

**FACTORS ENHANCING VULNERABILITY TO HIV AND
AIDS TO RESIDENTS OF CENTRAL DIVISION, MOYALE
DISTRICT, KENYA //**

**DAVID MASINDE
I57/CE/12191/04
DEPARTMENT OF PUBLIC HEALTH**

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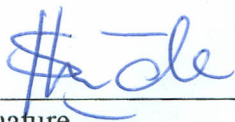
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DECLARATION

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Supervisors' approval

We confirm that the candidate under our supervision carried out the work reported in this thesis.

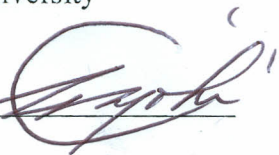


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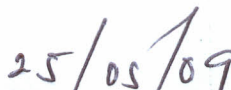


Date

Dr. Isaac Mwanzo
Department of Public Health
Kenyatta University



Signature



Date

Prof. Ephantus Kabiru
Department of Pathology
Kenyatta University

DEDICATION

This work is dedicated to my late father Jacob Wanjala Masinde (died 23/04/06) and my beloved mother Beatrice N. Wanjala.

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God bless.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF APPENDICES	xii
ABBREVIATION	xiii
ABSTRACT	xiv
CHAPTER 1: INTRODUCTION	1
1.1 Background	1
1.2 Problem statement	2
1.3 Justification	3
1.4 Research Questions	3
1.5 Null Hypothesis	4
1.6 Study Objectives	4
1.6.1 Main Objective	4
1.6.2 Specific Objectives	4
1.7 Conceptual framework	4
CHAPTER 2: LITERATURE REVIEW	6
2.1 Epidemiology of HIV and AIDS	6
2.2 Transmission of HIV	6
2.2.1 Risk associated with unprotected sex	6

2.2.2 Risk associated with injection drug use	7
2.2.3 Mother-to-Child-Transmission	7
2.3 Clinical manifestation of HIV infection.....	7
2.3.1 Incubation Period.....	7
2.3.2 Signs and Symptoms of HIV and AIDS	8
2.4 Factors that influence HIV transmission: vulnerability and risks.....	8
2.4.1 Gender and HIV and AIDS.....	8
2.4.2 Lack of Knowledge about HIV and AIDS.....	10
2.4.3 Cultural norms and practices and HIV and AIDS	10
2.4.4 Barriers to Condom use.....	11
2.4.5 Violence and Coercion	12
2.4.6 Occupation and HIV and AIDS.....	13
2.4.7 Migration and HIV and AIDS	14
2.4.8 Promiscuity	14
2.4.9 Poverty and HIV and AIDS	15
2.4.10 Management of HIV and AIDS.....	16
CHAPTER 3: MATERIALS AND METHODS	18
3.1: Research Design	18
3.2 Variables	18
3.3 Study area.....	19
3.4 Study population.....	20
3.5 Inclusion criteria	21
3.6 Exclusion Criteria.....	21

3.7 Sampling technique	21
3.7.1 Sample Size Determination and distribution	21
3.8 Data collection methods.....	23
3.9 Pre-testing data collection tools.....	25
3.10 Data quality control.....	25
3.11 Data Analysis.....	25
3.12 Ethical Consideration	26
CHAPTER 4: RESULTS	27
4.1 Respondents' socio-demographic profile.....	27
4.1.1 Respondent's age and sex	27
4.1.2 Respondents' level of education	27
4.1.3 Respondents occupation.....	27
4.1.4 Respondents' religion.....	27
4.2 Economic factor enhancing vulnerability to HIV and AIDS.....	28
4.2.1 Low levels of income	28
4.3.0 Awareness about HIV and AIDS	28
4.3.2 Attitude.....	30
4.3.2 Perception and rating of HIV and AIDS prevalence in the Division.....	32
4.3.3.1 Level of HIV and AIDS	32
4.3.3.2 Groups most affected by HIV and AIDS.....	33
4.3.3.3 Risk of getting HIV and AIDS	33
4.4 Social cultural factors enhancing vulnerability to HIV and AIDS.....	34
4.4.1 Multiple Sexual Partners.....	34
4.4.2.0 Condom use	35

4.4.2.1 Religion and condoms use	36
4.4.3 Early Marriages	37
4.4.3.1 Marriage age for girls.....	37
4.4.3.2 Type of marriage	37
4.4.3.3 Process (ways) of marrying girls.....	38
4.4.4 Extra marital relationship (Jaal na Jaltoh)	39
4.4.5 Divorce (Garab).....	39
4.4.6 Female Genital Mutilation (FGM)	40
4.4.7 Polygamy	41
4.4.8 Social ceremonies enhancing vulnerability to HIV and AIDS.....	42
4.4.8.1 Youth sexual activity	42
4.4.8.2 Wedding and Naming ceremonies	43
4.4.9 Wife inheritance	43
4.4.10 Traditional midwifery and surgery.....	43
4.5 Religious factors enhancing vulnerability to HIV and AIDS	44
4.5.1 Veils (Niqab/Hiqab)	44
4.5.2 Splendour Muslim religious sect (Garib/Majlis).....	44
4.6.0 CSWs demographic profile.....	45
4.6.1 CSWs' age and education.....	45
4.6.2 Knowledge about HIV and AIDS	46
4.6.3 Number of clients handled daily and pay	46
4.6.4 Use of condoms	47
4.6.5 Alcohol and/or drug abuse	48

4.6.6 Reasons for joining commercial sex work and major clients	49
4.7 Activities undertaken to curb spreading of HIV and AIDS in the study area	49
CHAPTER 5:DISCUSSION, CONCLUSION AND RECOMMENDATIONS.....	51
5.1 Discussion	51
5.1.1 Socio – Demographic profile.....	51
5.1.2 Economic factors enhancing vulnerability to HIV and AIDS	51
5.1.3 Knowledge, Attitude and Perception	53
5.1.4 Social cultural factors enhancing Vulnerability to HIV and AIDS.....	54
5.1.5 Religious factors enhancing vulnerability to HIV and AIDS	61
5.2 Conclusions.....	62
5.3 Recommendations	62
5.4Limitation.....	63
5.5 Recommendations for further research	63
REFERENCES	64
APPENDICES	71

LIST OF TABLES

Table 3.1: Sample distribution for main respondents in the study area.....	22
Table 4.1: A summary of respondent's knowledge frequencies.....	28
Table 4.2: A summary of respondent's attitude frequencies	30
Table 4.3: Frequency of condom use.....	35
Table 4.4: Extent of polygamy.....	40
Table 4.5: Influence of wedding and naming ceremonies on youth behaviours.....	42
Table 4.6: Level of Garib.....	44
Table 4.7 Ways of Prevention against getting HIV and Aids.....	45
Table 4.8 Activities undertaken to curb the spread of HIV and Aids.....	49

LIST OF FIGURES

Figure 1.1: Determinants and consequences of AIDS.....	5
Figure 3.1: Moyale district map showing study area and inscribed Kenya map.....	19
Figure 4.1: Level of HIV and AIDS.....	31
Figure 4.2: Respondents' number of sexual partners.....	34
Figure 4.3: Respondents' religion and condoms use.....	35
Figure 4.4: Types of marriages in the study area.....	37
Figure 4.5: Process/ways of marrying girls.....	37
Figure 4.6: Married couples having other sexual partners.....	38
Figure 4.7: Level of divorce cases in the study area.....	39
Figure 4.8: Circumcision places.....	40
Figure 4.9: Extent of youth involvement in sexual activities.....	41
Figure 4.10: Other social cultural practices enhancing vulnerability to HIV and AIDS...43	43
Figure 4.11: Number of clients handled daily.....	46
Figure 4.12: CSWs reasons for having unprotected sex with clients.....	47

LIST OF APPENDICES

Appendix i: Questionnaire.....69

Appendix ii: Research authorization.....76

ABBREVIATION

AIDS-	Acquired immunodeficiency syndrome
CSWs-	Commercial Sex Workers
FGD-	Focus Group Discussion
FGM-	Female Genital Mutilation
GoK-	Government of Kenya
HIV-	Human Immune Deficiency Virus
MoH-	Ministry of Health
NACC-	National AIDS Control Council
NASCOP-	National AIDS and STI Control Programme
STI-	Sexually Transmitted Infections
PLWHA-	People Living With HIV/AIDS
UNAIDS-	Joint United Nations Program on HIV/AIDS
UNICEF-	United Nations Children's Fund
WHO-	World Health Organization

ABSTRACT

The global pandemic of HIV and AIDS has now entered its third decade. It is now estimated that more than 33 million people are living with HIV and AIDS worldwide and 6800 and over 5700 new infections and deaths reported each day respectively, imposing a high burden on health infrastructure and continuing to reverse decades of hard-earned economic and social development gains. In sub Sahara Africa, the most severely affected region in the world, more than 60% of hospital beds, are occupied by persons with HIV related diseases. It has been widely recognized that in order to have effective prevention programmes for HIV and AIDS, the broader determinants of health must be addressed. The purpose of the study was to establish factors enhancing vulnerability to HIV and AIDS among residents of Central Division, Moyale District. A descriptive cross sectional study design was employed and data collected using questionnaires, key Informant Interviews and Focus Group Discussion. Data was analyzed using SPSS. A total of 318 respondents were recruited from 7 randomly selected sub locations. Slightly over 59.4% of respondents were male and 40.6% were female. About 55.8% had attained secondary level education, 22.6% primary level, 19.4% tertiary level and 2.1% had not received any formal education. The study found out that there was generally low level of knowledge towards HIV and AIDS in the study area. A positive correlation between attitude and knowledge was revealed in the study ($\alpha = 0.446$, $p < 0.000$; correlation significant at 0.01; 2 tailed). A number of social cultural and religious practices that enhance vulnerability to HIV and AIDS were identified which included multiple sexual partners, poor and low levels of condom use, early marriages for girls, divorce, FGM, polygamy, wedding and child naming ceremonies, traditional midwifery and surgery, cross border commercial sex and married couples allowed to have extra-marital relationship traditionally. Slightly less than a half (45%) of respondents were found to be having more than one sexual partner. There was a significant difference between condom use during sexual intercourse and the respondents' sex ($\chi^2 = 15.134$, $df = 1$, $p = 0.000$). There was also a significant relationship between respondents' monthly income and condom use ($\chi^2 = 03.297$, $df = 4$, $p = 0.000$). There were still strong misconception about the causes and ways to prevent oneself from HIV and AIDS. The study recommends that governmental and its partners intensify basic education and dissemination of information to enhance awareness about HIV and AIDS. Community mobilization to eliminate socio-cultural and religious practices enhancing vulnerability to HIV and AIDS should be initiated by government and its partners. Future interventions should seek to address contextual limitation such as household poverty, inadequate services and gender inequality to be able to achieve and sustain the desired impact.

CHAPTER 1: INTRODUCTION

1.1 Background

The global HIV and AIDS pandemic has now entered its third decade. It is now estimated that more than 33 million people are living with HIV and AIDS worldwide, with 6800 and over 5700 new infections and deaths each day respectively of which 95% of them are living in developing countries. In 2007 alone, the pandemic claimed nearly 2.1 million lives and 2.5 million people were newly infected, (UNAIDS, 2007), imposing a huge burden on health infrastructure and continuing to reverse decades of hard-earned economic and social development gains.

In Sub-Saharan Africa, the most severely affected region of the world, more than 60% of hospital beds are occupied by persons with HIV related diseases (UNAIDS 2007). AIDS has orphaned more than 13 million children, leaving families and communities often overburdened with HIV victims to care for them (UNAIDS, 2007). There has been an increasing understanding of the social, economic, cultural and political factors that have shaped the HIV and AIDS pandemic. It has been widely recognized that in order to have effective prevention programmes for HIV and AIDS, the broader determinants of health must be addressed (Taylor and Francis, 2007).

Gender inequalities are a major driving force behind the HIV pandemic. Traditional social practices foster HIV and AIDS infection (Reid, 1999). Data suggest that relationships with prostitutes play a significant role in the spread of STI/HIV and AIDS in urban and rural areas (Caldwell and Caldwell, 1993). It is increasingly clear that poverty is a factor in the spread of HIV and reduces the capacity of individuals, households, and communities to cope with the impacts of HIV and AIDS (World Bank, 1997).

The Kenya Demographic and Health Survey (2003) estimated that 6.5% of adult ages 15-49 years in Kenya were infected with HIV and that rates in women are nearly double the rates in men (MoH, 2005). Death rates from HIV have reached an unprecedented level in Kenya, at about 150,000 per year (MoH, 2006). The number of people living with HIV in Kenya includes about 1.1 million adults between 15-49 years, another 60,000 age 50 and over, and approximately 100,000 children. Urban populations have higher adult HIV prevalence (10%) than do rural populations (6%). Adult prevalence in Nairobi and Nyanza Province is 10% and 15% respectively. Adult prevalence in other provinces ranges between 5% with the exception of North Eastern Province where prevalence is less than 1%; it is the only region of the country where the epidemic is at low level (MoH, 2006). In Kenya, 3% of women aged 15-19 are HIV infected, compared with less than 0.5% of men 15-19, while HIV prevalence among women 20-24 is over 4 times that of men in the same age group, 9% versus 2%, (MoH, 2006)

1.2 Problem statement

HIV and AIDS have considerable implications on escalation of poverty in the study area, loss of production, disintegration of social capital, reduction of human capital and quality of life. It is a potential problem among the people of Moyale who are mostly pastoralist. The spread of the disease is rapidly increasing. More and more of the patient turning up at the district hospital are testing positive. For instance, statistics from the district hospital showed that from 1997-2000, out of 480 patients screened for HIV, 206 tested positive. From 2001-2005, out of 2930 patients screened, 473 turned out positive (GOK, 2005). This study will seek to identify factors enhancing vulnerability to HIV and AIDS among residents of Central Division, Moyale District. The Division has the highest number of reported cases of HIV and AIDS in the District.

1.3 Justification

According to the District health statistics, out of 2930 cases screened between year 2001 and 2005, 81% of the positive cases comprised the population between the ages 16-40 years (GoK, 2006). The consequences of such a rise in number of new cases is straining the existing health facilities at Moyale District Hospital, increased dependence, poverty and school dropouts. Statistics also indicate that Central Division, which is strategically situated along the great north highway, has the highest number of HIV and AIDS cases compared to the rest of the divisions. The district headquarters falls within the division where a number of people come to work, carry out business or look for job opportunities. Preventing vulnerability and spread of HIV, ensuring that HIV and AIDS is a manageable disease, and successfully averting and mitigating the multiple impacts of HIV and AIDS can only be successful if we gain insights into the factors enhancing vulnerability to HIV and AIDS in this division. It has been shown that comprehensive prevention and care programmes that take into account a wide range of social, economic, cultural and political factors are more likely to stem the epidemic. This study aims to identify factors, which make residents of Central Division, vulnerable to HIV and AIDS that has the highest number of reported cases of HIV and AIDS. Statistics also show that the prevalence rate in the District especially Central Division is increasing, whereas other parts in the country is decreasing (MoH, 2006).

1.4 Research Questions

- (a) What is the community's level of knowledge, attitude and perception towards HIV and AIDS in Central Division, Moyale District?
- (b) What are the socio-cultural, religious and economic factors that enhance vulnerability to HIV and AIDS in central Division, Moyale District?

1.5 Null Hypothesis

There is no relationship between socio-cultural, religious and economic factors and vulnerability to HIV and AIDS.

