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HIV/AIDS EDUCATION IN REGULAR AND SPECIAL  
(DEAF) SECONDARY SCHOOLS IN GHANA

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## ABSTRACT

This study investigated HIV/AIDS education in two secondary schools in Ghana comparing students' knowledge, attitude and behaviour. Furthermore, this study investigated students most trusted source of HIV/AIDS knowledge, how students see the disease against other diseases and how HIV education is grounded in the schools curricular. In all, 283 students were involved in the survey. Their ages were between 12 and 25.

The findings established that student's knowledge on how to avoid the disease, mode of transmission, and prevention were very high. However, it was unearthed that female students fear for the disease was higher than their male counterparts and this have motivated them to know their status. It was also realised that students from the two schools involved in the surveys attitude toward people infected and affected by the disease were positive. However, student's attitude toward condom use was negative.

Moreover, respondents reported their dissatisfaction toward HIV education that go on in their respective schools. They added that education on the disease have had little impact on their behaviour. However, their trust for their teachers, school as well as the media for HIV/AIDS knowledge was very high. In contrast, students trust for their parents and religious leaders on HIV knowledge was very low.

These have triggered the conception of total restructuring of the curricular to scale up an intervention that would target specific behaviour change. Parents and religious leaders should as well be integrated into the education of the disease in order to help bring the needed behaviour transformation on young people.

**Key words:** HIV/AIDS, knowledge, altitude, curricular, secondary school, respondents and people living with the disease.

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## CONTENT

LIST OF TABLES .....	VI
LIST OF FIGURES .....	VI
ACRONYMES AND ABBREVIATIONS .....	VII
<b>1 INTRODUCTION .....</b>	<b>1</b>
1.1 HIV/AIDS in Ghana .....	3
1.2 Government Policy on HIV/AIDS in Ghana.....	5
1.3 Education, HIV/AIDS and Disability.....	6
1.4 Rationale and Objectives of the Study .....	7
<b>2 HIV/AIDS IN THE SOCIAL SETTING.....</b>	<b>9</b>
2.1 Education and HIV/AIDS Prevention .....	9
2.2 HIV/AIDS Stigma and Discrimination .....	14
2.3 Sex Education and Disability .....	17
2.4 HIV/AIDS Knowledge and Behaviour Change.....	19
2.5 Stigmatisation and Social Exclusion .....	22
2.6 Ghana Government and HIV/AIDS prevention .....	24
<b>3 RESEARCH QUESTIONS.....</b>	<b>26</b>
<b>4 METHODOLOGY .....</b>	<b>27</b>
4.1 Sample.....	30
4.2 Instrument.....	33
4.3 Reliability and Validity.....	<b>Error! Bookmark not defined.</b>
<b>5 RESULTS.....</b>	<b>38</b>
5.1 Knowledge of Respondents on HIV/AIDS.....	38
5.1.1 General knowledge .....	38
5.1.2 Knowledge on how to avoid HIV .....	39
5.1.3 The most trusted source of HIV/AIDS knowledge of students .....	40
5.2 Attitudes toward HIV .....	41

5.2.1	Attitude toward PLHIV .....	42
5.2.2	Reported sexual attitude of respondents .....	43
5.2.3	How dangerous respondents consider some diseases?.....	44
5.3	School and HIV education.....	45
5.4	Comparing respondents by knowledge and attitude.....	46
<b>6</b>	<b>DISCUSSION .....</b>	<b>Error! Bookmark not defined.</b>
6.1	Summary of the results .....	51
6.2	HIV/AIDS education and stigmatisation.....	52
6.3	The implications of the study .....	54
6.4	Limitations and Recommendations for future research.....	56
	<b>REFERENCES .....</b>	<b>Error! Bookmark not defined.</b>
	<b>APPENDICES.....</b>	<b>70</b>
	Appendix I: A letter to schools seeking their permission.....	70
	Appendix II: Questionnaire .....	71

## LIST OF TABLES

TABLE 1: Socio demographic features of respondents.....	<b>Error! Bookmark not defined.</b>
TABLE 2: Trusted source of HIV/AIDS knowledge by respondents .....	41
TABLE 3: Sexual Attitude of Respondents .....	44
TABLE 4: students' rating of some diseases .....	45
TABLE 5: The school and HIV/AIDS.....	46

## LIST OF FIGURES

FIGURE 1: Age of students .....	33
FIGURE 2: Students general knowledge on HIV/AIDS .....	39
FIGURE 3: Knowledge on how to avoid HIV/AIDS .....	40
FIGURE 4: students' attitude toward people living with HIV/AIDS .....	43

## ABBREVIATION AND ACRONYMS

AIDS	Acquired Immunodeficiency syndrome
ART	Anti Retroviral Therapy
BBC	Behaviour change communications
CBO	Community Based Organisation
CRDD	Curriculum Research Development Division
GAC	Ghana AIDS Communications
GCB	Global Campaign for Education
GES	Ghana Education Service
GNA	Ghana News Agency
HIV	Human Immunodeficiency Virus
MDG	Millennium Development Goals
MHDCU	Ministry of Health Disease Control Unit
MOE	Ministry of Education
MOH	Ministry of Health
NACA	National Advisory Commission on AIDS
NACP	National AIDS Control Programme
NGO	Non Governmental Organisations
NPC	National Planning Commission
NSF	National Strategic Framework

P.E	Pear Education
PEP	Post Exposure Prophylaxis
PLWD	People Living With Disability
POP/FLE	Population and Family Life Education
PTA	Parent Teachers Association
SMC	School Management Committee
SHEP	School Health Education Programme
SSA	Sub-Saharan Africa
STI	Sexually Transmitted Disease
TAM:	Teacher Alert Model
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programmes
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
USAID	United state agency for International Development
VCT	Voluntary Testing and Counselling
WHO	World Health Organisation





# 1 INTRODUCTION

Since 1980s, no disease has ever threatened the world than Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). The disease has been noticed as one of the biggest epidemic in the history of the world. Since the discovery of the disease (HIV/AIDS), about 65 million people is estimated to have been infected with the disease and about 25million is believed to have died of it (UNAIDS 2006). Perhaps, it is the most infectious and stigmatised disease in the world's modern history (Sontag 1991)

According to UNAIDS/WHO (2011) report, nearly 7000 people become infected each day with HIV and 5500 people die from AIDS each day. The report continues that an estimated 33.3 million people were recorded to be infected with the disease, annual number of new infection stood at 2.6 million in 2009 and total death in that same year was 1.8 million. The HIV/AIDS epidemic is being recognised to be one of the most deadly in the world threatening the foundation of the world thereby causing global retardation to the progress of nations (Piot, Bartos, Ghys, Walker & Schwartländer 2001). With its threat on the youth and young adults who drive the nations' economic growth, it erases subsequent generation to ensure continuity of human race. In fact, the disease is unveiling hard-won development of success and it is having crippling effects on the future prospects of nations (UNESCO 2006).

HIV/AIDS continue to be a major global health priority. Despite the current progress achieved in the prevention of new cases and in lowering its related deaths, the number of people living with the disease continues to increase. AIDS related illnesses remains one of the leading cause of death in the world and is projected to continue as significant global cause of premature mortality in the coming decade (WHO 2007). The report continues that even though it is now not a syndrome, global solidarity in AIDS responds will remain a necessity.

Notwithstanding the heavy investment on the prevention of HIV/AIDS related issues, it still continues to be the main cause of adult mortality in Africa (WHO 2004). Sub-Saharan Africa (SSA) remains the most heavily infected region in the World. In

2008, African continent accounted for 67% of all HIV infections globally, 68% of new infections among adults, and 91% of new cases among children in the world. The region in all accounted for 72% of all AIDS related deaths in 2008. In that same year, there were an estimated 1.9 million new infections in Africa. The disease is having devastation effects on households, communities, businesses, public services and national economies (UNAIDS 2009).

This situation gives a demean future for Africa since the people heavily infected are the youth who are the window of hope and the productive labour force which should be leading the socio-economic development of its emerging states (Piot et al 2001). In recent years, the correlation between HIV/AIDS and the achievement of Millennium Development Goals (MDG) has been established. It is a catastrophe militating against the achievement of these goals even though one of the goals seeks to address it.

Perhaps, no disease in the history of the world have ever received financial, economic and social support like HIV/AIDS (UNAIDS 2008, 13). The adverse effect of the disease on the individual, communities and nations erodes the prospects of sustainable development which the world is seeking especially for Africa. In fact, the threat of this pandemic scares the world in achieving the needed development it hopes to attain in the coming decade.

Furthermore, the relationship between HIV/AIDS and income has been ascertained (Piot, Greener & Russel 2007). They established that in the worse affected areas, incomes of the infected and affected diminish as a result of care and support exercised on deceased of the affected. According to research conducted by Mishra, Bignam, Greener, Vaesse, Hong, Ghys, Boerma, Van, Khans, & Rutstein (2007), HIV/AIDS infection among women from the higher income families is higher than their counterparts from the low income families. This situation threatens the aims of reducing poverty by 2015 as enshrined in the MDGs.

According to Avert (2010), HIV/AIDS related deaths in the world reduced from 2.2 million in 2005 to 2.0 in 2007, it further reduced to 1.8 million in 2009. However, new infection increased by 2.5 times higher than the number of people being put on the Anti Retroviral Therapy, (ART). The power of HIV in eroding the success

nations have achieved cannot be underestimated; it does not respect race, colour, or socio-economic position of a person. The only remedy left for nations is to scale-up their commitment to prevention efforts. This is necessary for the achievement of the MDGs by 2015 and to save mankind from further dangers to be posed by the disease.

## **1.1 HIV/AIDS in Ghana**

The Ghana's population stands at 23.4 million. With this, 1.9% of the population is estimated to be living with HIV/AIDS virus (UNAIDS Ghana 2010). The prevalence rate of the disease in Ghana varies according to gender, geographic area, age, sexual behaviour and to some degree, rural-urban residence. According to the report, prevalence among urban dwellers is higher than their rural counterparts. It continues that the rate of infection among women and girls is at 58% outnumbering their male counterparts. HIV infections among young people with ages 15-24 years were 2.1% in 2009.

Regionally, the prevalence rate differs, the northern Ghana has 1.1%, and Eastern region has 4.2%. Furthermore, cities of Kumasi and Accra have an infection of more than 3% while Agomenya in the Eastern region has over 8% even though the national prevalence rate is estimated at 1.9% (Ghana AIDS Commission 2009). Statistically, 236,151 people are living with AIDS related diseases and children are estimated at 20,808 while 22,541 are new infections (UNAIDS Ghana 2010).

The statistics given above are based on ministry of Health sentinel survey where pregnant women are involved. However, the figures given above do not reflect the true state of the incidence of HIV/AIDS in view of the fact that majority of the population, over 60% live in the rural areas. These people rely mostly on traditional health practices (using herbs to heal) whenever they fall ill/sick. These practitioners do not take records let alone simple test to identify the kind of disease affecting them. It is therefore impossible to know the actual number of people who are living with HIV virus since there are many unreported cases in these rural areas.

Sentinel surveillance implemented by National AIDS Control Programme (NACP) for pregnant women between the ages of 15-49 years shows an uneven trend of the infection within every year. The prevalence rate seems to have stabilised over the years. The prevalence rate rose from 3.2% in 2002 to 3.6 in 2003, it declined in 2004 to 3.1% and 2.7% in 2005. However, it rose to 3.2% in 2006 and reduced to 2.9% in 2007. It further reduced to 2.2% in 2008. The lowest ever recorded rate of AIDS in Ghana was recorded in 2008, where the national prevalence rate was 2.2% but the national estimates and projections for HIV in 2009 was 1.9%,. Furthermore, the prevalence rate among the ages 15-24 years rose from 1.9% in 2008 to 2.1% in 2009 (UNAIDS Ghana 2010). The report continues however that in 2009, the prevalence rate among commercial sex workers declined from 34% in 2008 to 25.1% in 2009. According to the study, this prevalence rate is as a result of heterosexual sex activity which accounted for 30.2% while casual heterosexual sex accounted for 15.5%.

This success in the reduction of the disease nationally can be explained by the fact that Anti Retroviral Therapy (ART) has been made affordable and at times, it is given free of charge. This has made it possible for 75% of the people living with the HIV Virus to have access to ART. Also, the availability of Post Exposure Prophylaxis (PEP) given to victims of sexually abused persons to prevent all forms of sexually Transmitted Disease (STI) including HIV has accounted for this success.

Although, there has been a reduction in the prevalence rate, new infections has been on the increase among 15-24 age group which involve all student from the basic school to the university level. The vulnerable in the society, girls and women as well as the disabled persons are the most affected people, (Ministry of Health Ghana 2008).

According to UNAIDS/WHO (2007), HIV/AIDS has affected the most productive labour force (15-49) which include all the student at every level of a country's educational level and those who are active in the labour market. The impact of the Virus on all sectors of the economy is immense. It continues to tear every fabric of the Ghanaian society as it tears apart individual families because of the burden it bestows on the individuals and the family at large. It cast all family members to bear the blunt of care and support. Furthermore, institutions and businesses suffer greatly

when the productive sector of the economy (human resource) is lost to HIV/AIDS and its related illness.

## **1.2 Government Policy on HIV/AIDS in Ghana**

Ghana was among the first nations in Africa that took pragmatic measures to halt the spread of the disease looking at the danger posed by it in all sectors of the economy. In 1985, the government established National Advisory Commission on AIDS (NACA) to advise the government on the issues of the disease. After the first HIV/AIDS was recorded in 1986, the government established National AIDS Control Programme (NACP) in 1987 under the Ministry of Health Disease Control Unit (MHDCU) to seek to the issues of the disease. The government charged NACP with the responsibility of reducing the rate of infection and to mitigate the impact of the disease on human suffering (Anarfi & Awusabo-Asare 1999). Furthermore, in order to reduce the infection rate from the grassroots, the Ministry of Education (MOE) was mandated with the responsibility for the supervision and coordination of all pre-professional educational activities and programmes. The ministry of education was mandated to provide relevant HIV/AIDS education to all school going individuals (Chetty 2003). Also in ensuring community participation, a number of Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs) in partnership with donors have been working to bring HIV/AIDS control and prevention to the people.

Another intervention was the adoption of multi-sectoral approach to the fight against the epidemic. The Ghana AIDS Commission (GAC), a super-ministerial and multi-sectoral body with the president of republic of Ghana as chairman was established by Act 613 of parliament in 2001 to direct and coordinate all programmes by all stakeholders in the fight against the disease (NACP 2000). The commission is the highest policy-making body on the disease in Ghana. Their mission is to coordinate all activities of the various stakeholders in the fight against HIV/AIDS in Ghana. Since the inception of Ghana AIDS Commission, national HIV/AIDS and STIs policies have been adopted. There has been two main National Strategy Frameworks

put on the table, (NSF 1 2001-2005) and (NSF2 2006-2010) for tackling HIV/AIDS in Ghana. The second framework seeks to strengthen the weaknesses of the first framework. However, the second framework also seeks to rely on solid and behavioural science research. It also seek to work on areas of advocacy, policy, enabling environment, coordination, management of decentralised response, mitigating the social, cultural, legal and economic impact, prevention and behavioural change communication (BCC), treatment care, research, surveillance, support as well as monitoring and evaluation (GAC 2009).

### **1.3 Education, HIV/AIDS and Disability**

In spite of the various interventions by the government of Ghana, the prevalence rate among the youth aged 15-24 years are still very high which makes all school going age people to remain the highest risk group. The effect of the disease among people with disability becomes more gravious as they stand for double; stigma and discrimination of HIV/AIDS and Disability. This situation diminishes the desire for these people to go to school. This makes the bedrock that flow water to the main stream (nations) to grow to be taunted as a result of the disease. The effect of the disease on education is enormous. Educationally, about 95% of positive educational staffs affirmed that they find it very difficult with punctuality in school and the ability to teach when infected or affected by the disease (Kelly 2000). One major devastation effect of the disease is lack of proper education to groom the younger generation signalling doom for nation states. In fact, HIV/AIDS pandemic is putting all nations on a timing bomb. Education is the best intervention that offers important measure of protection against HIV/AIDS, simply doing more of what it is doing already and doing it better is an assurance (Kelly 2006 b). In other words, good quality education should be made accessible and equitable to all. Indeed, Global Campaign for Education (GCE) maintains that universal education has the power to prevent 700,000 new HIV infections each year (GCE 2004).

