

**MODERATOR FACTORS IN THE INFLUENCE OF POST HIV/AIDS  
EDUCATION ON HIV/AIDS AWARENESS AND MYTHS AMONG  
PRIMARY SCHOOL TEENAGERS IN KENYA;  
ELDORET MUNICIPALITY**

**BY**

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## DECLARATION

### DECLARATION BY THE CANDIDATE.

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

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## **DEDICATION**

This work is dedicated to God and my family, my husband, Rev. A. Watindi, whose love and great faith in God was my main source of strength and motivation during the entire period of my study. Our daughter Melissa and sons Clive and Michael who were such an inspiration

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**LIST OF ABBREVIATIONS AND ACRONYMS**

1. DFID -Department for International Development
2. KNAP -Kenya National AIDS Programme
3. NASCOP -National Aids/STD Control Programme
4. UNAIDS -United Nations Agency for International Development
5. UNESCO -United Nations Educational Scientific and Cultural Organization
6. UNICEF -United Nations Educational Scientific and Cultural Organization

## ABSTRACT

This study investigated the moderating factors in the influence of HIV/AIDS education on the level of HIV/AIDS awareness among primary school teenagers in Eldoret municipality and the myths that the students have concerning HIV/AIDS. The study was guided by the Social Learning Theory of Bandura (1977) which asserts that learning occurs when individuals observe and imitate others' behaviour. In this regard schools and society provide models for teenagers thereby increasing or distorting their knowledge of HIV/AIDS.

The study used the survey and comparative designs. Stratified and random sampling techniques were employed to select 14 schools with more than 40 students in class eight and 280 students who represented 28% of the teenage students in both the public and private schools. Data was collected using questionnaires administered to selected students and the results obtained for analysis. A reliability coefficient of  $r = 0.83$  was obtained through pre-testing the questionnaire. Data was analyzed with the level of significance used for t-tests at  $p > .05$ .

A significant difference in HIV/AIDS awareness between males ( $m=140$ ) and females ( $m=140$ ) was found,  $t(278) = 1.06$ ,  $p < .05$ , in HIV/AIDS awareness between private and public schools,  $t(278) = 7.08$ ,  $p < .05$ , in HIV/AIDS myths between private and public schools,  $t(278) = 6.45$ ,  $p < .05$  and in HIV/AIDS awareness between high and low socio-economic status,  $t(278) = 4.18$ ,  $p < .05$ . No significant difference was found between HIV/AIDS myths by gender,  $t(278) = .85$ ,  $p > .05$  and HIV/AIDS myths by socio-economic status,  $t(278) = .33$ ,  $p > .05$ . The study therefore recommended the need to increase HIV/AIDS awareness among students in primary schools, investigate the information related to HIV/AIDS being offered in schools and ensure its implementation.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Overview**

This chapter contains the contextual background information of the study problem, purpose, objectives, research questions, hypothesis, justification and significance of the study. It also contains the scope, limitations, assumptions, theoretical framework, and operational definitions of terms used. The contents of these subtopics are designed to discuss the factors that moderate the influence of HIV/AIDS education on HIV/AIDS awareness and misconceptions among teenagers in primary schools in Kenya with emphasis on Eldoret Municipality.

#### **1.1 Background to the Problem**

Acquired Immune-deficiency Syndrome has become the leading cause of death in Africa and the fourth most common cause of death in the world (United Nations, 2005). It is estimated that 40 million people are living with the Human Immune-deficiency Virus (HIV) and that 1400 people are infected daily, with 8000 people dying every day of AIDS. Terrece (March, 2002) noted that more than half of the infections are in young people aged between 15 and 25. AIDS is the disease caused by HIV, which weakens the body's immune system until it can no longer fight off the simple infections that most healthy people's immune system can resist or control. Such infections are called "opportunistic infections" (pg. 9).

The HIV is found in body fluids such as blood, breast milk, semen, vaginal fluids and saliva. Once the virus infects a person, it becomes part of the person's genetic formation. This allows the virus to survive inside the person and attack and slowly

destroy the immune system of the body (Kenya Institute of Education, 1999). A person is described as having AIDS when the HIV related immune deficiency is so severe that various life threatening infections occur. These infections are called “opportunistic diseases” because they take the opportunity provided by the lowered immune state to attack the body (Kenya Episcopal Conference, 2000).

In 1999, AIDS was declared a national disaster by then the president Daniel Moi. He noted that 700 people were succumbing to the disease daily with an estimated 1.5 million already dead and another 2.2 million estimated to be living with HIV. Macharia (July, 2002) was quoted as saying that AIDS is a threat to educational plans. “The HIV scourge is a major threat to the ministry of education’s goal of offering quality education to all learners. The scourge has rendered many pupils orphans and killed many teachers” (pg.15). Cohen (2002) noted that the pandemic was currently systematically eroding the capacity of education sectors in many countries within the region.

Sangiwa (2005) noted that there is need to strengthen the resource poor countries, where 95% of new HIV infections occur. Majority of people are unaware of their HIV status. The HIV/AIDS disease has not spared school children, teachers and officials in education. It is imperative that people are reminded time and again that there is no cure for AIDS. The menace is very real. It can only be kept at bay through a sustained awareness and behavioral change campaign. The system in the country is adversely affected by the pandemic whose spread needs to be controlled. This has become a security and socio-economic problem in the country, therefore the need to sensitize managers of education who are responsible of 60% population in the country.

For over 15 years, HIV/AIDS was considered to be a medical problem and was therefore left to the ministry of health. However, it has become clear that prevention is essential and that education might be the only weapon against HIV transmission especially among the sexually active population. This has called for education planners to become more involved in prevention campaigns.

The development of education and training has come to be regarded as a vehicle that promotes social and economic development. Education is important because it instills knowledge, skills and attitudes. It is also viewed as a means to improve the quality of life because it alleviates poverty, ignorance and disease. This fulfills one of the objectives of Kenya education is to provide for full development of an individual's talents and personality (Ministry of Education, 2001).

Due to the importance of education in life, the ministry of education took the challenge and introduced HIV/AIDS education in schools and colleges in 1999 upon the realization that the school going age has been ignored in the past in the fight against AIDS. They released a variety of books for various classes aimed at guiding educators in creating AIDS awareness in both primary and secondary schools.

Nwoye (1994) however, cautions that more hurling of information at people is not the only thing that is needed as there is a vital need too, to monitor the way people are taking those messages or in particular their own vision of what they have heard. This is so that if necessary, the wrong impression that may have been created in the minds of the people regarding the nature of disease can be checked and if need be corrected.

In view of the above, educational expectations and good moral behavior, all educational programmes that learners are exposed to in school, HIV/AIDS education included, must be designed to bring this change in behavior. They should involve transmission of knowledge, skills, norms and values. It is with this background that this study seeks to identify the factual information and the myths concerning HIV/AIDS that students in primary schools in Eldoret Municipality hold.

In Kenya, the youths are exposed to HIV/AIDS due to biological, socio-cultural and economic factors. The high rates of teenage pregnancies, abortions, school drop outs and sexually transmitted disease confirm that the youth are engaging in early sexual activities and are increasingly predisposed to HIV/AIDS (Research of Kenya., 1997).

Current reports show that the effect of the steps taken, to put this disease to a halt are not successful, education included. A UNESCO (2005) cluster consultation on HIV/AIDS education held in Mombasa gave their views explaining that, during the quarter century that has passed since the medical profession was confronted with this strange new disease, it has grown to nightmarish proportions, with almost every passing year seeing a revision upwards of dire estimates and predictions. The challenge today is to put a halt to this obscene growth of the disease, to say to it in forceful action-backed terms to have it go no further. But so far global efforts are not succeeding. Currently, the epidemic would appear to have the upper hand. It is rampaging through new populations. Global prevalence levels continue to rise. Behaviour change programmes have not brought much success.

At a special United Nations meeting in New York in June 2005, the former UN Secretary General, Mr. Kofi Annan, acknowledged that “the world is losing the AIDS fight. AIDS is expanding at an accelerating rate in every continent. Treatment and prevention efforts are nowhere near enough.” Speaking at the same meeting, Dr. Peter Piot, the Executive Director, Joint United Nations Programme on AIDS UNAIDS (2005), admitted that without an exceptional response from the world’s leaders and peoples, the epidemic would defeat them.

The most recent survey by the UNAIDS (2008) Report on the Global Aids pandemic released in New York and South Africa showed that Kenya has climbed down from the list of most successful countries in Africa, in controlling the spread of HIV/AIDS. The report coincided with another launched in Nairobi, the 2007 Kenya AIDS indicator survey. Both agreed that the prevalence is on the rise at 7.1%, up from 5.1% in 2007. This is due to complacency in fighting the disease and an alarming lack of care about how to prevent this terrible infection (UNAIDS 2008). This report is sending a new wave of interest in finding out the HIV/AIDS information held on the ground by teenagers in primary schools and that which is not correct about this knowledge.

Myths, misconceptions, superstitions and stereotypes are considered as part of the causes of the need for HIV/AIDS education. This is information that is incorrect as referred to in the primary school curriculum. Some of the myths found among young people in and out of school include information such as; AIDS patients are always thin. AIDS is a disease that affects married people only, a person who has no symptoms can not infect you and AIDS does not exist. Living with infected people



under the same roof can spread AIDS and friends are the best source of HIV/AIDS information. Views such as AIDS is a curse, is caused by strong witchcraft, can be cured through sex with a virgin, affects immoral people only and the patients are always thin are also myths held by teenagers. Because of the need to correct these myths, by providing the correct knowledge on HIV/AIDS, the Ministry of Education has addressed these misconceptions to give correct information and help fight the scourge.

As a response to these gaps identified, this study seeks to report on research that is attempting to understand how lack of clear awareness of HIV/AIDS and wrong information about HIV/AIDS may be serving as a barrier to teenage HIV/AIDS education objectives in Eldoret Municipality

## **1.2 Statement of the Problem**

Educational programmes that target behaviour change should be initiated and promoted beyond the awareness levels. According to Tonks (1996), “Adolescent AIDS” has been a subject of relatively little attention yet the face of AIDS is increasingly becoming young.

The joint UN agency for HIV/AIDS (UNAIDS, 2002) noted that, half of all new HIV infections around the world occur among young people between the ages of 15 and 25. . UNAIDS estimates that in 1999 alone 570,000 children under the age of 15 years became infected while by the end of that year, these are mostly in primary schools, one third of the 33 million people in the world living with HIV were young people aged between 15 and 25 years.

The focus on young people is also pegged on the fact that they form a large proportion of population. In sub-Saharan Africa school age population of more than 230 million accounted for over 30% of its people (UNAIDS, 1999). Therefore, it is a commendable effort on the part of the Government of Kenya to introduce HIV/AIDS education in schools. This means that a good number of teenagers may have mastered the basic information about AIDS including the fact that AIDS has no cure, how the virus is spread, signs and symptoms and prevention but there is little or no change in sexual behaviour. Based on these negative possibilities and growing misconceptions among teenagers on the issue of HIV/AIDS, the present study will thus investigate the extent to which teenage students in primary schools are aware of HIV/AIDS information and the gender, school type and socio-economic, factors limiting the acquisition of the information.

### **1.3. The Purpose of the Study**

The purpose of this study was to investigate the moderating factors in the influence of HIV/AIDS education on HIV/AIDS awareness and myths among teenagers in Eldoret Municipality primary schools using survey and comparative research design, with a view to improving the teaching of HIV/AIDS education in primary schools in Kenya.

### **1.4 Objectives of the Study**

The specific objectives of the study were as follows:

1. Investigate the level of HIV/AIDS awareness among primary school teenagers in Eldoret Municipality.

2. Investigate the level of HIV/AIDS myths among primary school teenagers in Eldoret Municipality
3. Investigate the difference in level of HIV/AIDS awareness between primary school teenage boys and girls in Eldoret Municipality
4. Investigate the difference in level of HIV/AIDS awareness between primary school teenage boys and girls in Eldoret Municipality
5. Determine the difference in level of HIV/AIDS awareness between low socio-economic status and high socio-economic status primary school teenage pupils in Eldoret Municipality
6. Determine the difference in level of HIV/AIDS myths between low socio-economic status and high socio-economic status primary school teenage pupils in Eldoret Municipality

### **1.5 Research Questions**

The following research questions guided the study

1. What is the level of HIV/AIDS awareness among primary school teenagers in Eldoret Municipality?
2. What is the level of HIV/AIDS myths among primary school teenagers in Eldoret Municipality?
3. Is there a significant difference in level of HIV/AIDS awareness between primary school teenage boys and girls in Eldoret Municipality?
4. Is there a significant difference in level of HIV/AIDS myths between primary school teenage boys and girls in Eldoret Municipality?
5. Is there a significant difference in the level of HIV/AIDS awareness between primary school teenage pupils in public schools and private schools in Eldoret Municipality?

6. Is there a significant difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and private schools in Eldoret Municipality?
7. Is there a significant difference in level of HIV/AIDS awareness between low socio-economic status and high socio-economic status primary school teenage pupils in Eldoret Municipality?
8. Is there a significant difference in level of HIV/AIDS myths between low socio-economic status and high socio-economic status primary school teenage pupils in Eldoret Municipality?

### **1.6 Research Null Hypotheses**

The following hypotheses in the null form were statistically tested to achieve the objectives and to answer the research questions.

- Ho1 There is no significant difference in level of HIV/AIDS awareness between primary school teenage boys and girls in Eldoret Municipality.
- Ho2 There is no significant difference in level of HIV/AIDS myths between primary school teenage boys and girls in Eldoret Municipality.
- Ho3 There is no significant difference in the level of HIV/AIDS awareness between primary school teenage pupils in public schools and private schools in Eldoret Municipality.
- Ho4 There is no significant difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and private schools in Eldoret Municipality.
- Ho5 There is no significant difference in level of HIV/AIDS awareness between low socio-economic status and high socio-economic status primary school

teenage pupils in Eldoret Municipality.

Ho6 There is no significant difference in level of HIV/AIDS myths between low socio-economic status and high socio-economic status primary school teenage pupils in Eldoret Municipality.

### **1.7 Justification of the Study**

The recent report by UNAIDS (2008) on the Global Aids pandemic indicates a rise in HIV prevalence by almost 3 per cent above the figures received in the past year. Yet no research has been carried out to investigate how the influence of post HIV/AIDS education given, was able to help the students in primary schools face and overcome challenges posed by HIV/AIDS and change in behaviour.

Though HIV/AIDS education comprises of a very important role in molding students' acceptable morals, which are a prerequisite to academic excellence and prevention of future health difficulties, questions keep on arising as to why HIV/AIDS infections are on the rise, and the nature of it is complex. This points to the fact that something is amiss in regard to the manner of service delivery, the providers or recipients of the same services. Mutie and Ndambuki (1999) argue that, it is up to the educational institutions to provide preventive, remedial, developmental and liberative educational guidance to young people, so that they can make realistic educational guidance plans for their future. The learners seem to be in need of something more about the awareness of HIV /AIDS so as to know their present position and future dangers that they face so as to adjust to the challenges they face appropriately.

Following the declaration of HIV/AIDS as a national disaster, the Education Ministry embarked on preparation of syllabi and accompanying instructional materials suitable for all the institutions. The implementation of this curriculum has already started in the year 2000. However, this particular Ministry requires support from partners to facilitate the in- servicing and teaching of the disastrous disease in the institutions of education countrywide. A number of NGOS have been carrying out the in servicing of teachers. They are not coordinated and need to be coordinated by the Ministry in charge of education, Science and Technology.

Currently about 2000 teachers have been in-serviced by the Government, NGOS, and other institutions. This number is minimal compared to the 240,000 teachers nationally who need the training in order to provide the appropriate knowledge on HIV/AIDS effectively.

No research has been carried out among teenage students in Eldoret primary schools on post- HIV/AIDS education level of awareness. Most studies on HIV/AIDS focus on its effects and implementation of the program in schools.

It is due to these deficits in provision of required information and un ignorable reasons that this study will investigate whether HIV/AIDS education in primary schools is effective in instilling correct knowledge of HIV/AIDS among teenagers in primary schools for behaviour change, the factors that limit its influence and whether the correct information is used by the learners as expected, so that the education sector can achieve its long and short term goals and objectives.

### **1.8 Significance of the Study**

The significance of this study follows from the fact that it is intended to generate data that will help enlighten policy makers, educators, social workers and counselors on the extent to which students have or have not been sufficiently educated on issues about HIV/AIDS pandemic.

Since HIV/AIDS is not a new subject in Kenyan schools, there is relatively much written literature on it. What is lacking is empirical data on any of its various aspects such as evaluation of its implementation and its influence on behavioral development and change among the young.

Thus it is hoped that the evaluation of moderator factors in the influence of HIV/AIDS education awareness in primary schools will provide useful information which will form a basis for further improvement of the programme and create an avenue for further research in the area.

This will lead to improvement whereby necessary adjustments in HIV/AIDS education will benefit the youth by availing proper information. The youth will acquire necessary knowledge and attitudes to avoid being infected. Focus will be on change in behaviour.

The findings from this study are designed to establish the common factors that limit the influence of HIV/AIDS education on the awareness of primary school teenage in Eldoret. This will help in designing programmes that will be easily understood by all school type, gender and socio-economic status.

The study findings and recommendations are an added resource and reference for future readers and researches.