1.6 Study Objectives

1.6.1 Main Objective

The main objective of this study was to identify the factors, which make residents of Central Division, Moyale District vulnerable to the HIV and AIDS pandemic.

1.6.2 Specific Objectives

- (a) Establish the community's level of knowledge, attitude and perception towards HIV and AIDS in Central Division, Moyale District.
- (b) Determine the socio-cultural, religious and economic factors that enhance vulnerability to HIV and AIDS in Central Division, Moyale District.

1.7 Conceptual framework

As illustrated in the figure 1.1, factors, which singly or cumulatively make individuals, groups and whole populations more vulnerable to HIV infection include; economic, socio-cultural, and religious. On the consequences side, are some of the impacts of HIV infection and AIDS, as they affect households, communities and nations. The important dynamic in the model is that the two sides reinforce each other; high vulnerability leads to higher levels of infection, which leads to AIDS, the consequences of which cause increased vulnerability, and so on.

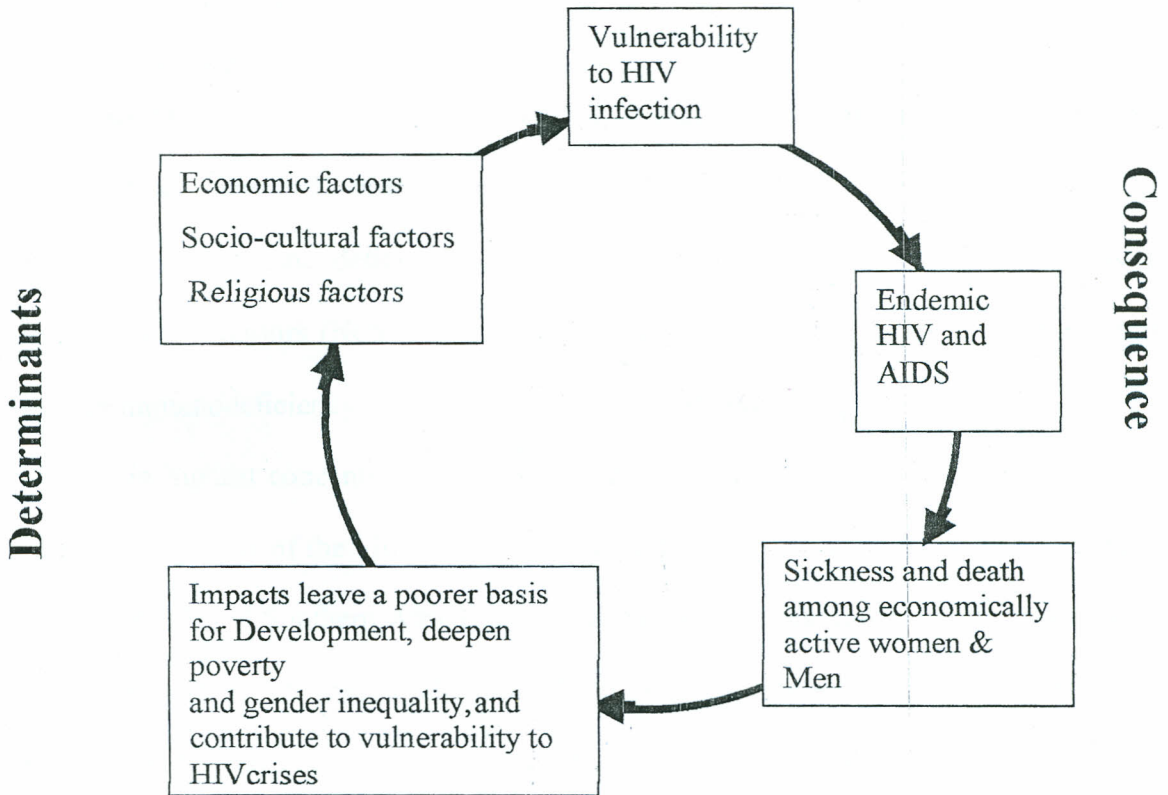


Figure 1.1. Determinants and consequences of AIDS by Sue Holden, (2005).

CHAPTER 2: LITERATURE REVIEW

2.1 Epidemiology of HIV and AIDS

HIV and AIDS is a systemic viral disease with latency or a symptomatic period of a few months to as many as 17 years. The progression of the disease is variable but culminates in a state of immune deficiency of the body, which results in death from unusual infections and tumors (Nordberg, 2000). HIV and AIDS is caused by a retrovirus (the human immunodeficiency virus). The virus is present in the body fluids of an infected person, in highest concentration in blood, semen and vaginal secretions. There are two important variants of the virus, HIV-1 which is the predominant cause of the disease in East, Central, and Southern Africa, North and South America, Europe and the rest of the world; HIV-2 which shares 42% genetic homology with HIV-1 but less virulent is predominant cause of the disease in west Africa (Nordberg, 2000).

According to current estimates over 33 million people worldwide are infected with HIV, which killed 2.1 million people in 2007 and over 30 million since the first case of AIDS was identified in 1981 (UNAIDS, 2007). With 83% of the worlds total AIDS deaths and 87% of its HIV infected children, Sub-Saharan Africa is the worst affected region for the dreaded disease (UNAIDS, 2005). An estimated 13.7 million Africans have already died from the epidemic. AIDS has orphaned over 13million children (UNAIDS, 2007).

2.2 Transmission of HIV

2.2.1 Risk associated with unprotected sex

The overall risk of HIV transmission associated with unprotected sexual activity is estimated to range from 0.3 to as high as 30 in 100. Unprotected receptive anal intercourse is thought to be the highest risk sexual activity followed by unprotected receptive vaginal intercourse. In general male-to- male and male-to-female transmission

is more efficient than female-to-male and female-to-female transmission (Nordberg, 2000).

2.2.2 Risk associated with injection drug use

Overall risk of HIV transmission associated with injection drug use is comparable to that of unprotected sexual activity, ranging from 6-30 in 1000. Needles and syringes are the primary drug equipment involved in transferring HIV-infected blood between drug injectors (Nordberg, 2000; NACC, 2006).

2.2.3 Mother-to-Child-Transmission

Approximately 70% of maternal-fetal transmission occurs in peripartum period. Perinatal transmission rates in untreated mother-infant pair vary geographically, with a 15-30% transmission rate in USA, 13-15% in Europe and 40-50% in Africa. The likelihood that a mother who is HIV positive will give birth to an infected baby is between 25-50% for HIV-1 and rather lower for HIV-2. HIV can cross the placenta from the mother to the infant before birth. HIV can also be transmitted from the mother when the baby travels down the birth canal. Some transmission also takes place through breastfeeding (Nordberg, 2000).

2.3 Clinical manifestation of HIV infection

2.3.1 Incubation Period

Infection with HIV and AIDS is shown by the development of antibodies. The incubation period from contact to the appearance of antibodies is usually 3 weeks to 3 months, although a period greater than one year has been reported. At this time, the patient may develop an acute illness with fever, headache, cough, lymphadenopathy and skin rashes, which resolves spontaneously. Patients may present with acute mental illness (dementia),

which also resolves. This phase of the disease is called the *acute retroviral syndrome*. It may be quite severe or be mild enough to pass unnoticed as a mild flu-like illness. After primary infection, there is a period of clinical latency before patients develop an AIDS-defining diagnosis. Latency period lasts 2 years in 5% of patients, 6 years in 20-50% of patients and 10 years in 50% of patients. The progression of the immune deficiency can be monitored through the counting of special white cell, *CD4* per microlitre of blood. Immune deficiency begins to appear at *CD4* count of about 300/ml or lower (Nordberg, 2000).

2.3.2 Signs and Symptoms of HIV and AIDS

The signs and symptoms of AIDS may develop gradually until the full-blown picture of the disease is seen. Some of opportunistic infections that occur as the deficiency appears are Herpes zoster, oral oesophagal thrush (*Candida*), Tuberculosis and rare types of pneumonia and bowel infection. These infections may be accompanied by weight loss (more than 10%), chronic diarrhoea and cough, prolonged fever (which may be intermittent), unusual rashes and generalized lymphadenopathy. Some patients develop progressive deterioration of mental function that includes psychiatric disturbances, tremors and slowness, leading to paralysis (Nordberg, 2000).

2.4 Factors that influence HIV transmission: vulnerability and risks

2.4.1 Gender and HIV and AIDS

In recent years, the overall proportion of HIV-positive women has steadily increased. In 1997, women were 41% of People Living with HIV and AIDS; by 2004, this figure rose to 50%. In sub-Saharan Africa, 57% of adults infected are women and 75% of young people infected are women and girls. Data from HIV and AIDS prevalence surveys by

sex and age have given disturbing and clear evidence that the prevalence of HIV infection is in many cases highest in women aged 15-25 years but peaks in men 10 years later in the 25-35 age groups (Reid, 1999). Women's risk is known to be compounded by a variety of socio-economic and cultural reasons both customary and modern (Reid, 1999). There is growing evidence that a large share of new cases of HIV infection is due to gender-based violence in homes, schools, the workplace and other social spheres. Factors recognized as associated with female vulnerability also include poverty, inequality, mobility, insecurity, lack of family support and protection, heavy parental responsibilities and male dominance and aggression (Careal, 1997; Hamador, 1990). Lack of access to and control of resources for decision-making particularly in the sexual relationship appears to be one of key to the vulnerability of women and children in the AIDS epidemic (Ulin 1997; Ankrah, 1998).

The vulnerability of women is increased by extend to which they are subjected not only to male control, but also to violence against the person and to a gendered culture of violence. Violence done to women's bodies through cultural modification to the genitals from various forms of circumcision or the use of intravaginal substances to 'dry' and tighten the vagina prior to sexual intercourse, for example, may cause damage to tissues and facilitate the transmission of HIV (Anarfi, 1990; Careal, 1997; Amnesty international, 2000). A survey of 1366 women attending antenatal clinic in Soweto South Africa, found significantly higher rates of HIV infection in women who are physically abused, sexually assaulted or dominated by their male partners. The study also produced evidence that abusive men are more likely than non-abusers to be HIV positive (UNAIDS, 2005).

2.4.2 Lack of Knowledge about HIV and AIDS

The majority of the African populations do not know the basics regarding HIV and AIDS transmission (Herselman, 2003). Basic ignorance of the fundamental aspects of the diseases is supplemented by a psychologically motivated attempt to ignore reality because of its social stigma. Pregnant women's avoidance of test is widespread in Africa even if they know that knowledge of their status can prevent vertical transmission to their children (Herselman, 2003). In some rural areas of South Africa, some *Songomas* (traditional healers) are advising patients to get rid of the diseases by injecting their blood into another person; and rape of young girls and even babies in the belief that sex with a virgin will cure HIV and AIDS (Herselman, 2003).

Some studies have shown that a lack of knowledge or incomplete knowledge also fosters the development of fears and myths about condom use (Rao and Weiss, 1990). Studies in diverse settings, Brazil, Guatemala, India, Jamaica, Mauritius and South Africa have found that women did not like their partners using condoms because they feared that if the condom fell off inside the vagina, it could get lost or travel to the throat or that women's reproductive organs would come out when the condom was removed (Rao and Weiss, 1990). Condoms have also been presented as an American plot to curb the birth rate in Africa (Herselman, 2003).

In South Africa a third of surveyed respondents believed that HIV positive people could show symptoms. In Kenya AIDS orphans often in denial believe that their parents had died from witchcraft or a curse (Kelly, 2005).

2.4.3 Cultural norms and practices and HIV and AIDS

Deep-rooted aspects of African life also contribute to the vulnerability to HIV infection, often occurring when a girl has her first penetrative sexual encounter. In Malawi an

elderly man is often called to have intercourse with girls on the last day of their initiation rituals (William, 1996). Sexual cleansing or death cleansing, a wide spread ritual in Zambia, Southern Malawi, Luo Nyanza-Kenya, requires a widow to have sexual intercourse with a relative of her late husband, to appease the spirit of the deceased (Reid, 1999; Kempe, 1999). Among the Yao of Southern Malawi, if a child dies, the village chief will secretly (especially without a husband's knowledge) assign a man to have sex with the woman whose baby/child had died. The ceremony is called removing dust "*ku chotsa phulusa*" (Ruth and Kiai, 1997).

2.4.4 Barriers to Condom use

The role played by Christian and Muslim doctrines in influencing the behavior of their followers is paradoxical in terms of HIV and AIDS. Both religions are officially opposed to extramarital and premarital sex, a position that if strictly implemented would be a good barrier against the disease (Kempe, 1999; Carol and David, 2005). Besides behavioral deviations triggered by human nature many African Christians openly express their fundamental disagreement with monogamy and casual sex prohibition (Carol and David, 2005). On other hand, fulfillment of religions prescription by members who fail to be abstinent or faithful can produce a negative impact.

A Zambian catholic priest, for example halted an awareness campaign because a vehicle promoting the use of condoms was present (Carol and David, 2005). In May 2000, the Malawian council of churches branded the use of condoms as immoral and accused the government of encouraging sexual promiscuity by freely distributing condoms. (Herselman, 2003). The same approach was followed by Zambia deputy Minister In charge of the religious affairs and some religious leaders in Kenya who claim that condom use is not a biblical/Quranic answer to HIV and AIDS (Sue, 2005). Catholic social workers operating in Khartoum point out that fundamentalist practices have a

negative impact, resulting in restraints on female employment. As a result, many girls end up as prostitutes (Herselman, 2003).

2.4.5 Violence and Coercion

Women are most vulnerable to violence and coercion in times of civil strife. Massive displacements of people from their normal lives in wars have been clearly associated with the spread of diseases (Orubuloye, 2001). AIDS is already reputed to have seriously affected some armies in the region and many civilians view soldiers as prime agents of spread of the disease, whether by coercion or through the commercial sex which is typically provided near their camps (Orubuloye, 2001). Adolescent girls are especially at risk of sexual coercion as well as economic pressures and seduction by males old enough to be their father's (Orubuloye, 2001). Rape also plays an important role in early sex. In Kenya a quarter of the young women lose their virginity because they are forced to have sex (Carol and David, 2005). It is speculated that in South Africa 1.8 million women are raped every year while child rape is assuming huge proportion (Carol and David, 2005).

The current wars, causing on-going population movements, rape and promiscuity are triggering an AIDS explosion in central Africa and the Great Lakes region (Robert, 2000). The 1994 genocide in Rwanda, which sparked massive displacements of the population, resulted in a rise in prevalence from 3% to 11% (Joseph and Bill, 1999). Tanzania and Kenya, countries characterized by domestic peace and order are suffering problems due to refugees from neighboring countries. Host communities have become hotbeds of prostitutions with female especially from refuge camps engaging in risky commercial sex (Joseph and Bill, 1999).

2.4.6 Occupation and HIV and AIDS

Truck drivers and their assistants lifestyle make them a high-risk group, whose mobility, which is even higher than that of migrant workers, makes them ideal agents for the geographical expansion of the pandemic (Alan, 1998; Ross, 2000). A survey, conducted among truck-drivers in Johannesburg, showed 25% seroprevalence, at a time when infection rates were still low (Carswell *et al.*, 1999). Truck drivers and their assistants, bar/hotel workers and commercial sex workers have been associated with the high risk of acquiring and transmitting HIV infection in East Africa (Carswell *et al.*, 1999; Plummer *et al.*, 1991).

