

**FACTORS INFLUENCING THE ADOPTION OF HIV/AIDS EDUCATION IN  
SECONDARY SCHOOLS:  
A CASE OF RACHUONYO DISTRICT, KENYA**

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**A Thesis Submitted to the Graduate School in Partial Fulfilment of the Requirements for  
Master of Arts Degree in Sociology (Community Development and Project Planning  
Option) of Egerton University**

**EGERTON UNIVERSITY  
FEBRUARY 2010**

## DECLARATION AND RECOMMENDATION

### DECLARATION

This thesis is my original work and to the best of my knowledge has not been presented for an award of a degree, diploma or certificate in any university.

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### RECOMMENDATION

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

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## **DEDICATION**

This study is dedicated to my family.

## **ACKNOWLEDGEMENTS**

Firstly, I thank the heavenly Father for giving me the opportunity, courage, strength and guidance that made this study possible. Secondly, I would like to express my sincere gratitude and appreciation to my supervisors, Dr Kibet Ngetich and Dr Joyce Kimani, who guided me with positive criticism, persistent motivation, and endless patience towards producing high quality work. Their sacrifices, goodwill, dedication and compassion are truly appreciated. Thirdly, I am as well grateful to Dr Erick Bor and all members of staff in the Department of Sociology, Anthropology and Economics. Their encouragement, assistance, comments, suggestions and criticism inspired me to complete this work.

## ABSTRACT

HIV/AIDS is causing devastating effects to communities all over the world. Schools as social institutions can be very instrumental in fighting HIV/AIDS because they exist within communities and provide education, which remains an important tool in combating HIV/AIDS. Although the Kenyan government realised the magnitude of the HIV/AIDS problem and introduced HIV/AIDS education in schools, its adoption is slow. This study analysed the factors that influence the adoption of HIV/AIDS education in secondary schools. Specifically, it examined the frequency of teaching HIV/AIDS education in secondary schools, socio - cultural factors, availability of HIV/AIDS education teaching materials, teachers' level of training and the teaching HIV/AIDS education and the contribution of secondary school principals towards HIV/AIDS education. The study used Innovation Decision Process Theory and the Health Belief Model as a basis. The methodology of the study used survey research design in which data were collected using questionnaires. The unit of analysis was the secondary school teacher. Data were analysed using both descriptive and inferential statistics. Descriptive statistics included use of frequency tables while inferential statistics included use of Chi Square. The Statistical Package for Social Sciences (SPSS) was used to compute the statistics. The number of respondents was determined using the Cochran's sample size formula. This study found that teaching of HIV/AIDS was very minimal. This was because most of the teachers had not been trained on teaching HIV/AIDS education and HIV/AIDS education materials were largely unavailable to most teachers. The teachers viewed religious and cultural practices as a barrier rather than strong pillars for teaching HIV/AIDS education. The study concluded that the adoption of HIV/AIDS education was low and not well established in most secondary schools. The study recommended that HIV/AIDS education should be taught on its own as a subject, timetabled and examined at Kenya Certificate of Secondary Education (KCSE) level. The teachers should be properly trained in all aspects of the disease. Ministry of Education should produce enough HIV/AIDS education materials for the teachers and students in secondary schools. Apart from the ministry, teachers should also develop the teaching materials locally to incorporate the cultural and religious teachings on sexuality, which are cheaper, sustainable and easily acceptable to the students. The leaders of secondary schools should be encouraged to support the teaching the subject and allocated enough funds to run the program.

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## **ABBREVIATIONS & ACRONYMS**

AIDS	Acquired Immunodeficiency Syndrome
BSS	Behavioural Surveillance Survey
CBO	Community Based Organization
CBS	Central Bureau of Statistics
CDC	Centre for Disease Control and Prevention
CIE	Centre for International Education
EI	Education International
FHI	Family Health International
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic and Health Survey
KIE	Kenya Institute of Education
MOEST	Ministry of Education, Science and Technology
MOH	Ministry of Health
MOHA	Ministry of Home Affairs
NACC	National AIDS Control Council
NASCOP	National AIDS and STI Control Program
NGO	Non-Governmental Organizations
RH	Reproductive Health
SEIA	Secondary Education in Africa
SSA	Sub- Saharan Africa
STI	Sexually Transmitted Infections
TSC	Teachers Service Commission
UNAIDS	Joint United Nations Programs for HIV and AIDS
UNDP	United Nations Development Program
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations International Children Education Fund
USAID	United States Agency for International Development
WHO	World Health Organization

## CHAPTER ONE

### INTRODUCTION

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

This study focuses on teaching of HIV/AIDS education in secondary schools. All over the world HIV/AIDS is causing devastation and destroying communities (Joint United Nations Programs for HIV and AIDS (UNAIDS), 2002). In countries most heavily affected HIV has reduced life expectancy by more than 20 years, slowed down economic growth and deepened household poverty (UNAIDS, 2008). In the absence of a cure and adequate treatment, HIV/AIDS diminishes or destroys the quality of life before it takes away life itself (UNAIDS, 2002). According to the United Nations Development Program (UNDP), HIV has inflicted the single greatest reversal in human development in human history (UNDP, 2005). It is therefore important to combat it in all the possible ways. Children and young people have been disproportionately affected by the epidemic. Children under the age of 15 account for one in seven new HIV infections globally (United Nations International Children Education Fund (UNICEF), 2005), while young people aged 15-24 years, account for an estimated 45% new infections worldwide (UNAIDS, 2008). It is therefore important to focus prevention efforts on young people.

In sub-Saharan Africa, an estimated 8.6 million youth are living with HIV/AIDS. Out of these two-thirds are female (UNAIDS, 2006). The rate of new infections has fallen in several countries although globally these favourable trends are at least partially offset by increases in new infections. For instance in sub Saharan Africa, most national epidemics have stabilised or begun to decline. However, new information from Kenya suggests that in 2007, HIV prevalence ranged between 7.1% and 8.5% compared with 2003 estimate of 6.7% (UNAIDS, 2008). At the same time the Ministry of Health (MOH) reported that 16 percent of the individuals who are HIV positive in Kenya are aged 15-24 years (MOH, 2005a). Considering that, 50% of the Kenyan population are less than 18 years of age (Ministry of Home Affairs (MOHA), 2003), prevention of new HIV infection is crucial.

In Kenya, Nyanza province is one of the provinces and has the highest prevalence of HIV/AIDS compared to other provinces, with a prevalence rate of 15 percent (MOH, 2005c). Rachuonyo, being a District in Nyanza province has a significant number of people infected and affected by HIV/AIDS (Kenya Demographic Health Survey, 2003). It is therefore important to analyse the preventive measures that are being employed to combat HIV/AIDS in the district. One of the preventive measures analysed in this study is HIV/AIDS education in secondary schools.

According to the Ministry of Health's Adolescents Reproductive Health and Development Policy, the need for friendly health information centres is a growing concern. This is because the most popular mode of transfer of the virus is unprotected sex with an infected partner (MOH, 2005b; De Walque *et al.*, 2005. and Wawer, 2005; Hagreaves *et al.*, 2008). There is need to provide space where people can feel free to access whatever health services and information they need without being discriminated against because of their gender or socio-economic background (MOH, 2005b). It is at the community level where the provision of health services and information will help in the battle against HIV/AIDS. Local capacity for prevention, care, and support need to be recognised, affirmed, and strengthened (UNAIDS, 2001). In partnership with other social institutions in the society, schools have an important role to play in reducing the risk and vulnerability associated with the epidemic. They should be used as much as possible as places for outreach to a broader population in the community (Finger and Lapetina, 2002). Schools are better placed to pass HIV/AIDS prevention information to the students because they exist in most parts of the country than most other socio-cultural institutions.

The prevalence of HIV has been declining especially in urban areas (Cheluget *et al.*, 2006). As a result national adult HIV prevalence is estimated to have fallen from 10% in the late 1990s to about 7% in 2003 (MOH, 2005). Various surveys show the proportion of adults with more than one sexual partner is shrinking, more women are delaying their sexual debut and condom use is rising. But there are troubling trends too, very high HIV prevalence has been found in women attending some antenatal clinics (including in Busia, Chulaimbo and Suba) ranged from 14% to 30% (Baltazar, 2005). In addition injecting drugs is fuelling the epidemic. In some cities and large towns including Nairobi, 53% of injecting drug users mostly heroin users have tested HIV positive (Beckerleg *et al.*, 2005). The community members therefore need to be constantly

informed on the various ways through which HIV can be contracted. The information can be passed through schools because they are easily accessible.

Schools have the potential of being very important instruments for providing HIV/AIDS education and prevention skills (UNAIDS, 2004), which is important in combating HIV/AIDS. For instance, there is generally an inverse relationship between the level of education and the disease burden for most infectious diseases (Vandemoortele and Delamonica, 2000). Furthermore, education levels are strongly predictive of better knowledge, safer behavior, and reduced HIV infection rates and have been described as the single most effective preventive weapon against HIV and AIDS (UNAIDS, 2002; World Bank, 2002). Education improves health outcomes, and educated people are generally healthier than those who are uneducated (Pritchett and Summers, 1995). Teachers should therefore exploit the importance of education in combating HIV/AIDS.

Almost all young people attend school for some part of their childhood. While there, they expect to learn new information and are more receptive than they might be in another environment (UNAIDS, 2004). Despite schools being excellent contact points for providing education to the youth, most schools are struggling to acquire meaningful education tools, ranging from classrooms, books, and sufficient trained teachers (Tijuana *et al.*, 2004). Furthermore, with the introduction of HIV/AIDS education policy, teachers are expected to play a great role especially in terms of prevention of HIV/AIDS by passing knowledge and skills through teaching HIV/AIDS education in schools (MOEST, 2004). The government policy stipulates that HIV/AIDS should be taught using the integrated approach. In this approach it is recommended that HIV/AIDS education is taught in all subjects (MOEST, 2004). This presents new problems and challenges to the teachers and school administrators. It is the context of the high HIV/AIDS prevalence among youth and challenges of prevention that this study seeks to focus on HIV/AIDS education in schools.

## **1.2 Statement of the Problem**

HIV/AIDS is one of the most destructive epidemics in the world and the youth aged 15 - 24 years are mostly affected (UNAIDS, 2005). From practical observations, HIV/AIDS is a big

problem in Rachuonyo district. This is evidenced by the presence and activities of institutions like the Centre for Disease Control and Prevention, the African Medical Research Foundation, and the Networking on AIDS Researchers in Eastern and Southern Africa, as well as church organizations like Oyugis Integrated Project and Non-Governmental Organizations like Justice and Mercy, that are mainly dealing with HIV/AIDS prevention care and support. Furthermore, statistics show that Nyanza province, where Rachuonyo is situated had the highest prevalence rate, which was up to 15% (MOH, 2005a). It is therefore important to use many preventive measures including HIV/AIDS education.

Kenya government has realized the magnitude of the HIV/AIDS problem and introduced HIV/AIDS education policy. Although the government policy recommends the integration of HIV/AIDS education in all subjects, it is necessary to find out the extent to which HIV/AIDS education is taught in schools. This is through analysing the social cultural factors that influence the learning process like religion and culture. As well as the extent to which teachers are equipped in terms of training. Issues of availability of HIV/AIDS education materials and relevant policies that is important in HIV/AIDS education. This will help in improving the delivery of HIV/AIDS education in secondary schools, primary schools, colleges, and other learning institutions.

### **1.3 Research Objectives**

The broad objective of the study was to determine the factors influencing the adoption of HIV/AIDS education in secondary schools.

The specific objectives were:

- a. To establish the frequency of teaching HIV/AIDS education in secondary schools
- b. To analyse the influence of socio cultural factors on the teaching of HIV/AIDS education in secondary schools.
- c. To analyse the extent to which teachers had been trained on teaching HIV/AIDS education.
- d. To examine the availability of HIV/AIDS education teaching materials.
- e. To analyse the role of secondary school principals in the adoption of HIV/AIDS education.

## **1.4 Research Questions**

The study was guided by the following questions:

- a. How frequently was the teaching of HIV/AIDS education, covered in secondary schools?
- b. What is the influence of socio - cultural factors on teaching HIV/AIDS education?
- c. To what extent were the teachers trained to teach HIV/AIDS education in secondary schools?
- d. To what extent were HIV/AIDS education-teaching materials available to teachers?
- e. What were the contributions of the secondary school principals towards the adoption of HIV/AIDS education in secondary schools?

## **1.5 Assumptions of the Study**

The study was guided by the following assumptions:

- a. Teaching of HIV/AIDS education was frequent in secondary schools.
- b. Socio cultural factors influence the teaching of HIV/AIDS education
- c. Training on teaching HIV/AIDS education influences its teaching.
- d. HIV/AIDS education teaching materials were available to teachers in secondary schools.
- e. Secondary school principals contributed towards the adoption of HIV/AIDS education.

## **1.6 Justification of the Study**

The study is justified on a number of grounds.

First fighting HIV/AIDS among the youth is a serious challenge, and education remained a fundamental means of promoting prevention in the community. Given that schools are found everywhere in the community, it is important to study the factors that influence the adoption of teaching HIV/AIDS education to exploit the full potential of secondary schools in fighting HIV/AIDS in the community.

Second this study has potential to equip education managers and teachers with adequate understanding of the factors that influence the adoption of teaching HIV/AIDS education in secondary schools. This assists curriculum developers in offering more guidance to support the

teaching of HIV/AIDS education, when developing relevant policies that will guide the production of education materials, training and the process of teaching HIV/AIDS education.

Third, the study contributes to the knowledge base with regard to factors influencing the adoption of teaching HIV/AIDS education in secondary schools. With reference to socio cultural factors as well as training of teachers and availability of HIV/AIDS education materials.

### **1.7 Scope and Limitations of the Study**

This is a sociological study focusing on factors that influence the teaching of HIV/AIDS education. The study was carried out in both public and private secondary schools in Rachuonyo District. The study investigated the extent to which teachers have been trained on teaching HIV/AIDS education, availability of HIV/AIDS education materials and the role of school principals in the teaching of HIV/AIDS education. The study was limited to secondary schools in one district. However, its findings and recommendations can be used to improve the teaching of HIV/AIDS education in primary schools, colleges, and other learning institutions.

### **1.8 Definitions of Terms**

**Adoption:** The decision to start using or applying an idea. In this study the adoption of HIV/AIDS means teaching the subject in secondary schools.

**AIDS:** Is a condition that weakens a person's immune system so that he or she no longer has the strength to fight off disease. The term "AIDS" stands for "Acquired Immune Deficiency Syndrome".

**Epidemic:** Widespread occurrence of a disease in a community at a particular time.

**Health:** Soundness of body; that condition in which its functions are duly discharged

**HIV:** Is a virus that causes AIDS. The term HIV stands for "Human Immunodeficiency Virus". This virus destroys the human immune (defence) system, rendering the body vulnerable to other infections.

**HIV/AIDS Education:** is the transmission of knowledge, skill and attitude that helps to assist the learners to develop, adapt, and adopt behaviour that will enable them prevent themselves and others from being infected with HIV.

**Pandemic:** A disease that is prevalent over the whole country or world.

**School Environment:** In this study, the term will mean extra curriculum activities, stigmatisation, name-calling, teachers' workload, school sponsor, students, and attitude towards the subject.

**Socio Cultural Factors:** in this study the social cultural factors analysed are gender, religion and cultural practices

## **CHAPTER TWO**

### **LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

This chapter covers literature review on factors that influence the adoption teaching of HIV/AIDS education in schools as well as the theories that form the basis for this study. These are the innovation decision process theory and the health belief model. These are then summarised using a conceptual framework.

#### **2.1 Literature Review**

In this study, literature review covers the history and approaches of sex education, benefits of school community relationship, the importance of HIV/AIDS education in schools, teachers and HIV/AIDS education, challenges facing HIV/AIDS education in sub-Saharan Africa, and the role of school principals in teaching HIV/AIDS education.

##### **2.1.1 Overview of Sex and HIV/AIDS Education**

There are more than one billion people aged 15 -24 years in the world today, representing 20% of the global population, the vast majority of whom will become sexually active adults (UNESCO, 2006). Far too few people among the 15-24 years age group will receive anything approaching adequate preparation for adult sexual health and well-being. The catalogue of potential negative consequences of unprotected penetrative sex is long and frequently repeated: unintended pregnancy and unsafe abortion, STIs including HIV, and sexual abuse and violence. The potential positive consequences, such as mutually rewarding relationships between consenting adults, are seldom, if ever, mentioned. Indeed, our knowledge of the positive elements of sexual choice and fulfillment implied in the right of all persons to pursue a satisfying, safe and pleasurable sexual life is considerably less than our appreciation of the negative consequences of sexual activity (Global Forum for Health, 2007). This is despite the fact that sexual enjoyment can be health promoting.

In many countries, the focus of discussion about sex education has been in the context of discussion of HIV and AIDS. In affected countries, it makes sense for sex education to be an important part of HIV and AIDS education because it is within the context of sexual

relationships that HIV often transmitted. However, many HIV and AIDS curricula avoid discussions of sex (Boler, and Aggleton, 2005), focusing instead on the scientific aspects of the epidemic or on broad approaches such as life skills education. Despite overwhelming evidence that sex education can reduce the risk of unintended pregnancies and STIs (including HIV) many countries have not adequately prioritized sex, relationships and HIV education within the formal curriculum (UNESCO, 2006). It is due these unclear circumstances that the study analyzed the establishment of HIV/AIDS education in secondary schools.

Potentially, schools provide a key opportunity to reach large numbers of people aged 15-24 years. In many countries, people in this age group become sexually active while they are still attending school, making the setting even more important as an opportunity for the delivery of HIV/AIDS education. Provision of broad-based, inclusive, equitable, contextually relevant HIV/AIDS education in schools is a critical priority in the global agenda for sexual and reproductive health (Germain and Kidwell, 2005). The international agreements adopted in Cairo, Beijing, and 2002 World Summit for Children, reflected Rights to information and services that protect and promote young people's sexual health. However, many young people still lack even the most basic information about sexual health (Rogow and Haberland, 2005). This made it necessary to analyze the factors that influence government policies on teaching HIV/AIDS education in secondary schools.

Evidence reveals that 25% or more of young men in some countries, particularly in Latin America and the Caribbean, have engaged in vaginal intercourse before the age of 15. A similar situation prevails for girls in sub-Saharan Africa, India and Bangladesh, because of child marriage (Global Forum for Health, 2007). Even more worrying is the fact that, in a number of countries, 20-40% of young women did not consent to their first experience of sexual intercourse (Jejeebhoy, and Bott, 2003). While first sex is not necessarily occurring at earlier ages than in the past, in most countries an increasing proportion of young people are experiencing first sex before marriage, which has implications for certain reproductive health outcomes, in particular the incidence of unintended pregnancy (Lloyd, 2007). In some countries, the education system itself is a source of risk, particularly for girls. For example, harassment of girls on their way to and from school, especially where traveling distances are long, may lead to parents withdrawing girls

from school. Boys or older men (including teachers) may sexually abuse or coerce girls in exchange for educational advancement or other favors. The study therefore analyzed the establishment of HIV/AIDS education in light to these challenges.

A recent study in four sub-Saharan countries (Biddlecom *et al.*, 2007), concludes that, at any given age, girls are more likely to drop out before completing primary school than boys are. Those girls who do complete primary school are less likely than boys to progress to secondary education are. Typically, pregnancy leads to girls leaving school, whereas fatherhood is less likely to compromise educational careers of boys. The study draws attention to the need to coordinate HIV prevention activities with those that address the poor economic conditions and unequal gender norms that encourage boys and girls to engage in risky sexual relationships. This includes, for girls, relationships with older men in which sex is exchanged for money or gifts. The researchers argue for continued investment in young women to increase educational attainment, improve financial opportunities and expand legal rights, which in turn lead to benefits in terms of the sexual and reproductive health of young women and their male partners (Nyamongo, 2005). It was therefore important to analyze the proportion of available pure boy's girls and mixed schools and their influence on teaching HIV/AIDS education.

