

**INFLUENCE OF ACADEMIC MODEL PROVIDING ACCESS TO HEALTH CARE  
PROGRAM ON PARTICIPATION OF PUPILS WITH HUMAN IMMUNODEFICIENCY  
VIRUS IN PRIMARY SCHOOLS IN WARENG SUB-COUNTY,  
UASIN GISHU COUNTY, KENYA**

**BY**

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## DECLARATION

This research project is my original work and has not been presented for an award in this university or any other university.

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## **DEDICATION**

This research project report is dedicated to all my colleagues at work; Beatrice, Festus and Silas for allowing me do this work during office hours. May the Lord indeed bless you for selflessly dedicating yourselves to work in order to ensure that everything is in place at work in my absence. I cannot forget my wife Catherine for her daily encouragement, moral and financial support without which this work would not have come to a completion. To my one child Promise; thank you for bearing with my regular busnes at home.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AIDS</b>	Acquired immune deficiency syndrome or acquired immunodeficiency syndrome.
<b>HIV</b>	Human Immunodeficiency Virus.
<b>CD4</b>	A glycoprotein on the surface of helper T cells that serves as a receptor for HIV.
<b>ART</b>	Antiretroviral therapy.
<b>GoK</b>	Government of Kenya.
<b>AMPATH</b>	Academic model providing access to health care.
<b>SPSS</b>	Statistical Package for Social Sciences.



## **ABSTRACT**

Academic model providing access to health care Program (AMPATH) currently empowers children with HIV, orphans and vulnerable children with HIV, their families in Kenya, and communities to build a foundation of action and hope for a healthy and sustainable future by offering every eligible child within AMPATH catchment area access to education, protection, shelter, food security, psychosocial support, medical care and economic security. The AMPATH program currently provides services to HIV-infected and affected children within seven AMPATH clinic areas - Eldoret (MTRH), Burnt Forest, Iten, Kabarnet, Mosoriot, and Turbo. Currently, there are over 20,000 children registered in the OVC program. Descriptive survey study design including both quantitative and qualitative research methodologies was used to describes a research design as a plan, structure and strategy of investigation to obtain answers to research questions and control variance. The study used a sample size of 80 respondents constituted/ made up of school principals, class teachers, community health workers and social workers who work with the population of 800 pupils who are infected by HIV and supported directly by Ampath programme in twenty three primary schools within wareng sub-county Uasin Gishu county. The study used simple radom sampling and striatfied sampling method for this study. The head teachers, class teachers, CHWs and social workers, were radomly chose for this study making a total of 80 respondents. Data collected will be edited, coded, cleaned and entered into statistical Package for Social scientists (SPSS). 98% of respondent answered that Ampath programme enhances participation of pupils with HIV in primary schools, it make pupils to reducing falling sick here and there, it reduces symptoms of HIV in pupils through taking ARVs, its stigma associated with HIV because of HIV symptoms, ARVs is free which enables the pupils to access it any time and also enable the savings from parents and guardian sf the pupil, it enhances performance ,build love, hope and support system within pupils with HIV. Although they were of the Ampath programme does not improve on outomatic participation of pupils with HIV in primary schools. 90% of class teachers agreed that ampath programme enhances attendance levels and increases participation, it promotes hope and love within the pupils. Head teachers, Ampath programm enables intergration of HIV pupils withi other normal pupils so there is identification, social workers agreed that Ampath programme creates an enabling environment for all the pupils HIV to attend school and the community health workers agreed that through sponsordhip from ampath programme pupils have futur and hope to participate in school. The study recommend that ampath programme involve parents and guardians of these pupil in all step, school management to support and love these pupils and also recommended sponsorship adhered to.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

The Global Fund to Fight AIDS, Tuberculosis and Malaria mobilizes and invests nearly US\$4 billion a year to support programs run by local experts in more than 140 countries. As a partnership between governments, civil society, the private sector and people affected by the diseases, the Global Fund is accelerating the end of AIDS, TB and malaria as epidemics. (Global Fund Affirms Commitment to Resilient Health Systems 01 APRIL 2015). Families try to foster orphans as much as possible despite their difficult circumstances. Therefore many families are too poor to cater extra foster children. Therefore the orphans are often kept from school to earn some money for the foster family. Also the situation of the own children of the foster parents deprives due to the number of extra children to care for in relation to the growing poverty in the family. However, an increased number of children don't have the opportunity to be fostered by families at all. In the (relatively) best cases they stay together as 'child headed families'. In the worse cases, they lose each other and become street children. They are left vulnerable for all kind of exploitation like child labor, child abuses, prostitution or recruiting as child soldiers aids (global medicine effect of HIV on children 2012).

Participation of pupils in education is a crucial factor in ending global poverty. With education, employment opportunities are broadened, income levels are increased and maternal and child health is improved. In areas where access, attendance and quality of education have seen improvements, there has also been a slow in the spread of HIV/AIDS and an increase in the healthiness of the community in general. In fact, children of educated mothers are

50% more likely to live past the age of five. Not only does education improve individual and familial health, but it also improves the health of a community. In countries with solid education systems in place, there are lower crime rates, greater economic growth and improved social services. (UNICEF education and health 2008). Numerous studies have shown that ARV therapy dramatically reduces morbidity and mortality among HIV-infected individuals, in both industrialized countries (Hammer et al., 1997, Hogg et al., 1998; Palella et al., 1998) and developing countries (Laurent et al., 2002; Marins et al., 2003; Koenig, Leandre, and Farmer, 2004; Wools-Kaloustian et al., 2005).

Antiretroviral therapy project (ART) is necessary to maintain viral suppression and achieve optimal clinical outcomes for HIV-infected persons in United states, though there is little consensus on the minimum threshold of adherence needed for virologic suppression. Medication adherence often accompanies other healthy behaviors such as diet and health care utilization. ART may also improve children health, reduce the number of premature deaths, and lower health care costs, Successful ART requires clinicians to assess the risks of nonadherence before deciding on a regimen and to accurately monitor and support adherence throughout therapy [HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia, USA]. The number of age going children living with HIV in the UK has doubled in the last 10 years around children are living with HIV in the UK, One in five children with HIV in the UK are undiagnosed about two thirds of people living with HIV are men and a third are women over half of all people living with HIV are aged between 30 and 49, but there are significant numbers both of young people and older people now living with HIV, 6,360 new HIV diagnoses and are currently using ARVs for children it has improved their quality of life and enhanced their school participation..(UK Nation AIDS trust 2012) United Nations Joint Program on AIDS (UNAIDS 2008) estimates that over two million children under the age of

15 are living with HIV/AIDS in the world, with nearly 80% of these children living in sub-Saharan Africa. High levels of antiretroviral therapy (ART) adherence are critical for viral suppression and reduced morbidity and mortality among HIV. In Kenya, up to 60 percent of people with tuberculosis (TB) are co-infected with HIV. Antiretroviral treatment for co-infected individuals has been found to improve patient survival if administered immediately after TB treatment WHO recommends antiretroviral therapy for all HIV and TB co-infected patients, whatever the stage of HIV progression. However, in Kenya, facilities where dual treatment is available are limited and many of those who require antiretroviral drugs (ARVs) as well as TB treatment are not receiving it (Abdool Karim, S.S. 2010).

Nutritional support project and primary school participation. in 2007 Food and Agriculture Organization's (FAO) estimate, 923 million people in the world were chronically hungry, which was an increase of about 75 million people from the 2003-05 estimates (FAO 2008). Many of these are children, and a vast majority of them are in developing countries. (Broca and Stamoulis 2003). Jomaa et al. (2011, p. 84) state that "childhood under nutrition imposes significant economic costs on individuals and nations, and that improving children's diets and nutrition can have positive effects on their academic performance, participation and behaviors at school as well as their long-term productivity as adults." Alderman, Hoddinott, and Kinsley (2006) found that malnutrition led to delayed entry to school, less overall schooling, smaller stature, and 14% lower earnings as adults. In Kenya, food and nutrition reduced absenteeism by one-fourth, with the largest gains for the youngest children who suffered the most ill health (Miguel and Kremer 2004).

United Nations Children Education Fund (UNICEF, 1999). The study by Holmes (2003) found out that overall; females receive less education than males, and they tend to dropout, or are withdrawn earlier for both economic and social-cultural reasons. Bruce (2008),

in his research where he tried to quantify the impact of child sponsorship, came up with positive findings, that the sponsors' assistance improved the living standards of the recipients. His research findings concurred with those of Compassion (2010), In another study by MoES (2001), the rates of drop out 8 in all government-aided schools for girls and boys are almost equal. The total number of male dropouts for 2001 was 164,986 (50.6%), while that of females was 160,932 (49.4%) giving a national total of 325,918. In an account for the gender disparity in primary school drop out, Nyanzi (2001) put forward that marriage, pregnancy and sickness are major causes of drop out among girl children while amongst the boys, they include; jobs, lack of interest dismissal and fees.

Psychosocial support project in relation to primary school participation, Until the early 2000's, there was almost no research into the psychosocial needs of AIDS-affected children, and the literature on child mental health in the context of parental illness or death did not yet address AIDS-affected families. As the number of AIDS-affected children has risen into the million, a new body of research has developed (UNICEF 2008). The majority of this research is clustered in sub-Saharan Africa and the USA, although new research in China and India is currently underway. The UK government suggests that increasing school attendance will reduce antisocial behaviour. A prospective longitudinal study, following a sample of individuals from eight years of age to 40 years of age (Farrington, 2000). Berk (2003), supports the view of a child's social growth. He notes that the experience of a child in search of own identity begins at birth and grows slowly. This significantly contributes to the formation of his/ her own unique personality. The history, organizational structure, and health programs of AMPATH have been described in a recent publication. AMPATH emphasizes regional Kenyan leadership and a diverse consortium of providers. Founded upon a 17-year collaboration between Indiana University School of Medicine and Moi University in Kenya, AMPATH *leads with care* but leverages and hosts activities of all academic missions—

clinical care, teaching, and research. The directors of AMPATH are the Director of Moi Teaching and Referral Hospital and the Dean of Moi University Faculty of Health Sciences. One General Internist from Indiana University (JM) has served on-site in Kenya as coordinator of AMPATH clinical activities since the program's inception.

AMPATH operates HIV/AIDS care clinics and screening programme in the city of Eldoret at Moi Teaching and Referral Hospital (Kenya's second national referral hospital) and in a network of 18 other district hospitals and rural health clinics. Currently, it delivers care to more than 52,000 patients (of the estimated 200,000 HIV-infected persons in its service area), has nearly half of these patients on antiretroviral therapy (ART), and is enrolling more than 2,000 new patients per month. AMPATH mainly employs teams of Kenyan clinical officers (akin to physicians' assistants in the U.S.), nurses, and nutritionists who work within facilities owned and operated by the Kenya Ministry of Health. These teams are formally supervised by medical doctors, but the bulk of the antiretroviral therapy is prescribed and monitored by clinical officers using standardized clinical algorithms (Mamlin J, Kimaiyo S, Nyandiko W, Tierney W, Einterz R).

Experienced observers of global HIV programs, including leadership in USAID, Kenyan Ministry of Health, WHO, and major philanthropies consider AMPATH's record of enrollment growth in response to population need to be "best in class" among PEPFAR and other programs. In addition to remarkable growth, AMPATH's patient retention, adherence, and restoration of immune competence among patients meeting criteria for ART have also been favorable (Inui TS, Sidle JE, Nyandiko WM 2007) Interest in understanding the determinants of this success moved the principals of the Purpleville Foundation (PVF), a Canadian private family foundation with a record of commitments to global health, to request and sponsor an evaluation. The AMPATH OVC Program empowers orphans and vulnerable

children, their families, and their communities to build a foundation of action and hope for a healthy and sustainable future by offering every eligible OVC within AMPATH catchment area access to education, protection, shelter, food security, psychosocial support, medical care and economic security. The AMPATH program currently provides services to HIV-infected and affected children within seven AMPATH clinic areas - Eldoret (MTRH), Burnt Forest, Iten, Kabarnet, Mosoriot, Port Victoria and Turbo. Currently, there are over 20,000 children registered in the OVC program. Our program provides a holistic and multi-disciplinarian approach to strengthen the capacity of families and communities to care and protect their OVC, first by prolonging the lives of the HIV-infected and then by supporting the children orphaned by AIDS. The program's emphasis is on assisting OVC within the family/community setting allowing the OVC to socialize, learn and address challenges within their own environment (Whitney Riggs and Philomena Musyoka 2008).