In Tanzania, in the same year, female bar workers in Dar es salaam were found to be 29% HIV-1 infected (Laukamm-Jostem *et al.*, 1991). In 1991-93, 28% of the truck drivers at truck shops and 13% at trucking companies in Dar-es Salaam were HIV-1 infected. (Carswell *et al.*, 1999). A study by the Ministry of Transport, NACC and NASCOP that defined quantitatively the levels of sex, HIV related prevention and treatment facilities/resources and programmatic responses targeting vulnerable groups on the northern corridor highway from Mombasa-Kampala there was considerable numbers of vulnerable populations; 6000 overland transport workers and 8000 sex workers on any given night at these 47 hot spots of transactional sex between Mombasa-Kampala. Sex workers had more than 13 different partners per month, which include abroad range of occupations and socio-economic classes. In overall, it was estimated that between 5,000-10,000 primary infections occurred in the year on this corridor and 66% of these could be prevented with increasing overall condom use (NASCOP, 2005).

2.4.7 Migration and HIV and AIDS

As rural populations grow, many men are forced to search for work in cities, but, due to both lack of job opportunities and accommodation problems, many migrant workers are unable to bring their families along. The need to supplement poor wages makes it almost inevitable that many new city-dwellers leave their families cultivating plots on commercial land (Ross, 2000). Surveys have highlighted the risky lifestyles of most workers. Repeated seasonality in rural, venereal infection was observed in Gazankulu, with higher waves coinciding with periods when migrants visit their families as well as during the winter months, with desperate women resorting to prostitution (Ross, 2000).

Abnormal levels of venereal infection were detected in villages located near construction sites in Malawi and in camps established to accommodate workers employed for the Lesotho Highlands water project (Alan, 2000). In northern Senegal a survey found that 27% of the men who had worked in other countries and 11.3% of their spouses tested positive out of 414 men who had not traveled during the past 10 years, only one man tested positive (Herselman, 2003). West Africa rural communities known for out migration were recording seropositivity rates 2-3 times higher than the respective national rates. About 200 million workers are involved in migrant labour in West Africa, posing the risk of a serious HIV and AIDS outbreak (Cleland, 1994).

2.4.8 Promiscuity

Statistics are lacking but observers indicate that multiple partners' situations involving various forms of sexual patron-client relationships appear to be increasing as a result of the economic crisis (Schoepf *et al.*, 1991). A study of sexual relations of market women in Benin City, Bendel state Nigeria indicated that the majority had been involved in extra-marital sexual relationships, some of this with strangers and accordingly a high

proportion had been susceptible to HIV/STIs (Omorodion, 1998). Factoring economies, wide spread unemployment and lack of conjugal and kin support as well as the kind of development policies, which cause migration, are recognized as linked to the expansion of prostitution (Ulin, 1997). A survey conducted in poor neighborhoods of Lusaka indicated that over a ¼ of the respondents aged 10 had engaged in sexual activity (Ulin, 1997). In similar areas of South Africa, 10% of the respondents admitted to having started their sex lives at 11 years or younger (Ulin, 1992; Kempe, 1999). Unprotected commercial sexual intercourse is rife.

United Nations research indicates that in Ndola a Zambia town, only 1 in 4 sex workers used condoms with their latest clients (Gathiqi *et al.*, 1993). Various data suggested that relationships with prostitutes play a significant role in the spread of HIV/AIDS /STI in urban and rural areas and a third to a half or more of prostitutes are judged to be infected with a sexually transmitted disease at any time, with their customers infecting both other prostitutes and their other sexual partners including wives (Caldwell and Caldwell, 2000). People under the influence of alcohol are less likely to make use of condoms than sober ones. Hingson *et al.*, (1990), reported that amongst teenagers in Massachusetts, U.S.A, heavier alcohol drinkers were 2.8 times less likely than others to use condoms during sex.

2.4.9 Poverty and HIV and AIDS

Poverty is one of the key factors in HIV transmission. Poverty produces AIDS and AIDS produces poverty. Poverty directly exacerbates HIV transmission through 'survival sex' (sex on occasional basis in exchange for money, food, consumption goods or favors) and inferior health care, particularly the lack of treatment for sexually transmitted infections (UNAIDS, 2001). Studies from across the developing world indicate that poverty is

overwhelmingly the root cause of women bartering sex for economic gain or survival (Weiss, *et al.*, 2000). Research from Africa has shown that rural-to-urban migration of men leads them to form new sexual networks in areas where on unequal ratio of men to women and a higher seroprevalence rate is likely to make them more vulnerable to infection (Bassett and Mhlovi, 1999). Young people's risk of infection is also greatly affected by their lack of economic options. Frustrated youth with few economic opportunities are more likely to engage in a range of risk behaviours, such as using drugs and engaging in unprotected sex in exchange for gifts or favors.

2.4.10 Management of HIV and AIDS

There is no cure for the AIDS virus yet, but antiretroviral agents have been developed to slow viral replication. Three main categories of antiretroviral drugs are; Nucleoside reverse transcriptase inhibitors (*e.g. Stavudine, Zidovudine, Lamivudine*), Protease inhibitors (*e.g. Indinavir, Nelfinavir, Ritonavir*), and Non-nucleoside reverse transcriptase inhibitors (*e.g. Nevirapine, Delavirdine*). The main goals of ARVs are improvement of patient's quality of life, reduction of HIV related morbidity and mortality, restoration and/or preservation of immunologic function and maximal and durable suppression of the viral replication (GoK, 2005). Treatment should be started before irreversible impairment of the immune system has occurred. For adequate treatment potency and efficacy, Antiretroviral drug therapy usually involves a combination of a minimum of three Antiretroviral drugs from different classes (GoK, 2005). Adherence to Antiretroviral therapy is well recognized to be essential component of individual and programmatic treatment success. Non-adherence can lead to poor clinical, immunological and virological outcomes. The proper education of patients before the initiation of and during ART is vital for the success of adherence strategies.

Opportunistic infections should also be treated (GoK, 2005). Good nutrition can play an important role in the comprehensive management of HIV and AIDS, as it improves the immune system, boosts energy, and helps recovery from opportunistic infections. The basic principles being advocated for all programmes of HIV and AIDS' patient management, counselling or education include; nutritional education and counselling, water and food safety intervention to prevent diarrhoea, income-generating activities to enhance food security, nutritional supplementation and meal designing and planning using locally available foodstuffs. Treating sexually transmitted infections can reduce the spread of HIV by reducing the amount of virus shed in the genital tract of those infected and reducing susceptibility to HIV infection among those not infected (GoK, 2005).

CHAPTER 3: MATERIALS AND METHODS

3.1: Research Design

The purpose of this study was to identify factors enhancing vulnerability to HIV and AIDS among residents of Central Division, Moyale District, which is reported to have the highest seroprevalence in the district (GoK, 2006). Descriptive cross-sectional study design was used.

3.2 Variables

The independent variables were socio-cultural, religious and economic factors. These factors singly or cumulatively make individuals more vulnerable to HIV and AIDS. Vulnerability to HIV and AIDS was the dependent variable. The variables were measured both quantitatively and qualitatively. Likert scaling was used to measure community's level of knowledge and attitude. Respondents were required to respond to knowledge and attitude statements as shown in appendix i. Respondents who gave the correct response for each statement scored 3, while those who gave wrong response scored 1 and those who were undecided scored 2. Pearsons' correlation was employed to determine any association between knowledge, attitude and age of the respondents. This helped determine differences in terms of knowledge and attitude among the youths and the old in the study area. In this study, 'all the time' means for every sexual intercourse s/he uses a condom; 'regularly' means, most of the time he uses the condoms when having sexual intercourse; 'sometimes' means s/he only uses when he feels/ in doubt of the sexual partner. While 'very high' means that the extent of the practice is more prevalent and 'very low' means the practice is almost not present.

3.3 Study area

Central Division is one of the four Divisions in Moyale District, Eastern Province. Administratively, Central Division is divided into five locations and 14 sub-locations. It covers 453.2 km² and borders the Republic of Ethiopia to the North (figure 3.1). It lies between latitude 02° 11' North and 02° 4' North and longitude 38° East and 39° 21' East. The Division lies within semi-arid zone of Kenya and is generally hot with temperatures varying from 20° to 50° C. The Division has a bi-modal rainfall pattern averaging 300 mm per annum during long rains (March-May) and 250 mm during the short rains (October-December). With a population of 33084, the Division has the highest population density of 73 persons per km² (GOK, 2002). The major clans are Borana and Gabra with over 95% being Muslim. Virtually, everybody relies on relief food, as 97% of the land is non-arable while the remaining 3% of the arable land is either left fallow or not optimally utilized (GOK, 2002).

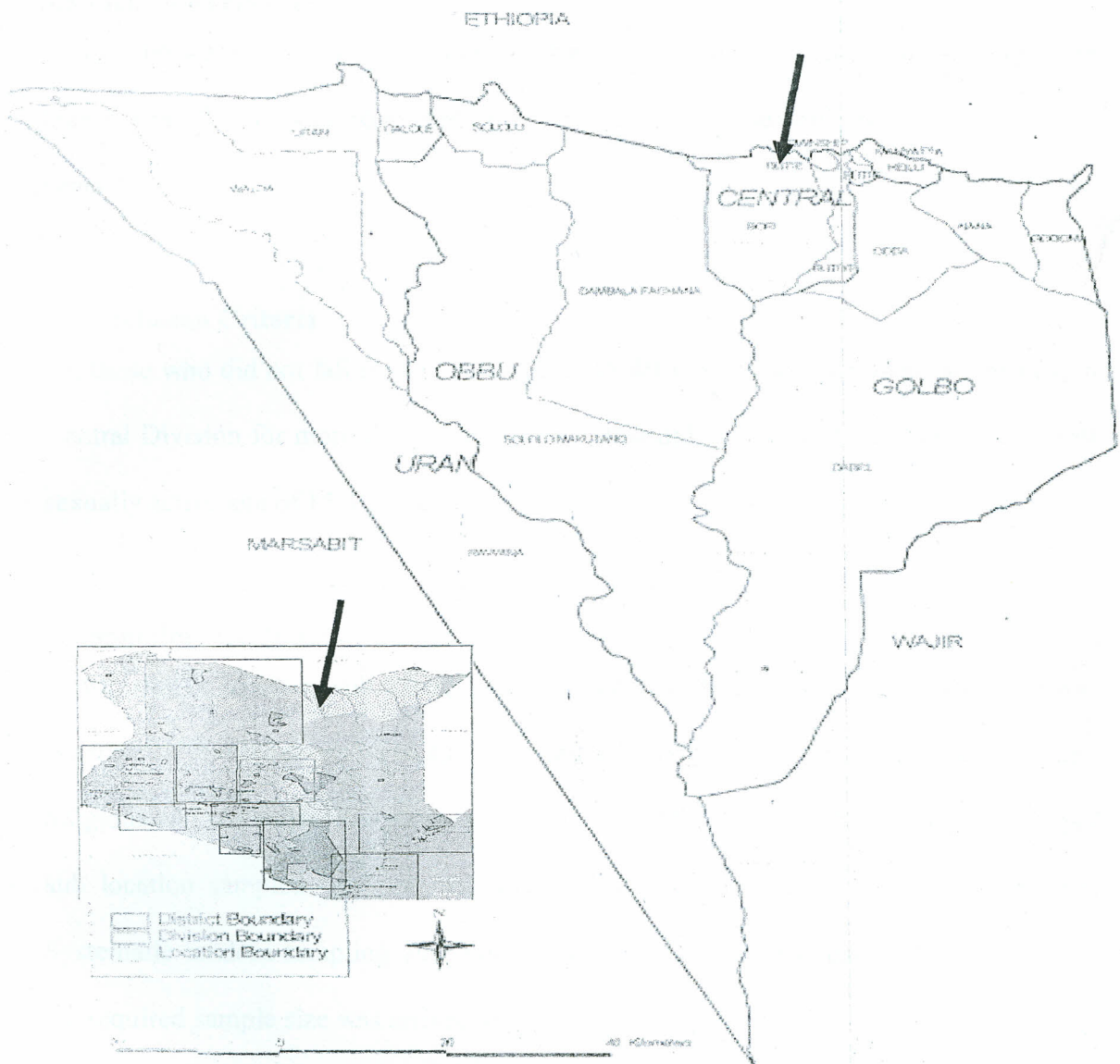


Figure 3.1: Moyale District Map showing study area and inscribed Kenya map

3.4 Study population

The study population included those who were sexually active in the age range 15-49 years and had resided in Central Division, Moyale District for more than 1 year. It had been projected by Central Bureau of Statistics that by 2008 the population of persons of age 15-49 years in Central Division was to be 25,000 (GoK, 2002).

3.5 Inclusion criteria

Those who were in 15-49 years-age bracket and had resided in Central Division for more than 1 year. Those who consented and were in the most sexually active age of 15-49 years.

3.6 Exclusion Criteria

All those who did not fall in the age range of 15-49 years. Those who had not resided in Central Division for more than 1 year. Those who did not consent but were in the most sexually active age of 15-49 years.

3.7 Sampling technique

Seven out of fourteen sub locations were randomly selected for this study. This was because the sub locations were internally fairly homogeneous in terms of socio-cultural, religious and environmental characteristics (GoK, 2002). The number of respondents per sub location sampled was proportionately allocated according to the population size. Systematic random sampling was used to sample respondents in each sub location until the required sample size was arrived at.

3.7.1 Sample Size Determination and distribution

The formula previously used by Fisher *et al.*, (1998) was adopted to determine the sample size of this study.

$$\text{Sample size } n = \frac{Z^2 pq}{d^2}$$

Where; Z = Standard normal deviate set at

2.17 (= 97% confidence interval) to improve on precision and accuracy of the data.

P = National HIV prevalence rate of adults between 15-49 years by

2007 which was 6.5%

d = precision set at 0.03

q = 1-p (1-0.065) =0.935

$$\frac{2.17^2 \times 0.065 \times 0.935}{0.03^2} = 317.98 \text{ respondents}$$

The minimum number of respondents required was 318 (300 main respondents and 18 CSWs were recruited for this study). The sample distribution for the 300 main respondents in the study area was as shown in table 3.1. Although 318 respondents were recruited for study, only 306 (288 main respondents and 18 CSWs) questionnaire were duly filled and collected with the aid of the 3 research assistants. This amounted to a 96.2% response rate.

Table 3.1: Sample distribution for main respondents in the study area

Sub location	Population size of the sub location	Percentage	Sample size distribution
Township	5000	23.03	69
Butiye	4460	20.54	62
Hellu	3000	13.82	41
Kinisa	1000	4.62	14
Sessi	2400	11.05	33
Mansile	2050	9.44	28
Somare	3800	17.50	53
Total	21710	100.0	300

3.8 Data collection methods

Both qualitative and quantitative data collection approaches were used in the study. The research instruments included; Focus Group Discussion, Key Informants Interviews and questionnaire as described below.

(a) Questionnaire

A questionnaire written in English language comprising of both open and closed ended questions was employed as shown in Appendix i. A total of 300 questionnaires were distributed to the main respondents in the study area. The questionnaire was divided into sections as follows: socio-demographic information, knowledge, attitude, perception, socio-cultural practices and religious practices. A further 18 commercial sex workers (*Anjis*) were interviewed in three main bars which hosted a majority of them. It was estimated by the District statistical office that a total of 30-60 CSWs

were always present per day from evening hours in bars within Moyale town which is the Central Division's headquarters. Slightly a third (18) of the average number of CSWs present per day within Moyale town were recruited for this study. Snow-ball sampling method was employed to recruit CSWs. The major bars where the CSWs were recruited included Prisons (6 CSWs), Modern (6 CSWs) and Members club (6 CSWs).