### **2.1.2 Historical Context of HIV/AIDS Education**

History of sex education is still relatively unexplored. Sex, relationships HIV education material and policy are culturally shifting rather than fixed and are indicative of preoccupations that are particular to time and place (Davies, 2005). Globally, since the late 1960s, the United Nations Populations Fund (UNFPA) has been a key player in promoting the concept and practice of population education. By the 1980s, around 80 countries were implementing population education programs in schools. The main goals of population education were to promote the linkages between population dynamics and development, to improve family welfare and to reduce adolescent pregnancy. The 1994 International Conference on Population and Development created a paradigm shift in terms of goals and a corresponding move away from fertility reduction towards greater access to reproductive health services and family planning in the context of human rights and women's empowerment. Population education has gone on to place greater emphasis on sex education, HIV prevention and the promotion of gender equality

and equity (UNFPA, 2004). The HIV epidemic has justified the introduction of sex education. However, its implementation in most Kenyan schools is not clear; the study therefore analyzed its establishment.

In Africa, some countries began with population education before shifting the focus towards family life and sex education. For example, the Government of Uganda, with assistance from UNFPA and UNESCO, introduced population education in the formal education system in 1988. Since then, the program has shifted to address reproductive health more explicitly, as well as HIV and AIDS (UNFPA, 2004). In Asia, some countries have sexual and reproductive health education at some stage in the school career. However, the content tends to focus on the biology of reproduction within an overall context of married life and there was notable reluctance to discuss sexual and drug-related HIV transmission (Smith *et al.*, 2003). Biology covers HIV/AIDS in Kenyan Secondary Schools, syllabus. In addition, every other subject should integrate HIV/AIDS education. However, unlike biology there are no specific topics allocated for the teaching of HIV/AIDS education. This prompted the study to analyze the adoption of HIV/AIDS education and the subjects offered in secondary schools.

Conceptualization of approaches to sex, relationships and HIV education are as a continuum of risk reduction to risk elimination and vulnerability reduction (Stone and Ingam, 2006). At one end of the continuum is abstinence-only, which seeks to eliminate risk through promotion of sexual abstinence until marriage, often within an explicit framework of religious or ideological values and beliefs. At the other end of the continuum are approaches that seek to reduce vulnerability through broader changes at the whole school or community level. Between these two ends of the continuum lie the majority of approaches best described as risk reduction, which focus on reducing risk to HIV prevention and other STIs through, for example, consistent and correct use of condoms. Throughout the continuum, sex, relationships and HIV education can range from didactic learning methodologies (provision of relevant information) through to participatory approaches (exploration of values and attitudes) and acquisition of skills through skills-based approaches.

In terms of the specific content included within these different approaches, there may be considerable overlap, the key differences being in relation to emphasis and outcomes. Thus, skills acquisition could be an important element of an abstinence-only Program, but the emphasis of this approach would be narrow and focus on learning how to refuse sex. In broader programs that seek to reduce risk, skills-based programs might be included with a view to negotiate non-penetrative sex, how to use a condom and challenging sexual harassment. Programs draw from a range of social science theories (Stone and Ingham, 2006). These theories focus on individuals and the assumption that, with support, individuals have the ability to adopt safer behaviors. However, these theories contrast with believe that individual change is not possible without affecting broader socio-economic, cultural and political factors. Moreover, social scientists in developed countries have mostly developed the behavior change approaches without empirically testing them in other settings. Researchers have done this in the contexts of South Africa and Tanzania. They highlighted the importance of traditional belief systems rather than simply the knowledge acquired through formal schooling (Aaro and Flischer, 2006). Culture and religion play a very significant part in the sexual life of individuals. This necessitates the analysis of the influence of culture and religion on the teaching of HIV/AIDS education.

Other researchers (Tarr and Aggleton, 1999 and Maticka- Tyndale *et.al.*, 2005) draw attention to the need for sex, relationships and HIV education to be grounded in a clear appreciation of the different (and sometimes conflicting) ways in which sex and sexuality are discussed and understood within a given community or society. Together with being awareness of the differences between these ‘discourses’ of sex and the realities of sex as it is lived in everyday life. Experts suggest that a good curriculum for sex and relationships education covers three areas: facts, relationship and interpersonal skills and values (Stone and Ingham, 2006). Others add that it should also address perceptions of peer norms, attitudes and intentions (Kirby, 2007). While some programs continue to focus on human biology, reproduction, hygiene and marriage, others have expanded to include information on physical and emotional development and STIs and HIV and AIDS. More broad-based curricula also cover contraception, abortion and sexual abuse. Some programs give young people the opportunity to consider diversity, marriage and partnership, love and commitment, and the law as it relates to sexual behavior and relationships, together with consideration of social, religious and cultural aspects of sexuality (Stone and

Ingham, 2006). The development of critical thinking, for example about rights and gender, is also often encouraged, and skills developed in communication and decision-making. However, it is important that the content remains focused on sexual relationships and the sexual transmission of HIV if the Program is to have measurable impact on HIV infections. All sex and relationships education programs are values-based. The key questions concern which (or whose) specific values, the extent to which these are made explicit, and whether or not they are open to scrutiny. Processes that clarify values about sex and relationships can be useful not only for students but also for teachers, school authorities, parents and communities. Culture and religion play an important part in shaping up moral values concerning sexuality, Therefore it was necessary to analyze the influence of cultural practices and religion beliefs in the teaching of HIV/AIDS education in secondary schools.

### **2.1.3 Teaching of HIV/AIDS Education**

Teachers are able to deliver sex, relationships and HIV education, given their number and proximity to students. Pre-service training provides an opportunity to familiarize all teachers with the basic concepts and elements of a sex, relationships and HIV education curriculum and to mainstream its delivery across the curricula. In addition, targeting trainee teachers (in pre-service teacher training) is likely to be more successful, not only in terms of scaling-up, but also because young teachers are probably more likely to be open to teaching sex, relationships and HIV education, with older more experienced teachers being more resistant. The same applies for introducing some of the sex education programs participatory teaching methodologies (Tijuana *et al.*, 2004). However, teachers will not be equally interested at teaching the subject. Their interest and aptitude may only emerge after some time spent in the classroom, making the provision of in-service training a likely necessity. The study therefore analyzed the extent to which teachers in Rachuonyo District secondary schools have trained on teaching HIV/AIDS education.

National ministries, local school management and communities should support teacher training (Tijuana *et al.*, 2004). Curricula should include content on sexual and reproductive health and HIV, teaching methodologies and teacher skills, personal attitudes, and teachers' own HIV-risk behaviors. Teachers should pay attention to Curricula, policies, administrative practices and

cultural norms that can affect teaching. Those involved in teaching sex, relationships and HIV curricula should include both men and women who are motivated, willing, and perceived as trustworthy by students. Finally, they argue that there should be a policy of zero tolerance of exploitation of students. Experience in Tanzania suggests that problematic teacher–pupil relationships create one of the most significant barriers to potential program success because in many settings in sub-Saharan Africa, established teaching culture and practice are authoritarian, didactic, and hardly conducive to the trusting relations and participatory approach required by many sex and HIV education programs (Plummer and Wright, 2007). The study analyzes influence of social cultural factors on HIV/AIDS education.

Sexual harassment and abuse of schoolchildren hamper effective delivery of sex, relationships and HIV education (Gordon and Mwale, 2006). According to research conducted by the Uganda HIV/AIDS Control Project in eleven secondary schools, 8% of the 1,041 questioned 16-17 year-old students (55% of whom were girls) reported having had sex with teachers and 12% with non-teaching staff. Reasons given included male teachers promising good marks, money and clothing. Some girls reported promises made by teachers for marriage or paying school fees. With male teachers as their role models, male students also took advantage of economically less privileged girls to have sex with them. Sexual abuse of girls mainly took place in rural schools where the majority of teachers were young. In Uganda, the law imposes a high penalty against sexual abusers of children; however, abusive teachers are rarely prosecuted (Gordon and Mwale, 2006; Mathew et al, 2006). Similarly, research has documented the problem of sexual relationship between male students and teachers. In one Ugandan district 31 percent of school girls and 15 percent of school boys, reported having been sexually abused primarily by teachers (Gachuhi, 1999). This significant problem seriously undermines the potential credibility of sex, relationships and HIV education in schools. Training teachers adequately on sexual education will reduce the problem.

Despite the several barriers, school-based programs have potential if they can be adapted to the realities of the local educational system by such means as simplification of subject matter, pre- and in-service training on teaching methods, improvement of teacher-pupil and teacher-community relationships, and close supervision and appropriate responses to abusive or

exploitative practices. The organizational characteristics of schools and a supportive community are important determinants of the success of HIV prevention programs (Mathew *et al.*, 2006). This is by developing school-based HIV/AIDS prevention programs, which is possible through understanding the factors that influence the functioning of current policies.

Ideally, as entrusted gatekeepers of information, teachers can be instrumental in imparting knowledge and skill to young people. Teachers can function as role models, advocates for healthy school environments, guides for students in need of services resources for accurate information mentors and effective instructors (Tijuana *et al.*, 2004). To meet these expectations in the HIV/AIDS era, teachers need skills and knowledge as well as support from the education system and broader community. Furthermore, if school-based HIV prevention programs are to be faithfully implemented, teachers must be properly trained and be committed to them (Gallant and Maticka, 2004). Training of teachers on HIV/AIDS education is important but the extent to which they have been trained is not clear. This research examined the extent to which the teachers have been trained based on whether they did it as a unit in college, at certificate level, diploma, degree, or as a postgraduate course.

Teachers who provide HIV/AIDS education need to have a capacity for health literacy, as well as the capacity to obtain, interpret, and understand basic health information to enhance the learning of concepts and skills by students, parents and staff (Peterson *et al.*, 2001). Without this capacity and ability to deal with the subject matter, teachers may be ineffective and may lack confidence. This was shown by one study in Kenya where both parents and students reported higher levels of confidence in teachers competence than teachers themselves. Only 21 percent of parents and 14 percent of students felt that teachers did not have sufficient knowledge as compared to 45 percent of the teachers (Boler *et al.*, 2003). Although parents and students feel that the teachers are the best people to teach HIV/AIDS education Training plays a crucial role in enabling teachers to teach HIV/AIDS effectively. This prompted the study to analyze the extent to which the teachers have been trained on teaching HIV/AIDS education and the relationship between teaching HIV/AIDS and training.

According to Coombe, it is important for all teachers to understand the contextual circumstances under which HIV/AIDS infection increases (Coombe, 2001). Van Rooyen and Hartell, further explains, that the learners are in desperate need of the guidance of trained and understanding teachers, with regard to sensitive issues such as sexual maturation, rise of the sex urge during puberty, sexual activity such as abstinence, safer sex, contraception, and the role of values in responsible decision making (Van Rooyen and Hartell, 2001). The importance of trained and motivated teachers for the adoption of teaching the HIV/AIDS education cannot be overemphasised. Therefore this study analysed the proportion of teachers trained in its teaching.

#### **2.1.4 Importance of HIV/AIDS Education in Schools**

Education promotes a number of factors that can reduce vulnerability to HIV: it equips young people with reading skills (to read information materials); develops decision-making and critical thinking skills; promotes self-confidence and coping skills; and contributes to postponing the age of marriage (or age of first sexual relations). It empowers girls. This is especially important as two thirds of newly infected young people; aged 15-19 are girls. Studies have shown that girls who have completed secondary education have a lower risk of HIV infection (Action Aid International, 2006). According to United Nations Educational Scientific and Cultural Organization (UNESCO), it is imperative that HIV education be integrated in schools because of the following reasons. First, schools are embedded in communities with the potential to reach more children and young people than any other institution. Secondly schools often do serve as community hubs and centres for outreach, providing opportunities for individuals and a wide range of groups to participate in HIV/AIDS prevention and education measures. Thirdly teachers are available resource for education and information often motivated and willing to contribute to HIV prevention lastly as a group with majority not infected with HIV children and young people in school present the window of opportunity and it is vital not to miss them (UNESCO, 2004). This study helps to exploit the full potential of schools in teaching HIV/AIDS education.

In view of the effectiveness of different HIV prevention strategies in resource-poor settings, researchers argue that, sex and relationships education can affect sexual behavior, (Wegbreit, and Bertozzi, 2006). Results indicated that 16 out of 22 programs significantly delayed sex, reduced the frequency of sex, decreased the number of sexual partners, increased the use of condoms or

contraceptives, or reduced the incidence of unprotected sex. Several studies also measured positive impacts on personal values, peer norms, communication about sex and condoms and decreased use of alcohol these studies strongly support the argument that sex and HIV education do not increase sexual behavior and a substantial number of programs actually significantly decrease one or more types of sexual activity. Programs led by both teachers and other adults had strong evidence of positive impact on reported behavior (Wegbreit, and Bertozzi, 2006). They were effective irrespective of their implementation in primary, secondary or night school settings. The similarity in terms of intervention impact in both developed and developing country settings bode well for effective implementation regardless of the degree of economic development and HIV prevalence. This study examines the extent to which Kenyan schools have established HIV/AIDS education.

There are two types of approaches that HIV/AIDS education can take namely abstinence only or life skill approach (Kirby, 2007). With respect to abstinence only, it is not yet possible to draw firm conclusions regarding the effectiveness of abstinence-only approaches because of the diversity of programs included under this heading, the range of cultures in which they are implemented and the fact that only a few programs have been evaluated. Nonetheless, available evidence indicates that some programs clearly do not reduce sexual risk and while there is weak evidence that a small number of programs may be promising, there is no strong evidence to support the argument that any particular programs are effective (Kirby, 2007). In theory, 'abstinence only' programs should be more effective in more affluent societies, where people have more freedom to decide whether and how they have sex. However, researchers reviewed several such studies, including more than 15,900 participants, and found that in comparison with control groups, there was little evidence that risky sexual behavior, incidence of STIs, or pregnancy among young people reduced in abstinence only programs (Underhill *et al.*, 2007). This is contrary to claims by some religious groups. This study investigates religious beliefs and practices that influence the teaching of HIV/AIDS education in light to these contradictions.

Life skills HIV/AIDS education has drawn attention to the need to define life skills, and to identify which skills are to be included in a curriculum (Boler and Aggleton, 2005). They propose that life skills approaches need to be more educationally driven, building on educational

processes that have transformative capacity. Life skills require skilled and motivated teachers and this in turn requires considerable resources. Life skills education in sub-Saharan Africa also highlights difficulties in terms of defining life skills and its introduction into the traditional, didactic and authoritarian style of teaching that is the norm in many schools in poorer countries (Tiendrebéogo *et al.*, 2003). They also point out that there are few rigorous evaluation life skills programs in sub-Saharan Africa. Recommend that life skills education begin early in primary school, be taught by suitably trained teachers and become a separate topic rather than integrated across the curriculum. This study therefore analyzed the establishment of HIV/AIDS education in secondary schools.

Some of the challenges associated with the implementation of life skills education are in a study of an HIV and AIDS life skills program with secondary school students in KwaZulu Natal, South Africa (James *et al.*, 2006), evaluation discovered a significant increase only in relation to knowledge about HIV and AIDS in the intervention group. They reported no effects on safe sex practices (condom use, sexual intercourse) or on measures of psychosocial determinants of these practices, such as attitude and self-efficacy. Process evaluation among teachers revealed that, some had implemented the program in full (in terms of time spent, the number and content of lessons), while others did so only partially. In addition, teachers relied upon a didactic style more and reported comfort with teaching more fact based rather than skill-based topics. The authors argue that, in addition to knowledge, positive attitudes and beliefs about condom use, effective programs need to include skills that address the more proximal determinants of safe sexual behavior, such as self-efficacy beliefs and skills related to actual condom use, together with relevant communication skills. In turn, this depends significantly upon equipping suitably selected teachers with the ability, skills and confidence (and materials) to move away from information giving to methodologies that engage students through active student participation. The study draws attention to the need to address broader issues of school reform such as school culture, communication between and among stakeholders, teacher efficacy and behavior, which may influence the adoption of HIV/AIDS education.

Sexuality and health education, as a fundamental part of the school curricula, has been introduced in both industrialised and developing countries to help disseminate information

regarding HIV/AIDS, reproduction, and human sexuality (UNAIDS, 2000). This is important in preventing further spread of HIV/AIDS by promoting change in behaviour that would make HIV transmission less likely. In view of the fact that three quarters of global HIV transmission occur through sexual activity, the majority of behaviour change programmes should be directed towards empowering individuals with knowledge and skills to avoid sexual behaviour that would place them at a risk of HIV infection (Kelly, 2000). Behavior change programs are important but their implementation in secondary schools is not clear. The study examined the proportion of secondary schools that have adopted the teaching HIV/AIDS education.

The spread of HIV/AIDS in sub-Saharan Africa remains a global public health challenge with an estimated 30 million Africans now living with the disease. Women bear a disproportionate burden of the infected as they constitute 58% of the disease cluster in the region (UNAIDS, 2003). There are several factors implicated in the unequal prevalence of the disease among women in Africa, one of them being limited educational opportunities (Robinson, 2004 and UNICEF, 2005). Although education promotes a number of factors that can reduce vulnerability to HIV, the establishment of teaching HIV/AIDS education is bound to be influenced by several factors. This study examined the establishment of HIV/AIDS education in secondary schools.

### **2.1.5 School Community Relations**

The term community is used to refer to both a place and a state of fellowship or relationship (Lowrey *et al.*, 1965). Collaboration between schools and the community has two main goals. One of the goals is to strengthen and increase social capital by forming strong social networks, developing active democratic participation, and fostering a sense of trust and community. The second goal is to increase the ability and capacity of the community to utilize stocks of social capital to produce meaningful and sustainable development (Lane and Dorfman, 1997). Collaboration between schools and the community are therefore important. Schools exist in every community and are potential centres for teaching HIV/AIDS information. Ensuring young people access to school or other educational opportunities plays a crucial role in HIV prevention efforts not only are higher levels of education associated with safer sexual behaviours and delayed sexual debut (UNICEF, 2005 and Prata *et al.*, 2005), but school attendance enables the

students to benefit from school based sexual education and HIV prevention programs. Apart from school attendance the study analysed the factors that influence HIV/AIDS education.

In a review of studies of school based HIV prevention programs in Africa 10 out of 11 studies found they were associated with significant improvement in young people HIV related knowledge and all studies that assessed students' attitudes detected positive behaviour changes. The review found evidence that school based programs can contribute to delayed sexual initiation, a reduction in the number of sexual partners and increased condom use, although producing sustained behavioural change appears more difficult than increasing knowledge (Gallant and Maticka, 2004). Contrary to common fears of stereotypes, extensive research has detected little evidence that sex education leads to an increased sexual activity (Kirby, 2005 and Cowman, 2002). This therefore study analyzed the factors that influence the teaching of HIV/AIDS education to students in secondary schools.

Not only are family and community strongly influential in shaping students sense of self efficacy and future expectations, they can directly affect the quality of schooling (Wood and Mcgrath, 1988). Parents and community leaders can contribute to improved students achievements by improving both conditions and opportunities for learning; the ultimate goal of collaboration among family, community and school is to ensure the well being and success of the next generation of community members (Dennis and Gracey, 1977). Although parents the community and the school contribute much to the success of the next generation their contribution to the teaching of HIV/AIDS education is not clear. This study analyzed the extent to which HIV/AIDS education has been established in secondary schools.

