

**HIV AND AIDS KNOWLEDGE, ATTITUDE, PRACTICE AND ITS EFFECTS ON
PERFORMANCE OF MINISTRY OF LIVESTOCK DEVELOPMENT STAFF IN
NAIROBI KENYA**

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DECLARATION

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

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DEDICATION

To my mother Sarah, husband Geoffrey, my children Joseph, Alex, Richard and Grace.

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DEFINITION OF TERMS

Staff	Employees of the MoLD.
Child	A person aged below 18 years.
Senior Staff	Employees of MoLD job group “N” and above.
Performance	In this case, performance is measured in terms of absenteeism or death of a staff.

ABBREVIATIONS AND ACRONYMS

ACU	AIDS Control Unit
AIDS	Acquired Immuno-Deficiency Syndrome
ART	Anti-Retroviral Drugs
BSS	Behavioral Surveillance Survey
CBS	Central Bureau of Statistics
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
KANCO	Kenya AIDS Non-Governmental Organization Consortium
KDHS	Kenya Demographic and Health Survey
MoA	Ministry of Agriculture
MoH	Ministry of Health
MoLD	Ministry of Livestock Development
NACC	National AIDS Control Council
NASCOP	National AIDS and Sexually Transmitted Infections Control Programme
PLHA	People Living with HIV and AIDS
PMCT	Prevention of Mother to Child Transmission
UNAIDS	Jointed United Nation Programme for HIV and AIDS
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
GDP	Gross Domestic Products
UN	United Nations
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries (Uganda)

ABSTRACT

The HIV and AIDS pandemic is one of the greatest challenges facing humanity in the 21st century. Cure continues to elude researchers and infection leads to death. Since the first case of HIV infection was diagnosed, it is estimated that 33.0 million people today are living with the virus globally. Over twenty five (25) million have already died worldwide and more than 2.5 million people became infected with the virus in 2007. Current estimates indicate that 73 thousand Kenyans died due to AIDS related illnesses in 2007 alone. Most of the studies conducted on HIV and AIDS indicate a strong correlation between HIV/AIDS and labour productivity. Organizations with high HIV and AIDS prevalence tend to have reduced labour productivity while those infected lack motivation to work since most of them live in fear of death while many others remain absent from work for days hence reducing their output. HIV and AIDS is a major hindrance to socio-economic development. Livestock production is a major contributor to Kenya's economy. It currently contributes 42% of agricultural Gross Domestic Product (GDP). Since an assessment on the knowledge, attitude, practice and effect of HIV and AIDS in the Ministry of livestock Development Staff has not been carried out, the current study aimed to establish the level of knowledge, attitude and practice and effects of HIV and AIDS on the Ministry of Livestock Development staff. A descriptive cross-sectional study was conducted with a sample population comprising of 106 male and 156 female therefore N=262. Stratified random sampling was used to select respondents for the interview and participation in the proposed study. Data was collected using structured interview schedule and key informant interviews. Data was analyzed using Statistical Package for Social Science, (SPSS) version 11.5. Descriptive statistics was used to describe, organize and summarize collected data. Correlation analysis was used to assess the strength of relationship between variables while chi-square test was used to test the strength and significance of association between variables. The study finding revealed several significant factors to be associated with knowledge, attitude and practice and effects on the Ministry of Livestock Development Staff on HIV and AIDS. These included frequency of movement outside the office and the frequency of attending funeral and burial services in the last three months prior to this study ($\chi^2=19.119$, df=4, p=0.001). The findings highlighted absenteeism and death due to HIV and AIDS related illnesses as the major factors affecting staff performance. The Ministry of Livestock Development should therefore integrate HIV and AIDS sensitization workshops into divisional/departmental or district level work plans. This should be accompanied by follow-up activities like workshops and seminars to build on the skills and information imparted. This would reduce the impact of HIV and AIDS on Ministry of Livestock Development staff.

CHAPTER ONE: INTRODUCTION

1.1 Background

Human Immuno-Deficiency Syndrome and Acquired Immuno-Deficiency Syndrome (HIV and AIDS) was unknown until 1981 when it was described in USA (UNAIDS, 2002). It is a serious clinical condition with various manifestation characterized by underlying cellular immunodeficiency. The first case was diagnosed in Kenya in 1984 and quickly reached epidemic proportion (GOK, 1997). It was declared a National Disaster on 14th of November 1999 (NACC, 2000). It is estimated that 73 thousand Kenyans died due to AIDS related illness in 2007 alone (UNAIDS, 2008). Since the first case of HIV infection was diagnosed, it is estimated that 33.0 million people today are living with the virus globally. Over twenty five (25) million have already died worldwide and more than 2.5 million people became infected with the virus in 2007 (UNAIDS, 2008). No Nation or community or group of people is spared by the HIV and AIDS pandemic.

Globally, 90% of the infection occurs in resource poor countries and 75% occurs in Africa where the spread of HIV-1 virus has been rapid and devastating (UNAIDS, 2006). Africa's population is about 13% of the global population where access to healthcare is lowest and the consequences are enormous (UNAIDS, 2006). HIV and AIDS is now the leading killer disease in Sub-Saharan Africa having surpassed other infection and parasitic diseases such as malaria (UNAIDS/WHO, 2006). The number of people living with HIV in Kenya is above 1.4 million (NACC, 2008). Stigma and discrimination against people with HIV and AIDS remain high. Such attitudes are likely to have a negative effect on care and support programs for people infected and affected by HIV and AIDS. Stigma may pose as an obstacle to behavior change

(KANCO, 2006). The prevalence of diseases such as HIV and AIDS poses significant challenge in low income countries. The impact of HIV and AIDS has been particularly devastating in sub-Saharan Africa where some countries are now witnessing a decline in life expectancy in the magnitude of 20 years as a result of the disease (KANCO, 2006). The impact of HIV and AIDS has been felt not only in terms of increased mortality and morbidity but also in the socio-economic sphere since the disease disproportionately strikes young adults and those in productive age groups. Globally, HIV and AIDS is the leading cause of adult mortality (WHO, 2007). In 2006 an estimated 2 million people succumbed to HIV and AIDS alone (UNAIDS, 2008).

Agriculture is the predominant economic activity in Kenya. The sector accounts for approximately 30% of the gross domestic product and 70% of the export earnings. About 80% of all Kenyans live in the rural areas, of which 90% make their livelihood from agriculture. The agriculture sector also employs about 50% of the Kenyan labour force. The sector is therefore extremely important to Kenya's economy (FAO, 2004). Livestock production is a prime mover in the economy of Kenya and may contribute more in future if correct policies are put in place. Agriculture contributes 42% of agricultural GDP; mostly from pastoralist communities (Argwings-Kodhek *et al* 1999). Therefore it is necessary to have information to facilitate formulation of correct policies and planning for this sector. The main production system revolves around dairy, beef, poultry and pork. However, several factors have led to decline in their production. These include livestock diseases, inadequate funding, HIV and AIDS and marketing infrastructure. Given that the mandate of Ministry of Livestock

is to enhance production and promote food security, the adverse impact of HIV and AIDS is of pivotal importance to the ministry.

1.2 Problem Statement

Agriculture which includes livestock production is the mainstay of our economy in Kenya. The majority of Kenyans rely on the agriculture sector for their livelihood. Agriculture has been set back by negative impact on labour supply (NACC, 2006). Implementation of correct policies can lead to increased production. However factors like HIV and AIDS hinder this fast growth. HIV and AIDS remains a pandemic though researchers are busy trying to obtain cure. HIV and AIDS pandemic is a major concern of the Kenya Government. The disease has neither a vaccine nor cheap and effective treatment but has far reaching adverse effects on agricultural development. The disease is consuming household savings as a result of high health care costs leading to a decline of the household asset base, causing labour shortage and breaking social bonds (GoK Strategic Plan, 2004). Since the first case was diagnosed in Kenya, 1.5 million people have died of HIV and AIDS. About 1.3 million adults aged 15 to 49 years and 100,000 aged 50 years and over were infected by the year 2006 (KNASP, 2006). In the late 1990s, evidence in Kenya indicated that more than half the deaths of Ministry of Agriculture staff were related to HIV and AIDS (FAO, 1996) resulting to loss of skilled and experienced staff. Production and Performance may be affected through absenteeism, increased staff turnover, increase in workload for the staff, increased ministerial expenditure, loss of knowledge, skills and experience and reduced staff productivity.

This study identifies the effects of HIV and AIDS on labour productivity in the MoLD in Nairobi province. Lack of knowledge and poor attitude towards HIV and AIDS among the MoLD staff have been associated with the infection (NASCOP, 2005). Assessment of knowledge, attitude, practice and effects of HIV and AIDS by MoLD staff, has not been done. Certain categories of staff are particularly vulnerable to HIV and AIDS infections. These include employees who travel long distance to carry out duties, for example, veterinary staff in disease surveillance, extension officers, high-level professionals and management staff who attend seminars and workshops (NASCOP, 2005). Others include support staff such as drivers; most of who have to spend extended periods away from their families and may adopt a lifestyle, which may make them vulnerable to HIV infection (NASCOP, 2005).

1.3 Justification

Kenya is a low income country according to the World Bank Development Indicators database (World Bank, 2007). Approximately 80% of its 37.2 million people live in rural areas and subsist almost entirely on agriculture production (CBS, 2006). Current workplace policies emphasize providing prevention and treatment services. This must be expanded to include strategies for mitigating the deleterious effect of HIV and AIDS on individual worker performance and the overall productivity of institutions (NACC, 2008).

Effects of HIV and AIDS on staff of MoLD have not been evaluated in Kenya nor has the knowledge, attitude and practice of the staff on HIV and AIDS been assessed and the results of this research will provide useful information for formulation of preventive activities for mitigation. Over 1.4 million people are infected with HIV and

AIDS in Kenya (NACC, 2008). This calls for immediate action to contain it. Stigma and discrimination against people with HIV and AIDS remains high. Such attitudes are likely to have a negative impact on care and support program for people infected and affected by HIV and AIDS. Stigma may pose as an obstacle to behavior change.

It is therefore, necessary to have information to facilitate formulation of correct policies and planning for the MoLD. The main production system revolves around dairy, beef, poultry and pork. Several factors have led to decline in their production. The FAO and UNAIDS have repeatedly stressed that the vicious circle of poverty, hunger and AIDS will not be broken unless agricultural institutions intensify their efforts (FAO, 2004). Seven years later at the World Food Summit: held in Rome in June 2002, the FAO member countries reaffirmed their pledge to the fight against the devastating impact of HIV and AIDS on food security (FAO, 2004). Assisting governments, international bodies and civil society organizations with this task is key priority under the memorandum of understanding on joint action agreed between FAO and UNAIDS in December 2001 (FAO, 2004).

1.4 Research Questions

- i. What is the level of knowledge and attitude of HIV and AIDS by the staff of MoLD?
- ii. What is the practice and utilization of the VCT services by staff of MoLD?
- iii. What are the effects of HIV and AIDS on the staff of MoLD?

1.5 Null Hypotheses

- i. There is no relationship between knowledge, attitude, practice of the staff and HIV and AIDS.
- ii. The HIV and AIDS have no effects on the staff of MoLD.

1.6 Study Objectives

1.6.1 General Objective

To determine level of knowledge, attitude, practice, and effects of HIV and AIDS on the Ministry of Livestock Development staff, in Nairobi Province, Kenya.

1.6.2 Specific Objectives

- i. To determine the level of knowledge and attitude on HIV and AIDS by the staff of the MoLD.
- ii. To determine the practice of the MoLD staff towards HIV and AIDS and their utilization of VCT service.
- iii. To investigate the effects of HIV and AIDS on staff of the MoLD.

1.7 Significance of the Study

The study is expected to be significant to the Ministry of Livestock and the Kenya Government since it will identify and highlight the areas that are most affected by HIV and AIDS and thus seek specific remedial strategies. It is only after the research is conducted and the findings recorded that the policy makers can use the data obtained to come up with policies to mitigate on the negative effects resultant from this epidemic. On the basis of the findings of this study, the Ministry of Livestock can appropriate HIV and AIDS management programmes effective strategies and

workable solutions. This study will evoke wider thinking for further research on the impacts of HIV and AIDS in other ministries and hence more information on HIV and AIDS will become available making it easier to manage the problem.

1.8 Limitations of the Study

The limitations of this study included high cost of carrying out the research. More so the study is based on gathering data that is confidential and some respondents were reluctant to be interviewed.

1.9 Conceptual/Theoretical Framework

This original model (figure 1.1) tries to highlight the risk factors that could fuel HIV and AIDS transmission leading to increased HIV and AIDS related morbidity and mortality. The end result would be reduced performance due to death or absenteeism resulting from HIV and AIDS.

