide and Kenya is no exception. Similarly, drug and substance abuse in Samburu County greatly afflicts youths 15-24 years. There is need to document magnitude and socio-economic effects of drugs and substance abuse among youths in arid and semi-arid areas like Samburu County so that the situation can be understood. This documentation will contribute greatly to the body of knowledge since there is a gap as no substantial studies have been carried out in the recent past to determine the same.

1.4 Research questions
1. What types of drugs and substances are commonly used by youths in Samburu County?
2. What is the extent of drugs and substance abuse by youths in Samburu County?
3. What are the contributing factors to drugs and substance abuse among youths in Samburu County?
4. What are the effects of drugs and substance abuse among youths in Samburu County?
1.5: Null Hypothesis
This study hypothesized that Socio-demographic factors do not influence drug abuse among youths in Samburu County.

1.6: Research Objective
1.6.1: Broad Objective
To establish the magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu County.

1.6.2: Specific Objectives
1. To determine the types of drugs and substances commonly abused among youths in Samburu County.
2. To establish the extent of drugs and substance abuse among youths in Samburu County.
3. To establish contributing factors to drugs and substance abuse among youths in Samburu County.
4. To determine the effects of drugs and substance among youths in Samburu county.

1.7: Significance of the Study
The study findings will aid the County government and other stakeholders to comprehend the existing situation and appropriately make alterations to address the magnitude and socio economic effects of DSA among youths in Samburu County. Equally, these findings will help in formulation and execution of preventive and control policies and interpolations by both the Central and County governments. The study will augment the body of knowledge in the area of Drugs and Substance Abuse among youths in the study area, and Kenya as a whole.
1.8: Limitations and Delimitations.

This study targeted only four community health units out of the possible seven community health units in Samburu Central Sub-County. This was because of the vastness of the study area and logistical constraints.

1.9 Conceptual Framework

This study looked at the independent variables such as demographic factors (such as age, gender, occupation, marital status, income), contributing factors such as poverty, availability of drugs, peer pressure, media, and how they impact on individual’s use and abuse of drugs and other substances.

Demographic factors such as age, gender, occupation, religion, education and marital status often influence the decision to indulge in drug abuse. Studies have shown that men are more likely to engage in maladaptive actions such as drug abuse and misuse of money. Age is also a major factor, which influence the onset of drug abuse.

Educated individuals are known to make self-enhancing decisions, which are less harmful to them as compared to uneducated ones who might be frustrated and hence end up confronting himself/herself through drugs and substance abuse. Religion also plays a bigger role in socializing the individual by providing the pros and cons to guide one’s behaviour and social interactions.

Social cultural factors also play a major role in determining one’s behaviour. For example, some cultures recommend taking of stimulants, depressants and hallucinogens such as beer, liquor, wine and tobacco during cultural ceremonies. Some of these drugs and substances were culturally accepted during these functions.
Independent variables.

Socio demographics
- Income
- Gender
- Marital status
- Education level

Contributing factors
✓ Poverty
✓ Drugs availability
✓ Peer pressure
✓ Media

Intermediate Outcomes
- Health problems
- Unproductiveness
- Lack of focus

Magnitude and socio-economic effects of D.S.A

Types of drugs and substances used/Abused

Knowledge on Effects of DSA

Source: literature review

Figure 1.1: Conceptual framework
CHAPTER TWO: LITERATURE REVIEW.

2.1 Introduction
This chapter reviews several literatures related to drugs and substance use and abuse among youths in a wider scope. It will have the following sub-headings: definition and the concept of DSA, the global situation of DSA, types of drugs and substances commonly abused, factors contributing to DSA, socio-economic effects of DSA, and finally it will discuss various strategies that can be applied to curb DSA.

2.2. Concept of Drugs and Substance Abuse
Several researchers have given different definition of drugs and substance abuse. According to WHO (2004), drug abuse is defined as the self-administration of any substance in a way that dissuades from approved medicinal or social patterns within a given society. The definition by WHO includes both legal and illegal drugs and substances. The legal drugs are those that are generally recognised and their use does not institute any criminal umbrage or break the law of the country. In Kenya, some of the legal drugs include alcohol, Miraa, sniffed tobacco and cigarettes. An illegal drug on the other hand are substances that are not accepted socially and if one is found with them or using any of them will constitute a criminal offence under the constitution and this will include drugs like cannabis, heroin, ecstasy, and lysergic acid diethylamide (NACADA, 2004). Wolmer, (2009) also defines a drug as any substance which when initiated into the body will modify the normal organic and psychological performance of the body particularly the central nervous system. Substance abuse does not only encompass drugs only but other chemicals not classified as drugs such as household detergent, paints and industrial solvents are among the substances commonly abused by young people world all over (Otieno, 2006).
Prescription drugs and drugs drawn over the counter are also abused. They are abused when a person continues to use them without any given medical condition and accurate prescription from the physician. Some of these prescription drugs would be painkillers, mood elevators or antidepressants. These prescription drugs may comprise: Valium, codeine, phenobarbital, piriton and sleep control medicines. It is unfortunate that even the medical professionals such as doctors and other physicians too abuse prescription drugs (Nyanga, 2009).

2.3. The Extent of Drugs and Substance Abuse

2.3.1. Global Perspective of Drug and Substance Abuse

Drugs and substance abuse have been there since time immemorial. Before 1980s, the use of drugs and other substances was limited to the elders when they performed particular cultural tasks like ceremonies and other rituals, but after that, the use of drugs and substances has spread to many young populations in almost every part of the globe (WHO, 2004). At a global level, there has been an upsurge in the production and misuse of psychoactive drugs that are not under international control (WDR, 2013). Globally, the demand for drugs and substance abuse has not been significantly abridged. Constraints do exist in the enactment of the drugs and substance control system (WDR, 2013). The magnitude of new psychoactive drugs and the swiftness with which they are emerging in all states globally is one of the most prominent trends in drug market places over the last couple of years (WHO, 2010). Illicit drugs and substance abuse continue to endanger the health and welfare of youths throughout the world. Substance abusers pose a threat to the stability and security of many regions and to economic and social development (WDR, 2013).
2.3.2: Drugs Abuse Situation in Africa

Drug abuse as a major social setback is growing in the continent and the array of use is equally swapping. Broadly, there emerges to be a decline in the age of drugs users. Young people across the continent currently comprise the high-risk group (Parry et al., 2004). Unvaryingly, shots from surveys in countries across the continent shows that the use and abuse of substances by minors and youths start with alcohol and cigarettes (Maithya, 2012). Consumption of alcohol among this age bracket is common in both genders. In contemporary focused group discussion for young people (Odejide, 2005), respondents agreed that early onset of taking drugs was attributed to peer influence, pressure from family and individual glitches. Intermittent drinking of alcohol was reported to be the array customarily at social places.

The proscribed drugs frequently used and abused in the continent includes: cannabis, amphetamine-type stimulants, Ecstasy, opium and its derivatives e.g. heroin, cocaine and crack cocaine, and Miraa. As illustrated in the INCB (2014) report, bhang remains the greatest abused proscribed drug in many regions in Africa. Additionally, the continent of Africa endures to be a major source of cannabis sativa found in illegal market places in the region or smuggled out to markets in Europe. Bhang is smoked either alone or in combination with other proscribed substances such as heroin or cocaine. It is documented in the Research Update (2003) that in designated treatment locations in South Africa, the use of bhang and mandrax alone or in combination is on the rise. Numerous employees smoke bhang, mostly, those doing tough jobs. James (1999) illustrates that staving off hunger was seen as a key element of cannabis sativa in Mozambique. Majority used bhang to handle wide-ranging pressure while others used to leaden the shock of the horrors they experienced.
In 2014, INCB documented that pharmaceutical drugs containing psychotropic substances are progressively sold over the counter and without prescription in many regions in the continent. The document further states that ephedrine is often sold by street vendors or in neighbourhood shops in east and central Africa region. The yoke of proscribed and permitted psychoactive substances trafficking in Africa exposes young people to DSA. Additionally, issues such as extreme poverty, congestion, delinquency, redundancy, parental deprivations, drugs-dependent parents and guardians, weakening school systems and societal ambiguity create a conducive environment for DSA in youths (Maithya, 2012)

2.3.3 The Situation of DSA in Kenya.

A report by NACADA (2012) indicates that 13.3% of the population in the country are consuming alcohol, 9.1% tobacco, 4.2% Khat, 1% Cannabis Sativa and 0.1% heroine. Apparently Cannabis Sativa is the most easily obtainable illicit drug in Kenya at 49% trailed by cocaine and heroin. The same report continues to note that the most abused drug in Kenya, which poses greatest risks to the populace, is alcohol. The same report also indicates that traditional liquor is accessible in almost all parts of the country including Samburu. Also wines and spirits and Chang'aa are very predominant in the country. It is estimated that 30% of Kenyans aged 15-65 have at least taken alcohol in their lifetime. In terms of tobacco smoking, 17% of men smoke tobacco while 2.1% of women use tobacco. The most alarming thing is that in Kenya, the median age of first use of drugs is currently 10 years (NACADA, 2012). This report concurs with Ciakuthi, (2009), which indicates that the above listed drugs and substances of abuse are common among youths in Kenya.
2.4: Commonly abused drugs and substances in Kenya.