(b) Focus Group Discussion (FGD)

Three FGDs were held in Moyale town, the Central Division headquarter. The FGDs enabled the research team to collect detailed spontaneous information on issues pertinent to vulnerability to HIV/AIDS in the Division such as; gender norms, socio-cultural and religious practices. Each FGD consisted of between 8-12 participants. The first FGD held was with the youths, the second FGD with the religious leaders, council of elders and the last FGD with departmental representatives from district government offices, teachers, HIV and AIDS representatives from non-governmental agencies involved in prevention of HIV and AIDS programmes. All the FGD participants were selected through positive/conversant sampling as recommended by Dawson *et al.*, (1993).

(c) Key Informant Interviews (K.I.I)

In each sub location selected, K.I.Is were held with various people whose responsibilities have a bearing on HIV and AIDS. A total of 14 key Informants were interviewed. Interviews with K.I.I helped to generate information on what people

perceived to be the factors influencing vulnerability to HIV and AIDS in their community and the strategies adopted to respond to the pandemic.

3.9 Pre-testing data collection tools

The research tools were piloted in Odda sub location, Moyale District. This sub location was not included in the study but had the same characteristics. The lessons learned through this process were incorporated into the final questionnaire before the actual study was carried out.

3.10 Data quality control

To ensure quality, 3 research assistants were recruited and trained on the basic theory and rigors of the task. The questionnaire was written in simple English and pre-tested before being used in actual data collection.

3.11 Data Analysis

Data was processed using Software, Statistical Package for Social Sciences (SPSS). The study mainly employed descriptive statistics such as percentages and Pearsons' correlation and chi-square statistics. Chi-square statistic was used to determine the association between socio-cultural factors (like condom use, multiple sexual partners, and divorce among others), economic factors (CSWs and poverty) and religious factors which are independent variables and vulnerability to HIV and AIDS (dependent variable). Pearson's correlation was employed to establish an association between knowledge, attitude and age of the respondents. The confidence level was set at 0.03.

3.12 Ethical Consideration

A written authority to carry out the research was obtained from Kenyatta University ethical committee. Approval to do the study and visit villages was obtained from the Ministry of Higher Education, Science and Technology (formally Ministry of Science and Technology). At the district level, permission was sought from Moyale District Commissioner and District Education Officer. Participation was voluntary and the participants were free to withdraw at any time without having to incur any penalty. Anonymity, confidentiality and privacy were strictly safeguarded. Verbal consent was sought before any respondent was recruited into the study. All information obtained was kept in strict confidence.

CHAPTER 4: RESULTS

4.1 Respondents' socio-demographic profile

4.1.1 Respondent's age and sex

Findings from the respondents demonstrate that the age range was 15-49 years with a standard deviation of 9.72 and the mean age of 29.59 years. The 15-25 years stratum had the largest proportion, 37.5 % (108), followed by 26-35 years stratum 34.7 % (100) and then 36-49 years 27.8 % (80). The findings further show that there were more males 59.4 % (171) than females, 40.6 % (117).

4.1.2 Respondents' level of education

Out of the 288 respondents only 283 responded to this question on level of education attained. Slightly over a half of the respondents had received secondary level education, 55.8% (158), followed by primary level education 22.6% (64). Those who had attained tertiary level of education accounted for 19.4% (55). However, 2.2% (6) of the respondents had not gone through formal education.

4.1.3 Respondents occupation

The majority, 62.5 % (180) of the respondents were not engaged in any form of income generating activity. Only 17.7 % (51) of the respondents were self employed while 19.8 % (57) were in the formal sector.

4.1.4 Respondents' religion

For the 276 respondents who responded to this question, it is shown that the Muslims constituted a high proportion, 71.4% (197), followed by Christians, 23.6 % (65) and the traditionalists 4.9% (14).

4.2 Economic factor enhancing vulnerability to HIV and AIDS

4.2.1 Low levels of income

From 230 respondents who responded to the question on level of income, just over a half 56.5% (130) earned a monthly income of less than Ksh.2000, 10.4% (24) earned between 2001-5000, 15.7% (36) earned between 5001-10000, 12.2% (28) earned 10001-20000, while 5.2%(12) earned more than Ksh. 20000. A high proportion, 72 %(166) of the respondents stated that the income was not enough to cater for their very basic needs. Some of the ways respondents met the shortfall included; family support (7.6%) government relief (1.4%), living within means (9.4%), spouses support (3.5%), small income generating activities (2.8%).

4.3.0 Awareness about HIV and AIDS

4.3.1 Knowledge

Knowledge on HIV and AIDS was measured in terms of transmission and prevention.

Out of the 286 respondents who responded to the question, nearly all the respondents 98.3 %(281) had heard of HIV and AIDS. Only 1.7 %(5) reported not to have heard of HIV and AIDS. Similarly, a huge proportion 98.6 %(284) stated that there is no cure for HIV and AIDS.

To measure knowledge, the respondents were required to respond to statements, which were ranked on a likert scale. There were 9 statements on the likert scale (appendix i). The frequencies are presented in table 4.1.

Table 4.1: A summary of respondents' knowledge frequencies

Knowledge Aspect	Respondents' frequencies (%)			Inferential statistics. Respondents' age			
	Agree	Undecided	Disagree	χ^2	df	P-Value	Significant at 3%
1. HIV and AIDS can be spread through kissing.	16.7	22.4	60.9	19.499	4	0.000	Highly significant
2. HIV and AIDS can be spread through touching AIDS patients.	7.3	20.1	72.6	39.563	4	0.000	Highly significant
3. HIV and AIDS can be spread through sexual intercourse.	99.3	0.7	0	35.597	2	0.000	Highly significant
4. HIV and AIDS can be spread through blood transfusion.	93.7	6.3	0	17.280	2	0.000	Highly significant
5. HIV and AIDS can be spread through sharing of sharp instruments like razor blades with an infected person.	87.5	11.8	0.7	20.295	3	0.000	Highly significant
6. HIV and AIDS can be spread through witchcraft.	3.9	20.9	75.2	36.782	4	0.000	Highly significant
7. Use of condoms reduces spread of HIV and AIDS.	77.3	13.4	9.3	4.009	4	0.004	significant
8. Giving birth at home increases the chances of spreading HIV and AIDS.	81.4	9.4	9.2	8.064	3	0.004	significant
9. Having one sexual partner reduces spread of HIV/ AIDS	82.3	11.5	6.2	21.458	4	0.000	significant

n=288

Quantitative measure for knowledge on the likert scale revealed a minimum score of 9 and a maximum score of 27 with a mean of 18.50 and a standard deviation of 4.251. Respondents who scored more than 22 on the likert scale were considered more knowledgeable about HIV and AIDS, and those who scored a total of 18 were considered neutral about HIV and AIDS (i.e. were neither more knowledgeable nor less/not knowledgeable about HIV and AIDS). Respondents who scored less than 22 were considered less/not knowledgeable about HIV and AIDS. A Pearsons' correlation revealed a negative association between knowledge and age of respondents ($\alpha = -0.168$, $p < 0.000$; correlation significant at 0.01 level; 2 tailed). Study findings show that most of the respondents had inadequate knowledge about HIV and AIDS.

4.3.2 Attitude

This aspect was too measured on a likert scale in which respondents were required to respond to 4 statements (appendix i). The frequencies of respondents are shown in table 4.2. A quantitative measure of attitude for the 288 respondents on a likert scale showed a minimum score of 4 and a maximum score of 12 with a mean of 7.10 and a standard deviation of 2.913. Respondents who scored more than 10 on the likert scale were considered to have a favourable/positive attitude towards PLWHA, while those who scored 8 were considered neutral (i.e. neither had positive nor negative attitude towards PLWHA). Those respondents who scored less than 10 were considered to have an unfavourable/negative attitude towards PLWHA. A Pearsons' correlation showed a negative association between respondents' age and attitude ($\alpha = -0.219$, $p < 0.000$; correlation significant at 0.01 level; 2 tailed). The findings show that most respondents are not willing to accept (have stigma) PLWHA.

Table 4.2: Summary of respondents' attitude frequencies

Attitude Aspect	Respondents' frequencies (%)			Inferential statistics.			Respondents'
	Agree	Undecided	Disagree	χ^2	df	P-Value	Significant at 3%
1.HIV and AIDS patients should be separated from the infected people	15.5	20.6	63.9	54.204	4	0.004	Significant
2.HIV and AIDS should share food with the uninfected person	67.9	15.0	17.1	15.399	4	0.004	Significant
3.HIV and AIDS infected persons should continue working	72.6	17.0	10.4	46.977	3	0.000	Highly significant
4.HIV and AIDS infected status to relatives should remain secret	8.7	22.0	69.3	47.453	3	0.000	Highly significant

n=288

A positive Pearsons' correlation existed between knowledge and attitude ($\alpha = 0.446$, $p < 0.000$; correlation significant at 0.01 level; 2 tailed). This association shows that respondents with better knowledge and positive attitude are more willing to care for PLWHA.

4.3.2 Perception and rating of HIV and AIDS prevalence in the Division

4.3.3.1 Level of HIV and AIDS

Out of 288 respondents only 285 responded to the question on the level of HIV and AIDS. Most, 52.3 % (149) were of the view that the level of HIV and AIDS was high in the study area, while 7.4 % (21) respondents indicated, very low (figure 4.1).

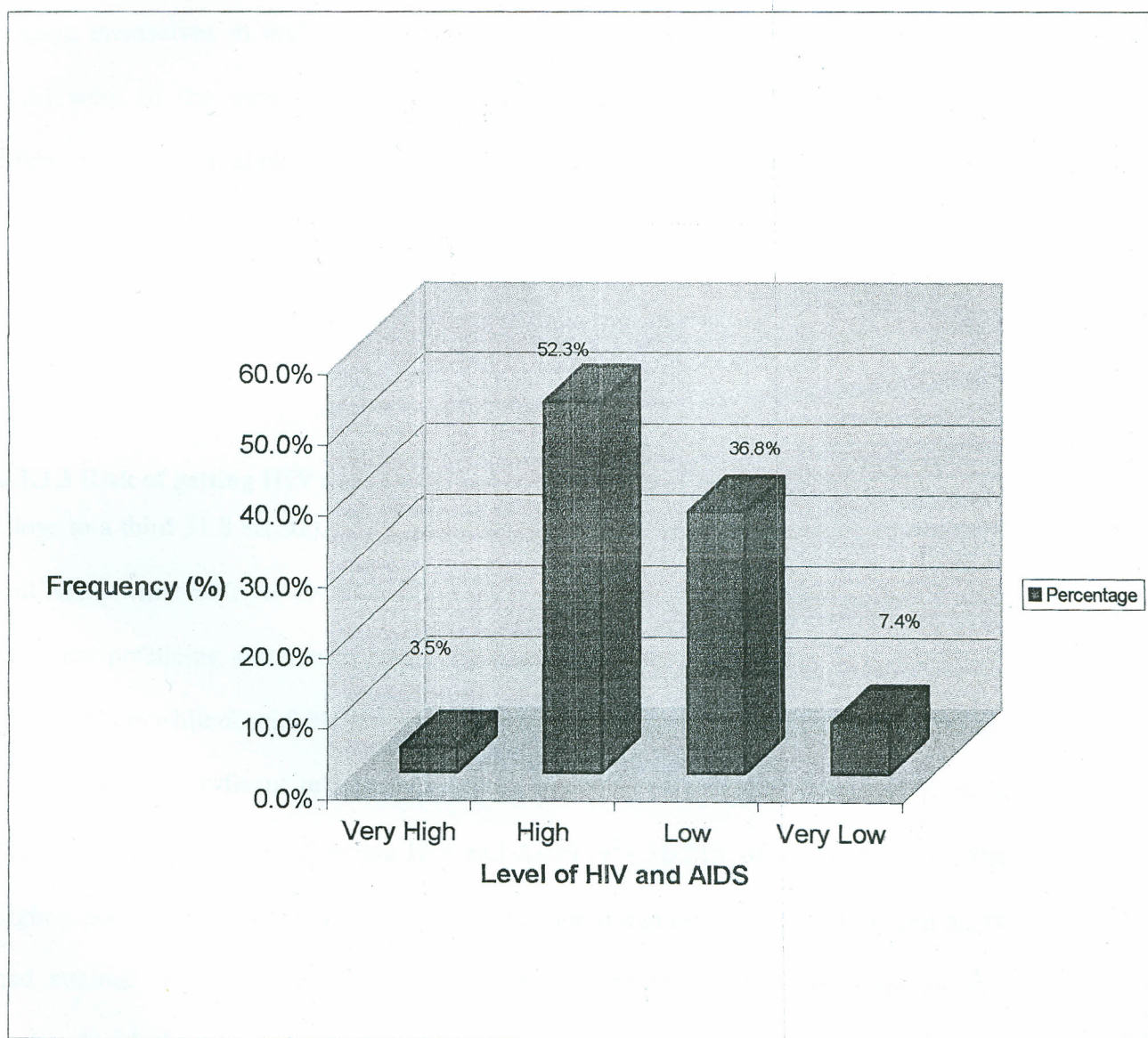


Figure 4.1: Level of HIV and AIDS.

4.3.3.2 Groups most affected by HIV and AIDS

Out of 285 respondents who responded to the question on groups most affected by HIV and AIDS, 44.6% (127) indicated that youths below 30 years, followed closely by CSWs 28.1% (80). Other groups that were reported to be most affected included, women 9.5% (27), lorry drivers, and 11.9% (34), police 4.9% (14) and business people, 1% (3). Some respondents (9.7%) noted that youths in the study area are hyper-sexually active, hence engage themselves in multiple risky/unprotected sexual behaviors. Other respondents (1%) were of the view that most men leave their spouses at home in search of employment or herding animals, hence women engage in extra marital sexual relationships. Other reasons cited by respondents to justify why some groups are most affected included a tradition of multiple sexual partners (29.5%), engaging in unprotected sex (3.8%), poverty (1%) and peer influence (0.7%).