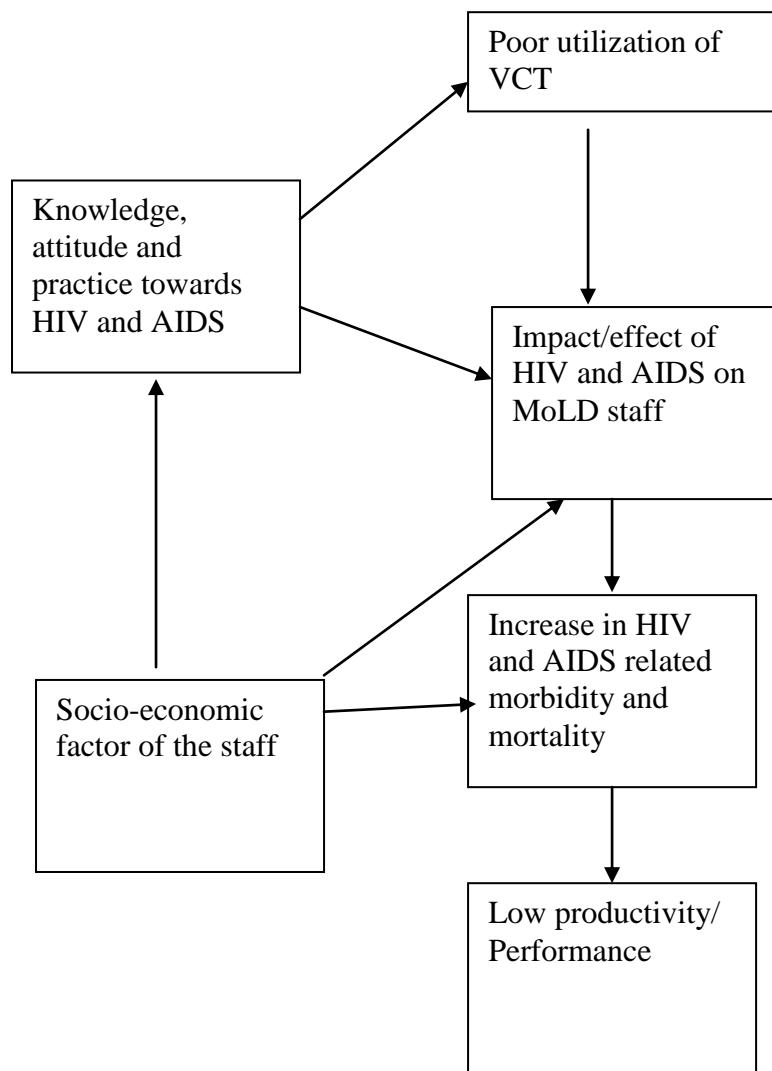


Figure 1.1 Conceptual Framework

CHAPTER TWO: LITERATURE REVIEW

2.1 Human Immuno-Deficiency Viruses

There are two distinct types; HIV-1 and HIV-2 as well as several closely related subtypes. Their origin is obscure and unlikely to be established. The HIV-1 and HIV-2 are two different strains of the virus that causes AIDS. Both forms of HIV are spread through sexual contact, blood, and mother-to-child transmission. There is no known cure for either form of HIV and both will eventually progress to AIDS. The symptoms of HIV-1 and HIV-2 are exactly the same and individuals cannot know which type they have without tests performed by a physician. The HIV-1 is rapidly spreading round the world and universally distributed while the HIV-2 is much less common and largely restricted to West Africa (Jamie Robertson, 2008)

In Kenya, the principle mode of transmission of HIV is through heterosexual contact with infected persons. This accounts for 75% of all HIV infection in Kenya (MoH, 2006). The probability of transmitting HIV in a single act of intercourse may be low, a number of factors increase the risk. The factors include the viral load of infected partner, the presence in either partner of sexually transmitted diseases (STD's) such as syphilis, chancroid or herpes which cause genital ulcers, lack of male circumcision, or trauma during sexual intercourse. This is followed in importance by prenatal transmission whereby the mother passes HIV to the child during pregnancy, at the time of birth or through breast feeding (CDC, 2007). Transmission risk is also high among men who have sex with other men, through blood transfusion, and use of unsterilized needles and skin piercing instruments (NACC, 2006)

2.2 Epidemiology of HIV and AIDS

People are at risk of HIV infection through their own sexual behaviour or that of their partners. Other common modes of transmission include blood transfusion, mother to child transmission. The first ever Kenya AIDS Indicator Survey report that Kenya's HIV prevalence rate is growing by more than a quarter per cent a year and there are now nearly one and a half million Kenyans living with AIDS (NASCOP, 2008). The survey found that four out of five HIV positive Kenyans are living with HIV, but the rate of infection is virtually unchanged and the increase in HIV patients is due to wider use of life-prolonging drugs (NASCOP, 2008).

The HIV and AIDS is a workplace issue not only because it affects labour and productivity, but also because the workplace has a vital role to play in the wider struggles to limit the spread and effects of the pandemic. Globally, over 33 million people are living with HIV and AIDS. Nine out of every ten are adults in their productive and reproductive prime age (UNAIDS, 2008). The HIV and AIDS threatens the livelihoods of many workers and those who depend on them-families, communities and enterprises. In doing so, it also weakens national economies (ILO, 2008). Discrimination and stigmatization against women and men with HIV threaten fundamental principles of human rights, and undermine efforts for prevention and care (ILO, 2008). They may also affect productivity, especially at work place.

2.3 Current Status of HIV and AIDS in Kenya

Over two decades since the first AIDS case was described in Kenya, HIV and AIDS still remains a huge problem for the country in its effort for social economic development. According to the UNAIDS (2008), the HIV prevalence rates among

adults is 4.9%. An estimated 1.1 million Kenyans are living with HIV and AIDS, while 73,000 Kenyans died from the disease in 2007 (UNAIDS, 2008). Responses to the epidemic have evolved over time as people become aware of this new disease as they experienced illness and death among family members and services have developed to control this epidemic. Awareness of AIDS has been nearly universal for more than a decade but misconception still abound and many still have not dealt with the disease at personal or community level (MoH, 2005). Death rate from HIV had reached an unprecedented level in Kenya at about 150,000 per year (MoH, 2005). Even with the scale up of treatment, death rates in Kenya are likely to continue because of the large number of people who were infected in the 1990s (MoH, 2005).

2.4 Knowledge, Attitude, Beliefs and Practices

In order to curb the HIV and AIDS epidemic the specific interest lies in the change of behaviour of an individual, which is governed by attitude and level of knowledge. The behaviour of an individual towards a situation is a reflection of that individual's attitude to that situation. In Kenya and sub Saharan Africa, heterosexual contact is the main mode of transmission and more than 90% have heard about HIV and AIDS could answer correctly about one or two modes of transmission and knew that condom use may prevent HIV (KDHS, 2003). However, HIV and AIDS is still a disease of stigma. Stigma is the most powerful obstacle to the prevention of HIV transmission and to the implementation of effective care for people living with HIV and AIDS (KANCO, 2006). When people know that they are HIV positive but know that they will not be in a position to access effective treatment, there is little incentive for them to seek help or change behaviour (KANCO, 2006). The HIV stigma stems from fear as well as association of AIDS with disease, death and behaviours that may

be illegal, forbidden or taboo such as premarital and extramarital sex, homosexual sex and injecting drug. Stigma also stems from lack of awareness and knowledge about HIV (KANCO, 2006). Stigma prevents many people from negotiating safer sex, taking an HIV test, disclosing their status to their partner or seeking treatment even when prevention services are made available (USAIDS, 2005).

In Kenya, several studies have reported that cultural practices play a role in the spread of HIV and AIDS such as different types of marital union like polygamy, woman to woman marriage reunion, polyandry and widow inheritance. The HIV and AIDS was declared a national disaster in 1999 (NACC, 2000). New infections occur daily especially among the young people. In 2006 there were about 55,000 new adult infections and approximately 160 new infections everyday (NASCOP, 2007). The annual number of deaths was about 105,000 per year in 2004, that is, 300 deaths per day (NASCOP, 2007). In 2004, there were 2.3 million orphans and forty five per cent of these children had lost a parent to AIDS (NASCOP, 2007). These orphans need care and support from their extended families and communities (UNAIDS, 2004)). This increases the burden on the working community who have to take care of relatives orphaned by AIDS (UNAIDS, 2004).

2.5 Effects of HIV and AIDS on the Productivity

The HIV and AIDS directly affects the MoLD staff and their families through morbidity and mortality. Stigmatization and discrimination in the workplace are likely to be present in varying degrees unless pro-active workplace programmes are in place. Certain categories of MoLD staff may be particularly vulnerable to HIV infection. These may include employees who need to travel extensively in order to

carry out their duties, such as agricultural extension workers, high-level professionals and management staff who frequently attend seminars, conferences and in-service training as well as support staff, such as drivers (NASCOP, 2005). These employees often have to spend extended periods away from their homes and families and may adopt lifestyles that make them vulnerable to HIV infection. Another group of employees that may be vulnerable, as pointed out by one MoLD, are poorly paid employees (especially women), who may try to exchange sex for money or favours. The available evidence shows that AIDS epidemic is having an enormous effect on households, which comes in various forms such as increased medical, and health expenditure, funeral expenses, and decreased income (UN, 2008). The problem is magnified when the infected person is the breadwinner. More than 75% of AIDS cases occur in adults between the ages of 20 and 45, and since this is the most economically productive part of the population, illness and death at these ages is a serious economic and social burden for the family and the society (MoH, 2005).

Industries and businesses form the basis for production and supply of goods and services in an economy. The most critical factor in producing goods and services is labour, which generally takes the largest portion of the cost of production (Leowenson and Whiteside, 1996) The effect of HIV and AIDS has on MoLD is transmitted through its effect on labour. According to the United Nations, the consequences of HIV and AIDS include increased absenteeism, decreased productivity, and reduced number of employees through death, with loss of accumulated skills and declining morale (UN, 2004). Businesses with health schemes incur increased medical costs result in declining profits. Absenteeism from work due to poor health as the disease progresses affects the Ministerial performance. A survey carried out in Kenya found

that absenteeism due to HIV and AIDS accounted for 54.3% of total HIV and AIDS related costs within the firm (Leowenson and Whiteside, 1996). Impact of HIV and AIDS on Ministry of Livestock is visible through lowered productivity in animal husbandry due to illness, absenteeism, death and subsequent loss of farming skills (NACC, 2006). This translates into reduced livestock production. Family members' time is also diverted to care for the sick and attending funerals, which also contribute to loss of house income and farm assets (NACC, 2006).

2.6 Effects of HIV and AIDS on Economic Growth

The most critical factors that determine economic growth are labour, capital and technical progress. HIV and AIDS slow economic growth by their effects on labour and capital investment. The AIDS pandemic slows or reverses growth in labour supply as it affects mainly the most productive members of the population. It also reduces the productivity of infected workers in MoLD. This problem is exacerbated and economic growth reduced if those dying of AIDS are skilled persons (Topouzis, 2003).

2.7 Effects on MoLD Operations and Erosion of Capacity

Erosion of capacity for MoLD, as well as for other Ministries and rural institutions translates into a diminished capability to deliver services, to cope with crises (inclusive of HIV and AIDS), and to function as organizations. Often it is underestimated that the impact of the HIV epidemic makes it increasingly more difficult for MoLD to address their mandate, let alone the challenges posed by HIV and AIDS. More specifically, the HIV epidemic disrupts MoLD operations by severing key linkages in the service delivery chain between MoLD and their clients,

through for instance, its impact on the Livestock Production service. This disruption in services occurs when MoLD clients affected by the epidemic need extension support. HIV and AIDS also impacts on MoLD at the organizational level by claiming the lives of highly qualified staff who are difficult to replace, thus creating a vacuum in the structural organization of the Ministry (Topouzis, 2003). Factors which determine the impact of HIV and AIDS on MoLD operations and capacity include:

- a) Reduced staff productivity (through loss in human resources, absenteeism due to morbidity and funeral attendance, morbidity-related on-the-job fatigue and staff demoralization);
- b) An increase in ministerial expenditures (due to costs related to HIV and AIDS);
- c) Absenteeism, medical and burial costs, recruitment and replacement costs;
- d) An increase in staff turnover;
- e) An increase in the workload of MoLD staff;
- f) The loss of knowledge, skills and expertise among MoLD staff (Topouzis, 2003).

MoLD responses to the disruption of its operations and to the erosion in capacity have included human capacity development and HIV and AIDS mainstreaming efforts. Human capacity development has consisted primarily of sensitization and training exercises. Raising awareness of MoLD staff, an exercise which has been undertaken in a number of countries, tends to be a single time event rather than an ongoing process (Topouzis, 2003). As such, it ends up being a goal in itself rather than a means to an end. Once awareness-raising sessions are completed, there are usually no follow-up activities to build upon the skills and information imparted, such as

concrete initiatives to integrate HIV and AIDS into divisional/departmental or district-level work plans and into MoLD budgets. Capacity development needs to include follow-up training on the technical aspects of the impact of AIDS as well as training to strengthen the analytical capability of agricultural planners to factor the socioeconomic impacts of the epidemic in their policies, strategies and programmes (Topouzis, 2003).

2.8 Effects on MoLD Clients

The HIV and AIDS epidemic impacts on rural households and smallholder agriculture; who form the MoLD clients in a number of ways. The HIV and AIDS adversely affects the productive capacity of farm households, thus influencing availability, access and utilization of food. Household labour quality and quantity may be reduced, first in terms of productivity, when HIV-infected persons fall sick, and later when the supply of household labour declines because of patient care and death (Hancock *et al.*, 1996) . The impact of HIV and AIDS morbidity and mortality not only affects labour inputs to farm production, but, more significantly, it disrupts the household production, domestic labour interface by diverting women's labour from regular caring activities to caring for persons living with HIV and AIDS. This may adversely affect the health and nutritional status of household members (Hancock *et al.*, 1996)

Human Immune-Deficiency Syndrome/Acquired Immuno-Deficiency Syndrome greatly increases household expenditures and affects on- and off-farm income, and especially the availability of disposable cash, which largely determines the amount and quality of food that can be purchased (Hancock *et al.*, 1996) . Many households

are forced to dispose off their savings and to sell their food crops, livestock or even their land in order to cover medical care and funeral expenses (Hancock *et al.*, 1996). This has far-reaching consequences for food security and health. The death of one or both parents to HIV and AIDS may deprive a family of the necessary knowledge, experience and skills (both financial and managerial) to run the farm household. Similarly, when one parent dies, the surviving parent may not have the skills required to grow certain crops (UNAIDS, 2006).

CHAPTER THREE: MATERIALS AND METHODS

3.1 Study Area

Nairobi, the capital city of Kenya (appendix 7.1) was selected because it is a cosmopolitan city with the representation of all social economic groups. These people possess heterogeneous culture and practices, sexual behaviours and beliefs in HIV and AIDS. Nairobi is also the headquarters of the MoLD and houses all levels of staff categories. The study was specifically conducted at the Ministry Headquarter which is in Community, Hill Plaza at Community, Kabete National Veterinary Laboratories in Kangemi, Foot and Mouth National Laboratories in Embakasi and Nairobi District Staff.