The functionalist perspective explains the importance of schools by emphasising their part in maintaining the social order through the following functions (Carla, 1989): Firstly, schools assist cultural transmission by providing students with the knowledge, skills, and values deemed important by the society. Secondly, the education provided by schools can further social integration bringing young members of various subcultures into a common culture, and contributing to a relatively homogeneous society with shared values. Thirdly, schools assist students with their personal development and occupational choices. Fourthly education screens

and selects students for the range of available occupations. The training an individual receives in school is an important credential needed to obtain employment. Lastly, educational institutions serve an innovative function as they add to the cultural heritage by developing knowledge and skills. In addition to these, schools serve as centres for promoting the formation of youth cultures and teach habits such as punctuality and obedience to authority that are helpful in the workplace (Carla, 1989). Although school-community relations are important, little has been done to analyse the way this relation can lead to the teaching of HIV/AIDS education. This study examined culture and religion as aspects of the community and their influence on the process of teaching HIV/AIDS education in secondary schools.

Schools are not just places to teach children, but are learning centres for the entire community. Schools often form partnerships with the greater community to draw on resources beyond the neighbourhood boundaries to support children and families. However, each school has a unique configuration of programs and services which are determined by community needs, preferences and resources (Ringers and Decker, 1995). HIV/AIDS is a community problem and schools are among the community resources through which the spread of HIV/AIDS can be controlled. Cooperation between education system and social protection initiatives provides opportunities for improving the effectiveness for of both. An example can be seen in relationship between two projects in Namibia one to enhance the involvement of school board members in improving schools and the other aimed at creating areas of support for orphans and other children made vulnerable by AIDS (UNICEF, 2005). The above mentioned study of social protection measures found that in working together the two initiatives avoided working at cross purposes and helped participating schools assist children made vulnerable by AIDS stay in school (UNICEF, 2005). The schools and the community should therefore support each other in providing HIV/AIDS education.

Schools are also important in maintaining and improving the culture of community members. Culture is regarded as not only not only the arts and letters, but also modes of life, the fundamental rights of the human being, value systems, traditions and beliefs (UNESCO, 1982). This is a holistic definition of culture, which recognizes that there are many ways of living, being, knowing and expressing ourselves. It is impossible to negotiate any level of human

change without confronting culture. Human beings have in webs of significance they themselves have spun, and culture is the name for those webs (Gorringe, 2004). A failure of modernity has been an inability to grasp how people weave meaning from these webs in order to develop their values, relationships, behavior, social and political structures (Gorringe, 2004). Research has indicated that culture is a factor in the social trends that contribute to infection, of HIV/AIDS, which in turn leave a footprint on people's social and cultural lives (UNESCO, 2000). If culture is a factor in transmission and impact, it follows that prevention and care require a cultural approach.

United Nations Population Fund (UNFPA) has documented its own efforts to engage culture in programs in nine countries in Culture Matters (UNFPA, 2004). UNFPA found that their broader cultural approach (culture as content) helped achieve programs goals more effectively. Because people are in different cultural webs, information should be in a way that has cultural significance for them, and which connects with their experience of life, culture has the potential to connect with people and affect them on many different levels. Several Frameworks for HIV and AIDS have identified culture as one of the five contexts affecting risk and health behavior (alongside government policy, socio-economic status, spirituality and gender) and recognized that communication needs cultural influence to have impact. The UK Department for International Development (DFID) report on AIDS Communication stressed the need for an approach that addresses the economic, spiritual and cultural dynamics of the disease (Power and Skuse, 2005). This makes it necessary to examine the socio – cultural factors that influence implementation of HIV/AIDS education.

#### **2.1.6 Challenges Facing HIV/AIDS Education in Sub-Saharan Africa**

Pressure on governments in Sub-Saharan Africa (SSA) to expand secondary education is growing. Increasing numbers of students flowing from expanded primary education to secondary schools makes it inevitable that governments in SSA will turn their attention to expanding and improving secondary education (Alvarez, 2003; Mulkeen *et al.*, 2005; Secondary Education in Africa (SEIA), 2007; World Bank, 2006; World Bank, 2007). The dilemma these countries face is multifaceted. Many countries will need to continue to devote resources to expanding and improving primary education to achieve the goals of Education for All. A realistic conversation

about greater access to secondary education in Sub-Saharan Africa will need to confront the present status of education systems in terms of their capacity to sustain the growth and improvement of primary education, as well as their existing limitations in terms of capacity and financing to simultaneously expand and improve secondary education.

There is consensus that secondary education is now the fastest growing segment of the education sector (SEIA 2001; UNESCO 2001; Mulkeen *et al.*, 2005; World Bank 2005; Di Gropello 2006; World Bank 2007). In many countries, movement away from seeing primary education as the terminal level of education towards policies that envision widespread completion of junior secondary and upper secondary as the goals of education system development is well underway, but has only recently begun in Sub-Saharan Africa (De Ferranti *et al.*, 2003; World Bank 2005). Many challenges to expanding secondary are particular to, and particularly pronounced in SSA. Governments in Sub-Saharan Africa and their financial partners are increasingly looking to make secondary education more widely accessible, more relevant, and of higher quality. Secondary school participation rates in SSA have increased from 19% in 1999 to 30% in 2004 (SEIA 2007). However, the region faces many challenges in meeting the goal of further expansion of secondary education. In addition to access and financing issues, secondary education curricula are outdated, irrelevant, or poorly implemented. According to (SEIA, 2007), the content of programs has rarely changed to match countries that are dealing with democratization, HIV/AIDS, and changing labor market demands.

Teacher recruitment, retention, and deployment are insufficient and inefficient. Achieving the goals of universal primary enrollment (UPE) requires increasing the teacher supply by up to four times' the current levels (Lewin, and Cailloids, 2001). According to World Bank simulations based on UNESCO statistics, Sub-Saharan Africa will need more than 1,361,000 new teachers between 2000 and 2015 to meet the demands of primary education (Schwille, 2007). As more countries feel they are reaching their UPE goals and begin expanding secondary education, the requirements for additional teachers will increase pressure on an already stretched system (training institutions, public expenditures), making the challenge seem insurmountable (Schwille, 2007). While the issues of financing, curriculum, and access are all expounded, how to content with issues of teacher supply as a critical constraint to secondary expansion is barely addressed

(Lewin, and Cailloids, 2001; OECD, 2002; OECD, 2004; Mulkeen *et al.*, 2005). Enough trained teachers on teaching HIV/AIDS is a problem in Kenyan schools and the study analyzed the extent to which it could influence the teaching of HIV/AIDS education.

In Sub-Saharan Africa as well as in developing countries in other regions, the projected demand for teachers exceeds the projected supply required for expanding secondary education (World Bank, 2006). The literature generally acknowledges the lack of teachers, but fails to quantify the teacher gap. Among the constraints are the limited number of potential teacher candidates and the lack of space and funding in the teacher training colleges, which together currently prevent countries from producing sufficient numbers of qualified teachers. In addition to limited capacity to produce teachers, governments are also constrained in their ability to assign and keep teachers in remote and otherwise underserved areas. Add to that the fiscal constraint of meeting the higher wage bill implied by a dramatic expansion of the teaching force (De Stefano *et al.*, 2006). The study therefore analyzed the adoption of HIV/AIDS education.

Teacher recruitment and retention is one of the most critical factors to ensure students have access to secondary education. Recent publications and studies highlight the following challenges facing teacher recruitment and retention in secondary education across developing countries (Lewin and Cailloids, 2001; OECD, 2002; Mulkeen *et al.*, 2005; World Bank, 2005; SEIA, 2007; World Bank, 2007): High Attrition, Low salary and poor teaching conditions cause teachers to leave the field within 1–3 years of entering the service. Those teachers posted to rural areas often seek immediate transfer back to urban areas or fail to show-up to teach on a consistent basis. These arise because of low compensation (for example, other professions requiring similar educational qualification offer higher compensation). Poor working conditions, lack of professional development opportunities, little mobility to better positions, inadequate professional support and supervision, unprofessional treatment of teachers, and lack of incentive systems to stimulate and motivate teachers to remain in the teaching field (Mulkeen *et al.*, 2005; De Stefano *et al.*, 2006; Terway *et al.*, 2007). This study analyzed the factors that influenced the adoption of HIV/AIDS education, in secondary schools.

Bottlenecks in teacher preparation systems: High rates of attrition throughout the education system (continuation to secondary education; lack of space in teaching colleges; failure to pass relevant tests) dramatically constrain the numbers of students successfully advancing through secondary education, thereby reducing the pool of potential teacher candidates for secondary education. Lack of teachers in specific subject areas like mathematics and science: Secondary education teachers require more subject-specific knowledge and few choose or are able to specialize in science and math. Some solution suggested by the world bank to overcome these problems include advising the ministries of education could also utilize existing teachers more efficiently by increasing teaching loads (the minimum number of hours spent teaching); having teachers teach multiple subjects; and sharing teachers across schools (World Bank, 2005). Kenya, estimated that the following changes would enable a 50% increase in secondary education enrollments without adding new teachers. Increase teaching load from 18 to 25 hours, Use part time teachers for subjects taught a few periods a week, Increase student to teacher ratios to 45:1, Expand existing schools to at least three parallel streams, and Share teachers across schools. The study therefore analyzed the integration of HIV/AIDS education in the main secondary school curriculum.

An important prerequisite for school-based programs themselves and subsequent teaching of HIV/AIDS education are clear policies and guidelines supporting teachers' access to both information and services. These policies should be widely known by teachers and service providers and should be implemented (Tijuana *et al.*, 2004). In a survey by Education International of its member teacher union, 84% of those responding, most of them in Africa, said they received little or no support on reinforcing policies on the prevention of HIV/AIDS and related discrimination (Education International, 2000). Without clear guidance from mandated policies, teachers may avoid controversial areas (UNFPA, 1998), and this might lead to selective teaching (Gallant and Maticka, 2004). Avoiding controversial areas would in turn limit the youth from accessing potentially life saving information (Boler *et al.*, 2003). In Kenya, the Ministry of Education, Science and Technology (MOEST) launched the education sector policy on HIV/AIDS in 2004. The policy provides a framework for the teaching of HIV/AIDS education in learning institutions (MOEST, 2004). However, the adoption of teaching HIV/AIDS education in

schools is slow. The study therefore analyses the availability of materials that provide guidelines towards the teaching of HIV/AIDS education.

The task of strengthening school system to meet the pressure posed by AIDS and other problems needs to be based on sound evidence of actual conditions in the education sector in order to know how best to apply scarce resources. Recently a study was undertaken on how ready the education sectors in various parts of the world have responded to the impact of AIDS (Boler and Jellema, 2005). The study used two approaches. The first used a self assessment questionnaire sent by post to ministries of education in 117 countries, from which 71 replies were received. The second sought input from civil society organizations through workshops that brought together representatives from non governmental education networks, teachers unions and ministries of education in 18 countries heavily burdened by AIDS. A summary report unifying the two approaches revealed mixed results (Inter Agency Task Team on Education (IATT), 2006). For example three quarters of the responding countries and all high prevalence countries reported having established dedicated management structures to coordinate the response of ministry of education to the epidemic. However, 59% of these structures in all countries and 70% in high prevalence countries did not have a dedicated budget calling into question the actual powers and effectiveness of these structures. The introduction of teaching HIV/AIDS education to the already struggling African education system is likely to influence its adoption. Thus, this study examines the adoption of teaching HIV/AIDS education in secondary schools, by analysing the availability of HIV/AIDS education teaching resources for example syllabus and text books.

### **2.1.7 Role of School Principals**

School principals are often influential people in the community, and can be role models for good practice both for HIV prevention (promoting responsible behavior and a healthy lifestyle) and stigma/discrimination reduction, as well as for promoting care and support of people living with HIV/AIDS (Kandasamy and Blaton, 2004). This makes it necessary to analyze their role in HIV/AIDS education.

In some countries, school principals and the teachers have an important say in defining parts of the curriculum. Especially in countries where HIV/AIDS is not sufficiently, integrated in the curriculum and where part of the curriculum planning is decentralized (for the school/ district to determine), educators may be an important channel for increasing students' exposure to HIV/AIDS prevention in the classroom. In countries where sex education is culturally highly sensitive, school principals may need to deal with community resistance (including from religious groups). Principals need scientific information and knowledge, to defend their decision to provide young people with information, attitudes, and skills for HIV prevention. In case the curriculum is overloaded, school principals can be instrumental facilitators in the establishment of youth clubs or other forms of extra-curricular activities like non-formal, peer-based education on HIV/ AIDS prevention, possibly by linking up with Community Learning Centers (CLCs) or with local NGOs or youth groups (Kandasamy and Blaton, 2004). In Kenya HIV/AIDS education is supposed to be integrated. The study examines the role of principals in this process.

School principals are often responsible for following up on policies and guidelines from the central or provincial level. In many countries, excellent laws and policies exist on, for instance, non-discrimination of teachers and administrators infected and/ or affected by HIV/AIDS. However, most of the time these rules and regulations never reach the school level, and school principals and teachers are, therefore, not aware of them. In under-resourced environments affected by HIV/AIDS, especially in countries where funding the education system is not from the central level, School principals could play a major role as fund-raisers (Kandasamy and Blaton, 2004). The study investigates the availability of the relevant policies in schools.

The Education Sector Policy on HIV and AIDS in Kenya expects the heads of education institutions to play a pivotal role in disseminating information on HIV/AIDS. The ministry expects them to share out and discuss the policy with all teachers and school employees and place the accompanying poster at a place visible to all. The learning institutions are expected to use the policy to develop a plan of action for combating the scourge in the school and community (MOEST, 2004). The school principals are very important in the teaching of HIV/AIDS education. However, their interest and support for the HIV/AIDS education may vary; this might in turn affect the teaching of HIV/AIDS education. The study analyses the role

played by secondary school principals in the adoption of teaching HIV/AIDS in secondary schools with respect to what is stipulated by the education sector policy on HIV/AIDS.

## **2.2 Theoretical Framework**

Two theories formed a basis for this study: the Innovation Decision Process Theory (Rogers, 1995) and the Health Belief Model (Rosenstock and Becker, 1988)

### **2.2.1 Innovation Decision Process Theory**

The Innovation Decision Process Theory is one of the adoption diffusion theories presented by Everett Rogers in 1995. According to the Theory, potential adopters of an innovation progress overtime through five stages, namely knowledge, persuasion, decision, implementation, and confirmation or reaffirmation. In this study, the innovation is the teaching of HIV/AIDS education, and the adopters are the teachers. The Innovation Decision Process Theory was applied as follows.

First with regard to knowledge, the teachers are supposed to be knowledgeable about the teaching of HIV/AIDS education. This calls for proper training on the subject. Secondly, with regard to persuasion the teachers are supposed to be convinced that teaching of HIV/AIDS education is important. After realizing the importance of teaching HIV/AIDS education, the teachers would then be in a position to make a decision to implement the teaching of HIV/AIDS education. Implementing HIV/AIDS education calls for support from the school administrators, in terms of provision of teaching materials and resources. Then finally, there should be the confirmation stage, where teaching of HIV/AIDS education is justified or rejected based on the evidence of benefits or drawbacks.

The Innovation Decision Process Theory explains the process that the teachers would undergo while adopting the teaching of HIV/AIDS education but it does not explain what would drive and motivate the teachers to engage in the process of adopting the teaching of HIV/AIDS education. The Health Belief Model explains this.

### 2.2.2 The Health Belief Model

The Health Belief Model is one of the first models, which adapted theories from the behavioural sciences to examine health problems (Rosenstock and Becker, 1988). The Health Belief Model assumes that people fear diseases and that the health actions of people are motivated by the degree of fear (perceived threat) and the expected fear (reduction action) as long as that possible reduction outweighs practical and psychological barriers to taking action (net benefits). The Health Belief Model is used to explain what would drive and motivate the secondary school teachers to engage in the process of teaching HIV/AIDS education in secondary schools. This is outlined using the six constructs of the health belief model as explained below.

- a) **Perceived susceptibility:** This is the opinion of the teacher on his or her chances as well as that of students being infected or affected with HIV/AIDS. Teachers, together with their relatives, friends, and students within or outside the school, risk being infected or affected by HIV/AIDS. This could drive them to engage in teaching HIV/AIDS education in order to prevent being affected or infected.
- b) **Perceived severity:** This is the teacher's opinion on the seriousness of being infected or affected by HIV/AIDS. This would drive teachers to engage in preventing HIV/AIDS through teaching.
- c) **Perceived benefits:** This is the teacher's opinion of the effectiveness of teaching HIV/AIDS education to prevent HIV infection as a measure of reducing the effects of HIV/AIDS.
- d) **Perceived barrier:** This is the teacher's opinion of the concrete and psychological costs of using HIV/AIDS education to prevent HIV/AIDS as compared to other preventive measures, such for example, as using condoms and antiretroviral.
- e) **Cues to action:** These are internal or external events that activate a person's readiness to act and stimulate an observable behaviour. An example of internal events is the teacher's own conscience as an adult which can drive him or her to engage in the process of teaching HIV/AIDS education so as to protect the young people from being infected or affected. External events that can drive teachers to engage in the process of teaching HIV/AIDS education include availability and accessibility of

teaching materials and resources, HIV/AIDS Education Policies and frequent inspection.

- f) **Self-efficacy** (a concept originally developed by Albert Bandura): This is simply the teacher's confidence in his or her ability to teach HIV/AIDS education successfully.

### **2.3 The Conceptual Framework**

Based on the literature review and the theoretical framework explained above, the Conceptual Framework was formulated. It summarised the factors influencing the adoption of HIV/AIDS in secondary schools. These are availability of HIV/AIDS learning materials, the extent to which teachers have been trained, cultural religious and personal beliefs, and the role of principals. These are presented in Figure 2.1.

