

RISK FACTORS ASSOCIATED WITH HIV/AIDS
INFECTIONS AMONG DEAF YOUTHS IN SELECTED
EDUCATIONAL INSTITUTIONS IN NYANZA PROVINCE,
KENYA

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associated with*

DECLARATION

This is my original work and has not been presented for a degree in any other University or any other award.

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DEDICATION

To my children, Timothy, Sylvia, Ken, Winnie and Junior, whom I denied care during the study period and to the deaf youths in their silent world.

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To God be the glory.

ABBREVIATIONS & ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ARHDP	Adolescent Reproductive Health and Development Policy
ASL	American Sign Language
BDDP	Bondo District Development Plan
CBS	Central Bureau of Statistics
DNPPWDs	The Draft National Policy on Persons with Disability
DPOs	Disabled Persons Organizations
ESCAP	Economic & Social Commission For Asia And Pacific
EU	European Union
FPPS	Family Planning Private Sector
GOK	Government of Kenya
HIV	Human Immuno Deficiency Virus
IEC	Information Education and Communication
KDHS	Kenya Demographic Health Survey
KDDP	Kisumu District Development Plan
KIE	Kenya Institute of Education
KII	Key Informants Interviews
KNASP	Kenya National HIV/AIDS Strategic Plan
KNDAEP	Kenya National Deaf HIV/AIDS Education Programme
LCD	Least Developed Countries
MDDP	Migori District Development Plan

MOEST	Ministry of Education Science & Technology
MOH	Ministry of Health
MOP	Ministry of Planning
NACC	National Aids Control Council
NUDIPU	National Union Of Disabled Persons Of Uganda
OCHA	UN Office For Coordination Of Humanitarian Affairs
PWDs	Persons with Disabilities
RDDP	Rachuonyo District Development Plan
ROK	Republic of Kenya
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted Infections
TB	Tuberculosis
UNAIDS	United Nations Aids Program
UNICEF	United Nations Children's Fund
USA	United States of America
WHO	World Health Organization

DEFINITION OF OPERATIONAL TERMS

- Risk factors:** are those elements that increase directly the probability that an individual will become infected with or transmit HIV/AIDS to another person.
- Disability:** an individual with physical, sensory, intellectual or mental health impairment that have a significant and long lasting effect on the individual's daily life and activities.
- Deaf:** loss of hearing which is severe that the person is impaired in processing linguistic information through hearing.
- Sexually active:** an individual who has reached puberty and has the potential to take part in sexual activities.
- Youth:** any individual aged 15-24 years.
- Young person:** any individual aged 10-24years.
- Young person/youth:** terms used interchangeably in this study to include an individual within the age of 10-24years.

For the purpose of this study, the researcher defines youth as period between 12-24years