3.2 Study Design

A descriptive cross sectional study was used, whose aim was to establish knowledge, attitude practice and the effects of HIV and AIDS on the MoLD staff in Nairobi Province, in which both qualitative and quantitative data was collected. Orodho (2004) says that a descriptive study involves making careful description of phenomena to allow the researcher to gather information, summarize, present and interpret for the purpose of clarification. In this study, the research sought to collect qualitative and quantitative data about the knowledge, attitude, practice and effects of HIV and AIDS on MoLD staff in Nairobi province.

3.3 Variables

3 .3.1 Independent Variables

The independent variables in this research are; gender, level of education and marital status. An independent variable is a variable that a researcher manipulates in order to

determine its effect or influence on another variable. Independent variables are also called predictor variables because they predict the amount of variation that occurs in another variable.

3.3.2 Dependent Variables

The dependent variables in this research are; knowledge of transmission, prevention and treatment of HIV and AIDS, attitude towards condom use as a mode of prevention, belief on chance of getting HIV and AIDS, practice on condom use, utilization of VCT and the effects of HIV and AIDS on performance of staff of MoLD. Dependent variables also called criteria variable, attempt to indicate the total influence arising from the effects of the independent variables. A dependent variable therefore varies as a function of the independent variable (Mugenda & Mugenda, 1999). Knowledge of transmission and prevention of HIV would influence practice on condom use. Utilization of VCT, which include knowledge of individual HIV status, would influence practice on condom use.

3.4 Target Population

Target population is that population to which a researcher wants to generalize the results of the study (Mugenda & Mugenda, 1999). The target population constituted staff of the Ministry of Livestock Development in Kenya. These are Veterinary Officers, Livestock Production Officers, Meat Inspectors, Animal Health Assistants, Junior Health Assistants, Livestock Extension Officers, Laboratory Technologists, Administration Officers and Office Assistants.

3.5 Study Population

The study population constituted the MoLD in Nairobi Province. They were considered for the study for they constituted a large proportion (827). The staffs were from the Ministry of Livestock Headquarter (196), Kabeto Veterinary Laboratories, & Embakasi Laboratory (391), Livestock Production Staff in Nairobi (182) and Nairobi District Staff (68).

3.6 Sample Size and Sampling Technique

The sample size was calculated using the formula used by Kothari (2003).

$$n = \frac{z^2 pq}{e^2}$$

Where n is the desired sample size

Z = standard normal deviation (1.96) which corresponds to the 95% confidence level.

P = proportion of target population estimated to have a population characteristics.

The preference clients living in Nairobi.

$$Q = 1.0 - p$$

e = error margin usually 0.05

$$\text{Therefore } n = \frac{z^2 pq}{e^2} = \frac{1.96^2 \times (0.5 \times 0.5)}{(0.05^2)}$$

$$= \frac{1.96 \times 1.96 \times 0.5 \times 0.5}{0.05 \times 0.05} = 384$$

The above formula is only applicable for population that is more than 10,000.

Therefore after calculation of sample size with the above formula, the formula below was used since the total number of staff in Nairobi is 827.

n = the population of the staff in Nairobi which is 827

$$nf = \frac{n}{1 + \frac{n}{N}}$$

nf= 384

$1 + \frac{384}{827}$

=262 staff.

3.6.1 Sampling Procedure

Purposive sampling technique was applied to obtain the Ministry of Livestock Development staff. Stratified sampling was then conducted in order to sample the staff from all the stations in Nairobi. Sampling proportionate to size was also done in order to identify the number of respondents to be sampled from each centre. Then random sampling was applied from every station where every ninth respondent was interviewed. After identifying a potential respondent, informed consent was sought. Upon giving consent, the identified respondent was interviewed. Confidentiality and privacy was observed throughout the research period.

The Ministry of Livestock was purposefully sampled. The questionnaire was administered using stratified sampling as shown in Table 3.1

Table 3.1: Stratified Sampling for Questionnaire Administration

Study Population	Staff	Number sampled	Senior Staff	Number Sampled
Ministry of Livestock Headquarter	196	62	30	9
Kabete Veterinary and Embakasi Laboratory	381	120	32	9
Livestock Production Staff	182	57	17	5
Nairobi District Staff	68	21	7	3
Attrition		16		2
Total		276		28

Sampling within a group was through simple random sampling technique.

3.7 Inclusion Criteria

- i. The study included the staff (of Veterinary Department) of MoLD in Nairobi who have been working in Nairobi for the last six months.
- ii. Those who consented to participate in the study.

3.8 Exclusion Criteria

- i. Those who refused to give consent to participate in the study.
- ii. Those who have not been working for the Ministry of Livestock Development for more than six months.
- iii. Those from other departments of MoLD except Veterinary Department.

3.9 Data Collection Tools

A questionnaire (Appendix II) with open and closed questions was used to collect the data on the staff of the Ministry of Livestock Development. A rough draft of the interview schedule was prepared, giving due thought to the appropriate sequence of putting questions.

3.10 Pre-testing

Pre-testing of the research instruments was done before the actual data collection to ensure validity and reliability of the responses. Pre-testing was done using a purposive sample of 30 respondents. Technical defects were scrutinized and removed after re-examining. The questions contained simple but straightforward directions for

the respondents so that they could easily answer. Key informant interview was also used and contained open-ended questions (Appendix ii).

3.11 Validity

Cross-checking, inspection and analysis of the information on the research instruments ensured accuracy, relevance, completeness, consistency and uniformity of the collected data.

3.12 Reliability

Reliability is a measure of the degree to which research instruments yield consistent results or data after repeated trials (Mugenda & Mugenda, 1999). The conditions under which the measurements took place standardized the external sources of variation such as boredom and fatigue minimized to the extent possible. By broadening the sample of respondents, the equivalence aspect was improved.

3.13 Data Collection Technique

Data was collected using a structured interview schedule with closed and open questions of the key informant (senior staff) (appendix iii). The tools were written in English. The questionnaire was administered to staff of MoLD in the office during the data collection period only (Mugenda & Mugenda 1999).

3.14 Data Analysis

Data was coded, sorted, entered into the computer and processed using SPSS software version 11.5. Descriptive statistics namely frequencies and percentages were used to describe, organize and summarize collected data. Chi-square test was used to test for

the strength and significance of association between the variables. Responses from the key informant interviews were analyzed qualitatively according to emerging themes, with a 95% confidence level.

3.15 Ethical Clearance

Permission was sought from Kenyatta University Graduate School, Ministry of Education, Science and Technology, Ministry of Livestock Development and participating stations. Informed consent was sought from selected employees and officers before information was obtained from them. Personal information was treated with confidentiality. Participants were free to withdraw anytime they wished. Only people consenting to take part in the study were given questionnaires.

CHAPTER FOUR: RESULTS

4.1 Introduction

The results of the data obtained in this study are presented in this chapter. The aim of this analysis was to determine the level of knowledge, attitude, practice and effect of HIV and AIDS among the Ministry of Livestock Development staff. Data were obtained through structured interview schedule and key informant interviews. Analysis was done using SPSS version 11.5. Descriptive and inferential statistics were used.

4.2 Socio-demographic Factors

The independent variables in this study include the age of the respondent, the sex of the respondent, the level of education, the occupation of the respondent, and the period of service in the station. The study population was the staff of the Ministry of Livestock Development in Nairobi Province. The sample comprised of 106 male and 156 females ($N=262$). The majority of the respondents were aged 41-50 years and most of them (77.9%) were married.

4.2.1 The age of respondents

The age of the respondents varied from 18-55 years.

Sixty four (24.4%) of the respondents were from the 18-30 years bracket, sixty eight (26.0%) were from the 31-40 years bracket, ninety three (35.5%) from the 41-50 years bracket and thirty seven (14.1%) were above the 50 year bracket. Hence majority of the respondents were from the 40-50 year bracket (Fig. 4.1). This is because the Government suspended the employment of staff since 1994.

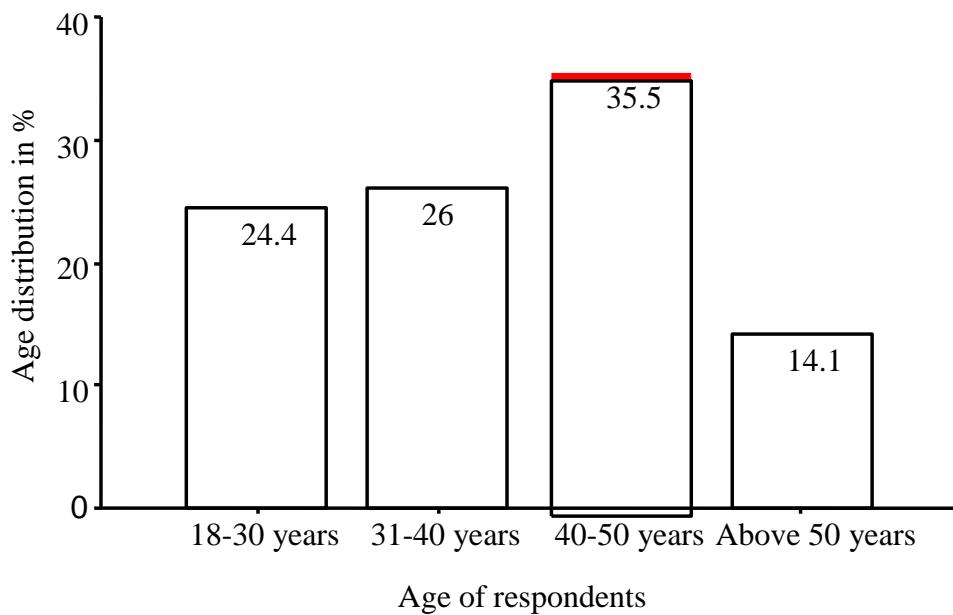


Figure 4.1 The age of respondents

4.2.2 Gender of respondents

One hundred and six (40.5%) of the respondents were male while one hundred and fifty six (59.5%) of the respondents were female.

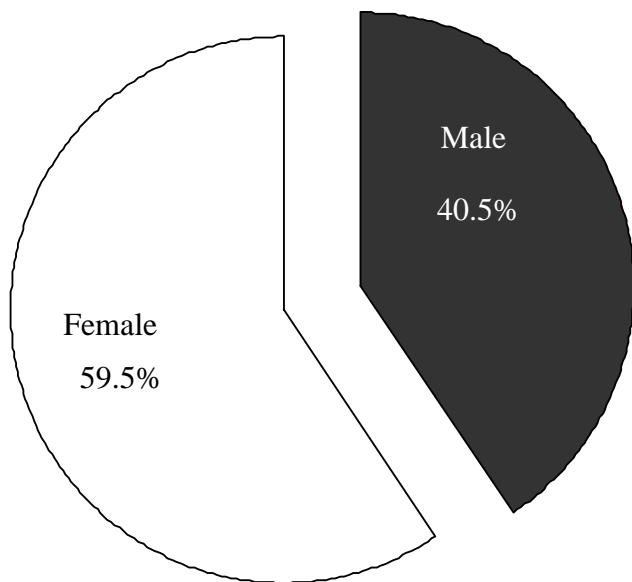


Figure 4.2 Gender of respondents

4.2.3 Marital Status of the Respondents

Two hundred and four (77.9%) of the respondents were married, thirty (11.5%) were single, six (2.3%) were widowed and twenty two (8.4%) were divorced (Table 4.1). Since they are within the most sexually active age group (15-49 years) they chose to remain within marriage bond where they can probably trust their spouses.

Table 4.1: Marital status for the respondents

Status		Frequency
	No	Percent %
Married	204	77.9
Single	30	11.5
Widowed	6	2.3
Divorced	22	8.4
Total	262	100.0

4.2.4 Educational Level of the Respondents

Six (2.3%) of the respondents had a primary level education, eighty two (31.3%) had a secondary level education, one hundred and two (38.9%) had a diploma level education 22.5% had a degree level education while thirteen (5.0%) of the respondents had postgraduate level education. Hence the majority of the respondents had a diploma and secondary level of education (Table 4.2).

Table 4.2: Educational Level of the Respondents

Educational Level		Frequency
	No	Percent %
Primary	6	2.3
Secondary	82	31.3
Diploma	102	38.9
Degree	59	22.5
Postgraduate	13	5.0
Total	262	100.0

4.2.5 Period of Service in the Station

Sixty two (23.7%) of the respondents had worked in the station for a period less than one year, one hundred and thirty (49.6%) had worked between 1-5 years, thirty seven (14.1%) had worked between 6-10 years, nineteen (7.3%) had worked between 11-15 years while fourteen (5.3%) had worked for a period above 15 years (Table 4.3).

Table 4.3: Period of service in the station

Period of service	Frequency	
	No.	Percent %
Less than 1 year	62	23.7
1-5 years	130	49.6
6-10 years	37	14.1
11-15 years	19	7.3
Over 16 years	14	5.3
Total	262	100.0

4.3 Knowledge of HIV and AIDS on the Staff MoLD.

4.3.1 The Awareness of HIV and AIDS

To determine the knowledge of HIV and AIDS on the Staff of the Ministry, the level of knowledge of staff was measured by determining the level of awareness of HIV and AIDS and methods of transmission from mother to child. Awareness about condoms and their use, cure for HIV and AIDS and the source of that cure.

4.3.1.1 Awareness of HIV and AIDS

Two hundred and fifty two (96.2%) of the respondents had heard about HIV and AIDS while ten (3.8%) of the respondents had not heard about HIV and AIDS (Fig 4.3).