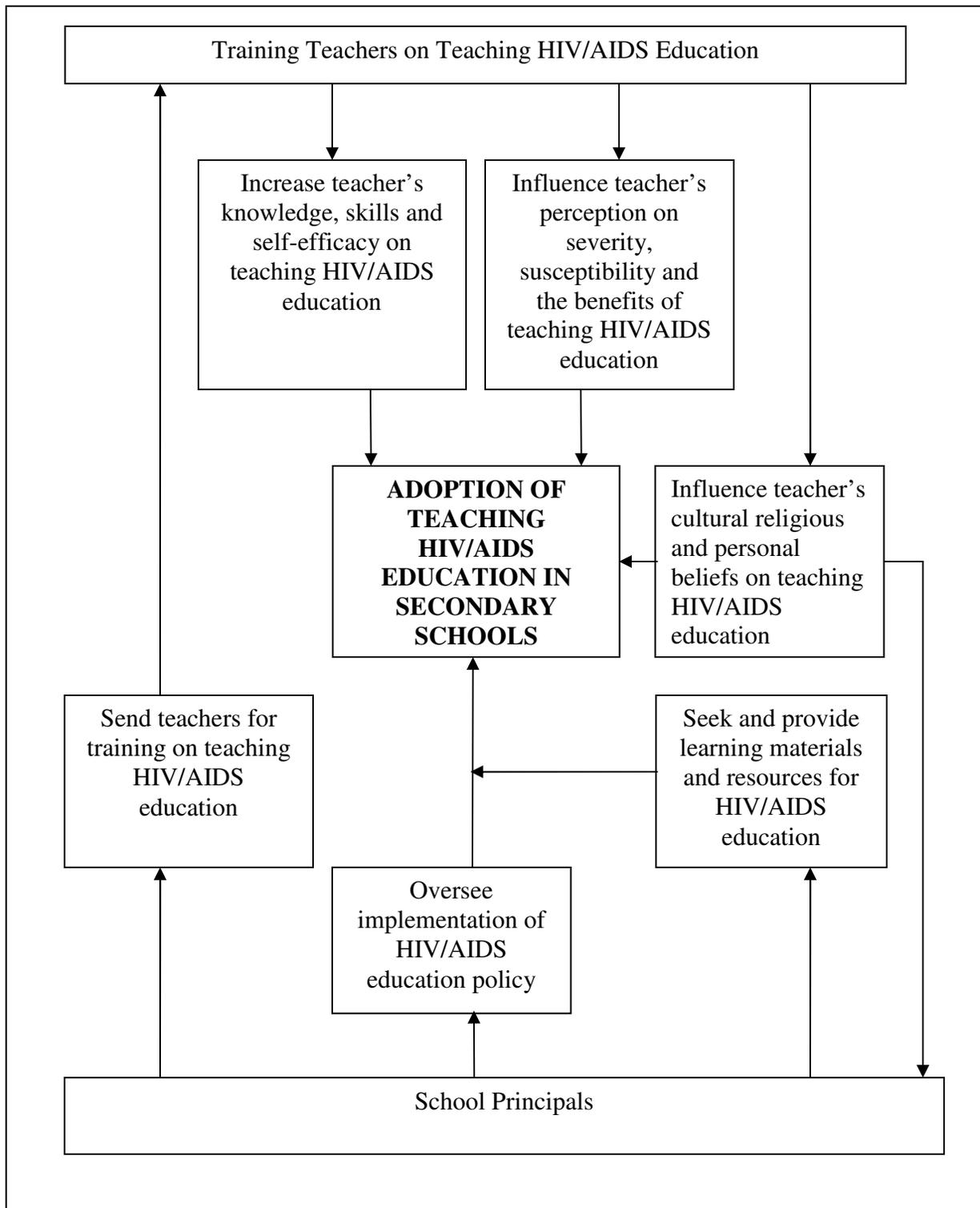


Figure 2. 1: Conceptual Framework

In the conceptual framework the factors influencing the teaching of HIV/AIDS education are envisaged as follows.

Firstly, the teaching of HIV/AIDS could be influenced by the teacher's knowledge, skill and his or her confidence in the ability to teach HIV/AIDS education successfully (self-efficacy). Secondly, the adoption of teaching HIV/AIDS education could be influenced by the teacher's perception of the severity and susceptibility of the effect HIV/AIDS on him or her and the people around him or her. Thirdly, the teaching of HIV/AIDS education could be influenced by the teacher's religious and cultural beliefs. Fourthly, the teaching of HIV/AIDS education could be influenced by availability and accessibility of the learning materials and resources. Finally, school principals, being leaders of the school system, are important in the adoption of teaching HIV/AIDS education in secondary school. This is because they may oversee the implementation of teaching HIV/AIDS Education through frequent inspection, to ensure that HIV/AIDS education is taught. They can also help in sourcing and providing teaching and learning materials for HIV/AIDS education. Principals are also responsible for sponsoring teachers to attend training on teaching HIV/AIDS education.

Training of teachers of on teaching HIV/AIDS education is important because of the following: Firstly, it could increase the level of teachers' knowledge and skill on teaching HIV/AIDS education. Secondly, it could increase teachers' self-efficacy. Thirdly, it could influence the teacher's perception on severity, susceptibility and benefits of teaching HIV/AIDS education. Training of teachers could also influence teachers' cultural religious and personal beliefs concerning teaching HIV/AIDS education. Trained teachers could be in a better position to support the teaching of HIV/AIDS education when they become headmasters or principals. These factors in turn influence the adoption of HIV/AIDS education in secondary schools. The study found that the majority of the teachers did not have training on HIV/AIDS education and therefore could not teach HIV/AIDS education confidently. It also found that religious and cultural beliefs influenced the way the teachers taught HIV/AIDS education. They either prevented the teachers from teaching HIV/AIDS or restricted them to teach in a given manner.

Another finding was that, majority of the teachers could not access HIV/AIDS education materials. However teachers who could access HIV/AIDS teaching materials were more likely to teach it as compared to those who could not access the materials. The study also found that the teaching of HIV/AIDS was not supported by most administrators because it was not examinable. The examinable subjects were given priority when purchasing learning materials and sponsoring their teachers for in service training. In summary the study found that the adoption of HIV/AIDS education was slow due to inadequate trained teachers, lack of teaching and learning materials and lack of support from the school administration.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the methodological procedure used in data collection and analyses. Discussed in detail is research design, study area, unit of analysis, sampling procedure and sample size. Finally data collection and data analysis are discussed.

#### **3.2 Research Design**

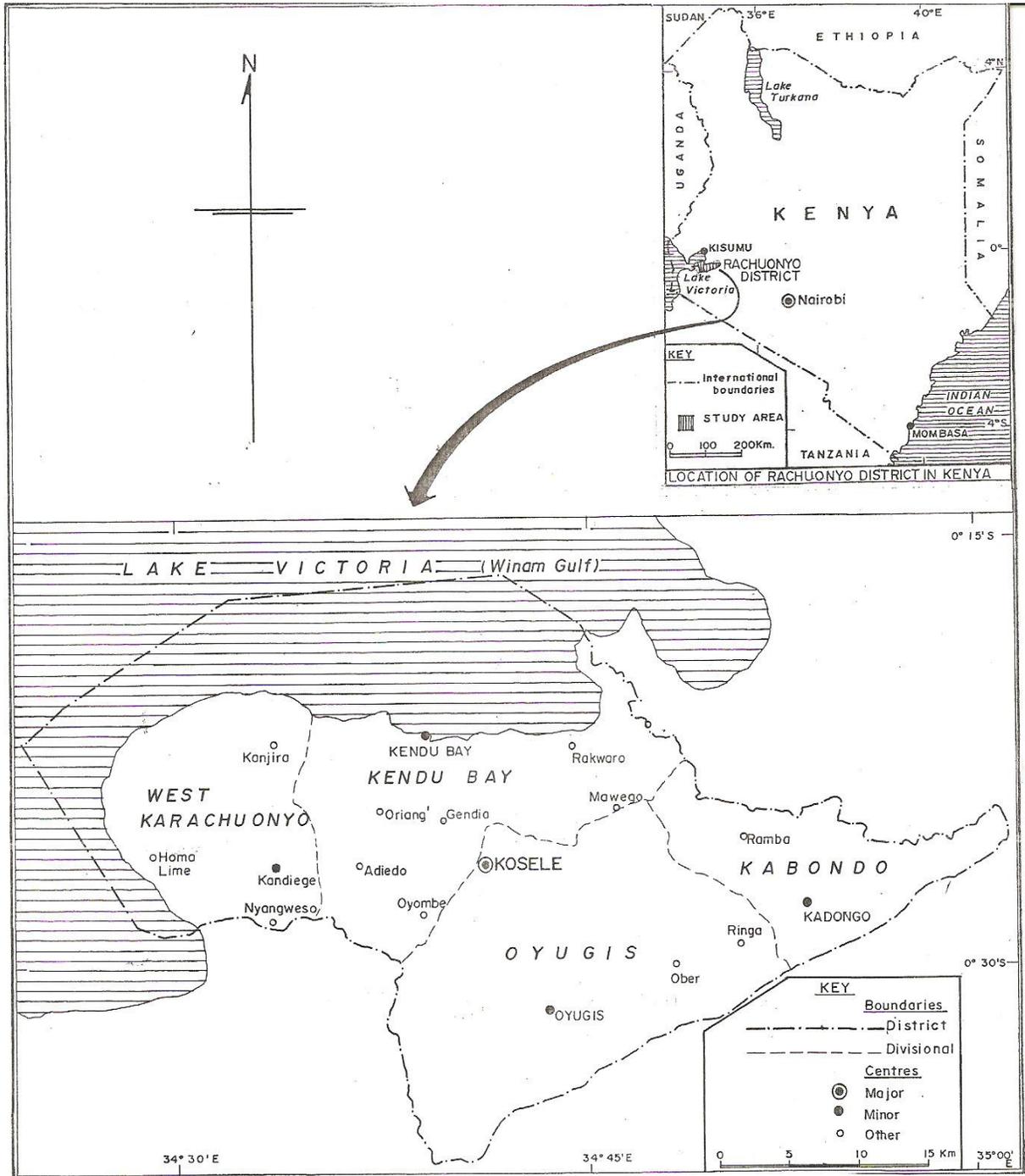
The study used descriptive survey research design. The major purpose of descriptive research is description of the state of affairs as it exists and then reporting the findings. Kerlinger points out that descriptive studies are not only restricted to fact-finding, but also may often result in the formulation of important principals of knowledge and solution to significant problems (Kerlinger, 1995). Descriptive survey is a method of collecting information by interviews or administering a questionnaire to a sample of individuals (Orodho, 2003). It can be used when collecting information about people's attitudes, opinions, habits, or any of the variety of education or social issues (Orodho and Kombo, 2002).

This study analysed information about level of teachers' training on HIV/AIDS, availability and accessibility to HIV/AIDS education teaching materials, establishment of teaching HIV/AIDS in secondary schools and contribution of the secondary school, principals towards the teaching of HIV/AIDS education.

#### **3.3 Study Area**

This study was carried out in Rachuonyo District (see Figure 3.1.) The District was chosen based on the prevalence of HIV and AIDS. This is because it is within Nyanza Province, which has a prevalence rate of 15 percent, the highest as compared to other Provinces in Kenya (MOH, 2005c). In addition, the presence of many organizations working on HIV/AIDS within the District is an indication that HIV/AIDS is highly prevalent.

Figure 3.1: Map of Rachuonyo District



Source: Egerton University Cartographer

### 3.4 Unit of Analysis

The unit of analysis was an individual secondary school teacher in Rachuonyo District.

### 3.5 Sampling Procedure

This study employed purposive sampling technique. In this sample method, the researcher purposely targets a group of people believed to be reliable for the study (Kombo and Tromp, 2006). The teachers were purposively selected because they are charged with the responsibility of passing knowledge to students in secondary schools. There were 70 secondary schools and 536 teachers in the District. At least 44 schools and 98 teachers were sampled using the Cochran's sample size formula, as explained in equation (3.1)

#### Equation 3.1

Assumptions

Alpha level is 0.05

Acceptable margin of error 0.03

$$\underline{no} = \frac{(\underline{t})^2 * (\underline{s})^2}{(\underline{d})^2} = \frac{(1.96)^2 (1.167)^2}{(7 * 0.03)^2} = 118 \quad (3.1)$$

Where  $\underline{no}$  = required return sample size

$\underline{t}$  = Value for selected alpha level of 0.025 in each tail = 1.96 (The alpha level of 0.05 indicates the level of risk the researcher is willing to take that true margin of error may exceed the acceptable margin of error).

$\underline{s}$  = Estimate of standard deviation in the population = 1.167 (Estimate of variance deviation for 7 point scale calculated by using 7 [inclusive range of scale] divide by 6 [number of standard deviations that include almost all (approximately 98% ) of the possible values in the range]).

$\underline{d}$  = Acceptable margin of error for mean being estimated = 0.21 (number of points on primary scale multiply by acceptable margin of error).

However, since sample size (118) exceeds 5% of the number of schools in the District (70) and 5% of the total number of teachers in the District (536), Cochran's (1977) correctional formula

used to calculate the final sample size for the number of schools and teachers as shown in equation (3.2)

### Equation 3.2

$$\underline{n} = \frac{\underline{no}}{1 + \frac{\underline{no}}{pop}} \quad (3.2)$$

Where pop = population of (Total number of schools in the district (70) or Total number of teachers (536) in the district).

$\underline{no}$  = Required return sample size according to Cochran's formula =118.

$\underline{n}$  = required return sample size because sample > 5% of population (Cochran, 1977).

The total sample size required was 98. However following the principal that the larger the sample sizes the better the study used a sample size of 150. This also was necessary to ensure a fairly large number of respondents per school.

### 3.6 Data Collection Instruments and Procedure

Primary data was collected using structured and open-ended questionnaires. Informal interviews were also used to capture in-depth information. The questionnaires were based on a sample size of 150 respondents. In the structured questionnaires, the questions, the wordings and sequence were fixed and identical for all respondents. This made it possible for comparisons to be made between the sets of data. After each question, respondents were given a chance to freely comment on the reasons why they chose a particular answer so as to elaborate and give more information on the answer chosen.

The study also used open ended questionnaires to supplement information from the structured questionnaires. This is because the structured questionnaires at times conceal information and prevent possibilities of gaining insight into the research problem (Kombo and Tromp, 2006). This is due to the fact that the respondents are compelled to answer questions according to the researcher's choice. Standardized questions often exclude explanations of details that may not be directly asked. The type of information collected included teachers' level of training on teaching HIV/AIDS education, availability and accessibility of HIV/AIDS education teaching materials in

schools, the frequency of teaching HIV/AIDS education in secondary schools, and the role of principals towards the teaching of HIV/AIDS education.

### **3.7 Data Analysis**

The data collected was processed and analysed to facilitate fulfilling answering the research objectives and questions. Both qualitative and quantitative data analysis methods were used. Qualitative data analysis was used in handling information from open ended questions. The information from the open ended questions was extracted and summarised based on the various research questions after which the interpretation of the findings was used in report writing.

Quantitative data analysis was used in handling information from the structured and open-ended questionnaires. The findings from the open-ended questions were summarised and analysed quantitatively. Quantitative data were edited, coded, and entered to the Statistical Package for Social Science (SPSS) version 15 for windows and cleaned for analysis. SPSS was also employed in descriptive and inferential statistical analysis.

Descriptive analysis including frequencies, percentages and cross tabulations, were used to summarize and organize data. Descriptive statistics was used to analyse the level and proportion of teachers trained to teach HIV/AIDS education in secondary schools. Specifically, it was used to find the percentage of the respondents who have been trained on teaching HIV/AIDS education, those who are willing to train and those who thought that training on HIV/AIDS is important. The respondents' opinion on the factors affecting the training of teachers on HIV/AIDS education was also summarised and analysed using descriptive statistics. Inferential statistics using Chi square was used to find the relationship between training teachers on HIV/AIDS education and teaching HIV/AIDS education.

Descriptive statistics was also used to analyse the availability and accessibility of HIV/AIDS education teaching materials. Specifically, it was used to find the proportion of schools having HIV/AIDS education teaching materials, the percentage of respondents using the HIV/AIDS education teaching materials, the frequency of using HIV/AIDS education teaching materials by respondents, and the frequency of acquiring HIV/AIDS education materials by the respondents'

respective schools. Inferential statistics using Chi Square was used to determine the relationship between availability and accessibility of HIV/AIDS education teaching materials and the teaching of HIV/AIDS education.

Descriptive statistics was also used to analyse the establishment of teaching HIV/AIDS education in secondary schools. Specifically, it was used to analyse the proportion of respondents having HIV/AIDS education lessons in their timetable and the percentage of respondents who taught HIV/AIDS education.

The role of principals in HIV/AIDS education was analysed by comparing what they are expected to do as stated in the HIV/AIDS education policy, with the activities reported by the respondents to have been taking place in their school. These activities included: ensuring that HIV/AIDS education is offered and availing of HIV/AIDS materials through purchasing and other sources. Descriptive statistics was used to analyse the proportion of schools where these activities were taking place to find out if the principals were playing their roles effectively.

The inferential statistics were tested using Chi square at  $\alpha = 0.05$  significance level. Moreover, Chi Square was used to compare the frequency of cases found in one variable into two or more unrelated samples or categories of another variable. It was preferred when dealing with variables that have been categorised to find whether the variables were related. After qualitative and quantitative data analysis, the results were synchronised, interpreted and discussed to answer the research questions and address the objectives.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter presents the research results and discussion of the same. The chapter begins with a presentation of the results on the general characteristics of the schools and teachers, the extent to which teachers have been trained on teaching HIV/AIDS education, the availability of HIV/AIDS education teaching materials, the frequency of teaching HIV/AIDS education in secondary schools and the role of principals in the adoption of teaching HIV/AIDS education. It then embarks on a discussion of the results. The discussion focuses on the objectives of the study which include the relationship between teacher training and the teaching of HIV/AIDS education. The relationship between the availability and accessibility of teaching materials and teaching HIV/AIDS education, frequency of teaching HIV/AIDS education and the role of principals in the adoption of HIV/AIDS education.

#### **4.2 Results**

##### **4.2.1 General Characteristics of Schools**

This section presents the characteristics of schools from which the respondents were teaching in terms of type, category and sponsors. It also presents the relationship between these characteristics and offering HIV/AIDS education. Such a profile is important in providing the basis for clear understanding of the circumstances under which the respondents were teaching.

##### **a) Types of Schools**

The type of schools were categorised as either private or public schools. Private schools are managed and supervised by individuals or other institutions apart from the government, while public schools are managed and supervised by the government. The study sought to find the various types of schools from which the respondents were teaching. The findings are summarised in Table 4.1.

Table 4. 1: Distribution of Respondents by Types of Schools

Type of School	Frequency	Percentage (%)
Public	123	82.0
Private	27	18.0
Total	150	100.0

A majority of the interviewed teachers were teaching in public schools. From the sample interviewed 82% were teaching in public schools while 18% were teaching in private schools. This is attributed to the fact that most of the schools in Rachuonyo District are public schools. Teachers in public schools are employed and supervised by the Government, while their counterparts in private schools are employed and supervised by individual owners of their schools. Government policies and guidelines are therefore likely to be implemented in public schools than in private schools.

**b) Relationship between Types of School and Offering HIV/AIDS Education**

The study further sought to find out the relationship between types of school and offering of HIV/AIDS education using the Chi Square statistical test. Table 4.2 depicts the relationship between the types of schools and offering HIV/AIDS education.

Table 4. 2: Types of Schools and Teaching HIV/AIDS Education

		Is your School offering HIV/AIDS education?		
Type of school		No	Yes	Total
Public	Number of Respondents	72	51	123
	Percentage (%)	58.5	41.5	100.0
Private	Number of Respondents	22	5	27
	Percentage (%)	81.5	18.5	100.0
Total	Number of Respondents	94	56	150
	Percentage (%)	62.7	37.3	100.0

$X^2 = 4.982$ , Degrees of Freedom = 1, P value = 0.026, (significance = 0.05)

Table 4.2 indicates that there is a significant relationship between types of school and offering of HIV/AIDS education. It is clear that only 18.5% of the respondents in private schools reported that their schools offered HIV/AIDS education as compared to 41.5% of the respondents in public schools. This is supported and confirmed by the Chi-Square statistic P value = 0.026 where  $P < 0.05$  significance, which indicates that there was a significant relationship between types of schools and the offering HIV/AIDS education. It indicates that there is a strong and significant relationship between type of school (either public or private) and the offering HIV/AIDS education. Teaching of HIV/AIDS education takes place more in public schools than private ones

### c) School Category

The schools were categorized as either day schools (where student attend school from their respective homes) or as boarding schools (where the students reside within the school). Finally, they were categorized as day and boarding (where some students reside in school and some attend school from their respective homes). The study sought the categories of schools where the respondents taught. The findings are reported in Table 4.3.