2.4.1: Alcohol

Alcohol is a widely abused drug in the world (WDR, 2006). In Kenya, 13.3 % of Kenyan drinks alcohol according to Maithya (2012). Types of alcohol include beer, wines, spirits, and locally brewed chang’aa. Alcohol has several health effects that are dependent on several factors such as age, weight of the user, gender and also the amount of food and alcohol taken. The effects can be classified mainly into two categories namely: short-lived effects, which include but not limited to slurred speech, nausea and feeling dizzy and long term effects, including: Unintentional injuries such as car crash, falls, burns, drowning, intentional injuries such as firearm injuries, sexual assault, domestic violence, increased on-the-job injuries and loss of productivity. Consuming alcohol for many years will definitely lead to addiction. It is not advisable to stop consuming alcohol suddenly as this is likely to cause withdrawal symptoms. An expectant mother who consumes alcohol may give birth to babies with foetal alcohol syndrome (WDR, 2012, Beckerleg & Hundt, 2005).

2.4.2: Amphetamines

These substances are found in pill form and tablet. It can be taken orally, inhaled or can be injected. When taken, it stimulates the central nervous system. This drug when taken produces euphoria, aggressiveness and loss of weight. Using these substances for a long period of time will lead to addiction. Misuse of these drugs will lead to compulsive behaviour, hallucination and paranoia and in most instances may influence the user to committing suicide. Dependence on these products is the known long-term effects (WDR, 2012).
2.4.3: Cocaine

This is a very addictive drug, which lies in the class of stimulants. This drug is made from the leaves of coca tree. When taken, it has both short term and long-term effects including short-lived euphoria and irritability. When used for long period, it can lead to adverse effects such as hypertension and insomnia (Muchemi, 2013).

2.4.4: Heroin

This is a fine white powder made from the resin of a poppy plant. It is a very addictive substance prohibited by most governments globally. Majority of users inject this drug to their veins thereby risking having infections especially those who share the needles. This substance can also be smoked or sniffed just like tobacco. The drug has both short term and long-term effects. This substance is very addictive and it is very difficult and painful for users to live without using it (Waldhoer, 2004). Continued use of heroin will lead to dependency and many years of use will lead to the body developing low immunity. This is because in the human body, this drug binds to and activates certain receptors in the human brain called mu-opioid receptors. When activated, they accelerate the release of neurotransmitters dopamine, which then causes an activated pleasure in the user’s body. The consumers then desires more and more of this drug leading to loss of appetite, loss of weight, malaise and finally death may occur (WDR, 2005)

Globally the highest upsurge in heroin use is observed remarkably among young adults between the ages of eighteen to twenty-five years (Maithya, 2012).

2.4.5: Marijuana

Marijuana also known as weed or Ganja is an illegal drug gotten from the green leaves and flowers of Cannabis Sativa plant. Mostly marijuana is smoked and some users add it to food and drinks such as tea. The active ingredient of marijuana is delta-
9-tetrahydro cannabinol, produced by leaves and buds of a female cannabis plant. This chemical causes intoxicating effects (Foundation for Drug Free, 2014). The use of cannabis is common among youths not only in Africa but globally (SAMHSA, 2014).

When abused directly, the active ingredient passes into the bloodstream through the body and finally to the brain. The user feels the effect almost immediately by feeling excited, laughter and sudden increase of appetite. The feeling might be slow if the drug is not taken directly i.e. if mixed with food. When this drug is taken in high amounts, the user may experience hallucinations and at times there is loss of sense of personal identity and it impairs personal judgement. This can again lead to poor coordination of the body, leading to motor vehicle accidents especially to the drivers who abuse this drug (Lenne, 2010; Hartman, 2013)

2.4.6: Miraa/Khat

Use of Miraa in Kenya is very common and the trend is on the increase. About 3.9% of the population in the country are using Miraa and majority of the users are male although women are also using in certain parts of the country. The prevalence of Miraa use is high in northern Kenya, where about 35.8% of males are using. The coastal region equally reported high usage of Miraa at about 13% while other regions have got very minimal usage. Khat can cause many side effects including increased alertness, mood changes, hyperactivity, excitement, anxiety, elevated blood pressure, manic behaviour, paranoia, insomnia and lack of concentration (NACADA, 2012).

2.4.7: Inhalants and solvents

Inhalants refer to the vapours from noxious elements that are huffed to get a swift high. Although there are many household products that can be used as inhalants, the
ones that are very common includes; shoe polish, spray paints, glue, cleansing fluid, toluene and lacquer thinner among others (Foundation for Drug Free World, 2014). Majority of these products produce effects comparable to anaesthetics, which slow down the normal functionality of the human anatomy (Foundation for Drug Free World, 2014).

2.5: Factors leading to DSA

2.5.1: Individual factors

Though many risk factors for adolescent substance abuse and dependence are external, there are several individual factors that contribute to the risk of developing a substance abuse disorder. The two commonly known individual risk factors are attention deficit hyperactivity disorder and depression. Equally, individuals who are diagnosed with posttraumatic stress disorder or mental illness are at greater risk for adolescent substance abuse (CDC, 2011).

Kiiru (2004) claims that pressure from friends and peers can influences youths to abuse substances under the wrong belief that some drugs will arouse appetite for food, increase vigour and give acumen as well as audacity to face life. Bezuidenhout (2004) illustrates that factors like family networks, the surrounding environment and social interactions are key pillars that predisposes youths to DSA. He further asserts that youths whose parents or guardians abuse drugs are at a high risk of abusing drugs as opposed to those whose parents don’t consume these drugs and substances (EMCDDA, 2010).
2.5.2 Contributing Factors

2.5.2.1 Family Factors

Relationships in the family unit play a key function in youths' persona. In the same way, acquaintance to social patterns through the family, as well as specific adaptations, lays the basis for significant modelling and acknowledgment of social alignments. A report by Githinji (2004) denoted that the surrounding in which people grows in performs a profound role in influencing their personality. According to Anderson (2009) there is a robust nexus between drugs abuse by youths and the breakdown in family morals and tenets.

2.5.2.2 Environmental Factors

According to Kenkel (1980), the environment where youths live plays a role in them indulging to drugs and substances use. Accessibility and cost of drugs is also linked with drugs abuse. Equally, the readiness of proscribed drugs such as cannabis, heroin, and cocaine, together with acquisition of legitimate drugs such as miraa; traditional liquor and alcohol may lead to drugs abuse (Gmel, Rehm and Kuntsche, 2003).

A study by Shoemaker (1984) contends that drugs abuse is triggered by a blend of several factors such as the biological, psychosocial and environment where users live. Family pressure, influence by peers and the craving to fit into a certain social class are some of the environmental factors that influence young people to indulge into DSA. Media and influence from friends and peers are universal risk factor for substance use and abuse among youths in many nations (Obot, 2005). It's a common phenomenon especially in urban setups where these drugs and substances are widely advertised in both print media and television. A very interesting study by Kiiru (2004) has shown that both affluence and poverty contribute to drug abuse in Kenya.
2.6 Socio-Economic and Health Effects of DSA

Drugs and substance abuse has far fetching effects both socially, economically and health wise. For young people in schools who indulge into DSA, they are normally reported to have diminished learning ability. It is also common knowledge that people who take drugs in most instances have very poor health as a result of the effects of these drugs. When a community has a big number of young people who are sickling, that community cannot be productive since the active people who should engage in providing services to the community are not able to do so. This brings about retarded population that cannot develop. The ultimate result is a community with no development and therefore a poverty stricken community (Johnston et al., 2014).