### **1.9 Scope of the Study**

This study was restricted to factors that limit the influence of HIV/AIDS education on HIV/AIDS awareness and HIV/AIDS myths among teenage students in Eldoret Municipality primary schools. It was conducted between May and June 2009. The research population of the study was standard 8 students in the primary schools. The study restricted itself to only three moderating factors namely gender, type of schools and socio-economic status. A survey and comparative research designs were used in the study. The main focus was the HIV/AIDS knowledge acquired up to class 8. Data was collected by the researcher using questionnaires. The study investigated the influence of the moderating factors on the level of awareness of HIV/AIDS education among primary school teenagers and the HIV/AIDS myths among them.

### **1.10 Limitation of the Study**

The study used a descriptive survey and comparative design to investigate the influence of the moderating factors on the level of HIV/AIDS awareness among teenage students, this was limited by the kind of variables that were studied. Despite the weakness of comparative design, most of non-experimental researches done in education are because the problems do not lend themselves to research that can be experimented, (Kerlinger 1986)



The results of the study were generalized to all schools in Kenya, different geographical locations and student characteristics were considered yet the school population used was only class 8 students in schools in Eldoret Municipality.

Data judgment from this data may be biased and contain attitudinal sets of respondents that may result into distorted conclusions. However a large sample size was used to take care of this.

Due to the influence that adolescents have towards one another through Bandura's (1977) social learning theory, interaction with people who have varied information and media or other social influence results into wide spread effects. This made it difficult to use students from a control group that have been affected by the school on program on HIV/AIDS education only. As such, it was necessary to compare students from low economic status with those of high economic status.

The self report questionnaire did not completely eliminate the Hawthorne effect since the results could be compromised. There was no opportunity of probing the respondents beyond the responses they gave or verify whether they had seen the items in the questionnaire before responding. Therefore the answers had to be accepted as final, so the various answers cannot be regarded as independent (Moser and Kalton, 1971).

### **1.11 Assumptions of the Study**

The results of the study were based on the following assumptions:

- i. The respondents were cooperative during the course of this study and were able to give required information without any reservation.
- ii. The three moderating factors were the only factors influencing post- HIV/AIDS and awareness, and the responses given by the respondents were the true reflections of their economic status and knowledge.
- ii. HIV/AIDS education was given in all schools.

## **1.12 Theoretical Framework**

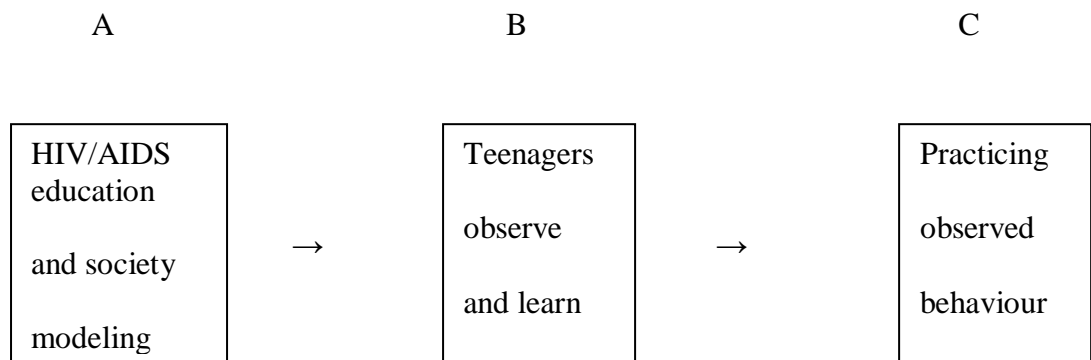
This study was based on two social behaviour theories; the Social learning theory (Bandura 1977) and Self Regulation Theory (Leventhal, 1998). The two theories compliment each other since the behaviour learnt from the environment through social learning theory leads to change in behaviour as explained by the self regulation theory.

### **1.12.1 Social Learning Theory**

The study was based on the social learning theory advanced by Bandura (1977). According to the theory through most of ones life, including teenage period, one will be learning. Parents try to socialize children by teaching them the interpersonal behaviours that are appropriate, which are forbidden and which depend upon circumstances. Bandura (1976) emphasizes behaviour modeling provided by parents, by observing and imitating other people's behaviours. Learning takes place but it cannot adequately account for the emergence of novel social behaviours, Bandura and Walters (1976).

Children depend on their models for behaviour for the desired awareness. Through observing their parents and others in the society a child learns behaviour and also acquires the motivation to perform the behaviour or avoid performing the behavior, depending on the consequences expected from the behaviour. This is represented in figure 1

**Fig.1 Learning by Observation or Modeling**



A- Represents the modeling or demonstration of the behaviour which is expected:

HIV/AIDS education and people in the society.

B- Represents teenage students observing or listening to the demonstrated behaviour: students being taught.

C- Represents teenage students practicing the observed behaviour: the behaviour learned after observing the society and listening in school.

The concept of social learning extends the relevance of a model's behaviour as guiding the behaviour of others. Parents, peers and older siblings, teachers and others may be the models. The approach to personality stresses the interaction between a person's thoughts and expectations and factors in the environment. According to this concept, people view events in

terms of possible outcomes, assess how valuable those outcomes are, judge their own abilities to deal with situations and select the actions to take accordingly.

Children from different socio-economic status get into diverse experiences. Those from families of high social economic status experience environment in which books are available and even money for extra tuition, while children from low economic status are not exposed to such. The socio-economic status affects the level at which parents can be involved in their children's availability of education, thus moderating the level of awareness in education.

Parents model their children's types of skills and education outcome by their occupation. This has an influence on the level of awareness Learning environment, school type and student perception of HIV/AIDS education. Level of awareness might also be related to parents' education. Children from affluent families tend to attend private schools that provide a more comfortable environment than those from less affluent families, thereby they might have low HIV/AIDS education level of awareness

### **1.12.2 The self Regulation Theory**

The self-regulation theory is credited to Leventhal (1998). Generally, human beings recognize behaviors that are harmful to their health by a careful study of its effects. Therefore, this theory states that people are motivated to regulate their behaviors to avoid health dangers that may result directly from their social behavior. Usually people actively extract information from their environments and previous experiences to formulate plans and actions to cope with health threats.

Applied to this study, the self regulating theory indicates that, faced with the threat of HIV/AIDS, students will consistently regulate their sexual behaviours so that they can avoid contracting the disease. Students are also most likely to listen and utilize information provided by HIV/AIDS education programme in schools and other sources of information from their environment. This information enables the students to make appropriate decisions, formulate plans and undertake responsible actions to cope with the health threats of the HIV/AIDS epidemic.

### **1.13 Operational Definition of Terms**

The terms used in this study were defined operationally as follows:

**Moderator Factors:** These were conditions or circumstances that act by increasing or reducing the influence of HIV/AIDS education on the level of awareness and the level of HIV/AIDS myths held by teenage students in primary schools in. In the study, moderator factors were gender, socio-economic status and school type, which are operationally defined in the following sections.

**Influence:** this is the power to affect somebody's actions, character or beliefs especially by providing an example for them to follow, or by winning their admiration. In the study it referred to the effect of gender, school type and socio-economic status, and the HIV/AIDS education on the level of awareness of students.

**Gender:** In the this study gender was determined by the choice of male or female as indicated on the questionnaires in the instrument by the respondents. Girls and boys were separately determined by their own choice of sex.

**School Type:** School type in the proposed study referred to category of schools. There were two kinds of schools in this study. Government owned and sponsored

schools also known as public schools, and privately owned and sponsored schools also known as private schools.

**Socio-economic Status:** In this study socio-economic status was determined by the residential areas of the students, parent's ownership of the house and level of parent's education. Students who live in affluent areas were considered to be of high economic status while the students who live in slum areas were considered to be of low economic status.

**HIV/AIDS Education:** This is the process of imparting information about HIV/AIDS to students. In this study HIV/AIDS education variable was varied by considering the boys and girls in the private and public schools and their socio- economic status.

**HIV/AIDS Awareness:** Awareness refers to knowledge, familiarity, recognition or perception of an object. In this study, level of awareness of learners implied the level of knowledge and understanding of HIV/AIDS education integrated in the curriculum. Level of HIV/AIDS awareness was determined in this study using HIV/AIDS knowledge achievement questionnaire. The students' scores were converted from raw scores into  $t$ -scores. Cut off points were determined using the number of standard deviation. The level of awareness was then determined. Students with more than 50% scores were considered as having high level of HIV/AIDS education awareness. Students with 49% and below correct responses were considered as having low level of awareness of HIV/AIDS education.

**HIV/AIDS Myths:** Refers to incorrect information about HIV/AIDS compared to the relevant knowledge disseminated to students in schools. The level of myths about HIV/AIDS was determined by the scores achieved in the questionnaire.

Students who scored above 50% wrong responses compared to HIV/AIDS education were considered to have higher level of myths. They were deemed to have been

influenced by gender, school type and socio economic status. Low level of myths was considered as being influenced by HIV/AIDS education.

**Teenagers:** were students in primary school who are aged 13 to 19 and are mainly in class 8 according to primary school Education Programme.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2.0 Overview

This chapter reviews related literature from various sources. The theories based on the study are briefly discussed. It includes discussions and a critique of studies carried out on HIV/AIDS education awareness. General information on HIV/AIDS, the disease awareness campaigns in and outside Kenya and related literature are also highlighted from books, journals, seminar papers, newspapers and magazines. It is divided into the following parts that are relevant to the variables and objectives in the study:

- a) Historical development of HIV/AIDS.
- b) HIV/AIDS education
- c) HIV/AIDS awareness
- d) Factors moderating the influence of HIV/AIDS education awareness
- e) Myths related to HIV/AIDS

#### 2.1 Historical Development of HIV/AIDS

AIDS is an acronym for Acquired Immunes Deficiency Syndrome. It is a disease caused by a deficiency in the body immune system. The disease was first recognized in 1981 after a number of men had developed a rare pneumonia caused by a parasite pneumocystis carinii. These men were all previously healthy, between 20 and 45 years of age and homosexually oriented (Evian, 1993). Evian further says that in 1983, scientists discovered Human Immuno-Deficiency Virus (HIV) to be the cause of this new disease called AIDS. This was done by the Monta gener from the Pasteur Institute in France, and later, in 1984, by Robert Gallo and His fellow workers at the National cancer institute in the United States.



The origin to the HIV/AIDS is still a mystery. However, several theories have been advanced to explain this phenomena but none so far has been proven. Evian (1993) gives three theories to explain the origin of HIV and AIDS. The isolated community Theory says that the AIDS virus has always existed in a small isolated group of people. The deaths in that group might not have been noticed as unusual to the people and they may have developed some immunity. This virus was then passed to an outsider and HIV and AIDS spread from there.

Another theory is the “Green Monkey Theory.” This theory is a variation of the “Isolated Community Theory.” It says that the virus was present in an animal where it did not cause a disease and in some way was transferred to humans where it causes the disease. The animal referred here has been the African green monkey. The evidence that appeared to support this theory is that the virus HIV is genetically similar to a virus called Simian Immuno-Deficiency virus (S.I.V)- which was found in some monkeys kept for experiments in a laboratory in California USA (Evian 1993).

The third theory is the “Germ Welfare Theory.” This theory states that HIV was produced by the American military as a germ warfare agent. It is based on a paper published by the three German scientists in 1986. This theory has been criticized because the technology for genetic engineering did not exist in 1970’s when HIV was thought to have first started spreading. Besides, HIV would make a highly unsuitable pathogen for germ warfare as there would be no means of protecting one’s own people (Evian 1993).

Mutation theory, is another theory that attempts to explain the origin of HIV and AIDS. It says that viruses are continually changing and mutating into new strains. It seems a highly likely hypothesis that a mutation took place in a virus resulting in a new virus with deadly properties of HIV. It is impossible to telling which country the mutation first took place. Searching through the case records, it has been suggested that the first recorded cases of HIV infection found, have been in a New Orleans teenager who died with strange symptoms in 1969 and in a woman in 1959 from Zaire (UNAIDS 1999).

Although nobody has been able to pinpoint an exact origin of HIV/AIDS, these theories may have important ramification for treatment and prevention of HIV/AIDS. With the unclear understanding of where the virus came from and how it evolved, scientists have done a lot of studies in order to understand its mode of transmission, prevention and signs and symptoms in those infected.

HIV is spread in three ways namely: via sexual intercourse where body fluids, particularly semen, are exchanged, blood transfusion when HIV infected blood is passed directly into the body or through blood contaminated instruments and from mother to child during pregnancy and via breast milk (Kenya Episcopal Conference, 2000).

The development of signs and symptoms of HIV infection may take 3-7 years or even more. For a person to develop clear immune deficiency and medical conditions, his general physical health, diet and psychological well being are important. Therefore, HIV test is usually a clear way of knowing a person infected with HIV (Kenya

Episcopal Conference, 2000). The sign and symptoms of the disease include significant weight loss, persistent enlargement of lymph glands, sores or infections in the mouth, pneumonia, tuberculosis and particular cancers (MAP International, 1996).

HIV/AIDS is basically a sexually transmitted disease and it has clearly been demonstrated how the interaction of human behaviour with micro-organism can result in an epidemic of untold proportions. In recent times, AIDS has become the number one killer disease in many countries in Africa. Since HIV was first identified in 1983, over 63 million people have been infected and many of these cases are in sub Sahara Africa. By the end of the year 2000 an estimated 40 million adults and children were living with HIV or AIDS and 28.1 million (70%) of these were sub-Saharan African (UNESCO 2003). A recent study by Nkinyangi (UNESCO-NAIROBI 2003) shows that sub-Saharan Africa accounts for 10.4% of the world's population yet it accounts for 71.35% of all the HIV infections 73.3% of all AIDS related deaths, and 78.6% (11 million) of the AIDS orphans.

In Kenya, AIDS was first recognized in 1984. From only one case in 1984, the number of HIV/AIDS cases reported has been increasing. However, due to under reporting, missed diagnosis and delays in reporting, the reported cases only represent the tip of the iceberg. The valid estimates may be three times what is in the official records. Men and women are infected in almost equal proportions and 80% of the cases in the age group of 15-49 years while 10% are children under 5 years of age (MAP International, 2000). In the year 2002, the Ministry of Health released a report showing that 20 per cent of Kenyan youth are infected with HIV/AIDS virus, while an estimated million have died of AIDS (Karungu, 2002).

According to a report by UNESCO, the epidemic is more advanced in Nyanza, western and parts of Rift valley provinces where HIV prevalence rates among pregnant women are 15% - 30%. So far more than 1.5 million people have succumbed to AIDS- related deaths in Kenya with approximately 700 people dying everyday of the scourge. Today, it is estimated that more than 3 million people are HIV infected (UNESCO, 2003). The UNESCO report continues that, sexual contact accounts for up to 90% of AIDS cases in Kenya with heterosexual contact being the main mode of transmission. However, bisexual contact has been reported in some parts of the country particularly in the coast province, and among confined groups like prisoners. Mother to child transmission is growing in importance because of the high rates of HIV infections among young women. This mode of transmission, together with exposure to infected blood accounts for 10-20% of the AIDS cases in Kenya. Exposure to infected blood occurs through transfusion of blood and blood products, infection, traditional surgical practices and skin piercing where instruments are shared.

For a long time HIV/AIDS was considered to be essentially a medical problem, left to the ministry of Health, the medics and paramedics. This is however, changing as people realize the need for combined effort in dealing with the scourge. The London Declaration in HIV/AIDS prevention and control throughout the world states that in the absence of a vaccine or cure for HIV/AIDS, the single most important strategy to prevent infection and change of sexual behaviour is through information and education. Vital information about HIV/AIDS could be passed through the use of media, radio, audio and visual tapes, magazines, books, lectures and pamphlets. As a

result therefore, parents, teachers. Leaders and counselors have continually been reminded that it is through informative discussions about the disease that HIV/AIDS would be tackled (World Bank 1999).

In 1989, the ministry of education introduced Family Life Education (FLE) in the education system through a pilot project in population and FLE to a number of primary, secondary and post secondary institutions. This project focused on problems that face adolescents in their sexuality and interrelationships (KEN/88/P09 UNDF).

Though this pilot project was prospective, it raised a heated public debate that centered around the role of schools in dealing with family-life issues and reproductive behaviour. Many insisted that this was the responsibility of parents and churches. HIV/AIDS being a sexually transmitted disease may also raise similar sentiments to those concerned.

## **2.2 HIV/AIDS Education**

A survey by MAP international (2000) found that about 50% of youth in church are sexually active despite being constantly challenged to avoid pre-marital sex. On average, these teenagers had their first sexual experience at 16years. In four rural districts of the country, researchers from the center for African family studies found in 1994 that 75% of girls had their first sexual intercourse before the age of 16 and 27% before 15 years old. Through the ministry of education, the government introduced HIV/AIDS education in schools and colleges in 1999. This can be regarded as the third major step in the government's efforts to fight HIV/AIDS (Kenya Institute of Education, 1997).

### **2.2.1 The objectives of HIV/AIDS education in schools are given by KIE as**

#### **enabling the learner to:**

- i) acquire necessary knowledge, about HIV/AIDS and STD'S
- ii) Appreciate facts and issues related to HIV/AIDS and STD'S.
- iii) Develop life skills that will lead to AIDS and STD'S – free life
- iv) Identify appropriate sources of information on HIV/AIDS related issues.
- v) Make decisions about personal and social behaviour that reduce the risk of HIV and STD'S infection.
- vi) Show compassion toward and concern for those infected and affected by HIV/AIDS.
- vii) To be actively in school and out of school activities aimed at prevention and control of HIV/AIDS and STD'S.
- viii) Communicate effectively with peers and others, issues and concerns related to HIV/AIDS and STDs.