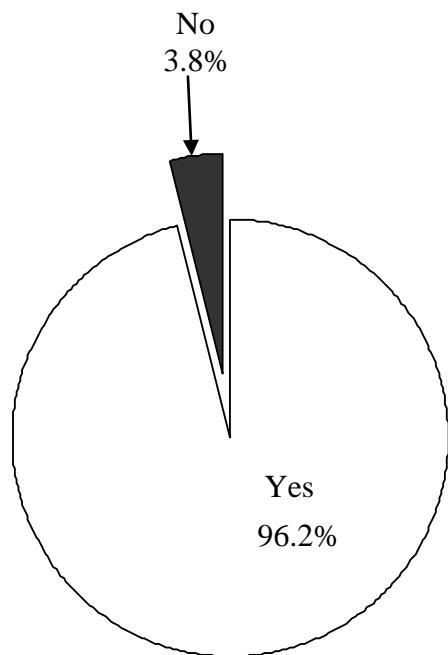


Figure 4.3 Awareness of HIV and AIDS

4.3.1.2 Mother to Child Transmission

Two hundred and fifty three of the respondents were aware that a pregnant woman can transmit HIV and AIDS to her child while nine of the respondents didn't know indicating a significant between the two responses ($X^2=9.075$, df=1, p=0.003, Table 4.4 and 4.5).

Table 4.4: Knowledge Of Transmission Of HIV And AIDS From Mother To Child Among Respondents.

Response	Frequency	
	No.	Percent %
Yes	253	96.6
Don't know	9	3.4
Total	262	100.0

Table 4.5: Knowledge of Transmission of HIV and AIDS from Mother to Child Versus Gender Of The Respondents.

Sex of respondent	Pregnant women can transmit HIV/AIDS to her child			Total
	Yes	Don't know		
Male	98	8		106
Female	155	1		156
Total	253	9		262

$\chi^2=9.075$, df=1, p=0.003

Table 4.6: Knowledge Of Transmission Of HIV And AIDS From Mother To Child Versus Educational Level Of The Respondents.

		Pregnant women can transmit HIV/AIDS to her child		Total
		Yes	Don't know	
Highest level of education	Secondary and Below	81	7	88
	Diploma	101	1	102
	Degree and Above	71	1	72
Total		253	9	262

$\chi^2=172.734$ df=4 p=0.0001

4.3.1.3 Method of Reducing the Risk of HIV Transmission from Mother to Child

Thirty three (12.6%) of the respondents believed that the method for reducing the risk of HIV transmission from mother to child is through taking medication, eighty six (32.8%) considered not breastfeeding while one hundred and forty three (54.6%) of the respondents didn't know how to prevent the transmission (Table 4.7).

Table 4.7: Methods of Reducing the Risk of HIV Transmission from Mother to Child

Method	No.	Frequency
		Percent %
Take medication	33	12.6
Don't breast feed	86	32.8
Don't know	143	54.6
Total	262	100.0

4.3.1.4 Knowledge on Existence of a Condom

Sixteen (6.1%) of the respondents had heard about a condom, one hundred and thirty eight (52.7%) had seen a condom, ninety six (36.6%) had heard and seen a condom while twelve (4.6%) of the respondents had neither seen nor heard about a condom (Fig 4.5). This means that majority of the respondents had seen or heard about condoms.

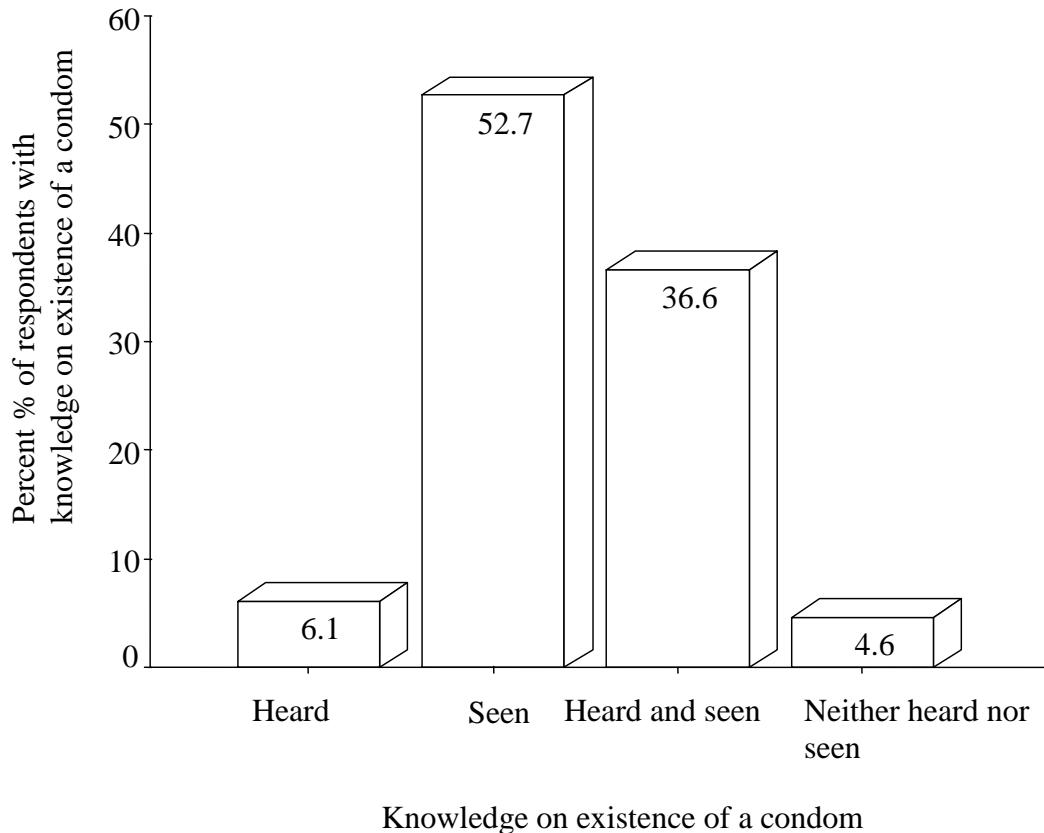


Figure 4.4: Knowledge on existence of a condom

4.3.1.5 Cure for HIV and AIDS

Thirty one (11.8%) of the respondents believed that there is cure for HIV and AIDS, two hundred and fifteen (82.1%) believed that there is no cure, six (2.3%) didn't know if there was cure for HIV and AIDS while ten (3.8%) did not respond (Table 4.8). This means that 14.1% of the respondents gave the wrong answers, meaning the knowledge on existence of HIV and AIDS cure is limited.

Table 4.8: Knowledge of Cure for HIV and AIDS among Respondents

Response	No.	Frequency	Percent %
Cure Available	31		11.8
Cure Not Available	215		82.1
Don't know	6		2.3
No Response	10		3.8
Total	262		100.0

Table 4.9: Knowledge of Cure for HIV and AIDS Versus Level of Education**Among Respondents**

		There is cure for HIV/AIDS			Total
		Yes	No	Don't know	
Highest level of education	Secondary and Below	19	69	0	88
	Diploma	8	80	14	102
	Degree and Above	4	66	2	72
	Total	31	215	16	262

$$\chi^2 = 71.264 \text{ df}=8 \text{ p}=0.0001$$

4.3.1.6 Source of cure for HIV and AIDS

Twenty five (80.6%) of the respondents believed that there could be cure of HIV and AIDS by praying to God while six (19.4%) of the respondents believed that HIV and

AIDS could be cured by traditional medicine (Table 4.6). This shows that majority of the respondents are still ignorant about the cure for HIV and AIDS.

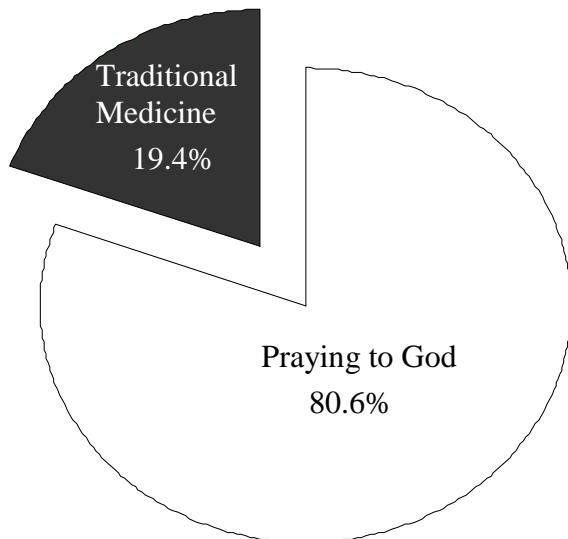


Figure 4.5: Source of cure for HIV and AIDS

4.3.2 Attitude on HIV and AIDS towards Use of Condoms

The responses on use of condoms were subjected to a scale to establish the number of respondents who strongly disagreed to those who strongly agreed on use of condom.

Eighty four (32.1%) of the respondents strongly agreed that the use of condom by staff who wanted to have sex should be encouraged, twenty six (9.9%) agreed, twenty eight (10.7%) were neutral, thirty seven (14.1%) disagreed while eighty seven (33.2%) of the respondents strongly disagreed with encouraging the use of a condom by staff who wanted to have sex. This trend showed that majority of the respondents risked HIV and AIDS transmission (Table 4.10). Since their opinion on use of condoms was quite low.

Table 4.10: Attitude on HIV and AIDS towards Use of Condoms

Response		Frequency	
	No.		Percent %
Strongly agree	84		32.1
Agree	26		9.9
Neutral	28		10.7
Disagree	37		14.1
Strongly disagree	87		33.2
Total	262		100.0

4.3.2.1 HIV Transmission with use of Condoms

One hundred and nineteen (45.4%) of the respondents strongly disagreed that transmission of HIV would still occur when condoms are used when having sex, fifty one (19.5%) disagreed, fifteen (5.7%) were neutral, forty seven (17.9%) disagreed while thirty (11.5%) of the respondents strongly agreed that transmission of HIV would still occur (Table 4.11). This showed that some respondents had a negative attitude to the usage of a condom during sex.

Table 4.11: Transmission of HIV would still occur with condom use

Response		Frequency	Percent %
Strongly agree	119	45.4	
Agree	51	19.5	
Neutral	15	5.7	
Disagree	47	17.9	
Strongly disagree	30	11.5	
Total	262		100.0

4.3.2.2 Attitude towards use of Condoms by Married Couples

Sixty three (24.0%) of the respondents strongly agreed on the use of a condom by a legal partner, fifty four (20.6%) agreed, nine (3.4%) were neutral, thirty four (13.0%) disagreed while one hundred and two (38.9%) strongly disagreed the use of a condom by a married couple (Table 4.12).

Table 4.12: Attitude towards use of Condoms by Married Couples

Response		Frequency	Percent %
Strongly agree	63	24.0	
Agree	54	20.6	
Neutral	9	3.4	
Disagree	34	13.0	
Strongly disagree	102	38.9	
Total	262		100.0

4.3.3 Beliefs

4.3.3.1 Persons at Risk of Getting Infected with HIV and AIDS

One hundred and three (39.3%) of the respondents believed that prostitutes were at risk of getting infected with HIV and AIDS, one hundred and seven (40.8%) believed that it was a person with many partners, eleven (4.2%) believed that it was young people while forty one believed that it was those in close contact with infected persons (Table 4.13). This means that 15.6% of the respondents believe that HIV and AIDS can be transmitted by contact other than sexual intercourse and mother to child transmission. Therefore, the knowledge on mode of transmission is poor.

Table 4.13: Persons At Risk Of Getting Infected With HIV And AIDS.

Person at risk	Frequency No.	Percent %
Prostitutes	103	39.3
Person with many partners	107	40.8
Young people	11	4.2
Those in close contact with infected person	41	15.6
Total	262	100.0

4.3.3.2 Chances of Getting HIV and AIDS

One hundred and eleven (42%) of the respondents believed that they had no risk of getting HIV and AIDS, ninety nine (37.8%) had a chance while forty five (17.2%) didn't know their chances of getting HIV and AIDS (Fig 4.6).

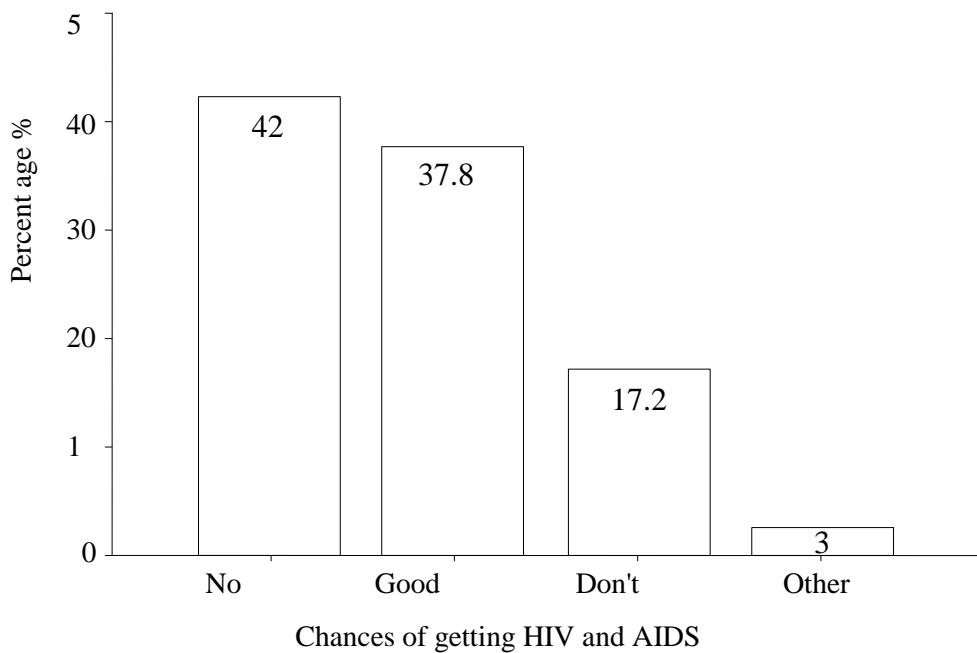


Figure 4.6: Chances of getting HIV and AIDS

4.3.3.3 HIV and AIDS Transmission Prevention

Thirty three (29.7%) of the respondents cited that always using a condom as a reason why they thought that there was no chance of getting HIV and AIDS, sixty (54.1%) cited being a faithful partner while eighteen (16.2%) cited totally abstaining from sex (Fig 4.7). This means that majority of the respondents had a positive belief on transmission prevention.