The effects of HIV/AIDS in the socio-economic and the achievement of MDGs are quite disturbing. The disease has stretched its tentacles mostly on the vulnerable

groups especially disabled, children and women. It is therefore surprising that people with disability, the greatest vulnerable group have been overlooked with regards to HIV/AIDS (Groce 2004). The World Bank estimates that 10-12% of the world population are reported to be disabled and majority of people with disability lives in the developing world (World Bank 2009). However, in spite of the numerous researches that has been done on the issues of HIV/AIDS, little is known about HIV/AIDS and its association with people with disability, and this triggered research to be done in the area (Groce 2004).

In Ghana, disability bill was passed in 2005. One of the provisions was to ensure free, general and specialist medical care. The bill did not emphasise the need for sex education for all especially people living with disability (PLWD).

#### **1.4 Rationale and Objectives of the Study**

The desire to do this study is as a result of my encounter with both people with disability and people without any disability during my period as a teacher in the secondary, junior and basic schools in Ghana. I realised that usually the disabled students are discriminated against by both their peers and some of the teachers as well. Children who were perceived to be infected with or affected by HIV/AIDS were also discriminated and stigmatised. Furthermore, I observed that these people find it very difficult to cope with classroom activities because usually poverty has rendered them powerless and even to get earnings meet a day was a problem. Also, upon reviewing literature, it came to light that little is known about people with disability and HIV/AIDS particularly in Africa (Groce 2004).

The youth are the target of this study since they are the life wire through which every nation strives and their well functionality ensures development through healthy and increased life expectancy (UNAIDS 2009).

The main objective of the study is to find out the effects of HIV/AIDS education on the youth especially the mainstream student and students with communication challenges (deaf) and the influence of the education on their behaviour, attitude and



knowledge. The study also assessed the knowledge level, attitude and behaviour of students and compares them. It again examined the most trusted source of HIV/AIDS knowledge and how dangerous they (the students) consider various forms of diseases. Furthermore, how the education on the disease is grounded in their curricular was assessed.

## **2 HIV/AIDS IN THE SOCIAL SETTING**

This section discusses the theories that support the study. It also emphasise on the related research that has been done in the field of the study. This study concentrates much on education and HIV/AIDS prevention, HIV/AIDS stigma and discrimination, sex education and disability, Knowledge and behaviour change, social construction and Stigmatisation as well as Ghana government and HIV/AIDS prevention.

### **2.1 Education and HIV/AIDS Prevention**

Anyone can become infected with HIV and so promoting widespread awareness of the disease through comprehensive basic education is vital in preventing all forms of transmission (UNAIDS 2009). The report continues that comprehensive sex education for young people is an essential part of HIV prevention. In another development, Kelly (2006b, 1) in analyzing the importance of education in the fight against this global canker, he reiterated that even in the absence of HIV specific intervention in education, it offers an important protection against the epidemic, in order words, access to quality and equitable education has the power of preventing HIV/AIDS.

The Global Campaign for Education (GCE) anchors the need for all school going age to be in schools, that Universal Primary Education would prevent 700,000 new HIV infections each year (GCE 2004). This means that quality education can free such much people from getting this dangerous disease thereby reducing the world prevalence rate. In another development it is evidenced that Education that stresses on the empowerment within save and productive environment has the ability to create support within the society. Also, it has the power to ensure sustained impact on reducing the vulnerability and risky behaviours. This is because, it makes educads (those who graduate from school) to become economic productive, independent and secured in knowledge and behaviour (Bankole, Ahmed, Konyani, Neema &

Ouedraogo 2007; Hogan 2005; Guiella & Madise 2007; Kelly 2000). In another development, empirical evidence has established that life skills and HIV education intervention within a short time have found to increase knowledge, develop skills and positive attitude required to change risky behaviours among sexually active people (Bankole et al 2007; Gallant & Maticka-Tyndale 2004; Kirby, Obasi & Laris 2006). In analyzing the importance of formal education and its impact on the fight against HIV and AIDS, it has been asserted that education reduces risky behaviours such as drug use, early sexual encounter and treatment of Sexually Transmitted Diseases (UNAIDS/IATT 2008, 23). The report continues that information about the epidemic is very necessary but knowledge alone is not sufficient tool to protect young people from acquiring the disease. They added that the best way to acquire knowledge that last longer and have influence and to ensure greater responsibility for their lives, reduce unhealthy behaviour and make up life chances that would prevent the spread of the disease is education.

Furthermore, World Bank (2002) report also stress that access to good quality education for all ensures that countries can avoid the rising cost of health care, social and economic stress associated with HIV prevalence and AIDS related cases. In scaling up the fight against HIV, the role of education cannot be over emphasised, education that puts the people at the centre have proven to have the ability of protection against new infection. This means that education have protective impact, it can direct children and young adults to take better decisions that affects their life, ensure behavioural change and make them economic resourceful. Moreover, tuition that focuses on HIV/AIDS prevention closes the gap in knowledge. This is because, it has been shown that young adults and children in the disease prone areas are ignorant or have misconception about the disease (UNAIDS 2000).

The correlation between education and the rate of HIV infection is negative, the higher the education the lower the rate of infection especially among the ages of 15-24 (Kelly 2000, Vandemoortele and Delamonica 2000). In Zambia for example, research has indicated, that higher education lowers the rate of infection among the ages 15-19 years of boys and girls (Kelly 2000).

In order to reduce the social and economic vulnerability that exposes the underprivileged in society, education is the most powerful tool. Girls education has the power to slow down the spread of the epidemic, reduce poverty, ensure gender equality, empowerment and human right (World Bank 2002).

Education is one of our key defences against the spread and the impact of HIV/AIDS in countries with high epidemics. Young people with higher education are more likely to protect themselves during sexual encounter and are less likely to engage in casual sex than their peers with little or no education. Moreover, only by managing the impact of HIV/AIDS on children, young people and education system itself, can education realise its potential to decrease vulnerability to HIV and the risk of further infection (UNICEF 2009.)

In the attempt of recognizing the effect of HIV/AIDS in the Universities in South African Tertiary institutions, Kelly (2000) states that the vice chancellors in the South African Universities regard HIV/AIDS as a threat to higher education. However, they maintained that tertiary institutions by their nature have the power to provide beneficial information and services to the society but are not having the power to do so because they have insufficient incentive to do so. This also confirms the role of education toward halting the spread of the disease.

Furthermore, it is undisputable fact that integrating HIV/AIDS education in the curricula of educational institutions has the ability to reach a wider populace at the lowest cost. In fact, as tertiary institutions stands for centre for training and capacity building, they have the ability to develop programmes that can help reverse the threat posed by the disease in the world. This makes education key in preventing the spread of the disease. According to Anaafi & Varga (1999), the boarding school system in Africa has the ability to establish peer- pressure and conditions for networking. The authors continue that this offers an opportunity for reaching out more people within the shortest possible time with programmes and services that can help in the fight against the disease. Also, this will make establishment of peer education easier and possible. Moreover, secondary schools have in their custody people who are more vulnerable to HIV infection due to their age and socio-spatial attributes.

In the view of Kelly (2000), even though there is a negative correlation between HIV/AIDS and Education, it further provides hope that makes individuals and societies aware of the situation. Also, UNAIDS/IATT maintains that Good quality HIV/AIDS education programmes create knowledge and skills that sustains behaviour which shield people from acquiring the deadly disease. The report continues that this education has the ability to promote the use of condom, limit the number of sexual partners, delay first sexual encounter and address the risk of alcohol and drug use (UNAIDS/IATT 2008, 23).

In identifying the role of formal education in curbing the global canker Kelly (2006b) maintains that educational policies, procedures and regulations should be reformulated to ensure that all aspects of the disease are captured well. In a classroom situation, the impact of the disease is seen with down-sizing the class population. In an area with high prevalence rate, AIDS and its related deaths are high among adult reproductive age. As mortality rate increases among children infected with the disease, there is anticipation that class size would decrease than it would have been without AIDS. For example, it is anticipated that by the end of 2010, if the current prevalence rate continues, the primary enrolment in the Zimbabwe's education sector will reduce by 24.1%, that of Zambia in the same year will also decrease by 20.4%, Kenya by 13.8% and Uganda by 12.2%, (ABT Associates 2001, 4)

In South Africa the epicentre of the disease, the story is not different, the number of enrolment is expected to decline if orphans and other vulnerable children do not enrol, delay in enrolment, or even the little in the schools will also quit school in large numbers. Generally, orphans and those infected and affected with the disease are likely to be redrawn from schooling at all levels (ABT Associates 2001). In addition, it has been established that children infected and affected with the disease often perform poorly at school and this has influenced their dropout rate as there has been unacceptable high incidence of this in Botswana (Kelly 2000; ABT Associates, 2001).

The effect of HIV/AIDS on education is profound, it makes children infected and affected with the disease being at physical disadvantage for nutritional and economic

reasons. Their attendance and performance decline and may suffer from HIV-related discrimination. Their attendance at school becomes intermittent, and is surrounded by trauma and may suffer in the course of learning. In a state where teachers also suffers in the same way and cannot support the needs of these affected children in distress, decline in motivation and encouragement, morale and performance on both sides becomes inevitable (Kelly 2000).

The impact of the disease on the supply of teaching service through the deaths and absenteeism of teachers cannot be down played. Already, the supply of teachers in African countries is less than the demand for it and AIDS is worsening the situation. For example in 1996, 2.2% of all teachers in Zambia died out of AIDS which is more than the teachers the colleges produced that same year (Coombe 2003)

According to Kelly (2000), the high prevalence of the disease among teachers is as a result of their mobility, affluence, status and most often the sexual 'bonuses' they enjoy in their communities and this is leaving negative impact on their productivity . This is because there has been an increase in AIDS related sickness, care for family members and attendance of funerals. It is estimated that fifty or more children's education are affected as a result of the death of one teacher in Africa. Absenteeism of teachers means that the curriculum instruction is affected as textbooks and manuals are structured within a year. This encourage repetition which increases the class size, reduction of efficiency and puts girls at high risk especially when old boys join the class (Caillods, Kelly & Barbara 2008; Harris & Schubert 2001). Furthermore, the emotional stability of educational practitioners and young people are affected by the disease, traumatising of teachers and students as well as their morale also affect their output especially in areas with high epidemic. In fact, in the face of the disease, illness, death, mourning and dislocation, both teachers and students find it very difficult to concentrate on their work (Kelly 2000). In fact the disease has brought the infected and the affected have high sense of confusion and insecurity. In a situation where children from healthy families are surrounded by deaths and loss, stress is inevitable and may lead to what one educator described as 'inchoate unease' which would govern the state of learning most especially in the heavy infected areas (Harris & Schubert 2001). Even though the effect of the disease may differ from school to school, the underlying factor is that personal and

systematic trauma continues to affect the quality of education and this may also affect the power of education in curbing the incidence of the disease in the world.

## **2.2 HIV/AIDS Stigma and Discrimination**

HIV/AIDS is a life frightening disease and makes people fear of contracting it. The conceptualisation engulfed with this threatening disease have also contributed to the perception that the effects of the disease on others are enamours especially among those who are already stigmatised and discriminated. As a result of this, their attitude towards sex, race, gender or socio-economic status have made sections of the masses to deny the fact that they could be at high risk or infected (UNAIDS 2000).

Stigma is a major observable fact which affects individuals or groups clandestinely and explicitly and it is subjectively experienced in many ways. Persons infected and affected with the disease face social ramification. They face some pattern of prejudice, rejection, alienation, discounting, discrediting and discrimination at all places. These include schools, the wider communities and within social groups (Cogan & Herrek 1998, 1).

In Weinberger (1992) views, health workers attitudes towards the treatment of people living with HIV are engulfed with fears of stigma. During the Global AIDS Stigma session, it was reiterated that health workers should know, feel and act in a way that would not worsen the plight of HIV/AIDS patients but the major issue is the one to prepare them for this HIV/AIDS stigma education. Many health workers have the same knowledge and information the man on the street has; the disease is fatal!

However, these people have not been targeted for any special education programme that is relevant to their situation. Even though they have knowledge and skills, they have not come to terms with fears and anxiety about their own sexuality, mortality and prejudices (Eforum2001).

People Living with HIV and disability are stigmatized and discriminated against by persons who are perceived to be 'normal'. Potgieter & Khan (2005) in their research

in South Africa found that adolescents with disability have misfeeling about their unattractiveness to others making them believe that others' feelings for them are out of pity for their state but not for romantic affection. Their study also found that the adolescents with disability were unhappy because they are rejected by their able-bodied peers. In the research conducted by De Klerk and Ampousah (2003), the women in the study reported that in spite of their own feelings of self-worth, satisfaction and well-being, other people still see them as abnormal and maybe a little stupid.

Groce (2003a, 9) added that women are the most stigmatised and vulnerable and being disabled makes double vulnerability and stigmatisation. She continues that in many situations, persons with disabilities are isolated from taking part in religious, socio-cultural and 'rite of passages' activities. This situation has made young girls with disability to have a limited role to bargain for sex than their able-bodied peer because they have less confidence (Yousafzai & Edwards 2004). According to Cheng and Udry (2002), persons living with disability face stigma and social isolation at school. The authors found that the disabled people are less popular at school than their able peers.

Moreover, persons with disability face stigma and discrimination with respect to sex education. Sexuality for persons with disability has been considered as an area of distress, exclusion and self-doubt for so long that it was sometimes easier not to consider it than to engage with everything from which so many were excluded. Shakespeare (2000, 160), laments that love and sex relates to acceptance on a basic level forcing people to accept things which are life-threatening and give abuse to persons living with disability. HIV/AIDS stigma and discrimination is one of the major challenges that undermine efforts of policy makers to the total eradication of the disease (UNAIDS 2000). Stigmatisation and discrimination affects preventive behaviours like condom use, voluntary testing and counselling (VCT), care giving and perception and treatment of PLHIV by communities, families and partners (Gerbert, Maguire, Bleecker, Coates & McPhee 1991). People who harbour stigma and discrimination have attitudes that do not help in the fighting efforts to curb the pandemic and HIV Positive people are known to be the highest people of this behaviour (Herek & Capitanio 1998)



Stigma from this pandemic leads to silence and denial by people as enshrined in the International AIDS Conference: Breaking the silence (IAC). Many people as a result of stigma and discrimination prefer not to know their status (Cameroon 2000). There are fears, discrimination, loss of job, violence and social ostracism in most cases (Macintyre, Brown & Sosler 2001). The zeal for individuals to know their HIV status is influenced by cultural beliefs of his/her environment. In some situations, individuals who suspect they are HIV-positive may not seek for test and treatment from their community clinics (Muyinda, Seeley, Pickering & Barton 1997).

Patterson (2005) noted that stigma is associated with fear and ignorance, people fear the mysteriousness and untreatable or incurable nature of the disease. According to UNAIDS (2000, 10) report, HIV/AIDS is the most legitimized and metaphoric disease. They conclude that it is death! (Punishment for immoral behaviour), crime!, (in relation to innocent and guilty victims), war!, (where the virus needs to be fought), horror!, (where infected people are demonised and feared) and otherness!, (in which the disease is an affliction of those set apart).