The purpose of primary schools AIDS curriculum is, therefore, to equip the students with the necessary knowledge, skills and attitudes that will enable them adopt behaviour that will help them prevent infection and spread of HIV/AIDS. In turn, the students will communicate effectively issues on HIV/AIDS to their peers and other members of society. Hence, the syllabus aims at enriching the existing curriculum by focusing more on HIV/AIDS issues (Kenya Institute of Education, 1997).

Through the Kenya Institute of Education, the Ministry of Education published the ‘AIDS Education Facilitator’s Handbook’ (1997). This together with HIV/AIDS

education syllabus and AIDS resource books indicate the government's commitment to the implementation of HIV/AIDS education in schools. Therefore it is the responsibility of the implementers to disseminate this education as the subject of this study.

It was with this kind of revelation that the Ministry of Education introduced HIV/AIDS education in schools and colleges in 1999. This was after the realization that the school going age that had been largely ignored in the past in the fight against AIDS is currently leading in the infection rate. Recognizing that young people comprise the majority of AIDS cases as reported from various hospitals and research studies, the government has provided direction. Thus this study set out to investigate the level of HIV/AIDS and the myths related to it among teenagers, since this knowledge is expected to have been taught in primary where the teenagers are.

### **2.3. Education, Awareness and Behavior change Challenges**

With over 200 million youths around the world living in poverty, 130 million illiterate, 88 million unemployed, and 10 million living with HIV/AIDS, today's youth are dealing with serious challenges, a UN report released said that, every step taken in response to the prevailing need points towards bringing the HIV/AIDS situation under control. The challenge today is to put a halt to the obscene growth of the disease. But so far global efforts are not succeeding. Currently, the epidemic appears to have the upper hand (UNESCO, 2005).

Facilitation of the education program in primary schools with emphasis laid on teenagers, monitoring, coordinating and evaluating the programme needs to be carried out by the ministry but much support is necessary. This need was reflected in the

Ministry of Education report (2001) which said that, the implementation of HIV/AIDS curriculum started in the year 2000. However, the Ministry of Education, Science and Technology requires support from partners to facilitate the in-servicing and teaching of HIV/AIDS in the education institutions countrywide.

A number of NGOS have been carrying out the in servicing of teachers. They are not coordinated and need to be coordinated by the Ministry of education, Science and Technology. Currently about 2000 teachers have been in-serviced by the Government, NGOS, and other institutions. This number is minimal compared to the 240,000 teachers nationally who need the training. The Ministry of Education, Science and Technology needs to own and be the lead agency in HIV/AIDS preventive education. The ministry is in a better position to monitor and evaluate the activities of this Programme.

Research indicates that there is no evidence that HIV is spread through normal everyday casual contact between individuals. This is because HIV is not stable and does not survive outside the human body. This virus cannot penetrate normal skin and does not readily enter through a healthy mouth or eye (Evian 1993). HIV cannot be transmitted by airborne routes such as coughing, sneezing, laughing, talking and normal kissing, simple skin contact such as hand-shaking, hugging and touching; through food, water, utensils, baths, pools and showers, towel, bed linen and clothes; insects such as mosquito and even cats and dog bites (Evian 1993).

Prevention of HIV/AIDS has been agreed upon as being abstinence and fidelity within marriage. Other means include careful use of piercing instruments, screening of blood



before transfusion and treatment and control of STD'S. Though controversial, the use of condoms provides relative safety for the sexually active (MAP International, 1996).

Some adolescents still seem to believe that they cannot be harmed. They may end up getting involved in irresponsible sexual behavior as they do not imagine they will ever come into contact with someone else's disease. Teenagers may also engage in risky behaviours as they can hold a degree of anger over the intrusion of AIDS into their sexual exploration. Others may also take an attitude that HIV/AIDS is one more barrier to their sexual liberty (Map International, 2000).

Because of the multidimensional nature of HIV/AIDS, the Ministry has adopted the integration approach. In this, HIV/AIDS is not given the status of a separate subject. Neither does it become an integral part of an existing carrier subject. Instead it is taken to be a crosscutting issue which is to be addressed in all subject areas and which will be examinable as part of those subjects. A major policy objective for education is to use the sector's potential to slow down the rate of new HIV infections, help its infected members to cope, and support those among them who have been bereaved by HIV/AIDS. Part of the sectors response in this area is the introduction of life-skills programs. These aim at influencing health and social behavior by seeking to develop student ability in five key psycho-social areas: self awareness (self-esteem) and empathy; private communication and interpersonal relationships: decision making and problems solving: creative thinking and critical thinking; and coping with emotions and with stress (Gachuhi, 1999).

According to his observation, Gachuhi (1999) noted that, Countries in Eastern and Southern Africa have endeavored, with mixed success, to integrate programmes of this nature into their school curricula. Common problems are lack of teacher knowledge and confidence, tendencies to gloss over sensitive sexual issues, the perception that because it is not examined the area is not important, and inadequate efforts to mobilize the support of parents and other key stake-holders.

#### **2.4. HIV/AIDS Awareness campaigns**

Much has been done to make both the young and old aware of the HIV/AIDS in Kenya and out side Kenya, including NGOs efforts. This effort set out to increase the knowledge of HIV/AIDS among both young and old. The knowledge of the older people was meant to equip the society with the correct knowledge which was to help during social interaction.

##### **2.4.1. Efforts to promote HIV/AIDS Awareness in and outside Kenya**

When the first cases of AIDS were recognized in Kenya in 1984, the government responded by taking several measures. First, the National AIDS Committee (NAC) was established in 1985 to advice the government on all matters related to the prevention and control of AIDS. The AIDS programme secretariat (APS) was established in the office of the director of medical services to coordinate the nation's effort against AIDS. These steps led to the creation of national AIDS control programme (NACP) within the ministry of health to be the major implementing organization of the government's AIDS programme (Research Of Kenya, 1997). According to the sessional paper No.4 on AIDS in Kenya, the APS developed in 1987 a Medium Term Plan (MTP) for the period (1987-1991). That plan focused on public

awareness campaigns, strengthening of laboratory services, and surveillance of HIV/AIDS and training of health workers. The main strategies pursued were the prevention of sexual, blood and mother to child transmission of HIV and surveillance of both STD and AIDS.

In 1992, the second Medium Term Plan (MTP II 1992-1996) was prepared. This plan continued to pursue the same strategies (outlined above, MTPI) but in addition emphasize a need to adopt a multi-sectoral approach to mobilize a wide spread effort against AIDS. The new plan also emphasizes the need to provide care and social support to people infected with HIV, their families and community: the need to reduce the social and economic consequences of HIV/AIDS, and the strengthening of national and district capacity to respond to the epidemic.

As reported in the sessional paper, our evaluation of the impact of intervention undertaken in Kenya since HIV was first recognized and has identified the following major achievements:

**a). High level of attainment of HIV/AIDS awareness**

A national survey of fertility, family planning and health (National counsel for population and development, 1994) that interviewed 7540 women (15-49) years and 2336 men (20-55) years revealed that practically everyone has heard of the fact that AIDS virus is transmitted through sexual intercourse (96% of men and 90% of women). However, there are many misconceptions about how the virus can be transmitted. More than half believe that AIDS virus can be transmitted through mosquito bites, one quarter to one third the virus can be transmitted through kissing,

sharing clothes, sharing eating utensils or touching the dead. In reality, the virus is not transmitted through any of this situation. Thus there is still need to intensify AIDS awareness particularly among young people and people living in rural areas.

**b). Safe blood transfusion**

Infrastructure for screening of blood for HIV has been established. This includes availability of HIV blood screening facilities district, provincial, mission and private hospitals, supply of HIV testing reagents, maintenance of HIV screening machine training of laboratory personnel and education of blood donors. This has insured that 98% of the blood for transfusion in Kenya is screened for HIV.

**c). Advocacy**

The national AIDS programme has been instrumental in advocacy of critical issues pertaining to law, ethics, culture, vulnerability, women and youth among others. The programme has developed partnerships with NGO'S, community Based organizations (CBO) and international agencies working in the area of AIDS, human rights and development.

**d) HIV Surveillance**

Kenya is one of the few countries in the world with an effective HIV sentinel surveillance, AIDS case surveillance programme and reliable epidemiological database on AIDS. District capacity to implement HIV prevention has been realized through the establishment of District Inter-sectoral AIDS Coordinating Committees which bring together representatives of government departments, NGO'S and community based organizations.

The major constraints that plague AIDS control in Kenya include the slow pace of change of sexual behaviour, resource limitations, poverty, harsh effects of structural adjustment Programmes (SAPs) on the vulnerable groups particularly widows and orphans, rapid increase in the number of people developing AIDS and needing medical care and social support, overburdened NASCOP, and lack of a clear policy framework to guide implementing agencies (Research of Kenya, 1997).

The second major government effort was therefore to provide a policy framework within which AIDS prevention and control efforts will be undertaken through the creation of a sessional paper on AIDS to handle controversial issues while taking into account prevailing circumstances and the socio-cultural environment of the people. In addition, it helps the government to play its leadership role in AIDS prevention and control activities and provide recommendations for appropriate institutional framework, for effective management and coordination of HIV/AIDS programme activities (Research of Kenya, 1997).

AIDS was first discovered in the United States of America (USA) among homosexuals in 1981. Since then, a lot has been done in the country to create awareness about the disease. For instance, the panel on monitoring the social impact of the AIDS epidemic was established. This panel was involved in mass education and promotion of sexual behaviour modification among the people including adolescent, as a way of preventing the spread of the disease (Jansen & Strikers, 1993).

The church also takes responsibility of HIV/AIDS awareness creation. The Presbyterian church of USA, created the Presbyterian AIDS Network in 1990 which

was involved in creating AIDS educational materials which were used by the AIDS ministry group, made up of volunteers from the church, to educate the congregation about the disease and how it should be avoided. The writers also indicate that a study carried out in a Los Angeles Catholic Archdiocese, found that the priest and nuns are engaged in education outreach on HIV/AIDS prevention. Many catholic charities had also converted existing programmes and services to respond to HIV/AIDS epidemic.

A survey done in the USA shows that community based organization (CBOs) are involved in providing education about HIV/AIDS to those at high risk, serving persons with AIDS, saving money for care and research and fighting discrimination against those infected. The CBOs do this by the use of pamphlets, audio and visual video tapes, lectures, presentations and conference. In several cities in African American religions communities, alliances have been formed with the Health Department in order to educate the people about HIV/AIDS and stimulate a compassionate response to people living with AIDS (Jansen and Strikes, 1993). According to Overberg (1994), a lot has been done to educate the public about HIV/AIDS in Latin America. For instance, many Christians are reported to have changed their attitude about sexuality issues and advocacy of condom use. In Argentina, nurses from different hospitals give talks in public schools about HIV/AIDS. The study also reported that a lot of reading materials have been produced to inform the public, including the youth of the danger of AIDS, the means of transmission and the measures which enhance prevention.

African countries have also responded to the problem by educating the general public and the school-going children about HIV/AIDS. (Glen, 1990) found out that there was

a dramatic increase in the coverage of AIDS by Zambian mass media in 1988. Radio, television and newspaper informed millions of people about HIV/AIDS. Another survey carried out in the country found out that community counseling is done by social workers. Villagers meet at a shopping center where HIV/AIDS issues are discussed. Such meetings raise the community's awareness of the gravity of the HIV/AIDS problems and of the need for change in sexual behaviour.

Drama clubs have also been set up to educate the people through plays. According to Dossier (1990), Anti-AIDS clubs have been started in 100 secondary schools in Zambia which advocate chastity before marriage. This indicates that adolescents are creating HIV/AIDS awareness not only among themselves but also to the general public. Miller & Rockwell (1998) carried out studies on HIV/AIDS awareness among the general public in African countries and found out that by 1988, 70% of the population of Rwanda was aware of the danger of HIV/AIDS due largely to radio education.

The print media has done a lot in educating the general public about HIV/AIDS. A study carried out in Magna district found that the majority of the students knew about AIDS, modes of transmission and prevention through media (Ng'wesheni 1997).

Within a short period of time, Uganda has progressed towards curbing the spread of HIV infection. The government formed a National Committee for the Prevention of AIDS (NCPA) which included health workers, educators and administrators who developed national policies to combat the spread of HIV/AIDS. Through the committee, educational literature has been developed and disseminated in urban and

rural areas. Radio Uganda also carried out frequent messages on HIV/AIDS, the modes of transmission, prevention symptoms and signs.

The Youth Alive Movement in Tanzania started, in 1991, also helps to create awareness on HIV/AIDS among the young people. The movement aims at helping the youth to take responsibility for their health and life. The movement has been able to create HIV/AIDS awareness among its members. There has been a marked sexual behaviour change among the youth too (Onyanacha, 1998).

However, as the social learning and self-regulation theories reviewed suggest, it is important to find out the extend to which students believe that HIV/AIDS is a threat to their life and health after learning about HIV/AIDS through various sources. This is because a sense of vulnerability and recognition of the benefits of the proposed preventive action will motivate them to change their sexual behaviour.

From the findings in these surveys carried out, more information tends to reach the population that is well equipped with facilities that avail information. In this case the youth in homes with televisions, radios and internet accessibility have an advantage over those from homes without these facilities (DFID, 2006). Thus teenagers from high socio-economic status have more information on HIV/AIDS this study was carried out to find out the difference in the levels awareness among the teenagers from low and high socio-economic status.



## **2.4.2. Non-Government Organization's (NGO) Efforts to Promote HIV/AIDS**

### **Awareness**

Onyancha & Shorter (1989), in their study in Kenya found that many church organizations have consolidated their efforts to promote AIDS awareness programme in their communities. These vary from simple insertion of AIDS information into ordinary preaching and instruction and instruction to the elaboration of information, education and communication. The effects are directed at provision of facts on AIDS, how the epidemic is spread and education for life that equips people with skills necessary to change their life style. They learned that churches examined the problems of drug abuse. This is because it is intimately linked to the spread of HIV infections, when it involves the sharing of contaminated piercing instruments such as hypodermic needles. Drug abuse also diminishes self control and inhibits the decision making process. This gives those under the influence of drugs the propensity to indulge in high risk behaviours especially sexual activity which can expose oneself to HIV/AIDS.

The Kenya HIV/AIDS consortium produces a great number of materials which include booklets, leaflets and posters. Video tapes are popular among church organization in their education campaigns. The Kenyan Non-governmental AIDS consortium sponsors a television commercial on HIV/AIDS directed at youth. Youth in schools and churches have formed clubs in order to educate their peers about HIV/AIDS. They do this through drama, poetry, songs, dances and sports all with HIV/AIDS messages.

The Baptist church has started an international movement known as “The Love Waits” which promotes sexual abstinence before marriage (Czerny, 2005). The members have helped to create awareness about HIV/AIDS among the youth and the old. “Africa Alive” is another organization which seeks to create an African network where youth HIV/AIDS programs at local national and regional levels can share ideas and have a focused strategy for curbing the pandemic. To impart knowledge on HIV/AIDS, they use talk shows on radio and television, newspaper and magazine articles, comic books, public announcement by popular entertainers, road shows and sporting events. This enhanced HIV/AIDS knowledge among those out of school. Therefore, helping them get information to the population which is outside school, for positive influence on the teenagers.

## **2.5 HIV/AIDS Education and HIV/AIDS Awareness**

HIV/AIDS education to a large extent affects education in all spheres, for example: the demand and supply for education, availability of resources for education, potential clientele for education, the process of education, the content of education, the role of education, the organization of schools and donor support for education.

At the primary level, HIV/AIDS will have the long term effect of there being fewer pupils to educate, fewer children wanting to be educated, fewer children able to afford education and fewer children able to complete their schooling. This will be because populations will be significantly smaller than they would have been in the absence of AIDS. The population decrease at primary levels spreads through to the secondary level and finally the university/tertiary level though at a decreasing rate. The present

study targets primary school children who form the foundation for secondary and university population.

This study focuses on sustaining awareness by providing HIV/AIDS education, basing on the fact that education is the most potent social vaccine for a menace that has ignorance as its basic anchorage, early intervention programmes at primary level could be used to curtail the spread of the pandemic.

## **2.6. Factors Moderating the Influence of HIV/AIDS Education on Awareness**

The main reasons for the spread of HIV/AIDS in Africa are not clearly understood. However, ignorance, poverty, high incidence of sexually transmitted disease and social-cultural beliefs and practices, civil war and deficient public infrastructure especially in rural areas are the main factors (World Health Organization, 1996).

Ignorance could be of two types; “real” and “informed”. “Real ignorance” refers to the lack of information on some or all aspects of the HIV/AIDS infection which may include information on the transmission, spread and preventative measures. “Informed Ignorance” or partial ignorance refers to those that are fully aware of the infection including its transmission and control but somehow for some reasons refuse to believe on some aspect of the infection (like causative agent) or believe that the condition can be cured either through local herbs or some other methods.

Overcoming ignorance is the essential first step towards achieving behavioural change which for now, remains the most important strategic option for control of the epidemic. This ignorance is still high in many parts of Africa especially the rural

areas. Studies in Nigeria in 1999 (UNICEF 2001) found that about 90 per cent of men and 74 per cent of women knew of AIDS with variations within age groups. In some parts of the country, the study showed only 47 per cent and 50 per cent of women and men respectively knew about HIV/AIDS. Significant percentages of people were reported to be unaware of any way of preventing HIV infection (in some places as high as 30 per cent). Similar picture may prevail in other parts of sub-Saharan Africa especially.