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ABSTRACT

HIV/AIDS has become one of the greatest challenges of the 21st century. Young people, though identified as the window of hope, account for 60% of all new infections in most African countries. In Kenya, HIV/AIDS is a national disaster and the Kenya Government, in conjunction with both the local and international NGOs have put measures to create awareness among the most vulnerable youth groups. Nonetheless, most measures have not been targeting the three million disabled persons in the country. Currently, little is known about HIV/AIDS and disability. Very little data on prevalence exists for any disabled population globally. Major gaps in the national HIV/AIDS prevention campaigns and treatment programmes have made disabled population more vulnerable to HIV infection than their non-disabled counterparts. The main objective of this study was to investigate risk factors associated with HIV/AIDS infection among the deaf in selected educational institutions in Nyanza Province. A cross-sectional descriptive survey was carried out, and data collected using both quantitative and qualitative methods that include structured questionnaire, focus group discussions (FGD) and key informant interviews (KII). Data was entered into SPSS programme and analyzed using descriptive statistics and chi-square tests. A sample of 384 respondents was randomly selected. Twenty eight point one percent (28.1%) of the respondents were orphans and had lost a parent or two. Nearly half, (48.7%) had had sexual contact and minimum age of first exposure was 9 years. The mean age of first exposure was 15.54 years with a standard deviation of 3.019. The findings of the study indicated that Socio-demographic factors, Behavioral factors and Knowledge of HIV/AIDS had significant influence on predisposure of the respondents to HIV/AIDS. The findings also showed high significant relationships between Socio-demographic factors and HIV/AIDS risks ($p < 0.05$) in the following: Age and Sexual harassment; Age and Perception of risk ($\chi^2=17.854$, $df=4$, $p=0.001$; $\chi^2=48.944$, $df=4$, $p=0.0001$) respectively. Respondents less than 18years of age were more likely to be sexually harassed than those older or equal to than 18years. Level of Education and Perception of risk; Level of education and Sexual harassment ($\chi^2=14.090$, $df=3$, $p=0.135$; $\chi^2=26.952$, $df=3$, $p=0.0001$) respectively. Relationship with the Household head and Perception of risk; ($\chi^2=20.574$, $df=6$, $p=0.002$). Majority of the respondents engaged in unsafe sex practices therefore the findings of this study rejected the null hypothesis. High significant relationship between Knowledge of HIV/AIDS and HIV/AIDS risks ($p < 0.05$) was also recorded in the following: Knowledge of HIV/AIDS by perception of risk and condom use ($\chi^2=15.556$, $df=2$, $p=0.0001$; $\chi^2=8.101$, $df=1$, $p=0.004$) respectively. The study demonstrated that knowledge of HIV/AIDS did not translate into safe sex practices and personal perception of risk among the deaf youths was low. Findings consistent with UNICEF (1997-2001); and UNAIDS (2002). This study therefore recommends that the government and non-governmental organizations should fully involve the deaf youths in the designing of HIV/AIDS interventions which target them and in policy implementation.

CHAPTER 1

INTRODUCTION

1.1 Background Information

Acquired Immune Deficiency Syndrome (AIDS) is a Public Health concern and challenge. There is arising incidence of Human Immune Deficiency Syndrome (HIV/AIDS) despite Global efforts (Piwoz & Elizabeth, 2003). An estimated 42 million people world-wide were infected with the virus by the end of 2002 with more than half believed to have acquired the disease between 15 and 24 years (UNAIDS, 2003). According to UNAIDS/WHO 2007, AIDS Epidemic update, an estimated 33.2 million people are living with HIV. There were 2.5 million new infections in 2007, (65%) of these in sub-Saharan Africa (SSA). In 2007, 2.1 million people died of AIDS related illnesses and more than 25million people have died of AIDS since 1981.

Southern Africa is the worst affected area in this region with Swaziland leading (Murangira, 2004). Adult HIV prevalence in East Africa exceeds 6% in Uganda, Kenya and Tanzania (UNAIDS/WHO, 2006). Large variations exist between the patterns of the AIDS epidemic in different countries in Africa. In some places, the HIV prevalence is still growing. In others, the HIV prevalence appears to have stabilized in a few African nations such as Kenya and Zimbabwe declines appears to be underway. Other countries face a growing danger of explosive growth.

Stabilization of HIV prevalence occurs when the rate of new HIV infection is equaled by the AIDS death rate among the infected population. Although prevalence remains stable,

the actual number of Africans living with HIV is rising due to general population growth (WHO, 2007).

AIDS is a tragedy of devastating proportions in Kenya. The lives of the infected and the affected individuals, their families and communities, the companies and agencies they work for and the society as a whole is affected by the HIV/AIDS pandemic (KNASP, 2006). Nyanza Province, the worst hit area in Kenya, has 28% of the population infected with HIV/AIDS (KDHS, 2003).

Several factors that include biological, socio-cultural and economic, pressure, socialization and denials predispose the youth to HIV/AIDS. It is commonly assumed that individuals with physical, and sensory (deafness, blindness or intellectual) disabilities are not at risk of HIV/AIDS infection. They are incorrectly believed to be sexually inactive, unlikely to use drugs or alcohol and at less risk of violence or rape than their non disabled peers. Individuals with disability are at equal risk of exposure to all known risk factors (World Bank, 2004; Huemann, 2004).