The great misconception associated with the disease aided the ostracism and ridicule in the face of ignorance and misconception about the disease. AIDS Action (2001) established that a lot of people believe that those who have contracted the disease deserves it with the conviction that the disease is contracted as a result of immoral behaviour like homosexuality. In the same way, Ghanaians attitude towards HIV positive people follows the same direction. They credit acquisition of this deadly disease to immoral behaviour and promiscuity. A large number of Ghanaians believe that anyone who contracts the disease becomes dangerous, must be feared and be isolated from others (Clottey-sefa 2001, 4). Most people in Ghana with their outmost belief acknowledge that the disease has no cure and attributes its origin to an offence committed against the spirits, ancestors of the gods thereby fuelling the myth that surrounds it (Anarfi & Awusabo-Asare 1997, 244). Shame being linked with the taboo of origin of the disease and deviant moral judgement are among other factors connected with HIV/AIDS (Piot et al 2001).

According to Babatunde (2009), the people who are HIV/AIDS positive face discrimination at school, work place, families, and hospitals. The author continues

that they are denied of certain privileges at work place or public places. Usually, people living with HIV/AIDS are denied from having advantage of social benefits as others who are not affected by the disease. This situation gives PLHIV a psychological trauma which worsens the effects of the disease (Letamo 2005; Olley 2003; Fredriksson & Kanabus 2005). At times, infected people experience death in the heat of their situation. Margaret marabes an HIV activist claims of seeing an HIV-positive person being buried alive in Papua New Guinea. She lamented and said; *'I saw three people with my naked eye..... when they (HIV-positive) persons got very sick and people could not look after them, they buried them alive* (Agancy France-Pressse 2007).

### **2.3 Sex Education and Disability**

Sex education has been one of the areas that are giving researchers a herculean task in its definition. Usually it is linked with HIV/AIDS education. However, UNESCO (2007, 15) gives an explanation of the concept linked with HIV/AIDS as; a range of risk reduction which seeks to emphasise on abstinence until marriage. It therefore stressed on vulnerability reduction through change in the school and the community as a whole.

Disability is defined as loss or limitation of opportunity that hinders people who have a particular impairment from taking part in a particular life of a given society normally as a normal social life on equal state as others dues to their impairments (Finkelstein & French 1993, 28). It is estimated that one hundred and eighty million (180 million) of youth between the ages of 10-24 of the world population lives with a particular form of disability. Eighty percent of the total number lives in developing countries (Groce 2004).

Sex education and sexual health services for persons with disability have been historically approached with no proactiveness (Milligan & Neufeldt 2001). Perhaps the onset of internationalisation and HIV/AIDS has pointed to the need for sex education for all including people with disability (Kempton & Kahn 1991). The proneness of people with disability to HIV/AIDS infection and transmission is as a

result of insufficient sex education and knowledge about safe sex practices, sexual abuse, rape, substance abuse, access to health care and isolation (Groce 2004).

The myth of asexuality in persons living with disability is considered unnecessary in rehabilitation services and the discussion of such issues should be ignored (Milligan & Neufeldt 2001). The authors continue that sexual issues face resistance on the part of the staff who are working with disabled people. In addition, Heyman & Huckle (1995) are of the opinion that sex education with disabled person is dangerous because it brings expression. The authors continue to explain that sexuality leads to vulnerability of unplanned pregnancy and sexual abuse, that is, allowing sex education will ultimately lead to uninhibited sexuality and people with learning disabilities may not understand social Moore which may lead to inappropriate sexual activity. They also pointed out that sex education may influence inappropriate sexual behaviour as well as cognitive ability.

Furthermore, the problem of sex education is lack of specific training about sexuality and disability. Although some of the teachers and carers agree about the importance of sexuality education, many are with the view that they are inadequate trained (Chritain, Stinson & Dotson 2001; Howard-Barr, Rienzo, pigs & James 2005; Parritt & O'callaphan 2000)

Sexuality education for persons with disability is minimal, (McCabe 1999; Berman, Harris, Enright, Gilpin, Cathers, & Bukovy 1999). McCabe (1999) established that 50% of people living with disability lack sex education. In a related study conducted on Deaf in USA, it came to light that teachers were not having materials that could be used to communicate the message of sexuality education (Getch, Young & Denny 1998). In many instances where students with disability are given the sexuality education, it only increases their knowledge but lacks the power to evaluate its effectiveness. Milligan & Neufeldt (2001) have established that sexuality education such as counselling and testing among disabled women are insignificant or most often, they lack it out right. Munthali, Mvula, & Alli (2004) on their part contended that low level of sexuality education or lack of sexuality education for persons with disability influences their knowledge on safe sex practices and prevention thereby making them more allergic to HIV. Moreover, the knowledge level of disabled

persons concerning sexuality education has been proven to be lower than their counterpart, the non-disabled persons (Yousafzai & Edward 2002). Bat-Chava, Martin & Kosciw (2005) found out in their research that there is low level of sexuality and HIV/AIDS education among the Deaf particularly signs language users. However, the author found that most of the Deaf have participated in HIV/AIDS voluntary testing and counselling. On a related development, Yousafzai & Edwards (2002) found out that persons living with disability lack ability to access HIV/AIDS counselling and testing.

The limitedness in practicing safe method is seen in disability persons as a result of their scanty knowledge on the need to wear condoms during sexual intercourse, (Blanchtt 2000; Cook 2000; Nosek, Howland, Rintala, Young, & Chanpong 2001). Mulindwa (2002) also found in his studies in Uganda that only 24% of men and 10% of women of disability wore condoms during sexual intercourse. Sex education that embodies acquiring knowledge about sexuality and relationships can influence ones behaviour, belief and attitude. Colins, Miller, Toro & Susser (2001, 4) asserts that sex education must be able to focus on teaching the young people to abstain from all forms of sexual encounter until marriage in order to avoid all forms of sexually transmitted diseases including the deadly HIV and unwanted pregnancies. The impact of sex education on behaviour of young people in both developed and developing countries have positive correlation (Rose & Dickinson 2005). This call for sex education for all including persons living with disability.

## **2.4 HIV/AIDS Knowledge and Behaviour Change**

Approximately about 10% of adult population in Sub-Saharan Africa are infected with HIV/AIDS and the primary mode of transmission is heterosexual sex. On accounts of this, behaviour change is one of the best means of preventing further extension of the disease and also understanding the change in behaviour will help in predicting the future for the policy makers. Apparently, most creative writing points to the fact that there is a limited change in the sexual behaviour of an African adult. (Lagarde, Gilles & Catherine 1999; Lindan, Allen, Carael, Nsengumuremyi, Van de

perre, Seru-lira, Tice, Blacks, Coates & Hulley 1991; Bloom Banda, Songolo, Mulendema, Cunningham & Boerma 2000; Ng'weshemi, Boerma, Pool, Barongo, Senkoro, Maswe, Isingo, Schapink, Nnko & Borgdo 1996; William, Taljaard, Campbell, Gouws, Ndhlovu, Van dam Crael & Auvert 2003; Thornton 2008; Caldwell, Orubuloyeb & Pat 1999).

Sex and sexuality education among person with disability is limited or non-existence, this has influenced their knowledge about the best means of protection against HIV. Empirical evidence has indicated that knowledge about HIV transmission among disabled persons is low (Munthali, Mvula & Alli 2004) and lower than their counterparts who are non-disabled persons (Yousafzai, Dlamini, Groce & Wirz 2004). According to Bat-Chava, Martin & Kosciw (2005), knowledge about HIV/AIDS among the Deaf in sign language users is very low. In this study conducted by Bat-chava and colleagues, they also observed that few Deaf persons who participated in the study knew their HIV status. On the contrary, Doyle (1995) earlier on in his study found that there is high level of HIV/AIDS knowledge among the Deaf who participated in his study. However, the respondents within the two studies were not the same, while Doyle's participants were college students, Bat-Chava and friends study involved participants who were diverse and they noted variation in levels of HIV knowledge as a result of their level of education.

The adolescence sexuality has generated a lot of research. It has been shown that there is a gap between HIV/AIDS knowledge, attitude or intention pertaining to sexuality, and the behaviour of the adolescent (Szekeres 2000; Aggleton & Rivers 2001; Gulure 2003). This is compounded by the fact that adolescents' sexual live are difficult to modify or change completely. Their studies acknowledged that even though there have been a lot of interventions design to ensure HIV/AIDS free society, whether these interventions are yielding good results among the youth remains a mirage in its effectiveness. Among such intervention is the use of Behavioural Change Communication (BCC) and Peer Education (PE) model introduced in the various schools. What remains elusive is that while HIV/AIDS awareness among adolescent are very high, behaviour change relative to the disease is limited. It is therefore ironical to notice that awareness is not transformed into behavioural change among the adolescent and young adults in secondary schools.

Originally, lack of behaviour change was attributed to inadequate information dissemination on campaigns. In order to ensure that the adolescent benefit from HIV/AIDS programmes, more scientific approach has been developed. Over time, this explanation has turned to be unfactual. HIV/AIDS prevention which entails behaviour change is very difficult to achieve especially when the social environment is not favourable. Nevertheless, the success of prevention rests much on behavioural change (Cochran & Mays 2004; Osbon 1986).

Behaviour change remains central when it is seen that the spread of the disease is mainly on volitional behaviour of people. Williams & Umera-Udezuru (2002) assert that the little achievements made by health practitioners posted to various African countries to actualize behaviour change fail as a result of inadequate or lack of preparation on the family life and sex education with African context. Usually these people lack understanding and sensitiveness of African culture with respect to education.

In Regan (2001) perspective, dissemination of information about behaviour change remains ineffective if there is fear in the propagators and client. The author maintains that well informed specialist may fail to achieve their aims of positive behaviour change since other factors also motivates behaviour change.

In Africa, about 70-80% of all HIV transmission is through heterosexual intercourse which usually involves the sexually active population particularly, the youth who are in secondary schools (Hayward 1990). As a result of this development, secondary school students normally become the target of numerous HIV/AIDS preventive programmes. With respect to the active sexual drive in these students, preventive programmes are necessary ways of halting the spread of the disease when given an informed knowledge on the spread of the disease with the final aim being the behaviour change programmes.

Behaviour change takes a longer time since it is a slow process. Usually, these programmes do not touch possible traditional practices, life style, the most vulnerable group as well as the way the disease spread. In effect, these do not influence the individual to make behaviour change. Furthermore, it is very difficult

to sustain behaviour change achievement in the face of changes in physical environment that lessens the threat of the disease.

## **2.5 Stigmatisation and Social Exclusion**

Social construction theory posits that reality and truth in the World is constructed in a shared dialogue and language (Burr 1995). He continues that even though realism is created and constructed, self images and understanding are also constructed socially in a shared dialogue. The author further explains, all the objects of our insight including our 'self', our notion of what it means to be a person and our identity are constructed through language, and that it is discourses as coherent systems of representation that produce these things (Burr 1995, 56).

The main role of shared social discourses is to shape our own identity and that of others. For instance, what we know to be a man' and 'woman' are created through attributes and roles assigned to them. This indicates that our shared ideas and discourses of what we know to be the role and characteristics to create the man or woman. Likewise, what education impact on the individual is influenced by the social environment. The power of education that enables the individual to make constructive judgement is influenced by the environment in which the action is coming from.

On the other hand, knowledge on HIV/AIDS and people living with HIV are socially constructed through characteristics created by the disease. Also, what we know and understand to be disabled person or 'normal' person is constructed socially. The social construction model indicates that what we credence to be 'abnormal' or 'normal' is not positioned in the person but by society's construction of what is considered normal' or abnormal'. However, other opinion varies. According to Marks (1999a), society's notion on a particular issue varies, a deaf may be considered to be relentlessly disabled and discriminated against in one social context while in another social context may be accepted and included in the society.

HIV/AIDS has emerged as the most stigmatised disease in the world history which has the power to spoil individuality (Sontag 1991). Socially, the author claims that HIV/AIDS has been associated with sin as an origin. This has deepened the stigma as anybody infected by the disease is tagged as morally unjust. According to UNAIDS (2000), society understands HIV/AIDS as a socially constructed metaphor and has associated it as punishment, crime, death, war and horror.

Susman (1994) asserts that impairment and disability is associated with stigma and discrimination. It has been established that stigmatisation emanates as a results of socially constructed inequality emphasising on what is hoped to be acceptable, excluded, unacceptable and deviant, (Alonzo & Raynold 1995; Gilmore & Somerville 1994). On the accounts of Fairclough (2003), individual's social discourses influence the position in their relationship with others. The author argues that individual's view of others is influenced by inward development within socially constructionist framework.

On the other side, stigmatisation theory which is credited to Goffman (1963) was first defined as a social objectionable acquisition of spoiled identity (in relation to HIV/AIDS in this case) which leads to discrimination and isolation. He further explains stigma as an act of describing or reducing an individual from a whole entity (usually normal person) to a taunted and disgraceful one. Link & Phelan (2001, 2,3) also assert that stigma is associated with labelling, stereotyping, separation, loss of status and discrimination when it occurs in a power situation. Perhaps, giving undesirable attributes such as promiscuous and morally unjust portray stigmatising behaviour for the stigmatised individual. Usually these people are diminished in social standing and are isolated, discredited, classified as inferior and a threat to others within society (Goffman1963). Stigma negatively affects individuals self perception, psychological well-being, social interaction and the prospects of life, thus, individuals who are stigmatised encounters limited personal control and low self-esteem (Miles 1989). Moreover, HIV positive persons face humiliation in the face of their immediate and larger community which deepens their woes.



## 2.6 Ghana Government and HIV/AIDS prevention

Since the first HIV was recorded in Ghana, the government has not relented on the need to stop the spread of the disease. Through an integrated approach, the government through the Ministry of Education and the Ghana Education Service (MOE/GES) have been implementing Population and Family Life Education (POP/FLE) programmes and has integrated HIV/AIDS education in pre-tertiary curriculum. The Curriculum Research Development Division (CRDD) of MOE/GES have written an HIV/AIDS manual to be integrated in all related subjects like English, life skills, cultural studies, social and religious and moral education studies. Also, there has been establishment of a secretariat at the Ministry of Education to co-ordinate HIV/AIDS activities and to seek to the implementation of programmes of organisations working in the educational sector (NPC 2000.)

As a result of limited resources in an effort to curb the spread of the disease in Ghana, a number of challenges occur with respect to coverage, geographical area, coordination and communication of contradictory messages. Usually the **right hand** ends up not being aware of what the **left hand** is doing. In order to prevent this, the ministry of education science and sports (MOESS) in its attempt to halt this has created School Health Education Programme (SHEP) an innovative way of delivering and coordinating education sector HIV/AIDS preventions. Furthermore, the SHEP was created within Ghana Education Service (GES) as government ratification of UN charter on the right of the child in 1990 (GAC 2009).

This unit has trained school health coordinators in the various aspects of school health issues ranging from environmental, sanitation, family life education, as well as food and nutrition. Upon seeing the importance of education as one of the surest means of preventing HIV, this unit promotes education of the disease in order to ensure retention and improvement in enrolment.

Moreover, SHEP has been able to ensure development of school based HIV prevention through what is called Alert Model. The model seeks to ensure sustained and positive behaviour development in order to reduce the spread of HIV among teachers, students and school communities. In order to ensure that school based

health education is broadened, the model strives on three interconnected model; Teacher-led model, child-led model and school community led model. With the teacher-led pillar, the teachers use participatory method to interact with students about HIV/AIDS. Under the child-led pillar, peer educators (lead students) lead activities that seek to promote positive behaviour change and development. Knowing the importance of parents towards any decision on their children, community members receive training through which they can protect themselves and be a good example for the children at home (World Bank 2008.)

There has been building of teacher as school coordinators. In order to ensure that all people who have interest in the welfare of student are involved in the fight against the disease, in-service training are organised for these teachers serving as coordinators; as district SHEP coordinators, school health coordinators, and staff of local partners. Furthermore, HIV/AIDS has been integrated into the school curricula. As a result of this, all teachers are equipped with basic information and knowledge on Peer Education (PE), Monitoring and Evaluation, as well as information on counselling and psychosocial support service in schools. Also, to ensure all hands on desk, non teaching staffs are also given HIV/AIDS education in order to serve as ambassadors.