Similarly, the culture of polygamy and frequent divorce in Sub-Sahara Africa greatly promote and aid the spread of HIV. Other equally negative practices include female genital mutilation, mass circumcision for boys especially in rural areas, traditional face markings and culturally – based gender discrimination in access to education. In this study gender, type of school and socio-economic status are the areas investigated to establish their moderating influence on HIV/AIDS education among teenagers in primary schools.

### **2.6.1 Influence of Gender on HIV/AIDS Education Awareness**

A survey carried out in Kisumu, Kenya by MAP International (2000), based on population, showed HIV/AIDS infection rates in 13 and 16 year old girls were 8% and 18% respectively while no infections were recorded in boys of the same age. In 19 year old girls, the infection rates were 33% while in boys of the same age they were 9%. It was noted that the girls were infected by older men.

The survey records by DFID show that more than half of out of school children are girls. DFID (2004). This denies them the protection availed by knowledge, leading to

low levels of awareness and vulnerability to HIV/AIDS and myths. DFID (2005) has pledged to take an international lead on girls. It is working together with UNICEF as part of UN Girls' education initiative.

Socio-economic factors have contributed immensely to women HIV infection.

By 1993, KNACP reported that they were seeing three times more infections in teenage girls than boys of the same age (Tuju1996).

He continued to say that from ages 10-24, women who are infected outnumber men of the same age bracket. This is because at this age bracket young girls are discovering their sexuality and are therefore very susceptible to sexual myths, rumors, misinformation and exploitation. Older men take advantage of their ignorance and financial needs to exploit them sexually.

Tuju (1996) comments that because of the lower social status and economic dependence, women are unable to challenge men's sexual affairs. Between 15/19 the majority who are infected with HIV/AIDS are girls. This is done by men who offer them money and other gifts. Tuju (1996) A fact sheet published by CSA in 1995 showed that 35 per cent of all reported HIV/AIDS cases in Kenya were teenagers aged between 15 and 19 years. Youths refers to those between ages 8 and 21 years. Approximately 1 out of 25 teenagers in Kenya engage in their first sexual relationship before the age of 10years, according to a study conducted by CSA in Nyeri District. Kenya's Ministry of Education reported that 10,000 girls dropped out of the country's primary education system annually due to pregnancy

One out of four women aged between 12 and 24 years in Kenya lose their virginity through force, partially explaining why girls are more susceptible to HIV/AIDS than boys of the same age. This report was given by a study carried out by the United Nations (2006). UNDP (2008) noted that young women are more susceptible to contracting HIV than young men for biological and socio-economic reasons, but also they have until recently been neglected by HIV/AIDS education interventions.

Over half of today's 15-year olds will die. The most dramatic change in the pyramid occurs when young adults, infected early, begin to die of AIDS. Recent studies among various African populations indicate that rates of HIV infection in young women aged 15 to 19 may be five to six times higher than in young men. The gender dynamics of the epidemic are far reaching due to girls' weaker ability to negotiate safe sex and their generally lower social and economic status (UNAIDS, 2009).

Corpus concludes that psychologically young girls who are sexually active have low self-esteem and tend to be pre-occupied and to perform poorly in class. Girls therefore need specific interventions to build self confidence and self-esteem in order to face the facts about gender and HIV/AIDS infection. This will lead to application of knowledge acquired in real situations. Therefore this study set out to find out if this gender disparity affects teenagers in primary schools in Kenya.

### **2.6.2 Influence of School Type on HIV/AIDS Education Awareness and Myths**

While studying on students' awareness on HIV/AIDS epidemic, Kipp, Kamugisha & Rehle (1992) found out that awareness among students in high school and those in

primary schools in Kabarole District in Uganda, does not vary by type of school, that is, private or public or by gender.

Government information campaigns and media attention in the 1980s raised the general public awareness of HIV/AIDS Adler (2001). The present study barely concurs with these sentiments and thus is set to establish school type as a moderator factor in the influence of post HIV/AIDS education on level awareness and myths held since the introduction of the programme in the school curriculum in 2002.

### **2.6.3 Influence of Socio-economic Status on HIV/AIDS Awareness and HIV/AIDS Myths**

AIDS, while continuing to be an important health issue, has evolved into a complex social and economic emergency. HIV primarily affects young adults, cutting a broad path through society's most productive layer and destroying a generation of parents, whose death leaves behind orphans, dissocialized youth and child-headed households. HIV primarily infects productive young adults rather than children or the elderly. By eroding the knowledge base of society and weakening production sectors, it destroys social capital UNAIDS (2009).

The literature on HIV/AIDS is growing at a phenomenal rate and no previous epidemic has received as much research attention. Globally, the lion-share of research time and money has been consumed by the quest for vaccines and treatment regimes. The social dimension of the disease has been overshadowed. Recent studies have lamented the paucity of research attention paid to HIV/AIDS within the social sciences (Campbell, 2003). In particular, the dearth of studies in the education sector

has been highlighted (Baxen and Breidlid, 2004; Hartell and Maille, 2004; Coombe, 2000a; 2000b).

A study carried out by Mwale & Burnard (1992) on HIV/AIDS control programme found that cultural and traditional aspects contribute to the spread of HIV/AIDS. They identified knowledge of AIDS as a major category of prevention. The problem was noted as how to tell people. They showed women as being at greater risk. There is need for people who know about HIV/AIDS to teach. Factors, such as, low educational level and particular economic rationalities of large family size influence the level of awareness adversely.

Poverty drives the HIV/AIDS phenomenon in two broadways; by increasing the population of people at risk and secondly by limiting the management of those already infected. Poor people are more prone to engage in high risk behaviour such as commercial sex work and drug use. They are also more likely to become migrant workers, (being un-or semi-skilled), a group that has been identified as being among those at the greatest risk of acquiring and spreading the infection.

Poverty further limits the education of children and adolescents, especially girls thus making them more ignorant. AIDS, by its very nature impoverishes the affected individuals, families and communities. The synergistic relationship and vicious cycle of poverty, ignorance and disease is thus clearly manifested in HIV/AIDS. (UNICEF 2001)

Lewis (1990) acknowledged the other negative influence as, relative lack of economic alternatives for women and consequent dependence on men for support, women's



generally lower literacy, limited access to information and cultural and moral attitudes towards sexuality.

Akeroyd (1997) cited that there existed wide spread poverty, marginalization of risk groups and denial of women's rights. Thus the fundamental transformation of individuals and societies which is required to ultimately control AIDS in Africa will not occur. Since poverty has considerable influence on students' education and related behaviour, it limits information acquisition. Thus this study sought to establish the effects of society and economy on the level of HIV/AIDS awareness and myths that exists among students from low economic status and those from high economic status.

### **2.7. Myths Related to HIV/AIDS**

Adolescents are highly affected by what they learn from their peers. Most of the knowledge shared among them is incorrect. Adolescents hold sexuality myths, lack understanding about physical maturation changes they experience, yield to negative peer pressure because of myths, have fear of alienation, feeling like outcasts, and desire for acceptance (Erulkar & 2003; Askew, 2004;). Despite this, adolescents fear to share their sexual issues with their parents, because of fear of parent's suspicion. They affirm that social factors influence adolescents.

Willis, (2002) said 'parents, young people, teachers, faith communities, that is, the religious leaders in the society, and medical personnel must become knowledgeable about HIV/AIDS infections. Their knowledge will be helpful to teenagers whom they relate with in the society. He noted that in one study health education reduced the risk by 13 percent in the area targeted (Purvis, 1997). Dr. Faragis (1996) added that

strategies focusing on technological interventions, to prevent the potential consequences of behavior, failed to recognize that the problem associated with HIV/AIDS prevention and teenage pregnancies is associated more with sexual involvement and not the effectiveness of the barriers used and said that young people must be taught the virtues of abstinence and self control.

Willis (2002) reported that levels of HIV/AIDS awareness in some areas in Africa are still very low. Only 46.7 per cent in a survey by doctors in Nigeria identified HIV as leading to AIDS. 16 per cent thought HIV was a complication from another disease, 30.5 per cent listed mosquito bites, hand shaking and kissing as causes. Over 60 per cent medical personnel were not willing to manage people with HIV-infections. Nasiru, Olaseha & Adeniyi (1998) agree that this attitude can be traced back to lack of knowledge concerning the infection, and therefore a biased attitude towards the infected.

A national survey of 12-17 years olds in South Africa showed that the topic of sex remains a taboo in most house holds. 2 out of five children surveyed thought that AIDS could be cured, and many of them believed that having sex with a virgin would cure AIDS. The blame for this youthful ignorance is put down to lack of sex health education from government, parents and the churches.

Corpuz ( 2005) explained that AIDS is not a disease of homosexuals alone. Neither is it a western propaganda. It is not due to witchcraft or failure to perform some cultural requirements leading to a debilitating condition known as 'Chira' (among the Luo of Western Kenya). It is a disease.

According to Rwelamira (1999) being an AIDS victim is not necessarily due to one being personally responsible for his or her condition. The disease may be as a result of sexual promiscuity of a spouse or the neglect of medical workers to sterilize needle and blades or their transfusing contaminated blood. Experience shows that in the final analysis, only authentic responsibility manifested in our attitudes, choices and actions can serve as a shield against evil and against lust. Therefore, the belief by many that HIV/AIDS scourge is a punishment for evil is not a fact. Knowledge about the acquisition of the epidemic will minimize on the stigma behind it.

Education plays an important role in human development through the process of displacing wrong information, empowering people to improve their well being and to participate actively in nation building. Kenyans recognized the importance of education in promoting human development and arrived at a consensus to give education a high priority in their development programmes. After the political independence, the government proposed to wage a spirited war against ignorance, poverty and disease through Education (Nabwire, 2003), this was viewed as the window of hope (World Bank, 1999). Education has a role to play in the prevention and handling of the pandemic in case of infection.

Education has the potential to provide knowledge that will inform self-protection, foster the development of a personally held, constructive value system, promote behavior that will lower infection risks and enhance capacity to help others to protect themselves against incorrect information about the pandemic. Education also has the potential to support the assertion of personal rights and to resist the strong peer influence that the teenagers face (Cohen, 1982). This study attempted to contribute

additional evidence to understanding the influence of HIV/AIDS education on HIV/AIDS awareness and myths. Thus the study deemed it of great importance to investigate the level of post HIV/AIDS education among the teenagers in Eldoret Municipality primary schools.

### **2.7.1. HIV/AIDS Education and HIV/AIDS Myths**

The importance of HIV/AIDS education for change of behaviour among students and making of constructive personal decisions cannot be underestimated. Rwelamira (1999) explained that abstinence, as a truly moral approach to avoiding HIV/AIDS infection, calls for personal responsibility. Adding that hypothesizing that success in preventing transmission and infection is purely dependent on HIV/AIDS information-education programs is not realistic when one is dealing with a behavioral disease. Encouraging responsibility in those involved in risky behavior is a very essential element that demands utmost consideration. Moloney (2005) described responsibility as carrying the burden of continuing to be good and acting properly.

Rwelamira (1999) in addressing education as a stepping stone to responsible living, says that, in order to achieve an understanding of personal responsibility, education is necessary and even much more imperative in the case of HIV/AIDS. Education on personal responsibility creates awareness about the existence of an objective order in human relationships, the success of the autonomy of personal choices, of self-fulfillment and personal determination of what is good and what is evil. Such broad solidarity- inspired responsibility would succeed in pointing out not only the individuals' duty of desisting from causing injury to him/herself and other people but also it would oblige an individual to refrain from the forms of behavior which best

serve to enhance the contagious diffusion of HIV/AIDS. It would become a serious moral duty when an individual's sero-positivity has been ascertained.

At a higher level involving personal effort, it would succeed in pointing out the positive duty to act for other peoples' real good. This would commit an individual to promote effective relationships which corresponds to intrinsic human sense of existence (Sergio, 1990).

Corpuz (2005) noted that behaviour change is a central issue in respect to the HIV/AIDS pandemic. He says that individuals and communities have the capacity to change attitudes and behavior which is the most essential strategy in overcoming the HIV/AIDS pandemic. The power to change must be recognized, called forth and supported from both ways and implemented. This will enable people to initiate change and sustain behavior that promote a healthy state of mind, body, spirit and environment.

Check (2000) cited the only hope for the entire world as prevention education efforts and the development of a vaccine. These views were similar to Joinet (1994) who affirmed that special efforts should be made to help school children, rural populations and urban dwellers protect themselves against the HIV/AIDS infections. Education or information constitutes one of the best tools for fighting HIV/AIDS in resource poor settings such as Africa. Mombe (2005) said that the struggle against HIV/AIDS needs the social strength and pursuance of human dignity for all.

Research was carried out in Swaziland by the Department for International Development, DFID, it showed gender inequality especially in developing countries (DFID, 2007). Two-thirds of teenage girls in school are HIV free, while two thirds of girls out of school have HIV. Earlier it had described education of girls as vital but sometimes overlooked yet education is the social vaccine (DFID, 2004). These and other gaps in gender HIV/AIDS education are some of the reasons for this study.

On the same note, Willis (2002) added that parents, teachers, young people and faith communities (religious leaders) must become knowledgeable about HIV/AIDS infections. Their knowledge will help the teenagers as they interact in society, thus improving the level of awareness.

## **2.8. Education Impact on HIV/AIDS**

Too little attention has been given to understanding the important and complex interface between HIV/AIDS and education in primary schooling. Where studies have tried to understand such relationships, it would seem that they have failed to properly account for the ways in which contextual and social factors mediate the relationships between HIV/AIDS and education. Campbell (2003) also argued that, social scientists have been slow in explaining the underlying processes and mechanisms whereby contextual factors contribute to high levels of HIV- transmission.

UNAIDS (2009) observed that where AIDS is widespread, education, an essential building block of development, is being impaired. The epidemic is eroding the supply of teachers and diluting the quality of education. AIDS also reduces the amount of money available for school fees, and forces an increasing number of children---more

girls than boys---to drop out of school in order to help at home. As teachers become ill and unable to work, some schools are closing. In parts of Southern Africa, one fifth of teachers and secondary school students are estimated to be HIV positive.

A survey carried out by UNDP (2008) in Uganda noted that young men and women are vulnerable to HIV infection because they begin sexual activity at an increasingly younger age, tend to have multiple partners and have restricted access to information on safer sexual practices. But also, because they have until recently been neglected by HIV/AIDS education interventions yet it should be stressed (Carm, Helland & Lexow, 1999).

The assumption that 80%-90% of Ugandan men and women are aware of HIV and AIDS and know how to protect themselves does not apply to the rural areas visited, particularly not to young rural women. Myths, misconceptions, superstitions, stereotypes and stigmatization are widely prevalent in Tororo.

In general terms, school children are better informed about HIV and AIDS than out-of-school youths; school boys are better informed than girls; out-of-school men are better informed than out-of-school women; and older women are better informed than younger women. Out-of-school youths, including those who drop out, make up the majority of rural young people.

In the absence of curative drugs and prophylactic vaccines, the only way currently available for dealing on a large scale with HIV/AIDS is through developing appropriate standards of behavior, with information being translated into behaviors

that promote a healthy state of mind, body and spirit (Siame, 1998). In this and in other AIDS –related areas, education can be a powerful ally.

Good quality sexual health and HIV/AIDS education is needed in order to equip young people with the information which they really get from their parents or senior family members, which they no longer get from traditional training such as is customarily provided at the time of initiation, which they frequently pick up haphazardly from peers and books, and which they sometimes augment by high-risk experimentation.

UNAIDS (1999) asserted that Human rights and HIV/AIDS are intimately connected. It further explained that “An environment in which human rights are respected ensures that vulnerability to HIV/AIDS is reduced, those infected with and affected by HIV/AIDS live a life of dignity without discrimination, and the personal and societal impact of HIV infection is alleviated”.

The devastating effect that AIDS is having on schools should be one of the biggest concerns to those involved in fighting the epidemic, not least because schools provide one of the most cost-effective and efficient ways of reaching young people.

An observation made by Boler and Jellema (2005) has shown that young people are more likely to be affected by HIV and AIDS than any other age group, but they are also more likely to change their behavior as a result of education than any other group. At a time when, globally, more children are in school than ever before, it is therefore vitally important that countries invest in schools as a means of informing young people about how they can avoid HIV and AIDS before it is too late. Studies



have shown that the HIV prevalence of an area is likely to decrease as education increases, that primary education can half the risk of infection amongst young people and that reduced vulnerability to HIV is observed in people with secondary or higher education. Schooling increases earning power, self-confidence and social status, allowing young people to take greater control over their sexual choice.

Education in general is likely to encourage a more respectful, open-minded attitude towards other people; in the case of HIV/AIDS education, giving a greater understanding of the epidemic can help them to realize that AIDS can affect anyone, and that no-one has the right to judge an individual on the basis of their HIV status.

In a study carried out on HIV/AIDS by Akunga (2000), recommendations to improve the teaching of the subject were made by teachers including: giving HIV/AIDS information and messages by giving advice to girls one by one, making AIDS education a separate subject instead of integrating it into other subjects and availing materials to schools for the teaching of HIV/AIDS. Children in the lower classes be taught in mother tongue and people infected with the virus, be invited to give talks to pupils. Have teachers trained on how to teach HIV/AIDS within pupils' cultural context. Materials on HIV/AIDS to be up dated and parents need to be given education to support HIV/AIDS programs in schools. This was meant to increase the knowledge on the scourge.