### **1.3 Statement of the Problem**

Primary school participation and attendance facilitates learning in a variety of ways. Class teaching supplement reading assignments. Primary education is the basic and foremost right of every child. Its availability and provision is not only the responsibility of state but parents and households. Primary education brings awareness among the masses, opens avenues for opportunities as well self-advancement and improvement and reduces chronic and inter-generational poverty. As a first step in the creation of welfare and just society, universal primary education is an absolute pre-requisite for sustainable development. Every single child that means girls as well as boys should be able to complete full course of primary education (state university 2013). The provision of antiretroviral (ARV) drugs has emerged as a central feature of the medical and policy response to HIV/AIDS across the world, including in Sub-Saharan Africa. While extensive research indicates large and immediate gains in the

health and functional capability of treated children (Merson MH. The HIV-AIDS pandemic 2006) However children spend time in line collecting the ARVS instead of participating in school. Nutrition, food and Primary education participation is the basic and foremost right of every child Diet has an impact on children's ability to think in the short- and long-term. A recent review of research on the effects of deficiencies in zinc, iodine, iron and folate on the cognitive development of school-aged children highlighted the significance of nutrition in the post-infancy period (Miguel and Kremer 2004 ). However food given to these children is less and once in either one or two to three months depending on when the child will return to clinic for may not be adequate for these children. Education sponsorship has benefits both to the sponsor and the person being sponsored (Bruce 2008), in his research where he tried to quantify the impact of child sponsorship, came up with positive findings, that the sponsors' assistance improved the living standards of the recipients just society, universal primary education is an absolute pre-requisite for sustainable development. However some of the children are just given school uniform without school fees which may affect school participation. Compassion (2011), states that this follows under physical domain of the CI holistic child development approach. In simple terms, it specifically looks into matters regarding the health of the sponsored child. The sponsored children undergo health screening, they are referred to hospitals in case they get sick, they benefit with HIV/AIDS awareness education/ training and VCT. The services provided by Ampath on psychosocial like counseling takes time and child spends much time in clinic and does not participate in school.

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

The purpose of the study was to examine the influence of ampah program on participation of pupils with HIV in wareng sub-county.



## **1.4 Research objectives**

This study was guided by the following specific objectives:

1. To establish the influence of Antiretroviral therapy project on participation of pupils with HIV in primary schools in wareng sub-county.
2. To examine the influence of nutritional support project on participation of pupils with HIV in primary schools in wareng sub-county.
3. To investigate influence of education sponsorship project on participation of pupils with HIV in primary schools in wareng sub-county.
4. To determine the influence of psychosocial support project on participation of pupils with HIV in primary schools in wareng sub-county.

## **1.5 Research questions**

The following questions were the basis for the study:

- 1) To what extent does provision of Antiretroviral therapy influence the participation of pupils with HIV primary schools in wareng sub-county?
- 2) To what extent does provision of nutritional support influence participation of pupils with HIV in primary schools in wareng sub-county?
- 3) How does education sponsorship influence participation of pupils with HIV in primary schools in wareng sub-county?
- 4) How does psychosocial support influence participation of pupils with HIV in primary schools in wareng sub-county?

## **1.6 Significance of the study.**

The findings of this study provided Ampath projects staff with key information to use in their donor-based reporting which will in turn determine future participation in primary schools pupils infected by HIV funding by the donors. The researcher also hopes that the

findings of this study has enlighten education stakeholders who include; parents, caregivers, teachers, education administrators and pupils in that it can make them aware of forces that work for or against them in matters relating to school participation. There are also hopes that Ampath assisted projects, wareng cluster Social workers that has been charged with the responsibility of following up on the school participation of the Ampath HIV infected sponsored children will benefit from the findings. This study provide most of the answers to questions that this task force has tabled regarding school participation of the sponsored children. They will readily use the findings of this study to strategize on the way forward as far as school participation of these children is concerned. Finally, the researcher hopes that the findings of this study will form basis on which future research could be built and that information from the study can be used by other organizations dealing with child care to improve their services children.

### **1.7 Limitations of the Study**

The study was limited with access to information. This is because most schools have poor record keeping. Social workers and community health workers feared to disclosure the HIV status of their clients. this is classified and confidential due to health concerns. This led to poor, low or erratic response. However, the study solved a limitation of poor record keeping through interviewing respondents directly and with the problem of disclosing client information the study thought a latter of introduction from the university and the respondents were assured of confidentiality of the information as being used only for academics.

### **1.8 Delimitations of the Study**

This study was limited to primary school pupils with HIV, class teachers, head teachers and ampath staff specifically social workers and community health workers in wareng sub-county.

### **1.9 Basic Assumptions**

The basic assumption of the study was that by targeting AMPATH staff, particular social workers and community health workers, class teachers and head teachers the study was to access respondents who would volunteer to fill in the questionnaires and repond to interview schedules. In addition, the respondents will tell the truth in wareng sub-county.

### **1.10 Definitions of Significant Terms**

<b>Ampath Program:</b>	the series of projects which deals with HIV treatment and care run under one management
<b>School Participation</b>	is giving children a right says in their education, listening to them and involving them as much as possible in school life. It means valuing their opinions and ideas and giving them control of their learning.
<b>Pupil with HIV</b>	is primary schools childrenhaving a virus that attacks the immune system, the body's natural defense system. Without a strong immune system, the body has trouble fighting off disease.

### **1.11 Organization of the Study**

The research project was organized as follows: Preliminary pages, Chapter One, Introduction, Chapter Two; Literature review, Chapter Three; Research Methodology References and Appendices. Chapter one will aim at giving an overview of urgent need to have a research conducted to find out how ampath program influences participation of pupils with HIV in primary schools in wareng sub-county. The researcher highlight on the objectives and research questions that guided the study. Chapter two dealt with literature reviewed that was relevant to the study. A conceptual framework showing relationship that exists between the identified independent variables was drawn.

Chapter three dealt with the research design, sampling procedures, research Instruments, data collection procedures, validity and reliability of instruments, data analysis and ethical considerations that will be made while collecting data. Chapter tfour dealt with data analysis, presentations and interpresentations and chapter five dealt with summary of the findings, conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter focused on the review of related literature more specifically literature on the concept of school participation of pupils with HIV in primary schools, school fees for primary schools pupils, nutrition support for primary schools pupils, provision of psychosocial support to primary school pupils, provision of antiretroviral therapy to primary school pupils. It reviewed the past studies that helped the researcher to understand and identify the problems being studied more appropriately. It will also help the researcher to avoid duplication of previous studies done and to help improve the research methodology from previous studies done (Mark, Philip and Adrian, 2003). summary of literature review and conceptual framework.

#### **2.2 The concept of participation on pupils with HIV in primary schools.**

Participation is a measure of the number of children who attend school and the amount of time they are present and engagement in school and class activities. Worldwide, 91 per cent of primary-school-age children were enrolled in school in 2012. However, at the current rate of progress, the MDGs target for universal primary education is unlikely to be met. The challenge is most acute in West and Central Africa, where net enrolment is 73 per cent. Although the number of out-of-school children of primary school age declined globally from 100 million to 58 million between 2000 and 2012, progress (UNICEF 2012).

In united states absenteeism and school participation is a significant problem at many institutions of higher learning (Romer 1993) and a major concern for educators (Devadoss and Foltz 1996). Daily absenteeism in college classrooms can be as high as one-third to almost one-half of students in certain disciplines (Friedman, Rodriguez and McComb 2001, McGuire

2003, Moore 2003a, 2003c, 2005). Romer (1993) investigated the links between absenteeism and various characteristics of classes. He found that smaller classes had less absenteeism; the more significant the mathematical component of the course, the less the absenteeism; there was more absenteeism in introductory courses than in upper level courses; the better quality of the instruction, the less the absenteeism; and absenteeism was mainly concentrated in a few students who missed many classes while most students rarely missed classes. Research suggests that student absenteeism adversely affects the overall “well-being of classes” (White, 1992) and creates a “dead,” tiresome, and unpleasant classroom environment (Brauer, 1994).

In England central to raising standards in education and ensuring all pupils can fulfil their potential is an assumption so widely understood that it is insufficiently stated – pupils need to attend school regularly to benefit from their education. Missing out on lessons leaves children vulnerable to falling behind. Children with poor attendance tend to achieve less in both primary and secondary school. The Education (Pupil Registration) (England) (Amendment) Regulations 2013, The law requires all schools including independent schools to have an admission register and, with the exception of schools where all pupils are boarders, an attendance register.

In South Africa over the last decade, substantial progress in participation rates at educational institutions have been recorded for children below age 7. As shown in Figure 2, the share of children aged 5 attending an educational institution doubled between 2002 and 2009. Similarly, early childhood education (below age 5) is expanding rapidly and reached 64% of children aged 3-5 years in 2010 (Department of Basic Education, 2012) thanks to the considerable efforts made recently by the government to increase the number of early education facilities.

### **2.3 Antiretroviral therapy project and participation of pupils with HIV in primary schools.**

The infected children. In a recent systematic review of pediatric ART adherence studies in middle- and low-income countries, (Vreeman et al 2013) found that estimates of ART adherence levels ranged from 49% to 100%, with 76% of articles reporting greater than 75% adherence. The authors contrasted these values with reports from high-income countries, as summarized in another recent systematic review by Simoni et al. Estimates of pediatric adherence levels from high-income countries ranged even more widely from 20% to 100%, and 33 of 55 studies report ART adherence less than 75%. The initial high levels of adherence in developing countries are encouraging; however, adherence failures may become increasingly common as healthier children gain access and confront the long-term challenges of adherence to ART. Even with the early success, resistance levels among some children are unacceptably high. Limited availability of second-line therapy emphasizes the importance of adherence and preservation of the first-line regimen.

A Joint Learning Initiative on Children and HIV/AIDS executed a systematic review of the impact of adult use of antiretroviral treatment on family well-being. The study evaluated primary research and modeling studies and found that “having parents on ART reduces the likelihood of children’s labour supply; increases children’s school attendance and improves their nutritional intake” (Kimou et al., 2008: 9). Among 41 other studies, JLICA cited a 2004-2005 longitudinal household survey of 775 randomly chosen households, households with at least one known HIV-positive adult on ARV, and households with a known HIV-positive adult not receiving ARV in 100 villages in rural western Kenya. The study evaluated 482 children living in these households and determined that after treating adults with antiretroviral therapy for six months, the number of hours that the children in the

household attend school increased by 20 percent overall, and 30 percent for boys. After six months of adult ART, the average hours a week worked by boys in the labor supply decreased by 7.46 hours. Lastly, ARV treatment of parents was found to improve the nourishment of young children. HIV can be especially harmful to infants and children, with one study in Africa showing that 52% of untreated children born with HIV had died by age 2. By five years old, the risk of disease and death from HIV starts to approach that of young adults. The WHO recommends treating all children less than 5 years old, and starting all children older than 5 with stage 3 or 4 disease or CD4 <500 cells/ml. DHHS guidelines are more complicated but recommend starting all children less than 12 months old and children of any age who have symptoms (Deeks, Steven G (8 November 2013)).

The US Department of Health and Human Services and other organizations recommend offering antiretroviral treatment to all patients with HIV. Because of the complexity of selecting and following a regimen, the potential for side-effects, and the importance of taking medications regularly to prevent viral resistance, such organizations emphasize the importance of involving patients in therapy choices and recommend analyzing the risks and the potential benefits. Studies have revealed that ARV drugs are often continued to reduce the symptoms that occur or when they are perceived. Significant outcomes influence willingness to take medication and are consistently associated with good adherence. In another study by Heyer, patients with adverse events such as dermatological and gastrointestinal symptoms were managed National Institute of Allergy and Infectious Diseases (NIAID 2008).

The management of HIV/AIDS in United Kingdoms normally includes the use of multiple antiretroviral drugs in an attempt to control HIV infection. There are several classes of antiretroviral agents that act on different stages of the HIV life-cycle. The use of multiple



drugs that act on different viral targets is known as highly active antiretroviral therapy (HAART). HAART decreases the patient's total burden of HIV, maintains function of the immune system, and prevents opportunistic infections that often lead to death (Plotkin SA (April 2005)).

South Africa is currently experiencing one of the most severe AIDS epidemics in the world with more than five million (or an estimated 11%) of the population living with HIV (Claasen: 2006, Coombe: 2000). For each person living with HIV, the impact is felt not only by the infected person, but it also impacts the lives of their families, friends and wider communities, significantly multiplying the effect. To date, over two million people have died in South Africa from AIDS-related causes. UNAIDS estimated that there were 1.2 million South African children orphaned by AIDS in 2005, compared to 780,000 in 2003. Once orphaned, these children are more likely to face poverty, poor health and a lack of access to education. Many researchers in the field expect the number of orphans in SA to increase to over two million by 2010. Richter, et al. (2004: 8) makes reference to the way in which HIV and AIDS impacts on children on both a material and a non-material level.

A retrospective review in Kenya with 279 children (49% girls and 54% orphans) enrolled at nine HIV clinics between 2002 and 2005 and on antiretroviral therapy (ART) showed that ART for HIV-positive children produced significant and sustainable CD4 improvement and weight gains during the initial 30 weeks. The study found no effect of orphan status on ART adherence or rise in CD4 counts, at least in the short-term. The mean peak for CD4 percent increase at 30 weeks for orphans was 23% and that for non-orphans was 24%. The study indicates the feasibility of providing ART to children in resource poor settings (Nyandiko et al., 2006). (Fischl et al., 1990). In this study, no difference in disease progression was noted among participants who began the trial with CD4+ T cell counts greater than 500/mm<sup>3</sup>. "in among children this has increased the health status of the children

by managing opportunistic infections thereby enabling them to attend and participate in school.