In order to ensure the successful implementation of Teacher Alert Model, (TAM), teachers are expected to attend at least one refresher course within every two years. Moreover, referral systems have been established where priority is given to Voluntary Testing and Counselling (VCT) and treatment of Sexually Transmitted Illness (STI's) (GAC 2009).

Furthermore, under the child led model, four children from each class are nominated by their peers to serve as Peer Educators (PE). The peer educators are trained on the activities that relates to HIV and other sexually transmitted diseases through the help of the peer education manual. Meanwhile Ghana Education Service (GES) offers national training for core team of trainers of these peer educators regularly.

In addition to the above measures, the linkage between the school and the Parents Teachers Association (PTA)/School Management Committee (SMC) members are emphasised. In this regard, teacher trainers are tasked to train these school

community members at the district level. This training is meant to equip the PTA/SMC representative with the necessary knowledge and skills needed to integrate HIV/AIDS issues to their agenda at meetings. However, in a situation where a member of PTA/SMC has the requisite knowledge, he/she is made to facilitate the training section.

Also, HIV/AIDS has been integrated into the school curriculum at all levels within the carrier subjects like environmental science, life skills, integrated science, and agricultural science. SHEP coordinates all activities of stakeholders on HIV/AIDS related issues to enable education sector response to the disease in all Ghanaian schools. Its structures ensure implementation, collaboration and coordination at all levels of government (World Bank 2008).

### **3. RESEARCH QUESTIONS**

- 1      What do the deaf and mainstream students in the two secondary schools know about HIV/AIDS in Ghana?
2.      What are the attitudes of deaf and mainstream students toward HIV/AIDS and infected people?
- 3      What is the role of the school in HIV/AIDS advocacy?

## 4 METHODOLOGY

The data for my research was collected in January, 2010 at Jamasi School for the Deaf and Nsutaman catholic Senior High School both in the Ashanti region of Ghana. These two secondary schools were selected firstly by their nature. Usually, the disabled people are left behind as a result of their physical make-up when it comes to national programmes/interventions and decision making. I therefore wanted to find out whether there are some intervention programmes for them and as to whether it is beneficial to them or not. Moreover, these two schools involved in the study are separate in communication; one school uses signs to communicate information while the other uses language to put across information. Furthermore, the two schools are geologically apart even though it is close to the researcher. The two schools are separated by a big geological volcanic depression and this makes it impossible for the students to have little or personal interaction between them which could have had effect on their knowledge, behaviour and attitude. In addition, even though the students under study are different in their biological make-up, they are similar with respect to academic features. They are typically a government and district based schools, however, the Jamasi School for the Deaf is the only special secondary school for the Deaf in Ghana. Also, my duties as a teacher at basic and secondary schools in Ghana also influenced my decision to select these schools. Although I was teaching in a normal mainstream school, I was a witness to many things which were done against the physically disabled persons that were in our mist. Usually many decisions were not in their favour with the simple excuse that, they were just a few.

In addition, the multicultural nature of the schools also influenced my decision to select them. Jamasi School for the Deaf is the only specialised Senior secondary school for people with communication challenges in Ghana. As a result, it harbours different people from different behaviour background. On the other hand, Nsutaman catholic senior high school in the Sekyere central district of the Ashanti region also harbours people from different behaviour background. To ensure fairness with respect to gender, all the students were given equal chance of selection.

In order to get the needed authorisation of the schools involved in my study, I sent letters of applications to the authorities of the schools involved and copies of the research plan were attached seeking their permission for the research in their respective schools. I explained the purpose of the research and why I have selected their schools. In accordance with the ethical concerns, in order to attain high participation and also to ensure that the welfare of the respondents are protected physically, socially, psychologically, and privately, permission needs to be sought. This ensures better way of getting the consent of the respondents. Furthermore, permission is sought in order to ensure that the participants understand the purpose of the study in order to cooperate in responding to questions (Creswell 2005, 150.)

In making sure that the confidentiality of the respondents is ascertained, I emphasised it in the opening part of the questionnaire (appendix II). I further repeated it orally before administering the questionnaire.

The resourcefulness of information in a research is very important. To ensure this, I scrutinised secondary data from journals, articles, books, newspapers, reports from multilateral organisations among other things. According to Blaxter, Hughes & Tight (2001), information from secondary source gives fresh and insightfulness into already made data to provide cost-efficient and valuable resources to researchers. These sources gave an extensive insight throughout my research process and provided an opportunity to compare and contrast studies with respect to the statistical information that was needed for the background and foundation to this particular study.

In terms of instrumentation, I employed the use of questionnaire in my data collection. This is because, it offers greater level of anonymity. In addition, it ensures uniformity in statements and makes questions stable, consistent and uniform in measuring a case without any variation. Also, because I wanted to cover as many respondents as possible in a convenient manner, this method deems efficient for my research. In this situation, different areas with respect to HIV/AIDS education were assessed. The questionnaire was structured in such a way that it solicited information from diverse ways on HIV/AIDS education. The opening part solicited data on students' social demographic characteristics. The questions centred on the age,

gender, school, class/form, parent's education and religion. The other sections of the questionnaire emphasised on the knowledge, attitude, behaviour, stigma, danger of some diseases, sources of information on the disease and how HIV education is situated in the schools curricula.

#### **4.1 Sample**

In order to ensure that all units within the targeted population are given equal chances of being selected, I employed simple random sampling method. According to Amedekeh (2002), simple random sampling is used when the population is small and manageable. As a result, in considering the total population of 1652 for Nsutaman Catholic secondary school and 421 for the Jamasi School for the Deaf, this method was best suited. This made randomly selection of the student simple. Furthermore, the two schools involved in my study were similar in characteristic of interest; age and form. The age of the respondents match up with their respective forms and this made analysis and comparison easier. In addition, the two schools follow the same curricula which are the basis for academic pursuit in Ghana. According to Creswell (2005, 145), in order to draw conclusion from the sample drawn, researchers must ensure that their sample size is representative in nature. In choosing the sample population, the age of the students, classes and gender were used as criteria. Although the ages of each class differ, the age range of the students from each form was the same.

According to Gall, Joyce & Walter (2007), for a research to measure what it is suppose to measure, the researcher must begin by defining the population especially when the population is different and large. Even though my population was not very large, it was different in nature. In this case, the researcher needs to select the sample he/she can manage of which I did. In addition, the sample I selected was representative in nature.

Nsutaman catholic secondary school has a total population of 1652, their age range was between 13-24 years. Out of this only 200 students who were basically from form one and two were considered in my research. The forms considered had a total

student's population of 1018 representing 62% of the total population. My sample size represents 19.6% of the total population of forms one and two. On the other hand, Jamasi School for the Deaf has a total population of 412 students. Out of this only 105 students were considered representing 25.5% of the total population. In all, 305 questionnaires were administered, out of this, 283 were valid while 22 were missing. This is because some of the respondents did not answer the questions at all or were not properly completed.

TABLE 1: Socio demographic features of respondents

Variable	Total Pop.	Sample size	Sample	Valid (N)	Valid (%)
<b>School</b>					
Nsutaman Cath. S. H. S.	1652	1018	200	185	92.5
Jamasi sch. For the Deaf	412	412	105	98	93.3
Total	2062	1430	305	283	
<b>Gender</b>					
Male				124	43.8
Female				159	56.2
<b>Religion</b>					
Christians				251	88.7
Muslims				25	8.8
Others				4	1.4
Non				3	1.1
<b>Parents educational level</b>					
Basic				100	36.0
Secondary				74	26.0
Post secondary				30	10.6
Tertiary				74	26.0
No education				5	1.7

Among the gender distribution of the respondents, 2/5 were males and 3/5 were females. Comparing this to the national enrolment statistics at secondary school of 3:2 for females and males respectively, it is somewhat the same UNICEF (2010). However, in the rural areas the reverse of the ratio prevails. Because the research was conducted in the semi-urban area, it followed the national trend. The higher enrolment of girls at secondary schools in the cities and the urban areas might have happened as a result of accepting the importance of female education towards



national development promotion going on in Ghana. Moreover, higher enrolment of female in the urban areas has also come as a result of breaking the statues-quo surrounding female education (assigning female to the kitchen and care taking) as a result of socio-cultural and economic reasons.

Furthermore, in verifying the religious background of respondents, it was evidenced that majority of them were Christians (2/3). Muslims, other religion and non religious respondents accounted for (1/3). The domination of Christianity among the respondents attests to the fact that it is the dominant religion in the southern and the middle part of Ghana while the north is also dominated by Muslims.

The respondents' parents' educational background were ascertained. 1/3 of respondents' parent had completed basic education, 1/4 had completed secondary education and another 1/10 had also completed post secondary education while 1/4 had completed tertiary education and .5/10 have had no formal education. In Ghana, post secondary education are for those who wants to be professional basic school teachers while the tertiary education connotes polytechnics, college of education and the universities. However, some of the universities also train teachers. The statistics above indicates that most of the respondent parents' educational levels were lower which might have come as a result of their state of living (previously rural areas) where the value for education is less. Also, socio-economic reason may be a factor for most parents' inability to further their education. On the other hand, some of respondents' parents were able to complete secondary and tertiary education respectively. This might have come as a result of their parents' good socio-economic standing as well. Furthermore, religious background might have also accounted for this situation. Usually, Muslim initiate their children into trade and that the little education they get is enough than their Christian and non-religious counterparts.

In addition, considering the age distribution of respondents, the typical ages were 16, 17 and 18 years. These arise because most of the sample was drawn from form ones and twos whose typical age ranges from 15-18 years. However, there were few students whose ages were deviation from the normal school age. There were instances where some of the students' ages were above 20years. This might have arisen as a result of the nature of the respondents involved in the sample. Some of the

Ashanti school for the Deaf respondents' age were somewhat a deviation from the normal school age which may have occurred because of their biological make-up. However, some of the ages of the respondents from Nsutaman senior high school were also a deviation from the normal. The deviation might also have come due to family background, health, finance and intellectual ability.

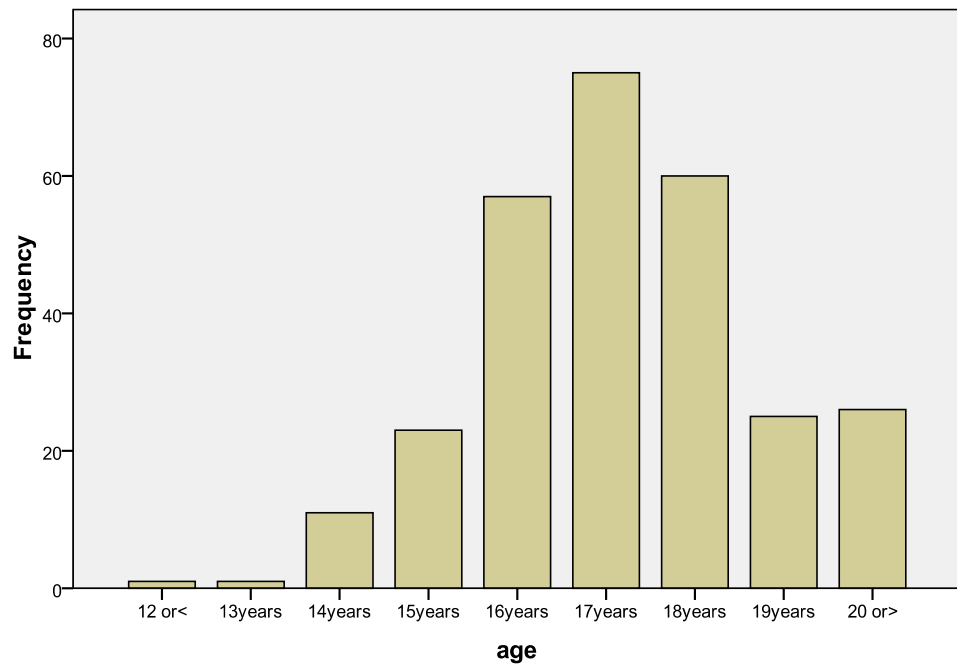


FIGURE 1: Age of students

## 4.2 Instrument

A survey questionnaire was used to collect data. Most of the questions were closed-ended, however, few of the questions were open ended which allowed respondents to elaborate on their previous answer or to express themselves. Questionnaire was advantageous to my study because, they were cost effective, time saving, uniform and reachable. Furthermore, it offers greater assurance of anonymity, (Gall et al,

2007; Amedehe 2002). Most of the questions used were adapted from the international questionnaire for HIV/AIDS studies in schools and from series of studies done in Asia, Canada and Africa particularly Cameroon.

Cohen, Lawrence & Keith (2007, 321-322), maintains that highly structured closed questions are useful in soliciting information from respondents. The authors argue that it is able to generate frequencies from response suitable for statistical interpretation and analysis. Also, it makes comparisons across groups easier. On the contrary, it restricts respondents from adding explanation and qualification to already made remarks thereby limiting respondents. In taking this into consideration, I added some open-ended questions to enable respondents to get the opportunity to express their feelings about certain issues concerning HIV/AIDS, (see appendix II). In order for the respondents to get proper understanding of the questionnaire, their age group were considered.

The questionnaire was divided into sections in order to make it easier for respondents to answer them. The first section solicited information about the socio-demographic issues of the respondents. In finding out more about respondent's knowledge and attitude about HIV/AIDS, forty questions were asked on the mode of transmission, causes, and attitude towards people infected/affected by the disease. Statement (1-14, 32-33) and (66-69) were made to measure respondents' general knowledge on the issue. Statements (15-21) measured respondent's knowledge on how to avoid HIV. In finding out students attitudes toward people infected and affected by the disease, eleven 11 statements were given, (variables 22-31 & 34). Variables (35-40) examined students' sexual behaviour. Responses were measured with two dichotomous yes or no responses. However, statement forty (40) was open ended question to allow respondents to express themselves (see appendix II).

Section 3 comprised statements that made respondents to provide information about their source of HIV knowledge. Respondents were asked to tick the degree of importance upon which the listed source of knowledge were to them. Eleven statements were made to verify this, variables (41-51). Sections four and five consisted of three parts. Eight statements (52-59) were based on how dangerous respondents considered some particular disease. In the same section, another eight

statements, variables (52a-59a) were made for respondents to indicate how they would accept persons with different kind of diseases (see appendix II). There were seven other questions for respondents to evaluate and relate HIV/AIDS education at their school. Two statements were open-ended which were follow-up to two dichotomous (yes or no) statements.

In analysing, statements (2,3,8,9,10,11,12,13,14,18,32,33) were reversed so that they would follow the same pattern as the other variables. However, answers for statements 40, 68 & 69, were categorised into groups and numbers were assigned for them. Two dichotomous answers yes or no were used for statements 40 and 39. In analysing variable 39, agree and strongly agree were made to become yes and disagree and strongly disagree were also made become no. Moreover, variable 40 was analysed by making all the respondents who were able to mention any measure of protection or yes to become yes and those respondents who responded no was made to remained no. The dichotomy answers for variables 35-38 were made to stand as such. On the other hand, statements (69 and 68) were analysed by grouping all the answers into different headings in order to make it responsive to the SPSS version 17. Variables (41-51) were made to face the same direction for easy analysis. It was regrouped into two dichotomous answers so that not at all important and a little important became not important and quite important and very important became important. Statement 52-59 was regrouped into two dichotomous answers for easy analysis. Not at all dangerous and a little dangerous were made to become not dangerous while quite dangerous and very dangerous were made to become dangerous. Statements (52a-59a) were also re-grouped into two dichotomous answers. Best friend, a friend and would not mind were made to become acceptance while not a friend but classmate became rejection (See appendix II).

Respondents completed their questionnaire within 30 minutes with ease. The administration of the questionnaire was done during the respondents 'prep time' (a period where students do their own studies with some teachers' supervision) and was monitored by teachers who were on duty.