4.3.3.3 Risk of getting HIV and AIDS

Close to a third 31.8 % (92), of the respondents thought were not at risk of getting HIV and AIDS while 68.2 % (196) did fear. Out of those who stated were not at risk, 6.3 % (18) were practicing abstinence, 11.5 % (33) were cautious, 4.2 % (12) were faithful to their partners while for 6.9 % (20) it was due to their level of knowledge. These findings demonstrate a significant relationship existed between respondents' level of education and the respondents' risk of getting HIV and AIDS ($\chi^2 = 16.215$, $df = 3$, $p = 0.001$). The highest percentage of respondents who thought were not at risk of getting HIV and AIDS had attained secondary level education 68.9% compared to 22.3% respondents with tertiary level education and 8.9% with primary level of education. There was a significant link between respondents' risk of getting HIV and AIDS and respondents' occupation

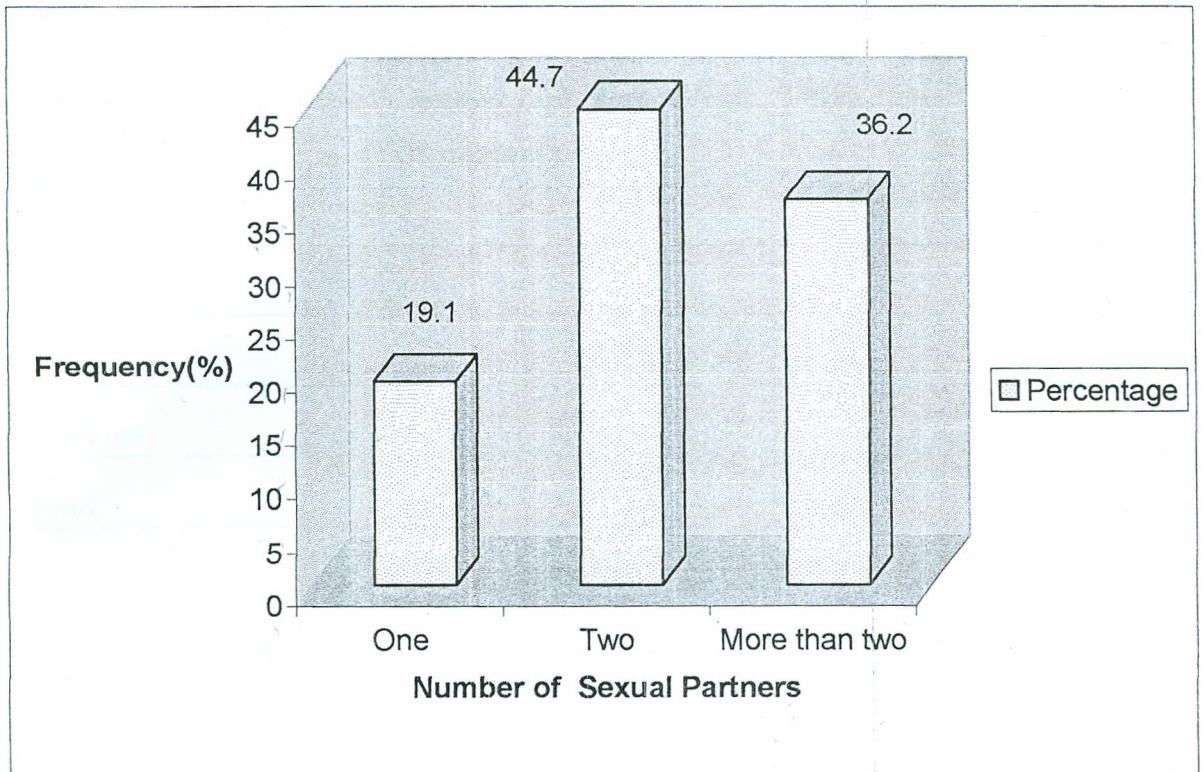
($\chi^2 = 11.099$, $df = 2$, $p = 0.004$). In fact 73.3% of the unemployed respondents dismissed any risk when compared with 20% employed and 6.7% self-employed.

4.4 Social cultural factors enhancing vulnerability to HIV and AIDS

4.4.1 Multiple Sexual Partners

Slightly more than a half, 55 % (158) accounted for those with only one or not having any sexual partner. While 45 % (130) of the respondents admitted to having more than one sexual partner. There was a significant relationship between respondents' sex and respondents' having more than one sexual partner ($\chi^2 = 24.206$, $df = 1$, $p = 0.000$), with 56.8% accounting for female respondents. There was a significant link between respondents' having more than one sexual partner and occupation ($\chi^2 = 14.278$, $df = 2$, $p = 0.001$).

Out of the 130 respondents with more than one sexual partner just about 44.7 % (58) reported as having two extra sexual partner, 36.2 % (47) had more than two extra sexual partners while 19.1 % (25) had one extra sexual partner (figure 4.2).



n=130

Figure 4.2 Respondents' Number of Sexual Partners

4.4.2.0 Condom use

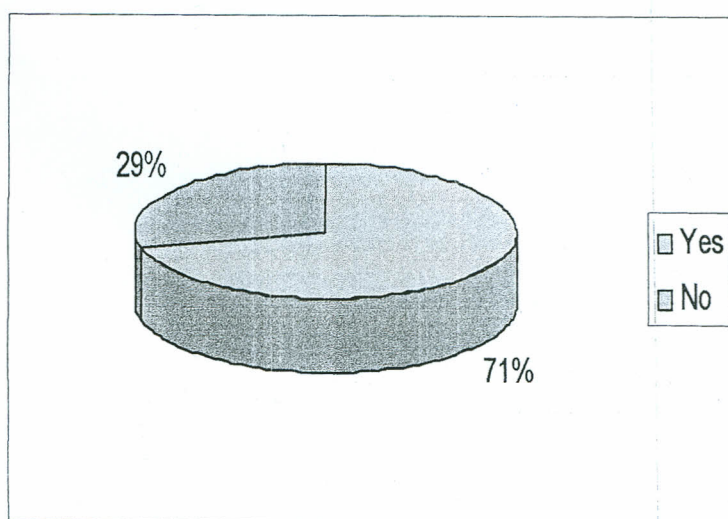
It is demonstrated that out of 130 respondents with more than one sexual partner, only 52.6% reported using condoms when having sexual intercourse. For the respondents who used condoms when having sexual intercourse with their extra sexual partners, 46 % (73) used all the time, while 4.6 % (7) did not use even after stating previously that they used. Table 4.3 gives more details. There was a significant relationship between the respondents use of condoms and respondents' sex ($\chi^2 = 15.134$, $df=1$, $p=0.000$). With 65.8% of those respondents who did not use condoms accounting for female. There was a significant link between respondents use of condoms and religion ($\chi^2=8.173$, $df=2$, $p=0.000$).

Table 4.3: Frequency of Condom use

Frequency of condom use	Number of respondents (Frequency)	Percentage
All the time	73	46.0
Regularly	13	8.0
Sometimes	65	41.4
Don't use	7	4.6
Total	158	100.0

4.4.2.1 Religion and condoms use

Religious groups in the study area strongly prohibit/ preach against the use of condoms. A high proportion, 71 % (204) of the respondents stated that their religion prohibits the use of condoms (figure 4.3). Instead they promote abstinence and fidelity. A significant relationship was revealed between respondents' use of a condom when having sexual intercourse with their partners and respondents' religion ($\chi^2 = 8.173$, $df=2$, $P=0.017$).



n = 288

Figure 4.3: Respondents' religion and condom use

A spot check in most retail shops revealed a very scanty evidence of sale of condoms. Only 4 available chemists/pharmacies in the town sale condoms. It was also established that retail shops in rural areas do not stock condoms at all. In health centers, the uptake is very low.

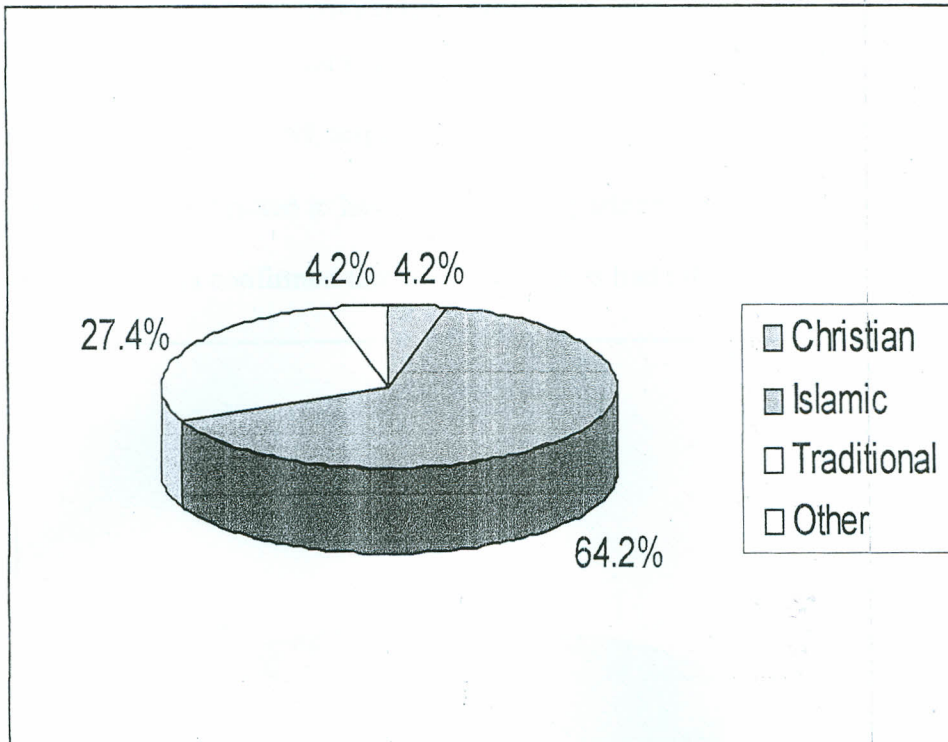
4.4.3 Early Marriages

4.4.3.1 Marriage age for girls

Out of 288 respondents, 47.9 %(138) reported of girls getting married at the age of over 17 years, while 45.8 %(132) indicated marriage age of girls between 14-16 years and only 6.3 %(18) reported marriage age being 10-13 years.

4.4.3.2 Type of marriage

The common type of marriage is Islamic which accounted for 64.2% (185) of the respondents. The other type of marriage that is almost similar to Islamic marriage is traditional which was represented by 27.4% (79). Christian marriage and other forms each accounted for 4.2% (12). See figure 4.4 below.

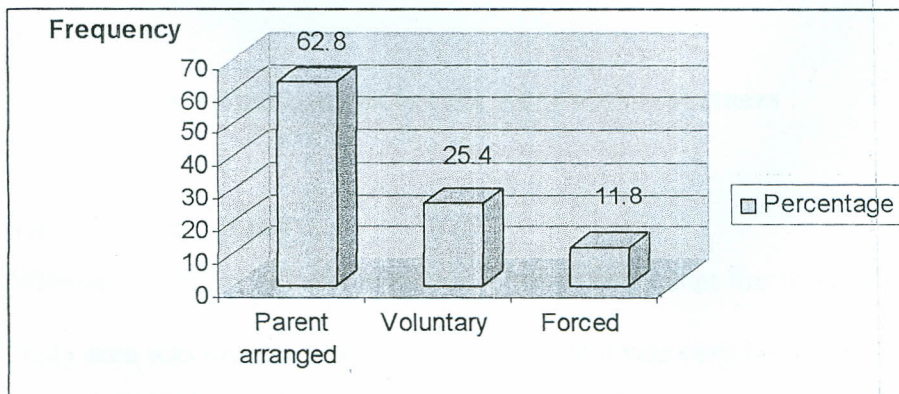


n = 288

Figure 4.4: Types of marriages in the study area

4.4.3.3 Process (ways) of marrying girls

It is noted here that parents arrange, 62.8 % (181) or force their daughters into marriage, 11.8 % (34). Only 25.4 % (73) are voluntary (figure 4.5). Parents receive dowry without the knowledge of the girls.

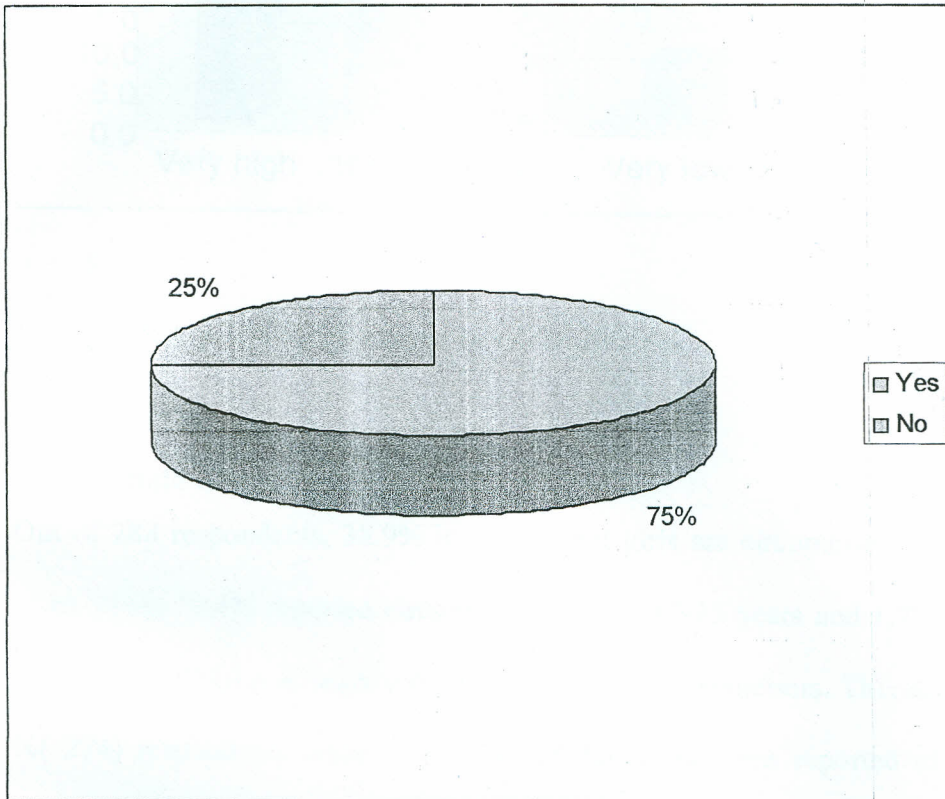


n = 288

Figure 4.5: process (way) of marrying girls

4.4.4 Extra marital relationship (Jaal na Jaltoh)

Jaal na Jaltoh is a cultural tradition that allows married couples to have extra-marital relationship. Out of 288 respondents, 53.9 % (155) indicated that traditionally, married couples were permitted to have other sexual partners. When probed further 75 % (216) of the respondents confirmed that married couples had other sexual partners (figure 4.6).

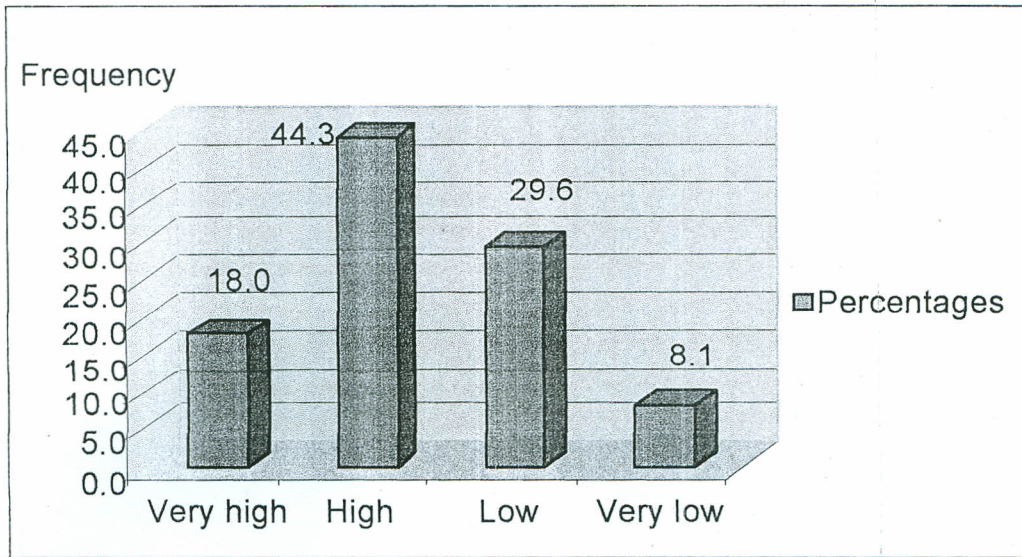


n = 288

Figure 4.6: Married couples having other sexual partners

4.4.5 Divorce (Garab)

Whereas 44.3% (128) of the respondents reported that the level of divorce cases in the study area was high, 8.1 % (23) indicated that it was very low (figure 4.7).