AIDS stigma and discrimination have considerable influence on children living with HIV infection, particularly in sub-Saharan Africa, where the burden of AIDS is so significant (Phaladze et al., 2005). Stigma has developed into a major barrier to HIV prevention and care (Weiss & Ramakrishna, 2001). It is a deterrent to testing and treatment (Newman, 2002), which may result in delays to seek care and possibly increasing suffering and mortality. Many experts have concluded that programs must address stigma in order to be successful (L. R. Uys, 2000). The development of antiretroviral (ARV) medications in the late 1990s altered the face of HIV/AIDS, transforming it from a fatal disease into a chronic illness. Many believed that as more people gained access to ARV treatment, and as the disease itself was transformed, stigma would decline. Such has been the case in Brazil, where a study of young people living with HIV (Abadia-Barrero & Castro, 2006) showed that access to ARV treatment reduced stigma. Thus, universal access has become an important intervention against stigma.

For some, however, the opposite has been true. Taking medications may indicate that someone is HIV-positive, so someone who does not wish to disclose his/her status may avoid taking medications. In a qualitative study with 25 adolescents and young adults (Rao, Kekwaletswe, Hosek, Martinez, & Rodriguez, 2007), half of the participants had missed medication doses for fear of disclosing their status and possible subsequent stigma. In a study of 204 HIV-positive people in the United States, Rintamaki and colleagues (Rintamaki, Davis, Skripkauskas, Bennett, & Wolf, 2006) similarly found that worry about disclosing one's HIV status was a significant predictor of adherence to medications. However, a study in Botswana (Nam et al., 2008) found that acceptance of one's HIV-status helped people avoid

internalizing stigma and they were more adherent to their medications. These studies report the conflicting relationship between HIV stigma and outcome variables.

Africa have established national antiretroviral treatment (ART) programmes. Although the WHO target of providing access to ART for 3 million people by 2005 was not achieved, by end-2005 an estimated 1.3 million people in low- and middle-income countries had access to treatment (about 20% of those estimated to be in need) (WHO and UNAIDS, 2006). By mid-2005, the WHO target had already been overtaken by an even more ambitious aim. In July 2005, the G8 group of industrialized countries committed to the goal of achieving 'as close as possible to universal access to treatment for all those who need it by 2010.' (UNAIDS, 2006, G8 Gleneagles Summit, 2005). Nonetheless, the challenges in the region remain great. Health systems are weak, and the target orientation of ART programmes risks an emphasis on initiating people on ART at the expense of ensuring effective use of medicines.

A decline in school enrolment is one of the most visible effects of the HIV epidemic in sub-Saharan Africa. Children may be removed from school to care for affected parents or family members, or they may themselves be living with HIV. Many are unable to afford school fees and other such expenses – this is particularly a problem among children who have lost their parents (the income earners) to HIV and AIDS. At the height of the HIV epidemic in Swaziland and the Central African Republic, it was reported that school enrolment fell by 25-30 percent. UNAID 2002. However, access to treatment can vastly improve this situation. In rural Uganda, a direct link has been made between the CD4 count (a measurement to see how strong a person's immune system is) and school attendance. The study found that children in households of adults with CD4 counts above 350 cells/mm<sup>3</sup> had 20 percent higher school enrolment rates than children in households of adults with CD4 counts of less than

200cells/mm<sup>3</sup>. In fact, households of adults with high CD4 counts resembled those of HIV-negative participants in their ability to work and send their children to school.

However, since 2001, the annual number of new HIV infections in sub-Saharan Africa has decreased by 34 percent. This is largely due to the scaling up of antiretroviral treatment (ART) across the region, which reduces the chance of onwards transmission. For the first time, in 2011, over half of all sub-Saharan Africans in need of ART were receiving it (56 percent), and in 2012, this increased to 68 percent.<sup>5</sup> It is widely acknowledged that increasing access to ART will dramatically decrease the impact of HIV in this region.

Evidence on how the provision of treatment affects household decisions to invest in children's health and schooling. In order to measure the effects of ARV treatment, we use longitudinal socioeconomic survey data collected over the course of one year from HIV-positive adult patients who had AIDS and received free treatment. The data include information on the schooling and nutritional outcomes of children residing in patients' households. We examine changes over time in these outcomes, focusing on the weekly hours of school attended for children of school-going age and the anthropometric status of very young children (Hammer et al., 1997; Wools-Kaloustian et al., 2006). There is also the possibility that treated parents expect that they and their children will live longer due to treatment availability, and therefore invest more in their children's education.

#### **2.4 Nutrition support project and participation of pupils with HIV in primary schools.**

Public health interventions to promote child survival have long been a priority for governments and development agencies. However, beyond issues of mortality, the role of health and nutrition in promoting child development and educational outcomes are increasingly being recognized (Bundy, Children who do not attend school fail to do so for many reasons. These include the direct costs of sending children to school, requirement for

children to work, conflict and the perception of the value of education and of school quality. However both disease and poor nutrition can have a major effect on children's chances of enrolling and attending school 1997; Bundy & Guyatt, 1996).

According to the 2007 Food and Agriculture Organization's (FAO) estimate, 923 million people in the world were chronically hungry, which was an increase of about 75 million people from the 2003-05 estimates (FAO 2008). Many of these are children, and a vast majority of them are in developing countries. These numbers suggest that the Millennium Development Goals related to hunger and malnutrition may not be met by 2015. The persistence of hunger, malnutrition, and micronutrient deficiencies can have long lasting effects on the health status and productivity of people and their nations. Early malnutrition can adversely affect physical, mental, and social aspects of child health, which in turn leads to underweight, stunted growth, lowered immunity, and mortality.

Research has shown that the physical effects of malnutrition as measured by indicators such as body mass index (BMI), have a significant impact on an children's productivity and wages (Broca and Stamoulis 2003). Jomaa et al. (2011, p. 84) state that "childhood undernutrition imposes significant economic costs on individuals and nations, and that improving children's diets and nutrition can have positive effects on their academic performance, participation and behaviors at school as well as their long-term productivity as adults." Alderman, Hoddinott, and Kinsley (2006) found that malnutrition led to delayed entry to school, less overall schooling, smaller stature, and 14% lower earnings as adults.

Nutrition and cognition. Diet has an impact on children's ability to think in the short- and long-term. A recent review of research on the effects of deficiencies in zinc, iodine, iron and folate on the cognitive development of school-aged children highlighted the significance of nutrition in the post-infancy period. For example, deficiencies in iron and zinc have been associated with impairment of neuropsychologic function, retardation of growth and

development, reduced immunity and increased vulnerability to infectious diseases (Sandstead, 2000). Tests on animals suggest that zinc deficiency reduces the ability to concentrate and memorise. During periods of rapid growth, as in early life, zinc deficiency has additionally been associated with increased emotional responses to stress and impaired motor activity (Bryan *et al.*, 2004).<sup>12</sup> Iodine helps the body to synthesise thyroid hormones. These hormones are required for brain development during foetal and early postnatal life.

The effects of dietary intake upon physical development, cognition and behaviour have implications for school life. The following section considers some of the direct and indirect outcomes related to nutrition. Achievement  
Iron deficiency in infancy can cause developmental problems in the central nervous system that later impact upon cognition. Research in the United States found that of 5398 children between the ages of 6 and 16, lower standardised math test scores were found among those with iron deficiency. Children deficient in iron were twice as likely to score below average on math tests even after allowing for potential confounders and this finding was more pronounced among girls (Haltermann *et al.*, 2001).  
Social inclusion  
Recent research in the US using data from the Third National Health and Nutrition Examination Survey (NHANES) (1988-1994) found an association between a history of school suspension and low serum total cholesterol<sup>12</sup> among 4852 non-African American children aged 6 to 16.

They are believed to limit peer acceptance and damage self-esteem. Such social exclusion in the school environment can inhibit positive school life experiences (Philips and Hill, 1998). Research in the north of England tested these presumptions among 313 nine year old pre-adolescent girls. After taking weight measurements and administering a series of tests for self-esteem and peer popularity, researchers found that obese girls had significantly lower self-esteem in the areas of physical appearance and athletic competence than their non-obese peers. Although they were not unpopular—other students considered them their friends—they

were rated as unattractive by their peers and by themselves. The researcher concluded that among this age group, obesity had not had a severe impact upon social inclusion, but still influenced self-perceptions and esteem (Philips and Hill, 1998).

Education and food are fundamental conditions for health, as recognized by the World Declaration on Nutrition adopted by the FAO International Conference on Nutrition(Annex 9) and the WHO Ottawa Charter for Health Promotion (Annex 10). Health, education and nutrition support and enhance each other. For instance, healthy nutrition improves educational potential. Unhealthy nutrition and related infections can lead to diseases of malnutrition which in turn reduce the educational potential. Thus, nutrition is an essential element of a Health-Promoting school in order to increase the health and learning potential of students, families and other community members.

Malnutrition is any physical condition resulting either from an inappropriate or inadequate diet, such as a diet that either provides too much or too little of necessary nutrients, or from a physical inability to absorb or metabolize nutrients (5). Malnutrition can be related to various factors, such as infections which lead to poor appetite and malabsorption (59), poverty, and lack of access to food, sanitation and/or health services. Malnutrition negatively affects the quality of life and learning as well as death and disease status. A listing of important conditions of malnutrition which affect preschool- and school-age children. Between 25 and 35 percent of school-age children are estimated to be infected with one or more of the major species of worms (Bundy 1997; see also chapter 24).

Infected schoolchildren perform poorly in tests of cognitive function; when they are treated, immediate educational and cognitive benefits are apparent only for children with heavy worm burdens or with concurrent nutritional deficits. Treatment alone cannot reverse the cumulative effects of lifelong infection or compensate for years of missed learning, but

studies suggest that children are more ready to learn after treatment for worm infections and may be able to catch up if this learning potential is exploited effectively in the classroom (Grigorenko and others, forthcoming). In Kenya, treatment reduced absenteeism by one-fourth, with the largest gains for the youngest children who suffered the most ill health (Miguel and Kremer 2004).

Upto 5 percent of children infected with malaria early in life have residual neurological sequelae (Snow 1999). In areas of unstable transmission, malaria accounts for 10 to 20 percent of all-cause mortality among school-age children (Bundy and others 2000), and those who have suffered repeated attacks have poorer cognitive abilities. In Kenya, primary school students miss 11 percent of school days because of malaria, equivalent to 4 million to 10 million days per year (Brooker and others 2000).

## **2.5 Sponsorship project and participation of pupils with HIV in primary schools.**

The Oxford Advanced Learners Dictionary defines sponsorship as financial support from a sponsor. It defines a sponsor as a person or company that supports somebody by paying for their training or education. The Longman Dictionary of Contemporary English defines a sponsor as a person who takes responsibility for a person or a thing. The Oxford online Dictionary defines a sponsor as one who assumes responsibility for another person or a group during a period of instruction, apprenticeship, or probation. It defines sponsorship as a business relationship between a provider of funds, resources or services and an individual, event or organization which offers in return rights and association that may be used for commercial advantage in return for the sponsorship investment.

Sponsorship has benefits both to the sponsor and the person being sponsored. Bruce (2008), in his research where he tried to quantify the impact of child sponsorship, came up with positive findings, that the sponsors' assistance improved the living standards of the



recipients. His research findings concurred with those of Compassion (2010), when the organization studied the adult lives of previous sponsored children and compared them with their siblings who were too old to be eligible for the program. Their conclusions were that child sponsorship increased formal education levels by nearly three years from a base of 8.37, raises the probability of formal employment to 72 percent from 55 percent, and increases the likelihood of white collar employment to 31 percent from 19 percent. Sponsorship also decreased teenage marriage and childbearing and church leadership involvement. More modest findings indicated that adults who benefited from child sponsorship also lived in better-built houses, were more likely to use mosquito nets (as a means to ward off disease such as malaria) and smoke and drank less.

Thomas (2008), ascertains that sponsorship comes as a result of poverty with an aim of trying to improve the status of the poor. He warns that several hundred million of the world's poorest and most vulnerable people risk ending up soon on the economic scrapheap. If present policies continue, the risk will exist across much of the developing world. It may seem a bold claim until one examines the nature of modern poverty and the commercial and political forces which perpetuate it and are deepening the global economic divide. He tries to investigate how global policies have come to threaten national economies and, through them, the survival of hundreds of millions of poor rural people and their ways of life.

The study by Holmes (2003) found out that overall; females receive less education than males, and they tend to dropout, or are withdrawn earlier for both economic and social-cultural reasons. The study further argues that the opportunity cost of sending female children to school in rural areas, where girls are married quite early, is high because benefits of their schooling will not accrue to their parental household. Similarly Kasente, (2004), Kakuru, (2003) explain how early marriages influence children's dropping out of school especially as regards the girl child as it is perceived by parents that marrying off the girl child

is an escape route from poverty. Uganda Participatory Poverty Assessment (UPPAP, 2000) indicates that marrying off girls would benefit her family in terms of attaining bride price.

Findings with regard to the impact of parent's education on schooling of children show that the children of more educated parents are more likely to be enrolled and more likely to progress further through school. Holmes, (2003) shows that this impact differs by gender, the education of the father increases the expected level of school retention of boys, and that of the mother's enhances the educational attainment of girls. Similarly other studies by Behrman *et al.*, (1999) and Swada and School drop out is derived as the difference between the number of pupils/students enrolled at the beginning of the year and the number who enrolled at the end of the year' (MGLSD, 2000, 12).