### 4.3 Reliability and Validity

In determining the reliability of the data, Cronbach Alpha was used to test the knowledge and attitude of the respondents. In ensuring that all responses are toward the same direction, negative statements were reversed ( 2,3,8,9,10,13,14,25,30), see appendix II. The alpha for the whole sample was .739. In ascertaining the fact about student knowledge (cause, transmission, how to avoid and attitudes towards people infected with HIV), alpha was determined. The cronbach Alpha for knowledge was .691. Specifically, Alpha on knowledge for Jamasi School for the Deaf was .563 while that for Nsutaman Catholic Senior secondary School was .739. This was due to the fact that the deaf students' experiences with PLHIV were limited. Usually, these people were sidelined on issues concerning national policies.

Blaxter Hughes & Tight (2000, 200) maintains that a piece of work is valid when the variables have the capacity to measure the quality the researcher wants to measure. This means that the method, approach and methodology must adhere to what the researcher wants to measure. Moreover, a piece of work's validity is enhanced through piloting and cross-checking of information between different sources and participants. In this study, an instrument that has been used in similar context was adopted. However, the content was restructured to suit the level of respondents. In verifying the validity of the questionnaire, it was pilot-tested in another school with equal attributes like the understudied schools. Fifteen respondents were selected randomly for the pilot testing and their ages ranged from 13-24 years.

The questionnaire was administered during the prep time (a period when the students are allowed to do their own studies with teachers on duty as supervisors) within 30 minutes. In ensuring proper understanding, the content was evaluated. This led to reformulation and restructuring of some of the statements.

The total number of questionnaire administered was three hundred and five (305) and three hundred (300) were returned. However, only 283, (94.3%) were valid for analysis while 17 were rejected. This rejection was caused by improper responses

while some of the respondents also refused to answer it at all. All analysis was performed using SPSS software.

## 5 RESULTS

This section highlights the findings of respondents' knowledge (general knowledge; causes, mode of transmission and mode of prevention, how to avoid the disease and source of HIV/AIDS information), attitude towards PLHIV (sexual behaviour, accepting PLHIV and fear for the disease) and how the disease is grounded in the curricular of the two schools used for the study. Furthermore, this section compares the similarities and differences in knowledge, attitude and how the disease is grounded in the understudied schools with respect to students socio-demographic features.

### **5.1 Knowledge of Respondents on HIV/AIDS**

The knowledge on the issues of HIV/AIDS were analysed to ascertain the facts about HIV/AIDS from the respondents. Specifically, the analysis concentrates on general knowledge, how to avoid acquiring HIV/AIDS and sources of HIV/AIDS information.

#### **5.1.1 General knowledge**

In all, sixteen statements were asked on the general knowledge (causes, mode of transmission and mode of prevention) of HIV/AIDS. The questions ranged from definition, causes, mode of transmission and prevention of the disease. Strongly agree and Agree were interpreted as two (2) indicating high knowledge while strongly disagree and disagree were interpreted as one indicating low knowledge. 'Don't know' responses were considered as missing variable since it meant the respondents were indecisive about the issue and therefore cannot be considered as high knowledge or low knowledge. This means that all respondents were scored on a scale of 1-4. The mean was computed and the score was 48.57 out of a maximum of 64. The distribution was somewhat skewed to the right but had little or no effect on the result since it was insignificant. The mean indicated that all respondents with a

score of 48.57 or higher were considered as having very good knowledge about the disease. It was revealed that 3/4 of the respondents had good knowledge on the issues of HIV/AIDS. One fourth of students (1/4) scored below 30 which indicated low knowledge. The above interpretation indicates that almost all respondents understood the statements and was having some previous knowledge on HIV and therefore have good knowledge (see the figure below).

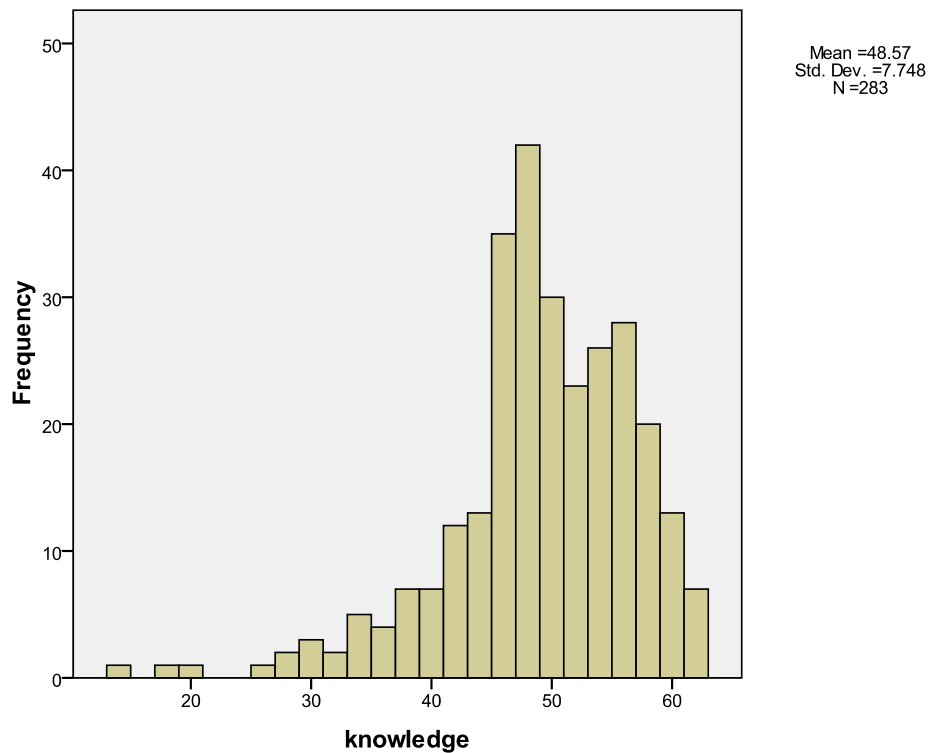


FIGURE 2: Students general knowledge on HIV/AIDS

### 5.1.2 Knowledge on how to avoid HIV

There were eight statements on how to avoid HIV. Strongly agree and agree were considered good knowledge while strongly disagree and disagree were considered low or poor knowledge. 'Don't know' responses were considered as missing system since it neither expressed high knowledge nor low knowledge. Respondents were scored in a scale of 1-4. The mean was 18.25 out of a maximum of 32 and those who scored less than 10 showed low knowledge on HIV/AIDS. The distribution was skewed to the left, however, most of the distribution were clustered between the



ranges of 12 and 25 which indicated that knowledge on the mode of prevention was good (see the figure below).

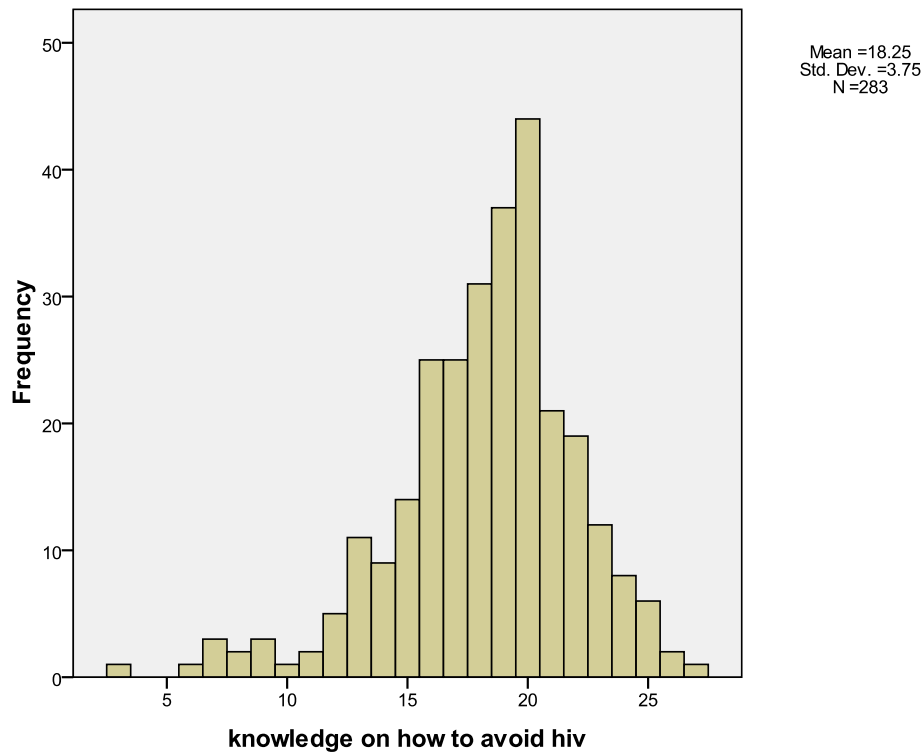


FIGURE 3: Knowledge on how to avoid HIV/AIDS

### 5.1.3 The most trusted source of HIV/AIDS knowledge of students

This part describes what the respondents thought was the most important and trusted source of HIV/AIDS knowledge. In all, eleven sources were given for respondents to indicate the extent to which the options were important to them. The scale used ranged from not at all important, a little important, quite important and very important. The analysis indicated that the students trusted their school very well for HIV/AIDS information. This was closely followed by the media and the teachers. This was because, these institutions were very vocal and it was made up of people society respect. The trust respondents had for health professionals were lower because the pleasure on them makes it very difficult for them to talk about the

disease to patients on attendants. Also, respondents trust for ministers of religion was very low. This was backed by the fact that religious activities in Ghana have now turned to become money making business where leaders hardly talked about social issues to bring about positive change in behaviour. Their trust for their parents were also limited because it is a taboo to talk about sexual issues at home in some ethnic groups (see table below).

TABLE 2: Trusted source of HIV/AIDS knowledge by respondents

Variable	Frequency	Valid (%)
school	204	72.6
Radio/TV/Movies	198	70.5
Teachers	196	69.3
Newsletters/magazines/pamphlets/posters	156	55.7
Health Clubs	154	54.6
Doctors/Nurses	149	53.0
Religious leaders	139	49.3
Parents/Family members	111	39.8
NGOs	111	39.8
Friends/peers	100	34.6
Boy/Girl friends	84	29.7

## 5.2 Attitudes toward HIV

The attitude of students concerning people infected and affected with the disease was verified. Distinctively, it dwells much on how the students fear and would accept

people infected and affected with the disease, their sexual behaviour and how dangerous they consider the disease.

### **5.2.1 Attitude toward PLHIV**

In particular, there were eleven (11) statements on respondent's attitude toward people living with HIV/AIDS. Strongly agree and agree were considered as good knowledge while strongly disagree and disagree were considered poor knowledge. 'Don't know' responses were considered as missing system since it cannot be compared with those who have expressed themselves clearly. All respondents were scored from a scale of 1-4. The mean was 26.97 out of a maximum of 42 and the distribution was slightly skewed to the right but had no effect on the distribution. Score at 26.97 and above indicated very good attitude toward PLHIV. It could be observed from the distribution that attitude was very good since less than 10% of respondents indicated poor attitude toward PLHIV. On an attitude scale, the distributions were clustered around the mean or above it.

In addition, respondents were also asked to indicate the kind of intimacy they would like to have with people infected with HIV/AIDS. In responding, four options were given ranging from best friend, a friend, not a friend but classmate and would not mind. In analysing 4/5 respondents agreed to take them as best friend. It could be established that respondents were ready to be close to those infected with the disease. This was because Ghanaians have compassion for patients and live in a cooperative manner. Everybody is a keeper of the other and what affects a neighbour also affects the other indirectly (see the figures below).

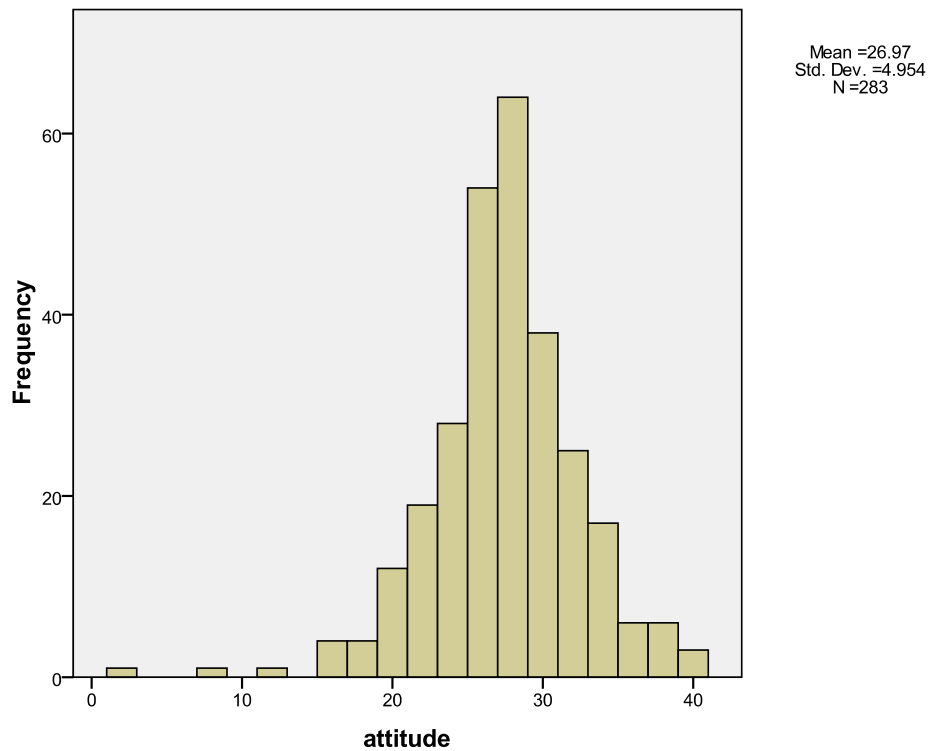


FIGURE 4: students' attitude toward people living with HIV/AIDS

### 5.2.2 Reported sexual attitude of respondents

This part describes the sexual attitude of respondents. Heterosexual sex is the most common form of sexual relation in Ghana. In respect of this, respondents were asked questions on whether they have had sexual intercourse in their life or not. Also, there were follow-up question on whether they have had more than one sexual partner or not. In verifying the respondents' attitude toward condom use, they were asked questions related to condom use as means of protection against the deadly disease, HIV/AIDS. 'Don't know' option was made to become a missing system since the respondents were irresolute and cannot be categorised as yes or no. In ascertaining the facts about respondents' responses, frequencies were used to verify these facts. Cases of respondents who have had sexual encounter were selected and frequencies for it and that of other questions were calculated. It was evidenced from the analysis

that about 51% of the students have had sexual intercourse in their life despite the campaign of abstinence. It was also revealed that even though they believed condom use was necessary (as indicated by about 73% of respondents who have had sexual intercourse before) even if you have only one partner, about 56% of the students expressed to have had sexual intercourse without condom use. In analysing statement 40, it was found out that 62 respondents did not answer. This means that they were not engaged in sexual matters or were ignorant about sexual activities or they want to maintain the statuesque of forbidding to talk about sexual matters. Notwithstanding this, the analysis established about 36% of the respondents was aware of other means of protection other than condom use.

TABLE 3: Sexual Attitude of Respondents

Variable	Yes (%)	Frequency
Have you ever had sexual intercourse?	50.9	144
Have you had more than one sexual partner?	47.2	68
Did you use condom the first time you had sex?	44.4	64
Do you say no to sex without condom?	59.5	80
Condom use is necessary even if you have one sexual partner.	72.5	100
Are there other measures you have used to protect yourself?	36	45

### 5.2.3 How dangerous respondents consider some diseases?

In analysing variables 52-59, respondents were made to choose from options not at all dangerous, a little dangerous, quite dangerous and very dangerous. The analysis indicated that most of the respondents considered HIV/AIDS as the most dangerous among all the diseases prearranged. This emanated from the fact that the students were aware that HIV/AIDS has no cure. Tuberculosis has been expressed as one of the most contagious diseases in Ghana and has been referred to as 'ghost disease'

meaning catching it will surely lead you to the ancestral world was the second disease they feared most (see table below).