The study on HIV/AIDS in youth and children by Akunga (2000), agreed with the Kenya Demographic and Health survey (KDHS) 1998 study and Kenya Institute of Education (KIE) in 1994 when it found out that 73% of the women and 87% of the

men interviewed said they got HIV/AIDS's messages from the radio and community level networks, for example churches, friends, schools and health facilities. Mass media, work place and newspapers were also high contributors of the HIV/AIDS information.

It is not just those that are educated through schools, through members of the wider community, including teachers, cleaners, other members of staff and parents can also increase their knowledge about HIV/AIDS by means of the school environment (Kelly, 2000). Teachers who expand their understanding of the subject while researching for a lesson can pass this information on to adults as well as pupils, and the same can be said for the children themselves; once informed about AIDS, students can go home and tell their parents or their friends what they have learnt, regardless of their gender, school type and socio-economic differences that exist.

## **2.9 Summary**

The literature review in this chapter reveals the need for a re-examination of the level of awareness of the HIV/AIDS education in our primary schools. Introduction of comprehensive understanding of the information grasped by the learners in these schools is not only vital but also urgent in order to address the many issues concerning the increase in the need for facts that will lead to change in behaviour. There is need to combat HIV/AIDS and to bring it to a halt, increase knowledge about the disease and its consequences for change in behaviour of young people, fewer cases of infection among teenagers and better lives that exclude fear of infection.

The research therefore evaluated the existing factors in the influence of HIV/AIDS education in our primary schools, the information held by teenage learners and the incorrect information that may be a cause of the rise in the prevalence of HIV/AIDS.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY AND DESIGN**

#### **3.0 Overview**

This chapter presents procedures and methods that the researcher used to collect the required data needed in the study. It includes the study area, research design that was used in the study. It describes the variables, target population, sampling frame, sample selection techniques and the sample size. The instruments for data collection, procedure used in data collection and analysis are also discussed.

#### **3.1 The Study Location**

The study was carried out among Primary schools in Eldoret Municipality, in Rift Valley Province, Kenya. It has an area of 148 square kilometers (EMC 1986). It lies between the latitude 00 30' North and longitude 35 16' East at an altitude of 2,085m above sea level. It has an area of 148 square kilometers former (Uasin Gishu District Development plan, 2000-2008).

Due to favourable climate many people have been attracted to it from all areas in Kenya. Its population is approximately 400,000, made up of different gender, multi ethnic and typical of cosmopolitan population. Eldoret is an administrative centre for the northern part of Rift Valley, which has experienced very rapid growth in population due to increased educational institutions coming up. Student population is high because of its urban location where many people live. This is in addition to Moi University which has also expanded rapidly. This attracts many people in search of training and jobs from all corners of Kenya. Student population is, therefore, high because of its urban location where many people live. The increase in agro-based

industries and multi-cultural practices among the people may lead to an upward move in the need of HIV/AIDS education. The main focus was on public schools and private schools in the municipality. Eldoret Municipality was considered suitable for the study because of several reasons:

Eldoret municipality has an estimate population of 300,000 people according to Uasin Gishu Development Plan 2002-2008. This population is of multi-ethnic and multi-racial composition, typical of a cosmopolitan population. Areas with high population growth rates are characterized by a large increase in population among whom are students that need HIV/AIDS knowledge in order to change their sexual behaviour.

According to the director of the National AIDS and STD control program (NASCO 2003) AIDS prevalence is very high in urban areas. Many organizations that fight the disease have concentrated their activities in towns because most infected people are found in towns. This gave the area of study relative importance as far as HIV/AIDS is concerned since it is an urban area. It was important to assess the level of HIV/AIDS awareness among students in the urban areas.

From the review of related literature, the researcher has not come across studies on post HIV/AIDS education on the level of awareness and HIV/AIDS myths.

There are a number of private and public primary schools as well as high cost and low cost schools and thus there was a good representation of each school type. This showed that the town has people of different social classes, that is, the rich and the poor. This proved to be an appropriate location for the study since it compared the level of HIV/AIDS education awareness and myths about HIV/AIDS among students

in private schools and public schools, girls and boys and those from high and low socio-economic status.

### **3.2 The Research Design**

This study used a survey design to achieve the first and second objectives of the study. The main way of obtaining information required for the study was by asking questions through use of questionnaires. This is because questionnaires used in survey designs can be developed to measure status variable as well as constructs. Survey research is used to collect data as they are found in social systems (Mwiria and Wamalwa, 1995) on what people say about the topic under discussion (Mugenda and Mugenda, 1999).

This study also employed comparative research designs to collect quantitative data. According to Fraenkel and Wallen (2000), a casual-comparative research allows researchers to investigate the possibility of a casual relationship among variables that cannot be manipulated. Two or more groups that are different on a particular variable are compared on another variable. This study used comparative design to compare two groups of students, that is, those who have high HIV/AIDS awareness and those with low HIV/AIDS awareness. It also used the same design to determine if the type of school and gender and socio-economic status influenced the level of HIV/AIDS awareness. The main aim of the comparative design was to assess the differences between the variables and determine reasons or causes for the current status of the phenomenon under study. The study used this research design to determine the factors which moderate the influence of HIV/AIDS education on level of HIV/AIDS awareness and myths about HIV/AIDS among teenagers in primary schools.

### **3.2.1 Study Variables**

Three categories of variables were investigated in this study, namely independent, dependent and co-variables variables.

#### **Independent variables:**

In this study HIV/AIDS education was the independent variable. Since the moderating factors such as gender, socio-economic status and cultural background influence the level of awareness, they were included as co-variables.

#### **Dependent variables:**

Awareness of HIV/AIDS and myths about HIV/AIDS held by teenage students was the dependent variable. A questionnaire was used to determine the level of correct and incorrect information held by students. The relationship between the moderating factors in the influence of HIV/AIDS education and the level of awareness and myths about HIV/AIDS was determined.

**Intervening / moderator variables** were gender, type of school and socio-economic status.

### **3.3 Target Population**

The population for the study was class 8 students in public and private primary schools in Eldoret Municipality. Schools with 40 and above students in class eight were considered as the research population. According to the Ministry of Education data bank, there are 28 public and 9 private primary schools with 40 or more students per class. The researcher involved students from class 8 because they have stayed long enough in the school to acquire and accurately respond to questions concerning HIV/AIDS awareness.

The study compared 322 students in private schools that are believed to be mostly \ from affluent background with 681 in public schools that represented more students from low socio-economic status. All primary schools in Eldoret Municipality are co-educational schools. This provided for the need to compare the HIV/AIDS awareness held among the students by gender, school type and socio-economic status. Management of the sample in terms of time, costs and human resource was considered in determining the size

### **3.4 The Sampling procedure**

Stratified and random sampling techniques were used to select schools and students involved in this study. Stratified sampling was preferred for this study because it helped the researcher to account for the difference in sub-group characteristics. It also ensured that the sampled students were proportionally represented. Stratified random sampling technique refers to identifying sub groups in the population and their properties and selecting from each subgroup to form a sample (Oso and Onen, 2005). Eldoret Municipality had 37 schools with 40 and above students per class in class 8, consisting of 28 public primary schools and 9 private primary schools. The population for this study comprised class 8 students in all the primary schools with more than 40 students per class. Stratified sampling was used to select all the schools with 40 and above students in class 8 and the class 8 selected since they had been in school and were able to respond correctly to the questions.

Four schools, which represented 44 percent of all the 9 private schools, were selected randomly. Ten public primary schools, 5 from slum areas and 5 from urban areas were also selected randomly representing 36 percent of public schools in the category.



The students from each school were first divided into two groups according to their gender, then using simple random sampling procedure, ten girls and ten boys were selected from each representative group using yes/no folded papers with the number of “yes” papers corresponding with the number of students required. The twenty students who got the ‘yes’ paper, were then assigned to the sample. A sample of 28 percent of the students was used. This ensured that the proportion of boys and girls were well represented in the sample. The subgroup characteristics were represented in the sample thus raising external validity of the study and each member of the target population had an equal and independent chance of being included in the sample thus eliminating any form of bias.

All the school samples were class eight students since this is where most teens with the expected complete HIV/AIDS education are in primary school. The researcher carried out the study in Eldoret municipality, largely an urban area.

### **3.5 Sample size**

A sample of 280 students was selected to participate in the study.

This comprised 28 percent of the class 8 selected public and private primary school teenagers in Eldoret Municipality in schools with 40 or more students in class 8 category. This is in agreement with Turkmen’s assertion (1988), that a sample of 25 percent or a quarter and above of a study population is enough representation and adequate for collecting reliable information or data for study, provided that consideration is made on the distinct characteristics of the population. Students in class eight are believed to have received all the HIV/AIDS education in primary school, therefore were selected for this study.

### **3.6 Data Collection Procedure**

A permit to conduct this study was sought and obtained from the Ministry of Education science and technology (see Appendix 3). With this permit, the Municipal Education Officer was approached for permission which was granted (Appendix 4) and the head teachers of primary schools to be involved in the research in Eldoret Municipality were approached and informed about this study. With their permission the researcher proceeded with data collection.

Sampled schools were visited by the researcher to secure support and consent of the school head teachers. This was to explain how the research was to be conducted and to secure appointment for the preferred dates and time of the research. School administration was alerted about the impending study. In some schools deputy head teachers were conducted in the absence of head teachers.

Some head teachers took time to decide on the appropriate time to carry out the research leading to the exercise taking a longer time than scheduled. The discussions with the head teachers and other participants proved fruitful. In discussing the research study with them, the researcher was able to establish rapport and cordial relations with them. The head teachers were co-operative and showed a keen interest in the study. The students eagerly participated in the study and had keen interest.

With the consent of the school head teachers the researcher administered the research instruments to the participants between May and June of the year 2009. Questionnaires were administered during school break-times. The researcher then put the subjects selected through stratified random sampling technique in one room where

the instruments were administered. The participants had the consent letters read and clarified to them. See Appendix 1). Questionnaires were then distributed to selected students and they were then asked to read the instructions before responding to the items in the questionnaire. Sufficient time was allowed for students to respond to the instrument accurately. Each participant filled the questionnaire without discussing it with colleagues. Enough time was allowed for the entire exercise.

### **3.7 Development and Scoring of Instrument**

Questionnaires were the appropriate tool for collection of data since the sample size of the study was large (N=280). Therefore a large number of subjects can be handled because it facilitates easy and quick derivations of information within a short time, (Borg and Gall, 1983).

The questions were set at the level of the students for easy comprehension by the respondents. In developing the questionnaires, the following factors were considered; clarity, relevance to the content taught in primary school, purpose, reliability, validity and the length of questions. It consisted of self administered structured questions.

The researcher developed a questionnaire with items that elicit the HIV/AIDS education awareness. These items were used to measure the level of HIV/AIDS education awareness among teenage students. To investigate the influence of gender, type of school and socio-economic status on the students' level of HIV/AIDS awareness, the same instrument was used.

The pupils' questionnaire comprised of 3 parts. In part I, the researcher included questions seeking biographical data of the respondents which tested the students' socio-economic status, gender and type of school attended. Part II included questions seeking information on the level of HIV/AIDS education awareness among the students. Part III sought information on the HIV/AIDS myths held by students in primary schools including sources of information that influence HIV/AIDS education and awareness among students. The items in the questionnaires included open ended structured questions.

The questionnaire developed in this study consisted of true and false items to make scoring uniform. The respondent indicated a true or false choice with each statement in the instrument. The response indicating the true HIV/AIDS statement is given the highest score which is 1 for HIV/AIDS education and 1 for myths. The response with a false statement about HIV/AIDS was given zero score. The questionnaire measuring level of HIV/AIDS education consisted 25 items in section II while section III had 15 items on HIV/AIDS myths.

### **3.8 Pilot Study**

A pilot study was carried out to ascertain the reliability of the HIV/AIDS education instrument and also to familiarize with the research situation. A school in the municipality that did not form part of the sampled schools for the actual study was randomly selected and used for the pilot study. The researcher approached the school head teacher and sought permission to undertake the pilot study. The permission was granted. Therefore arrangements concerning the date and the time to collect data were

made. The researcher then conducted the pilot study on the agreed day and time with the selected students.

With the help of the class teachers, 20 class 8 students were selected for the pilot study. Questionnaires were then administered to them. Test retest method was used. The test retest method involved administering the same test twice to the same group after an interval of time had elapsed. A reliability coefficient was then calculated to indicate the relationship between the two sets of scores obtained (Fraenkel and Wallen, 2000). Therefore after two weeks, the same students in the same school were given the same questionnaires to complete once again. They were scored once again for the second time. A measure of each item as answered by each respondent on the first and second administration was worked out.

Therefore the test retest method used to test the reliability index of the questionnaire was calculated using Pearson's product moment correlation ( $r$ ) from the test-retest scores. It indicated the relationship between the two sets of scores.

### **3.9 Instruments' Reliability**

Pre-testing through piloting was done in a randomly selected primary school in Eldoret municipality so as to establish the reliability of the questionnaire. The reliability of a measuring instrument refers to the instruments' ability to yield consistent results each time it is applied, Mugenda and Mugenda (1999). It is the measure of relevance and correctness. The school used in piloting was not included in the schools to be used in study. The reliability of the items was based on estimates of the variability among students responding to the items.

The test retest method was applied on the same pilot group and responses used to establish the consistency of the questionnaire. The questionnaire was given to the pilot group and they were asked to give the most appropriate answer for each item. The mean was computed and the same items were given to the same group for responses after two weeks. The second mean from the second responses was also computed. The variability in the students' responses was used to determine the reliability on items. The reliability index of the research instruments was calculated using Pearson's' product moment correlation ( $r$ ) from the test-retest scores. The results obtained from the HIV/AIDS education Questionnaires was a reliability coefficient at  $r = .83$ . According to Kerlinger (1986), a positive correlation ( $r$ ) of .5 and above is strong enough and hence the instrument is reliable.

Feedback obtained from the pilot study assisted the researcher in revising the questionnaire to ensure that it covered the objectives of the study. The reason for piloting the questionnaire was to ensure as far as possible that the items would elicit the kind of responses the researcher intended to get, that they are acceptable in terms of their content, and they adequately cover the variables which the researcher particularly wished to investigate. Items in the questionnaire found to be difficult for the respondents were corrected and rectified accordingly

### **3. 10 Validity of Instruments**

Validity of an instrument or scale is the success of a scale in measuring what it sets out to measure; so that differences in an individual score can be taken as representing

true differences in the characteristics under study. This is Moser and Kalton's (1971) definition.

The content validity of the instruments was determined through expert opinions, where the researcher discussed the items with colleagues and supervisors mainly in the department of psychology in the school of education. The advice given here was used by the researcher to determine the content validity of the research instruments. This included suggestions, clarifications and other inputs. This necessitated relevant changes that were made accordingly.

This was also determined through piloting, where the responses of the subjects were checked against the research objectives. For research instruments to be considered valid, the content selected and included in the questionnaire must also be relevant to the variable(s) being investigated (Kerlinger, 1986)

### **3.11 Data Analysis**

The data obtained from the students self-report questionnaires were manually coded, scored and then accurately transcribed into a computer file. The statistical package for Social Sciences (SPSS) computer programme was then used to analyze it. Data obtained from document analysis was also analyzed using SPSS computer programme. The level of significance used for t-tests was  $p < .05$ .

The data collected in this study was analyzed using both descriptive statistics and inferential statistics to determine the difference between the means. The descriptive statistics involved in this study were mean scores and percentages. The level of significance was computed using the means obtained to show how the pupils' scores

vary in each category of schools, gender and socio-economic status. The inferential statistics involved in this study were t-test. The t-test was used to analyze the data so as to answer research questions and test the null hypotheses advanced by this study. Inter-relationships between various variables were presented in Tables to enable a reader to examine the characteristics of individual variables before looking at the results of the inferential statistics. The students' scores were therefore classified as high level HIV/AIDS education awareness, and low level HIV/AIDS education awareness according to the following criteria:

- a) High level HIV/AIDS education awareness- if the average score was one and above one standard deviation above the sample mean.
- b) Low HIV/AIDS education awareness -if the average score was below one standard deviation below the sample mean



## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.0 Overview

This chapter reports on data analyses of HIV/AIDS education on the level of HIV/AIDS awareness and myths among teenage students and the influence of gender, school type and socio-economic status on the behaviour of the primary school students. It also reports data analysis on the HIV/AIDS myths held by the students.

#### 4.1 Demographic Description of Participants

Table 1 presents demographic description of all the participants involved in this study.

Table 1

#### Demographic Description of Participants

	Schools			
	Public		Private	
	N	%	N	%
Gender				
Males	100	37.71	40	14.29
Females	100	35.71	40	14.29
<b>Total</b>	<b>200</b>	<b>71.42</b>	<b>80</b>	<b>28.58</b>

The participants used in the study were 200 students from public and 80 from private primary schools. This included 140 boys and 140 girls representing 28% percent of students in public and private primary schools in their category as shown in table 1 above. This was the sample used in the research.

#### 4. 2 General Awareness of HIV/AIDS among Teenagers

The first objective of this study was to investigate the level of HIV/AIDS awareness among primary school teenagers. Data from the first section of the questionnaire, which dealt with awareness, was computed. The frequencies and percentages for the low and high scores were obtained as can be seen in Table 2.

**Table 2**

##### **General Awareness of HIV/AIDS among Teenagers**

<u>HIV/AIDS Awareness in Teenagers</u>		
<u>Valid</u>	<u>Freq</u>	<u>Percentage</u>
High	163	58.21
Low	117	41.79
<b>Total</b>	<b>280</b>	<b>100</b>

As shown in table 2, it was found that 58.21 percent of the total respondents, comprising of 163 pupils exhibited a high score. Another 41.79 percent of the respondents ranked within the low category. The general implication is that the general awareness of the pupils in primary schools within Eldoret on matters of HIV/AIDS is slightly above average.