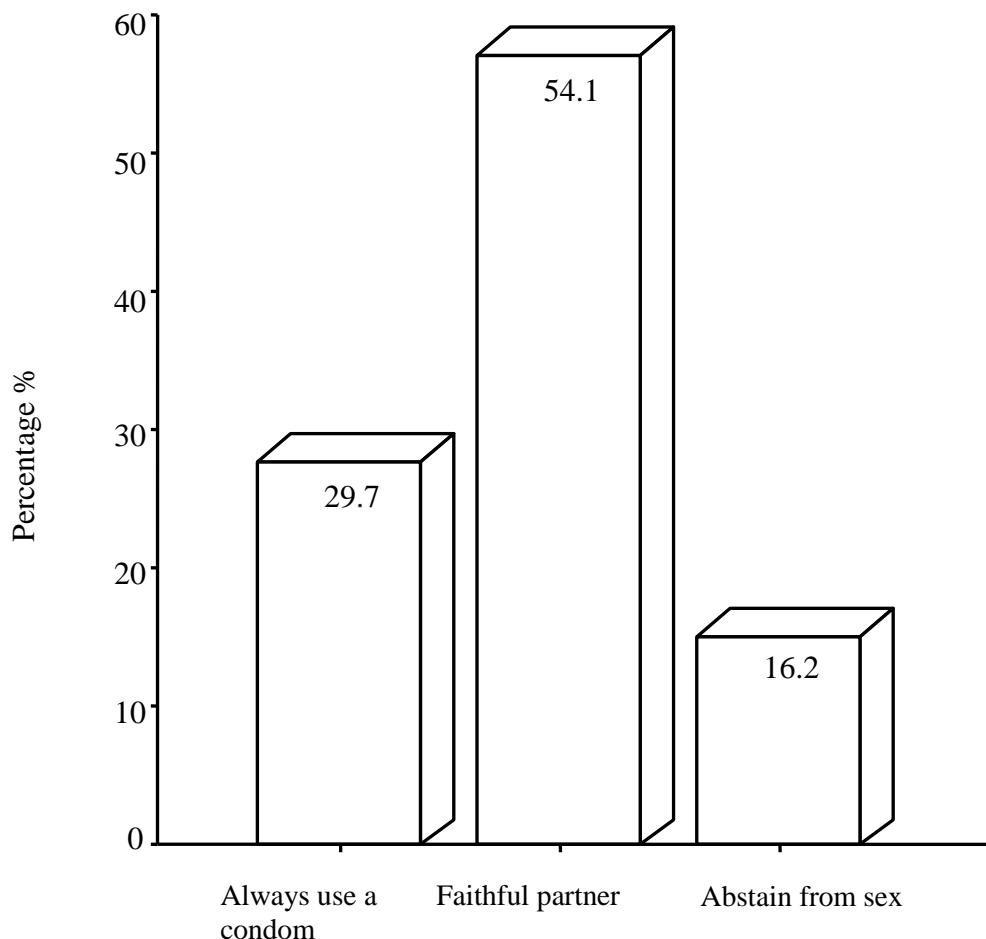


Figure 4.7: HIV and AIDS Transmission Prevention

4.4 Practice of the MoLD Staff towards HIV and AIDS

4.4.1 The Ideal Place of Obtaining Condoms

Forty two (16.0%) of the respondents considered the shops as the ideal place for obtaining a condom, fifty nine (22.5%) preferred a health facility, one hundred and fifty four preferred a pharmacy/chemist while seven (2.7%) of the respondents opted to obtain a condom from bars/lodges (Table 4.14).

Table 4.14: The Ideal Place of Obtaining Condoms

Place	Frequency	
	No.	Percent %
From shops	42	16.0
Health facility	59	22.5
Pharmacist/Chemist	154	58.8
Bars/Lodges	7	2.7
Total	262	100.0

4.4.2 Can Afford To Buy A Condom Any Time Its Needed

One hundred and seventy two (65.6%) of the respondents could afford to buy a condom every time they needed one while forty (15.3%) could not while fifty (19.1%) had never used condoms (Table 4.15).

Table 4.15: Can Afford To Buy A Condom Any Time Its Needed

Response	Frequency	
	No.	Percent %
Yes	172	65.6
No	40	15.3
Never used condoms	50	19.1
Total	262	100.00

4.4.3 The Perception of the MoLD Staff Towards VCT Services.

Voluntary Counseling and Testing Center (VCT) offers services for testing of HIV and AIDS and counseling. The perception on VCT was measured on whether the

staff had heard of VCT , the distance to VCT center from their workplace, whether they ever considered visiting a VCT center and whether they had even been tested and counseled for HIV.

4.4.4 Distance of the VCT Centre from the Work Place

Two hundred and fifty six (97.7%) of the respondents had ever heard of VCT while six (2.3%) had not. One hundred and fifty one (57.6%) of the respondents lived less than a kilometer away from a VCT Centre, one hundred and three (39.3%) lived between 1-5 kilometers away and eight (3.1%) lived more than 5 kilometers away from a VCT Center (Table 4.16).

Table 4.16: Distance of the VCT Centre from the work place

Distance	No.	Frequency	Percent %
Less than a kilometer	151		57.6
1-5 kilometers	103		39.3
More than 5 kilometers	8		3.1
Total	262		100.0

4.4.5 Ever Considered Visiting a VCT Centre

One hundred and thirty one (50.0%) of the respondents had considered visiting a VCT Centre while one hundred and thirty one (50.0%) never considered visiting a VCT Centre (Table 4.17).

Table 4.17: Ever considered visiting a VCT Centre

Response	Frequency	
	No.	Percent %
Yes	131	50.0
No	131	50.0
Total	262	100.0

4.4.6 Reasons for not Considering Visiting a VCT Centre Among Respondents

Among the respondents who never considered visit to a VCT Center, thirty seven (28.2%) of them cited fear, twenty four (18.3%) cited that they did not think it was necessary, twenty four (18.3%) said that they were not sick while forty six (35.2%) said that they were faithful to their partners (Figure 4.8).

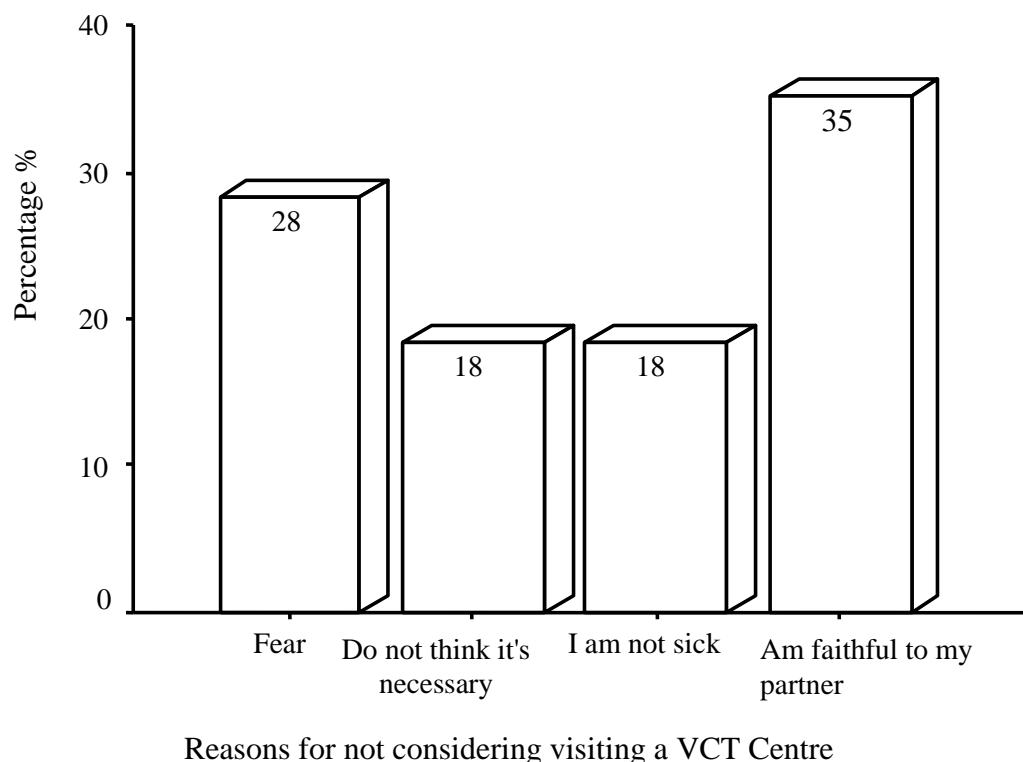


Figure 4.8: Reasons for not considering visiting a VCT Centre among the Respondents

4.4.7 Ever been tested for HIV after considering to Visit a VCT Centre

Among those respondents who considered visiting a VCT Centre, one hundred and seven (40.8%) had been tested while twenty four (9.2%) (Figure 4.9).

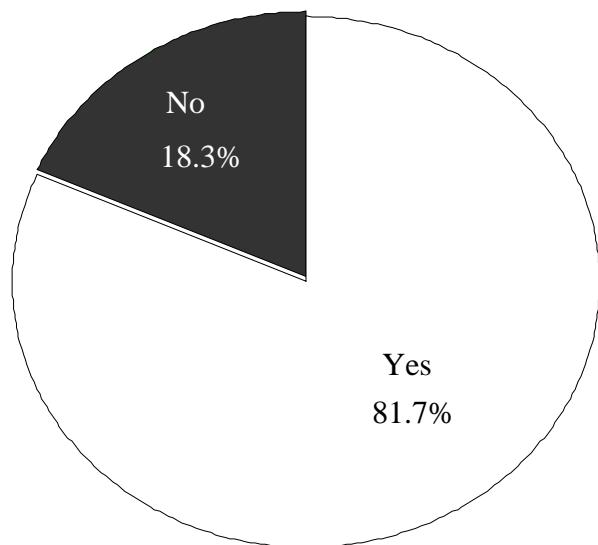


Figure 4.9: Ever been tested for HIV after considering to visit a VCT Centre

4.4.8 Reasons for Deciding on VCT Testing

Among the respondents who considered VCT testing, twenty one (19.8%) of them did it in order to donate blood, ten (9.3%) did it as a requirement to a job interview, fifty (46.7%) was due to prenatal clinic while thirteen (12.1%) was done on a voluntary basis (Figure 4.10).

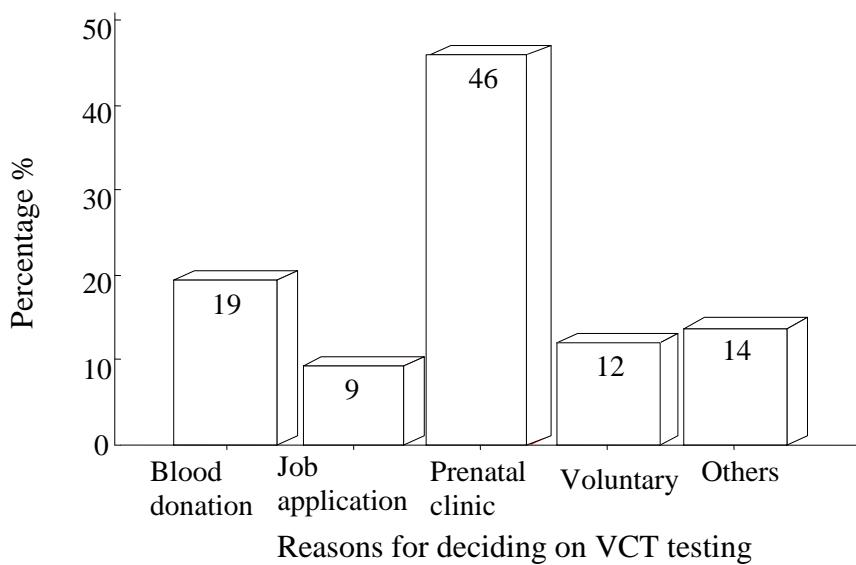


Figure 4.10: Reasons for deciding on VCT testing

4.5 The effects of HIV and AIDS on the staff of Ministry of Livestock

To determine the effect of HIV and AIDS on the staff of Ministry of Livestock Development, the following parameters were measured; the knowledge of colleagues who had died of HIV and AIDS related illness in the last one year, duration of period being absent from duty due to HIV and AIDS related sicknesses, the nature of illness before death, frequency of movement from office, length of stay away from the family, length of stay with a HIV positive relatives, frequency and duration of hospital visits and length of period for standing in for a sick colleague, number of funeral and burial services attended in the last three months for HIV related deaths.

4.5.1 Information of HIV Related Deaths of a Colleague in the past 1 year

Thirty six (13.7%) of the respondents knew of somebody who had died in their office in the past 12 months while two hundred and twenty six (86.3%) of the respondents had no idea (Figure 4.11).

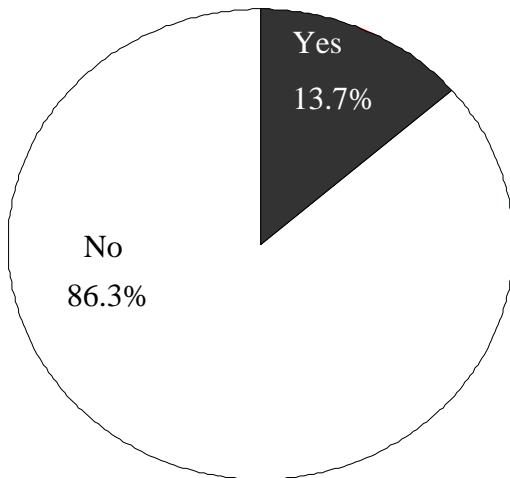


Figure 4.11: Information of HIV Related Deaths of a Colleague in the past 1 year

Table 4.18: Condom Use Verses the Knowledge of Someone who Died in the Office in the Past 12 months

		Use of condom by staff who want to have sex should be discouraged					Total
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Know of anyone who has died in your office in the past 12 months	Yes	4	4	4	1	23	36
	No	80	22	24	36	64	226
Total		84	26	28	37	87	262

X²=21.415 df=4 p=0.001

Table 4.19: Transmission of HIV with Condom Use Verses the Knowledge of Someone who Died in the Office in the Past 12 months

		Transmission of HIV will still occur when condoms are used when having sex					Total
Know of anyone who has died in your office in the past 12 months	Yes	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
12	8	0	13	3	36		
No	107	43	15	34	27	226	
Total	119	51	15	47	30	262	

$\chi^2=11.931$ df=4 p=0.018

4.5.2 Length of Time for Being Absent From Duty Among the Respondents

Five (13.9%) of the respondents were absent from duty for 2 months, twelve (33.3%) were absent for 3 months while nineteen (52.8%) of the respondents were absent from duty for more than 3 months (Figure 4.12). This shows that these particular respondents were not economically active for the length of time they were absent from office.