2.7 Preventive and Management Strategies in Drugs and Substance Abuse among Youths.

The most effective approach to thwarting drugs and substance abuse among youths is to invest in them and keep them interested and involved in life. Governments should increase funding for after school programmes, mentorship programmes, skill building and job training programmes and skills enhancement (Kevin, 2007). A research by Miller, (2009) suggests that for drugs and substance abuse control efforts to be successful, they must be far-reaching in scope and should explore issues of importance in relation to DSA, these includes giving youths an opportunity to participate in youth programmes that are geared in helping them understand the dangers associated with drug abuse and possible ways of evading these dangers, such as frequent youth trainings, and minimizing peer pressure. Another strategy to prevent drugs and substance abuse among youths should be the implementation of policies and programmes and creation of messages that can help youths to abstain from DSA (Lecoanet, 2010). For successful control of DSA, there is need to continue conversing
consistent information in all social settings such as work place, classrooms, churches and even through the media (Chou et al., 1998).

There is a clear need of encouraging healthcare providers to screen for drugs and substance abuse. This can be done through capacity building them and equipping them with tools and resources (Lecoanet, 2010).

There is need to develop e-learning and continued health education on drugs and substance abuse and control. Such platforms will help clinicians to get acquainted with knowledge and skills that will help them to provide management for drugs and substance abusers who visit their health facilities (SAMHSA, 2012).

There is also a need for establishment of rehabilitation centres in designated places to enhance management of those who are addicted to DSA. The government should work with other local agencies and other investors to cultivate structures and amenities that encourage continued recuperation and fundamental constituent of this effort is encouraging the use of recovery support services (Mangrum, 2008)

Another important prevention and management strategy for DSA is to convalesce the state appraisal on drug use and health indicators. There is need for the nation to provide the utmost meticulous portrait of drug use and related issues.
CHAPTER THREE: METHODS AND MATERIALS

3.1 Research Design
The study used a Cross sectional study design, which is a process of getting insights into the overall image of a situation in a slice of a population without utilizing the entire population. This study design was appropriate since multiple outcomes and data of all variables was collected at once (Gall, Borg and Gall, 1996). This study design was used since it was good for descriptive analysis and hypothesis generation.

3.2 Variables
3.2.1 Independent Variable
The independent variables used in this study were demographic factors, which included age, gender, marital status, occupation and income.

3.2.2 Dependent Variable
The dependent variable was the magnitude and perceived Socio-economic effects of DSA among youths in Samburu County.

3.3 Location of Study
Samburu Central Sub County is located in Samburu County, part of former Rift Valley province. The sub county borders Marsabit to the north, Lake Turkana to the North West, and Isiolo to the East, Laikipia and Baringo to the West. It covers an area of 21,022.2 sq. Km. Temperatures vary with altitude and ranges from a low of 24°C to a high of 33°C, with rainfall ranging between 250mm and 1,250mm in a year.

3.4 Study Population
The study subjects were youths aged 15-24 years from Samburu County. These are adolescents who are estimated to be 20.23% of the population of Samburu, translating to 55,466 youths. The study involved both male and female. According to NACADA, this is the population at the greatest risk of drugs and substance abuse.
3.4.1 Inclusion Criteria
The study included all youths aged 15-24 years who consented to participate in the study. Only those who consented participated in the study. For the minors who participated in the study (the youths below the age of 18 years), their legal tutors, and guardians were asked assent on their behalf.

3.4.2 Exclusion Criteria
The study excluded households that had no youths aged 15-24 years. Those who were unwilling and mentally incompetent were excluded. Minors with no guardians were also excluded from the study.

3.5 Sampling Technique
Samburu County was conveniently sampled by the principal investigator for this study. Simple random sampling was used to select Samburu central sub-county from three other sub-counties that form Samburu County. The three sub-counties formed the administrative units from which sampling frame was derived. Cluster sampling was used to form a cluster of 7 community health units. 4 community health units were randomly selected from which respondents were selected. Using a household register from the local public health office, the total population of youths in each community health unit was obtained. Proportionate probability sampling was used to select the number of respondents in each community health unit. This was obtained by dividing the number of youths in each community by the total number of youths in the 4 sampled community health units. The number obtained in the division was multiplied by 424 i.e. the desired sample size, to obtain the number of youths to be sampled per community health unit. Systematic sampling technique was used in selection of households in each community health unit. A skip pattern was used to select the number of households. This was obtained by dividing the total number of
respondents by the sample size in each community health unit. The study targeted youths aged between 15-24 years old. Households with no youths as stated in the inclusion criteria were excluded. A summary of sampling process is outlined in table 3.1 and 3.2 below.

### Table 3.1 Summary of sampling technique

<table>
<thead>
<tr>
<th>Sampling Unit</th>
<th>Sampling method used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samburu County</td>
<td>Conveniently Sampled</td>
</tr>
<tr>
<td>Samburu Central sub-county</td>
<td>Simple Random Sampling</td>
</tr>
<tr>
<td>Community units in Samburu Central sub-county</td>
<td>Cluster sampling technique and simple random sampling techniques</td>
</tr>
<tr>
<td>No of youths in each community units</td>
<td>Probability proportional sampling technique</td>
</tr>
<tr>
<td>Households</td>
<td>Systematic sampling technique</td>
</tr>
</tbody>
</table>

### Table 3.2 Probability proportion to size per community unit

<table>
<thead>
<tr>
<th>Community units in Samburu Central Sub-County</th>
<th>Community units randomly selected</th>
<th>Population of youths aged 15-24 yrs</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Longewan CU</td>
<td>Suguta C.U</td>
<td>1442</td>
<td>129</td>
</tr>
<tr>
<td>2. Kirimun CU</td>
<td>Sirata C.U</td>
<td>834</td>
<td>75</td>
</tr>
<tr>
<td>3. Suguta CU</td>
<td>Loikas C.U</td>
<td>1441</td>
<td>129</td>
</tr>
<tr>
<td>4. Loikas CU</td>
<td>Kisima C.U</td>
<td>1012</td>
<td>91</td>
</tr>
<tr>
<td>5. Kisima CU</td>
<td>Total</td>
<td>4729</td>
<td>424</td>
</tr>
</tbody>
</table>

### 3.6 Sample Size Determination

The following formula was used to determine the sample size (Cochran, 1963)

Where:

\[
 n = \text{minimum desired sample size} \\
 Z = \text{standard normal deviate corresponding to the 95\% confidence level} = 1.96 \\
 P = \text{estimated prevalence rate of the population who abuses drugs and substances} \\
 d = \text{degrees of precision set at } \pm 5\% = (0.05)
\]
\[ n = \frac{Z^2 p(1 - p)}{d^2} \]

\[ = (1.96)^2 \times 0.5 \times (1-0.5)/ (0.05)^2 = 385 \]

Additional 10% for attrition = 39

Total sample = 385 + 39 = 424

3.7 Data Collection Methods
An interviewer-administered questionnaire (Appendix II) with both open ended and closed ended questions was used to collect quantitative data. The questionnaire was structured with thematic sections in line with the research objectives. Four Focused group discussions were held and FGD guide (Appendix III) was used to gather qualitative data. Note taking was used during FGD sessions to record what was being discussed. The FGD composed of a group of youths between 8-12 and took about 45 minutes. The FGD comprised of both gender.

3.8 Pre-Test
A pre-test of questionnaire was done among 10% of respondents in the survey (42) in Longewan Community Health Unit, in Samburu Central Sub-County. The principal investigator then made necessary corrections and modifications to the study instruments. The training of research assistants was also carried out prior to data collection.

3.8.1 Reliability
Reliability is an extent of the degree to which data collection instruments yield reliable results or data after recapped trials. In research, reliability is swayed by random errors. When random error rises, the consistency declines. A random error is actually the divergence from a true measurement due to features that have not been attended to effectively by the researcher. In this study pre-test was done at Longewan
community health unit which was not included in this study. This was done through reviewing of the questions, proper coding and revising questions that were ambiguous to the subjects.

3.8.2: Validity
Validity is the level to which outcomes obtained from analysis of the data truly represent the phenomenon being studied. Content validity was assessed by university supervisors to assess relevance of questionnaires. Changes were made upon receipt of feedback from the supervisors. Internal validity was maintained by limiting the respondents to youths aged between 15-24 years old.