Sustained sensitization campaigns by the government and non governmental agencies have increased the knowledge base for the pupils. Another factor that explains this trend is the inclusion into the formal primary schools curriculum of instructional material that carries a broad general wealth of HIV/AIDS. The electronic media

which is readily available in the pupils' immediate environment has also enhanced the levels of awareness. However the 41.79 percent of the pupils who scored low in the awareness test are proof of societal, class and other cultural obstacles that mar the effective communication and conceptualization of knowledge on HIV/AIDS.

### 4.3 HIV/AIDS Myths among Teenagers

In line with the second objective, the study sought to investigate the general level of HIV/AIDS myths among primary school teenagers in Eldoret municipality. Data was computed from the second part of the test that dealt with the level of awareness of HIV/AIDS as affected by myths in the respondents' environments. The results were converted into frequencies and percentages as can be seen in Table .3

**Table 3**

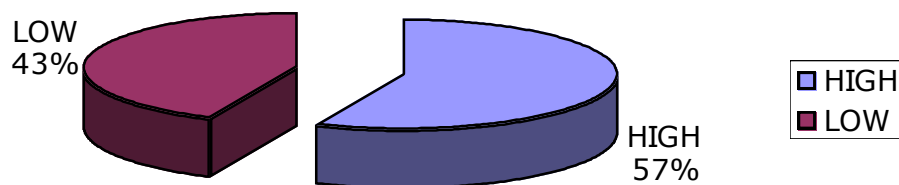
#### **HIV/AIDS Myths among Teenagers**

Valid	Freq	HIV/AIDS Myths
		Percentage
High	159	56.79
Low	121	43.21
<b>Total</b>	<b>280</b>	<b>100</b>

As shown in Table 3 it was found that 159 pupils representing 56.79 percent of the total respondents exhibited a high score. Another 121 pupils representing 43.21 percent of the respondents ranked within the low category.

According to the results which were classified as AIDS patients are always thin. AIDS is a disease that affects married people only, a person who has no symptoms can not infect you and AIDS does not exist are myths among young people. Living with infected people under the same roof can spread AIDS and friends are the best source of HIV/AIDS information either High or Low. 159 pupils, representing 56.79 percent of the total scored high, while 121 pupils representing 43.21 percent scored Low as illustrated in Figure 2

## HIV/AIDS AND MYTHS



**Figure 2: HIV/AIDS and Myths**

The basic interpretation from the results is that a majority of pupils in Eldoret municipality, (56.79 percent) have the intellectual capacity to distinguish between facts and myths as regards HIV/AIDS. However, a significant 43.21 percent, which was still a large part of the sample failed to get a clear distinction, probably due to

ignorance and poor guidance. Matters of social class, and nature of school also contributed to the disparity.

#### 4.4 HIV/AIDS Awareness by Gender

The third objective investigated gender difference in the level of HIV/AIDS awareness. This corresponds to the first null hypothesis which stated that there was no significant difference in the level of HIV/AIDS awareness between primary school teenage boys and girls in. To test this hypothesis, scores of both girls and boys across the sampled schools were obtained and their means computed. Table 4 shows the data indicating the mean, frequency and standard deviation of the scores.

Table 4:

#### Mean Scores for HIV/AIDS Awareness by Gender.

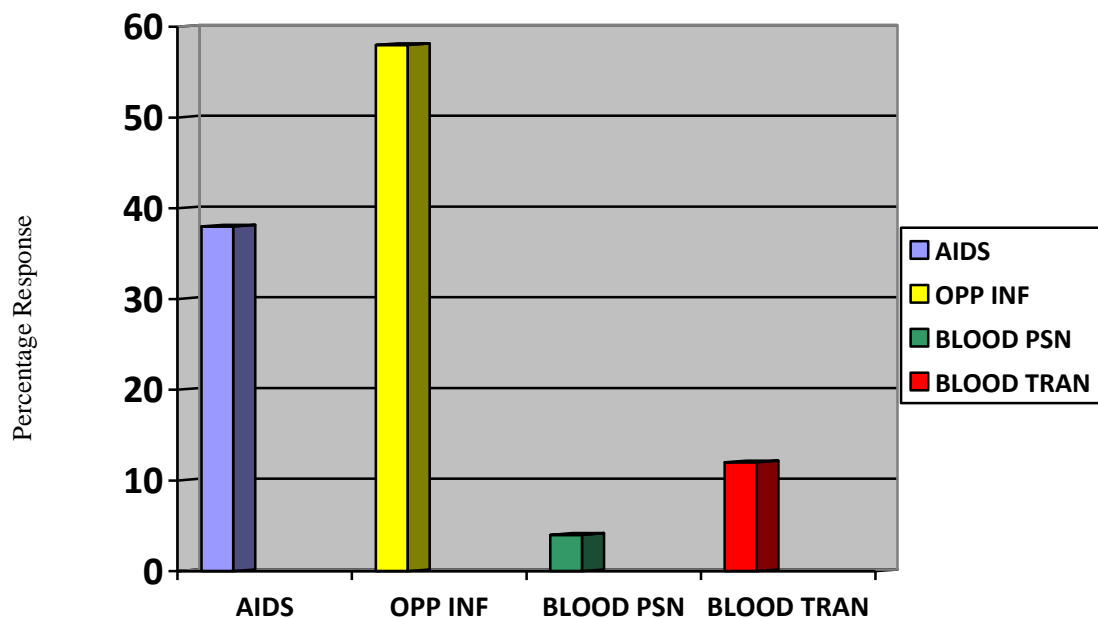
<u>HIV/AIDS Awareness and Gender</u>			
Gender	N	Mean	SD
Males	140	41.89	3.52
Females	140	43.61	6.66
<b>Total</b>	<b>280</b>	<b>42.75</b>	<b>3.69</b>

$t$ -value = 1.06,  $df = 278$ ,  $p < .05$

A t-test for independence was performed to test whether or not a significant difference existed in the level of HIV/AIDS awareness between primary school teenage girls and boys. The results of the test indicated that there was a statistically significant difference in the level of HIV/AIDS awareness between primary teenage boys and girls,  $t_{(278)} = 1.06$ ,  $p \leq .05$ . Thus, the null hypothesis was rejected and it was concluded that there was some difference in the level of HIV/AIDS awareness

between primary school teenage boys and girls and it was concluded that girls were better informed on matters of HIV/AIDS than boys.

The Kenyan environment in which proactive measures and campaigns against the HIV/AIDS scourge has centered more on girls deemed more vulnerable than boys could explain this trend. Specific questions about awareness were obtained from the responses and cross tabulated to observe the consistency in the trend. When asked about what kills an AIDS victim, 158 pupils representing 56.4 percent of the sample gave the right answer, (opportunistic infections) while 122 pupils responded with different wrong answers as observed in Figure 3



**Figure 3: What Causes Death in an AIDS Victim?**

Figure 3 the results were cross tabulated with gender to test the levels of awareness against males and female pupils on the cause of death in an AIDS victim as shown in

Table 5. Out of the 158 students who gave the right answer, 81 of them were female while a minority of 77 was boys.

#### 4.5 HIV/AIDS Myths by Gender

The study according to the fourth objective aimed at an investigation of the difference in the level of HIV/AIDS myths between primary school teenage boys and girls. The second null hypothesis that stated that there is no significant difference in level of HIV/AIDS myths between primary school teenage boys and girls corresponds to it. To test this hypothesis the socio-demographic characteristics were obtained in section A of student's questionnaire for establishment of gender. HIV/AIDS myths of the girls and boys were obtained from the responses in section C of the questionnaire and their respective means computed. Table 5 shows the two categories of means, and the standard deviations.

Table 5

#### HIV/AIDS Myths and Gender

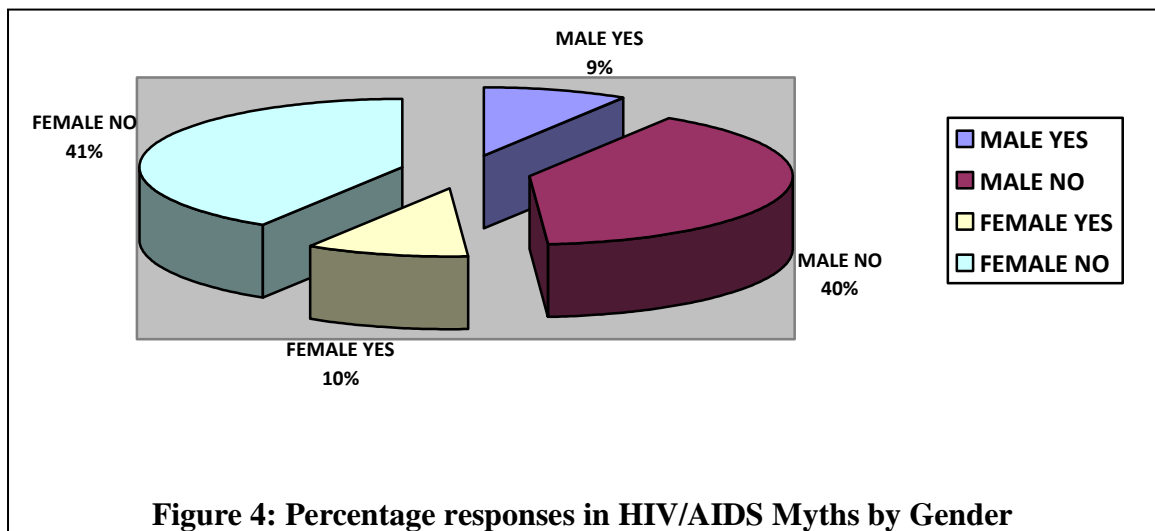
Gender	N	HIV/AIDS Myths	
		Mean	SD
Males	140	52.61	2.42
Females	140	53.69	2.36
<b>Total</b>	<b>280</b>	<b>53.15</b>	<b>2.39</b>

t- value = 0.85,  $df = 278$ ,  $p < .05$

A t-test for independent samples was performed to test whether or not a significant difference existed between the concepts of HIV/AIDS myths between the two groups. The results for the tests showed a statistically insignificant difference in the

conception of HIV/AIDS myths between primary school teenage girls and boys,  $t(278) = 0.85$ ,  $p < .05$ . Thus the null hypothesis was accepted since the study found no significant gender difference in the level of HIV/AIDS myths among the primary school pupils. Girls were more informed on HIV/AIDS myths than the boys.

From the indicated results, more girls (53.69 percent) than boys (52.61 percent) portrayed a better understanding of myths surrounding HIV/AIDS. The study narrowed to specifics, and sought the level of knowledge on matters of symptoms, 114 female pupils against 111 male ones gave the right answer when asked; Do all HIV/AIDS victims show symptoms?. Figure 4 shows the results of the question.



More cross tabulation was done with a related question that sought to know whether a person without symptoms could not spread HIV/AIDS as shown in table 5.1



**Table 5.1**

**Cross Tabulation Between All Patients show Symptoms and A person with no Symptoms Cannot Spread Aids**

<u>All Patients Show Symptoms and Infection</u>				
No Infection Without (No)	Male (YES)	Female (NO)	Female (YES)	Male
Symptoms				
YES	7	12	4	13
NO	19	102	25	98
<b>Total</b>	<b>26</b>	<b>114</b>	<b>29</b>	<b>111</b>

Out of 114 females who thought that not all AIDS patients show symptoms, a majority of them (102) denied that a person with no symptoms could spread AIDS (the correct answer) while only 12 thought he/she could not. This is fairly consistent with 98 boys of the 111 who also gave the right answer to the second question.

#### **4.6 HIV/AIDS Awareness by Type of School**

The fifth objective for this study was to establish the difference in the level of HIV/AIDS awareness between primary school teenage pupils in public schools and private primary schools. Therefore, the third hypothesis stated that there is no significant difference between the level of HIV/AIDS awareness between primary school teenage pupils in public schools and private schools. To test this hypothesis, scores of the first test that dealt with awareness were computed to obtain the mean scores of pupils in public schools against those in private schools. Table 6 shows the means and standard deviations of the respective groups.

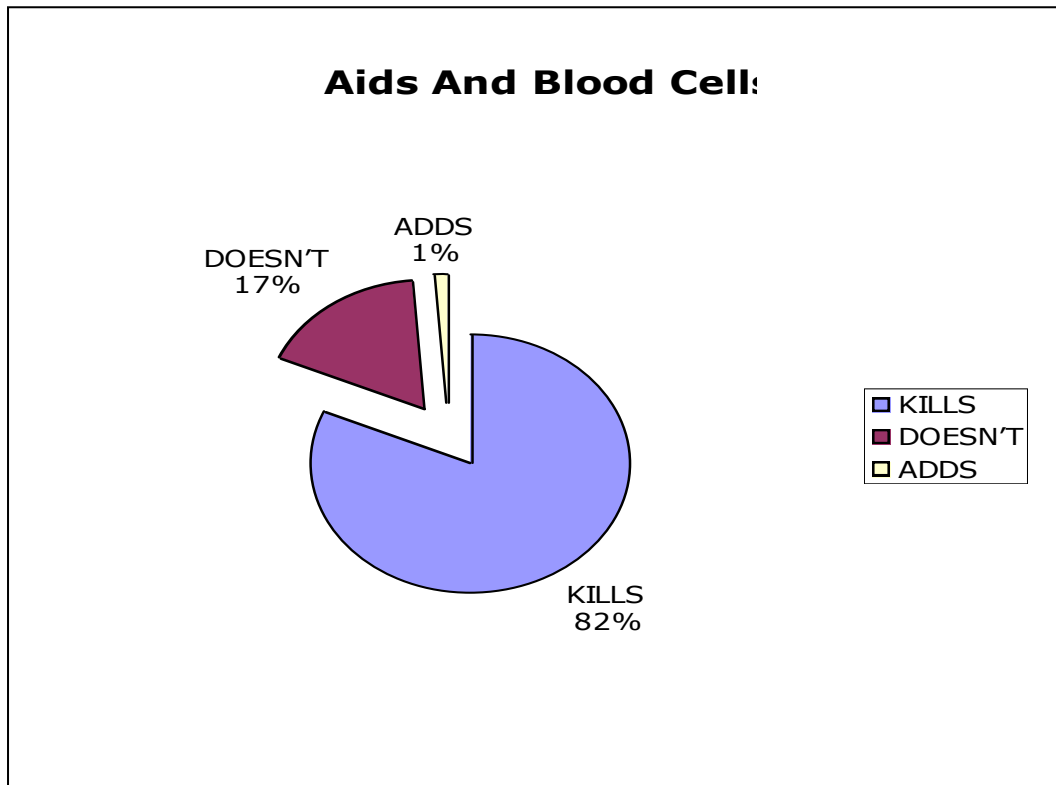
**Table 6**  
**HIV/AIDS Awareness by School Type**

HIV/AIDS Awareness and School Type			
Type of School	N	Mean	SD
Private	80	56.63	2.32
Public	200	48.28	1.52
<b>Total</b>	<b>280</b>	<b>50.82</b>	<b>1.78</b>

$t$ -value = 7.08,  $df = 278$ .  $p < .05$

A  $t$ -test for independence was performed to test whether or not a significant difference existed in awareness between the two categories of students. The results indicated that there was a statistically significant difference between public and private schools in their levels of awareness. Pupils in private schools indicated a greater extent of awareness than their colleagues in public schools;  $t$ -value= 7.08,  $df = 278$ , and  $p < .05$ . Thus the null hypothesis was rejected. From the results it was found that pupils in private schools had a higher understanding of HIV/AIDS than those in public schools. The mean for private schools was 56.63 percent against 48.28 percent for public schools. The predominantly rural settings of many public schools are environments largely deficient of information on HIV/AIDS.

The study sought answers on the entire pupils sample who responded to the question of what AIDS does to blood cells. The responses were then cross tabulated against public and private schools shown in figure 5.



**Figure 5: What AIDS Does to Blood Cells**

Out of the 229 pupils who got the right answer across the schools, 77 were from private schools while 152 were from public schools. But only 3 pupils from private schools got the wrong answers as compared to 48 from public schools as shown in

Table 6.1 below.

**Table 6.1 Cross Tabulation of Aids on Blood Cells and Types of Schools.**

Type of school	Aids on Blood Cells and School Type			Totals
	Kills	Doesn't Kill	Adds	
Public	152	45	3	200
Private	77	2	1	80
<b>Total</b>	<b>229</b>	<b>47</b>	<b>4</b>	<b>280</b>

Thus students from private schools possess a higher understanding of awareness of HIV/AIDS facts compared to their counterparts in public schools.

#### **4.7 HIV/AIDS Myths by Type of Schools**

The sixth objective of the study was to establish the difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and those in private schools. Thereby, the fourth null hypothesis stated that there is no significant difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and those in private schools. In other words that the level and extent to which information on HIV/AIDS was distorted or affected by myths differed within the two categories of pupils. Table 7 shows the mean scores and standard deviations between the two categories.