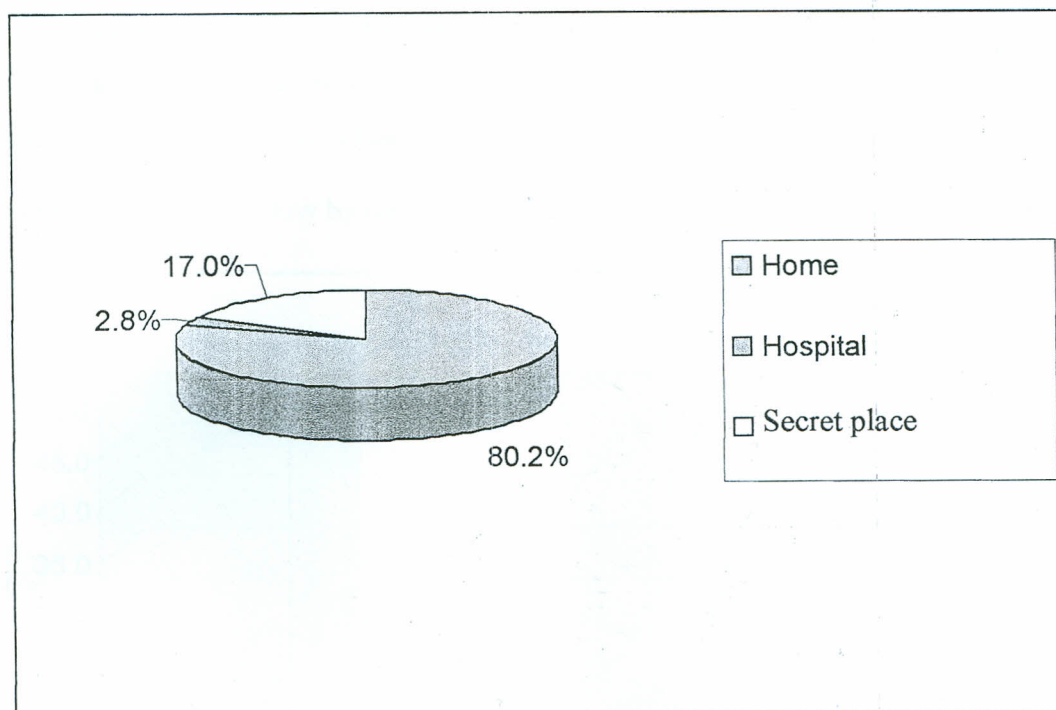
n = 288

Figure 4.7: level of divorce cases in the study area

4.4.6 Female Genital Mutilation (FGM)

Out of 288 respondents, 38.9% indicated that girls are circumcised at the age below 9 years while 59.4% reported circumcision age as 10-13 years and 1.7% indicated 14-16 years. Circumcision is mainly done by traditional circumcisers. This accounted for 95.1% (274) respondents while 4.9% (14) of the respondents reported of health workers participating in the circumcision of girls.

A huge proportion, 80.2% (231) disclosed that circumcision is done at home. Only 17% (49) and 2.8% (8) reported this happening in a secret location and hospital respectively (figure 4.8).



n = 288

Figure 4.8: Circumcision places

It was further revealed by 88.5 % (255) of respondents that traditional circumcisers have not undergone any formal training.

4.4.7 Polygamy

Out of 288 respondents, 82% acknowledged that polygamy is commonly practiced in the study area (Table 4.4).

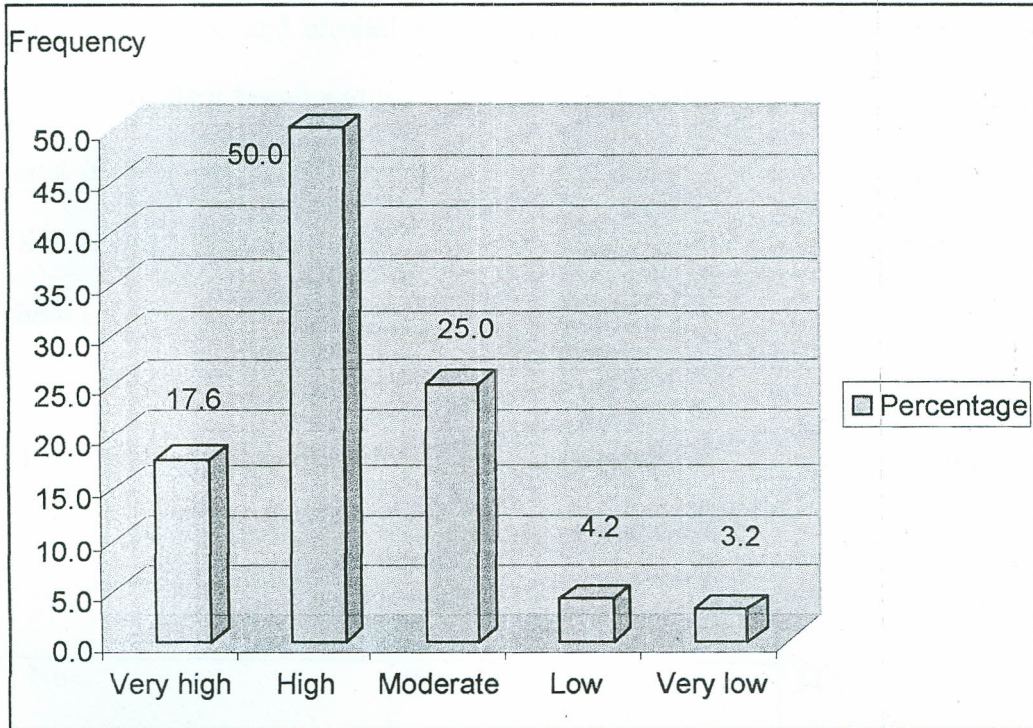
Table 4.4 Extent of polygamy

Response	Frequency	Percentage
Yes	236	82
No	52	18
Total	288	100

4.4.8 Social ceremonies enhancing vulnerability to HIV and AIDS

4.4.8.1 Youth sexual activity

The extent of youth involvement in sexual activities was rated to be high by 50 % (144) respondents and very low by only 3.2 % (9) respondents (figure 4.9).



n = 288

Figure 4.9: Extent of youth involvement in sexual activities

Idleness, alcohol and drug abuse were cited by 42.2 % (122) of the respondents as a factor propelling high involvement in sexual activities. Other reasons cited by respondents included poverty in their families 41.7 % (120), unemployment 10 % (29), peer influence 4.5 % (12) and ignorance about the risks of unprotected sex 1.6 % (5). A significant relationship between respondents' extent of youth involvement in sexual activity and respondents' level of education was revealed ($\chi^2=25.356$, $df=12$, $p=0.003$).

4.4.8.2 Wedding and Naming ceremonies

Just about, 64.6 % (189) of the respondents reported that cultural practices such as elaborate wedding ceremonies encourage the youths to involve in immoral behaviors (Table 4.5). It was further disclosed in FGDs and K.I.I that during these ceremonies, unprotected sex, and alcohol and/or drug abuse are rampant. For instance, *Chang'aa* (local and illicit brew) and beer are cheap and readily available across the border. The cost of beer ranges between Ksh.25-35 per 300ml bottle; *chang'aa* costs as little as Ksh.7. Drugs common in the study area include; *Roger five* (strong sleep inducing pill), *bhang*, *miraa*.

Table 4.5: Influence of wedding and naming ceremonies on youth behaviors.

Response	Frequency	Percentage
Yes	189	65.5
No	99	34.5
Total	288	100.0

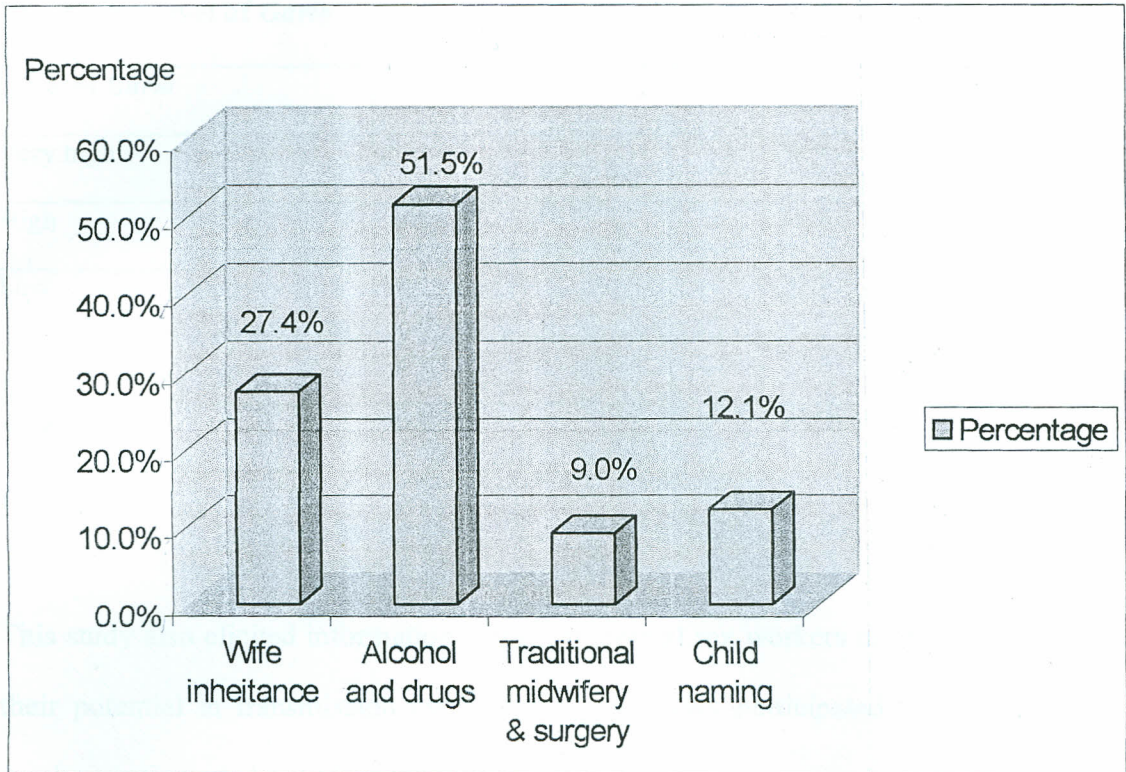
4.4.9 Wife inheritance

Out of 288 respondents, 27.4 % (79) reported that wife inheritance is common in the study area especially in the rural areas where once a husband dies, the brother in-law or a close relative inherits the widow (figure 4.10).

4.4.10 Traditional midwifery and surgery

Just about, 9 % (26) of respondents reported that giving birth at home and traditional surgery is common especially in rural areas. Traditional surgery includes cutting of

epiglottis. This was further confirmed by FGDs and K.I.I that most residents depend on traditional medication for treatment of their ailments due to long distances to the nearest health facilities (figure 4.10).



n=288

Figure 4.10: Other social cultural practices enhancing vulnerability to HIV and AIDS

4.5 Religious factors enhancing vulnerability to HIV and AIDS

4.5.1 Veils (Niqab/Hiqab)

It was noted by all FGDs and K.I.I that most women conceal their identity and involve in multiple sexual relationships. This was one of the major factors pointed out to be enhancing vulnerability to HIV and AIDS in the study area.

4.5.2 Splendour Muslim religious sect (Garib/Majlis)

Garib is a splendour religious sect from Islamic religion. *Garib* members meet over weekends in a member's home at night to eat, dance, wine and engage indiscriminate

unprotected sexual activities with anybody present. Slightly more than a third, 35.7 % (103) of the respondents indicated that the practice is high, and only 6.1 % (18) indicated it to be very low (table 4.6).

Table 4.6: Level of *Garib*

Level of <i>Garib</i>	Frequency	Percentage
Very high	83	28.9
High	103	35.7
Low	84	29.2
Very low	18	6.1
Total	288	100.0

This study also elicited information from commercial sex workers in order to understand their potential in transmission cycle. About 18 CSWs participated in this study. The results are presented as below.

4.6.0 CSWs demographic profile

The majority of CSWs interviewed were Ethiopian nationals who crossover to Kenya in the evenings. District statistics office show that about 30-60 CSWs crossover to Kenya on a daily basis (GoK, 2006).

4.6.1 CSWs' age and education

The age of the 18 CSWs interviewed ranged between 15-24 years. The 15-19 years stratum had the largest proportion, 72.2 % (13) while 20-24 years had 27.8 % (5).

With respect to education level, only a half, 50 %(9) had attained primary education. While the rest had not attained any formal education.

4.6.2 Knowledge about HIV and AIDS

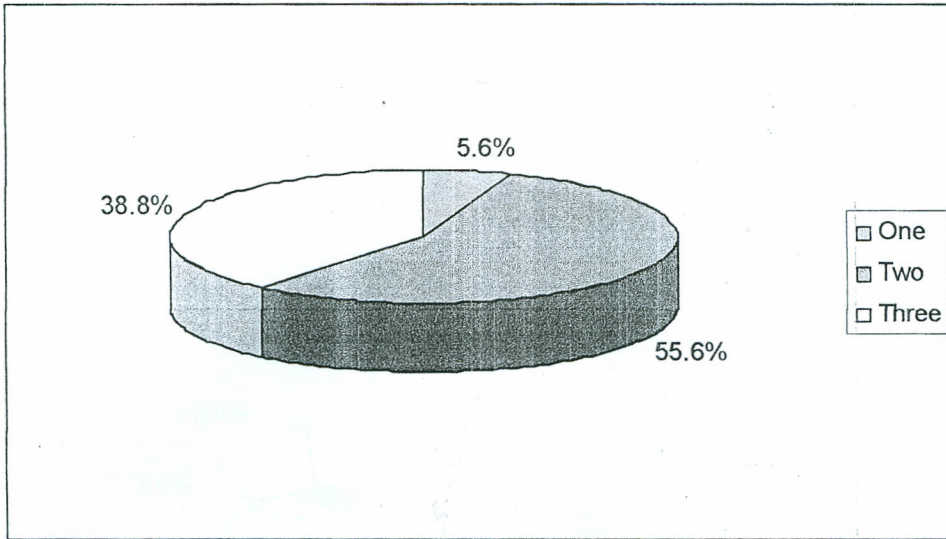
The 18 CSWs acknowledged that they were at risk of acquiring HIV. It is shown that more than 77 %(14) stated that the use of condoms could prevent HIV infection. While 11.1 %(2) preferred abstinence. Table 4.7 gives more details.

Table 4.7: Ways of prevention against getting HIV and AIDS

Way of prevention against HIV and AIDS	Frequency	Percentage
Abstinence	2	11.1
Being faithful	1	5.5
Few partners	1	5.5
Use of condoms	14	77.9
Total	18	100.0

4.6.3 Number of clients handled daily and pay

Slightly more than a half (55.6%) of the CSWs handled 2 clients daily, 38.8% of CSWs accounted for those who handled 3 clients a day. Only 5.6% handled 1 client (figure 4.11). It was shown that the clients handled on a daily basis by the 18 CSWs were not regular customers. In terms of pay CSWs were being paid between Ksh. 50-500 per client depending on the hour of the day. They considered the pay not adequate since it did not meet their basic needs.