3.9: Data Analysis and Presentation
The data collected was organized, tabulated and analysed using descriptive and inferential statistics. Descriptive statistics was performed for proportions, percentages, means and their corresponding standard deviations. Descriptive statistics were presented using tables. Odds ratio and chi- square test of hypothesis was used to test associations between independent and dependent variables. An association was considered significant at $p$-value of equal or less than 0.05 and confidence interval was used to determine whether the independent variables were statistically significant. Qualitative data was collected and transcribed, typed into Microsoft word and analysed by using thematic content analysis.

3.10: Ethical Consideration
Ethical approval to conduct this study was obtained from Kenyatta University Ethical Review Committee (Appendix V). Research permit to conduct this study in Samburu County was sought and obtained from National Commission for Science Technology and Innovation (Appendix VII). All respondents were informed on the objectives of the study prior to data collection and all respondents including guardians or parents
for those under the age of eighteen consented to participate in the survey. The respondents were assured of the confidentiality. There was no writing of names on the questionnaires.
CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.0 Introduction
The study targeted a sample size of 424 respondents but only 415 respondents participated in the study. The demographic characteristics of the respondents sampled are presented in the first part of this chapter. The second part involved analysis of magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu County.

4.1 Demographic characteristic of the respondents
Table 4.1 shows the demographic characteristics of the respondents. Majority of study respondents 56.4% (N=234) were male. Distribution by age in years showed that 53.3% (N=221) were aged 22-25 years and a third of the respondents aged between 18-21 years (N=132). Most of the study respondents 48.2% (N=200) had primary education, 24.6% had secondary education (N=102) while less than 5% had post-secondary education (N=26). Distribution by respondents’ neighbourhood revealed that majority of the respondents 82.4% (N=342) of the total respondents were from rural areas. Segregated by religion, majority of respondents 72% (N=300) were Christians.
Table 4.1 Demographic characteristics of respondent

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency (N)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>234</td>
<td>56.4</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>181</td>
<td>43.6</td>
</tr>
<tr>
<td>Age</td>
<td>15-17</td>
<td>63</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>18-21</td>
<td>131</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>22-25</td>
<td>221</td>
<td>53.3</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>198</td>
<td>47.7</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>217</td>
<td>52.3</td>
</tr>
<tr>
<td>level of education</td>
<td>None</td>
<td>87</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>200</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>102</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>15</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td>Respondents</td>
<td>Rural</td>
<td>342</td>
<td>82.4</td>
</tr>
<tr>
<td>neighbourhood</td>
<td>Urban</td>
<td>73</td>
<td>17.6</td>
</tr>
<tr>
<td>Respondents</td>
<td>Christian</td>
<td>300</td>
<td>72.7</td>
</tr>
<tr>
<td>religion</td>
<td>Muslim</td>
<td>16</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>86</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>13</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>415</td>
<td></td>
</tr>
</tbody>
</table>

4.2: Type of drugs used by youths in Samburu County.

Table 4.2 below illustrates the type of drugs by youths who take drugs. About 33.3% (N=72) of the respondents chewed Khat, 24.1% (N=52) sniffed tobacco, 20.4% (N=44) drink traditional liquor, 12.5% (N=27) smoke cigarettes while 6.9% (N=15) used alcohol. Less than 3% (N=6) abused bhang.

Table 4.2: Type of drugs used by respondents

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>15</td>
<td>6.9</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>27</td>
<td>12.5</td>
</tr>
<tr>
<td>Marijuana/bhang</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>Khat/miraa</td>
<td>72</td>
<td>33.3</td>
</tr>
<tr>
<td>Traditional liquor</td>
<td>44</td>
<td>20.4</td>
</tr>
<tr>
<td>Sniffed tobacco</td>
<td>52</td>
<td>24.1</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.2.1 Current use of drugs

Table 4.3 below shows the proportion of respondents who are currently using any form of drugs or substance of abuse. About 52% (N=226) of the respondents reported to be currently using drugs.

<table>
<thead>
<tr>
<th>Currently using drugs</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>216</td>
<td>52</td>
</tr>
<tr>
<td>No</td>
<td>199</td>
<td>48</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.4 displays inferential analysis between demographic characteristics and current drug use. Chi-square analysis demonstrated that drug use and gender of the respondents was statistically significant at 95% confidence level ($\chi^2=107.0; df =1; p=0.0001$). Moreover, odds ratio analysis shows that males were 9.5 times more likely to use drugs than female. Level of education and marital status was also associated with drug use ($\chi^2=22.599; df =3; p<.0001$). There was no direct relationship between age and drug use ($\chi^2=5.242; df = 2; p =0.073$).
Table 4.4 Association between respondents’ demographics and current use of drugs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Are you currently using any drugs or substances of abuse?</th>
<th>Yes</th>
<th>No</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>41.9%</td>
<td>14.5%</td>
<td></td>
<td>(\chi^2=107.0; \text{df}=1; p&lt;0.0001)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>10.1%</td>
<td>33.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>43.1%</td>
<td>4.6%</td>
<td></td>
<td>(\chi^2=223.2; \text{df}=1; p&lt;0.0001)</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>8.9%</td>
<td>43.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of education</td>
<td>None</td>
<td>11.6%</td>
<td>9.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>20.2%</td>
<td>28%</td>
<td></td>
<td>(\chi^2=22.599; \text{df}=3; p&lt;0.0001)</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>15%</td>
<td>9.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Secondary</td>
<td>4.8%</td>
<td>1.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>15-17</td>
<td>7.2%</td>
<td>8%</td>
<td></td>
<td>(\chi^2=5.242; \text{df}=2; p =0.073)</td>
</tr>
<tr>
<td></td>
<td>18-21</td>
<td>19%</td>
<td>12.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22-25</td>
<td>25.8%</td>
<td>27.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2.2: Availability of Drugs

Table 4.5 below displays the source of drugs among drug users. Majority (88% \(N=190\)) of respondents attested that drugs were available in shops/markets. Only 12% \(N=26\) obtained drugs through friends.

Table 4.5 Availability of drugs

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in shops/markets</td>
<td>190</td>
<td>88.0</td>
</tr>
<tr>
<td>From friends</td>
<td>26</td>
<td>12.0</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.3: Ease of availability of drugs by type

Table 4.6 below displays proportions of different types of drugs that are easily available to youths. Sniffed tobacco was easily obtained by 43.9% \(N=182\) of respondents in the survey. Khat/miraa was the second most easily available type of drugs by youths at 20.7% \(N=86\). Alcohol was the least accessible by 8.2% \(N=34\) of respondents in the survey.
Table 4.6: Ease of availability of drugs by type

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>34</td>
<td>8.2</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>48</td>
<td>11.6</td>
</tr>
<tr>
<td>Khat/miraa</td>
<td>86</td>
<td>20.7</td>
</tr>
<tr>
<td>Traditional liquor</td>
<td>65</td>
<td>15.7</td>
</tr>
<tr>
<td>Sniffed tobacco</td>
<td>182</td>
<td>43.9</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3 Extent of Drug and Substance Abuse among youths in Samburu County.

4.3.1: Age of First drug use among those who use drugs by Gender

Table 4.7 below displays ages of respondents by gender of first use of drugs. Close to 40% (N=72) of male youths reported to have first used drugs between the ages of 15-17. The rest 58.9% (N=103) first used drugs when they were above 18 years old. Only one female youth reported to have first used drugs below 18 years old.

Table 4.7: Age of First drug use among those who use drugs by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>15-17</td>
<td>72</td>
<td>41.1</td>
</tr>
<tr>
<td></td>
<td>18-24</td>
<td>103</td>
<td>58.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>175</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>15-17</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>18-24</td>
<td>50</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>51</td>
<td>100</td>
</tr>
</tbody>
</table>

4.3.2: Time of drug use by youths

Table 4.8 below displays drug use trends. Majority of respondents in the survey claimed to be using drugs all day. Forty-two percent (N=95) used drugs between 6-11pm while a few used between 4-6pm in the evening.