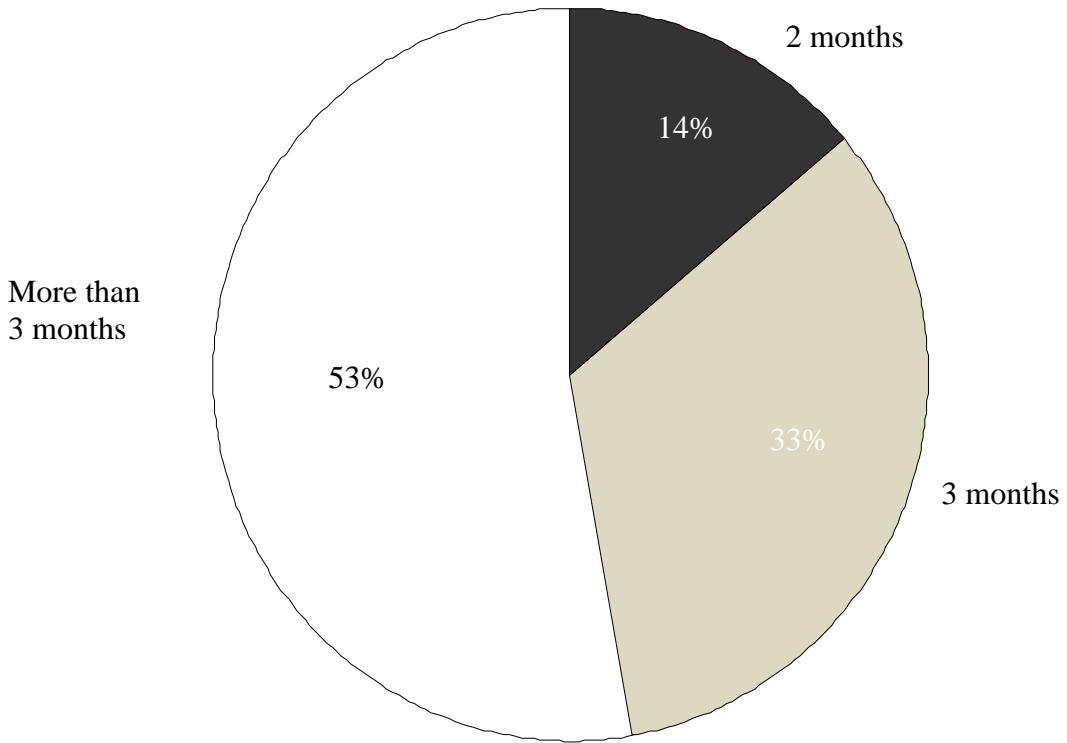


Figure 4.12: Length of time for being absent from duty

4.5.3 Nature of illness before death

Among the absent employees due to illness, thirteen (36.1%) of them had pneumonia, thirteen (36.1%) of them had tuberculosis related HIV, one (2.8%) had malaria , four (11.1%) had diarrhea related to HIV while five (13.9%) of the remaining respondents suffered from wasting related HIV (Figure 4.13).

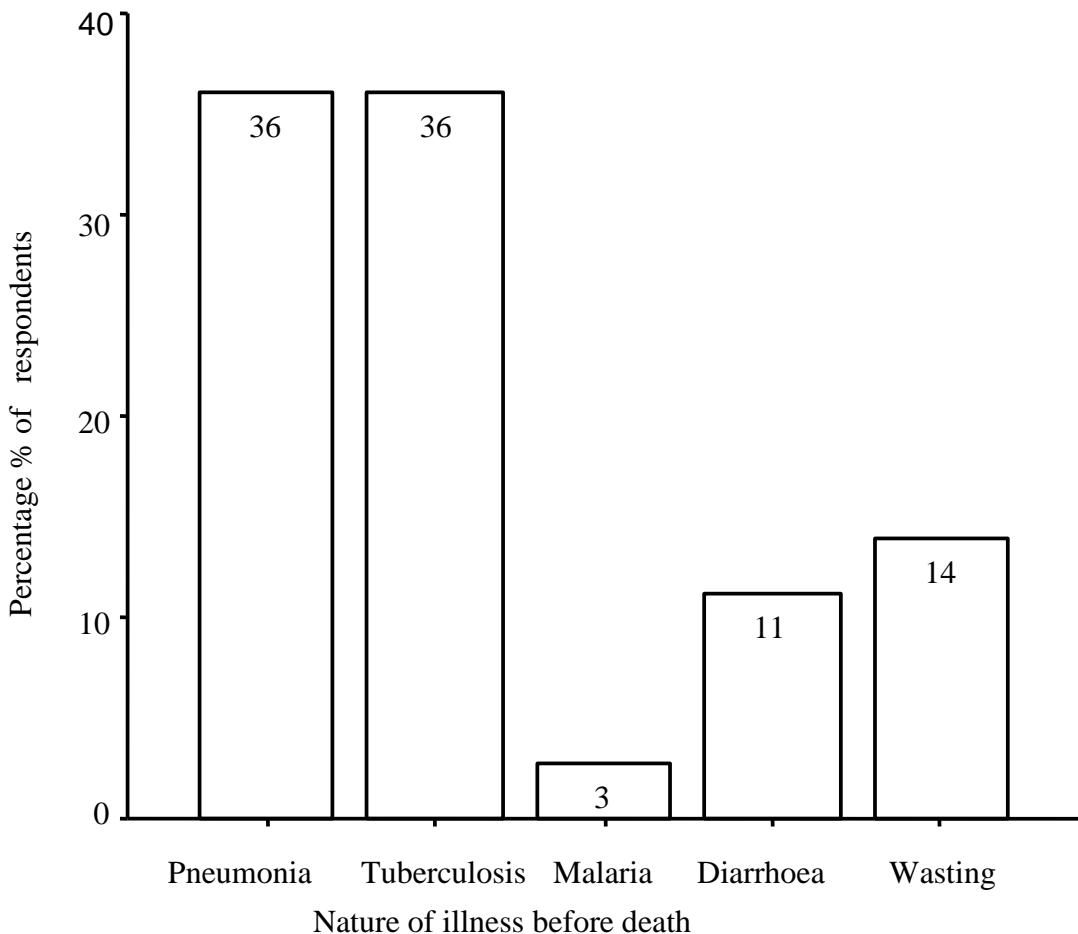


Figure 4.13: Nature of illness before death

4.5.4 Frequency of Movement of Staff Outside Duty Station

Fifty five (21.0%) of the respondents had moved once outside their office during duty in the past year, fifty three (20.2%) had moved twice, forty nine (18.7%) had moved thrice, forty eight (18.3%) had moved more than thrice while fifty seven (21.8%) of the respondents had never traveled out of office on duty. (Table 4.20). Because of those movements, where they stayed away from spouse, they were vulnerable to casual sex.

Table 4.20: Frequency of movement outside your office during duty in the past year

Number of movements in days	Frequency	
	No.	Percent %
Once	55	21.0
Twice	53	20.2
Thrice	49	18.7
More than thrice	48	18.3
None	57	21.8
Total	262	100.0

4.5.5 Length of Time Stayed Away From Family

Due to movements, where staffs stayed away from spouse, they could be vulnerable to casual sex. One hundred and thirty five (51.5%) of the respondents had stayed less than a week from their family, sixty seven (25.6%) had stayed between 1-4 weeks, eight (3.1%) had stayed between 5-16 weeks, two (0.8%) had stayed for over 16 weeks while fifty (19.1%) of the respondents were always with their families (Table 4.21).

Table 4.21: Length of time one stayed away from family

Time	Frequency	
	No.	Percent (%)
Less than a week	135	51.5
1-4 weeks	67	25.6
5-16 weeks	8	3.1
Over 16 weeks	2	.8
None	50	19.1
Total	262	100.0

4.5.6 Stayed with a relative with HIV and AIDS

Twenty seven (10.3%) of the respondents stayed with a relative with HIV and AIDS while two hundred and thirty five (89.7%) of the respondents did not (Table 4.22). Meaning that some of the respondents took care of a relative with HIV and AIDS, which may weigh heavily on them emotionally, financially and time wise.

Table 4.22: Stayed with a relative with HIV and AIDS

Response	Frequency	
	No.	Percent %
Yes	27	10.3
No	235	89.7
Total	262	100.0

4.5.7 Frequency of Hospital Visits

Twenty one (77.8%) of the respondents with a relative who was HIV positive attended hospital visits once a week while six (22.2%) attended hospital visits once a

month. These hospital visits, which sometimes coincide with working hours, create absenteeism by the working staff, hence affecting performance (Figure 4.14).

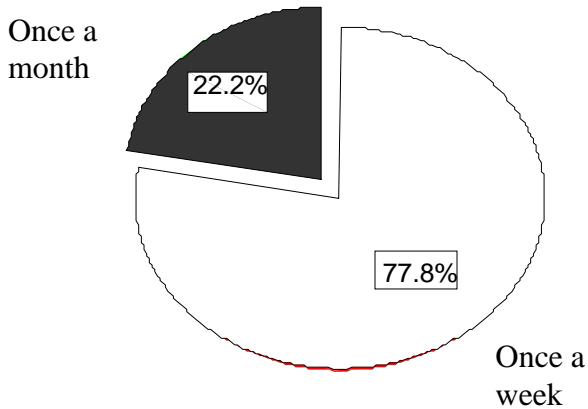


Figure 4.14: Frequency of hospital visits

4.5.8 Live with a child/orphan due to HIV and AIDS implications

Thirty four (13.0%) of the respondents lived with a child/orphan due to HIV and AIDS complications, two hundred and twenty two (84.7%) had never lived with an orphan while six (2.3%) didn't know whether the children had been orphaned due to HIV complications (Table 4.23)

Table 4.23: Live with a child/orphan due to HIV and AIDS complications

Response	Frequency	
	No.	Percent %
Yes	34	13.0
No	222	84.7
Don't know	6	2.3
Total	262	100.00

4.5.9 Stand in on behalf of a sick colleague with HIV and AIDS related complications

Because of standing in for a sick colleague, work output may be compromised where one person performs duty for two. Seventy-four (28.2%) of the respondents did stand for a sick colleague while one hundred and eighty eight (71.8%) of the respondents had not (Fig 4.15).

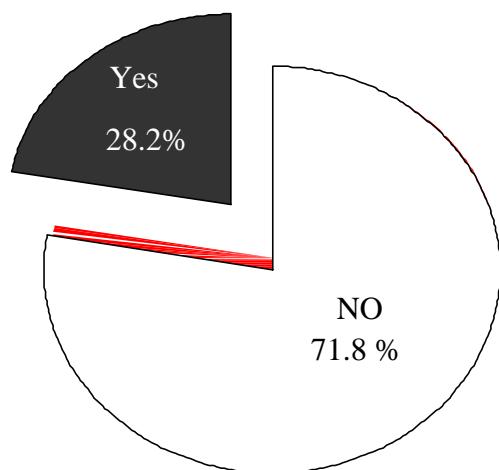


Figure 4.15 Stand in on behalf of a sick colleague with HIV and AIDS related complications

4.5.10 Employees who Performed duties on behalf of colleagues

Twenty four (32.4%) of the respondents performed duties once a month for a sick colleague with HIV related complications, ten (13.5%) performed duty once a week, nineteen (25.7%) performed duty twice a week while twenty one (28.4%) of the respondents performed duty on behalf of a sick colleague several times (Figure 4.16).

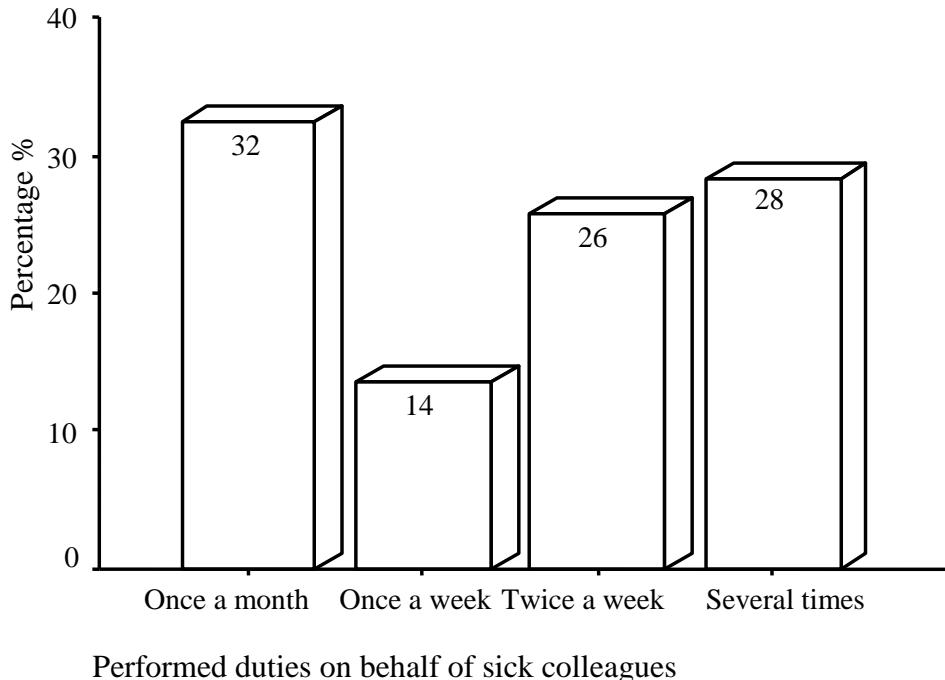


Figure 4.16 Performed duties on behalf of sick colleagues

4.5.11 Number of funerals and burial services attended in the last three months

One hundred and forty (53.4%) of the respondents had attended funeral and burial services once in the last three months, forty (15.3%) had attended twice, twenty two (8.4%) attended thrice, eight (3.1%) had attended more than thrice while fifty two (19.8%) had attended none (Table 4.24). Funeral attendance creates absenteeism in staff hence reducing performance.