Lydia (2008), brings out a better understanding of education resources in her book. She refers to educational resources as the teaching – learning resources, which she defines as all materials and equipments used to enhance effective learning. Her major concern is that there is notable shortage of teaching materials and equipments in the schools today. This is a problem which needs careful consideration for solution to be reached. She laments at a situation whereby a teacher wants to teach reading in the absence of reading books, while at times, a teacher wants to write something on the chalk board and there is no chalk. She strongly urges the school administrators to start exploring ways and means of how they can solve this problem, because if it is left unsolved, the schools will go deeper and deeper into many problems which impact negatively on school achievements.

Over the past several decades, hundreds of empirical studies have documented the associations between social class and children's cognitive abilities. Perhaps the least disputed conclusion to emerge from educational research over the past half-century is that socioeconomically disadvantaged children are less likely to experience school success. Low-income students enter kindergarten academically behind their more advantaged peers

(Entwisle, Alexander, and Olson 1997; Lee and Burkam 2002; Mayer 1997), and these initial cognitive differences increase as children progress through school (Downey, von Hippel, and Broh 2004; Phillips, Crouse, and Ralph 1998; Reardon 2003). Myriad explanations have been offered for this inequality, including disparities in family, school, and neighborhood resources; the persistent associations between social class and race; and sociocultural disconnects between home and school environments (see Duncan and Magnuson 2005; Lareau 2003; Rothstein 2004).

According to *African Education in Focus* (2010) journal, reading books are not the only problems that face schools in the side of teaching materials and equipments. There is inadequate supply of many things in schools, just to mention a few like desks, tables, maps, picture, posters, etc. The journal arrives at the conclusion that the success of any lesson depends on how well the teacher prepares his lesson, what type of equipment he uses and the use of teaching aids. This means that the availability of adequate education resources cannot be downplayed in the journey to excelling academically.

Uniform advocates propose several different arguments. First, uniforms are argued to positively effect student safety by: lowering student victimization (Scherer 1991), decreasing gang activity and fights (Kennedy, 1995; Loesch, 1995), and differentiating strangers from students in the school building (Department of Justice, 1996; Gursky, 1996). Second, uniforms are asserted to increase student learning and attitudes towards school through: enhancing the learning environment (Stover, 1990), raising school pride (Jarchow, 1992), increasing student achievement (Thomas, 1994), raising levels of preparedness (Thomas, 1994), and promoting conformity to organizational goals (LaPointe, Holloman, and Alleyne, 1992; Workman & Johnson, 1994). Additionally, uniforms are attributed to decreasing behavior problems by: increasing attendance rates, lowering suspension rates, and decreasing substance use among the student body (Gursky, 1996). Finally, various psychological

outcomes are attributed to wearing uniforms including: increased self-esteem (Thomas, 1994), increased spirit (Jarchow, 1992), and increased feelings of "oneness" among students (LaPointe, Holoman, & Alleyne, 1992).

## 2.6 psychosocial support project on participation of pupils with HIV in primary schools.

The UK government suggests that increasing school attendance will reduce antisocial behaviour. A prospective longitudinal study, following a sample of individuals from eight years of age to 40 years of age (Farrington, 2000), investigated psychosocial predictors of adult antisocial personality and convictions. It showed that the most important predictors were having a convicted parent, large family size, low ability or attainment, and child-rearing factors, such as poor parental supervision and disrupted family. Data on school attendance were collected but poor school attendance was not an independent predictor of either offending behaviour or other poor life outcomes (Farrington, 1996). Therefore, it was not included in the 22 explanatory risk factors for offending studied.

Bruce (2012) points out that sponsored children benefit from social support which follows in the socio-emotional domain of the CI holistic child development approach. The expected outcome for this domain is that the children should be able to interact with others in a healthy and compassionate manner. He adds that the sponsored students participate in activities and trainings that nurture their socialization and interactive skills. These activities include music and drama festivals, sports and other indoor games, social rallies and trips.

Berk (2003), supports the view of a child's social growth. He notes that the experience of a child in search of own identity begins at birth and grows slowly. This significantly contributes to the formation of his/ her own unique personality. The child sees himself / herself as the centre of the universe. This egocentrism stems from an innate need for survival. He refers to self-esteem as the child's conscious self-portrait of authenticity, his self-

perception, self-expectation and selfevaluation of personal abilities. Self- esteem is experience that is felt within.

It is not easy to know whether children carry the virus or not unless they have been tested for HIV. However, counselling children and youth who are infected and affected by HIV/AIDS requires that caregivers observe good ways (or principles) when providing counselling. SAT (2001) identified the following principles of good counselling: Establishing helping relationships with children and youth, Helping them tell their stories. Listening attentively. Giving them correct and appropriate information. Helping them make informed decisions. Helping them identify and build upon their strengths. Helping them develop positive attitudes towards life.

A cluster randomized control trial of a school-based peer-group support intervention with 326 AIDS orphans (aged 10-15) in Mbarara District, Uganda found that peer-group interventions when led by teachers and complemented by healthcare check-ups significantly decreased anxiety, depression and anger among the intervention group. Of the children, 42.6% were double orphans. Although the children in the intervention group had started out having lower self-concept scores and higher indications of depression than the control group, the intervention group had lower scores of anxiety, depression, and anger at baseline. (Gray II Kumakech et al., 2009 Uganda, counseling, support groups, orphans).

Gray IIIa Brown et al., 2009a Rwanda, depression, youth. A 2006-2007 post-test study of 6,127 children ages 8-14 in four OVC programs in Kenya and Tanzania found that kids' clubs had mixed results in improving children's psycho-social outcomes. One successful kids' club, which met once a month and had a standardized curriculum and an OVC supervisor on staff, was associated with higher perceptions of having adult support, improved pro-social behavior and fewer emotional problems.

Thomas (2005), in his study on the effects of sponsorship on self-esteem of sponsored children, notes that the provision of social needs to the sponsored children goes a long way to enhance their self-esteem compared to others who are non-sponsored. This removes the feeling of insecurity in the children encouraging them to become aware of themselves. He bases his arguments on the Maslow's hierarchy of needs where he laid out needs into five broad layers namely; the physiological needs, the need for safety and security, the need for love and need for belonging. Borrowing from (Thomas,2005

Compassion (2011), states that this follows under physical domain of the CI holistic child development approach. In simple terms, it specifically looks into matters regarding the health of the sponsored child. The sponsored children undergo health screening, they are referred to hospitals in case they get sick, they benefit with HIV/AIDS awareness education/training and VCT. Above all they receive a balanced diet during the Saturday programs in the projects. The medical bills of the sponsored children are paid. Compassion (2005), brings on board the voice, explaining in detail how the faith based organization does not compromise with the health of the sponsored children. The reason given for this is that the health so much determines the life span of the child.

Bruce (2012) points out that sponsored children benefit from social support which follows in the socio-emotional domain of the CI holistic child development approach. The expected outcome for this domain is that the children should be able to interact with others in a healthy and compassionate manner. He adds that the sponsored students participate in activities and trainings that nurture their socialization and interactive skills. These activities include music and drama festivals, sports and other indoor games, social rallies and trips.

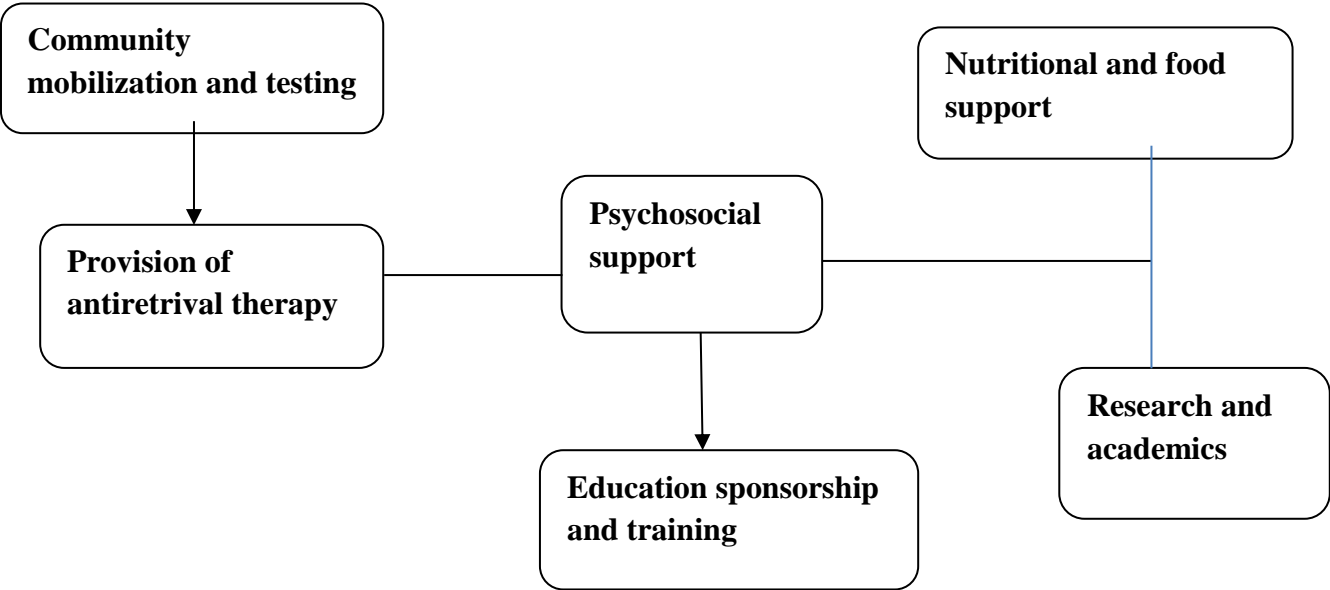
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as the centre of the universe. This egocentrism stems from an innate need for survival. He refers to self-esteem as the child's conscious self-portrait of authenticity, his self-perception, self-expectation and self-evaluation of personal abilities. Self-esteem is experience that is felt within. Compassion (2006), supports Berks argument by explaining in length its high regard for the sponsored students self esteem. It points out that social related activity that the sponsored children are exposed to give them exposure through a change of environment and also enjoyment. It also helps the children to form self identity. The social support ensures that the sponsored children will not become social misfits. These children are able to interact freely and in a healthy way with the teachers and other children in school. This can help build up strong relationships between the teachers and the sponsored children, in such a way that they can freely ask the teacher questions on areas of their difficult and also freely answer teacher's question. This can result to good academic achievements.

In 1992, 3 medical schools offered courses on spirituality and health. In 2001, 75 of the 125 schools offer courses. Many of those courses are required. At The George Washington University School of Medicine, spirituality is interwoven with the rest of the curriculum throughout the 4 years of medical school so that the students learn to integrate it into all of their care. Most of the other schools follow this model of integrating spirituality into ongoing parts of the medical school curriculum. The reason for this is that it is a good model for teaching principles of care. Since the goal of good medical care is attention to the whole patient, not just the specific illness, courses that are taught holistically, rather than by symptoms only, emphasize whole patient care. So, when learning about a patient with diabetes, students learn not only about the pathophysiology of diabetes but also about the psychosocial and spiritual issues that patients with diabetes may face. Thus, when learning to take a history, students learn all aspects of the history physical, social, emotional, and spiritual.

**2.7 FIGURE 1: Ampath Academic Model Providing Access To Health Care**

**Source: Ampath Annual Report 2014**



Ampath operates in a way that its interlinked component within itself. When pupils with HIV come in the model, they are welcomed through mobilization testing and counseling services from which are referred to antiretrival project that starts ARVS to children if they are eligible, this means that child’s CD4 and viral load is supportive, from which the child is referred to psychosocial support project to assess the child home back ground and parental care, if the child is eligible to enter sponsorship project he/she is assessed and enrolled, from here a child is send for review by the nutrition department that also review the child and then research and academics the enable to children to participate in research related to HIV and supportive mechanism surrendering it.

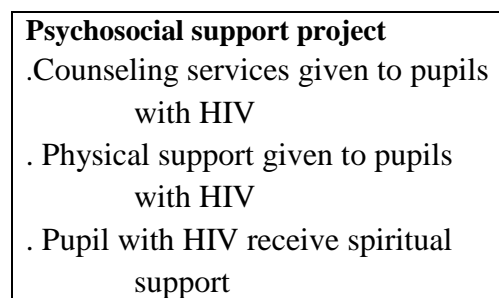
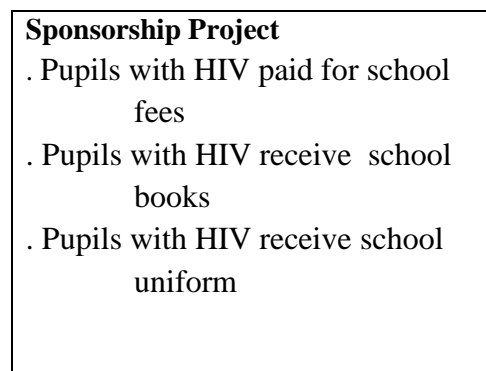
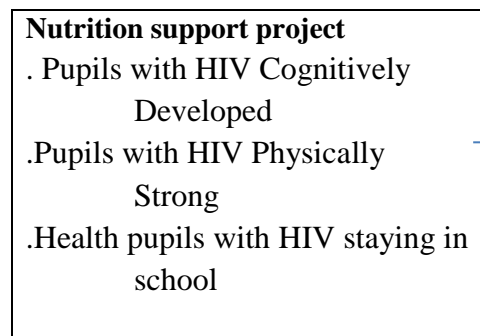
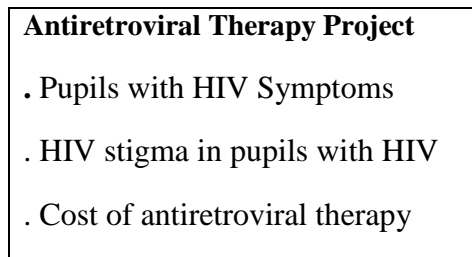


## 2.8 Conceptual Framework

As revealed by different studies, (Vreeman et al 2013) have found that school participation is dependent on programs that support pupils with HIV in health care, nutrition and food, education sponsorship and psychosocial support. For there to exist satisfactory participation in primary school pupils in wareng sub-county.