Studies show that deaf adolescents have large information gaps concerning HIV transmission and prevention. Diagnosis of many deaf people often does not occur until the patients are symptomatic, and HIV-positive deaf people tend to die earlier than hearing patients (Gaskins, 1999). A delay in treatment resulting from lack of patient knowledge and comprehension of HIV may account for these findings. Adherence issues

are also problematic, with studies showing that deaf individuals sometimes do not fully comprehend their medical prescriptions (Gaskins, 1999).

Risk factors are those elements that increase directly the probability that an individual will become infected with or transmit HIV/AIDS to another person (Senderowitz, 1995).

In this study, risk factors were characterized by predisposing factors such as socio-demographic, behavioral, prevention services, knowledge level, attitude and practice in relation to HIV/AIDS infection among the deaf in selected educational institutions in Nyanza Province.

1.2 Problem Statement

HIV/AIDS has caused considerable morbidity, mortality and other socioeconomic impacts due to the fact that it affects the age group that is mostly economically active.

Presently there are approximately 1.1 million HIV infected individuals in Kenya and about 180,000 people live with AIDS. Eighty percent of these individuals are in the age bracket 20-45 years, which is also the reproductive age group (ROK/MOH, 1997).

Six point seven percent (6.7%) of Kenyan adults are infected with HIV. Nyanza Province has the highest total rate of HIV infection of 15.1% (KDHS, 2003). The population of people with disability in Kenya is estimated at 10% of the total population, which gives a total of three million handicapped persons (ROK, 2003). People from the normal population assume that those with disability cannot get HIV/AIDS therefore capitalize on their disability and violate them sexually (Nora, 2003). Disabled people are up to three

times likely to be victims of physical abuse, sexual abuse, or rape as compared to members of the general population (Nora, 2003). They are less able to defend themselves from attack and find it more difficult to seek recourse through court which are often physically inaccessible or do not have sign language interpreters available (Nora, 2003; Nganzi, 2004).

Youths with disability, especially the deaf are more vulnerable because of communication barriers, as many people including their parents lack appropriate sign language to express the risks factors associated with HIV/AIDS to them. So far, very little data exist showing the people with various disabilities and who are infected with HIV in Kenya and similarly there is little data for the deaf who are infected with the scourge (UNAIDS, 2006). In view of the problem stated above this study assessed risk factors associated with HIV/AIDS infection among the deaf youths in selected educational institutions in Nyanza Province.

1.3 Justification

Hormonal and body changes in youths put them at highest risk of contracting HIV/AIDS if they engage in risky sexual behaviour. Youths and adults are the most productive group required for economic development of this nation, but HIV/AIDS is infecting a large majority at an alarming rate, which is everybody's concern today.

Several documented studies carried out among the youth show that a lot has been done in the area of knowledge of STI/HIV and sex practices among the hearing youth (FPPS,

1994). In these studies, a very important group has been omitted, the persons with disabilities (PWDs). The study population which comprised the deaf youths in educational institutions has been selected because very little data exists on the deaf persons living with HIV/AIDS while all the youths are equally at risk of contracting the scourge. The purpose of the study was therefore to establish risk factors associated with HIV/AIDS infection among deaf youths in Selected Educational Institutions in Nyanza Province.

1.4 Research Questions

The study sought to answer the following research questions.

1. What socio-demographic and behavioural factors predispose the deaf youths to HIV/AIDS infection?
2. What HIV/AIDS prevention services are provided to the deaf youths?
3. What is the knowledge level, attitude and practice in relation to HIV/AIDS infection of deaf youths?

1.5 The Null Hypothesis

The following hypothesis guided the study.

Socio-demographic and behavioural factors have no significant influence in predisposure to HIV/AIDS infection among deaf youths in selected educational institutions in Nyanza Province.

1.6 Study Objectives

1.6.1 General Objectives

To investigate the risks associated with HIV/AIDS infection among deaf youths in selected educational institutions in Nyanza Province.

1.6.2 Specific Objectives

1. To investigate the socio-demographic and behavioural factors predisposing the deaf youths to HIV/AIDS infection.
2. To identify the HIV/AIDS prevention services provided to deaf youths.
3. To establish the knowledge level, attitude and practice of the deaf youths in relation to HIV/AIDS infection.