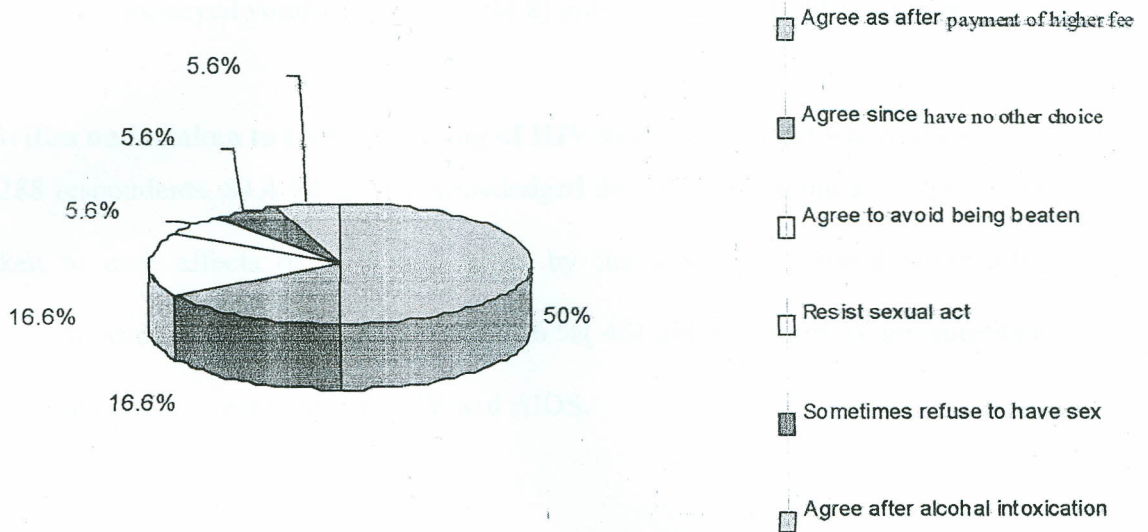


$n = 18$

Figure 4.11: Number of clients handled daily

4.6.4 Use of condoms

The 18 CSWs reported that the use of condoms with their clients during sexual intercourse was not always achieved. In fact an overwhelming proportion, 94.4 % (17) of CSWs indicated that there were some clients who detested the use of condoms. Only 5.6 % of the CSWs insisted on the use of condoms during sexual intercourse. For the clients who insisted on having sex without a condom, 50% of the CSWs stated that they agreed upon payment of a higher fee whereas 16.6 % (3) of CSWs stated that they had no other choice. A further 16.6 % (3) agreed to avoid being beaten/assaulted, while 5.6 % (1) CSW would agree after alcohol intoxication (figure 4.12).



n = 18

Figure 4.12: CSWs reasons for having unprotected sex with clients

4.6.5 Alcohol and/or drug abuse

All the 18 CSWs interviewed reported that they take alcohol and/or drugs before having sexual intercourse. Some of the drugs they used included *bhanga*, *Miraa* and *Roger five* (strong sleep inducing pill). Some of the reasons listed to justify their use of drugs included for stimulation 50 % (9), enhancing confidence 22.2 % (4), to be alert and awake 16.6 % (3), feel normal 5.6 % (1) and induce sleep 5.6 % (1).

4.6.6 Reasons for joining commercial sex work and major clients

Two thirds, 66.7 %(12) of CSWs joined commercial sex work due to high levels of poverty in their families, while 33.3 %(6) joined due to peer influence. When requested to recount their major clients, more than a half, 55.6 %(10) of CSWs indicated security men, drivers and moneyed youths while 44.4 %(8) indicated anybody who can pay.

4.7 Activities undertaken to curb spreading of HIV and AIDS in the study area

Out of 288 respondents, 84.4 %(243) acknowledged that there are some activities being undertaken to curb effects of HIV and AIDS by the government, on-governmental agencies or the community (Table 4.8). Only 15.6 %(45) did not report of any activities being undertaken to prevent spread of HIV and AIDS.

Table 4.8: Activities undertaken to curb the spread of HIV and AIDS

Activity	Frequency	Percentage
By government:		
➤ Anti-retro-viral support, awareness campaign, workshops and VCT services	94	38.7
➤ Provision of condoms	6	2.5
➤ Caring for PLWHA	5	2.1
By NGO's:		
➤ Anti-retroviral support	3	1.2
➤ Awareness campaigns	90	37.0
➤ Provision of condoms	6	2.5
By community:		
➤ Awareness Campaign	22	9.1
➤ Elderly counseling and participation by youths	17	6.9
Total	243	100.0

CHAPTER 5:DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Socio – Demographic profile

The purpose of this study was to identify factors enhancing vulnerability to HIV and AIDS among residents of Central Division, Moyale District, Kenya. A total of 288 main respondents and 18 CSWs participated in the study. Study findings show that the mean age of respondents was 29.59 years with a standard deviation of 9.72. The age of the 18 CSWs interviewed ranged between 15-24 years with a majority being 16 years. There were more males than females. This could be attributed to the fact that women spent a great portion of their time searching for water and firewood. Their work is labour intensive and in most cases takes 12-16 hours a day. Although majority of respondents had completed secondary level education, there was still a very low school enrolment especially for girls (GOK, 2007). Studies have shown a positive correlation between levels of education and rates of HIV infection (Bregson *et al.*, 2001).The findings are consistent with other related studies (Delius *et al.*, 2003; UNAIDS, 2005).

5.1.2 Economic factors enhancing vulnerability to HIV and AIDS

Virtually everybody relies on relief food as over 97% of land is non-arable while the remaining 3% of the arable land is either left fallow or not optimally utilized. As a result the levels of food shortage and absolute poverty have grown to 98% and 93% respectively (GoK, 2007).The level and magnitude of poverty in the study area can be seen from the following glaring characteristics; high levels of illiteracy, lack of proper shelter, high levels of school dropouts due to early marriages and lack of school fees, high levels of dependency especially from the government and other donor agencies, poor household amenities, poor health standards and long distances traveled to health

facilities, lack of sufficient water sources, large families of over 5.2 persons, lack of basic essential services and prohibitive traditional practices (MoH,2003).

Poverty and inequality have several effects on the AIDS epidemic in central division. Poverty increases the likelihood that poor women will be forced into transactional sex as a survival strategy. Similarly vulnerable children are more likely to be exploited in situations of poverty that include sexual exploitation and abuse. Frustrated youths with few economic opportunities are more likely to engage in a range of risk behaviors such as using drugs and engaging in unprotected sex in exchange for gifts or favours. These findings are consistent with other related studies (Ulin, 1997; Kempe, 1999). Greater inequality in the study area also means income earners may exploit poorer females, a practice which has been found to spur the spread of HIV and AIDS (UNAIDS, 2001; Weiss, *et al.*, 2000).

Various studies suggest that CSW play a significant role in the spread of HIV/AIDS/STI in urban areas (Caldwell and Caldwell, 1993). From the study findings, most CSWs in the study area originate from remote rural areas and are poorly educated. CSWs in the study area provide sexual services in social context ripe for HIV transmission, have limited education and hence choice, provide vaginal intercourse to large numbers of clients who in most cases seldom use condoms hence are frequently exposed to HIV/STIs. This finding is consistent with other related study (Ross, 2000).

Studies by MAP, (2004) indicated that clients of commercial sex workers are reluctant to use condoms and are willing to pay more for unprotected sex. Findings in the study area indicate that CSWs willingly indulge in unprotected sex so long as clients pay more while others do so to avoid being assaulted. Most CSWs in the study area handle between 2-3 clients per day. CSWs in the study area combine alcohol, drugs and sexual activities.

Alcohol and substance abuse coupled with impulsive sexual desire can reduce the ability to make responsible decisions. It was also shown that CSWs are involved with clients who are not regular customers. Frequent changes or multiple concurrent sexual partnerships are key factors in driving an epidemic of a sexually transmitted infection such as HIV to higher levels (Trocki and Leigh, 1999).

5.1.3 Knowledge, Attitude and Perception

Respondents who scored 22 and above out of the possible 27 on the likert scale were considered to be knowledgeable about HIV and AIDS. In the study, majority scored 18.50. The study findings show that most respondents still have inadequate knowledge about HIV. On the other hand a Pearsons' correlation revealed a negative association between knowledge and age ($p < 0.000$). This implies that the level of knowledge decreased with increase in age. Hence the younger age group was more knowledgeable than the older age group about HIV and AIDS. This study finding is inconsistent with other related studies (Unicef, 2004; 2003; KDHS, 2003).

A respondent who scored 10 out of 12 possible score was considered to be having a positive attitude towards PLWHA. Majority of the respondents scored 7.10. This indicates that most of the respondents were less willing to accept and care (stigma) for PLWHA. A Pearsons' correlation showed a negative association between respondents' age and attitude ($p < 0.000$). Young age group was more willing to accept and care for PLWHA than the older age group. Study findings further indicate that those respondents with better attitude and knowledge were more willing to care for PLWHA. A positive Pearsons' correlation existed between knowledge and attitude ($p < 0.000$). Nomadic pastoralism has dealt a blow to the flow of information especially to the adult male. Most male spent most of their time of the year herding their animals in bushes moving from

one area to another searching for pasture. Inadequate knowledge can also be attributed to low levels of education in the study area. Statistics indicate that Central Division, which is strategically situated along the great north highway, has the highest number of HIV and AIDS cases compared to the rest of the divisions. The proximity of the town to the neighbouring country where commercial sex work is legalized, men migrating in search of employment leaving their families behind, the mobility of pastoralists, emergency situation especially floods in the long rains leading to congested refugee camps and the cultural patterns of pastoral groups are other reasons attributed to high levels of HIV and AIDS in the study area (MoH, 2005).

Findings also show that youths below 30 years were perceived to be the most affected by HIV and AIDS. This finding is consistent with other related studies (Johnston, 1999; UNAIDS, 2005). The other group that was cited to be highly affected is women. Men are always overall heads even when women are economically strong. Delius *et al.*, (2004) in his study indicates that women have a dependency syndrome and have no choice in matters of sex. In the study area, women have no say on sexual matters. The findings are consistent with other related studies (Orubuyole *et al.*, 1994; Shoepf, 1998; Basset and Mhloyi, 1997).

5.1.4 Social cultural factors enhancing Vulnerability to HIV and AIDS

Studies by WHO, (2004) suggests that the chances of being infected with HIV were highest for those women who had highest number of sexual partners. For those respondents with more than one sexual partner, more than a half (56.8%) accounted for female respondents. This could be attributed to the fact that majority of women in the study area are breadwinners in the family (GOK, 2007). The study area is remote with no much economic activities for women yet they have a huge responsibility to cater for the

family. The study findings are consistent with a study conducted in Kenya clinic (Gathiqi *et al.*, 1993).

Despite some of respondents acknowledging having more than one sexual partner, nearly a half (47.4%), did not use condoms when having sexual intercourse. Majority of those who did not use condoms were women (65.8%). Female partners in the study area are expected to be submissive and are exposed to some form of exploitation, discrimination, violence and harassment. Findings from the study area indicate persistent negative attitude, myths and misconceptions towards condom use. Some of the respondents' sentiments towards condoms use during FGDs were;

“Using a condom is like bathing with a raincoat or eating

a sweet with a wrapper, you miss the joy of it.”

“ A condom is useful only when in doubt of the sex partner,

but why sleep with someone you are in doubt with unless you are an anji (CSWs). “

In youth FGD, it was noted that some used condoms as a temporal precaution until they gain the trust of their sexual partners. The FGD participants also identified alcohol use as an influence against condom use. They noted that those who cross over to the neighbouring country (Ethiopia) where commercial sex work is legal and alcohol is extremely cheap (ksh. 25-35 per 300ml bottle of beer) drink and find themselves in a compromising situation. In a drunken state, they are not able to resist sex or to ask the sex partner to use a condom.

Scientific data confirm that male and female condoms are highly effective in preventing sexual HIV transmission (CDC, 2002; WHO/UNAID, 1997). Studies by Norman, (2003) found that only 19% of adults had used a condom with their most recent sex partners.

Individuals, particularly women and girls who wish to use condoms often experience difficulty in negotiating their use (Norman, 2003). Religion in the study area has played a key role in low levels of condom use apart from unavailability of the product in retail shops. Effective promotion of condom use requires clear messages that dispel myth and misperception. These findings underscore the need to address gender issues within condom promotion efforts. The study findings were found to be consistent with other related study (Taiwo, 2003).

In the study area, most girls get married at the age of 10-16 years. Parents decide when, how and who the girl will get married to. Early marriages for girls and boys are strongly encouraged by parents. One FGD participant was quoted as saying:

"Greedy parents have gone as far as marrying their girls to older men at the tender age of 12 years."

Studies show that younger women may be at risk of acquiring infection if they are exposed to HIV because of a higher prevalence of cervical ectopy, a biological vulnerability that was demonstrated for chlamydial infection. The possibility that immaturity of the genital tract may influence risk underscores the importance of assisting young women to prolong first coitus and to negotiate consistent condom use (Saltz *et al.*, 1981; Guinan, 1992).

A study by Delius *et al.*, (2003) indicates that in early marriages, majority of the people just get married without first testing for HIV. During the marriage process couples do not go for HIV tests especially when the marriage is forced or parent arranged. This was seen to be putting most couples at risk of marrying someone who may be HIV positive. Gender disparities like low levels of educational attainment by women coupled with

inhibitive social-cultural practices in the study area have resulted into low participation and representation of women in decision-making in all levels in the community.

The cultural tradition that allows married couples to have extra-marital relationship outside marriage is very rife and widely practiced in the entire study area. For instance, a study by Helen, (2002), indicated that the more sexual partners, the greater the chance that one or more has HIV. Frequent changes or multiple concurrent sexual partnerships are key factors in transmission of HIV and AIDS (KDHS, 2003).

Divorced women in the study area face huge economic burden of taking care of the children. Women too, experience legal barriers that limit their participation in property ownership (GOK, 2007). According to the Islamic law, which is widely applied in the study area, women are only allowed to own 1/8 of property while girls are entitled to ½ of the size of what a boy owns. Women lose property such as land and buildings to the husband's kin in case of divorce. This has led to majority of divorced women to participate in petty trading of selling *miraa* in *chatara* (*miraa* kiosks). *Miraa* trading starts late afternoon and is done up to late night with some men buying and deciding to stay within those *chatara* as they chew. Because of the desperate economic circumstances in which many divorced women live, most of them are forced to depend on men for survival in exchange for sex.

“..if you go to a woman who is selling miraa and buy a lot of it..... she can also offer to give you the other (sexual) services.” (FGD participant)

This findings are consistent with other related studies (Ulin, 1992; Oppong, 1995; Omorodin, 1999). All the key informants interviewed and the FGD participants noted that majority of women dealing with *miraa* selling business are divorced and are actively involved in multiple sexual relationships with their clients. High levels of divorce was

attributed to financial difficulties, men migrating in search of employment in other towns leaving their spouses ending up abandoning them, domestic violence, harassment and infidelity.

FGM is widely practiced in the study area and no girl is spared. Although often associated with Islam, other religious groups including Christians also practice it. However; there is no mention of FGM in the Quran (Mutenbei, 1998). Research shows that FGM might play a role in spread of HIV. A study performed in Dar es Salaam revealed that 97% of the time, the same equipment could be used on 15-20 girls. Findings in this study area show that girls are circumcised at home by traditional circumcisers who use a single razor blade on several girls. These circumcisers do not go for any formal training on matters like need for sterilization of razor blades, use of different razor blades on different girls among others. Sharing of razor blades predisposes girls to HIV infections especially if one of the girls is infected with HIV (Mutenbei, 1998). Health care providers in the study area, who are mostly indigenous, propagate the practice by offering circumcision services in the health centers. Though in Kenya, there is legislation which bars the practice, in the study area FGM is a cultural and a religious symbol. It will take more than legislation to eradicate this practice that can no longer be seen as a religious or traditional custom.