Table 4.8: Time of drug use by youths

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-6pm</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>6-11pm</td>
<td>95</td>
<td>42.1</td>
</tr>
<tr>
<td>All day long</td>
<td>130</td>
<td>57.5</td>
</tr>
<tr>
<td>Total</td>
<td>226</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Chi-square test was used to test the association between respondents’ demographics (Gender, marital status, level of education and age) and opinion on drug use trends. The results showed that male respondents (56.1%) were more likely to report increase in drugs or substance abuse in the area as compared to the female respondents (43.6%). This association was statistically significant at 95% confidence level with $\chi^2=35.054; \text{df}=2; P<.001$. Respondents that were married (46.1%) were more likely to report increase in drugs or substance abuse in the area as compared to single respondents (38.6%). However, this association of trend in drugs abuse and marital status of the respondents was not statistically significant. Association of trend in drugs abuse and level of education of the respondents and age of the respondents were not statistically significant as shown in table 4.9 below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Increasing</th>
<th>Decreasing</th>
<th>No idea</th>
<th>Total</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>183</td>
<td>10</td>
<td>40</td>
<td>233</td>
<td>$\chi^2=35.054; \text{df}=2; P&lt;.001$</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>148</td>
<td>21</td>
<td>13</td>
<td>182</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>161</td>
<td>12</td>
<td>25</td>
<td>198</td>
<td>$\chi^2=4.325; \text{df}=2; p=.115$</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>191</td>
<td>11</td>
<td>15</td>
<td>217</td>
<td></td>
</tr>
<tr>
<td>Level of education</td>
<td>None</td>
<td>71</td>
<td>6</td>
<td>10</td>
<td>87</td>
<td>$\chi^2=12.175; \text{df}=6; p=.058$</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>170</td>
<td>13</td>
<td>16</td>
<td>199</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>90</td>
<td>5</td>
<td>7</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Secondary</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>15-17</td>
<td>52</td>
<td>6</td>
<td>6</td>
<td>64</td>
<td>$\chi^2=5.398; \text{df}=4; p=.249$</td>
</tr>
<tr>
<td></td>
<td>18-21</td>
<td>117</td>
<td>6</td>
<td>8</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22-25</td>
<td>183</td>
<td>11</td>
<td>26</td>
<td>220</td>
<td></td>
</tr>
</tbody>
</table>
4.3.3: Trends of drug use among youths in Samburu County

Respondents were also asked of their perception on the drug trends in the county. Majority of the respondents (84.7%, N=351) were of the opinion that drug use has been on increase in the study area, 5.8% (N=24) thought the drug menace was on the decrease while 9.6% (N=40) had no idea of the drug trends in the study area.

Table 4.10: Trends of drug use among youths

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing</td>
<td>351</td>
<td>84.6</td>
</tr>
<tr>
<td>Decreasing</td>
<td>24</td>
<td>5.8</td>
</tr>
<tr>
<td>No idea</td>
<td>40</td>
<td>9.6</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.4 Availability of Drug in Terms of Costs

As shown on figure 4.1 below, 69% of respondents in the survey claimed that Sniffed tobacco was accessible most easily in terms of cost. Khat and Cigarettes too were affordable at 11% (N=44).

![Figure 4.1: Accessibility in terms of cost]

The respondent’s view of the prevalence of drug and substance abuse among gender groups was also measured. Most of the respondents were of the view that miraa (55.9%) is the drug commonly abused by male while female mostly abused sniffed tobacco (51.1%) as shown in the figure 4.2 below.
Respondent's view on Drug Abuse and Gender

<table>
<thead>
<tr>
<th>Drug</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>18.8%</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>11.1%</td>
</tr>
<tr>
<td>Bhang</td>
<td>0.2%</td>
</tr>
<tr>
<td>Khat/miraa</td>
<td>55.9%</td>
</tr>
<tr>
<td>Sniffed tobacco</td>
<td>14%</td>
</tr>
<tr>
<td>Khat/miraa</td>
<td>35.4%</td>
</tr>
<tr>
<td>Traditional liquor</td>
<td>13.5%</td>
</tr>
<tr>
<td>Sniffed tobacco</td>
<td>51.1%</td>
</tr>
</tbody>
</table>

Table 4.11: Marital problems contributing to drug and substance abuse

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency (N)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of sufficient Income</td>
<td>26</td>
<td>63.4</td>
</tr>
<tr>
<td>Fight with spouse</td>
<td>15</td>
<td>36.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

For those respondents who admitted having problems with parents, 4.8% admitted to have had problems with parents that forced them to take drugs. Quarrelling with parents (2.9%) and parents' failure to provide basic needs (1.9%) were reported to contribute to drugs and substance abuse.

Figure 4.2: Community's view on Drug Abuse and Gender

4.4 Factors contributing to DSA among youths in Samburu County

Respondents were asked to mention main factors contributing to DSA in the study area. Peer pressure was reported by 48% of the respondents as the main factor contributing to drugs and substance abuse. This was followed by marital problems 26.5%, problem with parents 20.3%, Stress from school was reported by 5% of the respondents and also 0.2% reported stress from work as the main factors contributing to drugs and substance abuse.

For the married respondents, (9.9%) of them admitted to have started using drugs after marriage. Lack of source of income (63.4% N=26) and fight with spouse (36.6% N=15) were reported to contribute to drug use after marriage.
For the working respondents, 23.8% reported stress related to low salaries as the main factor influencing them to abuse drugs and other substance. Students reported that drugs make them cope with stress (97% N=98), drugs make them interact well with their peers (2% N=2) and drugs make them feel important (1% N=1) as shown in table 4.12 below

Table 4.12: Reasons for Drug Use among Schooling Youths

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drugs make them cope with stress</td>
<td>98</td>
<td>97.0</td>
</tr>
<tr>
<td>Drugs make people interact</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Drugs make one feel important</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.5: Knowledge of Drug and Substance Abuse effect on health among youths in Samburu County

More than half of the respondents 56.6 % (N=235) did not know of any health problems that come as a result of drugs abuse. Some of the respondents, 43% (N=180) were aware that drug abuse can result to health problems.

Table 4.13: Youths Knowledge on health effects of drugs and substance abuse.

<table>
<thead>
<tr>
<th>Response statement</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>180</td>
<td>43.4</td>
</tr>
<tr>
<td>No</td>
<td>235</td>
<td>56.6</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.5.1: Health effect of drug and substance abuse suffered by youths

Only 14% (N=58) of youths sampled in the sampled reported to have experienced a health related condition as a result of drug and substance abuse. Majority, 86% (N=357) did not experience any health related condition.

Table 4.14: Health effect of drug and substance abuse suffered by youths

<table>
<thead>
<tr>
<th>Response Statement</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>58</td>
<td>14.0</td>
</tr>
<tr>
<td>No</td>
<td>357</td>
<td>86.0</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.5.1.1: Death of a relative due to drug related problem
As shown on table 4.15 below, 13.5 % (N=56) of youths attested that they had lost a relative due to drugs and substance abuse.

Table 4.15 Death of a relative due to drug related problem

<table>
<thead>
<tr>
<th>Response Item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56</td>
<td>13.5</td>
</tr>
<tr>
<td>No</td>
<td>359</td>
<td>86.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

4.5.2 Knowledge of drug abuse effects and health related conditions
Approximate proportion of 25.8% (N=107) of respondents in the survey attested that drug and substance abuse has predisposed them to diseases. An equal proportion attested that drug and substance abuse resulted to conflicts with family members 19% (N=80) as well as dependency on drugs 19% (N=79) as illustrated in table 4.16 below.

Table 4.16 Knowledge of drug abuse effects and health related conditions

<table>
<thead>
<tr>
<th>Response items</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing work</td>
<td>31</td>
<td>7.5</td>
</tr>
<tr>
<td>Lack of concentration</td>
<td>22</td>
<td>5.3</td>
</tr>
<tr>
<td>Conflict with family members</td>
<td>80</td>
<td>19.3</td>
</tr>
<tr>
<td>One becomes dependent on drugs</td>
<td>79</td>
<td>19.0</td>
</tr>
<tr>
<td>One can get diseases</td>
<td>107</td>
<td>25.8</td>
</tr>
<tr>
<td>One becomes immoral</td>
<td>93</td>
<td>22.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>412</strong></td>
<td><strong>99.3</strong></td>
</tr>
</tbody>
</table>

4.5.3 Knowledge on effect of drugs and substance abuse on family level
Table 4.17 below displays perceived knowledge of youths on effects of drug and substance abuse on family level. Majority of youths in the survey (31.6% N=131) claimed that drug and substance abuse resulted in low enrolment of children in schools. Family break up was mentioned by 21% (N=87) of the respondents. While less than 3% (N=12) claimed that drug and substance abuse resulted in reduced interest in sexual activity.
Table 4.17: Knowledge on effect of drugs and substance on family level

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic violence</td>
<td>53</td>
<td>12.8</td>
</tr>
<tr>
<td>Poverty</td>
<td>82</td>
<td>19.8</td>
</tr>
<tr>
<td>Low enrolment of children in school</td>
<td>131</td>
<td>31.6</td>
</tr>
<tr>
<td>Unemployment</td>
<td>33</td>
<td>8.0</td>
</tr>
<tr>
<td>Family break ups</td>
<td>87</td>
<td>21.0</td>
</tr>
<tr>
<td>High medical expenses</td>
<td>17</td>
<td>4.1</td>
</tr>
<tr>
<td>Reduced interest in sexual activity</td>
<td>12</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


4.5.4 Knowledge of youths on effect of drugs and substance abuse at community level

As displayed on table 4.18 below, lack of community development was mentioned by half 50% (N=210) of respondents that drug and substance abuse causes on the community. High levels of illiteracy were mentioned by 14.5% (N=60) of respondents. Less than 10% claimed that drug and substance abuse resulted to rape cases in the community.