1.7 Significance and Anticipated Output

Little is known about HIV/AIDS within the disabled population (World Bank, 2004). As early as 1992, experts estimated that the deaf population was 8 years behind the hearing population in HIV/AIDS knowledge and awareness (Gaskins, 1999). Extreme poverty and social sanctions against marrying a disabled person mean that they are likely to become involved in a series of unstable relationships (ESCAP, 1995). A gap was created for this study by the fact that most researches on youth and HIV/AIDS had been carried out on the hearing population. The study addressed the gap by considering the deaf youths with different educational levels.

This being the only study that has so far focused on deaf youths in Nyanza Province, it would therefore produce useful and hitherto available knowledge that would be ideal for reference. Knowledge produced should influence the current HIV/AIDS policies and lead to generation of new ones for the improvement of the sectors. Data generated would contribute to critical needs on the development of pertinent basic planning tools for education and policy managers within the government, particularly focusing the link between health, education and disability in the context of emerging challenges resulting from HIV/AIDS. Once the policies are changed or updated, “practice” should also change. In practice, issues of predisposure, prevention and control of HIV/AIDS in Nyanza Province would be changed or improved.

The findings of the study would also assist the government and policy makers to come up with laws on affirmative action on behaviour change towards the youth with disability in relation to HIV/AIDS. The backbone of this nation’s economy depends on the youth and therefore it is important that the health of these future leaders and parents be checked.

1.8 Delimitation and limitation

Ideally, this study should have been conducted in all the institutions for the deaf in the country. Lack of funds and adequate time meant that only a sample of the institutions could be studied.

The researcher also totally relied on the research assistants to do the sign language interpretation since the subjects were deaf. However despite these limitations, the study

should be useful for exemplification and for the beginning of the debate on HIV/AIDS and disability in Kenya.

1.9 Assumptions

The study was based on the assumption that the research assistants understood the information under inquiry and gave the appropriate sign language for them.

1.10 Conceptual and theoretical frameworks

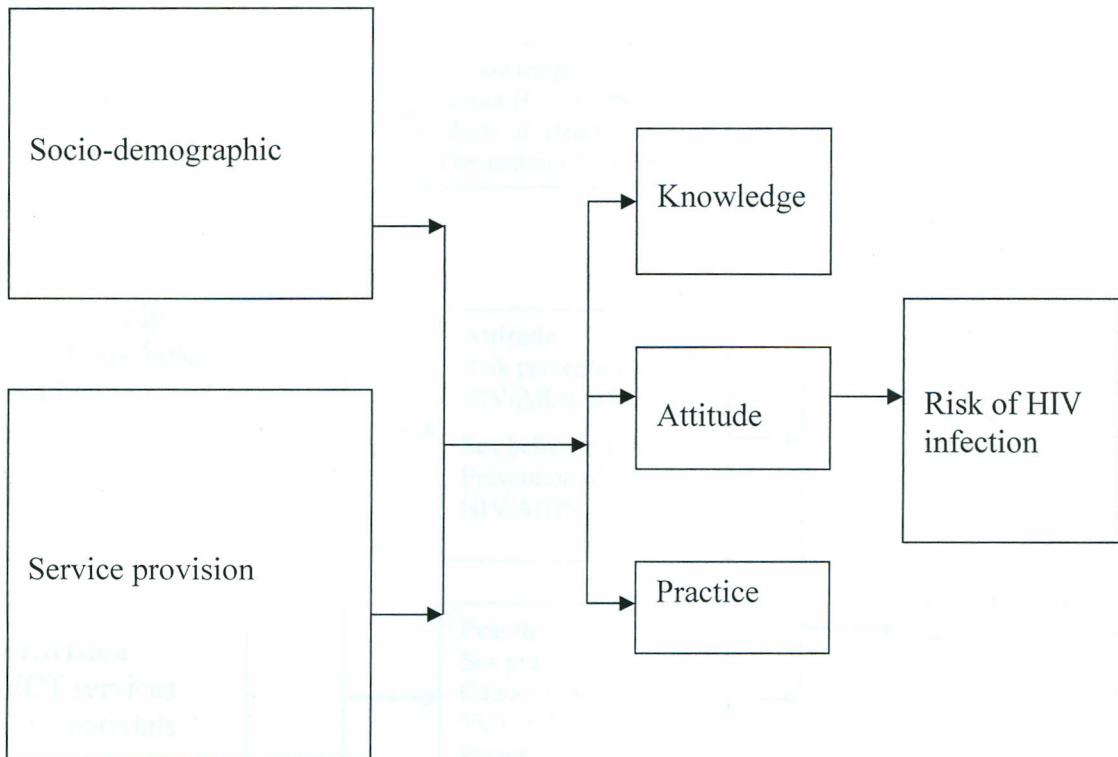
The study utilized the conceptual and operational frameworks shown in fig1.1 and 1.2 respectively.