Table 4. 3: Distribution of Respondents by School Categories

School Category	Frequency	Percentage (%)
Day	29	19.3
Boarding	25	16.7
Boarding and Day	96	64.0
Total	150	100.0

A majority of the respondents (64%) were teaching in schools, which offered both boarding and day services. On the other hand, 19% of the respondents were teaching in day schools while only 16% were teaching in boarding schools as shown in Table 4.3. Boarding schools would create more contact time between the teachers and the students thus increasing the chances of teaching HIV/AIDS education but were much fewer as compared to day and boarding schools or pure day schools.

**d) Relationship between Categories of Schools and Teaching HIV/AIDS Education**

The study sought to find out the relationship between day, boarding, boarding/day and the teaching of HIV/AIDS education. Table 4.4 indicates the findings.

Table 4. 4: Categories of Schools and Teaching HIV/AIDS Education

Category of School		Have You ever Taught HIV/AIDS Education?		Total
		No	Yes	
Day	Number of Respondents	11	18	29
	Percentage (%)	37.9	62.1	100.0
Boarding	Number of Respondents	8	17	25
	Percentage (%)	32.0	68.0	100.0
Boarding and Day	Number of Respondents	49	47	96
	Percentage (%)	51.0	49.0	100.0
Total	Number of Respondents	68	82	150
	Percentage (%)	45.3	54.7	100.0

$X^2 = 3.697$  Degrees of Freedom = 2, P value = 0.157, (Significance = 0.05)

Table 4.4 indicates that there is no significant relationship between categories of schools and the teaching of HIV/AIDS education. This is supported by the P value = 0.157 where  $P > 0.05$ . However, the proportion of respondents teaching HIV/AIDS education in boarding schools is 68%. This is higher than the ones teaching in pure day school where the proportion of teachers teaching HIV/AIDS education is 62% as well as boarding and day schools where 49% of the respondents teaches HIV/AIDS education. This is because boarding schools provide more contact time between teachers and students.

#### 4.2.2 Teaching of HIV/AIDS Education

The study sought to find out the proportion of respondents who taught HIV/AIDS education. Table 4.5 depicts the findings.

Table 4. 5: Proportion of Teachers who have Taught HIV/AIDS Education

Have you ever taught HIV/AIDS education?	Frequency	Percentage (%)
No	68	45.3
Yes	82	54.7
Total	150	100.0

Table 4.5 indicates that 54% of the respondents taught HIV/AIDS education while 45% percent had never taught the subject. This is despite the fact that the government expects all teachers to integrate HIV/AIDS education in their respective teaching subjects (MOEST, 2004).

#### a) Reasons for Teaching HIV/AIDS Education

The study sought to identify the reasons why the respondents taught HIV/AIDS education. Table 4.6 summarizes the findings

Table 4. 6: Reasons for Teaching HIV/AIDS Education

Reasons for teaching HIV/AIDS education	Frequency (N=82)	Percentage (%)
During guidance and counseling	28	34.1
Sub-topic in the subject I teach	28	34.1
Education is important in curbing HIV/AIDS	26	31.7
Part of the curriculum	12	14.6

Table 4.6 indicates that there are several reasons why the respondents taught HIV/AIDS education for instance 34% of respondents taught HIV/AIDS education during guidance and counseling, and because it is part of their teaching subjects, 31% taught it because they felt that education was important in curbing HIV/AIDS. Only 8% of the respondents taught HIV/AIDS because it was part of the curriculum. The government integrated the subject in the curriculum therefore this is a very low percentage. Table 4.6 indicates that those who taught HIV/AIDS because it was a subtopic in their respective subjects and during guidance and counseling were 34% respectively. This indicates that teaching the subject is possible if syllabus integrates it, however covering it as a sub-topic means that very little content is covered

### **b) Reasons for not Teaching HIV/AIDS Education**

The study sought to identify the reasons why respondents had never taught HIV/AIDS education.

Table 4.7 summarizes the reasons

Table 4. 7: Reasons for not Teaching HIV/AIDS Education

Reasons for not teaching HIV/AIDS education	Frequency (N=68)	Percentage (%)
Not in the syllabus	25	36.8
Not allocated in the school time table	19	27.9
Lack of proper training	11	16.1
Have a bad experience with HIV/AIDS	2	2.9
Not in my profession	3	4.4
No teaching materials and resources	11	16.1
It is not examinable in KCSE	5	7.4
Done under guidance and counseling	5	7.4

Table 4.7 indicates that there are several reasons why the respondents have not taught HIV/AIDS education, about 37% did not teach the subject because it was not in the syllabus. This was the highest percentage. Compared to 28%, who did not teach HIV/AIDS education because the school did not allocate it in the timetable, and 16%, who felt that they lacked training, teaching materials and resources. Less than 10% of the respondents did not teach HIV/AIDS education because of bad experience with HIV/AIDS and because it was not examinable in Kenya Certificate of Secondary Education (KCSE), while 4% assumed other members of staff in departments like guidance and counseling handled it. They believed that the subject is not part of their profession.

### **4.2.3 Various Subjects and Teaching of HIV/AIDS Education**

The study sought to identify the subjects that the various respondents were teaching. The respondents taught various subjects as highlighted in Table 4.8.

Table 4. 8: Subjects Taught by Respondents

Subjects Taught	Frequency	Percentage (%)
Mathematics /Physics	18	12.0
Biology /Chemistry	10	6.7
English /Literature	17	11.3
Mathematics/ Business Studies	8	5.4
Geography /History	4	2.7
Mathematics /Chemistry	12	8.0
Kiswahili /CRE	5	3.3
Agriculture / Biology	21	14.0
Mathematics / Geography	13	8.7
Agriculture /Geography	1	0.7
Biology /Home Science	3	2.0
Kiswahili /History	6	4.0
Biology / Mathematics	6	4.0
Geography /CRE	2	1.3
Business /Geography	13	8.7
English /Music	1	.7
History /CRE	10	6.7
Total	150	100.0

From Table 4.8, the teachers interviewed taught a combination of two subjects. No teacher has the responsibility of teaching HIV/AIDS education because it is not among the subject combinations. Therefore, the integrating of HIV/AIDS education in the various subjects is at the discretion of the teacher.

The ministry of education expects the teachers to integrate the teaching of HIV/AIDS education in the various subjects that they teach. The study sought to understand the views of the respondents on the subjects they were teaching with a view of finding out whether their subjects were appropriate for teaching HIV/AIDS education. Table 4.9 presents the findings.

Table 4. 9: Various Subjects and Teaching of HIV/AIDS Education

Is your subject the most appropriate for teaching HIV/AIDS education?	Frequency	Percentage (%)
No	63	42.0
Yes	86	57.3
Not Sure	1	.7
Total	150	100.0

Table 4.9 indicates that 57% of the respondents reported that their subjects were the most appropriate for teaching HIV/AIDS education. However, 42% of the respondents reported that their subjects were not appropriate for teaching the subject. This is contrary to the expectation of the ministry of education, which expects teachers to integrate HIV/AIDS education in all subjects (MOEST, 2004).

#### 4.2.4 Most Preferred Subject

The study also sought to identify the respondents' most preferred subject for teaching HIV/AIDS education. Table 4.10 presents the findings.

Table 4. 10: Preferred Subject for Teaching HIV/AIDS Education

Subject	Frequency (N=150)	Percentage (%)
Mathematics	20	13.3
English	21	14.0
Kiswahili	19	12.7
Biology	84	56.0
Religious Education	73	48.7
Social education and Ethics	38	25.3
History	21	14.0
Geography	20	13.3
Agriculture	15	10.0
Home Science	20	13.3
Chemistry	18	12.0
Business studies	15	10.0
All Subjects	17	11.3
Be A Subject On Its Own	12	8.0

Table 4.10 indicates 56% of the respondents believed that biology was the most appropriate subject for teaching HIV/AIDS education. This is much higher than 48% of the respondents who preferred religious education and 25% who preferred social education and ethics, even though the ministry of education removed it from the syllabus. Despite the government expectation that each subject teacher was integrating HIV/AIDS education, only 11% of the respondents reported that all the subjects were appropriate for teaching HIV/AIDS education. While 8% of the respondents reported that, it should a subject on its own. Biology, Religious Education Social Education and ethics are not compulsory subjects even though they were the most preferred. This means that some students might not have an opportunity to learn HIV/AIDS education if they do not chose Biology or Religious education. Secondly the subjects cover specific areas and not necessarily all the aspects of HIV/AIDS. Even though history was preferred by less than 20% of the teachers it is very important as it can help to compare the similarities between HIV/AIDS and other epidemics for example smallpox and syphilis.

#### 4.2.5 Socio-Cultural Factors

Education is vital in the fight against HIV/AIDS and providing education opportunities for both boys and girls is important. The study sought to find how the schools where the respondents taught catered for both boys and girls. Table 4.11 indicates the findings

Table 4. 11: Distribution of Respondents by Schools

Gender	Frequency	Percentage (%)
Boys	21	14.0
Girls	11	7.3
Mixed	118	78.7
Total	150	100.0

From Table 4.11, it can be seen that 78% of the respondents were teaching in mixed schools as compared to 14% in boys' schools and 7% in girls' schools. This is an indication that opportunities were available for both girls and boys. However, the number of pure boys' schools is higher than pure girl schools.

##### a) Relationship between gender of students and teaching of HIV/AIDS education

There are several challenges that are associated with teaching HIV/AIDS education in mixed schools especially if the boys and girls attend the same classes. The study sought to find the relationship between gender of students and teaching of HIV/AIDS education. The findings were presented in Table 4.12.

Table 4. 12: Gender of Students and Teaching HIV/AID Education

Students Gender		Have you ever Taught HIV/AIDS Education		
		No	Yes	Total
Boys	Number of respondents	8	13	21
	Percentage (%)	38.1	61.9	100.0
Girls	Number of respondents	4	7	11
	Percentage (%)	36.4	63.6	100.0
Mixed	Number of Respondents	47.5	52.5	118
	Number of Respondents	68	82	150
Total	Percentages (%)	45.3	54.7	100.0

$X^2 = 1.016$  Degrees of Freedom = 2, P value = 0.602, (Significance = 0.05)

Table 4.12 indicates that there is no significant relationship between gender of student in schools and the teaching of HIV/AIDS education. The P value = 0.602 where  $P > 0.05$ . However, the proportion of teachers who have ever taught the subject in schools with single sex schools is higher than the ones in mixed schools. The proportion of respondents teaching HIV/AIDS education in pure boys schools are 61%, the ones teaching in pure girl schools are 63% the ones in mixed schools are 52%. Higher proportion of teachers in girl schools have taught HIV/AIDS education as compared to boys and mixed schools.

Another reason that might have influenced the teaching of HIV/AIDS education was teachers' gender. The study sought to find out the proportion of male and female teachers and the findings. Table 4.13 highlights the findings.

Table 4. 13: Respondents' Gender

Teachers Gender	Frequency	Percentage (%)
Female	31	20.7
Male	119	79.3
Total	150	100.0

Table 4.13 indicates that there is a great disparity between the number of male and female teachers. Out of the teachers interviewed 79% males while 20% were females. The disparity is so great to the extent that some schools did not have a single female teacher in the school.

**c) Relationship between teachers' gender and teaching HIV/AIDS education**

Although most schools had mixed gender of students, the male teachers were more than female teachers were to the extent that some schools were lacking female teachers. This may influence the teaching of HIV/AIDS education considering the fact that males and females are physiologically different. The study therefore sought to find out the relationship between the respondents' gender and teaching of HIV/AIDS education. Table 4.14 indicates these findings.

Table 4. 14: Respondents' Gender and Teaching of HIV/AIDS Education

		Have you ever Taught HIV/AIDS Education		
		No	Yes	Total
Female	Number of Respondents	13	18	31
	Percentage (%)	41.9	58.1	100.0
Male	Number of Respondents	55	64	119
	Percentage (%)	46.2	53.8	100.0
Total	Respondents	68	82	150
	Percentage (%)	45.3	54.7	100.0

$X^2 = 1.82$ , Degree of freedom = 1, P value = 0.670, (significance = 0.05)

Table 4.14 indicates that there is no significant relationship between teachers' gender and the teaching of HIV/AIDS education. The findings are supported by the Chi Square statistic P value = 0.670 where  $P > 0.05$  significance which indicates a non-significant relationship between the two variables. Slightly more than half of the female teachers as well as half of the male teachers reported that they had taught HIV/AIDS education. However, 58% of the female teachers reported that they taught HIV/AIDS education as compared to 53% of their male counterparts.

### b) School Sponsors

Most secondary schools in Rachuonyo District were started by missionaries or by the local communities. Even though most the schools were taken over by the government, the founders still play a significant role in management. For example the board of governors are usually chosen from the community, if the schools were started by the community. In cases where the schools are founded by the church then the management board is chosen from the founding church members. The schools founded by the District Education Boards are managed by local community members. The study sought to find out the proportion of secondary schools sponsors where the respondents taught. The findings are highlighted in Table 4.15.

Table 4. 15: Distribution of Respondents by Schools' Sponsors

Sponsors	Frequency	Percentage (%)
District Education Board	34	22.7
Seventh Day Adventists	45	30.0
Catholic	30	20.0
Lutheran	10	6.7
Individual	26	17.3
Others Religions	5	3.3
Total	150	100.0

Apart from the district education, board religious institutions also sponsor secondary schools. For instance, 60% of the respondents were teaching in church sponsored schools while 22% were teaching in schools sponsored by District Education Board. Only 17% of the respondents taught in individually sponsored schools as indicated in Table 4.15. Most churches are usually concerned about sexual matters and may influence HIV/AIDS education in secondary schools that they sponsor. Individually sponsored schools might not necessarily follow the government guidelines on teaching HIV/AIDS education, and are unlikely to teach HIV/AIDS education.

**c) Relationship between School Sponsor and the Offering HIV/AIDS Education**

The study also sought to find out the relationship between the school sponsors and offering of HIV/AIDS education. Chi Square Statistical test established the relationship. Table 4.16 depicts the relationship between the two variables.

Table 4. 16: Relationship between Sponsor and Offering HIV/AIDS Education

Sponsors		Is your school offering HIV/AIDS education		
		No	Yes	Total
DEB	Number of Respondents	22	12	34
	Percentage (%)	64.7	35.3	100.0
SDA	Number of Respondents	24	21	45
	Percentage (%)	53.3	46.7	100.0
CATHOLIC	Number of Respondents	19	11	30
	Percentage (%)	63.3	36.7	100.0
LUTHERAN	Number of Respondents	4	6	10
	Percentage (%)	40.0	60.0	100.0
PRIVATE	Number of Respondents	21	5	26
	Percentage (%)	80.8	19.2	100.0
OTHERS	Number of Respondents	4	1	5
	Percentage (%)	80.0	20.0	100.0
Total	Number of Respondents	94	56	150
	Percentage (%)	62.7	37.3	100.0

$X^2 = 8.222$  Degrees of Freedom = 5, P value = 0.144, (significance = 0.05)

Table 4.16 indicates that there is no significant relationship between school sponsor and the offering HIV/AIDS education. Most schools did not offer HIV/AIDS education regardless of whether the schools were church-sponsored, individual-sponsored or government-sponsored. According to the respondents, 64% of those in DEB schools, 53% of those in SDA schools, 63% in catholic schools, 40% in Lutheran schools, 80% in other religions, and 80% from privately sponsored schools reported that their schools did not offer HIV/AIDS education. This findings

were supported by the Chi Square statistic, P value = 0.144 where  $P > 0.05$  significance, which indicates that there is no significant relationship between the school sponsors and offering HIV/AIDS education.

#### **d) Religion and the Teaching of HIV/AIDS Education**

Religion attaches a lot of importance in human sexuality and is likely to influence the teaching of HIV/AIDS education. The study sought to find out the religion to which the respondents' belonged. The findings are as indicated in Table 4.17.

Table 4. 17: Respondents' Religion

Respondents Religion	Frequency	Percentage (%)
Christians	147	98
Islam	3	2
Total	150	100.0

As table 4.17 indicates, the majority of the respondents (98%) reported that they were Christians, as compared to 2% who are Muslims. Religious values are likely to influence the teaching of HIV/AIDS education. The study sought to find out whether the respondents' religion permits them to teach HIV/AIDS, education. The findings are as indicated in Table 4.18.

Table 4. 18: Respondents' Religion and Teaching of HIV/AIDS Education

Does your religion permit the teaching HIV/AIDS Education?	Frequency	Percentage (%)
No	8	5.3
Yes	139	92.7
Not Sure	3	2.0
Total	150	100.0

Table 4.18 indicates that religion permitted 92% of the teachers to teach HIV/AIDS education as compared to two percent of the respondents who reported that their religion did not permit the teaching of HIV/AIDS education. Only 5% of the respondents reported that they were not sure on whether their religion permitted the teaching of HIV/AIDS education or not. For some,

religion did not permit the teaching of HIV/AIDS education. Because they believed that sex is for married people and secondary students are not married.

The study sought to find out the proportion of the respondents whose religion influenced their teaching of HIV/AIDS education. Table 4.19 presents the findings.

Table 4. 19: Respondents’ Religion and its Influence on HIV/AIDS Education

Is your religion influencing how you teach		
HIV/AIDS education?	Frequency	Percentage (%)
No	57	38.0
Yes	93	62.0
Total	150	100.0

Although most religions permitted the teaching of HIV/AIDS education, Table 4.19 indicates that 62% of the respondents reported that religion influences the way they teach HIV/AIDS education. This is more than 38% who reported that their religion does not influence the way they taught HIV/AIDS education. Religion influences the teaching of HIV/AIDS education in the following ways. Some do not permit the use of condoms and contraceptives. Instead, they stress on teaching abstinence and faithfulness, others view HIV/AIDS as a punishment because of immorality.

The study also sought to find the proportion of respondents who thought that training could influence their religious beliefs on teaching HIV/AIDS education. Table 4.20 highlights the findings.

Table 4. 20: Respondents’ view on Training and Religious Beliefs

Can training influence your religious beliefs on teaching		
HIV/AIDS education?	Frequency	Percentage (%)
No	37	24.7
Yes	113	75.3
Total	150	100.0

From Table 4.20, about 75% of the respondents reported that training could influence their religious beliefs. This is much more as compared to 24% who reported that training could not influence their religious beliefs. Training is able to highlight the reasons behind some religious teaching like abstinence, and highlight the scientific methods of teaching HIV/AIDS education. Training of teachers on HIV/AIDS education is therefore crucial.

**e) Teacher’s Cultural Beliefs and the Teaching of HIV/AIDS Education**

It is impossible to negotiate any level of human behaviors without confronting culture. The study sought to find out whether or not culture influences the teaching HIV/AIDS education. Table 4.21 presents the finding.

Table 4. 21: Cultural Beliefs and Teaching of HIV/AIDS Education

Does your cultural beliefs and practices influence the way you teach HIV/AIDS education?	Frequency	Percentage (%)
No	28	18.7
Yes	122	81.3
Total	150	100.0

Table 4.21 indicates that 81% of the respondents reported that cultural beliefs influenced the way they taught HIV/AIDS education this is more than three quarters of the teachers interviewed as compared to 18% of those who reported that cultural beliefs did not influence the teaching of HIV/AIDS. The cultural beliefs and practices that influence the teaching of HIV/AIDS education are as follows. the belief that HIV/AIDS is a curse, polygamy, wife inheritance, the belief that sex cannot be discussed openly with the unmarried, the belief that sex matters are taught by grandparents, the belief that it is immoral to talk about sex in public and the belief that mentioning reproductive parts is prohibited.

Training teachers can influence cultural beliefs. The study also sought to understand the perception of teachers on the influence of training on their cultural beliefs. Table 4.22 summarizes the findings.