TABLE 4: students' rating of some diseases

Variable	Frequency	Dangerous (%)
HIV/AIDS	233	83.5
Tuberculosis	217	77.2
Malaria	212	74.9
Blood pressure	202	71.9
Gonorrhoea	198	70.0
Typhoid	191	68.2
Blind	174	61.5
Mental disorder	155	55.8

### 5.3 School and HIV education

This part describes how HIV is taught and studied at the schools understudied. Also, it described how respondents value HIV/AIDS education in their various schools as well as in their live. With this respect, respondents were asked to indicate whether HIV/AIDS education was relevant in their school. The analysis revealed that HIV/AIDS education was going on in their respective schools. Furthermore, it was established that aspect of the disease education has been integrated into various subjects in the curriculum. Even though HIV/AIDS education was ongoing in their respective schools, students indicated that the education on the disease was not regular. Nevertheless, the students revealed that they do not get relevant information from the HIV/AIDS education and it has had little or no effect in their behaviour.

The students also expressed that they were not happy with the kind of HIV/AIDS education at the school and this have made the programme at the schools ineffective (see table below).

TABLE 5: The school and HIV/AIDS

Variable	Frequencies	Important/yes/often (%)
Is HIV/AIDS a subject of study in your school?	282	99.6
How often do they teach the subject in your school?	174	72.5
Are you happy with HIV/AIDS education in your school	59	20.8
Do you get relevant information from the education	198	70.5
Has the HIV/AIDS education affected your personal behaviour and attitude?	146	52.0
How do your teachers see your behaviour at school?	107	37.9
How do your classmates see your behaviour at school	107	37.9

#### 5.4 Comparing respondents by knowledge and attitude

This part gives a description of mean of knowledge, attitude and behaviour of students involved in this research. The comparison was made on the grounds that differences and similarities that were significant could be link up with HIV/AIDS educational programmes and issues. The comparisons would aid to draw conclusions and similarities about the implications of HIV/AIDS education. An independent T-test was used to compare two variables. In some situations, one-way-ANOVA was

used to make comparisons between three or more groups where necessary. Post hoc-test was also used in pair wise.

### **Gender and HIV/AIDS**

This section compares and establishes gender and HIV knowledge, how to avoid HIV, sexual behaviour, the danger of HIV, PLHIV acceptance, risk of getting the disease and HIV status knowing. In ascertaining the facts about gender and HIV knowledge, no significant difference was found when an independent T-test was used ( $t=1.745$ ,  $df=281$ ,  $p=.531$ ). This means that gender had no effect on HIV knowledge, the knowledge level of both male and female respondents were the same. Similarly, an independent T-test indicated no significant difference between gender and how to avoid HIV. Moreover, independent T-test established no significance between gender and attitude. This was also reinforced by both mean and the p-value. Furthermore, there was no significant difference between gender and accepting people infected and affected with HIV. Also, no significant difference was identified between gender and the danger of HIV/AIDS. However, there was no significant difference between gender and the fear of HIV. Females fear was higher than their male counterparts. In the same way, no significant difference was identified between gender and knowing HIV status. The analysis above revealed that the knowledge about the disease, attitude towards people infected and affected by the disease, the fear of the disease, status knowing and how dangerous the disease was among the males and females in the two schools were the same.

### **Age and HIV/AIDS.**

This section looks at the association between age; and respondents general knowledge, how to avoid getting HIV, attitude toward people affected and infected with the disease, sexual behaviour and how they would accept people infected and affected by the disease. In finding out these facts, one-way ANOVA and post-hoc were used in these analyses. When age and knowledge were analysed, it was revealed that no significant difference existed between groups and among the age groups. In the same way, age of respondents and their sexual behaviour were



analysed. The results revealed no significant differences between groups and among all the age groups ( $F=1.343$ ,  $df=8$ ,  $p=.222$ ). The mean also revealed no significant difference between and among groups.

In addition, the age groups of the students and their knowledge on how to avoid the disease were analysed. It came to light that all the students' assertion on how to avoid the disease was the same since no significant difference were identified between and among groups. Moreover, when respondents age and how they would accept people infected and affected by the disease were analysed, there existed no significant difference. The above analysis indicates that age has no effects on HIV facts for example, knowledge, attitude and sexual behaviour.

### **Religion and HIV/AIDS**

In a related development, religion and HIV/AIDS facts were analysed. It was established that there were no significant difference between religion and HIV knowledge. However, in pair wise comparison it was revealed that non-religious students had lower knowledge than Christians and Muslims.

Furthermore, religion and accepting people infected and affected by the disease were analysed. It was revealed that no significant difference existed between and among groups. Contrary, when pair wise was used, it was released that there were significant differences between other religious groups and Christians. The findings indicated that other religious group had lower rate of accepting people infected and affected by the disease than Christians.

Similarly, attitude toward people infected and affected by the disease were analysed. The results revealed that there was no significant difference between and among groups. However, pair wise comparison indicated that Non-religious students have lower attitude toward people infected and affected by the disease.

Sexual behaviour and religion were analysed. The results indicated no significant difference existed between and among groups. Contrary, pair wise comparison indicated that Christians and Muslim student abstained themselves from premarital sex than other religious and non-religious students.

### **The schools and HIV/AIDS**

The school was used to verify HIV/AIDS facts. An independent T-test revealed no significant difference between school and HIV knowledge. In finding out whether there was significant difference between schools and attitude, T-test indicated no significant difference between them. Moreover, there was no significant difference school and accepting people infected and affected by the disease. In addition, there was no significant difference between schools and the danger of the disease. However, there was significant difference between schools and sexual behaviour ( $t=3.382$ ,  $df=202.880$ ,  $p=001$ ). Among the sexually active students, Nsutaman Catholic secondary school were less involved in sexual relationships than Jamasi school for the deaf student. In the same way, there was significant difference between school and knowledge on how to avoid the disease ( $t=3.489$ ,  $df=207.296$ ,  $p=001$ ). Jamsi School for the Deaf students knowledge were higher than Nsutaman students.

### **Parents Educational level and HIV/AIDS**

Parents Education and its effect on the students with respect to the HIV/AIDS facts were analysed. It was revealed that there was no significance between attitude and parents education. Pair wise comparison indicated that students whose parents have had basic education as the highest level of education had lower general attitude (poor) towards people infected and affected by the disease than those whose parents have completed secondary, post secondary and tertiary levels of education.

Moreover, students' parent's educational level and its effects on how they (respondents) would accept people infected and affected with the deadly disease were verified. It was established that there were no significant difference between and among groups. However, pair wise comparison revealed significant difference between students whose parents had completed post secondary education and those whose parents had completed tertiary education. The students whose parents have completed post secondary education proved to have poor level of acceptance as compared with those whose parent had completed tertiary education. Usually, parents of this educational attainment are (teachers) who do not have time for their own children with the reason that their teachers would teach them at school. This has

made their children to have the same idea that the disease is fatal and that whoever contract it becomes dangerous and must be feared.

Similarly, when parent's educational level and respondents' HIV/AIDS knowledge were analysed, it established no significance differences between and among groups. However, pair wise comparison established that students whose parents have completed post secondary education had lower knowledge than those whose parents have completed tertiary and secondary education.

In addition, students' sexual behaviour was verified against their parents' educational level. It came to light that there were no significant differences between and among groups.

## 6 DISCUSSION

This section draws on the findings and limitations of this study between the schools studied in the context of what has been learnt from prior studies. The implications of the results between the schools studied and their relationship with the theories used for this study were discussed to make concluding comments and recommendations.

### 6.1 Summary of the results

This study revealed that the general knowledge of HIV/AIDS among the students understudied was very high. Over 70% of all respondents involved in the study indicated that they have good knowledge of the disease. This revelation was in conformity with the findings of Anarfi & Vaaga (1999) that 99% of students in the tertiary institutions in Ghana had good knowledge of the disease. In the same way, students showed high knowledge on how the disease could be avoided. Over 70% established that they have good knowledge on how to avoid the disease.

This study also found that the students trust for the school surpasses all other means of informational source. It was followed by the media (radio, television and the movie) and closely followed by the teachers. It was also found out that the students trust for their parents and religious leaders were infinitesimal, this was different from the findings obtained by Anarfi & Vaaga (1999) among tertiary students where the most trusted source of HIV/AIDS information was said to have come from the radio/television. Bannen et al (1999) also was of the view that students in Cameroon face the same problem of not getting the necessary information about HIV from their parents/guardians.

Students' attitudes toward People Living with HIV/AIDS (PLHIV) were verified. It was realised that majority of respondents were tolerant at those infected and affected by the disease.

The study indicated that about 70 of the sexually active students engaged in sexual activity without any form of protection. Surprisingly, students have not been translating their high knowledge into positive sexual behaviour. This results support the findings of Rwenge (2002) that the knowledge of young people about sex and AIDS does not necessarily seem sufficient to motivate them to change their risky sexual behaviour. Moreover, it matches the findings of Anarfi & Awusabo-Asare (1999) that there is low condom use among the young people they studied because they (respondents) were of the view that it reduces the satisfaction they get from sex.

This research emphasised the fact that HIV/AIDS is dangerous. This was in line with Sontag's assertion that the disease is the most infectious and stigmatised which threatens the world (Sontag 1991). The respondents believed that the disease was a serious threat to their development and therefore they needed to protect themselves against it. Notwithstanding, most of the sexually active respondents indicated that they have had premarital and experimental sex without any form of protection.

Finally, the study discovered that HIV/AIDS education is ongoing in the schools understudied. Students from Jamasi School for the Deaf indicated that they were satisfied with HIV/AIDS education in their school. However, students from the mainstream school (Nsutaman catholic Secondary School) maintained that they were not getting relevant information that could influence change in their behaviour. This reinforces the claim by Boller (2006) that HIV/AIDS education in the various schools he studied was scanty and does not contain the needed information that could make positive behaviour change.

## **6.2 HIV/AIDS education and disability**

The results of the study portrayed somewhat the position and desirable picture about HIV/AIDS education in Ghanaian schools. Usually, the adolescent may be constructed as portraying deviant behaviour which is very dangerous for their sexual life. Any encouragement in sexuality education may be dangerous and deviant and any inducement of sexuality education may encourage inappropriate and

experimental sexual behaviour. In addition, people living with disability may be constructed as vulnerable and innocent which needs to be protected from the dangers of sexual predators (Alonzo & Raynold 1995).

In encouraging sex education and ensuring positive sexual relationship among the adolescent particularly females and people living with disability, a human right based approach needs to be considered. The dilemma now is whether HIV/AIDS education is important at this epoch of its appearance or not. On one hand, it is very important for HIV/AIDS education to be encouraged. The disease is the biggest health challenge in the contemporary world and failure to curb it will be disastrous (Sontag 1991). To exclude the adolescent, more particularly the female and disabled persons from the issues of the diseases would be detrimental to the world. They need to be equipped with the necessary information to protect them against the influence of the disease. On the other hand, sex education focused on HIV prevention could be used to discourage indecent sexual life.

Historically, the sexuality of the adolescent particularly the disabled has been infringed upon. Their sexual relationship is always seen as inappropriate, dangerous and needs to be restricted. HIV has reinforced the need for this restriction. What has been excluded is the right of the adolescent, particularly the sexual life of those with disability. Tepper (2000) maintains that social discourse about sexuality and disability emphasis deviance, asexuality, inappropriateness and abuse but what is missing is the discourse of pleasure.

HIV/AIDS has been constructed as the most stigmatised disease in the history of the world and being disabled compounds it (Sontag 1991). It has been constructed that people living with disability are potential victims of the disease since in most cases they are believed to have limited power against sex predators. This makes them to become dangerous to others and the society as a whole. Their body fluids like their disability therefore become an 'abomination of the body' (Goffman 1963).

The sexuality of the adolescent most often people with disability and females without disability become a dilemma. This is because they need to be treated with care in order not to lose the core motive to make them understand themselves better. Many literatures confirmed that females and the disabled individuals experience all sort of

sexual abuse. This placed those looking after and being responsible for their well-being to ensure their safety. Sex education is essential to empower females and people living with disabilities with healthy sexual life. At the same time, the dangers associated with sex cannot be overlooked. There is therefore the real need to protect the adolescent against the deadly disease HIV/AIDS.

The contention then becomes the method and means of providing sex education that is positive and empowering while at the same time the dangers associated with sex and immoral sexual behaviour needs to be considered. The solution to this is not easy since society needs to be concerned with HIV/AIDS and other sexually transmitted diseases. HIV/AIDS education that points out the dangers of immoral sexual behaviour is necessary as maintained by Kelly (2006). Society needs to put the issue of sexual abuse and rape as a priority and provide education accordingly. Contrary, we need to be careful not to evil-make sex and empower the adolescent particularly females and the disabled to have pleasurable, healthy and fulfilling sexual life.

### **6.3 The implications of the study**

This study underscores the prospects of HIV/AIDS education in secondary schools in Ghana. It was observed that the school and the mass media are important medium of information on the disease and needs to be recommended to do more on education. However, Boler (2006, 9) asserts that HIV/AIDS education in schools is very scanty and does not equip the students with the needed knowledge. The author's observation is also confirmed in this study as most of the students from Nsutaman Catholic Secondary School reiterated the same sentiment. This is an indication that formal education needs to scale-up its efforts of ensuring an effective HIV/AIDS education that could influence positive behaviour change. The emphasis of the education should be subject based like (life skills and moral education) which would equip the adolescent with the necessary knowledge that would promote abstinence and condom use. Furthermore, education should emphasis on faithfulness where each partner should stick to only one partner and the need to discard stigma and discrimination associated with the disease. According to Piot et al (2007), the prospect of

HIV/AIDS information rest on education. This assertion has been reiterated by UNAIDS (2009) that the only hope left for mankind now on the upsurge of the disease is education. This means that what formal education is doing is not enough and needs to do more since the number of people being infected each day keeps on increasing.

It was also established that students trust for their parents on the issue of the disease was very limited. This implies that parents need to be targeted for possible HIV/AIDS intervention in order to break the silence that has engulfed sex education in our homes. This is also maintained by Vander Mooretele & Enricque (2000). This intervention would equip parents with the techniques needed to educate their children on the dangers of the disease in order to protect them from experimenting premarital sexual intercourse.

In addition, the government of the republic of Ghana must step up its funding on health related education in schools in order to strengthen advocacy. This would make it possible for regular in-service training for team leaders and teachers on the Alert Models than the current two years intervals. Furthermore, this would equip secondary schools to be able to support full integration of HIV/AIDS education into the curriculum with well informed trained staff capable of making HIV education attractive and innovative. The students' team leaders need to be strengthened and be evaluated periodically. This would make them abreast with the current situation of the disease in order to be able to impart the knowledge acquired to their peers. Not all, stakeholders in education must ensure full integration of education on the disease in the curricular. More attention should be given to proper transfer of knowledge and behaviour change. Also, the students' motivational problems need to be addressed and the quality and quantity of the education needs to be evaluated. This would ensure sexual discipline among the students which could eventually influence them to translate the knowledge acquired to positive behaviour change and self management skills that would make them able to solve daily challenges in life, (Caillods et al 2008).

Furthermore, the study found out that despite high knowledge exhibited by the respondents, their sexual behaviour does not aid eradication of the disease from the



society. There is therefore the need for the school and those advocating for society free HIV/AIDS to ensure periodic monitoring and evaluation in order to identify gaps for necessary corrective measures to be taken. UNAIDS/WHO (2004) maintains that HIV/AIDS is driven by behaviour. It is therefore important to weigh up behaviour within specific time to see the results of a programme. This would ensure proper evaluation and monitoring that would appraise the prospect of an intervention. In the view of Caillods et al (2008), adopting programmes that ensure proper monitoring and evaluation would discover gaps in existing programmes for counteractive measures to be taken.