Polygamy does not automatically produce rapid transmission of HIV and AIDS but it all depends on marital norms (UNAIDS, 1999). While poly-partner sexual activity may be an important vehicle for spreading HIV, the context of this poly-partner relationship, whether a closed polygamous unit or unstable liaisons with multiple partners, is the critical determining factor. If partners are faithful to one another, and of all poly-partners are seronegative, then HIV is not a threat. However, if one poly-partner is unfaithful then

it is more likely that an infection will spread throughout the household. All FGDs that indicated that some poly-partners have clandestine affairs with other masters and mistresses. If one practices unprotected sex and get infected then the innocent ones can get infected with HIV in the process.

Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure. Moreover, they are not likely to use condoms (WHO, 2000; Glynn *et al.*, 2001). Study findings indicate that idleness, alcohol and drug abuse were the driving force for the high youth involvement in sexual activities in the study area. Persons under the influence of alcohol lose their inhibitions and are more likely to engage in risky sexual behavior (parker and Rosenstock, 1990; Njeri, 2004).

The wedding ceremony starts on Friday and ends on Sunday. The bridegroom is brought on last day at 8.00 pm. On the other, naming ceremony begins on Saturday and ends on Sunday evening. In both ceremonies, there is dancing and wining 'indiscriminately' with all ages of people present. All key informants and FGD participants indicated that most people especially youths take advantage of the situation and involve themselves in immoral risky behaviors e.g. unprotected sex after taking alcohol. Alcohol and drugs are 'exchanged' freely in the ceremonies. These activities go on uncontrolled on a weekly basis in the study area. Central divisions being a culturally bonded region, the ceremonies are totally accepted without question. Njeri, (2004), in her study on high school students in Kenya showed that females who frequent discos are nearly three times (2.821) more likely to be sexually active than those who do not while males are five times (5.038) more likely to be sexually active than those who do not.

Chang'aa (local and illicit brew) and beer are cheaply and readily available across the Ethiopian border. Drug abuse is also common in the study area. Common drugs in the study area include *Roger five*, *Bhang*, and *Miraa*. Studies reveal that females who take alcohol are 2.723 times more likely to be sexually active than those who do not. Similarly, males who take alcohol are 3.451 times more likely to be sexually active than those who do not (Njeri, 2004). Substance abuse coupled with impulsive sexual desire can reduce the ability to make responsible decisions (Butcher *et al.*, 2001; Bagnall and Plant, 1991). From the study findings, majority of residents take alcohol and drugs like *Miraa* chewing with commercial sex workers. Other studies conducted in Kenya show similar results (Acunda, 1982; Dhadphale *et al.*, 1992, Kiragu, 1999).

Delius *et al.*, (2003) in their study indicated that traditional practice of wife inheritance is intended to integrate the widow(s) into the community. In the study area when a man dies, the widow belongs to the clan and has to be inherited by a brother of the late husband or a close relative immediately and yet the deceased might have died of HIV and AIDS. No one “bothers to know the cause of the death of the husband” during that time. Lack of VCT centres, ignorance and lack of awareness about transmission avenues propagate the culture.

Uptake of government health services is low in the study area hence most residents depend on traditional medicine for cure (GOK, 2007). Inadequate knowledge about mother-to-child transmission of HIV especially traditional birth attendants underscores the need for developing and disseminating information and education that not only target the girls and women, but also traditional birth attendants, traditional medical practitioners, boys and men. Traditional medical practitioners also perform surgery e.g. cutting of epiglottis especially in rural areas. They do not use protective gloves, never

sterilize and re-use surgical instruments. Sharing of sharp instruments like razor blades have been found to enhance vulnerability to HIV (Mutenbei, 1998).

5.1.5 Religious factors enhancing vulnerability to HIV and AIDS

From the study, women in the study area wear veils (*Niqab/Hiqab*) for religious purposes. *Niqab* conceals a woman's identity that even the husband cannot tell whether she is his wife. It was found out that most women take advantage of concealed identity and involve in multiple sexual relationships. This was cited by a majority of respondents, FGD participants and key informants.

"...these women even go with your close friends. How can you know her? All look similar.....most are having very many men (sexual partners)...."

This is a risky sexual behaviour especially if the partners do not practice protected sex.

Garib is a splendour religious sect from Islamic religion. The sect members (men, women, girls and boys) meet at night over the weekend in one of the member's home. Some are people's wives and husbands. Meetings are observed every weekend. Activities involved include eating, dancing and chewing *miraa*, after which it culminates in 'vigorous and continuous' sexual acts with any woman or man (exchange partners) present. FGD participants indicated that there is no use of condoms, because according to them, use of condoms is against their belief. Failure to use condoms make members more vulnerable to HIV/AIDS/ STIs not only to themselves, but also to their wives and husbands at home and the entire community, hence the practice must be discouraged at all costs.

5.2 Conclusions

- a. Study findings show that most respondents had inadequate knowledge about HIV and AIDS.
- b. There was still strong misconceptions and myths about the causes and ways of preventing oneself from HIV and AIDS,
- c. Most respondents are not willing to accept and care for PLWHA.
- d. The study identified some risky social cultural practices that enhance vulnerability to HIV and AIDS. These practices included, multiple sexual partners, poor and low levels of condom use, early marriages for girls (10-16 years), extra marital relationships(*Jaal na jaltoh*), divorce (*Garab*), FGM, polygamy, social ceremonies, traditional midwifery and surgery, alcohol and drug abuse and wife inheritance.
- e. Religious factors identified to be enhancing vulnerability to HIV and AIDS included *Garib* and wearing of veils/*Niqab*.
- f. Low income levels and commercial sex work were other factors identified as enhancing vulnerability to HIV and AIDS.

5.3 Recommendations

- a. To enhance awareness about HIV and AIDS the government and its partners need to intensify/step-up basic education and dissemination of information. Condom education, promotion and distribution should also be enhanced.
- b. Community mobilization to eliminate socio-cultural and religious practices found enhancing vulnerability to HIV and AIDS should be initiated by the government and its partners. It should involve religious leaders and council of elders so as to be able to penetrate the community and achieve the desired results.

- c. The government in conjunction with its partners should expand mobile VCT services to improve access, especially in rural areas and for pastoral and nomadic groups where VCT in a fixed site is not feasible.
- d. Future interventions by the government and its partners should further seek to address contextual limitation (extrinsic factors) such as household poverty, inadequate support services, emancipation of women and literacy to be able to achieve and sustain the desired impact.

5.4 Limitation

- i) Although persons above the age of 49 years are reported to be sexually active, they were not included in this study.
- ii) The study did not establish the actual level of divorce in the study area.

5.5 Recommendations for further research

A future study should be carried out to establish the impact of HIV and AIDS among the residents of Central division, Moyale District.

A research should also be carried out on HIV and AIDS prevalence and access to VCT by gender.

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APPENDICES

Appendix i: Questionnaire**A. Socio-demographic information**

Date _____ Age _____ Sex (tick one) Male Female

1. Occupation (Tick one) Employed Self employed Not employed

2. What is your level of income month?

Below 2000 2001 – 5000 5000 – 10000 10000 – 20000

Over 20000

Is your income enough for all your needs? (Tick one) Yes No

If No, how do you meet the shortfall? -----

3. Level of education (tick one)

None Primary Secondary College / University

4. Religion (Tick one) Muslim Christian Traditionalist other specify _____

B. Knowledge

1. Do you know a disease called HIV/AIDS? (Tick one)

Yes No

2. Does HIV/AIDS have a cure? (Tick one)

Yes No

If yes, which one? _____

TABLE 1: For each question in the table tick one.

	Knowledge aspect	Agree	Undecided	Disagree
i	HIV/AIDS can be spread through kissing (N)			
ii	HIV / AIDS can be spread through touching Aids patient (N)			
iii	HIV/AIDS can be spread through sexual intercourse (P)			
iv	HIV/AIDS can be spread through blood transfusion(P)			
v	HIV/AIDS can be			

	spread through sharing of sharp instruments like razor blades etc.(P)			
vi	HIV/AIDS can be spread through witchcraft.(N)			
vii	Use of condom reduces spread of HIV/AIDS.(P)			
viii	Giving birth at home increases the chances of spreading HIV/AIDS from mother to child.(P)			
ix	Having one sexual partner reduces spread of HIV/AIDS(P)			

C. Attitude

Table 2: For each question in the table tick one

	Attitude aspect	Agree	Undecided	Disagree
i	HIV/AIDS patients should be separated from those not infected with HIV and AIDS.(N)			
ii	HIV/AIDS patients should share food with others(P)			
iii	HIV and AIDS infected persons should continue working (P).			
iv	HIV and AIDS infected status to relatives should remain secret (N).			

D. Perception

1. In your opinion what is the level of HIV/AIDS in this area? (Tick one).

Very high High Low Very low

2. Who are the most affected by HIV/AIDS in this area? (Tick one)

Youths below 30 years Women Drivers Prostitutes Police

Men business people others (specify) _____

Why? _____

3. Do you fear that you can get HIV/AIDS? (Tick one)

Yes No

If no, why _____

4. a. Do you have more than one sexual partner? Yes No

b. If Yes, how many? 1 2 more than 2

c. If yes, do you use a condom when having sex with them? (Tick one)

Yes No

d. If yes, how often do you use a condom?

All the time Regularly Sometimes don't use

e. If no, why don't you use? _____

E. Socio-cultural practices

1. At what age are girls married? (Tick one)

10 – 13 years 14 – 16 years over 17 years

2. What type of marriage is common in this area? (Tick one).

Christian Islamic marriage Traditional marriage other specify _____

3. How would you describe the process of marriage of young girls in this area? (Tick one)

Voluntary Forced Parent arranged

4. a. Traditionally are married men and women allowed to have other sexual partners? (Tick one) Yes No

(b) Are married men and women have other sexual partners? (Tick one)

Yes No

5. What is the level of divorce cases in this area? (Tick one)

Very high High Low Very low

6. At what age are girls circumcised? (Tick one).

Below 9 years 10 – 13 years 14-16 years over 17 years

7. Who circumcises the girls? (Tick one)

Health workers Traditional circumciser other (specify) _____

8. Where is it done?

Home Hospital in a group at a specific place

9. Do the circumcisers undergo any formal training? (Tick one)

Yes No

10. To what extent do youth involve in sexual activities? (Tick one)

Very high High Moderate Low Very low

Why? _____

11. Do cultural functions like wedding ceremonies encourage youths to involve in immoral sexual behaviors? (Tick one)

Yes No

12. What other socio-cultural practices influence spread of HIV/AIDS? _____

F. Religious practices

1. Is polygamy common in this area?

Yes No

2. Why do women cover their faces (wearing *veils/inqaam*)? (Tick one)

Religion Traditional / cultural Other (Specify) _____

3. What is the extent of Garib Majlis(a religious sect)? (Tick one)

Very high High Low Very low

4. Does your religion discourage the use of condoms? (Tick one)

Yes No

If yes, what do they advice to use as preventive measure? _____

5. What other religious practices influence spread of HIV/AIDS in this area?

6. Are there any activities to reduce the effects of HIV/AIDS?

Yes No

If yes, which ones?

<u>Organization</u>	<u>Activity</u>
Government	_____
NGO	_____
Community	_____

7. What do you recommend the best way to fight HIV/AIDS in this area? _____

Key informant interview /Focus group discussion Questionnaire

1. What is the extent of HIV / AIDS in this area?
2. Who are most affected with HIV/AIDS?
3. Are people living with HIV / Aids accepted in the community?
Explain.
4. What type of marriages is common in this area?
5. What is the marriage age for girls?
6. How would you describe marriage for girls? Explain.
7. Do women participate in decision making over their sexual matters? Explain.
8. Is female circumcision still practiced? At what age is it done?
9. What are some of social cultural ceremonies in this community? Do these socio cultural ceremonies encourage youths to engage in immoral sexual behaviors?
Explain.
10. Does *Miraa* have any effect on someone chewing it? Explain.
11. Do some women selling in *chatara* (*miraa* kiosk) involve in multiple sexual relationships? Explain.
12. What is the extent of alcohol taking in this area? How much does it cost? Do alcohol takers involve in immoral behavior? Explain.

13. Are some married men and women (*jal na Jalto*) having multiple sexual partners? Explain.
14. Are divorce cases common? Explain.
15. Are there any drugs that youth take? Which ones?
16. What is the extent of commercial sex in this area? Explain. Which areas is it common?
17. What are other cultural factors that influence spread of HIV?
18. Why do women cover their faces and body (*veils / Niqab*)? Does it encourage some women to engage in immoral? Explain.
19. Do some religion discourage the use of condoms? Explain.
20. What other religious factors influence the spread of HIV / AIDS?
21. What is the main sources of income a in this area.
22. Are there any initiatives to combat HIV and AIDS both from community, government and NGO's? Explain.
23. What is the best way to combat the spread of HIV and AIDS?

Questionnaire for Commercial sex workers

1. Date _____ age _____
2. Level of education (Tick one) Primary Secondary College/University
None
3. Religion (Tick one) Muslim Christian traditionalist other (specify) _____
4. a) Do you consider yourself at risk of getting HIV/AIDS? Yes No
b) If No, why? _____
5. (a) Does HIV/AIDS have any cure?
Yes No
(b) If yes, what is the treatment? _____
6. How can you prevent yourself from getting HIV/AIDS? _____
7. How many clients do you handle in a day (Tick one) One Two Three
More than three
8. a) Are they your regular customers? Yes No
b) How much does each customer pay you? _____
c) Do you consider it adequate? Yes No

If No, why _____

12. Does your partner (s) use a condom when having sexual intercourse with you?
Yes No
13. a) Are their clients who insist on having sex without using condom? (Tick one) Yes
No
- b) Do you insist on using condom when having sexual intercourse? (Tick one) Y
No
- c) If your client insist on having sex without a condom what do you normally do?
- 14 Do you sometime take alcohol before having sexual intercourse? Yes
No
15. a) Have you ever used drugs? Yes No
- b) Which ones _____
- c) Why?

REPUBLIC OF KENYA



MINISTRY OF SCIENCE AND TECHNOLOGY

Telephone:+254020318581
Facsimile:+254020251991
Email:@scienceandtechnology.go.ke
Website:www.scienceandtechnology.go.ke

OFFICE OF THE PERMANENT SECRETARY
JOGOO HOUSE "B"
HARAMBEE AVENUE
P.O. Box 9583 00200
NAIROBI

REF: MOST13/001/37C7806/2

30th November 2007

DAVID ROGASITE MASINDE
KENYATTA UNIVERSITY
P.O. BOX 43844
NAIROBI

Dear Sir

RE: RESEARCH AUTHORIZATION

Following your application for authority to conduct research on "Factors enhancing vulnerability to HIV and AIDs among residents of Cental Division,Moyale District." This is to inform you that you have been authorized to carry out research in Moyale District for a period ending 30th December 207.

You are advised to report to the District Commissioner, District Education Officer, Moyale District before embarking on you research..

On completion of your research, you are expected to submit two copies of your research report to this office.

Yours faithfully

A handwritten signature in black ink, appearing to read "M.O. Ondieki".

M.O. ONDIEKI
FOR: PERMANENT SECRETARY

CC:

THE DISTRICT COMMISSIONER
MOYALE DISTRICT

THE DISTRICT EDUCATION OFFICER
MOYALE DISTRICT