Table 4. 22: Training and Cultural Beliefs

Can Training Influence your Cultural Beliefs on Teaching HIV/AIDS Education?		
	Frequency	Percentage (%)
No	21	14.0
Yes	129	86.0
Total	150	100.0

Even though cultural beliefs and practices influenced the teaching of HIV/AIDS education, Table 4.22 indicates that 86% of the teachers reported that training could influence their cultural beliefs. This is much more as compared to 14% who reported that training could not do so. Training teachers on teaching HIV/AIDS education is therefore crucial as it helps them overcome cultural practices and beliefs that might influence the teaching of HIV/AIDS education.

#### 4.2.6 Training Teachers on HIV/AIDS Education

The importance of training teachers is important for the teaching of any subject. The study analyzed the extent to which teachers had trained on the teaching of HIV/AIDS education

##### a) Proportion of Respondents Trained on HIV/AIDS Education

The study sought to find out the proportion of respondents who had undergone training on teaching of HIV/AIDS education and their level of training. The findings are summarized in the Table 4.23 summarizes the findings.

Table 4. 23: Training on HIV/AIDS Education

Have you trained on HIV/AIDS education	Frequency	Percent (%)
No	87	58.0
Yes	63	42.0
Total	150	100.0

Table 4.23 indicates that 58% of the respondents had not undergone any training on HIV/AIDS. This is more than those are more than 42% of those who reported that they had undergone training.

### **b) Level of Training**

The level of training is crucial in the training process because the higher the level of training the more effective the trainee becomes in any field. The study also sought to find out the level up to which the teachers had trained in teaching HIV/AIDS education. Table 4.24 highlights the findings.

Table 4. 24: Level of Training on HIV/AIDS Education

What is your Level of Training?	Frequency	Percent (%)
Unit in College	30	47.6
Certificate	18	28.6
Seminars	15	23.8
Total	63	100.0

Table 4.24 indicates that out of the respondents who reported that they had undertaken training, none of them had trained above the diploma level; 47% of the respondents undertook the training as unit in college. This is much more as compared to 28% who trained at certificate level and 23% who trained in the seminars.

The study further sought to understand the reasons why some of the teachers did not have any training on HIV/AIDS education. Table 4.25 depicts the findings.

Table 4. 25: Reasons for not Attending Training on HIV/AIDS

Why teachers had not Attended Training	Frequency (N=87)	Percentage (%)
Lack of opportunity	59	67.8
Lack of funds	11	12.6
Biased Selection	4	4.5
Limited time	11	12.6
Lack of information on training Institutions	6	6.8
The church does not permit the training	2	2.2

According to Table 4.25, an overwhelming 67% of the respondents reported that they did not attend training on HIV/AIDS education because they lacked the opportunity, 12% reported that they lacked funds and time, 4% reported that they were selected based on the subjects they taught or the responsibilities they held in school. Less than 10% reported that they lacked information on training institutions, while only 2% reported that their church did not permit them to attend training on teaching HIV/AIDS education.

### c) Proportion of Respondents Willing to Attend HIV/AIDS Education Training

The study also sought to establish the proportion of teachers willing to attend HIV/AIDS education training. Table 4.26 summarizes the findings.

Table 4. 26: Proportion of Teachers Willing to Attend Training

Would you attend training if offered an opportunity?	Frequency (N=150)	Percent (%)
No	5	3.3
Yes	145	95.3
Total	150	100.0

Table 4.26 indicates that 95% of the respondents would attend training if offered a chance. This is much more than 5%, who reported that they would not attend if given an opportunity to train. Training of teachers on teaching HIV/AIDS education is therefore likely to succeed because a high proportion of the teachers are willing to participate.

#### d) Lack of Training and Teaching of HIV/AIDS Education

Training of teachers on their respective teaching responsibilities is very important. The study also sought to establish if lack of training could prevent teachers from teaching HIV/AIDS education. Table 4.27 depicts the findings.

Table 4. 27: Lack of Training and Teaching of HIV/AIDS

Can you teach HIV/AIDS without training?	Frequency (N=150)	Percent (%)
No	96	64.0
Yes	54	36.0
Total	150	100.0

According to table 4.27 indicates that only 36% of the respondents could teach HIV/AIDS education without training while 64% of the interviewed teachers reported that they could not teach the subject without training. Training of teachers is therefore an important aspect in promoting the teaching of HIV/DS education. The study further sought to establish the reasons why lack of training could prevent the interviewed teachers from teaching of HIV/AIDS education in secondary schools. Table 4.28 reports the findings

Table 4. 28: Why Lack of Training can prevent the Teaching of HIV/AIDS Education

why Lack of Training can Prevent Teaching of HIV/AIDS education	Frequency (N=96)	Percentage (%)
Leads to lack knowledge and facts to pass to students	91	94.8
Reduces teacher's motivation and confidence	5	5.2
Absence of effective approach and procedure to teach	2	2.1
Overcome superstition and cultural norms	1	1.4
Training removes stigmatization	4	4.2
It's a Sensitive area and need to be tackled carefully	3	3.1

According to Table 4.28, an overwhelming 94% of the interviewed teachers reported that without training, they would lack knowledge and facts to pass to students. Other reasons include motivation, confidence appropriate procedures, overcoming superstition, cultural norms and removal of stigmatization. However, less than 10% of the respondents supported these reasons.

On the other hand, some of the respondents reported that they could teach HIV/AIDS education without training. The study also sought to establish the reasons why these respondents could teach HIV/AIDS education without training. Table 4.29 reports the findings.

**Table 4. 29: Why Lack of Training cannot Prevent Teaching of HIV/AIDS education**

Reasons why lack of Training cannot Prevent the Teaching of HIV/AIDS Education	Frequency (N=54)	Percentage (%)
Teachers are knowledgeable about HIV/AIDS	30	55.5
HIV/AIDS awareness is in the mass media	28	51.9
It is a day to day experience	22	40.7
Teachers are already trained on teaching skills	15	27.7

According to Table 4.29 the respondents reported that lack of training could not prevent them from teaching HIV/AIDS because of the following reasons, 55% of the respondents reported that they were already knowledgeable about HIV/AIDS and only needed guidance and reference materials. While 51% reported that HIV/AIDS awareness was everywhere in the mass media and 40% reported that it was a day-to-day experience that could be taught without training. Less than 30% had trained on teaching skills.

It is impossible to overlook the relationship between training and teaching of HIV/AIDS education. The study established the relationship between training and teaching of HIV/AIDS education. Table 4.30 highlights the findings.

Table 4. 30: Relationship between Training and Teaching of HIV/AIDS Education

		Have you ever Taught HIV/AIDS Education		
		No	Yes	Total
Have you Trained on Teaching HIV/AIDS Education	No	No. of Respondents 51	36	87
		Percentage (%) 58.6	41.4	100.0
	Yes	No. of Respondents 17	46	65
		Percentage (%) 27.0	73.0	100.0
Total		No of Respondents 68	82	150
		Percentage (%) 45.3	54.7	100.0

$X^2 = 14.757$  Degree of Freedom = 1, P value = 0.001, (significance = 0.05)

Table 4.30 indicates that there was a significant relationship between training and teaching of HIV/AIDS education. Teachers trained on HIV/AIDS education are more likely to teach it than those are who are not. This is confirmed and supported by the Chi Square statistic  $P = 0.001$  where  $P < 0.05$  significance, which indicates that there is a significant relationship between training and teaching of HIV/AIDS education.

#### 4.2.7 Availability of HIV/AIDS Teaching Materials

Relevant materials should be availed for effective teaching of HIV/AIDS, education. The study sought to find the availability of HIV/AIDS education teaching materials. Table 4.31 indicates the finding.

Table 4. 31: Availability and Accessibility of HIV/AIDS Teaching Materials

Availability of Materials	Percentage (%)		
	Yes	No	Not Sure
Have you seen the HIV/AIDS education secondary syllabus?	36.7	61.3	0.0
Have you ever used the syllabus?	24.7	75.3	0.0
Are textbooks on HIV/AID available?	32.0	66.7	1.3
Are charts available?	24.7	74.0	1.3
Is electronic equipment available?	21.3	77.3	1.3
Should HIV/AIDS teaching materials be availed in school?	81.3	3.3	0.0
Have ever come across HIV/AIDS education policy?	23.3	76.7	0.0

Several materials are required for the teaching of HIV/AIDS education. Table 4.31 indicates that 75% of the interviewed teachers reported that they had not come across the syllabus despite the importance of the syllabus. The respondents also reported that other important materials were not available. For instance, more than 66% reported that textbooks, charts, electronic equipment and the HIV/AIDS education policy were not available. However over 80% of the respondents expressed the need to avail HIV/AIDS education materials.

The syllabus is one of the most important materials in teaching any subject because it gives the guidelines on teaching a subject. The study therefore sought to find the relationship between the availability of the syllabus and teaching of HIV/AIDS education. Table 4.32 reports the outcome.

Table 4. 32: Availability of the Syllabus and Teaching of HIV/AIDS Education

		Have you ever taught HIV/AIDS education			
		No	Yes	Total	
Have you ever come across the HIV/AIDS syllabus?	No	No of Respondents	53	42	95
		Percentage (%)	55.8	44.2	100.0
	Yes	No of Respondents	15	46	55
		Percentage (%)	27.6	72.7	100.0
Total	No of Respondents		68	82	150
	Percentage (%)		45.3	54.7	100.0

$X^2 = 11.430$  Degree of Freedom = 1, P value = 0.001, (significance = 0.05)

Table 4.32 indicates that there was a significant relationship between coming across the HIV/AIDS education secondary syllabus and the teaching of HIV/AIDS education. Seventy two percent of the respondents who came across the syllabus taught HIV/AIDS education, compared to 42% of those who had not come across the syllabus. The Chi Square statistic  $P = 0.001$  where  $P < 0.05$  significance, shows that there is a significant relationship between accessing the syllabus and teaching HIV/AIDS education.

#### 4.2.8 Role of Principals in the Teaching of HIV/AIDS Education

The principals play a very important role in the running of the schools because they oversee each activity that takes place in the school. They also ensure the offering of HIV/AIDS education in schools. The study examined the establishment of HIV/AIDS education in schools. Table 4.33 summarized the results.

Table 4. 33: Offering of HIV/AIDS Education in Secondary Schools

Do you offer HIV/AIDS Education in your school?	Frequency	Percentage (%)
No	94	62.7
Yes	56	37.3
Total	150	100.0

Tables 4.33 indicate that 62% of the respondents' schools did not offer HIV/AIDS education. This is higher proportion compared to 37% of the respondents who reported that their schools offered HIV/AIDS education. These findings are contrary to the requirements of the ministry of education, which expects all schools to offer HIV/AIDS education (MOEST, 2004).

#### a) Reasons for not Offering HIV/AIDS Education

The study also sought to find out the reasons why secondary schools where the respondents were teaching did not offer HIV/AIDS education. Table 4.34 summarized the findings

Table 4. 34: Reasons for not Offering HIV/AIDS Education

Reasons for not offering HIV/AIDS education	Frequency (N=94)	Percentage (%)
Lack of trained personnel	10	10.6
Lack of learning materials	19	20.2
I assumed that it's integrated by teachers	15	16.0
Not examinable at KCSE	14	14.9
Not in the school time table	38	40.4
Done under guidance and counseling	14	14.9
Not in the syllabus/curriculum	17	18.1

Table 4.34 indicates that several factors prevent the offering of HIV/AIDS education, 40% of the respondents cited lack of HIV/AIDS education in the timetable as a reason for no offering the subject. This is the highest proportion of respondents as compared to 10% who cited lack of trained personnel and 20% who cited availability of learning materials. However, timetabling is under the jurisdiction of the school administration under the directive from the ministry of

education. Allocating time for teaching HIV/AIDS education therefore calls for active participation of all the school principals and the stakeholders in the education sector.

#### **b) Availing of HIV/AIDS Education Teaching Materials**

Principals are supposed to promote the teaching of HIV/AIDS education. One of the ways in which principals can support the program is by providing the relevant education materials through purchasing. The study sought to find out the proportion of schools that buy HIV/AIDS education materials. Table 4.35 depicts the findings.

Table 4. 35: Buying of HIV/AIDS Education Materials in Secondary Schools

Does your school buy HIV/AIDS education materials?	Frequency	Percentage (%)
No	123	82.0
Yes	26	17.3
I Don't Know	1	0.7
Total	150	100.0

According to table 4.35, an overwhelming 82% of the respondents reported that their schools did not buy HIV/AIDS teaching materials, compared to 17% of the respondents who reported that their schools did so.

#### **c) Reasons for not Buying HIV/AIDS Teaching Materials**

The study also sought to understand the reasons why schools did not buy HIV/AIDS teaching materials. Table 4.36 summarizes the findings.

Table 4. 36: Reasons for not Buying HIV/AIDS Teaching Materials

Reasons for not Buying the Materials	Frequency (N=121)	Percentage (%)
Lack of funds	37	30.6
Given free by nongovernmental organizations	36	29.8
Not a priority in school requisition	25	20.7

According to table 4.36, shows that out of the one hundred and twenty one respondents who reported that their schools did not buy HIV/AIDS education materials 30% reported that there

was lack of funds. This is the highest percentage compared to 29% those who reported that it was given free by non-governmental organizations, and 20%, who reported that purchasing HIV/AIDS education was not a priority in school requisition. The school administration is supposed to ensure that schools are equipped with various education materials. The study sought out the opinion of the respondents on equipping schools with HIV/AIDS education materials. Table 4.37 highlights the findings.

Table 4. 37: Equipping of Schools with HIV/AIDS Education Materials

Should Equipping schools with HIV materials be a priority?	Frequency	Percentage (%)
No	34	22.7
Yes	116	77.3
Total	150	100.0

Table 4.37 indicates that 77% of the respondents reported that equipping of schools with HIV/AIDS education materials should be a priority, to 22% of the respondents who reported that equipping the school should not be a priority.

#### **d) Other Sources of HIV/AIDS Education Materials**

Apart from purchasing HIV/AIDS education materials schools can also get them from other sources. The study sought to establish the sources from which the schools got HIV/AIDS education materials. Table 4.38 depicts the results.

Table 4. 38: Sources of HIV/AIDS Education Materials Apart from Purchasing

Sources of HIV/AIDS education materials	Frequency (N=121)	Percentage (%)
MOEST	11	9.1
NGO and CBOS	36	29.8
Seminars	9	7.4
Health Institutions	14	11.6
Mass Media	36	29.8
Subject Texts	10	8.3

Apart from purchasing, the schools can get the HIV/AIDS education materials from other sources. Table 4.38 indicates that 29% of the respondents got their materials from mass media, 29% from non-governmental organizations and community based organizations this is much more than 9% of the respondent who reported that they got their materials from the Ministry of Education despite the fact that it has with the responsibility of providing HIV/AIDS education.

### **4.3 Discussions**

The following section discusses the results based on the objectives of the study. The section discusses the general characteristics of schools, respondents' views on various subjects, teaching of HIV/AIDS education, evaluation of HIV/AIDS education, teacher training on HIV/AIDS education, availability and accessibility of HIV/AIDS education and the role of principals in the teaching of HIV/AIDS education

#### **4.3.1 General Characteristics of Schools**

This study focused on HIV/AIDS education in secondary schools. Secondary schools are one of the social institutions that offer formal education and can be useful in offering HIV/AIDS education as well. Formal education has significant influence on how people make informed decisions about their health, including very important areas such as sexual behavior (UNICEF, 2005). It is therefore vital to understand the influence of school characteristics and their response to the teaching of HIV/AIDS education. The general characteristics discussed in this section are type of schools, school categories and sponsors.

More teachers in the public schools taught HIV/AIDS education as compared to their counterparts in private schools, because they are frequently inspected by the ministry of education to ensure that they adhered to the teaching guidelines. Furthermore, the public schools were not geared towards profit making and therefore follow the curriculum strictly. On the other hand, most teachers in private schools did not teach HIV/AIDS education because they focused on exam performance to attract and retain more students. As a result they spent most of their time and resources on examinable subjects. Teachers from these schools lacked clear guidelines, were underpaid, understaffed and overworked. Retaining their jobs depended on their output in terms of finishing the syllabus and student performance in the exams. Therefore teaching HIV/AIDS education was seen as a destructor and a waste of time. Furthermore, there was lack

of frequent external inspection and support from the ministry of education to oversee the teaching of HIV/AIDS education unlike in public schools.

#### **4.3.2 Teaching of HIV/AIDS Education**

The Ministry of Education in Kenya expects secondary school teachers to integrate HIV/AIDS education in all subjects (MOEST, 2004), yet the curriculum is the least factor that motivates the teaching of the subject, because it does not provide a clear implementation system. The integration of HIV/AIDS education is at the discretion of the teacher, explaining the high discrepancy in its teaching. Where it was as a sub topic, the content was very limited and only covered a small area as evident in the biology syllabus. The teachers therefore depended on other extra curriculum departments like guidance and counseling to teach HIV/AIDS education. However, these departments did not exist in all schools and lacked trained teachers on the same. Furthermore the teachers in these departments might were not interested in HIV/AIDS education, lowering the rate of its adoption. Apart from the respective subjects, the school administration should strengthen other departments like guidance and counseling. Introduced in schools where they do not exist to exploit the full potential that the departments might poses in offering HIV/AIDS education. Few teachers taught HIV/AIDS education because they felt that education is important in curbing HIV/AIDS. This underscored the fact that if the school administration provides the correct environment, the teachers will be able to teach HIV/AIDS education.

On the other hand, some teachers had never taught HIV/AIDS education because of several factors. It was difficult to teach HIV/AIDS education because its content was not in the subject syllabus. At the same time it was not, time timetabled this made it difficult for them to create time for teaching it. Similarly According to SEIA (2007), the content of secondary education programs has rarely changed to match countries that are dealing with HIV/AIDS. In addition, teachers did not teach the subject due to limited knowledge on HIV/AIDS education. The teachers argued that they could not teach HIV/AIDS education because it was not part of their profession. They taught specific subjects and believed that they were not supposed to teach HIV/AIDS education. Increased enrolment in secondary schools due to the introduction of free primary education further complicates the situation.

### **4.3.3 Various Subjects and HIV/AIDS Education**

Kenyan Teachers in all secondary schools need to teach HIV and AIDS education through the various subjects offered in the curriculum. This is encouraging because there is ample evidence that interventions led by teachers and other adults have a positive impact on behaviors and reduce high-risk practices (Kirby *et al.*, 2006). There are varieties of subjects in secondary schools however Religious Education and Biology are the most preferred for teaching HIV/AIDS education. Religious education was preferred because it deals with morality while biology was preferred because it deals with life.

There are several aspects of biology that are very important in the understanding the spread of HIV virus. An example is the role played by contraceptives in Heterosexual transmission of HIV (Prakash, 2002). Unfortunately, the Kenyan secondary school biology syllabus covers HIV/AIDS education as a sub topic in human reproduction. Specifically it only mentions use of contraceptives as a way of birth control without mentioning the side effects and the chemical composition of these contraceptives. This makes the adoption of HIV/AIDS education low because the syllabus restricts the teachers on the content that they should cover. Furthermore, biology is not a compulsory subject beyond form three while human reproduction, which covers HIV/AIDS, is a form three topic. Another subject, which was preferred for teaching HIV/AIDS education, is religious education. It was preferred because it deals with morality. Unfortunately it is not a compulsory subject, furthermore most schools do not have enough religious education teachers therefore it could not be used effectively for teaching HIV/AIDS education, and this could lower its adoption. Teachers did not prefer history but it can be useful in comparing HIV with other similar epidemics like smallpox and syphilis. History as subject should have a section on health history, but very few historical aspects of the disease are covered. HIV/AIDS should therefore be a subject on its own. Therefore, that it can coverage wider area.