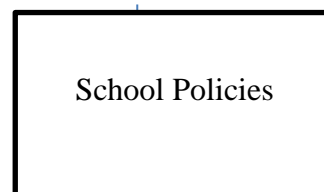
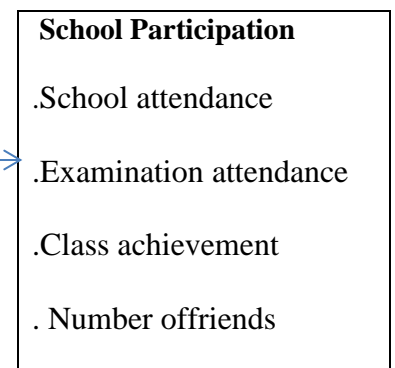
### Independent Variable

#### Ampath program

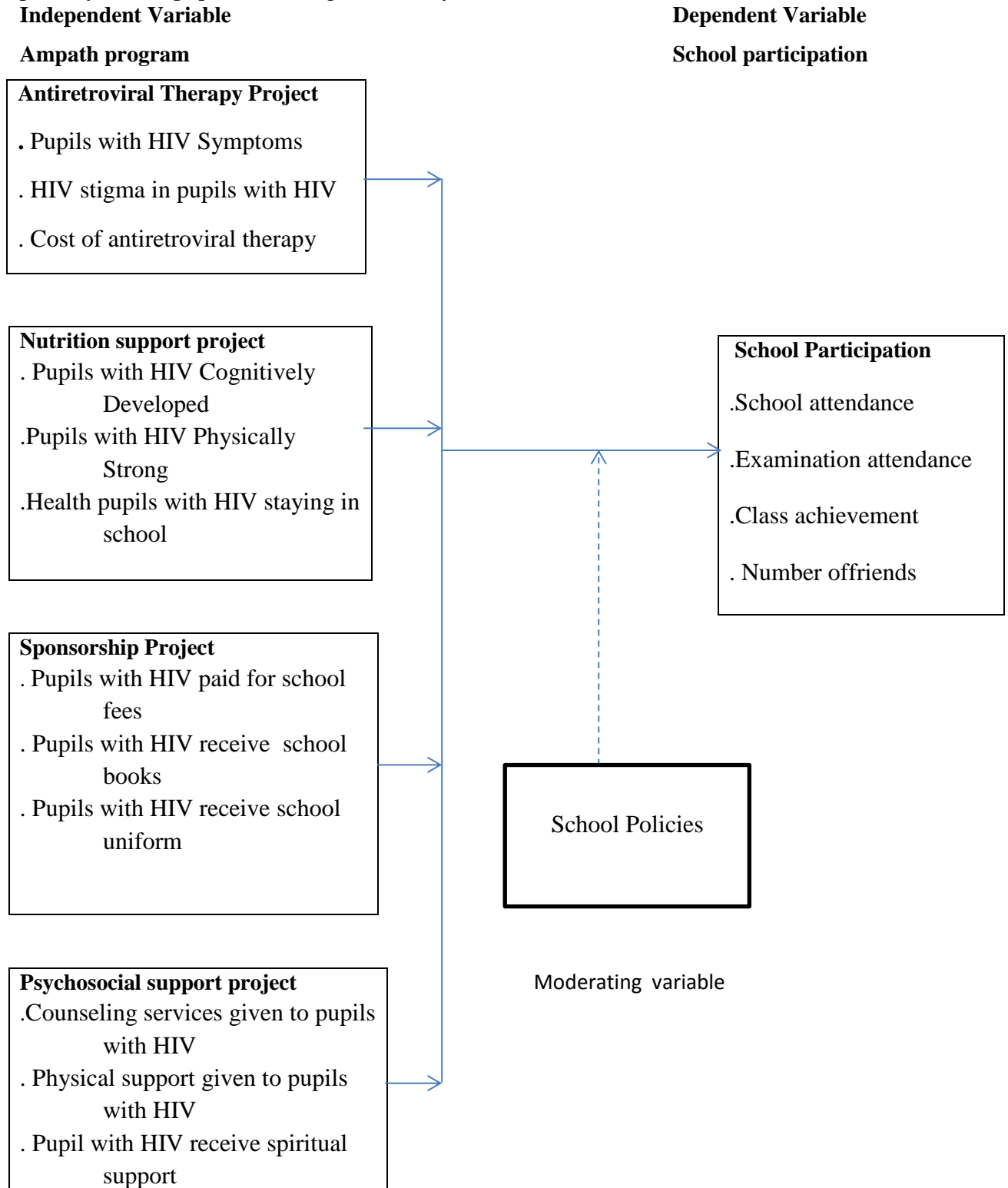


### Dependent Variable

#### School participation



Moderating variable



## 2.9 Summary of Literature Review

Antiretroviral therapy project. In a recent systematic review of pediatric ART adherence studies in middle- and low-income countries, (Vreeman et al 2013) found that children taking ARVs have good health and are able to participate in primary schools with a known HIV-positive adult not receiving ARV in 100 villages in rural western Kenya, DHHS guidelines are more complicated but recommend starting all children less than 12 months old and children of any age who have symptoms (Deeks, Steven G (8 November 2013). This helps in treatment and control of HIV symptoms in children increasing school participation.

Nutrition support project. Alderman, Hoddinott, and Kinsley (2006) found that malnutrition led to delayed entry to school, less overall schooling, smaller stature, and 14% lower earnings as adults. Nutrition and cognition. Diet has an impact on children's ability to think in the short- and long-term. Nutrition in the post-infancy period fourth, with the largest gains for the youngest children who suffered the most ill health (Miguel and Kremer 2004). Up to 5 percent of children infected with malaria early in life have residual neurological sequelae (Snow 1999). In areas of unstable transmission, malaria accounts for 10 to 20 percent of all-cause mortality among school-age children (Bundy and others 2000).

Sponsorship support project. Thomas (2008), ascertains that sponsorship comes as a result of poverty with an aim of trying to improve the status of the poor, (2008), the sponsors' assistance improved the living standards of the recipients. His research findings concurred with those of Compassion (2010), and this enabled them to attend school.

Psychosocial support Bruce (2012) points out that sponsored children benefit from social support which follows in the socio-emotional domain of the CI holistic child development approach, Berk (2003), child's social growth who are with HIV improves their participation in schools Compassion (2011).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the research methodology which was used in this study and provides a general framework for this research. The chapter presents details of the research design, target population, sample and sampling procedures, description of research instruments, validity and reliability of instruments, data collection procedures, data analysis techniques and ethical considerations while conducting the study.

#### **3.2 Research design**

The researcher used descriptive survey study design including both quantitative and qualitative research methodologies. Ogula (2005) describes a research design as a plan, structure and strategy of investigation to obtain answers to research questions and control variance. Additionally, a study design is the plan of action the researcher adopts for answering the research questions and it sets up the framework for study or is the blueprint of the researcher (Kerlinger, 1973).

#### **3.3 Target Population**

According to Ogula, (2005), a population refers to any group of institutions, people or objects that have common characteristics. The target population for this study will constitute/ made up of twenty three school principals, one hundred and eighty four class teachers, twenty community health workers and four social workers which work with the population of 800 pupils who are living with HIV and supported directly by Ampath program in twenty three primary schools within wareng sub-county Uasin Gishu county, will be used as study population.

**Table 3.1 Target Population**  
**Category of target Population**

Strata	Target population
Head Teachers / Principals	23
Class Teachers	184
Social workers	16
Community health workers	30
Totals	253

**Source: Ampath Program annual report (2014).**

### **3.4.0 Sample size and sampling procedure**

The study used both purposive and simple random sampling techniques. According to Kothari (1999), an optimum sample size is one that fulfils the requirement of efficiency, representative, reliability and flexibility. The sample size selected was considered large enough to use powerful statistics and generalize results to the population (Creswell, 2002) the key informants were; school head teachers and class and social workers. Community health workers and class teachers were purposively sampled as they had vital information that any other respondent would not have knowledge of. The researcher used proportionate stratified simple random sampling technique to have an equal strata representation across the target population. The sample population was segregated into four homogeneous subgroups consisting of head teachers, class teachers, social workers and community health workers from where the researcher will randomly select the subjects. Faculties/sections and subjects were the basis of classification in this research project.

**Table 3. 2 Sample Size**

Category of Population Sample	Population	Sample
Head Teachers	23	18
Class Teachers	184	38
Social Workers	16	4
Community Health Workers	30	20
Total	253	80

The above table show a breakdown of the target population to be sampled. It represented 10% of the total target population in the four strata and four purposively to be sampled. The researcher belief that population to be sampled will offer a representative study group to help realize the objective of the study.

### 3.5 Research Instruments

The study used two research instruments namely the questionnaire and guided interview schedules.

#### 3.5.1 Questionnaires

Two questionnaires were used for this study, one for primary school class teachers and community health workers, taking care of pupils living with HIV in primary schools participation. The questionnaires will contain closed-end questions. Closed-end questions was used so that information could be quantified and used in marginal tabulation. Marginal tabulation will provide the researcher with a description of how the total sample had distributed itself on the response alternatives for each questionnaire item. Responses to individual items was also be used to explore possible relationships between two or more variables.

### **3.5.2 Key informant Interview Schedules**

A guided interview schedule was used to target head teachers in primary schools and social workers. The schedules collected information relating to participation of pupils with HIV in primary schools and the researcher used open ended questions to the respondents.

### **3.6 Pilot testing of the instruments.**

Questionnaires were piloted in a pilot survey using three head teachers and four class teachers and four community health workers were drawn from four clusters of Amath in Wareng sub-county. The aim was to ascertain practicality and effectiveness in gathering the desired information using identified instruments. That will be administered to a similar study population to the one which will be used in the research.

#### **3.6.1 Validity**

In order to improve validity, the researcher ensured that he used simple language that the respondent understands and also ensure that research instruments will be accurate. In addition, expert opinion of the supervisor will evaluate validity of research instruments.

#### **3.6.2 Reliability**

A test re-test was used to ensure reliability of research instruments. The instruments were administered to eleven respondents at first. After two weeks, the instruments were readministered to them again. Results from the two sets of instruments will be analyzed using Pearson Product Moment Correlation and show a margin as an indicator of research instruments reliability.

### **3.7 Data Collection Procedures**

Before initiation of the actual field work, two research assistants were identified to assist the researcher in administration of the questionnaire. The two assistants were briefed about the project and its objectives and then trained on the administration of the questionnaire to the

subjects. After this, in the actual study, the subjects was first be briefed on the purpose of the study and assure them that all the information collected would be kept confidential. To ensure high return of questionnaires, the researcher personally will collect data from the respondents directly.

### **3.8 Data Analysis and Presentation**

Data collected was edited, coded, cleaned and entered into statistical Package for Social scientists (SPSS). The simplest way to represent data was in frequency or percentage table, which summarizes data about a single variable) argued Saulders, (2003). Frequencies will be converted to percentages in order to make it easier to interpret, analyze and present findings of the research. The analyzed data was presented in the form of tables, which will give a quick and easy interpretation of the information to the user. The independent variables will be analysed using descriptive statistics of mean and percentages . Qualitative data will be categorized in themes for ease of analysis.

### **3.9 Ethical Considerations**

The researcher seeked authority through a letter of introduction from University of Nairobi. Equally authority was seeked from the heads of ampath social worker, community health workers and head teachers to allow the researcher gather the required data from the respondents in their institutions. The principle of confidentiality and voluntary participation of respondents was adhered to as questionnaires did not require respondents to write their names. The researcher will disclose the reasons for carrying out the study to the respondents as purely meant to satisfy an academic requirement and not for any other reason.

### **3.10 Operationalization of Variables**

Operational framework is the operationalization of conceptual framework. It shows how the dependent variable and independent variables can be measured both qualitatively and

quantitatively though the use of parameters as specified by the researcher.