#### **6.4 Limitations and Recommendations for future research**

The study comprised one mainstream secondary school and one special school (people with communication challenges). The results from the study are therefore limited in scope and size. This is because, the study covered only one of the disability group leaving other groups like physically challenge and the blind. Also, this study captured only one of the 430 secondary schools in Ghana embarking on HIV/AIDS education. It would be therefore difficult to acknowledge that the results obtained in this study are the final remarks of all of the students in Ghana.

In addition, this study was limited to only one geographical area within one region out of ten in Ghana. It could not capture the students in other parts of Ghana. It would therefore be difficult to make a better generalisation of the results. Moreover, this study concentrated on students at secondary schools without considering parents and their role in HIV/AIDS education. However, it was unearthed that parents role in the education on the disease is paramount. Contrary, they (parents) are limited in knowledge and other issues of the disease.

Further research is needed on the broader spectrum that would consider all forms of disabilities, for example, physical, sensory and intellectual. It should explore how disabled people see the disease, what they do to protect themselves and how they value themselves against the risk of the disease. Also, secondary schools from

different regions could be involved in such a study. In addition, such a study could be undertaken by a person who is knowledgeable on issues of sign language. In such a study, there must be considerations on both qualitative and quantitative approaches where both interviews and questionnaire administration would be beneficial.

Another major area that needs further research concerns education that factors knowledge, attitude and behaviour of parents with respect to HIV/AIDS and sex education. Usually, parent's knowledge on the issue of the disease is limited and it is worsened by the fact that society forbids talking about sex education at home. Research in this area would assist planners to adopt strategies that could make home control programmes possible to argument public and school education.

Furthermore, it would be interesting for a research to be conducted on monitoring and evaluation of HIV/AIDS education among the adolescent and young adults to ascertain the level of progress of an intervention. This would bring to light whether the resources needed for such an intervention for example, Braille for the blind and expects to provide sign language are available. It could also ascertain the attitude of adolescents toward people infected and affected by the disease. It is also recommended that an extended research that includes more schools in other regions of the country on HIV/AIDS education and disabilities is to be conducted.

## REFERENCES

- ABT Associates 2001. The impact of HIV/AIDS on the education sector in South Africa. Memeo, Johannesburg.
- AIDS Action 2001. AIDS-related stigma. Until it's over. AIDS Action policy facts. retrieved on march 23, 2009 from <http://www.aidsaction.org/legislation/pdf/stigma2.pdf>.
- Agency France-Press 2007. <http://www.independent.co.uk/news/world/asia/aids-victims-buried-alive-in-papua-new-guinea-463262.html>, viewed online on 4<sup>th</sup> june 2009.
- Aggleton, P. & Rivers K. 2001. Adolescent sexuality, gender and HIV Epidemic. Bulletin of experimental treatment for AIDS, San Francisco. AIDS Foundation.
- Alonzo, A. & Reynolds N.R. 1995. Stigma, HIV and AIDS: An exploration and Elaboration of a stigma trajectory, Social Science & Medicine 41(3):30-35.
- Amedahe, F.K. 2002. Educational Research: AN Introduction. Cape Coast, University of Cape Coast press.
- Anarfi, J.K. & Awusabo-Asare, K. 1997. Health-seeking behaviour of persons with HIV/AIDS in Ghana. Health Transition Review, (suppl. 7), 243-256.
- Anarfi, J.K. & Vaaga 1999. HIV/AIDS in Tertiary institutions in Ghana. Accra, University of Ghana press.
- Babatunde, R.O. 2009. Increasing people's knowledge about HIV/AIDS. Journal of Health management, 11 3(2009): 473-488.
- Badcock-Walters, P., Desmond, C., Wilson, D. & Heard, W. 2003. Educator Mortality In-service in KwaZulu-Natal- A Consolidated Study of HIV/AIDS Impact and Trends. Demographic and Socio-Economic Conference, Durban.

- Bankole, A., Ahmed, F. H., Neema, S., Ouedraogo, C., & Konyani, S. 2007. Knowledge of correct condom use among adolescents in Sub-Saharan Africa. *African Journal of Reproductive Health*, vol. 11, no. 3, pp 197-220.
- Bat-Chava, Y., Martin, D. & Kosciw, J. G. 2005. Barriers to HIV/AIDS knowledge and prevention among the Deaf and hard in hearing people. *AIDS Care*, 17(5) 623-634.
- Berman, H., Harris, D., Enright, R., Gilpin, M., Cathers, T & Bukovy, G. 1999. Sexuality of an adolescent with physical disability: understanding misunderstanding issues in comprehensive paediatric nursing, 22, 183-196.
- Blanchett, W. J. 2000. Sexual risk behaviour of young adults with LD and the need for HIV/AIDS education. *Remedial and special education*, 21(6), 336-345.
- Blaxter, L., Hughes, C. & Tight M. 2001. *How to research*. Buckingham-Philadelphia. Open University press.
- Bloom, S., Banda, C., Songolo, G., Mulendema, S., Cunningham, A. E. & Boerma, J, T. Looking for change in response to the AIDS epidemic: trends in AIDS knowledge and sexual behaviour in Zambia, 1990 through 1998. *Journal of Acquired Immune Deficiency Syndrome*, 2000, 25(1), 77-85.
- Boler, T. 2006. *The sound of silence: Difficulties in communicating on HIV/AIDS in Schools*. Action Aids International HQ, UK.
- Burr, V. 1995. *An introduction to social constructionism*. London: Routledge.
- Caillods, F., Kelly, J. M., & Barbara, T. 2008. *HIV&AIDS: Challenges and approaches within the education sector*. UNESCO/ International Institute for educational planning, Paris, France.
- Caldwell, J. C., Orubuloyeb & Caldwell, P. 1999. *Resistances to Behavioural Change to reduce HIV/AIDS infection in predominantly heterosexual epidemics in the third World Countries*. Canberra Australia Health Transition Centre: Australian National University.
- Cameron, E. 2005. *Witness to AIDS*. Cape Town: Tafebberg publishers.

- Carr-Hill, R., Kataboro, J. K. & Katahoire, A. 2000. HIV/AIDS and education. Paper presented at the IIEP workshop on the impact of HIV/AIDS on education. Paris: IIEP.
- Chetty, D. 2003. An HIV/AIDS Toolkit for tertiary institutions. A case study prepared for a regional training conference on improving tertiary education in Sub-Saharan Africa: Things that work: USAID/Mobile Task Team on HIV/AIDS in education, Accra.
- Chritian, L., Stinson, J. & Dotson, L. D. 2002. Staff values regarding the sexual expression of women with developmental disabilities. *Sexual and Disability* 19(4) 283-291.
- Clottey-Sefa, D. 2001. HIV/AIDS and discrimination observations from Ghana. *FLA Quarterly*, Issue no. 1384-282x.
- Cogan, J. & Herek, G. 1998. Stigma. In R. A. Smith (Ed) *Encyclopaedia of AIDS: A social, political, cultural and scientific record of the HIV epidemic*. Retrieved online on march 11, 2009, [www.thebody.com/encyclo/stigma.html](http://www.thebody.com/encyclo/stigma.html).
- Cohen, L., Lawrence, M. & Keith, M. 2007. *Research methods in education*. New York: Routledge.
- Cohran, F. & Mays, J. 2004. Cultural barriers to behaviour change among adolescents. *Health Psychology* 5:462-473.
- Collins, P. Y., Geller, P. A., Miller, S., Toro, P. & Susser, E. S. 2001. Ourselves, our bodies, our realities: An HIV prevention intervention for women with severe mental illness. *Journal of urban health* 78(1), 162-175.
- Cook, J. A. 2000. Sexuality and people with psychiatric disabilities. *Sexuality and Disability*, 18(3), 195-206.
- Coombe, C. 2003. Mitigating the impact of HIV on education supply, demand and quality. Easter and South African Region Office: UNICEF.
- Creswell, J. W. 2005. *Educational research. Planning, Conducting and Evaluating Quantitative and Qualitative Research*. New Jersey: Pearson educational Inc.

- De klerk, H. M. & Ampousah, L. 2003. The physically disabled women's experience of self. *Disability and Rehabilitation* 25(19), 1132-1139.
- Doyle, A. G. 1995. AIDS knowledge, attitude and behaviour among Deaf college Students: A preliminary study. *Sexuality and Disability* 13(2), 107-134.
- Duflo, E., Dupass, P., Kremer, M. & Sinei, S. 2006. Education and HIV/AIDS Prevention: Evidence from a randomized evaluation in Western Kenya. *Journal of epidemiology* 37(6), 1201-1209.
- Eforum 2001. <http://eforums.healthdev.org/read/messages?id=794>.
- Finkelstein, V. & French, S. 1993. Towards a psychology of disability. In J. Swain, Finkelstein, S. French & M. Oliver (eds), *Disabling barriers- enabling Environment* 26-33. London: Sage publications.
- Fredriksson, J. & Kanabus, A. 2005. HIV & AIDS stigma and discrimination: UNAIDS, AIDS epidemic update, <http://www.avert.org/aidsstigma.htm>. Accessed online on 5 october, 2010.
- Fairclough, N. 2003. *Discourse and social change*. USA: Blackwell publishing Inc.
- Gall, M. D., Joice, P. G. & Walter, R. B. 2007. *Educational Research. An Introduction*. United State of America: Pearson Educational Inc.
- Gallant, M. & Maticka-Tyndale, E. 2004. School-Based HIV prevention program for Africa. *Science and Medicine* vol. 58, pp 1337-1351.
- Gerbert, B., Maguire, B., T., Bleecker, T., Coates, J. & Mcphee, S. J. 1991. Primary Care physicians and AIDS. Attitudinal and structural barriers to care: *Journal of American Medicine Association* 266, 2837-2842.
- Getch, Y. Q., Young, M. & Denny, G. 1998. Sexuality education for students who are Deaf. *Current practices and concerns: Sexuality and disability* 16(4), 269-81.
- Ghana AIDS Commission 2004. *National HIV/AIDS and STI policy*. Accra, GAC.

- Ghana AIDS Commission 2001. National HIV and AIDS Strategic Framework 2001-2005. Accra, GAC.
- Ghana AIDS Commission 2006. National HIV and AIDS Strategic Framework 2006-2010.
- Ghana AIDS Commission 2009. The HIV and AIDS Programme of work. Accra, GAC.
- Gilmore, N. & Somerville, M. A. 1994. Stigmatisation, scapegoating and discrimination in sexually transmitted disease. Overcoming 'Them and Us'. *Social science and medicine* 39(9), 1339-1358.
- Grant, K. B., Gorgens, M. & Kinghorn, A. 2004. Mitigating the impact on service providers: What has been attempted, what is working, what has not worked, where and why? A study commissioned by DFID service delivery team in collaboration with USAID.
- Global Campaign for Education (GCE) 2004. Learning to survive: How education for all would save millions of young people from HIV/AIDS. London, GCE.
- Global campaign for education (GCE) 2006. Deadly Inertia? A cross-country study of education response to HIV and AIDS. Brussels, GCE.
- Goffman, E. 1963. *Stigma: notes on the management of spoiled identity*. Harmondsworth, Penguin Books.
- Groce, N. E. 2004. HIV/AIDS and disability: capturing the hidden voices. Report of World Bank Yale University Global Survey of HIV/AIDS and Disability World Bank.
- Groce, N. E. 2004. Adolescents and youth with disability. Issues and challenges. Viewed online on 14.3.2011 from <http://www.aifo.it/english/resources/online/apdrj/apdrj204/adolescent.pdf>.
- Guiella, G. & Madise, N. J. 2007. HIV/AIDS and sexual risk behaviour among adolescents: Factor influencing the use of condom in Burkina Faso. *African journal of reproductive health* Vol. 11(3) 182-193.

- Gulure, M. 2003. A study of AIDS education programmes and activities in secondary schools. The case of selected schools in Zambia and Malawi: University of Malawi
- Harris A. B. & Schubert J. G. 2001. Defining 'quality' in the mist of HIV/AIDS: Ripple effect in classrooms. Paper presented at the 144<sup>th</sup> annual meeting of the comparative and international education society, Washington, DC.
- Herek G. M. & Capitanio J. P. 1998. Symbolic prejudice or fear of infection? Functional analysis of AIDS-related stigma among heterosexual adults. *Basic and Applied Social Psychology* 20(3), 230-241.
- Heyman, B. & Huckle, S. 1995. Sexuality as a perceived hazard in the lives of adult with learning difficulties. *Disability and Social* 10(2) 139-155.
- Heyward, C. 1990. *AIDS: Trends in Sub-Saharan Africa*. New York: Wiley.
- Howard-Barr, E. M., Rienzo, B. A., Pigg jr R. M., & James, D. 2005. Teachers beliefs, professional preparation and practices regarding exceptional students and sexuality education. *Journal of School health* 75(3) 99-104.
- Kelly, M. J. 2006a. module 1.2: the HIV/AIDS challenge to education. *Educational planning and management in a World with AIDS: Training materials*. Paris, UNESCO/IIEP. Accessed 4. 2. 2009. [www.iiep.unesco.org/index.php?id=110](http://www.iiep.unesco.org/index.php?id=110).
- Kelly, M. J. 2006. *The potential contribution of schooling in rolling back HIV and AIDS*. Commonwealth Youth Development, University of South Africa.
- Kelly, M., J., 2000. *Planning for education in the context of HIV/AIDS*. Paris, UNESCO/IIEP. <http://unesdoc.unesco.org/images/0012/001224/122405e.pdf> Accessed 4<sup>th</sup> February 2009.
- Kempton, W. & Kahn E Sexuality 1991. sexuality and people with intellectual disability: A historical perspective. *Sexuality and disability* 9(2) 93-111.
- Kirby, D., Short, L., Collins, J. Rugg, D., Kolbe, L., Howard, M., Miller, B., Sonenstein, F. & Zabin, L. S. 1994. *School-based programme to reduce sexual*



risk behaviours: A review of effectiveness. Public health report 109(3) 339-360.

- Kirby, D., Obasi, A. & Laris, B. 2006. The effectiveness of sex education and HIV education Interventions in schools in developing countries in Rose et al (eds) preventing HIV in young people: A systematic review of the evidence from developing countries. Geneva, WHO and UNAIDS Inter-Agency Task Team on young people.
- Kirby, D., Laris, B. A. & Loris, A. R. 2007. Sex and HIV education programmes: their impact on sexual behaviour of young people throughout the World. *Journal of adolescent health* Vol. 40(3), 206-217.
- Linden, C. S., Allen, M., Carael, F., Nsengumuremyi, P., Van de Pere, A., Seru-Lira, J., Tice, D., Black, T. Coates & Hulley, S. 1999. Knowledge, attitude and perceived risk of AIDS among urban Rwandan women: relationship to HIV infection and behaviour change. *AIDS*, 5(8) 993-1002.
- Largrade, E., Gilles, P. & Catherine, E. 1996. Knowledge, attitude and perception of AIDS in rural Senegal: relationship to sexual behaviour and behaviour change. *AIDS* 10(3), 327-334.
- Link, B. G. & Phelan J. C. 2001. On stigma and its public health implications. *Annual review of sociology* 27; 363-385.
- Macintyre, K., Brown, L., & Solser, S. 2001. It's not what you know but who you knew: examining the relationship between behaviour change and AIDS mortality in Africa. *AIDS education and prevention* 13(2), 160-174.
- Marks, D. 1999a. *Disability: Controversial debate and psychosocial issues*. London: Routledge.
- Marks, S. 2002. An epidemic waiting to happen? The spread HIV/AIDS in South Africa in social and historical perspective. *African studies* 61(1), 13-26.
- McCabe, M. P. 1999. Sexual knowledge, experience and feelings among people with disabilities. *Sexuality and disability* 17(2), 157-170.