Table 4.18 Knowledge of youths on effect of drugs and substance abuse at community level

<table>
<thead>
<tr>
<th>Response item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor community</td>
<td>99</td>
<td>23.9</td>
</tr>
<tr>
<td>Sale of family property</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Rape cases</td>
<td>20</td>
<td>4.8</td>
</tr>
<tr>
<td>Marital problems</td>
<td>25</td>
<td>6.0</td>
</tr>
<tr>
<td>High level of illiteracy</td>
<td>60</td>
<td>14.5</td>
</tr>
<tr>
<td>Lack of development</td>
<td>210</td>
<td>50.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>


4.5.5: knowledge of Youths on effects of drug and substance abuse on education

Approximate proportion of youths 48.4% (N=201) attested that drug and substance abuse resulted school dropouts. Close to 40% (158) of youths claimed that drug and substance abuse resulted to poor academic achievements whereas only 5.8% (N=24) claimed that drug and substance abuse resulted to low school enrolment as shown in table 4.19.
Table 4.19: knowledge of Youths on effects of drug and substance abuse on education

<table>
<thead>
<tr>
<th>Response statement</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low school enrolment</td>
<td>24</td>
<td>5.8</td>
</tr>
<tr>
<td>High school dropout</td>
<td>201</td>
<td>48.4</td>
</tr>
<tr>
<td>Poor academic achievement</td>
<td>158</td>
<td>38.1</td>
</tr>
<tr>
<td>Lack of school fees</td>
<td>32</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS.

5.1 Discussions.

This chapter discusses the results and compares it with other similar studies. It also provides recommendations based on the conclusions. The broad objective of this study was to investigate magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu County.

5.1.1 Socio-Demographic/Economic Characteristics of youths.

Majority of youths (56% N=234) in this study were male and that most of these youths were aged between 22-25 years old. More than half 52% (N=217) were married and close to a quarter of the respondents had only primary school education. A fifth (21% N=87) did not go to any formal school. A paltry 3% (N=15) of those surveyed had tertiary level of education. With regards to neighbourhood, 82.4% (N=342) lived in rural areas and that less than 10% were employed. Additionally, all those who were employed were casuals and all earned salaries less than Ksh 10,000 per month. Christians represented 72% (N=300) of respondents in the survey.

5.1.2 Types of drugs and substance abuse among youths in Samburu County.

This study finding reveal that drugs and substance abuse is a major social problem among youths in Samburu County. Over half of the sampled population were currently abusing drugs. The study further established that Miraa/Khat and sniffed tobacco was the most commonly abused drugs among youths in Samburu County. Traditional liquor was consumed by 10% of respondents. Commercially produced Alcohol was the least consumed. With majority of respondents living in rural areas, sniffed tobacco and Khat was likely to be affordable and available to youths. The cost of commercially produced alcohol is probably prohibitive to youths. As such, traditional liquor remedies the deficit, hence high usage rate observed in this study.
5.1.3 Extent of drugs and substance abuse among youths in Samburu County.
The prevalence of drug and substance abuse of respondents was high. Respondents attributed this high prevalence to easy accessibility of some drugs such as sniffed tobacco. These findings concur with a study by Kenkel (1980) who noted that availability, accessibility and cost of drugs are associated with drug abuse. The study also agrees with NACADA (2004), which states that the readily availability of most drugs appear to be the most important cause of high prevalence of substance use and abuse.

5.1.4 Factors Contributing to drug and substance abuse among youths in Samburu County.
A great proportion of respondents had been driven to drug abuse by peer pressure and stress. The findings agrees with Kiiru (2004), who asserts that peer pressure influences youths to use substances under the false impression that some drugs stimulate appetite for food, increase strength and give wisdom as well as courage to face life. The findings also agrees with a study carried out by Odejide (2005) who avers that early age of onset of drug abuse is attributed to peer pressure, family influence or personal problems. Lack of source of income and domestic violence were the major causes of drug and substance abuse among the married respondents. Parents were also cogitated to be a contributing factor due to their failure to provide basic needs to their children. This report concurs with NACADA (2008) report, which states that there is a strong link between drug abuse by youths and the breakdown of family values.
5.1.5 Knowledge on effects of drugs and substance abuse among youths in Samburu County.

Majority of the respondents reported lack of knowledge on health problems emanating from drug use and abuse. However for those who had the knowledge of effects of DSA reported that the effects of DSA includes deaths due to HIV/AIDS, motor accidents, brain damage, fighting, poisoning, risk during pregnancy and still births. Again, this finding agrees with NACADA (2012), which states that drugs and substance abuse are majorly responsible for accidents at home, at the workplaces, along the roads, at school and other places resulting into injury or even death.

5.2 Conclusion.

Based on the study findings, this study gives the following conclusions

1. It is evident that drugs and substance abuse is a major social problem among youths in Samburu County. The range of drugs abused includes miraa, sniffed tobacco, traditional liquor, cigarette, alcohol and marijuana in that order.

2. The prevalence of drugs and substance abuse was noted to be high in the study area and this was attributed to easy availability, accessibility and low cost of the commonly abused drugs and substances in the study area.

3. Peer pressure and stress were the main contributing factors to DSA among youths in Samburu County. Equally lack of source of income and fights with spouse were the contributing factors to drugs after marriage.

4. The perceived effects of DSA included low education levels, low enrolment, poor community, but the most significant effect being lack of development leading to poverty levels.
5.3: **Recommendations.**

1. The study recommends more awareness creation on the dangers of the commonly available drug and substance of abuse in the County.

2. The study recommends stringent measures to reduce the prevalence of drug abuse in the county. This can be done through reviewing the availability, accessibility and cost of the commonly abused drugs and substances in Samburu County.

3. The study recommends putting up of functional youth friendly centres in the County, which can be customized to meet the needs of youths such as sports and peer counselling. These youth friendly centres can be a remedy in positively influencing youths to abandon peer pressure and stress from family and school.

4. The study recommends more health education on the real effects of drugs and substance abuse among youths in Samburu County. This health education can be done through introducing health modules in schools and having community dialogue days focusing on youths out of school.

5.3.1: **Recommendation for Further Research**

The study recommends further research to be conducted on the following topics:

- The impacts of long time use of Khat among the women of reproductive age.
- Drug use patterns and socio demographic profiles of substance abusers
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Appendix I: Informed Consent

My name is DAVID ONCHONGA; I am a MPH student from Kenyatta University. I am conducting a study on "MAGNITUDE AND SOCIO-ECONOMIC IMPACTS OF DRUGS AND SUBSTANCE ABUSE AMONG YOUTHS IN SAMBURU COUNTY. This study will help the Ministry of Health, NACADA and other stakeholders to put measures to curb drug and substance abuse among youths in this region as well as in other regions of Kenya.

Procedures to be followed
Participation in this study will require that I ask you some questions and I will record the information from you in a questionare. You have the right to refuse participation in this study. Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and you may stop an interview at any time. You may also stop being in the study at any time without any consequences.

Discomforts and risks
Some of the questions you will be asked maybe embarrassing or make you uncomfortable. If this happens, you may refuse to answer these questions if you so choose. You may also stop the interview at any time.

Benefits
If you participate in this study, you will help us to learn how to provide effective services that can improve the health of youths and reduce the risk of diseases associated with drugs and substance abuse.

Reward
There will be no reward given for participating in this survey.

Confidentiality
The interviews and examinations will be conducted in a private setting. Your name
will not be recorded on the questionnaire. The questionnaires will be kept safely and everything will be kept private.