Table 7

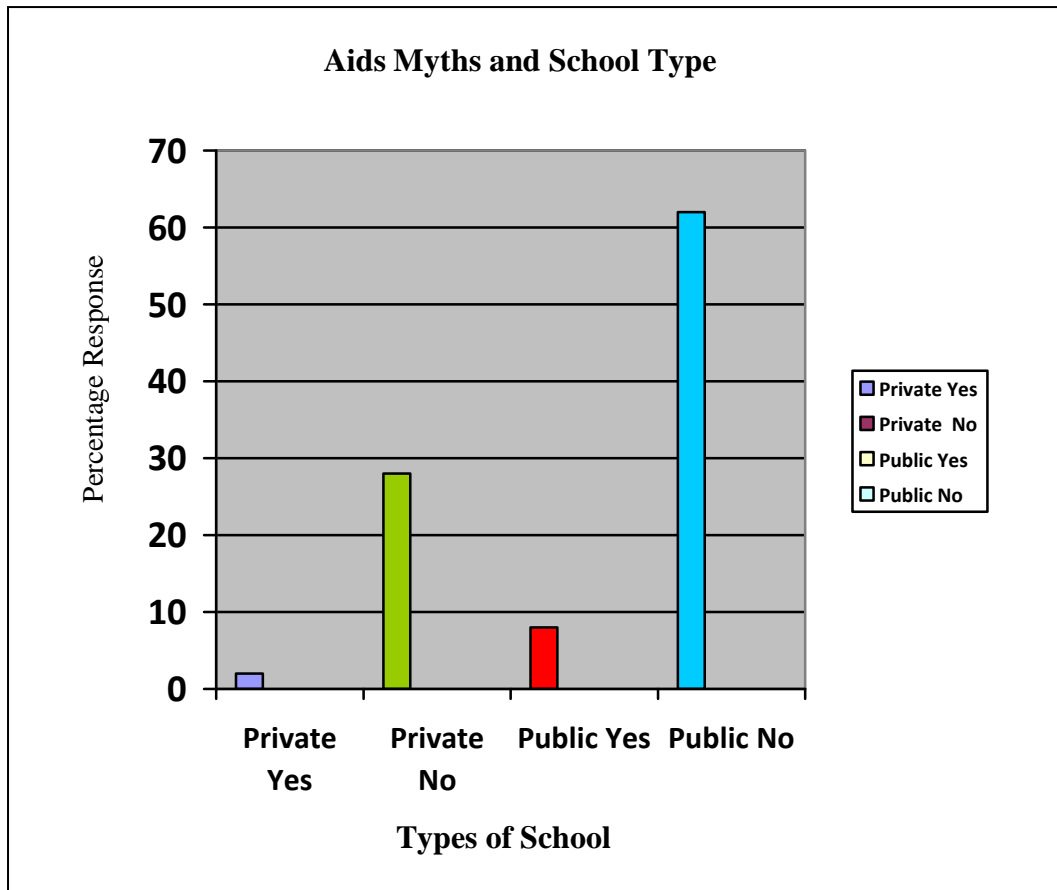
**HIV/AIDS Myths by School Type**

Type of School	N	HIV/AIDS Myths	
		Mean	SD
Public	200	51	0.6
Private	80	59	2.71
<b>Total</b>	<b>280</b>	<b>53.29</b>	<b>1.53</b>

$t$ -value = 6.45,  $df = 278$ ,  $p < .05$

A t-test was conducted to find out whether or not a significant difference existed in myths held between students in private schools and those in public schools. The results, as shown in Table 7, indicated a significant difference showing private school pupils are less affected by myths in their conception of HIV/AIDS phenomenon,  $t(278) = 6.45$ ,  $p < .05$ . The null hypothesis was effectively rejected with a conclusion that pupils in private schools were more aware of the myths that cloud the HIV/AIDS debate than their public school counterparts.

Private school pupils according to the results have a significantly higher understanding of HIV/AIDS myths against those in public schools, 59 percent for private against 51 percent for public. Asked whether HIV/AIDS was caused by strong witchcraft 95 percent of private school pupils gave the right answer, against 89.5 percent of public schools who got it right as shown in Figure 6.



**Figure 6: HIV/AIDS is caused by Witchcraft**

The tendency also illustrates the status for the students where those in private schools deemed to come from affluent backgrounds which are better exposed to information than those in public and probably ill- equipped and lack similar resources and are challenged on logistics.

The tendency also illustrates the status for the students where those in private schools deemed to come from affluent backgrounds which are better exposed to information than those in public and probably ill- equipped and lack similar resources and are challenged on logistics.

#### 4.8 HIV/AIDS Awareness and Socio-Economic Status

The seventh objective of this study was to determine the difference in the level of HIV/AIDS awareness between teenage pupils from low socio-economic status and those from high economic status teenage pupils in primary schools. In other words the study probed the level of difference in awareness if any between pupils from affluent and poor backgrounds within the municipality. Also the fifth hypothesis stated that there is no significant difference in level of HIV/AIDS awareness between low socio-economic status and high socio- economic status of teenage pupils in primary schools.

Table 8 shows the means

Table 8

#### HIV/AIDS Awareness and Socio-economic status

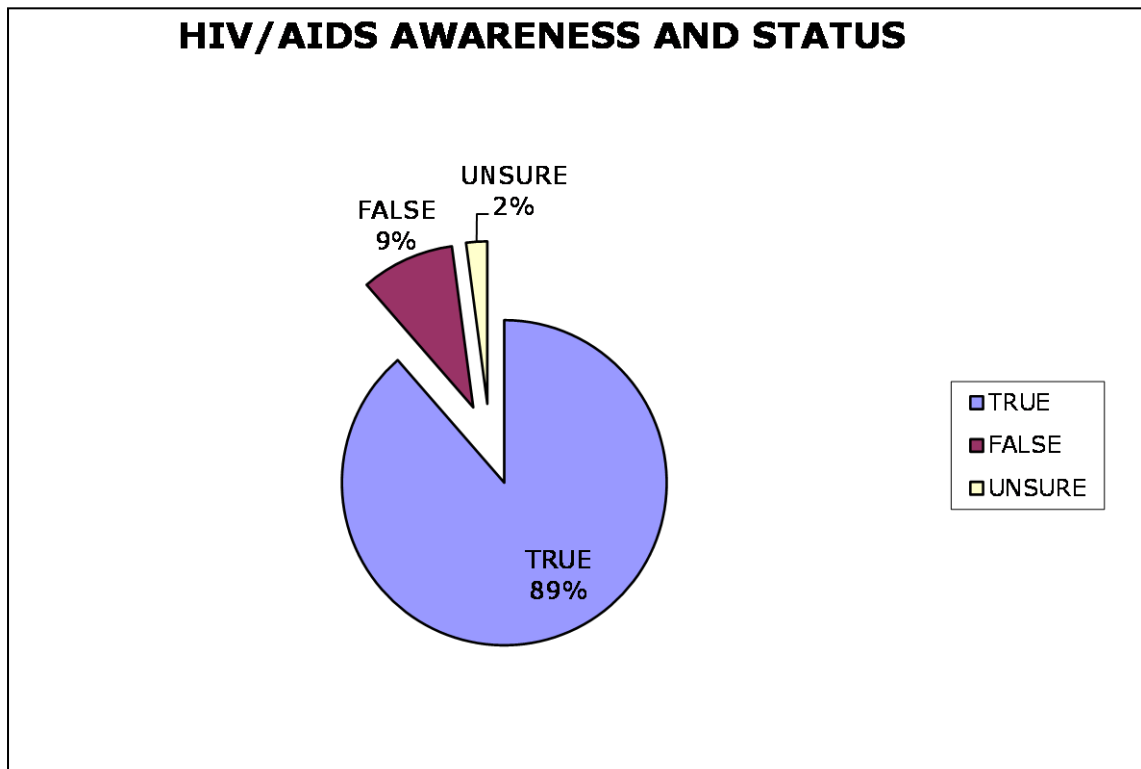
<u>HIV/AIDS and Socio-economic Status</u>			
S.E.S.	N	Mean	SD
Affluent	169	54.21	2.84
Poor	111	48.94	2.39
<b>Total</b>	<b>280</b>	<b>52.12</b>	<b>2.67</b>

$t$ - value = 4.18,  $df = 278$ ,  $p < .05$

A t-test for independent samples was conducted to test whether or not a significant difference indeed existed in HIV/AIDS awareness between students from high socio-economic status and those from low economic status. The results, indicated a statistically significant difference in the level of HIV/AIDS awareness in pupils from low economic status and pupils from high socio-economic status,  $t$ - (278) = 4.18,  $p < .05$ . Thus the null hypothesis was effectively rejected with a conclusion that pupils

from high socio-economic status were more aware of the HIV/AIDS knowledge than those from low economic status.

According to the results pupils from poor backgrounds scored a mean score of 48.94 percent against 52.12 percent of those from affluent backgrounds. These results appear to give some advantage to the private primary school pupils. A sample of responses of a true reflection lies in students from both categories scored on the question of awareness. Answers were sought on the risk of alcoholism on HIV/AIDS infection and results posted in Figure 7



**Figure 7: Alcohol and Risk of AIDS of HIV/AIDS Infection**

This results show that most pupils in primary schools are aware of the risk caused by alcohol in HIV/AIDS infection.

From the results obtained out of the 248 pupils who knew the implication of alcohol on HIV/AIDS, 117 of them were from poor backgrounds while a majority of 131



pupils were from affluent backgrounds. Pupils from affluent backgrounds unlike their counterparts from low status families are endowed with sufficient resources for effective communication of ideas on HIV/AIDS.

#### 4.9 HIV/AIDS myths by Socio-economic Status

The study, according to the eighth objective analyzed the difference in level of HIV/AIDS myths between primary school teenage pupils from high socio-economic status and those from low socio-economic status. This was in correspondence with the sixth null hypothesis which said that there is no significant difference in the level of HIV/AIDS myths between low socio-economic status and high socio-economic status primary school pupils. To test this hypothesis mean scores of the poor and affluent students were computed and a t-test performed. Table 9 shows the means and the standard deviations of the poor and affluent students.

Table 9

#### HIV/AIDS myths by Socio-economic Status

<u>HIV/AIDS Myths by socio-economic status</u>			
Gender	N	Mean	SD
Poor	169	47.78	2.51
Affluent	111	47.25	3.42
<b>Total</b>	<b>280</b>	<b>47.57</b>	<b>2.91</b>

$t$ -value = 0.33,  $df = 278$ ,  $p < .05$

The results showed that there existed an insignificant difference between poor and rich students on the level to which myths affected their understanding of HIV/AIDS information;  $t$ -value = 0.33,  $df = 278$ , and  $p < .05$ . Thus the null hypothesis was

accepted and it was concluded that both students from poor back grounds and rich backgrounds were influenced by myths in their conception of HIV/AIDS.

## CHAPTER FIVE

### DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Overview

This chapter discusses the results that were presented in chapter four. The chapter relates the past studies with the study findings on the relationship between post HIV/AIDS education and awareness of primary school teenagers in Eldoret Municipality. A summary and recommendations about HIV/AIDS awareness among students, HIV/AIDS myths among students, gender and HIV/AIDS awareness, HIV/AIDS awareness and school type, HIV/AIDS awareness and socio-economic status and myths held by respective categories follows. The chapter ends with the implications for policy makers, conclusions of the study and recommendations and for further research.

#### 5.1 Discussion of the study findings

The study set out to examine the level of awareness of HIV/AIDS and myths surrounding the pandemic among primary school teenagers in Eldoret municipality. The study was guided by eight objectives and six null hypotheses. To attain these objectives a sample of two hundred and eighty teenagers were selected in a stratified random sampling system from schools within the municipality, and were asked to respond to the tests of awareness and myths in the questionnaire. They formed the primary data. Data was presented descriptively, and hypotheses were tested using the t-scores.

Findings from the study indicated that there was a significant difference in the level of HIV/AIDS awareness between primary school teenage boys and girls, (findings on null hypothesis one). It was also found that there was no significant difference in level

of HIV/AIDS myths between primary school teenage boys and girls, (findings on null hypothesis two). The results showed that there is a significant difference in the level of HIV/AIDS awareness between primary school teenage pupils in public schools and private schools, (findings on null hypothesis three). There is a significant difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and private schools, (findings on null hypothesis four). The results indicated a significant difference in level of HIV/AIDS awareness between low socio economic states and high socio economic status primary school teenage pupils. There was however no significant difference in level of HIV/AIDS myths between low socio economic status and high socio economic status primary school teenage pupils (findings on hypothesis six).

In this study, HIV/AIDS awareness was operationalized to refer to the general knowledge, and familiarities about the whole phenomenon of HIV/AIDS. In this sense, matters of causes, symptoms, infection and effects were the guiding lights. Under this study the categorical variables were pursued as follows; General awareness of HIV/AIDS, awareness by gender, type of school and HIV/AIDS awareness by socio-economic status. The findings from the data that was presented on general awareness, as per the first objective, indicated that primary school teenagers within Eldoret municipality were slightly less than averagely acquainted with the basic acts on HIV/AIDS (42.75%). It was concluded that HIV/AIDS education was effective in influencing the awareness of primary school students. Therefore confirming education as a stepping stone to awareness about the existence of an objective order in human relationships (Rwalemira 1999). This agrees with check's (2000) desire to protect the world using education.

An analysis of the level of difference in HIV/AIDS awareness between primary school teenage boys and girls revealed that girls showed a higher level of awareness (43.61%) than boys (41.89%). This stands against findings by UNDP (2008) report that school boys were better informed than school girls. This is due to the fact that policy makers within government and non-state actors have trained more workers, focused on the girl child traditionally viewed as imperiled by forces of social exploitation. DFID (2005) pledged to take an international lead on improving life for girls. It is working together with UNICEF as part of UN girls' education initiative. Primary school female teenagers have been categorized within the age group most affected by HIV/AIDS, 80% which lie within 15-49 years (MAP International, 2000). Thus the research carried out by the DFID (2007) showing a higher percentage of HIV/AIDS infection among non-school going girls affirm the importance of education for equality in HIV/AIDS awareness in gender.

Efforts to protect the girl child have been beefed up alongside other gender based initiatives such as protection against female genital mutilation, early marriages and others which significantly raise the awareness levels within the female teenage category. Boys have not received equal amount of attention as are regarded less vulnerable and less targeted by negative forces that heighten the risk of infection. There has also been a tendency of enrolling girls into private, urban and boarding school facilities while boys remain largely in public or rural settings not much exposed to forces of awareness, as proved by the Department For International Development (2004) in their efforts to improve the care for girls.

Results from the analysis of difference in level of HIV/AIDS myths between primary school teenage boys and girls in Eldoret municipality showed that there was no gender difference in the level of HIV/AIDS myths. Both categories recorded an above average level of awareness; 52.61% for boys and 53.69% for girls showing only a marginal difference not statistically significant. The test for the null hypothesis gave the value of 0.85 an indication that the difference in the level of awareness was generally negligible. These findings agreed with Kipp, Kamugisha & Rehle (1992) that affirmed same level of awareness among girls and boys in Uganda. Several factors could account for this sameness, one that the immediate environment that supports the structure of information flow is imbued with strong cognitive forces that allow for general access of relevant information on HIV/AIDS awareness as opposed to myths. Contrary to these findings the UNDP (2008) reported that young women had been neglected by HIV/AIDS education interventions.

School enrollment level within the municipality are above 60% (Ministry of Education, 2001) The government has the last three decades increased proactive measures to educate school children on the perils of the HIV/AIDS scourge, one of which was the introduction of the Family Life Education (FLE) programme which sought to address the problems of sexuality as manifested among the adolescents in the country. (KEN/88/09 UNDP). Such measures have centered on dispelling the bulk of misinformation as brought on to the pupils, and students through myths and folk philosophy, that go against the sexes and hence the almost sameness in awareness as manifest in this study reflects the trend on the ground. The insignificant difference though of attention where the girl child is aware of the incidents, threat and the

scourge as manifest in her environment attaches a keen interest than the boys who may be averse to the topics and consider it foreign to his age group.

Findings for the study of the level of difference of HIV/AIDS awareness between primary school teenage pupils in public schools and private schools in Eldoret municipality indicated a significant difference between the two categories. Private schools exhibited a much higher mean score of 56.63, against the public schools which had 48.28%, slightly below average. In this study, there were 200 public school teenagers and 80 from private institutions. Most of the public schools were in suburban or rural settings while many private ones were set within the urban areas of the municipality. The difference in the degree of awareness shows the disparities in logistics and resource allocation between the two categories.

Private schools are well endowed with facilities and vet the numbers of admission while public primary schools are reeling from one of the worst cases of over enrollment following the free primary school policy. The large turn outs often overwhelm the limited instructional facilities provided by the government. This lowers both the morale of teachers and students and negatively impacts on the motivation levels (Kenya Institute Education, 1997). Like everything else the cognitive level on matters of HIV/AIDS becomes low hence the dismal level of awareness. Eldoret municipality is set within one of the most volatile regions of the North Rift. For many reasons, including the latest, 2007 post election violence, the town has experienced many politically motivated tribal skirmishes that have eventually created a wedge between the communities. These have mostly affected the rural parts of the municipality. In the wake of it all, there has been a major

realignment of students and teachers on tribal lines resulting in schools with characteristics of dominant tribal elements. In such environment the cultural impediments of the dominant schools tend to colour the awareness level of students leading to a distortion of information on HIV/AIDS awareness. But for the private school, their urban settings, limited population and less governmental control creates a conducive environment of increased levels of awareness as seen in Table 6. Due to the diverse reasons these findings disagree with Kipp, Kamugisha & Rehle (1992) that stated that awareness among students in primary schools does not vary by school type, that is, private or public.