On the other hand there are teachers who felt that their subjects were not appropriate for teaching HIV/AIDS education, for instance physics and mathematics teachers believe that their subjects are not appropriate for teaching HIV/AIDS education because their subjects did not have HIV/AIDS content. Mathematics teachers believe that the subject is not the best for teaching HIV/AIDS education because most students feared it. This could affect the teaching of

HIV/AIDS education negatively if it were part of mathematics. The teachers instead recommend that HIV/AIDS education be its own subject, contrary to the requirements of the ministry of education. According to Kenya Institute of Education, the best strategy is to incorporate the HIV/AIDS education content in the existing subjects instead of creating a new subject (MOEST, 2004). This is infused meaning that HIV/AIDS messages are supposed to be taught at appropriate points when the main subject is being taught. Nevertheless, this cannot practically apply to all subjects as highlighted by the physics and mathematics teachers. HIV/AIDS should therefore be a subject on its own.

#### **4.3.4 Gender and Teaching of HIV/AIDS Education**

Both boys and girls were given an opportunity to attend school. However in some instances there was minimal contact between teachers and students, resulting to interruption of the general teaching process and the teaching of HIV/AIDS education as well. The interruptions were due to the following reasons; some of the students were too poor to attend school while others opted out of school because of the long distance associated with going to school. This is because some schools started by the community were closed down by the ministry of education and advised to merge with the already established schools in order to enable them benefit from free secondary education funds (World Bank, 2005). The students and teachers from the closed schools forced to walk long distances to school or pay higher bus fare to attend school; as a result students were discouraged from attending school every day and in some instances opted to drop out altogether. While the teachers had limited time to prepare and teach because they consume a lot of time and energy travelling. The teachers therefore used the little time left teaching examinable subjects and overlooking HIV/AIDS education which was not examinable.

There were several mixed schools in Rachuonyo District; which provides education opportunities for both boys and girls. Education is vital the young people and lack of it has been blamed for the unequal prevalence of HIV among in Africa (Robinson, 2004 and UNICEF, 2005). However there were challenges associated with teaching in mixed schools. Some teachers believed that mixed schools provided a space for social interaction between girls and boys that resulted in sexual encounters. They also believed that teaching reproductive health education in mixed schools triggers the curiosity of the students making them to start creating opportunities

for sexual encounters. The other challenge is that some students were learning with their relatives in the same class and the teachers found it embarrassing to teach them elaborately about HIV/AIDS education especially when discussing sex and condoms. Other teachers reiterated that there were a lot of sexual undertones when teaching students of the opposite sex about sex and reproductive health education. They suggested that the students be taught by teachers of the same sex. Unfortunately, there were more male teachers than female teachers in the district to the extent that some mixed schools did not have a single female teacher, as much as they were important in teaching girls about sex and reproductive health because of their physiological similarity. This made the adoption of teaching HIV/AIDS education to be very low.

There was an urge to separate girls and boys when teaching of HIV/AIDS education, teaching the subject to both boys and girls is important because they are interrelated. For example, if male students pursue sex with their own understanding, efforts to help female students will largely be ineffective because of their interdependence. Therefore, attempts to intervene and assist secondary school students should not be at the expense of one sex just because teachers are of different sexes. Both male and female teachers should actively participate in teaching HIV/AIDS education regardless of whether the students are of the same sex. Neglecting either of them makes, most efforts to fight HIV/AIDS among the young people will be ineffective (Nyamongo, 2005). Therefore, there should be continued investment in mixed schools to provide equal education opportunities for both boys and girls.

#### **4.3.5 Sponsors and Teaching of HIV/AIDS Education**

Rachuonyo District secondary schools were categorised depending on their sponsors' as follows church sponsor, government sponsors or individually sponsored. Sponsors are very important in the management of schools. Majority of the schools were church sponsored as compared to government or individually sponsored schools. The church therefore played a crucial role in running and developing of the schools. For example, it participated in the employment of teachers whereby they preferred to employ members of their own faith. The teachers therefore taught reproductive and sex education according to the church requirements.

The Catholic Church has repeatedly criticized programs promoting condoms as a totally effective and sufficient means of AIDS prevention. The different bishop conferences all over the world have expressed their concern regarding this problem. They categorically regard the widespread

and indiscriminate promotion of condoms as an immoral and misguided weapon in the battle against HIV/AIDS for the following reasons: the use of condoms change the beautiful act of love into a selfish search for pleasure while rejecting responsibility. Condoms do not guarantee protection against HIV/AIDS. Condoms may even be one of the reasons for spreading HIV/AIDS. Apart from the possibility of condoms being faulty or wrongly used, they contribute to the breakdown of self control and mutual respect. The young people are misled when total protection is seemingly offered to them while there is no such protection (Trujilo and Clowes, 2006). The Church Sponsors play a crucial role in influencing HIV/AIDS education.

#### **4.3.6 Respondents Religion and HIV/AIDS Education**

Religious organizations sponsor many secondary schools. Therefore, it is impossible to consider sexual and reproductive health education without simultaneously considering the role of religion because Religious teachings deeply influence personal conduct, especially in the areas of sexuality, marriage, gender, childbearing, parental-children and student-teacher relationships. Religion permits majority of the teachers to teach HIV/AIDS education. However, religion influences the teaching of HIV/AIDS education in several ways. Certain religions stress on the teaching of purity and holiness while discouraging the use of contraceptives like condoms. The claim by some churches that the condom is not 100% effective in preventing HIV and as a contraceptive has been backed up by several surveys of people who used condoms under real-world conditions. (Kirkman *et al.*, 1990; Feder, 1993 and Lee *et al.*, 2004). Such surveys can make it easier for one to abide by religious teachings on abstinence only. However, most teachers are not aware of the reasons why the church was insisting on teaching abstinence only and are therefore not very keen on teaching abstinence messages. This in turn lowered the adoption of HIV/AIDS education.

Apart from unclear understanding of religious teaching on sexuality, teachers faced several contradictions between their religious beliefs and contemporary teaching. For example, while religion stress on abstinence and faithfulness the contemporary teachings advocate for Abstinence Being Faithful and Condoms (A B C) as a means of controlling HIV/AIDS. Therefore, they were in conflict on whether to conform to particular religious teachings on morality and abstinence or include the teaching of contraceptives and other protective measures. Another contradiction is to do with the number of marriage partners. Christians belief in

monogamous marriages while Muslims allow polygamous marriages, this is contrary to the going concern that many sexual partners could lead to the spread of HIV/AIDS. Others viewed HIV/AIDS as a spiritual problem that needed spiritual solution and therefore preferred to pray about it rather than teach it. They related HIV/AIDS to the Biblical teachings that Christ attributed the cause of some diseases to demons, and therefore insisted on spiritual causes and solutions of HIV/AIDS. Such beliefs can lead to omitting scientific explanations and methods of disease prevention that were equally important in controlling the spread of HIV/AIDS.

These contradictions affected the methodology of teaching HIV/AIDS education, because teachers were at crossroads on whether to conform to religious teachings or use the contemporary teachings to teach HIV/AIDS education. As a result they taught selectively or ignored the subject altogether. Religious organizations are crucial participants in the fight against aids. however, but most condom promoting organization believe that purely secular organizations should have a monopoly in the battle against HIV/AIDS, and that religious organizations have no place in the fray, while from the very beginning of the ABC program, Christians Jewish and Muslim faith-based organizations played a central role (Laconte, 2003). The ABC program has been intensely studied and deemed effective by many leading international health organizations including the United States Agency for International Development (USAID) which conceded that the dramatic decline in HIV/AIDS prevalence in Uganda is unique and subjected it to intense scrutiny (Green *et al*, 2002; Global HIV Prevention Working Group, 2002). Teachers therefore need training on all the available methods of preventing the spread of HIV/AIDS so that they may be able to analyze their advantages and disadvantages. This will promote their confidence in teaching the subject.

Through training teachers can be in a better position to explain why religion insists on abstinence and faithfulness as a way of controlling the spread of HIV, and increase their awareness of the current research findings about HIV/AIDS. The training should cater for the religious believers and non-believers to avoid watering down the strong aspects of religious teachings. Real life examples used when rejecting condoms and contraceptives. Teachers who are deeply rooted in their religious beliefs should be encouraged and facilitated to teach faithful and abstinence as it is

the surest way of preventing the spread of HIV. Training based on methods of preventing HIV/AIDS for example the use of condoms should be discouraged as much as possible.

#### **4.3.7 Cultural Beliefs, Practices and HIV/AIDS Education**

Several cultural beliefs and practices influence the teaching of HIV/AIDS education. The cultural beliefs include polygamy, circumcision, belief that HIV/AIDS is a curse, the belief that it is immoral to talk about sex in public, the belief grandparents administer sex education, the belief that mentioning reproductive parts prohibited, wife inheritance, and use of services of traditional midwives.

Cultural beliefs and practices have negative publicity to an extent that most teachers did not want to identify with them despite the fact that they can help in preventing the spread of HIV. These beliefs made the teachers to omit certain areas that were important in preventing HIV/AIDS transmission. In some instances, the teachers gave biased information regarding some of the cultural practices to protect and justify their personal cultural beliefs and practices. This is because behavior change communication messages are based on Western assumptions about what change is required, and for assume a degree of individual volition that does not exist in some societies (Marsh, 2004). They have also tended to focus on giving information, rather than building dialogue and sharing knowledge within communities, influencing attitudes and behavior through telling, rather than by engaging and empowering people, (Singhal and Rogers, 2003) have argued that many communication strategies are culturally inappropriate. The (Panos Institute, 2004) concluded that the health communication field has been missing the message because it has concentrated on putting out messages rather than fostering an environment where the voices of those most affected can be heard.

Teachers encountered several contradictions while attempting to explain the causes of HIV/AIDS. These contradictions in turn influenced the teaching of HIV/AIDS. First, there were the scientific messages about the cause and spread of HIV/AIDS. Messages within the context of the scientific, academic, modern, and western world are preferred to cultural practices and beliefs. Culture is therefore a barrier to prevention, rather than an opportunity for engagement. However, there are cultural solutions in most of the problems in our societies. Cultural beliefs and solutions should therefore be included in the teaching of HIV/AIDS education.

Global strategy has had the effect of promoting a universal set of HIV and AIDS discourses, including the dissemination of many Western concepts of prevention, treatment and care to Southern societies derived from scientific medical models, rather than from humanistic social-cultural models (Altman, 1998). Subsequent implementation of the strategy has reinforced the 'biomedical' approach, and often alienated societies with different concepts of health, wellbeing, life and death. Western concepts treat Indigenous health knowledge secondary to biomedicine (Vincent, 2004). Yet traditional knowledge and healers are often an opportunity for outreach and are trusted by communities.

The Swiss Agency for Development Cooperation (SDC) points out that 80 per cent of people in developing nations particularly in sub-Saharan Africa use traditional healers as a primary source of care. These healers think, express and act illness experience inside the same cultural framework as their patients (Somma and Bodiang 2004). SDC cites examples where programs have drawn on the knowledge of traditional healers in developing 'common sense' solutions and prevention practices that will work locally. Failure to engage with the local, cultural context of HIV and AIDS has led to a mistrust of global strategy. Where a more local or cultural approach has been used to generate public awareness and engagement, there has been success in tackling HIV and AIDS. The teaching of HIV/AIDS should use local approaches.

Even in cases where teachers believe that training can influence their cultural beliefs by clarifying some of the common beliefs about HIV/AIDS to both the teacher and students and demystifying the disease by providing scientific basics in the understanding of the disease. It is important to remember that cultures would always want to make efforts, to move forward, from poor to rich and from primitive to civilize. According to Wanene, History of a culture gives it an important reference point that allows the culture to know which direction is forward, so that its people can make efforts to move forward and resist moving backwards. A culture with a vague sense of its own history can only have a vague idea which direction is forward and which is backward. Such a culture is progressively vague. It can become easily lost. It steers backwards if an enemy points it in the wrong direction, or forward if a friend points it in the right direction. The problem with a people who have lost their culture is that since they are desperately lost, they

have an irresistible urge to want to believe that anybody who gives them direction must be pointing them in the right direction, (Wanene, 2003). Unfortunately, international organizations offer HIV/AIDS education training, which overlook our cultural practices like polygamy and wife inheritance and accuse them of spreading the HIV virus without highlighting their advantages. Teachers therefore end up being brainwashed into believing that our cultural practices contribute to the spread of HIV/AIDS. This in turn lowers the adoption of teaching the subject because it does not conform to cultural beliefs.

Where teachers believed that training could not influence their cultural beliefs, because they are deeply rooted in their culture, it is necessary to include the cultural and traditional aspects of each respective society during the training to reinforce the cultural aspects that can help in controlling the spread of HIV. He who controls the past controls the present and he who controls the present controls the future. We need our truthful past, to control our truthful present, without which we cannot control our future. Those who presently control our past cultural history control our present. If we want to control our own future we must first reclaim and fully understand our past (Wanene, 2003). Not all cultural beliefs contribute to the spread of HIV. Therefore, we need to consider cultural aspects that promote good morals and behaviors when teaching HIV/AIDS education in schools to help build trust and engage the students and teachers of divergent cultures effectively.

#### **4.3.8 Training Teachers on HIV/AIDS Education**

Although there is strong relationship between training and teaching of HIV/AIDS education, none of the teachers has had HIV/AIDS education training at the Diploma, Degree or the Masters' level. They had taken the courses as units in college, certificate, or attended seminars. These, usually take relatively short time as compared to Diploma Degree or Masters, and the content covered is therefore relatively small and may not have equipped them adequately.

Secondary school teachers are trained at the diploma and degree level at three diploma colleges: Kagumo (language teachers); Kenya Sciences (Science oriented teachers); and Kenya Technical Teachers College (technical teachers). Five additional public universities offer Bachelor of Education degree courses for both Science and Art oriented secondary teachers. The universities also offer training programs for secondary school teachers. The teacher trainees in both diploma

and university level specialize in at least two academic subjects as well as the education units which emphasize the methodology of teaching (World Bank, 2005). Teaching of HIV/AIDS education is not among the subjects taught at the colleges and universities despite the fact that HIV/AIDS education is a big problem.

Qualified teachers in both the developed and developing world are quickly becoming the hardest segment of the teaching profession to attract and retain and are the most expensive to educate (World Bank 2005). Yet, shortfall of qualified teachers is an impediment to growth in the system, particularly for secondary education (Scott, 2001, and Lewin, 2002). Training teachers on HIV/AIDS education is important because it will enable them acquire more knowledge and facts about the disease and put them in a better position to pass the right information to students.

Most of the secondary school teachers have not had any training on the teaching of HIV/AIDS education. They therefore lack knowledge and facts to pass to students, as they do not know the scope and content. This is in line with the first stage of the Innovation Decision Process Theory (Rogers, 1995), which stresses on knowledge as the base of adopting any innovation. Lack of training also reduces teachers' confidence and motivation, as they may not have effective approaches and methodology to teach HIV/AIDS education. This is similar to self-efficacy the sixth construct of the Health Belief Model (Rosenstock and Becker, 1988), which deals with the teachers' confidence in teaching HIV/AIDS education. Inadequate trained teachers is therefore one of the reasons contributing to the slow adoption of teaching HIV/AIDS education.

There were several reasons why teachers had never attended training on HIV/AIDS education. One of the reasons is lack of opportunity to attend training. This occurred due to the criteria used when choosing the teachers to attend the training course. Not every teacher had an equal chance to attend training despite integrating HIV/AIDS in their respective subjects. Other reasons that prevent teachers from attending training are lack of funds, limited time, and lack of information on the training institutions. Various secondary schools did not prioritize training of teachers on teaching HIV/AIDS education but instead concentrate on training teachers for training on examinable subjects. However, if offered a chance most teachers are willing to attend HIV/AIDS

education training. They believe that attending training can make them acquire more knowledge and gain more information on approaches and skills for better handling in class.

#### **4.3.9 Availability of HIV/AIDS Education Materials**

Despite the importance of availing HIV/AIDS education materials to schools. The ministry of education has not been active in the production and distribution of HIV/AIDS education materials. Most of the teachers got their materials from non-governmental organizations, community based organization and mass media as compared to the ministry of education. This is despite the fact that the ministry is responsible for providing HIV/AIDS education learning materials (MOEST, 2004). This has tremendously lowered the adoption of HIV/AIDS education. There is consensus that secondary education is now the fastest growing segment of the education sector (SEIA, 2001; UNESCO 2001; Mulkeen *et al*, 2005; World Bank, 2005; Di Gropello, 2006; World Bank, 2007). In many countries, movement away from seeing primary education as the terminal level of education towards policies that envision widespread completion of junior secondary and upper secondary as the goals of education system development is well underway, but has only recently begun in Sub-Saharan Africa (De Ferranti *et al.*, 2003 and World Bank ,2005). Many challenges to expanding secondary are particular to, and particularly pronounced in Sub-Saharan Africa. Many countries will need to continue to devote resources to expanding and improving primary education to achieve the goals of Education for All. A realistic conversation about greater access to secondary education in Sub-Saharan Africa will need to confront the present status of education systems. In terms of their capacity to sustain the growth and improvement of primary education, as well as their existing limitations in terms of capacity and financing to simultaneously expand and improve secondary education, through providing learning resources and the necessary infrastructure.

HIV/AIDS education teaching materials are so important to the extent that various teachers felt that lack of training and timetabling could not prevent them from teaching HIV/AIDS as long as there were guidelines and reference materials to teach it. These materials include HIV/AIDS education policy, textbooks and electronic equipment. HIV/AIDS education teaching materials are not available in most schools, despite the fact that most of the teachers want the materials to be availed. Availing the materials is important because it could help to eliminate myths and dogmas about HIV/AIDS, by creating awareness among both the students and teachers. As a

result, the teachers and students would be in a position to understand the dangers and effects of HIV/AIDS.

As important members of the society, the teacher work beyond the school to the community. Teachers need to share their experiences and knowledge with other members of the community. Availing the HIV/AIDS education materials would play a crucial role in enabling the teacher to educate members of the community on HIV/AIDS and other related issues apart from effectively teaching it in the classroom. In case HIV/AIDS education learning materials are availed in school, students and interested teachers could easily access these materials. This would enable them to have a deeper understanding on the HIV/AIDS pandemic, its causes, consequences, remedial measures and management. Knowledgeable students and teachers could in turn spread the information to other people in the community. The community members would also be encouraged and would in turn educate the students and teachers on the cultural ways of preventing HIV to supplement the formal knowledge. The ministry should therefore increase the production and distribution of HIV/AIDS education materials and encourage teachers to work with the community members to develop appropriate HIV/AIDS education materials specific to the needs of the society.

#### **4.3.10 Role of Principals in the Teaching of HIV/AIDS Education**

School principals were unable to promote the teaching of HIV/AIDS education through availing HIV/AIDS policy, supervising the offering of HIV/AIDS education, purchasing and availing HIV/AIDS education materials, as stipulated in the HIV/AIDS education policy. Various teachers had not come across the HIV/AIDS education policy. The policy was lacking in most schools. Where the policy was available, it took a long time to reach the teachers. This is an indication that most school leaders did not play their role contrary to the expectation of the ministry. According to the ministry of education, the heads of education institutions and all other education managers had a pivotal role in disseminating the information contained in the policy (MOEST, 2004). In issuing the policy, the ministry expects the principals to do the following. Share and discuss the policy with all teachers and school employers. Place an accompanying poster at a place visible to all the people in the institution. share and discuss the policy with the committee members, parents and other stakeholders, ensure that the policy reached the widest audience as possible and use the policy to develop a plan of action for combating the scourge in

the school and the community (MOEST, 2004). Therefore, the school principals are very instrumental in promoting the teaching of HIV/AIDS education.