**Contact information**

If you have any questions you may contact Dr. Osero, Supervisor 1. On 0724869330 or Dr. Nyamari Supervisor 2. On 0722589335 or the Kenyatta University Ethical Review Committee Secretariat on kuerc@ku.ac.ke.

**Participant’s Statement**

The above information regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time.

Name of Participant.................................................................

.............................................................. ................................

Signature or Thumbprint Date
Consent form for the guardian or parent of a minor (youths under age of 18)

The above information regarding the participation of my son/daughter in the study is clear to me.

I have been given a chance to ask questions and my questions regarding to my daughter/son’s participation in the study and I have been answered to my satisfaction. My son/daughter’s participation in this study is entirely voluntary. I understand that his/her records will be kept private and that he/she can leave the study at any time.

Name of parent/guardian.

__________________________________________ __________________________
Signature or Thumbprint Date

Investigator’s statement

I, the undersigned, have explained to the volunteer in a language s/he understands, the procedures to be followed in the study and the risks and benefits involved.

Name of Interviewer..............................................

__________________________________________ __________________________
Interviewer signature Date
Appendix II: Questionnaire

SECTION A. Background Data.

1. Gender
   1. Male (0)
   2. Female (0)

2. Age in years
   1. 15-17 (0)
   2. 18-21 (0)
   3. 22-25 (0)

3. Marital status
   1. Single (0)
   2. Married (0)
   3. Divorced (0)
   4. Separated (0)

4. Level of education
   1. None (0)
   2. Primary (0)
   3. Secondary (0)
   4. Tertiary (0)
   5. University (0)

5. Are you currently in school?
   1. Yes (0)
   2. No (0)

6. Where do you live?
   1. Rural (0)
   2. Urban (0)

7. Employed
   1. Yes (0)
   2. No (0)

8. If yes, what kind of job do you do?
   1. Casual (0)
   2. Permanent (0)

9. If yes in 7 above, how much is your income in Ksh?
   1. Less than 2,000 (0)
   2. 2,000-5,000 (0)
   3. 5,000-10,000 (0)
   4. 10,000-15,000 (0)
   5. Above 20,000 (0)

10. What is your religion
    1. Christian (0)
    2. Muslim (0)
    3. Hindu (0)
    4. No religion (0)
    5. Traditional (0)
SECTION B. commonly abused drugs

11. Have you ever taken any drugs and substance of abuse?
   1. Yes ()
   2. No () go to question 16

12. If yes above, are you currently using any drugs or substances of abuse?
   1. Yes ()
   2. No ()

13. What kind of drug or substance of abuse are you currently using/ever used?

<table>
<thead>
<tr>
<th>Drugs/substance</th>
<th>Tick appropriately</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Alcohol</td>
<td></td>
</tr>
<tr>
<td>B Cigarettes</td>
<td></td>
</tr>
<tr>
<td>C Bhang</td>
<td></td>
</tr>
<tr>
<td>D Khat/miraa</td>
<td></td>
</tr>
<tr>
<td>E Glue</td>
<td></td>
</tr>
<tr>
<td>F Traditional liquor (chang’aa)</td>
<td></td>
</tr>
<tr>
<td>G Sniffed tobacco</td>
<td></td>
</tr>
<tr>
<td>H Heroin</td>
<td></td>
</tr>
<tr>
<td>I Cocaine</td>
<td></td>
</tr>
<tr>
<td>J OTHERS, (Specify)</td>
<td></td>
</tr>
</tbody>
</table>

14. Where do you get these drugs and substances?
   1. Grown at home ()
   2. From family members ()
   3. Available as shops ()
   4. From friends ()
   5. I cant tell ()
   6. Others (specify)..........................

15. Among the drugs mentioned in number 13 above, which one is easy to get (availability)?
   1. Alcohol ()
   2. Cigarettes ()
   3. Bhang ()
   4. Khat ()
   5. Glue ()
   6. Traditional liquor ()
   7. Sniffed tobacco ()
   8. Heroin ()
   9. Cocaine ()
16. In your own opinion, what are the most commonly abused drugs and substances in this area?

<table>
<thead>
<tr>
<th></th>
<th>TICK ONLY ONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Alcohol</td>
</tr>
<tr>
<td>B</td>
<td>Cigarettes</td>
</tr>
<tr>
<td>C</td>
<td>Bhang</td>
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<tr>
<td>D</td>
<td>Khat</td>
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<td>E</td>
<td>Glue</td>
</tr>
<tr>
<td>F</td>
<td>Traditional liquor</td>
</tr>
<tr>
<td>G</td>
<td>Sniffed tobacco</td>
</tr>
<tr>
<td>H</td>
<td>Heroin</td>
</tr>
<tr>
<td>I</td>
<td>Cocaine</td>
</tr>
<tr>
<td>J</td>
<td>OTHERS, (Specify)</td>
</tr>
</tbody>
</table>

SECTION C. Extent of DSA (level of use and accessibility)

17. (For male respondents) At what age did you start taking drugs and other substances of abuse?
   1. 15-17 ()
   2. 18-21 ()
   3. 22-25 ()

18. (For female respondents) At what age did you start taking drugs and other substances of abuse?
   1. 15-17 years ()
   2. 18-21 years ()
   3. 22-25 years ()

19. What time do you abuse the drugs you mentioned?
   1. 8 am-1 pm ()
   2. 1 pm-4 pm ()
   3. 4 pm-6 pm ()
   4. 6 pm-11 pm ()
   5. Past 11 pm ()
   6. All day long ()

20. In this area, is drugs and substance abuse increasing or decreasing?
   1. Increasing ()
   2. Decreasing ()
   3. No idea ()
21. Among the drugs you mentioned, which one do you get easy access to? (in terms of cost)

<table>
<thead>
<tr>
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<th>Tick appropriately</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>H Heroin</td>
<td>()</td>
</tr>
<tr>
<td>I Cocaine</td>
<td>()</td>
</tr>
</tbody>
</table>

22. Among the drugs and substances mentioned, which one is highly abused by male youths?

<table>
<thead>
<tr>
<th>Drugs/substance</th>
<th>Tick appropriately</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Alcohol</td>
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<tr>
<td>D Khat</td>
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<tr>
<td>F Traditional liquor</td>
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</tr>
<tr>
<td>G Sniffed tobacco</td>
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</tr>
<tr>
<td>H Heroin</td>
<td>()</td>
</tr>
<tr>
<td>I Cocaine</td>
<td>()</td>
</tr>
</tbody>
</table>

23. Among the drugs and substances mentioned, which one is highly abused by female youths?

<table>
<thead>
<tr>
<th>Drugs/substance</th>
<th>Tick appropriately</th>
</tr>
</thead>
<tbody>
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<td>()</td>
</tr>
<tr>
<td>C Bhang</td>
<td>()</td>
</tr>
<tr>
<td>D Khat</td>
<td>()</td>
</tr>
<tr>
<td>E Glue</td>
<td>()</td>
</tr>
<tr>
<td>F Traditional liquor</td>
<td>()</td>
</tr>
<tr>
<td>G Sniffed tobacco</td>
<td>()</td>
</tr>
<tr>
<td>H Heroin</td>
<td>()</td>
</tr>
<tr>
<td>I Cocaine</td>
<td>()</td>
</tr>
</tbody>
</table>
SECTION D: Factors contributing to DSA

24. What are the main factors that propel you to abuse drugs and other substances?

1. Marital problems ()
2. Problem with parent ()
3. Stress from work ()
4. Stress from school ()
5. Peer pressure ()
6. Others (specify)

25. Did you start using drugs after getting married?

1. Yes ()
2. No ()

26. If yes above, what marital factors contribute to DSA

1. Lack of source of income ()
2. Fights with spouses ()
3. Inability to give birth ()
4. Inability to care for the children ()
5. Sign of maturity ()
6. Others (specify)

27. Did you have problems with your parents that propelled you to take drugs?

1. Yes ()
2. No ()

28. If yes, what are some of these problems with parents that propelled you to take drugs and other substances of abuse?

i. Quarrel with parents ()
ii. They don’t love me ()
iii. They don’t provide for my basic needs ()
iv. They can’t afford my school fees ()
v. Parental neglect ()
vi. Others (specify)