- Miles, R. 1989. Racism. London: Routledge.
- Milligan, M. S. & Neufeldt, A. H. 2001. The myth of asexuality: A survey of social and empirical evidence. *Sexuality and disability* 19(2) 91-109.
- Ministry of Health 2008. Guidelines for management of Sexually Transmitted Infections. Accra: Ghana.
- Mishra, V., Bignami, S., Greener, R., Vaessen, M., Hong, R., Ghys, P., Boerma, J. T., Van, A., Khans, S. & Rutstein, S. 2007. HIV infection does not disproportionately affect the poorer in Sub-Saharan Africa. Calverton, Maryland, Macro international Inc.
- Mulindwa, I. N. 2003. Study on reproductive health and HIV/AIDS among persons with disabilities in Kampala, Katakwi and Rakai district. Disabled women's network and resource organisation.
- Muyinda, H., Seeley, J., Pickering, H. & Barton, T. 1997. Social aspect of AIDS-related stigma in rural Uganda. *Health place* 3(3), 143-147.
- Munthali, A., Mvula, P. & Alli, S. 2004. Effective HIV/AIDS and reproductive health information to people with disabilities. A final report. Center for social research: University of Malawi.
- NACP/MOH 2000. National HIV/AIDS/STI draft policy. Ministry of Health, Ghana.
- National AIDS/STI Control Programme 2007. HIV sentinel survey report. Accra: Ghana Health Service.
- Ng'weshemi, J. Z., Boerma J. T., Barongo, L., Senkoro, K., Maswe, M., Isingo, R., Schapink, D., Nnko, S. & Borgdor, M. W. 1996. Change in male sexual behaviour in response to the AIDS epidemic: evidence from a cohort study in Tanzania. *AIDS* 10(12), 1415-1420.
- Nosek, M. A., Howland, C., Rintala, D. H., Young, M. E. & Chanpong, G. F. 2001. National study of women with physical disabilities: Final report. *Sexuality and disability* 19(1), 5-39.

- NPC 2000. Ghana country report. Five years implementation of ICPD programme of Action. Accra, legmeg publishers.
- Olley, B. 2003. Investigatory attitudes toward caring for people with HIV/AIDS among hospital care workers in Ibadan Nigeria: the role of self-efficacy. *African journal of AIDS research* 2(1), 57-61.
- Osborn, A. 1986. *The barrier to behaviour change in the face of AIDS*. Durban, Butterworks.
- Parrit, S. & O'Callaghan, J. 2000. Splitting the difference: an explanatory study of therapist' work with sexually relationships and disability. *Sexual and relationship therapy* 15(2)151-169.
- Petterson, T. L. 2005. A comparison of the drug use pattern and prevalence of HIV/STDs among female sex workers in two cities in USA Mexico border. Ninth national congress on HIV/AIDS, Oaxaca Mexico.
- Potgieter, C. & Khan, G. 2005. Sexual self-esteem and body image of South Africa spinal cord injured adolescents. *Sexuality and disability* 23(1) 1-20.
- Piot, P., Bartos, M., Ghys, D., Walker, N., & Schwartländer, B. 2001. *The global impact of HIV/AIDS*. Geneva, UNAIDS.
- Piot, V., Greener, R. & Russel, S. 2007. Squaring the circle: AIDS, poverty and human development. *PLOS Medicine* 4, e314.
- Regan, B. 2001. *Behaviour change communication in the face of AIDS epidemic*. Durban, butterworks.
- Risley, C. & Bundy, D. 2007. Estimating the impact of HIV and AIDS on the supply of basic education. Paper commissioned by the UNAIDS/World Bank economic reference group.
- Rose, S. & Dickinson, C. 2005. Going too far? Sex, sin and policy. *Social Forces* 81(2) 1207-1232.

- Rosen, J., Murray, N. & Moore, S. 2004. Sexuality education in schools: The international experience and implementations for Nigeria. Policy working paper series No. 12. Washington DC, future group/policy project.
- Rwange, M. 2002. Sexual risk behaviour among young people in Bamenda,
- Shakespeare, T. 2000. Disabled sexuality: Toward right and recognition. *Sexuality and disability* 18(3), 159-166.
- Shilt, R. 1987. *And the bad played on*. New York, st Martins press.
- Shonkoff, J. P. 2010. Building a new bio developmental framework to guide the future of early childhood policy. *Child development* 81: 357-367.
- Smith, E. S. F., Yousafzai, A. K., & Kasokas, L. 2004. Barriers to accessing save motherhood and reproductive health service. The situation of women with disabilities in Lusaka Zambia. *Disability and rehabilitation* 26(1), 121-127.
- Smith, G., Kippax, S., & Aggleton, P. 2000. HIV and sexual health education in primary and secondary schools: Findings from selected Asia-Pacific countries. sydney, University of South Wales.
- Speizer, I. S., Magnani, R. & Colvin, C. E. 2003. The effectiveness of adolescent reproductive Health interventions in developing countries: A review of the evidence. *Journal of adolescent health* vol. 33, 324-348.
- Sontag, S. 1991. *Illness as metaphor and AIDS and its metaphor*. London, penguin books.
- Susman, J. 1994. Disability, stigma and deviance. *Social science and medicine* 38(1) 15-22.
- Szekeres, G. 2000. HIV in adolescents. *Bulletin of experimental treatment for AIDS*. San-Francisco, AIDS Foundations.
- Thornton, R. 2008. The demand for and impact of learning HIV status: Evidence from a field experiment. *American Economic Review* 98(5), 1829-1863.

- Tepper, M. S. 2000. Sexuality and Disability: The missing discourse of pleasure. *Sexuality and disability* 18(4), 282-281.
- UNAIDS 2000. HIV and AIDS-related stigmatisation, discrimination and denial: form, context and determinants. Retrieved 20.04.2011  
[http://data.unaids.org/Publications/IRC-pub01/jc316-uganda-india\\_en.pdf](http://data.unaids.org/Publications/IRC-pub01/jc316-uganda-india_en.pdf) .
- UNAIDS 2006. Global facts and figures. Geneva, UNAIDS.
- UNAIDS 2006b. The road towards universal access: Scaling up access to HIV prevention, treatment, care and support. Geneva, UNAIDS.
- UNAIDS 2008. The global HIV challenge: Report on global AIDS epidemic. Geneva, UNAIDS.
- UNAIDS 2009. Global AIDS epidemic. Geneva, UNAIDS.
- UNAIDS, Ghana 2010. Ghana's progress report on the United Nations General Assembly Special Session declaration on commitment on HIV and AIDS. Geneva, UNAIDS.
- UNAIDS/IATT 2008. HIV/AIDS and education: A strategic approach, Conference ready version. Viewed 25.02.2009  
<http://unesdoc.unesco.org/images/0016/001627/162723e.pdf> .
- UNAIDS/WHO 2007. AIDS epidemic update. Viewed. 25.02.2009.  
[http://data.unaids.org/pub/EPISlides/2007/2007\\_epiupdate\\_en.pdf](http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf).
- UNAIDS/WHO 2011. Global summary of AIDS epidemic. Geneva, UNAIDS.
- UNESCO 2006. Towards a comprehensive education sector response: A Framework for action. UNESCO.
- UNESCO 2007. Review of sex, relationship and HIV education in schools. UNESCO.
- UNICEF 2010. At a glance, Ghana statistics. Viewed 20.01.2011,  
[www.unicef.org/infobycountry/ghana\\_statistics.html](http://www.unicef.org/infobycountry/ghana_statistics.html).

- UNICEF, UNESCO & UNFPA 2008. Responding to the HIV prevention needs of adolescent and young people in Asia: Towards cost-effective and programmes. Kathmandu, UNICEF.
- Vangroenweghe, D. 2001. The earliest cases of Human Immunodeficiency Virus Type 1 group M in Congo-Kinshasa, Rwanda and Burundi and the origin of Acquired Immune Deficiency Syndrome. *Philosophical transactions of the royal society of London* 356(1410), 923-925.
- Vandemoortele, J. & Delamonica, E. 2000. The education vaccine against HIV. *Current issues in comparative education* 13(3), 391-398.
- Weinberger, M. 1992. Physicians' attitudes and practices regarding treatment of HIV infected patients. *Southern Medical Journal* 85(7), 683-686.
- William, P. & Umerah-Udezuru, I. 2002. Combating the HIV/AIDS crisis in Africa. *Sustainable and preventive model bulletin* 80(10), 13-34.
- William, B. G., Taljaard, D., Cambell, C. M., Gouws, E., Ndhovu, L., Van Dam, J., Carael, M. & Auvert, B. 2003. Hanging patterns of knowledge, reported behaviour and sexual transmitted infection in South African gold mining community. *AIDS* 17(14), 2099-2107.
- WHO 2004. *The global burden of disease*. Washington DC, WHO.
- WHO 2007. *Education and HIV/AIDS: A source book of HIV prevention Programmes*. Washington DC, WHO.
- World Bank 2008. *A source book of HIV/AIDS prevention programmes vol.2*. Washington DC, World Bank.
- World Bank 2009. *Disability and Development*. Washington DC, World Bank.
- World Bank 2002. *Education and HIV/AIDS: a window of hope*. Washington DC, World Bank.
- Yousafzai, A. K., Dlamini, P. J., Groce, N. & Wirz, S. 2004. Knowledge, personal risk and experiences of HIV/AIDS among people with disabilities in Swaziland. *International journal of rehabilitation research* 27(3), 247-251.
- Yousafzai, A. & Edwards, K. 2004. *Double burden: A situation analysis of HIV/AIDS and young people with disabilities in Rwanda and Uganda*. London, Save the children.

## APPENDICES

**Appendix I: A letter to schools seeking their permission**

University of Jyvaskyla, Finland  
 Faculty of Education and Master  
 Programme in Development and  
 International Cooperation  
 Tel: +358445068577/+233243419213  
 12<sup>th</sup> January 2010

The Principal  
 Jamasi School for the Deaf  
 Jamasi, Ashanti.

Cc

The Principal  
 Nsutaman Catholic Senior High School  
 Nsuta, Ashanti.

Dear sir,

**PERMISSION FOR QUESTIONNAIRE ADMINISTRATION**

I am a master student at university of Jyvaskyla, Finland pursuing a programme in Development and International Cooperation with a major in educational sciences. As a prerequisite for a successful completion of the degree programme, I am conducting research of which your school has been considered. My topic is; HIV/AIDS education in regular and special (Deaf) secondary schools in Ghana.

The research would centre on the knowledge, attitude and the behaviour of the students. In all 300 students would be involved in the study and would be selected randomly. I am therefore taking this opportunity to seek for permission at your office to enable me conduct this research at your school.

Yours faithfully

Akoto Yaw

## Appendix II: Questionnaire

You all have almost heard of HIV/AIDS. In this academic research, we are interested about your attitude, and knowledge about HIV/AIDS. This is not a **real test**. There are no wrong or right answers we are interested in your own opinion. Your personality or identity will not be revealed in any way during the research process and no individual information will be reported. This data will be kept in a very safe location at the University of Jyvaskyla, Finland when this research process is finished. Please give only your **PERSONAL OPINION**.

**Well let's start to express ourselves freely by answering the questions that follows.**

### SOMETHING ABOUT YOU

i. Sex      Male       Female       Age-----

ii School-----

iii Form -----

iv Religion: Christian       Muslim       Other       Non

v What is the educational level of your parents /guardian.

Basic level\_    secondary level\_    post secondary level\_    tertiary level\_  
none\_



<b>INDICATE YOUR OPINION ABOUT THE FOLLOWING AND TICK THE CORRECT BOX</b>	<b>Strongly disagree</b>	<b>disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't know</b>
1. AIDS is caused by HIV- The Human Immunodeficiency Virus					
2. HIV is transmitted through touching an infected person					
3. HIV can spread through coughing and sneezing					
4. HIV can spread by sharing needles or syringes with someone who has the virus					
5. HIV is commonly spread by getting HIV-infected blood					
6. HIV can spread through sex					
7. HIV can also be passed from infected pregnant woman to her unborn baby during pregnancy, birth and breast milk.					
<b>INDICATE YOUR OPINION ABOUT THE FOLLOWING AND TICK THE CORRECT BOX</b>	<b>Strongly disagree</b>	<b>disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't</b>
8. HIV is transmitted by Sharing water glasses					
9. HIV can be contracted through toilet seats					
10. Mosquitoes can transmit HIV.					
11. Condoms will decrease the risk of HIV transmission					
12. HIV is a disease for the Ghanaians only					
13. HIV is a disease for the blacks only					

14. HIV is transmitted by simple touching an infected person					
<b>HIV could be avoided by.....</b>					
15. Abstaining from pre- marital sex					
16.Using condoms					
17. Avoiding injections from illegal people					
18. Avoiding kissing					
19. Avoiding casual sex					
20. Limiting sex to one partner					
21. Avoiding sharing used razor blades					
<b>What is your opinion on these statements?</b>					
22. I am ready to eat food prepared by HIV positive person					
23. I am willing to do voluntary HIV testing					
24. I would stay in the house where HIV positive person lives					
25. My teacher should stay at home when infected with HIV.					
26. I am not willing to see doctors who help HIV positive people					
27. People with HIV should be kept out of school					
28. I would advice my friend who is HIV positive to go for healing and protection from traditional practitioner					

39. People with HIV should stay at home or in a hospital					
30. I would end my friendship if my friend gets HIV/AIDS.					
31. I am willing to share same things with HIV positive people					
32. HIV is a punishment from God					
33. HIV is caused by witchcraft					
34. I am willing to help people infected with HIV/AIDS					

<b>Tick the right option</b>	<b>YES</b>	<b>NO</b>
35. Have you ever had sexual intercourse		
36. Have you had more than one sexual partner?		
37. Did you use a condom the very first time you had sexual intercourse?		
38. Do you ever say no to sex without condom?		

39. Condom use is necessary even if you have one sexual partner.

Strongly disagree\_ disagree\_ agree\_ strongly agree\_ don't know\_

40. Are there other measures you have used to protect yourself?.....

.....  
 .....

<b>How important have been the following source for you personally to acquire HIV/AIDS information.</b>	<b>Not at all</b>	<b>A little</b>	<b>Quite</b>	<b>Very often</b>
41. Parents/family members				
42. Teachers				
43. Friends/peer				
44. Radio/Television/movies				
45. Religious Leaders				
46. Doctor/ Nurses				
47. NGOs				
48. Health clubs				
49. Magazines/newsletter/pamphlets/poster				
50. Boy/girl friend				
51. school				

<b>How dangerous do you consider the following diseases</b>	<b>Not at all</b>	<b>A little</b>	<b>Quite</b>	<b>Very</b>
52. Malaria				
53. Tuberculosis				
54. Typhoid				
55. Mental disorder				

56. HIV/AIDS				
57. Gonorrhea				
58. Blood pressure				
59. Blind				

<b>How close would you accept the following persons</b>	<b>Best friend</b>	<b>A friend</b>	<b>Not a friend but classmate</b>	<b>Wouldn't mind</b>
52a. Malaria				
53a. Tuberculosis				
54a. Typhoid				
55a. Mental disorder				
56a. HIV/AIDS				
57a. Gonorrhea				
58a. Blood pressure				
59a. Blind				

59b. Is HIV/AIDS a subject of study in your school? YES\_ NO\_

60. How often do they teach the subject in your school?

Everyday\_ Once a week\_ Once two weeks\_ Once a month\_ Once a term\_ Never\_

61. Are you happy with the HIV/AIDS education in your school?

Not at all\_ A little\_ Quite\_ Very\_

62. Do you get relevant information from the school?

Never\_ Sometimes\_ Often\_ all the time\_

63. Has the HIV/AIDS education affected your personal behaviour and attitude?

Never at all\_ Slightly\_ At time\_ All the time\_

64. How do the teachers in your school see your behaviour in the school?

Problematic\_ a little problematic\_ not at all problematic\_ don't know\_

65. How do your classmates see your behaviour at school?

Problematic\_ a little problematic\_ not at all problematic\_ don't know\_

66. Do you know your HIV status? YES\_ NO\_

67. Do you fear the risk of getting HIV/AIDS in the near future or later future?

YES\_ NO\_

68. Explain

why.....  
.....  
.....

69. What do you do to avoid getting

HIV.....