Results of the study on the difference in the level of HIV/AIDS myths between primary school teenage pupils in public schools and private schools in Eldoret municipality revealed that there is a significant difference between the two. Teenage pupils in private schools attained a mean score of 59.0% in the myths test, while those from public schools scored a mean of 51.0%. The implication is that teenagers in private schools have a higher capacity to distinguish between the facts and myths surrounding HIV/AIDS than their colleagues in public schools.

According to the study findings most of the students in the sampled schools 60.35% belonged to the poor category. Out of these, 200 students accounting for 71.43% of the total were from public schools. It was therefore concluded that most of the teenagers from public primary schools within the municipality were from the poor category. In this regard their lower capacity on the level of awareness of myths can be attributed to lack of the necessary environment and resources to educate them on the right information of HIV/AIDS. The poor category teenagers mostly originated from



households where parents had little or limited education levels and undertook informal businesses. Parental ignorance thus formed the basis of the low levels of awareness among teenagers from public schools. Conversely teenagers from private schools had most of their parents in the formal sectors of employment and many of them had graduate levels of education, and formed the primary source of their children's awareness of HIV/AIDS. This is where, due to logistical problems, stake holders have had difficulties in covering the entire curriculum, and accompanying syllabus and thus the beneficiaries of the system stand to lose the capacity to appreciate facts and issues to HIV/AIDS and STDs (Kenya Institute Education, 1997).

The study found out, in line with the seventh objective, that there was significant difference in level of HIV/AIDS awareness between high socio- economic status and low- socio-economic. This agrees with UNICEF (2001) findings that poverty limits the education of children and adolescents, thus making them more ignorant. The synergistic relationship and vicious cycle of poverty, ignorance and disease is clearly manifested in HIV/AIDS. Despite the difference in level of awareness the teenagers in both categories have clear understanding on general factors of HIV/AIDS. The response to the questions of awareness showed that the teenagers across the board had cross-cutting information on the causes, infection and general factors of HIV/AIDS. The risk and effects of HIV/AIDS has ignored the boundaries of status and its effects are felt across the board, (NAS COP 2003). The wholistic attempts by the government and USAID has increased and hence balanced the awareness across the status though it is true according to UNICEF (2001) assertion that poverty limits the education of girls and adolescents.

This study investigated the myths held by pupils in high and low socio-economic status and found out, in line with the eighth objective, that there was no significant difference in level of awareness between high socio economic status and low socio-economic.

In this case the findings agree with Rwalemira (1999) hypothesis that success in prevention of infection is in education, is not realistic but the power lies in personal determination of what is good and what is evil, is important. Thus all students strive to be aware of what is good for them. This study also agreed with the survey by UNDP (2005) that noted that myths, misconceptions, superstitions and stereotypes are prevalent in rural areas.

The Ministry of Education introduced HIV/AIDS education in schools and colleges as part of the fight against AIDS. The myths which are held by students are included in the syllabus for correction. Adolescents are highly affected by what they learn from their peers. Most of the knowledge shared among them is incorrect which form part of the myths in the society. Adolescents hold sexuality myth, lack understanding about physical maturation changes they experience, yield to negative peer pressure because of myths, fear of alienation, feeling like outcasts, and desire for acceptance (Erulkar, 2003, Askew, 2004). Despite this, adolescents fear to share their sexual issues with their parents, because of fear of parent's suspicion and so affirming that social factors influence adolescents.

Most of the myths about HIV/AIDS which are included in the primary school curriculum were used in the study. The incorrect information about HIV/AIDS includes a belief in HIV as a curse and being caused by strong witchcraft. A view that

donating blood can lead to HIV/AIDS infection, all people who have AIDS show symptoms of the disease, not being able to get AIDS the first time you have sex or unless you are a homosexual and AIDS patients are always thin. AIDS is a disease that affects married people only, a person who has no symptoms can not infect you and AIDS does not exist are myths among young people. Living with infected people under the same roof can spread AIDS and friends are the best source of HIV/AIDS information, are myths too that affect young peoples' behaviour negatively.

This is information which is held by many as studies have shown. Teenagers are affected by this information which is passed through peer relationships, the media, newspapers and the radio (Akunga 2000). In a survey by doctors in Nigeria 46.7 percent of the population studied identified HIV as leading to AIDS. 16 per cent thought HIV was a complication from another disease, 30.5 per cent listed mosquito bites, hand shaking and kissing as causes (Willis, 2002). In South Africa a national survey of 12-17 years olds showed that the topic of sex remains a taboo in most households and two out of five children surveyed thought that AIDS could be cured by having sex with a virgin. AIDS is not a disease of homosexuals alone as held by some people as observed by Corpuz (2005). Neither is it witchcraft as viewed among the Luo of Western Kenya, where it is conceived as 'Chira' (witchcraft or failure to perform some cultural requirements leading to a debilitating condition). Therefore the Ministry of Education has included this incorrect information in the primary school syllabus to curb the need for correct knowledge on myths about HIV/AIDS.

## 5.2 Conclusions

1. Based on the findings of this study, it can be concluded that there is an average level of awareness of HIV/AIDS among primary school teenagers in Eldoret municipality. It was also apparent that the levels of misinformation or myths on the scourge were not subject to the socio- economic backgrounds of the primary school teenagers.
2. Besides the official curriculum, primary school teenagers have largely depended on their immediate environments for information about HIV/AIDS. This includes setting, as either urban or rural and parental level of education, teenagers from urban, and upper class families exhibit higher levels of awareness than their colleagues from rural or slum areas, and whose households are led by ignorant and poor parents.
3. There is a better understanding of HIV/AIDS education among teenage girls than boys in primary schools. Girls are also more informed on HIV/AIDS myths than boys in the same primary schools.
4. School type has significant influence on HIV/AIDS awareness and myths held by teenagers. Students in private schools have more knowledge on HIV/AIDS education than those in public schools.
5. The opinion leaders like teachers and parents play a major role in the flow of information, as much as secondary instruments of instruction such as the media and advertisements. Company is of paramount importance as it harnesses certain values that either add or distort on the general facts and figures of HIV/AIDS information.

### 5.3 Recommendations

- i. Evaluation of the HIV/AIDS education programme should be carried out in all primary schools by the Ministry of Education. This way the levels of HIV/AIDS awareness and myths will be established frequently and improvements made as required.
- ii. Stake holders in the campaign against HIV/AIDS should not forget formal instruction on HIV/AIDS awareness at all levels of the lives of primary school teenagers. The school type, gender and socio-economic status should form part of the considerations about HIV/AIDS awareness, as they affect households to degrees that impact on their cognitive abilities, and prejudices.
- iii. The level of HIV/AIDS knowledge among primary school students need to be increased so as to reduce the number of respondents who scored low further. The 41.79 percent respondents who scored low in HIV/AIDS awareness needs to have their knowledge of HIV/AIDS increased. This is a large percentage of teenagers in school who should acquire the necessary information for a higher level of awareness. This will reduce the percentage of with low knowledge in HIV/AIDS, which will lead to reduction in HIV infection among the students and enhance change of sexual behavior. HIV/AIDS is basically a sexually transmitted disease or infection and to guard themselves against infection, they need to know everything there is to know about the disease. So far, the ministry of education has tried to make it compulsory for all the schools to teach HIV/AIDS education. This education should be stressed right from primary schools. Every school should make an effort to pass this information to their students.

- iv. Parents should also play a role in the education of their children. It is not right for them to expect the students to learn everything about HIV/AIDS from schools. However hard it might be, parents should try to encourage an open and positive relationship with their children so that issues concerning their sexuality can be discussed with ease.
- v. Primary school students should be exposed to accurate information. The myths they hold about HIV/AIDS should be corrected through HIV/AIDS education.
- vi. As all teenagers face the challenge of HIV/AIDS there is need for the Ministry of Education to prepare all teachers through workshops to be able
- vii. to teach the subject of HIV/AIDS education effectively.

#### **5.4 Suggestions for Further Research**

Due to its scope, the study dwelt on the influence of general factors on the levels of awareness and myths as regards HIV/AIDS.

- i A similar study should be conducted with more attention placed on the wider North Rift in the wake of new rises in prevalence levels.
- ii. The study exclusively dwelt on awareness, and further studies should be focused on the impact of the HIV/AIDS scourge among the teenagers.
- iii. The study dwelt exclusively on teenagers within the schools in Eldoret Municipality. More focus should be put on the teenagers within the same age groups but who are not in school. These are particularly vulnerable.

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**APPENDICES****APPENDIX 1: INFORMED CONSENT LETTER**

Dept. of Educational Psychology,

Moi University,

Box 3900,

ELDORET

Dear Participant,

**RE: INFORMED CONSENT**

I am a post graduate student in the Department of Educational Psychology, Moi University. I am pursuing a master's degree in Guidance and Counseling and carrying out a research on factors that influence **the HIV/AIDS Education awareness** among teenagers in primary schools. The findings of the study will hopefully be an eye opener to the level of knowledge acquired and improvement required.

Kindly make a response to all the statements in this questionnaire. The information you give will be used only for the purpose of this study and will be treated as confidential. Do not put your name on the questionnaire.

**Thank you**

**Watindi Resper**

## APPENDIX II: PUPILS' HIV/AIDS QUESTIONNAIRE

### HIV/AIDS Awareness and Myths Questionnaire

Please read the questions provided below and then answer all of them. There is no wrong or right answer, all the responses given are of great value to the researcher, the information that you will provide will be used strictly for the purpose of this study and it will be treated with strict confidence. Do not write your name.

#### Part A

##### Demographic Characteristics

Tick  the appropriate alternative where applicable or fill in the blank spaces.

1. Nature of your school:      private            public
2. Sex;    male            female
3. Who owns the house where you live?    Parents            rented
4. Name of estate where you live \_\_\_\_\_
5. Highest level of education your father/guardian attained. Did not attend school  
     Primary            Secondary            College            University
6. Highest level of education your mother/guardian attained. Did not attend school  
     Primary            Secondary            College            University
7.          Parents'          occupation;          Mother/guardian\_\_\_\_\_
- Father\_\_\_\_\_

#### Part B HIV/AIDS Awareness

Tick in the appropriate alternative where applicable or write your answer as appropriate.                                                                           

1. Have you heard about HIV/AIDS?      YES                                      NO

2. If yes what do the two terms stand for?

HIV \_\_\_\_\_

AIDS \_\_\_\_\_

3. AIDS is a disease. YES  NO

4. You can catch AIDS from:

- i. using the same swimming pool with a person who has AIDS
- ii. Sneezing or coughing from infected people.
- iii. Injecting drugs with needles.
- iv. Touching someone who has AIDS.
- v. Intimate sexual contact.
- vi. Mosquito bites.
- vii. Shaking hands with an infected person.
- viii. Sharing plates and spoons with an infected person.
- ix. Blood transfusion
- x. sharing knives or blades during the circumcision.

5. The HIV test is the only way of knowing your HIV status. YES

NO

6. There is no cure for AIDS. YES  NO

7. HIV infection can be

Prevented  Not be prevented  Non of the above

8. Condoms provide an opportunity for “safer sex” for the sexually active.

YES  NO

9. What percentage of safety can abstinence guarantee against HIV/AIDS for the Unmarried.

0%  50%  90%  100%



## 10. AIDS

Kills blood cells  does not kill blood cells  adds blood cells

11. If one gets full-fledged AIDS, he usually dies from:

The AIDS

Opportunistic Infections

Blood poisoning

Blood transfusion

12. What are some of the symptoms or signs that a person suffering from full-fledged AIDS show?

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

13. Alcohol and drugs can increase your risk of getting AIDS?

TRUE  FALSE  I DON'T KNOW

14. New HIV infections today mostly affect people between the ages of

0-10 yrs

15-24 years

30-45 years

60 and above

15. About how many Kenyans die of HIV/AIDS everyday?

200  300  above  none

16. What are the effects of HIV/AIDS in our lives?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_


17. What is the difference between an infected person and an affected person?

**Part C HIV/AIDS Myths**

**Tick  the correct choice**

1. HIV is a curse. YES  NO
2. HIV/AIDS is caused by strong witchcraft. YES  NO
3. Donating blood can lead to HIV/AIDS infection. YES  NO
- 4 All people who have AIDS show symptoms of the disease. YES  NO
5. You cannot get AIDS the first time you have sex. TRUE  FALSE
6. You can only get AIDS when you have many sexual partners.  
TRUE  FALSE
7. A person who has no symptoms of AIDS cannot infect you. YES  NO
8. You can only get AIDS if you are homosexual.  
TRUE  FALSE
9. HIV/AIDS is a disease that affects married people only. TRUE  FALSE
10. Friends are the best source of HIV/AIDS information. YES  NO
11. AIDS does not exist  
YES  NO
12. AIDS can be cured through having sexual intercourse with a girl child.  
YES  NO
13. AIDS can only affect immoral people  
YES  NO
14. AIDS patients and HIV carriers are always thin.  
YES
15. Living with infected people under the same roof can spread AIDS.  
YES  NO

**APPENDIX III: RESEARCH PERMIT**

<p>PAGE 2</p> <p>THIS IS TO CERTIFY THAT:</p> <p>Prof./Dr./Mr./Mrs./Miss..... WATINDI RESPER AYUMA</p> <p>..... of (Address)..... MOI UNIVERSITY P.O.BOX 3900, ELDORET</p> <p>..... has been permitted to conduct research in..... ELDORET MUNICIPALITY..... Location, UASIN GISHU..... District, RIFT VALLEY..... Province, on the topic..... Moderator Factors in the Influence of HIV/AIDS Education on Level of awareness and Myths held by Primary School Teenagers; Eldoret Municipality Kenya.</p> <p>..... for a period ending 30th July 20 09</p>	<p>PAGE 3</p> <p>Research Permit No. .... NCST/5/002/R/232</p> <p>Date of Issue 19.5.2009</p> <p>Fee received SHS.1000.00</p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p><i>Watindi Resper</i></p> <p>..... Applicant's Signature</p> </div> <div style="text-align: center;"> <p><i>[Signature]</i></p> <p>..... Secretary National Council for Science and Technology</p> </div> </div>
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REPUBLIC OF KENYA

**NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

Telegrams: 'SCIENCETECH', Nairobi  
Telephone: 254-020-241349, 2213102  
254-020-310571, 2213123  
Fax: 254-020-2213215, 318245, 318249  
When replying please quote

P. O. Box 30623-00100  
NAIROBI-KENYA  
Website: www.ncst.go.ke

Our Ref:

**NCST/5/002/R/232/4**

Date:

**19<sup>th</sup> May 2009**

**Ms. Watindi Resper Ayuma**  
Moi University  
P.O. Box 3900  
ELDORET

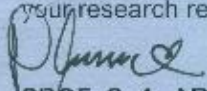
**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on, *Moderator Factors in the Influence of HIV/AIDS Education on Level of Awareness and Myths held by Primary School Teenagers: Eldoret Municipality Kenya*

I am pleased to inform you that you have been authorized to carry out research in Eldoret municipality for a period ending 30<sup>th</sup> July 2009.

You are advised to report to the District Commissioner, the District Education Officer Uasin Gishu District and the Municipal Education Officer Eldoret Municipality before embarking on your research.

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

  
**PROF. S. A. ABDULRAZAK Ph.D, MBS**  
**SECRETARY**

Copy to:

The District Commissioner  
**Uasin Gishu District**

The District Education Officer  
**Uasin Gishu District**

The Municipal Education Officer  
Eldoret Municipality  
**Eldoret**

(District Commissioner)

**REPUBLIC OF KENYA  
OFFICE OF THE PRESIDENT**

Telegrams: "DISTRICTER", Eldoret  
Telephone: Eldoret 31421/2  
When replying please quote  
ADM.15/4/VOL.IV/136  
Ref. No.....  
and date

DISTRICT COMMISSIONER'S OFFICE  
ELDORET WEST DISTRICT  
P O Box 30 - 30100  
ELDORET

27<sup>th</sup> May, 2009TO WHOM IT MAY CONCERNRESEARCH AUTHORIZATION

Ms Watindi Resper Ayuma has been authorized to carry out research on "Moderator Factors in the influence of HIV/AIDS Education on level of Awareness and Myths held by Primary School Teenagers: Eldoret Municipality Kenya" for a period ending 30<sup>th</sup> July, 2009.

Accord her the necessary assistance.

A handwritten signature in blue ink, appearing to read "J.L. Fedha".

J.L. FEDHA  
FOR: DISTRICT COMMISSIONER  
ELDORET WEST

C.C

THE MUNICIPAL EDUCATION OFFICER  
ELDORET MUNICIPALITY

APPENDIX VI RESEARCH AUTHORIZATION

(Municipal Education Officer)

REPUBLIC OF KENYA  
OFFICE OF THE PRESIDENT



Telegrams: "DISTRICTER", Eldoret  
Telephone: Eldoret 31421/2  
When replying please quote  
ADM.154/VOL.IV/136  
Ref. No.....  
and date

DISTRICT COMMISSIONER'S OFFICE  
ELDORET WEST DISTRICT  
P O Box 30 - 30100  
ELDORET

27<sup>th</sup> May, 2009

TO WHOM IT MAY CONCERN

RESEARCH AUTHORIZATION

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J.L. FEDHA  
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ELDORET WEST

C.C

THE MUNICIPAL EDUCATION OFFICER  
ELDORET MUNICIPALITY

*Fowarded to  
all H/R's - Ecd. Mun.  
Please allow Ms Watindi Resper  
Ayuma to carry out research in  
your school on the subject  
stated above  
Thanks  
A. V. D.M.E.O.  
28/5/09*

DISTRICT COMMISSIONER'S OFFICE  
ELDORET WEST DISTRICT  
P O Box 30 - 30100  
ELDORET