Table 4.24: Number of funerals and burial services attended in the last three months

Number	Frequency	
	No.	Percent %
One	140	53.4
Two	40	15.3
Three	22	8.4
More than three times	8	3.1
None	52	19.8
Total	262	100.0

4.5.12 Number of Funeral and Burial Services That Were HIV and AIDS Related

One hundred and fifty two (58.0%) of the burial and funeral services were HIV and AIDS related while one hundred and ten (42.0%) were not (Table 4.25)

Table 4.25: Number of funeral and burial services that were HIV and AIDS related

Number	Frequency	
	No.	Percent %
One	131	50.0
Two	19	7.3
Three	2	.8
None	110	42.0
Total	262	100.0

4.5.13 Number of burial services for colleagues attended

Twenty one (8.0%) of the respondents had attended burial services for colleagues while two hundred and forty one (92.0%) of the respondents had attended none. Funeral attendance creates absenteeism in staff hence reducing performance (Table 4.26).

Table 4.26: Number of burial services for colleagues attended

Response		Frequency	
	No.		Percent %
One	21		8.0
None	241		92.0
Total	262		100.0

4.5.14 Number of Burial Services for Relatives - HIV related

One hundred and fourteen (43.5%) of the respondents had attended once the burial services for relatives, twenty five (9.5%) had attended twice, six (2.3%) had attended thrice while one hundred and seventeen (44.7%) had not attended any burial services for relatives (Table 4.27). Funeral attendance creates absenteeism in staff hence reducing performance of the Ministry of Livestock Development.

Table 4.27: Number of burial services for relatives attended

Number		Frequency	
	No.		Percent %
One	114		43.5
Two	25		9.5
Three	6		2.3
None	117		44.7
Total	262		100.0

CHAPTER FIVE: DISCUSSION

5.1 Overview

The aim of the study was to identify the level of knowledge, attitude, practice and effects of HIV and AIDS on the Ministry of Livestock Development Staff, Nairobi Province. The most critical factors that determine economic growth are labour, capital and technical progress. The HIV and AIDS slow economic growth by their effect on labour and capital investment (Topouzis, 2003). Livestock production is a prime mover of the Kenya economy, currently contributing 42% of agricultural GDP (Kodhek, 1999). From the study findings, effects of HIV and AIDS were determined through absenteeism due to sickness or attending funerals and burial services that are HIV and AIDS related. It was observed that 13.7% of the respondents knew of someone who had died in their office in the last 12 months as shown in Figure 4.9. This was a clear indication that HIV and AIDS had an impact in the labour productivity in the Ministry of Livestock. This is in agreement with the findings of Kenya AIDS Indicator Survey report that AIDS is workplace issue (NASCOP, 2008).

5.2 The Level of Knowledge and Attitude of The Staff of MoLD

According to the study findings, knowledge and attitude played a significant role in highlighting the risks of HIV and AIDS infection among the staff of the Ministry of Livestock. In order to curb the AIDS epidemic, the specific interest lies in the change of behaviour of an individual which is governed by attitude and level of knowledge. According to the study, male respondents were less likely to know that a pregnant woman can transmit HIV and AIDS to her child ($X^2=9.075$, df=1, p=0.003) as shown in table 4.5. This was a clear indication that men are not taking an active role in supporting their spouses in antenatal matters. Hence, that could be the likely reason as

to why most male staff were not informed about prevention of mother to child HIV and AIDS transmission. It was also observed that respondents with a lower level of education were less likely to know that a pregnant woman can transmit HIV and AIDS to her child ($X^2=172.734$, df=4, p=0.0001) as shown in table 4.6. This was also a proof that education played a significant role in understanding the HIV and AIDS prevention strategies. The findings also revealed that the respondents who had a lower level of education were more likely to believe that there is a cure for HIV and AIDS ($X^2=71.264$, df=8, p=0.0001) as shown in table 4.9. Hence it was observed that 80% of these respondents believed that traditional medicine was a source of cure, while the remaining 19.4% believed that praying to God was the source of cure. This observation showed that the level of knowledge regarding to the HIV and AIDS prevention and control was not yet satisfactory. This is line with NASCOP [2005] findings that poor attitude towards HIV and AIDS have been associated with the infection.

It was also observed that respondents who knew somebody who had died in their office due to HIV and AIDS were likely to strongly disagree discouraging the use of condom by a staff who wanted to have sex ($X^2=21.415$, df=4, p=0.0001) as shown in table 4.18. This showed that the attitude of HIV and AIDS among those who had witnessed the death of a colleague had changed dramatically regarding to HIV and AIDS prevention. Hence majority of these staff were positive towards the use of condoms among fellow staff. However, the same respondents who knew of somebody who had died in their office due to HIV and AIDS were likely to believe that transmission of HIV and AIDS will still occur when condoms are used when having sex ($X^2=11.931$, df=4, p=0.018) as shown in table 4.19. This was a negative

perception as far as HIV and AIDS prevention is concerned. Hence the myths surrounding condom use should be addressed.

5.3 Practice and Utilization of VCT Service

The Ministry of Livestock has embarked on human capacity development which has consisted primarily on HIV and AIDS sensitization, training exercises on HIV and AIDS aspects and raising awareness, which is an exercise undertaken in a number of countries (Topouzis, 2003). Although VCT is one of the strategies of creating awareness, only 50% of the respondents considered visiting a VCT Centre. It was observed that the respondents who had been tested after VCT visit were likely to strongly disagree discouraging the use of a condom by a staff who wanted sex. Although this showed a positive attitude towards HIV and AIDS prevention among those tested, it raises a great risk of HIV and AIDS among those who don't know about their status. This concurs with the findings of NASCOP (2008) in the Kenya AIDS Indicator Survey that four out of five HIV positive Kenyans are unaware of their status, while two-thirds of Kenyans have never been tested. A 44 year old male Key informant had this to say, "Today we had a sensitization workshop at the workplace, but it was done in a haphazard way. Condom distribution should be increased and the officers dealing with HIV and AIDS should be motivated by giving them special terms of service." Hence the Ministry of Livestock should develop and encourage VCT visitation and utilization by their staff.

5.4 The Effects of HIV and AIDS on the Staff of the MoLD

The Ministry of Livestock Development being mainly service extension in agriculture, disruption is felt when an infected member needs to give extension

support to the clients. The work involves a lot of motion and physical presentation by self. This could be used to explain the observation that civil servants were more likely to have a higher frequency of movement outside the office during duty in a year compared to the support staff. Hence if a person is physically impaired, it can be very challenging. However, this movement by the Ministry of Livestock Development staff away from their families poses a great risk of contracting HIV due to irresponsible sexual behaviour.

The study findings also revealed that respondents who knew of anyone who had died of HIV and AIDS in their office were likely to attend funeral and burial services in the last 3 months. This was a clear indication of absenteeism due to funeral, burial services and HIV and AIDS related deaths. Hence the staff performance was directly affected by HIV and AIDS. This observation was also supported by the observation that the length of time a respondent was absent from duty was significantly related to the number of funeral and burial services attended in the last 3 months. Hence despite the high level of absenteeism due to funeral and burial services for the colleagues and relatives who died for HIV and AIDS related illness, these employees continue to earn salary despite their minimal performance. They have instead used their fellow employees to perform their duties. A 38 year old female key informant had this to say, “The loss of human resource is high for example, the meat inspectors lose at least two staff to HIV and AIDS related diseases per month. This is because meat inspectors have a lot of revenue in an environment that is really deprived. Hence they end up at risk due to reckless behaviour”. According to the United Nations, the consequences of HIV and AIDS include increased absenteeism, decreased productivity and reduced number of employees through death with loss of accumulated skills and declining

morale (UNAIDS, 2004). The impact of HIV and AIDS on the Ministry of Livestock is visible through lowered productivity in animal husbandry due to illness, absenteeism, death and subsequent loss of farming skills.

CHAPTER SIX: CONCLUSION AND RECOMMENDATION

6.1 Introduction

This study aimed at establishing the effect of HIV and AIDS on performance of the Ministry of Livestock and Fisheries Development staff. This chapter highlights results, summary, conclusions, recommendations and suggestion for further studies.

6.2 Conclusions

According to the study findings the following conclusions have been arrived at according to the study objectives.

(i) Knowledge and Attitude towards HIV and AIDS

Knowledge and attitude played a significant role in highlighting the risks of HIV and AIDS infection among the staff of the Ministry of Livestock. Male respondents were less likely to know that a pregnant woman can transmit HIV and AIDS to her child. Respondents with a lower level of education were less likely to know that a pregnant woman can transmit HIV and AIDS to her child, while respondents who had a lower level of education were more likely to believe that there is a cure for HIV and AIDS.

(ii) Practice towards HIV and AIDS

Although VCT is one of the strategies of creating awareness, only 50% of the respondents considered visiting a VCT Centre. Respondents who had been tested after considering visiting a VCT Centre were likely to strongly disagree discouraging the use of a condom by a staff who wanted sex. Those respondents who knew somebody who had died in their office due to HIV and AIDS were likely to strongly disagree discouraging the use of condom by a staff who wanted to have sex. Respondents who knew of somebody who had died in their office due to HIV and

AIDS were likely to believe that transmission of HIV and AIDS will still occur with use of condoms when having sex.

(iii) Effects of HIV and AIDS on staff of Ministry of Livestock Development

Performance was determined through absenteeism due to sickness or attending funerals and burial services that are HIV and AIDS related and HIV and AIDS related deaths. It was observed that 13.7% of the respondents knew of someone who had died in their office in the last 12 months. Respondents who knew of anyone who had died of HIV and AIDS in their office were likely to attend funeral and burial services in the last 3 months. It was also observed that the length of time a respondent was absent from duty was significantly related to the number of funeral and burial services attended in the last 3 months.

6.3 Recommendations from the Study

- i. The Ministry of Livestock through AIDS Control Unit (ACU) should sensitize its staff about the importance of condom use as a strategy to curb the spread of HIV and AIDS.
- ii. The Ministry of Livestock through AIDS Control Unit (ACU) should encourage its staff to take VCT services.
- iii. The Ministry of Livestock should integrate HIV and AIDS into divisional/departmental or district-level work plans. This should be accompanied by follow-up activities to build on the skills and information impacted.

6.4 Areas of Further Research

- i. Studies should be undertaken to assess the best strategy to implement the HIV and AIDS policy in the Ministry.
- ii. Studies should be carried out to make the uptake of VCT services client friendly.

REFERENCES

- Argwings-Kodhek., and G Jayne, T.S., Nyambane (1999).** “Kenya’s Maize “Glut” Only Hurting Rich Farmers,” The East African Newspaper, January 18-24, 1999, p. 19.
- Central Bureau of Statistics (2006)** www.cbs.go.ke. Kenya facts and figures 2006. Nairobi , Kenya, Central Bureau of Statistics.
- Center for Disease Control (2007).** www.cdc.gov/HIV/topics/perinatal/resources/factsheets/perinatal. Mother-to-Child (Prenatal) HIV Transmission and Prevention. Atlanta, USA, Centers for Disease Control and Prevention, 1600 Clifton Rd, GA 30333.
- Food and Agriculture Organization (1996)** HIV/AIDS and the Commercial Agricultural Sector of Kenya Impact, Vulnerability, Susceptibility and Coping Strategies. Rome, Italy, The Population Programme, Women and Population Division, Sustainable Department of FAO, Viale delle Terme di Caracalla, 00100.
- Food and Agriculture Organization (2004)** FAO HIV/AIDS programme 2004, Measuring impact of HIV/AIDS on rural livelihoods and food security. Rome, Italy, FAO.
- Government of Kenya (1997).** Sessional Paper No. 4 on HIV/AIDS Nairobi, Kenya, Ministry of Health.
- Government of Kenya (2004).** GoK Strategic Plan, 2004. The Kenya National HIV/AIDS Strategic Plan. [Nairobi], Kenya, Ministry of Health, National AIDS and STD Control Programme.
- Hancock, J., Nalo, D., Aoko, M., Mutemi, R., Clark, H. and Forsythe, S (1996).** The Macroeconomic Impact of HIV/AIDS in Kenya. International Conference on AIDS. Int Conf AIDS. 1996 Jul 7-12; 11: 48 (abstract no. We.D.360). AIDSCAP, Arlington, VA, USA. Fax: 703.516.9781.
- International Labour Organization (2008). 14-16 April 2008-** Washington D.C., USA ILO/USDOL International HIV/AIDS Workplace Programme Annual Review Meeting. Port of Spain, ILO Sub Regional Office for the Caribbean.
- Jamie (2008).** The differences between HIV-1 and HIV-2; Two strains of the virus that causes AIDS. September 21, 2008. Jamie Robertson AIDSIV.suite101.com.
- Kenya AIDS NGO Consortium (2006). Publication. Information Pack for People Living with HIVand AIDS on Human Rights;** HIV and AIDS related Stigma and Discrimination at its worst. Nairobi, Kenya, KANCO.
- Kenya Demographic and Health Survey (2003).** Executive Summary Pp Xviii-Xxi Kenya Demographic and Health Survey Pg 136-145. NASCOP AIDS in Kenya. Nairobi, Kenya, Ministry of Health.