**Table 3.3 Operationalization Table**

Objectives	type of Variable	indicator	measure	Approach	research instrument
To establish the Influence of Antiretroviral Therapy project On participation of Pupils with HIV in Primary schools	Independent	visible symptom on pupils	pupils with HIV and with out symptoms	percentage & frequency	questionnaire interview schedules
To find out the Influence of Nutritional support Project on Participation of Pupils with HIV In primary school	Independent	physical & mental ability of pupils	level of participation & stay in school	percentage frequency	questionnaire interview schedules
To establish the Influence of education Project on participation Of pupils with HIV in Primary schools	Independent	school fees payment	attendance of pupils with HIV in primary school	percentage & frequency	questionnaire interview schedules
To determine the Influence of Psychosocial Support project On participation Of pupils with HIV In primary schools	Independent	hope and love in the pupils	class performance & hard work	percentage & frequency	questionnaire interview schedules

### 3.11 Summary

This chapter deal with a brief introduction, research design and identification of target population. The sampling design which was used include both simple random and stratified sampling. Two research instruments namely the questionnaire and a guided interview schedule was used to collect data. The ethical issues were addressed. An operationalization table showing how various variables was measured is also drawn and explained.



## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1: Introduction

This chapter presents the analysis and findings with regard to the objective and discussion of the same. The data was collected from a sample 80 respondents made up of social workers at ampath centre, community health workers who do follow up pupils with HIV receiving treatment from Ampath centre and primary school head teachers and class teachers in respective schools that pupils with HIV are participating. The findings are presented in percentages and frequency distributions and tables.

#### 4.2: Biodata of Respondents

This section presents the bio-data of respondents in terms of gender, age, education level, and length of service.

##### 4.2.1: Response Rate

**Table 4.1: Response Rate**

Instrument	Frequency	Percentage
Returned	78	98%
Non – return	2	2%
Total	80	100%

Table 4.1 reveals that 80 questionnaires were issued out. The completed questionnaires were edited for completeness and consistency. Of the 80 questionnaires used in the sample, 78 were returned. The remaining 2 were not returned. The returned questionnaires' represented a response rate of 98%, which the study considered adequate for analysis. In my opinion, 98% response rate was adequate to make generalizations.

### 4.1.1 Distribution of Respondents by Gender

**Table 4.2: Gender Distribution**

Categories	Gender	Frequency	Percentage
Head Teachers	Male	12	75.9
	Female	6	24.1
Class Teachers	Male	25	66.7
	Female	12	33.3
Social Workers	Male	1	30.5
	Female	2	60.7
Community H W	Male	5	52.5
	Female	15	70.9

As can be observed, Table 4.2 in all categories male had higher frequency of 43 (57.3%) compared to females with 35 (42.7%). The number of male was high because most of head teachers were male and class teachers were female. Although in ampath centre female had a higher number because female are mother who can easily talk to children freely and friendly.

### 4.2.3 Demographic information

The study in this section sought to enquire on the respondents' background information, i.e. age bracket distribution of respondents, in both head teachers, class teachers and social workers and community health workers and the results are summarized in the table 4.3.

**Table 4.3 Respondents by age bracket.**

Respondents	20-25	26-30	31-35	36-40	41-50	50 and Above
Head teachers	0	0	0	5	10	3
Class teachers	0	8	10	15	4	0
Social workers	0	0	2	2	0	0
C H W	0	0	7	10	2	0
Tota	10	8	19	32	16	3

Majority of head teachers are aged between 36-50 years which formed 50%. Eighteen head teachers were selected from the five clusters and all head teachers selected for this study were conversant with administration duties and head participated in school management this is because at all schools there was a head teacher to lead the entire school . class teachers aged between 26-50 years and most of the teachers had been in school for last three years and all teachers interviewed were class teachers. Social workers were aged 31-40 years and all social workers interviewed have been in ampath for more than five years. Community health workers aged 31-50 years and they had been working for ampath for the last three years and were conversant with ampath duties.

### **4.3 Antiretroviral therapy project on participation of pupils with HIV in primary schools**

Establishing information on AMPATH programme in provision of Antiretroviral therapy to pupils with HIV primary schools was my first objective of the study. There are

many factors to consider for one confirm that there is influence of Antiretroviral therapy on participation of pupils with HIV in primary schools. Key among them is HIV symptoms, HIV stigma and cost of Antiretroviral therapy. These enable the pupils to have good health to be able to participate in primary schools. To measure these parameters, teachers, community health workers, social workers and head teachers were asked close ended questions relating to influence of ARVs on participation of pupils with HIV in

#### **4.3.1 Influence of symptoms management on participation of pupils with HIV in primary schools.**

From the result above, it can be seen that ARVS are helpful in pupils with HIV to participate in primary school. ARVs enhances better health status of the pupil and it controle HIV symptommes and also reduce the opportunistic infections from pupils with HIV thereby enchancing their participation. Interviwed community health works and class teachers confirmed this. With a reason that all drugs are picked and taken correctly by the pupil without missing. However one social worker said that ARVS works ver well when there is good adherence by the pupile and not all pupils are adhereing well to the drugs. But if taken well then ARVs fosters good health and good learning in pupils. She added that teachers need to be in touch with the child to emphasize the taking of drugs to enable good adherence otherwise the pupils may not ahere well to their medication thereby limiting the helpfulness of ARVs in pupils with HIV in primary schools.

**Table 4.3.1 Response on Antiretroviral therapy influence the participation of pupils with HIV primary schools.**

Respondents	ARVS are helpful	ARVs are not helpful	Total
Head teachers	18	0	18
Class teachers	34	2	36
Social workers	4	0	4
C H W	20	0	20
<b>TOTAL</b>	<b>76</b>	<b>2</b>	<b>78</b>

From the result above, it can be seen that ARVS are helpful in pupils with HIV to participate in primary school. ARVs enhances better health status of the pupil and it controle HIV symtomes and also reduce the oppportunistic infections from pupils with HIV thereby enchancing their participation which is in line withthe findings of (Kimou et al., 2008: 9) and (Plotkin SA (April 2005). Interviwed community health works and class teachers confirmed this. With a reason that all drugs are picked and taken correctly by the pupil without missing. However one social worker said that ARVS works ver well when there is good adherence by the pupile and not all pupils are adhereing well to the drugs. But if taken well then ARVs fosters good health and good learning in pupils. She added that teachers need to be in touch with the child to emphasize the taking of drugs to enable good adherence otherwise the pupils may not ahere well to their medication thereby limiting the helpfulness of ARVs in pupils with HIV in primary schools.

### 4.3.2 Influence of HIV stigma on participation of pupils with HIV in primary schools

In order to determine the influence of HIV stigma on participation of pupils with HIV in primary schools, class teachers, community health workers, head teachers and social workers were asked to rate the statement with HIV stigma, ARVs reduce HIV stigma enhance participation of pupils with HIV in primary schools and the second question was if ARVs increases stigma which reduces participation in primary schools. Out of 80 respondents, 75(97%) agreed that ARVs reduces stigma and enhance participation in school, while 3(3%) agreed that ARVs increases stigma and reduces participation in schools and the findings were summarized in the table 4.5

**Table 4.5 Responses of influence of HIV stigma on participation of pupils with HIV in primary schools**

Respondents	ARVs reduces HIV Stigma and enhance participation	ARVs increases HIV stigma and reduce participation	Total
Class teachers	36	0	38
Head teacher	15	3	18
Social workers	4	0	4
C H W	20	0	20

From the results also show that pupils with HIV and adhering well to their drugs there is good health and they have no symptoms of the disease, their education have not been affected in any way and their participation in school has been improved ever this is in line with findings of (Deeks, Steven G (8 November 2013) and (Nyandiko et al., 2006).(Fischl et al., 1990),, some with very good performance records and they do not miss school. Head teachers added that some of pupils taking drugs well is very hard to tell that this pupil have any problem and class teacher said that these children they are very normal like any other pupils due to ARVs which has helped them to be active in school and engage in school

activities ever. And the social workers said that the ARVs are given free of charge and also consultation from doctors is also free of charge this makes it cheaper even for these pupils caregiver to spend less on health matters and instead focus more on planning for school fees and support their children ever. Also the community health workers said that stigma is controlled through taking drugs since HIV symptoms are controlled then the pupil interact freely with others and will have the freedom to play and join others in any activity at school, this makes it possible for these HIV infected pupils to participate fully in primary schools which is in accordance with the findings of (Abadia-Barrero & Castro, 2006).

#### **4.3.3 Influence of cost of antiretroviral therapy on participation of pupils with HIV in primary schools**

In order to determine the influence of antiretroviral cost on participation of pupils with HIV in primary schools, the community health workers, social workers, class teachers and head teachers were asked questions on the cost of ARVs. The community health workers, social workers, class teachers and head teachers were asked to rate the statements; ARVs are free in ampath and the second question was do you think ARVs being free in ampath enhances participation in school by pupils with HIV. Out of 80 respondents 78(98%) agreed that are free of charge in ampath. For the statement that free ARVs enhance participation of pupils with HIV in primary school, 65(85%) agreed that with free ARVs participation of pupils with HIV is increased. Free ARVs don't increase participation of pupils with HIV in primary schools 15(15%). This information is summarised in table 4.6.

#### 4.6 Responses of cost of antiretroviral therapy on participation of pupils with HIV in primary schools

Respondents	ARVs is free in ampath	ARVs is not free in ampath	Free cost of ARVs enhance participation	Free cost of ARVs don't enhance participation
CHW	20	0	20	0
Social worker	4	0	4	0
Class teachers	30	0	30	6
Head teachers	18	0	11	9
Total	72	0	65	15

From the results, it can be seen that the free cost of ARVs enhance participation of pupils with HIV. since ARVs is given free of charge then the pupils are at freedom to access these drugs throughout, so there is no time for lack of drugs but ever these pupils are equipped with their drugs hance giving no chance to opportunistic infections to occure and also keeping the virus undersuppression. Majority of CHWs, class teachers, social workers and community health workers agreed that ARVs are free in ampath and to all clients in ampath this is in line with finding by (Nyandiko et al., 2006).(Fischl et al., 1990).

Results also shows that the free costs of ARVs enable increase school participation through allowing the parents and guardians to have some savings toward education of their children and contribut towards the livelyhoods of the pupils with HIV however one of the respondent noted that before ARVs came, the first people who had the disease did not have a solution but instead gave up in life and now people have the chance to see their future regardless of the disease. So the presence of free ARVs have enhanced increased participation.



#### **4.4 Nutrition support project on participation of pupils with HIV in primary schools.**

Objective two of the study was to find out the influence of nutritional support in facilitating the participation of pupils with HIV in primary schools. The current approaches to retention of pupils in schools is provision of food, one way of achieving this is to encourage pupils through having lunch at school and also looking at their meals as a basic need and allow them to stay in school instead of going to struggle looking for their own food this prevents pupils from engaging in other activities and rather focus on school participation.

##### **4.4.1 Influence of physical and mental ability on participation of pupil with HIV in primary schools.**

The aim of nutrition support that includes provision of meals at school for the pupils with HIV is to enable pupils to participate fully in class and allow them to join each school activity and also to not miss school due to other hunger. An assessment is done to enable the teachers to rate the participation of pupils through school register and class register which makes the presence of children in school whenever they attend and stay in school all times. To find out the effect on nutrition on participation of pupils with HIV in primary school, social workers were asked questions on assessment of nutrition support they offer to pupils with HIV, the community health workers were given questionnaires with questions on nutrition support they deliver to pupils with HIV and class teachers and head teachers were asked questions in relation to assessment of nutrition support offered to pupils with HIV if it improves the participation of pupils in primary schools. Out of 80 respondents, 78 (98%) agreed that the nutritional support to pupils with HIV enhance participation of in primary school and findings were summarized on table 4.7

**Table 4.7 Responses on nutrition support in participation of pupils with HIV in primary school**

Respondents	Nutrition enhances School participation	nutrition lowers school participation	Total
Head teachers	18	0	18
Class teachers	36	0	36
Social workers	4	0	4
C H W	20	0	20
Total	78	0	78

From these results, it can be seen that cognitive development enhances participation in school that is sequential in school participation in majority of the class teachers. Since the class teachers monitor and take roll calls, class teachers across the schools agreed to this question. Interviewed teachers confirmed this that all class teachers make sure that they monitor and direct speak to each individual pupil to confirm their presence and participation in school. Results also show that cognitive development enhances class performance of pupils with HIV in primary schools. Cognitive development allows the pupils to participate and understand what the teacher is teaching and therefore, pupils are able to reproduce the same work when asked in the exams. This is because pupils are attentive and able to learn from a teacher can always ask the teacher to repeat what has been taught. The interviewed teachers said that cognitively developed pupils are able to stay in school for the long period of time since they find school being friendly to them.

#### **4.4.2 Influence of cognitive development on participation of pupils with HIV in primary schools**

In order to determine the influence of of nutritional support in participation of pupils with HIV in primary schools, the class teachers were asked questions on cognitive development of pupils. The class teachers were asked to rater the statements; with nutrition structuring the cognitive maturity of pupils with HIV in primary schools and the second question was if performance of these pupils is enchenced through the cognitive development.