Principals are supposed to promote the teaching of HIV/AIDS education, however most schools still lacked basic education infrastructures. They therefore channeled most of their energy and resources towards improving the basic infrastructure. Although the ministry of education provides funds for free secondary education, it has not provided clear guidelines to enable them use school resources in promoting the teaching of HIV/AIDS education. For example no is vote head is allocated to purchase HIV/AIDS education materials. It is therefore impossible for the principal to support the teaching of HIV/AIDS education in secondary schools.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents a summary of the major research findings, conclusions and recommendations. The study sought to analyze the factors influencing the adoption of HIV/AIDS education in secondary schools. The broad objective was guided by the following specific objectives.

- a. To establish the frequency of teaching HIV/AIDS education in secondary schools
- b. To analyse the influence of socio cultural factors on the teaching of HIV/AIDS education in secondary schools.
- c. To analyse the extent to which teachers had been trained on teaching HIV/AIDS education.
- d. To examine the availability of HIV/AIDS education teaching materials.
- e. To analyse the role of secondary school principals in the adoption of HIV/AIDS education.

The study used Structured and open-ended questionnaires to collect data, using a sample of 150 teachers from the study area.

#### 5.2 Summary of the Results

Based on the study objectives and data analysis, the following is a summary of major research findings.

##### 5.2.1 Frequency of Teaching HIV/AIDS Education

Teachers did not frequently teach HIV/AIDS education in secondary schools. This is because it is not in the syllabus, and not allocated in the timetable. The teachers are not trained, there are no teaching materials and resources are inadequate. However, some teachers teach HIV/AIDS education. They highlighted several channels through which they taught HIV/AIDS education. These included guidance and counseling, as a sub topic in their subjects. The study found that

there was no clear way in which the teachers taught the subject. Instead, the teachers taught it at their own discretion. This lowered its adoption.

### **5.2.2 Influence of Socio Cultural Factors on Teaching HIV/AIDS Education**

More teachers in the public schools taught HIV/AIDS education as compared to their counterparts in private schools. Both boys and girls were given an opportunity to attend school due to the availability of several mixed schools. However in some instances there was minimal contact between teachers and students, resulting from interruption of the general teaching process. The teachers therefore used the little time left teaching examinable subjects and overlooking HIV/AIDS education which was not examinable.

There were challenges associated with teaching in mixed schools. For example teachers reiterated that there were a lot of sexual undertones when teaching students of the opposite sex about sex and reproductive health education. They suggested that the students be taught by teachers of the same sex. Unfortunately, there were more male teachers than female teachers in the district to the extent that some mixed schools did not have a single female teacher, as much as they were important in teaching girls about sex and reproductive health because of their physiological similarity. This made the adoption of teaching HIV/AIDS education to be very low

Majority of the schools were church sponsored as compared to government or individually sponsored schools. The church therefore played a crucial role in running and developing of the schools. It is impossible to consider sexual and reproductive health education without simultaneously considering the role of religion because Religious teachings deeply influence personal conduct, especially in the areas of sexuality, marriage, gender, childbearing, parental-children and student-teacher relationships. Religion permits majority of the teachers to teach HIV/AIDS education. However, religion influences the teaching of HIV/AIDS education in several ways. Certain religions stress on the teaching of purity and holiness while discouraging the use of contraceptives like condoms. However, most teachers are not aware of the reasons why the church was insisting on teaching abstinence only and are therefore not very keen on teaching abstinence messages. This in turn lowered the adoption of HIV/AIDS education.

Apart from unclear understanding of religious teaching on sexuality, teachers faced several contradictions between their religious beliefs and contemporary teaching. These contradictions affected the methodology of teaching HIV/AIDS education, because teachers were at crossroads on whether to conform to religious teachings or use the contemporary teachings to teach HIV/AIDS education. As a result they taught selectively or ignored the subject altogether.

Several cultural beliefs and practices influence the teaching of HIV/AIDS education. Cultural beliefs and practices have negative publicity to an extent that most teachers did not want to identify with them despite the fact that they can help in preventing the spread of HIV. These beliefs made the teachers to omit certain areas that were important in preventing HIV/AIDS transmission. In some instances, the teachers gave biased information regarding some of the cultural practices to protect and justify their personal cultural beliefs and practices.

Teachers encountered several contradictions while attempting to explain the causes of HIV/AIDS. Messages within the context of the scientific, academic, modern, and western world were preferred to cultural practices and beliefs. Culture was a barrier to prevention, rather than an opportunity for engagement.

### **5.2.3 Level to which Teachers have been trained on HIV/AIDS Education**

Most teachers have not had any training on HIV/AIDS education. Out of those who have trained, none has trained at the diploma level and above. They have trained:

- Through seminars
- At certificate level
- As a unit in college

These take a short time and therefore the content covered is little. Therefore, most teachers are not adequately knowledgeable to teach HIV/AIDS education. Benefits of training include incorporating religious and cultural beliefs in teaching the subject instead of seeing them as a barrier to teaching the subject. Training also equips teachers with the necessary and latest knowledge, information and methodology for teaching HIV/AIDS education. Teachers who are trained on HIV/AIDS education are more likely to teach it than those who are not.

#### **5.2.4 Availability and Accessibility of HIV/AIDS Education Materials**

The HIV/AIDS education materials include the syllabus, HIV/AIDS education policy, textbooks, charts, and electronic equipment. These materials are very instrumental in teaching HIV/AIDS education, but they are not available in most schools. However, a majority of the teachers feel that these materials should be availed in schools. The fact that HIV/AIDS education teaching materials are unavailable to teachers means that they might not be able to teach the subject. A large proportion of teachers who could access HIV/AIDS education materials taught HIV/AIDS education as compared to their counterparts who could not access the materials. This implies the potential of schools as centers for teaching HIV/AIDS education is greatly underutilized.

#### **5.2.5 Role of Principals in HIV/AIDS Education**

The heads of secondary schools have a pivotal role in teaching HIV/AIDS education. These roles include availing HIV/AIDS education materials, supervising the offering of HIV/AIDS education and purchasing of HIV/AIDS education materials. However, HIV/AIDS education materials like the syllabus and HIV/AIDS education policy are not available in schools. Furthermore, most schools do not purchase HIV/AIDS education materials, and do not offer HIV/AIDS education. Most of the heads of institutions are unable to support the teaching of HIV/AIDS adequately because of the following reasons. Their schools lack basic learning infrastructure. Therefore, principals use the available resources to improve these infrastructures. Secondly, there is no clear vote head allocated by the ministry for improving the teaching of HIV/AIDS education. The school administrators can therefore not incur any expenditure despite the funding of secondary education by the government. Lack of clear guidelines and funding from the ministry of education, prevents the school administrators from promoting the teaching of HIV/AIDS education. This in turn slows down the adoption of teaching HIV/AIDS education.

### **5.3 Conclusions**

The study identified several factors that influence the teaching of HIV/AIDS education in secondary schools. This was useful in exploiting the full potential of education in fighting HIV/AIDS. The concerned agencies, for example the ministry of education, could use the information to improve the participation of schoolteachers and communities in fighting HIV/AIDS. Based on the summary of the major findings, the study made the following theoretical and empirical conclusions.

### **5.3.1 Theoretical Conclusions**

The study borrowed from two theories, namely the Innovation Decision Process Theory and the Health Belief Model, to explain the factors influencing the teaching of HIV/AIDS education in secondary schools. The findings of the study agree with the two theories. Theoretical conclusions consider the five stages in the Adoption and Innovation theory. With Regard to knowledge, most of the teachers were untrained, and therefore not knowledgeable about the teaching of HIV/AIDS education. In case of persuasion, most teachers were not convinced that the teaching of HIV/AIDS was necessary. In most cases, the third stage (implementation) could not take place because there was lack of support in terms of providing teaching materials and resources. Likewise, the confirmation stage could not take place. This implies that teaching of HIV/AIDS education is not well established.

The Health Belief Models explains what motivates the teachers to adopt the teaching of HIV/AIDS education. According to the findings of the study, most of the teachers were aware of the students' susceptibility to HIV/AIDS, its severity, and the benefits of education in fighting HIV/AIDS. They were also aware of the advantages of using education over other methods, such as the use of condoms and antiretroviral drugs. With regard to cues to action, there were internal events that influenced the teachers' behavior namely religious and cultural beliefs, they viewed the cultural and religious beliefs as barriers to teaching the subject rather than using them as a strong foundation to teach the subject. With regard to external events, the study highlighted that most teachers lacked the relevant teaching materials and resources to implement the teaching of HIV/AIDS education. While with regard to self-efficacy, most of the teachers did not have the confidence in their ability to teach HIV/AIDS education. The two theories, the Adoption Innovation Theory and the Health Belief Models are valid and adequate in explaining the teaching of HIV/AIDS education in secondary schools.

### **5.3.2 Empirical Conclusions**

Firstly, HIV/AIDS education a subject area in its own right with specific teachers assigned the responsibility to teach it. Teachers are supposed to spread it across the curriculum yet most subjects in secondary schools have few links with health education. This makes it optional resulting in failure to reach the entire body of learners.

Secondly As well as having to compete in a crowded curriculum, HIV/AIDS education does not have the same status as other subjects. This is because it is not examinable. Teachers concentrate on teaching the examinable subjects. Most teachers are untrained on teaching HIV/AIDS education. Lack of training reduces their confidence on teaching the subject, slowing down its rate of adoption.

Thirdly, there are insufficient, accurate and quality scientific HIV/AIDS education teaching materials, besides little provision for the backup guidance and training. Most teachers lacked HIV/AIDS education materials textbooks, the syllabus, charts and the education policy. This prevented them from gathering enough knowledge and information to pass to students. This undermined its integration in the curriculum.

Fourthly, most school administrators lack adequate guidelines and funds to support the teaching of HIV/AIDS education. Most schools were struggling to acquire meaningful education resources. The little available funds acquired resources for the other examinable subjects. Furthermore, there was no clear vote head to acquire teaching materials for HIV/AIDS education, unlike other subjects.

Lastly, most teachers felt that they should teach HIV/AIDS education to the students of the same sex. Unfortunately, the number of male teachers is more than that of their female counterparts, to an extent that some mixed schools did not have a single female teacher. This leads to selective teaching or lack of it. Religious institutions sponsor most of the schools and are active in their day-to-day operations. Even though they allow the teaching of HIV/AIDS, they insist that it has to be within their doctrines. This causes many contradictions, affecting the methodology of teaching. Apart from religion, cultural beliefs and practices influence the teaching of HIV/AIDS education. This makes the teachers to teach the subject selectively or avoid it all together.

#### **5.4 Recommendations**

In view of the conclusions, this study makes the following recommendations relating to policies, programs and future research:

### **5.4.1 General Recommendations**

In secondary schools, teachers integrate HIV/AIDS education in other subjects to either teach it or not. The study therefore recommends that HIV/AIDS education should be a subject in its own right with specific teachers allocated to teach it. Most teachers are not adequately prepared to teach HIV/AIDS education. The teachers should therefore be trained and provided with enough HIV/AIDS teaching materials

### **5.4.2 Policy Recommendations**

First, most teachers have not been trained on teaching HIV/AIDS education, relevant HIV/AIDS education teaching materials are not available, and there is no proper guidelines and funds to oversee the implementation of HIV/AIDS education. Unless the policy makers are obliged to address these weaknesses, the teaching of HIV/AIDS education may fall short due to incomplete implementation.

Second, the findings clearly indicate that it is not possible to integrate HIV/AIDS education all the subjects. HIV/AIDS education is too wide to be part of another subject; it requires knowledge in immunology, history, culture and logic for one to understand it well. The policy challenge is for the ministry to make HIV/AIDS education a subject on its own. Incorporate it into the national curriculum, allocating it in the school timetable and examining it at the national level.

Third, most the teachers have not adequately trained to teach HIV/AIDS education. Therefore, the ministry of education should introduce courses on HIV/AIDS teaching methods at teacher training institutions and in-service training programs for the teachers in the field. This is important because teachers need to understand HIV/AIDS so that they can give reliable information to students and communities.

Fourth most teachers could not access HIV/AIDS education materials because they were not available in their schools. The ministry should plan for HIV/AIDS education material production for students and teachers. The ministry should encourage the teachers to develop the teaching materials locally together with the community members, to cater for religious and cultural ideas

that might be useful in preventing the spread of HIV, and to reduce conflict between cultural, religious and modern methods of teaching sex education.

The findings indicate that most school administrators have not supported the teaching of HIV/AIDS education. The ministry should sensitize the school principals, and provide the necessary funding and guidelines for implementing the teaching of HIV/AIDS education. It should also carry out frequent inspections to oversee the implementation HIV/AIDS education.

### **5.5 Recommendations for Further Research**

The study managed to address the factors influencing the teaching of HIV/AIDS education in secondary schools. However, there is need to conduct further research in the following areas:

Although this study focused on secondary schools, there are several other social institutions other than secondary schools, which have a potential of teaching of HIV/AIDS. These institutions include colleges, polytechnic and universities. It is important to study these institutions to exploit their potential in increasing the awareness of HIV/AIDS among the youth and provide continuity to the information given in secondary school.

The government is a major player in the fight against HIV/AIDS through its various arms. These arms of government include the Ministry of Education, Ministry of Health, and Parliament. These various arms have different functions in relation to the fight against HIV/AIDS it is impossible to successfully teach HIV/AIDS education without their support. It is necessary to conduct a study to establish the role and capacity of the different arms of government in resolving HIV/AIDS related problems to determine whether these roles supplement each other.

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## APPENDIX

### SECONDARY SCHOOL TEACHERS QUESTIONNAIRE

My name is Clement Obare Nyakinda. I am a sociology student at Egerton University. I am undertaking a research on factors influencing the adoption of HIV/AIDS education in secondary schools. The findings will help in understanding the factors influencing the teaching of HIV/AIDS education. I will appreciate if you could answer the questions below. The information will be kept confidential and will only be used for research purposes.

#### A. Background Information about the School

Please tick where appropriate

1. Type of your school. (Boys) (Girls) (Mixed)
2. Which category does it belong? (Day) (Boarding) (Boarding and Day)
3. School sponsor (Government) (Private)

#### B. Background information about the teacher

4. Teacher's gender. (Female) (Males)
5. Which subjects do you teach? \_\_\_\_\_
6. How long have you worked in your current station? \_\_\_\_\_
7. How long have you been in the teaching profession? \_\_\_\_\_
8. Teacher's religion. \_\_\_\_\_
9. Is the teaching of HIV/AIDS education permitted by your Religion? (Yes) (No)
10. Is the use of female and male condoms as a means of HIV/AIDS protection permitted by your religion? (Yes) (No)
11. Does your religious beliefs influence how you teach HIV/AIDS education? (Yes) (No)  
Give reasons for your answer \_\_\_\_\_
12. Can training on teaching HIV/AIDS education affect the way religious beliefs influence the teaching of HIV/AIDS education? (Yes) (No)  
Give reason for your answer \_\_\_\_\_

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13. List some of the religious beliefs that influence the teaching of HIV/AIDS education.

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14. Are there any cultural beliefs that influence the way you teach HIV/AIDS education? (Yes) (No)

15. List the cultural beliefs that influence the way you teach HIV/AIDS education.

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16. Can the training of teachers on teaching of HIV/AIDS education affect the way cultural beliefs influence the teaching of HIV/AIDS education? (Yes) (No)

Give reasons for your answer

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**C. Extent to which Teachers have been trained on teaching HIV/AIDS education**

17. Have you had any training on HIV/AIDS education? (Yes) (No)

18. If the answer to question 17 is yes, which level was it? (As a unit in college/university) (Certificate) (Diploma) (Degree) (Masters) (Other specify)

19. If the answer to question 17 is No, state the reasons why you have not had any training?

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20. Would you attend a HIV/AIDS education training if you were offered a chance now? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

21. Should HIV/AIDS education be taught in secondary schools? (Yes) (No)

22. Are teachers the best people to teach HIV/AIDS education? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

**D. Availability and Accessibility of HIV/AIDS Education Teaching Materials**

23. Have you ever come across the HIV/AIDS education secondary school syllabus? (Yes) (No)

24. If yes, have you ever used the HIV/AIDS education syllabus? (Yes) (No)

25. If the answer to question 24 is yes, which subjects were you teaching at that moment?

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26. If the answer to question 24 is No, state the reasons, why you have never used the HIV/AIDS education Syllabus? \_\_\_\_\_

27. Apart from the syllabus, list other HIV/AIDS education teaching materials available in your school.

Subject	Available reading material	Available teaching aid	Available equipment

28. How often do you use the HIV/AIDS education teaching materials? (Everyday) (Weekly) (Monthly) (Every Term) (Yearly) (Other specify)

29. Can you easily access HIV/AIDS education teaching materials? (Yes) (No)

30. If the answer to question 29 is No, do you think the HIV/AIDS education teaching materials should be availed in schools? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

**E. Establishment of Teaching HIV/AIDS Education in secondary schools**

31. Do you think HIV/AIDS education should be taught in secondary schools. (Yes) (No)

32. Have you ever taught HIV/AIDS education? (Yes) (No)

Give reasons for your answer above \_\_\_\_\_

33. Have you ever administered HIV/AIDS education questions to students? (Yes) (No)

34. If the answer to question 33 is yes, how do the students perform in those questions?

Excellent Above 80	Very good 70-79	Good 60-69	Average 50-59	Below average 49 and below

Give reasons for your answer \_\_\_\_\_

35. Do you think your subject is the most appropriate for teaching HIV/AIDS information? (Yes) (No)

Give reasons for your answer. \_\_\_\_\_

36. Which subject do you think is the most appropriate for teaching HIV/AIDS education?

Give reasons for your answer \_\_\_\_\_

37. Have you ever come across the HIV/AIDS education policy? (Yes) (No)

Give reasons for your answer. \_\_\_\_\_

38. Do you have a copy of the HIV/AIDS education policy in your school? (Yes) (No)

39. If yes, how does the policy contribute to the teaching of HIV/AIDS education?

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**F. Role of Principals in Teaching of HIV/AIDS Education in Secondary Schools**

40. Do you offer HIV/AIDS education in school? (Yes) (No)

Give reasons for your answer. \_\_\_\_\_

41. Do you buy HIV/AIDS teaching materials in your school? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

42. If the answer to question forty two is yes, how often does the school buy the HIV/AIDS teaching materials?

Weekly	Monthly	Every Term	Yearly	Other specify

43. Which year did your school last purchase HIV/AIDS teaching materials?

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44. Apart from purchasing the HIV/AIDS teaching what are the other sources of HIV/AIDS teaching materials? \_\_\_\_\_

45. Can lack of training on teaching HIV/AIDS education prevent teachers from teaching HIV/AIDS education? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

46. Do you think equipping the school with HIV/AIDS teaching materials is a priority in terms of equipping the school with learning materials? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

47. Should the teaching of HIV/AIDS be carried out by other professionals outside the school rather than the teachers? (Yes) (No)

Give reasons for your answer \_\_\_\_\_

48. What are the factors that influence the teaching process in your school?

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49. What are the various activities that can be carried out using your position of responsibility to promote the teaching of HIV/AIDS education? \_\_\_\_\_

50. List the activities that you have carried out in your current station to promote the teaching of HIV/AIDS education.

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51. What actions should be carried out by the government to promote the teaching of HIV/AIDS education in secondary schools?

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52. Please, freely comment about the teaching of HIV/AIDS education in secondary schools.

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