Kenya National AIDS Strategic Plan (2005/06-2009/10). National HIV/AIDS Monitoring and Evaluation Framework 2004. Nairobi Kenya, NACC

Kenya National AIDS Strategic Plan (2006). The Kenya National HIV/AIDS Strategic Plan (KNASP 2005/06-2009/10) Nairobi Kenya, NACC

Kothari, C.R (2003). Research Methodology. New Delhi: Wishwa Parkasha. Koul, L. (1992). **Methodology in Educational Research.** Delhi: Vikas Publishing House.

Loewenson and Whiteside (1996). Epidemiology in the era of globalization: skills transfer or new skills. Harare, Zimbabwe: CFB Nhachi and OMJ Kasilo. University of Zimbabwe Press.

Ministry of Health (2005). AIDS in Kenya: Trends, interventions and impacts, 7th Edition. Nairobi, Kenya, NACC.

Ministry of Health (2006). www.AIDSkenya.org. Kenya AIDS Indicator Survey. Republic of Kenya (2005) Ministry of Health Behavioural Surveillance Survey Summary Report, HIV/AIDS and Sexually transmitted infection in Kenya. Nairobi, NASCOP.

Mugenda, Olive. M. and Mugenda, Abel. G. (1999). Research Methods: Quantitative and Qualitative Approaches (English) / Nairobi, ACTS.

National AIDS Control Council (2000) The Kenya Naitonal HIV/AIDS Strategic Plan 2000-2005; Popular Version. Nairobi, NACC.

National AIDS Control Council (2006) Kenya AIDS Indicator Survey (KAIS) ORCE. Nairobi, Kenya NACC.

National AIDS Control Council (2008) United Nations General Assembly Special Session on HIV and AIDS. National AIDS Control Council, Office of the President, Kenya. 2008. UNGASS 2008 Country Report for Kenya. Nairobi, Kenya, NACC.

National AIDS Control Council (2009). Kenya HIV Prevention Response and Modes of Transmission Analysis. Kenya National AIDS Control Council, World Bank Global HIV/AIDS Program, UNAIDS, March 2009. Nairobi, Kenya, NACC.

NASCOP (2005) Republic of Kenya (2005) Ministry of Health; Behavioural Surveillance Survey Summary Report, HIV/AIDS and Sexually transmitted infection in Kenya. Nairobi, NASCOP.

NASCOP (2007) Kenya AIDS Indicator Survey (KAIS). Nairobi, NASCOP.

NASCOP (2008) Kenya AIDS Indicator Survey (KAIS). Nairobi, NASCOP.

Orodho J.A. (2004) Techniques of Writing Research Proposals and Reports in Education, Masda Publishers.

Singleton, Jr., R.A., Straits, B.C., & Straits, M.M. (1993) Research Methods in Social Sciences Approaches to social research. Oxford University Press: New York.

Topouzis (2003). Addressing the Impact of HIV/AIDS on Ministries of Agriculture: Focus on Eastern & Southern Africa. Rome, FAO/UNAIDS.

United Nations (2004) Impact on AIDS, Development of HIV/AIDS, Department of economic and Social affairs and Population 2004. New York, United Nations.

United Nations (2008) <http://hdr.undp.org/en/reports/global/hdr2007-2008/>. ... United Nations Development Program. HIV/AIDS and poverty reduction strategies-policy ... Economic effects of HIV and AIDS. Household expenditure-related effects. New York, United Nations.

UNAIDS (2002). Report on the global AIDS epidemic. Geneva, UNAIDS

UNAIDS (2004). Report on the global AIDS epidemic. Geneva, UNAIDS

UNAIDS (2005). Report on the global AIDS epidemic. Geneva, UNAIDS

UNAIDS (2006). www.kff.org/HIVAIDS/ Report on the Global AIDS Epidemic; “The Impact of HIV/AIDS on Labor Productivity in Kenya.

UNAIDS (2008). report on the global AIDS epidemic Geneva, UNAIDS

USAIDS (2005). data.unAIDS.org. Measuring HIV Stigma. Geneva, UNAIDS

WHO (2007) WHO programmes on HIV/AIDS update.
www.who.int/mediacentre/news/releases/2007/pr61/en/index.html

World Bank (2007). World Bank Indicators Data Base; World Bank.

Appendix I: Map of Nairobi

Appendix II: Structural Interview Schedule Questionnaire

**QUESTIONNAIRE ON KNOWLEDGE, ATTITUDE, BELIEF, PRACTICES,
PERFORMANCE AND VCT**

This questionnaire is presented to you by M/s Florence Kinyanjui in partial fulfillment of a Master of Public Health at Kenyatta University. The details filled out in this questionnaire shall remain confidential. You are not obliged to fill this up, and you are free to withdraw from the exercise at wish.

Place of residence.....

Division.....

Site.....

Interviewer

Name

Codes

Date of Interview.....

Personnel/socio Demographic Characteristic

Professions/Occupation

How long have you been in the station?

How long have your worked?

Q1.1 sex of respondent

Male

Female

Age in years 18-30 31-40 40-50 above 50

Q1.2 How Many wives do you have now?

(For married men)

Q1.3 How many of these wives

- (a) Never married before. No.....
 - (b) Did you marry as divorcee?
 - (c) Did you marry after being widowed?
 - (d) Did you inherit?

Q1.4 How many wives does your husband have? (for married women) No.....

How many of these wives

- (a) Were never married before number.....
 - (b) Were married after having been divorced.....
 - c) were never married after having been widowed.....
 - (d) Were inherited.....

Q1.5 What is the highest level of education?

Primary

Secondary

- | | |
|---------------|--------------------------|
| Diploma | <input type="checkbox"/> |
| Degree | <input type="checkbox"/> |
| Post graduate | <input type="checkbox"/> |

Q1.6 Where else outside this district have you lived in the last 12 months?

Q1.7 What kind of work do you do other than official work?

SECTION 2: KNOWLEDGE

Q2.1 Have you ever heard of HIV and AIDS?

Yes No No response

Q2.2 How does someone become infected with HIV and AIDS (more than one answer possible?)

1. Through sexual intercourse with infected partner.
2. Through transfusion with blood from a person infected with HIV and AIDS.
3. Through injection with contaminated needles.
4. Through physical contact with person with HIV and AIDS.
5. Through the will of God
6. Through mosquito bites.
7. Don't know.

Q2.3 What can a person do to prevent himself/herself from getting infected with HIV (more than one answer is possible)

- Use condom consistently.
- Be faithful to one another.
- Avoid injection with non-sterile needles.
- No sex at all (abstain)
- Pray to God
- Nothing at all.
- I do not know

Q2.4 Can a pregnant woman infected with HIV/AID transmit it to her child?

Yes

No

Don't know

Q2.5 If yes what can she do to reduce the risk of transmission of HIV to her live-born child?

Take medication don't breast feed don't know

Q2.6 How can someone find out if she/he is infected with HIV?

- (a) Lab testing
- (b) signs and symptoms
- (c) asking a doctor
- (d) Don't Know

Q2.7 Have you ever heard or seen a condom.

- (a) Heard
- (b) seen
- (c) Neither seen or heard.

Q2.8 Where did you obtain information of HIV and AIDS.

- (a) Health workers
- (b) friends
- (c) books/posters
- (d) Radio
- (e) seminar

Q2.9 Is there any cure for HIV and AIDS

Yes No Don't know

Q2.10 If yes, HIV and AIDS can be cured by.

(a) Taking medicine (b) praying to God

(c) Others specify.....

SECTION 3: ATTITUDE

Q3.1 Use of condom by staff who want to have sex should be discouraged.

(a) Strongly agree (SA) (b) Agree (A) (c) Neutral (N)

(d) Disagree (D) (e) strongly disagree (SD)

Q3.2 Transmission of HIV will still occur even when condoms are used when having

sex; SA A N D SD

Q3.3 Legal partner can use condom

SA A N D SD

Q3.4 Person with HIV and AIDS should be cared for by their family members until they die.

SA A N D SD

Q3.5 The following things should be done in caring for and supporting HIV infected and AID patients.

➤ Arrange for counseling services.

SA A N D SD

➤ Changing and washing soled bed sheets and clothing of a person infected with HIV.

SA A N D SD

➤ Help the sick (HIV infected) to keep his/her wounds covered with bandage/clothing.

SA A N D SD

- Help clean split blood from infected person with disinfectant.

SA A N D SD

- Keeping HIV infected person comfortable and protecting them from problems that can make them feel worse.

SA A N D SD

- Keeping them within employment as long as possible.

SA A N D SD

Q3.6 All sexually active people (including yourself) should get a confidential test to find out if they are infected with HIV and AIDS.

SA A N D SD

Q3.7 all people who want to get married (or remarrying) should have HIV testing.

SA A N D SD

SECTION 4: BELIEF(S)

Q 4.1 A health looking person can be having HIV infection.

SA A N D SD

Q 4.2 Who do you think is at risk of getting infected with HIV and AIDS?

- (a) Prostitutes (b) person with many partners
- (c) Town dwellers (d) Young people
- (e) those in close contact with infected person.

Q 4.3 what are your chances of getting HIV and AIDS.

- (a) No chance (b) good chance (c) do not know
- (d) Others specify

Q 4.4 If none why do you think that you have no risk of getting HIV and AIDS?

- (a) Use condom (b) No injection (c) No blood transfusion
- (d) I am faithful to my partner (e) I abstain from sex totally

Q 4.5 Do you think you need to change your behaviour /practice(s) in the future in order to reduce your risk of becoming infected with HIV (or infecting others)

- (a) Yes (b) No (c) Don't Know

Q 4.6 Give reasons for your answer.....

.....
.....

SECTION 5: PRACTICE

Q 5.1 How can people reduce their risk of becoming infected with HIV.

- Having a good diet
- Avoiding unnecessary blood transfusion
- Avoiding touching persons who have AIDS
- Remaining faithful to legal partner
- Avoiding being bitten by mosquitoes
- Abstaining completely from sex
- Making sure any injection you have is sterile
- Avoiding contact with blood or secretion from dead or living persons.

Q 5.2 Where can somebody obtain condoms when needed?

1. From shops
2. Health facility
3. Pharmacy/chemist
4. Others specify

Q 5.3 Can you afford to buy a condom every time you need one?

- (a) Yes (b) No (c) Don't Know

SECTION 6: PERFORMANCE

Q 6.1 Is there anyone in your office who has died in the past 12 months?

Yes No

If yes to the previous question, how many have died?

Q 6.2 For how long was the person(s) sick to the extent of being unable to perform own duties before passing away to

1 month 2 months 3 months More than 3 months

Q 6.3 Can you please describe the nature of the illness before death?

- | | | |
|----|------------------------|--------------------------|
| 1 | Accident | <input type="checkbox"/> |
| 2 | Pneumonia | <input type="checkbox"/> |
| 3 | Typhoid | <input type="checkbox"/> |
| 4 | Tuberculosis | <input type="checkbox"/> |
| 5 | Fever | <input type="checkbox"/> |
| 6 | Malaria | <input type="checkbox"/> |
| 7 | Diarrhoea | <input type="checkbox"/> |
| 8 | Wasting and HIV & AIDS | <input type="checkbox"/> |
| 9 | STIS | <input type="checkbox"/> |
| 10 | Skin diseases | <input type="checkbox"/> |
| 11 | Witchcraft | <input type="checkbox"/> |
| 12 | Brucellosis | <input type="checkbox"/> |
| 13 | Abdominal Pain | <input type="checkbox"/> |
| 14 | Others specify | |

Q 6.4 Was the deceased person admitted to hospital for at least one day any time during the 12 months before her/his death.

Q 6.5 How frequent do you move on duty outside your office in an year?

Once two times three times four times

Others: Specify.....

Q 6.6 How long do you stay away from your family. 2-6 days

1 week to 1 month 2-4 months

Others: Specify.....

Q 6.7 Do you have a relative you stay with HIV and AIDS?

Yes No Don't Know

Q 6.8 How often do you take them to the hospital?

Once a week 3 per week 5 per week others

Q 6.9 Who pays for the medical bills?

Self Help from other relatives their employer

Q 6.10 Do you have a child/orphan whom you stay with, who depends on you due to HIV and AIDS implication/death?

Yes No Don't Know

Q 6.11 Do you stand in for a sick colleague? Yes No

Q6.12 How often do you perform their duties?

Once a month once a week twice a week
Several times

Others: Specify.....

Q6.13 How many times have you attended funeral and burial services in the last three months?

Once twice 3 times more than 3 times

Q 6.14 How many of these were HIV and AIDS related deaths?

1 2 3 More than 3

Q 6.15 How many of these burial services were of colleagues?

1 2 3 More than 3

Q 6.16 How many of these were of your relatives?

1 2 3 More than 3

Q 6.17 How often do you get funeral/burial contribution list per month?

Once 2 3 More than 3

Q 6.18 Among these are for:

Neighbours colleagues relatives

SECTION 7 : VCT

Q7.1 Have you heard of VCT services? Yes No

Q7.2 If yes how far is the VCT from your workplace?

Q7.3 Have you ever considered visiting a VCT centre? Yes No

If No, why

- I. Fear
- II. Do not think it is necessary
- III. I am not sick
- IV. Faithful to my partner

If yes where you tested, Yes No Other

What provoked you?

After prolonged sickness

Blood donation

Job application

Appendix III: Interview Schedule for Senior Staff in MoLD

1. In your opinion, are there any challenges imposed on labour productivity by HIV and AIDS?

2. What do you think could be the main cause/factor affecting labour productivity?
 - i)
 - ii)
 - iii)

3. What are some of the effects of these factors affecting labour productivity?
 - i)
 - ii)
 - iii)

4. Are there any reforms you feel can help in mitigating the adverse effects of HIV and AIDS on labour productivity?
 - i)
 - ii)
 - iii)

Appendix IV: Ethical Clearance