Out of 80 respondents, 70 (90.0%) agreed cognitive development enhance pupils participation in primary schools, that is effectively organized with sequent being logical, while 8 (8.0%) agreed that presentations cognitive development does not enhance pupils with HIV to participate in school. For statement cognitive development help pupils with HIV to stay in school, 70 (80.0%) of 80 respondents agreed. Cognitive development does not enhance pupils with HIV to stay at school statement was agreed by 8 (8.0%). This information has been summarised in Table 4.8

**Table 4.8 Responses of influence cognitive development on participation of pupils with HIV in primary schools.**

Respondents'	Cognitive Development Enhance Participation	cognitive development don't enhance participation	cognitive development enhances class participation	cognitive development don't enhance stays in school
Social worker	4	0	4	0
C H W	20	0	20	0
Head teacher	16	2	16	2
Class teacher	30	6	30	6
Total	70	8	70	8

From these results, it can be seen that cognitive development enhances participation in school that is sequential in school participation in majority of the class teachers. Since the class teachers monitor and take roll calls, class teachers across the schools agreed to this question. Interviewed teachers confirmed this that all class teachers make sure that they monitor and direct speak to each individual pupil to confirm their presence and participation in school Results also show that cognitive development enhances class performance of pupils with HIV in primary schools this is in line with findings of Alderman, Hoddinott, and Kinsley

(2006). Cognitive development allows the pupils to participate and understand what the teacher is teaching and therefore, pupils are able to reproduce the same work when asked in the exams. This is because pupils are attentive and able to learn from a teacher can always ask the teacher to repeat what has been taught. The interviewed teachers said that cognitively developed pupils are able to stay in school for the long period of time since they find school being friendly to them.

#### **4.4.3 Influence of healthy children on school participation of pupils with HIV in primary schools**

In order to determine the influence of nutrition on school participation, the community health workers and class teachers were asked questions through questionnaires in relation to health children and school participation. The class teacher and community health workers were asked to respond to the question; nutrition support enhance participation of pupils with HIV in primary schools and that pupils stay in school and do not miss school and performance of pupils with HIV in primary schools. Out of 80 respondents, 71 (79%) agreed that nutrition support enhanced participation of pupils with HIV in primary school, while 7 (21%) felt that pupils do not participate in school because of nutrition or food they get, as illustrated in Table 4.9

**Table 4.9 Reponse of healthy children on school participation of pupils with HIV**

Respondents	Enhance school School participation	pupils do not stay and participate in school	Total
Head teachers	15	3	18
Class teachers	32	4	36
Social workers	4	0	4
C H W	20	0	20
<b>Total</b>	<b>71</b>	<b>7</b>	<b>80</b>

This results show that nutritional support enhances participation of pupils with HIV in primary schools. This is due to the fact that, many pupils students can be reached by on are able to get meals and promot their health this protects them from getting other diseases related to hunger and also nutrition enables pupils to go to school regularally beacuse they are healthy, especially in schools without boarding facilities. Interviewed respondents noted that this is an important tool to keep the pupils in school especially those schools without boarding facilities, pupils with meals are very happy and always present in school even when it comes to school participation and performance are the best because of the meals they to participate and pays attention to class lessions and are able to learn and ask questions this is in line with the findings of (Miguel and Kremer 2004). Another respondent also commented that pupil without meals at school they ever go out to look for something to eat which make them sometimes not to come back in class or they are late in afternoon lessions and some times tired to pay attention to the teacher while in class. However, some respondents felt that ony meals can not enhance pupils's participation in school because some are sick from other

infections which are likely to affect their participation in school and yet some pupils for no reasons they decid not to participate in school.

#### **4.4 Sponsorship project on participation of pupils with HIV in primary schools.**

Objective three of the study was to find out the effect of sponsorship project on participation of pupils with HIV in primary schools. The core principle of sponsorship is for the poor and and pupils with medical condition, putting a focus on HIV infected children to enhance effective school participation; one way to achieving this is encouraging pupils' participation during school. Care must be taken to ensure that pupils who are under sponsorship do not miss school.

##### **4.4.1 Influence of fees payment on participation of pupils with HIV in primary schools**

The aim of payment of school fees is to enhance participation of pupils with HIV to have an opportunity to attend school regardless of the sickness and to reduce on the burden of worries about the future of these children. To find out the effect of fees payment on participation of pupils with HIV in primary schools the head teachers and the social workers were interviewed on assessment of the payment of school fees. The head teacher and social workers were asked the question; fees payments enhance participations in school by HIV infected pupils, or if it reduces. Out of the 80 repondents, 78 (98. %) agreed that school fees payment enhances pupils with HIV to participate in primary schools and these were the respondents who handed back questionnaires, and the findings were summarized in Table 4.10

**Table 4.10 Responses on influence of fees payment on participation of pupils with HIV in primary schools**

Respondent	fees payment enhances Participation	fees payment don't enhance participation	Total
Head teachers	18	0	18
Class teachers	36	36	36
Social workers	4	0	4
C H W	20	0	20

This results show that school fees payment can be as a tool of enabling children with HIV to participate in primary schools, pay making fees available these pupils have no worries about who to pay their fees and also it helps them to feel loved and their future cared for. And they also feel like there is someone behind them who is supporting them with care and love. This also will attract for the good class performance of these pupils because they are not disturbed to go and bring fees now and again. One repondent noted that if all pupils could affort to clear their early like this then their performance and participation would be higher ever this is in line with the findings of Bruce (2008).

#### **4.4.2 Influence of school materials on participation of pupils with HIV in primary schools**

To determine the effect of school materials on participation of pupils with HIV in primary schools community health workers and classs teachers were given questionnaires to fill. In order to determine the effect of school fees payment on facilitating pupils with HIV to participate in school, head teachers and social workers too were interviewed, community health workers and class teachers were asked to rate the following questions: pupils whos school receives sponsorship are ever present in school, school fees payment does not enhance

participation of pupils in primary schools, and the last question was if sponsored pupils with HIV are motivate to work hard in class. Out of 80 respondents, 65 (80 %) agreed that sponsored pupils with HIV do participate in school, while 8 (8. %) agreed that sponsorsip enhances school participation, and 8 (8.%) agreed that provision of school materials enhances participation of pupils with HIV in primary schools, and findings summarized in Table 4.10

**Table 4.10.1 Response on the influence of school materials on participation of pupils with HIV**

Respondents	school materials Don't enhance School participation	school materials enhances participation	school material enhance motivation
Class teachers	4	30	2
C H W	3	10	7
Head teachers	4	8	6
Social workers	1	2	1
Total	12	50	16

The results show that most of the most of the sponsored pupils with HIV are participating in school, since they have the necessary school materials to enable them to do so these findings are also in line with the findings of Lydia (2008), and Holmes, (2003); materials enable them to actively get involved into school participation. It also indicates that school materials enhance motivation in performance of class work within the HIV pupils, hence enhancing participation in school.

#### **4.4.3 Influence of School uniform on participation of pupils with HIV in primary schools**

In order to find out the effect of school uniform on facilitating participation of pupils with HIV in primary schools, respondents were asked questions on presence and involvement of HIV pupils in primary schools. The head teacher, class teacher, social workers and community health workers were asked of their opinion on whether having school uniform



enhances motivation of pupils with HIV to participate in school and it enhances performance of these pupils. Out of 80 respondents, 59 (69 %) agreed that it improves participation, and 19 (29%) said it does increase participation of pupils with HIV in primary schools. and the finding illustrated in the Table 4.10.2

**Table 4.10.2 Response on influence of school uniform on participation of pupils with HIV in primary schools**

Respondents	uniform increases Pupils' participation	uniform don't increase participations	Total
Class teachers	30	6	36
Head teachers	11	7	18
Social workers	4	0	4
C H W	15	5	20

From the results, it can be observed that school uniform increases the participation of pupils with HIV in primary schools. This is because pupils look uniform and they have no isolation, they are able to identify themselves as pupils of the same ability and health and also school uniform enables the pupils to stay in school these findings are in line with the findings of (Thomas, 1994), (LaPointe, Holloman, and Alleyne, 1992; Workman & Johnson, 1994) and (LaPointe, Holoman, & Alleyne, 1992).

This result also shows that school uniform increases class performance of the pupils with HIV, it enhances their freedom and free participation in the class and also it helps them to find identity with the fellow pupils in class which increases concentration and attentive while in class which enhance good performance.

#### **4.5 Psychosocial support project on school participation of pupils with HIV**

Identifying the effect of psychosocial support on the participation of pupils with was my fourth objective of the study. Psychosocial support is an important component for support in school participation in pupils with HIV. It is important for pupils and community health workers include teacher and social workers in order determine if the pupils with HIV are progressing well, the more frequent the pupils are talked to and also shown care and love the better, and in order to collect information of this factor, and the investigator asked the respondents to rate some questions relating to psychosocial support tool.

##### **4.5.1 Influence of counseling services on participation of pupils with HIV in primary school**

In order to identify the effect of counseling services on participation of pupils with HIV in primary schools, community health workers and social workers including teachers were given questions relating to counseling services offered to pupils with HIV in relation to school participation. Community health workers, social workers and teacher were asked to respond to the question; counseling services enhance the participation of pupils with HIV in schools, and if it also improves the psychosocial wellbeing of the pupils with HIV. Out of the 80 respondents, 72 (92%) agreed to the question that counseling services enhances participation. On the question of whether counseling services don't improve participation of pupils with HIV, 6 (6%) said yes. The findings were summarized in the Table 4.10.3

**Table 4.10.3 Response on influence of counseling services on participation of pupils with HIV in primary schools**

Respondent	counseling services	counseling services
	Enhance participation	don't enhance participation
C H W	20	0
Class teacher	32	4
Social workers	4	0
Head teachers	16	2
Total	72	6

These results show that the counseling services offered to the pupil with HIV in primary schools equips pupils to have wellbeing which enables them to sound mind and hopes for the better future. Class teacher also agreed that pupils can indeed have good future and work hard to achieve it. One responded added that before such services came many people had no hope for better future and once somebody got HIV then that person is dead living can not think for any good in life finding are also in line with the findings of Gray II Kumakech et al., 2009 Uganda, counseling, support groups, orphans) and Gray IIIa Brown et al., 2009a Rwanda, depression, youth. Most of the interviewed respondents confirmed that this improves the pupils' wellbeing and performance, and this is attributed to the fact that it involves the pupils to discover good things in life and so live positively. This results also show that participation is enhance once there is counseling services on board for pupils with HIV due to care and problem solving skills that is given to the pupils thereby creating them to be in position of handling and controlling themselves with the school and their.

#### 4.5.2 Influence of physical support on participation of pupils with HIV in primary schools

In order to determine the effect of physical support on participation of pupils with HIV in primary schools, the class teachers, head teachers and social worker and community health workers were asked to respond to the questions on the importance of physical support on the pupil with HIV. In order to determine the effect of physical support the respondents were asked to respond to the question; physical support is not important to HIV pupils in primary schools. Out of the 80 respondents, 54 (75%) said that it enhances participation, while 24 (25%) felt that it does not enhance participation. The information was summarized in Table 4.10.4

**Table 4.10.4 Respondents of influence of physical support on the pupils with HIV in primary schools**

Respondents'	physical support	physical support	Total
	Enhance participation	don't enhance Participation	
Class teachers	20	16	36
Head teachers	10	8	18
Social workers	4	0	4
C H W	20	0	2

These results indicate that physical support enhances participation. This is attributed to the fact that pupils are taken out there to exercise physically and also meet other children and mature people who have lived with HIV and there for they are encouraged and challenged not to give up in life and focus on their future ever which is in line with the findings of Bruce (2012) and Berk (2003). However, one respondent noted that if the physical that caution is put in consideration during the physical support like out reach and field tours to avoid pupils

coming up with bad behaviours as they go back to school, however some respondents were of the view that physical support does not enhance participation of the pupils in primary schools

**4.5.3 Influence of spiritual support on participation of pupils with HIV in primary schools**

In order to identify the effect of spiritual support on facilitating school participation of pupils with HIV, the teachers, social workers and community health workers were asked questions on the effect of spiritual support. The teachers, social workers and community health workers were asked if the spiritual support enhances participation, also they were asked question, if spiritual support does not improve on the participation. Out of 80 respondents, 75 (93%) agreed that spiritual support does enhance participation of pupils with HIV in primary schools, while 3 (7%) said it does not enhance school, and results summarized in Table 4.11

**Table 4.10.5 Response on Influence of spiritual support on participation of pupils with HIV in primary schools**

Respondents'	Spiritual support Enhance participation	spiritual don't enhance participation	Total
Class teachers	35	1	36
Head teachers	16	2	18
Social workers	4	0	4
C H W	20	0	20
<b>Total</b>	<b>75</b>	<b>3</b>	<b>78</b>

This results show that the spiritual support is important to the pupils and it helps them to attached themselves with god and who have good plans for them and who created them and also he is the author of life and death in all situations. This helps them to have a belonging and see themselves bigger than the HIV and begin to see positiveness in their

livies and work hard towards their future this findings are also inline with the findings of Berk (2003) and Bruce (2012). This was confirmed by the interviewed respondents who felt that since pupils are connected to god then everything is possible.

## CHAPTER FIVE

### 5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

This chapter discussed summary of the findings, conclusion, recommendations from the study, contributions to the body of knowledge and areas for further study.

#### 5.2 Summary of Findings

The gender of the head teachers, class teachers, social workers, and community health workers who participated in this study were 43 (57.3%) male and 35 (42.7%) female, the number of male was higher than that of the female because the because most of the community health workers were. Majority of the head teachers' aged between 36 and 50 years, class teachers' aged between 26 and 50 years, social workers aged between 31 and 40 years and community health workers aged between 31 and 50 years. Thirty-eight class teachers, eighteen head teachers, four social workers and twenty community health workers were selected. All the respondents selected for this study were conversant with their duties; the purpose of this study was to establish the influence of ampath programme on participation of pupils with HIV in primary schools in wareng, Kenya.