29. For those working, what kind of stress propels you to take drugs and other substance of abuse?

1. Low salary ()
2. Frustration from the boss ()
3. Poor working environment ()
4. Others (specify)

30. For those in school, why do you abuse drugs and other substances?

1. Drugs make them feel good ()
2. Drugs make people relaxed ()
3. Drugs make them cope with stress ()
4. Drugs make people interact
5. Drugs helps to get friends
6. Drugs make one feel important
7. Drugs make one work better
8. Drugs make one have better ideas
9. Drugs cure common illnesses.
10. Others specify

31. How does the community view drugs abusers in this area
   1. Morally upright
   2. It's a normal thing
   3. Morally weak
   4. It's a normal thing
   5. Others (specify)

SECTION E. Effects of DSA
32. Do you know of any **health problems** that come as a result of drugs abuse?
   1. Yes
   2. No

33. Have you ever suffered from any health condition due to drugs abuse?
   1. Yes
   2. No

34. If yes in 33 above, what are some of the health problems that come as a result of drugs?
   1. Liver disease
   2. Cancer
   3. Tooth decay
   4. Lung disease
   5. Abortions
   6. Others (specify)

35. Do you know of any family member who has died of any drug related disease?
   1. Yes
   2. No
36. If yes in 32 above, what was the cause of his or her death?
1. Motor accident
2. Drugs related illness
3. Suicide
4. HIV/AIDS
5. Brain damage
6. Diabetes
7. Fighting
8. Poisoning
9. Blood pressure
10. Others (specify)

37. For women, what are the common problems they experience when they abuse drugs and other substances?
1. Break cancer risk
2. Risks during pregnancy
3. Hypertension
4. Anaemia
5. Malnutrition
6. Others specify

38. What are some of the health effects of new-born baby whose mother takes drugs?
1. Low birth weight
2. Some are born dead
3. Born with breathing difficulty
4. They look sickling
5. The child has mental retardation

39. Other than health effects, on an individual level, how does drugs and substance abuse affected you?
1. Missing work
2. Lack of concentration
3. Conflict with family members
4. One becomes dependent on drugs
5. One can get diseases
6. One becomes immoral

40. At the family level, what are some of the biggest effects of drugs and substance abuse?
1. Domestic violence
2. Poverty
3. Low enrolment of children in school
4. Unemployment
5. Family break ups
6. High medical expenses
7. Reduced interest in sexual activity
8. Others specify
41. At the community level, what are the effects of drugs and substance abuse in general?
   1. Domestic violence
   2. Poor community
   3. Sale of family property
   4. Rape cases
   5. Marital problems
   6. Attempted suicide
   7. High level of illiteracy
   8. Lack of development
   9. Others specify

42. At the community level, what is the main effect of drugs and other substances abuse on education
   1. Low school enrolment
   2. High school dropout
   3. Poor academic achievement
   4. Lack of school fees
   5. Others specify

SECTION F. Drugs and substance use interventions
43. As a drug user, have you ever tried to stop using drugs?
   1. Yes
   2. No

44. If yes in 43 above, what did you do?
   1. Talk with a counsellor
   2. I made my own initiative
   3. Drugs were affecting me
   4. Go to hospital
   5. Talk with a family member
   6. I got saved/I went to church

45. At an individual level have you ever tried to intervene in the life of an addict?
   1. Yes
   2. No

46. If yes, how?
   1. Counselling them
   2. Taking them to hospital
   3. Praying for them

47. For the person you talked to, how old were they?
   1. Younger than me
   2. My age mates
   3. Older than me

48. For the people you talked to, how was their response?
   1. They changed
   2. They went for medication
   3. They refused to change

49. Has the concerned persons done enough to reduce drugs and substance abuse?
   1. Yes
   2. No
50. What do you recommend as proper methods of intervention to curb drugs and substance abuse in this area?

1. Increase the price of drugs
2. Health education
3. Role modelling
4. Rehabilitation centres
5. Government intervention
6. More resources to treat the addict
7. Others, specify

51. According to you, is the war on drugs abuse achievable?

1. Yes
2. No
Appendix III: Focused Group Discussion Guide

1. Gender?

2. Age in years?

3. Level of education?

4. Occupation?

5. For how long have you been in this area?

6. Generally what do you think about the issue of drugs abuse?

7. Do you think youths in this area abuse drugs?

8. What is the extent of drugs abuse in this area?

9. Are you aware of any cases of drugs abuse in this area?

10. Have any of your family members been involved in drugs abuse?

11. What are the commonly abused drugs?

12. What are the causes of drugs abuse among youths?

13. In your opinion what are the sources of these drugs?

14. How does drugs abuse affect youths in general?

15. What should we do to address the problem of drugs abuse in this area?

16. Do you think it’s possible to curb DSA?

17. If yes, in which way?
Appendix IV: Research Approval

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School
TO: David Onchonga
C/o Community Health Dept.

DATE: 18th January, 2014
REF: Q57/20601/2012

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board, at its meeting of 15th January, 2014, approved your Research Proposal for the M.P.H Degree Entitled, "Magnitude and Socio-Economic Effects of Drugs and Substance Abuse among Youths in Samburu County."

Thank you.

DAVID NJOROGE
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Department of Community Health

Supervisors:

1. Dr. Justus Osero
   C/o Department of Community Health
   Kenyatta University

2. Dr. Jackim Nyamari
   C/o Department of Environmental Health
   Kenyatta University

Dated 03 FEB 2014
Appendix V: Research Authorization

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

Our Ref: Q57/20601/2012

DATE: 18\textsuperscript{th} January, 2014

The Permanent Secretary,
Ministry of Higher Education, Science & Technology,
P.O. Box 30040,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION DAVID ONCHONGA—REG. NO. Q57/20601/2012

I write to introduce Mr. David Onchonga who is a Postgraduate Student of this University. He is registered for M.P.H degree programme in the Department of Community Health.

Mr. Onchonga intends to conduct research for a M.P.H proposal entitled, “Magnitude and Socio-Economic Effects of Drugs and Substance Abuse among Youths in Samburu County.”

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

O3 FEB 2014
Appendix VI: Research Ethics Clearance

KENYATTA UNIVERSITY
ETHICS REVIEW COMMITTEE

Email: kuer.c.chairman@ku.ac.ke
kuer.c.secretary@ku.ac.ke
Website: www.ku.ac.ke

Our Ref: KU/R/COMM/51/315

Date: 31st March, 2014

David Onchonga,
Department of Community Health,
P.O. Box 43844 - 00100
Nairobi.

APPLICATION NUMBER PKU/188/165 - "MAGNITUDE AND SOCIO-ECONOMIC EFFECTS OF DRUGS AND SUBSTANCE ABUSE AMONG YOUTHS IN SAMBURU COUNTY" - VERSION 2

1. IDENTIFICATION OF PROTOCOL
The application before the committee is with a research topic "Magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu County" - Version 2 dated 26th February, 2014.

2. APPLICANT
David Onchonga, Department of Community Health,

3. STUDY SITE
Samburu County

4. DECISION
The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (section 7.2.1.3) and the Kenyatta University Ethics Review Committee Guidelines AND APPROVED that the research may proceed for a period of ONE year from 31st March, 2014.

5. ADVICE/CONDITIONS
i. Progress reports are submitted to the KU-ERC every six months and a full report is submitted at the end of the study.
ii. Serious and unexpected adverse events related to the conduct of the study are reported to this board immediately they occur.
iii. Notify the Kenyatta University Ethics Committee of any amendments to the protocol.
iv. Submit an electronic copy of the protocol to KU-ERC.

When replying, kindly quote the application number above.
If you accept the decision reached and advice and conditions given please sign in the space provided below and return to KU-ERC a copy of the letter.

PROF. NICHOLAS K. GIKONYO
CHAIRMAN ETHICS REVIEW COMMITTEE

Signature: ____________________________

Dated this day of ______________________, 2014.

cc. Vice-Chancellor
Director: Institute for Research Science and Technology
Appendix VII: Nacosti Research Permit

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref: No.
NACOSTI/P/15/4950/4632

David Ondicki Onchonga
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Magnitude and socio-economic effects of drugs and substance abuse among youths in Samburu," I am pleased to inform you that you have been authorized to undertake research in Samburu County for a period ending 30th June, 2015.

You are advised to report to the County Commissioner and the County Director of Education, Samburu County before embarking on the research project.

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

DR. S. K. KANGAT, OGW
FOR: DIRECTOR GENERAL/CEO

Copies to:
The County Commissioner
Samburu County.
The County Director of Education
Samburu County.
Appendix VIII: Map of Study Area

Figure 1 36° 25' 26" E