Specification the study sought to find out influence if antiretroviral therapy on participation of pupils with HIV in primary schools, nutritional sponsorship project, nutrition project and psychosocial project on the participation of pupilsd with HIV in primary schools. There are many factors considered for one to confirm that ampath programme, ARVs project, sponsorship project, nutrition project and psychosocial, key among them is use of ARVs. This allows pupils with HIV to control symptoms of HIV, control infection of opportunistic diseases and also have hope for life in future this give them chance to participate in school. To measure this parameter, class teachers, head teachers, social workers and CHW were asked

questions relating to use of ARVs in pupils with HIV. Majority of the class teachers, head teachers, social workers and CHWs believe that the use of ARVs facilitate participation in school. This is because adoption of ARVs has reduced the harshness of HIV and reduced the risk of falling sick and given hope to the pupils with HIV to participate in school.

The study also sought the opinion of the class teachers, head teachers, social workers and CHW on the role of nutrition in enhancing school participation of pupils with HIV. The results of the class teachers, head teachers, social workers and CHW were in agreement with that of each other, majority of the class teachers, head teachers, social workers and CHW agreed that provision of meals both at school and at home enhances participation in primary schools of pupils with HIV; the provision of food allow pupils to have time to attend school instead of look for food and it makes pupils to be cognitively mature, mental and physical ability and healthy children making the pupils to have ability to participation in school. Attending and staying in the school is easily with provision of food to pupils with HIV, also with the taking of drugs somebody need to eat enough to avoid the side effect of ARVs, giving pupils the energy and ability to participate and listen while in class.

Sponsorship is important component to school participation. It is important for pupils who are economically disadvantaged in life and it help to enable pupils to participate in schools attending, staying in school is an objective of sponsorship, in order to collect information on this factor, and the investigator asked the respondents to some questions relating to influence of sponsorship like on school fees payment, school uniform and school materials. The class teachers, head teachers, social workers and CHW agreed that introduction of sponsorship have increased the number of pupils with HIV participating in primary schools. Class teachers, head teachers, social workers and CHW were also requested to respond to questions relating to how sponsorship influenced pupils' participation. Although teachers agreed that sponsorship has helped to reduce absenteeism in pupils and enhanced full



participation, school uniform also have given pupils confidence in front of other children and enabled free interrections with one anther, school materials like books including text and exerices books provided to the pupils have enhanced their reading capacity and enabled them to participate in primary school.

The last objective of this study was to establish the influence of psychosocial support project on participation of pupils with HIV in primary schools. Class teachers, head teachers, social workers and CHW were asked questions relating to psychosocial support. Majority of class teachers, head teachers, social workers and agreed that provision of psychosocial counseling enhances participation in primary school and improves their academic performance. Class teachers, head teachers, social workers and CHW were also asked to rate statements relating to the influence of counseling services, spiritual support and physical support enhances participation and improves performance. Most of class teachers, head teachers, social workers and CHW agreed that psychosocial support enhances participation and improves performance of pupils with HIV in primary schools. There is love, hope and building of their future including care that are activities of pstchosocial support and these help to to give pupils sound mind to see the need of participating in schools.

### **5.3 Conclusion**

The purpose of this study was to establish the influence of ampath programme on participation of pupils with HIV in primary schools. Specifically the study sought to find out influence of ARVs on participation of pupils with HIV in primary schools, controlling of symptoms of HIV in pupils, reducing the cost ot treatment of HIV and also enabling the control of oppportunistic infection and control stigma with pupils with HIV. Majority of class teachers, head teachers, social workers and CHW agreed that use of ARVs enhances participation of pupils with HIV in primary schools due to the facts that: use of ARVs reduce

the cost of treatment thereby giving opportunity to parents to provide school need for the pupil, ARVs reduces the stigma as result of HIV symptoms being controlled and give a chance to pupils to interrect freely with one anther, ARVs controls the opportunistic infection disease which likely to keep the pupils in bed instead pupils are healthy and have a chance to continue participating in primary schools.

Majority of the class teachers, head teachers, social workers and CHWs agreed that the provision of nutrition support enchances the cognitive development , physical and mental ability and makes healthy pupils. When the pupils are provided with meals at home and even at school stress of taking drugs are reduced and also the time of looking for food is reduced, pupils end up having enough time to focus at school, stay in school, and work hard towards their future. Class teachers, head teachers, social workers and CHW agreed that nutrition support allows pupils to participate in primary school. Some pupils may still fail to participate in school amidst provision of food but this is nmot common since there are class teachers and community health workers to follow up on these pupils.

Although class teachers, head teachers, social workers and CHWs agreed that sponsorship makes the pupils to participate in school, improved attendance and performance within the pupils, follow up by parents or guardians would be involved to encourage and motivate the pupil to be hard working at school, the psychosocial support, head teachers and class teachers agreed that it is good but were of the pinion that it should involve serious caution to restrict pupils from engaging in other bad habits outside school, behaviours of the pupils should be observed throughout the games and play outside school.

## **5.4 Recommendations**

In view of above findings and opinions from the respondents the study recommends the following measure in order for ampath programme to reap maximum benefits/ influence on the participation of pupils with HIV in primary schools.

1. The social works and community health workers enrich the sponsorship rules from recommended books bureausin order to ensure that pupils sponsored are the intended population for them to meet the desired pupils with HIV.
2. Class teachers, head teachers, social workers and CHWto work together in trying to follow up and manage the pupils who are in ampath programme.
3. Social workers and CHW, they should involve the parents and guardians of the pupils with HIV through the process while trying to help then in schools.
4. The schools management to improve teachers' capacity to monitor individually the pupils with HIV while are in class.

## 5.5 Contribution to the body of knowledge

Objective	Contribution
1. Antiretroviral therapy project	This is the drug which is used by people who are infected with HIV to reduce the harshness of the disease; it depends on the stage of the disease for some one to be started on ARVs putting into consideration the CD4 and the viral load count.
2. Nutrition support project	This is a feeding programme that ampath and world food programme adopted in order to help the children who are diagnosed with HIV and need food aid to enabled them withstand the virus and the effects of ARVs drugs.
3. Sponsorship support project	This is where children who are diagnosed with HIV and need education, they are selected depending on the home back ground and taken to school, and school requirements are taken over by ampath programme.
4. Psychosocial support project	This is a project in ampath where everyone is brought on board to help the children with HIV by showing them care, love, physical and spiritual support to make the children feel conforted regardless of their HIV condition.

## **5.6 suggestions for Futher Research**

1. The findings of this study did not establish the nature and level of support from school administartion on to pupils with HIV in primary schools, or the relation between the pupils with HIV and other pupils including school staffs. There is therefore need for research to establish the support given to it by the schools administration.
2. The study did not also establish the the criteria of selection of the pupil with HIV to enter the sponsorship and nutrition support projects in ampath project.

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## APPENDIX

### **Appendix 1 Letter of Transmittal**

Ndamanywa Kalisiti,  
University of Nairobi  
College of Extra Mural Studies  
Eldoret Centre

The AMPATH CEO,  
P.O Box 4606,  
ELDORET.  
26th April, 2015  
Dear Sir/Madam

#### **REF: ACADEMIC RESEARCH**

I am a student of University of Nairobi pursuing Masters of Arts in Project Planning and Management. I am conducting an academic research on influence of Ampath program on participation of pupils with HIV in primary schools. organisation has been chosen to provide information relating to participation of HIV pupils in primary schools. I hereby request you to kindly allow me to have a guided interview with the social workers. Additionally, i would like to access 14 community health workers in charge of the fellow up of pupils with HIV to fill the questionnaires enclosed. The questionnaires are focusing on on Ampath program and participation in of puils with HIV in primary schools.

The information that respondents will give is confidential and will be used for the purpose of my academic research only.

Yours faithfully,

Ndamanywa Kalisiti.

## APPENDIX 2

### Questionnaire for Ampath community health workers and primary school class teachers.

#### SECTION A

This questionnaire is administered to investigate the influencing of ampath program on participation of pupils with HIV in primary schools. Please answer the questions freely. The information you provide will be treated with utmost confidentiality and will only be used for research purposes by the researcher himself.

#### Demographic information

1. What is your gender?

Male [ ] Female [ ]

a) What is your profession (i) community health worker [ ] (ii) primary school teacher [ ]

2. How long have you been a community health worker or a primary school teacher?

Under 5 years [ ] Above 5 years [ ]

3. kindly indicate which cluster you work in?(A) Poineer [ ] (B) kasperet [ ] (C) Chuiyat [ ] (D) Kesses [ ]

#### SECTION B:

Influence of *Antiretroviral therapy on participation of pupils with HIV in primary schools*. Please indicate the extent to which you either YES or NO with each of the statements by selecting one category that mostly corresponds to your desired response

Task	YES	NO
1.Ampath provides primary school pupils with HIV, with ARVS free		
2.Does ARVs help in reducing HIV symptoms among school pupils with		

HIV that can participate in school		
3. ARVs increases hope o pupils with HIV to attend school		
4. primary school pupils with HIV symptoms do not participate in school		
5. pupils with HIV in primary schools and taking ARVS have stigma		
6. primary school pupils with HIV stigma do not participate in school		
7. primary school pupils taking ARVS do not have stigma		
8. Ampath charges for ARVS charge to primary school pupils with HIV		
9. Free ARVs in ampam enables parents and guardians to support their children in school		
10. the cost of ARVS in Ampam clinic reduce fees of pupil with HIV by spending it on by ARVS		

## PART 2:

Nutritional support on participation of pupils with HIV in primary schools

Please indicate the extent to which you either YES or NO with each of the statements by selecting one category that mostly corresponds to your desired response

Task	YES	NO
1. Ampam provide food and nutritional support to primary school pupils infected by HIV		
2. pupils with HIV and receiving food support from ampam participates in school		
3. pupils receiveing food from ampam are cogonitively developed.		
4. pupils with HIV who receive food from Ampam are physically strong		
5. primary school pupils with HIV who receive food from ampam have improved performance		
6. pupils receiving food from ampam stays in school in school		
7. primary school pupils with HIV and receiving food from Ampam are very healthy		
8. primary pupils with HIV receiving food from Ampam are bright		

9. primary school pupils who receive food from ampath are participating in school always		
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**PART 3:**

Education sponsorship on participation of pupils with HIV in primary schools

Please indicate the extent to which you either YES or NO with each of the statements by selecting one category that mostly corresponds to your desired response

Task	YES	NO
1. Ampath pays school fees to all primary school pupils with HIV attending Ampath clinic		
2. primary school pupils with HIV receiving school fees from ampath participate in school regularly		
3. primary school pupils with HIV receiving school from ampath performs well in school		
4. Ampath provides school materials to primary school pupils with HIV		
5. primary school pupils receiving school materials from Ampath participate in school throughout		
6. primary school pupils receiving school materials from Ampath performs well in school		
7. Ampath provides school uniform to primary school pupils with HIV attending Ampath clinic		
8. primary school pupils with HIV receiving uniforms from Ampath attend school regularly		
9. primary school pupils receiving school uniforms from Ampath performs well in school		

**PART 4:**

Psychosocial support on participation of pupils with HIV in primary schools

Please indicate the extent to which you either YES or NO with each of the statements by selecting one category that mostly corresponds to your desired response

Task	YES	NO
1. Ampath provides psychosocial support to primary school pupils with HIV		
2. primary school pupils fail to participate in school due to spending time in psychosocial support		
3. primary school pupils who receive psychosocial support from Ampath participate in school regularly.		

4. primary school pupils with HIV receiving physical support like field tours and games from Ampath do not participate in school		
5. primary school pupils with HIV who receive counseling services performs well in school		
6. Ampath helps primary school pupils to grow up very strong and participate in school		
7. Ampath psychosocial services helps HIV infected pupils to find meaning in life		
8. Ampath psychosocial service helps primary school pupils to have hope in future therefore they participate in school		
9. Ampath psychosocial service enhance self esteem and hope in primary school pupils with HIV and school participation		



**APPENDIX 3**

**INTERVIEW SCHEDULE FOR SOCIAL WORKERS AND PRIMARY SCHOOL HEAD TEACHERS.**

- 1. How is Ampath program facilitate participation of pupil with HIV in primary schools?  
(please explain)-----  
-----
  
- 2. On your own assessment how do ampath program help to improve participation of pupils with HIV in primary schools?-----  
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- 3. What is the contribution of ARVS on pupils with HIV in improving their school participation-----  
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- 4. What is the influence of nutrition support in improving the participation of pupils with HIV in primary schools?-----  
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- 5. What is the role of education sponsorship in improving participation of of pupils with HIV in primary schools?-----  
-----  
-----
  
- 6. Are psychosocial support helpful to pupils with HIV in participating in schools? -----  
-----  
-----  
-----
  
- 7. Do you think any adjustments should be done on intergration of Ampath program on participation of pupil with HIV in primary schools?-----  
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**Thank You.**

## **APPENDIX 4**

### Research Permit