1.10.1 Theoretical framework

In order to understand the spread of HIV/AIDS, there is need to look at specific risk factors under the whole fabric of socio-demographic, behavioural and service provision factors that influence prevalence of such risk factors associated with HIV/AIDS infection.

1.10.2 Conceptual framework

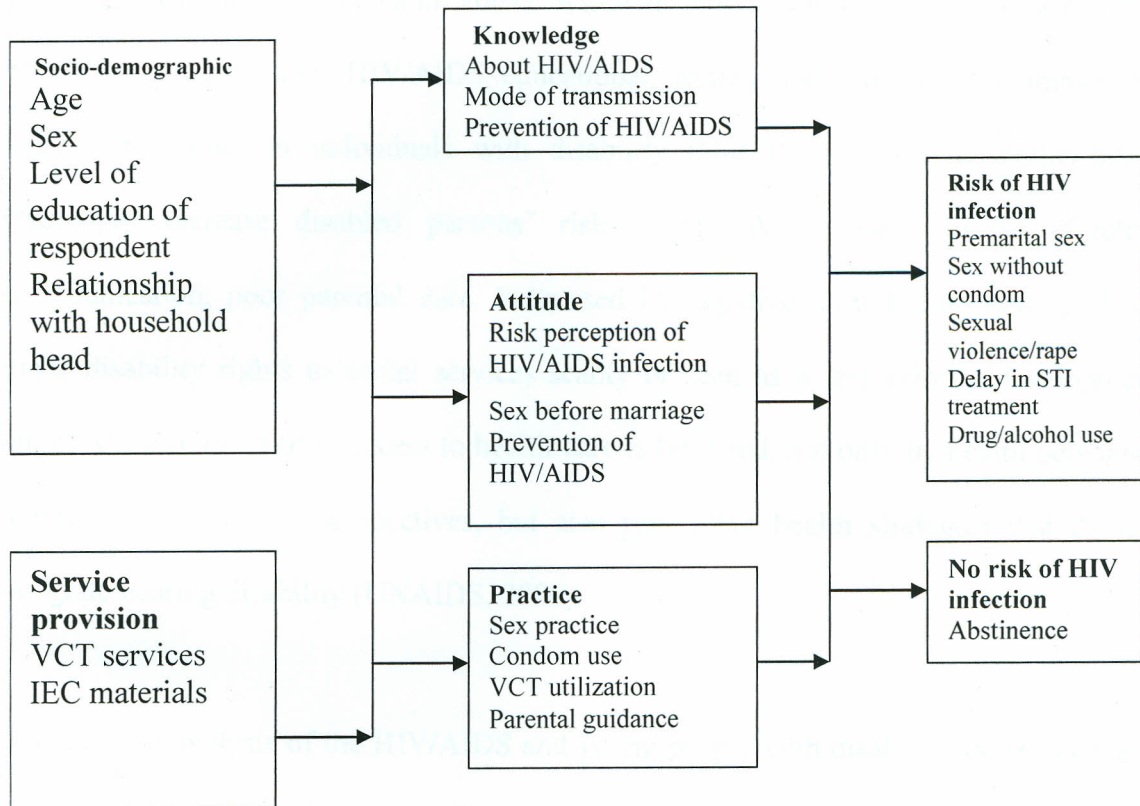
Globally, HIV/AIDS has had devastating effects on human population since its initial reporting in the early 1980s, many people have been infected and affected. Socio-demographic, behavioral and service provision factors contribute to knowledge, attitude and practice thus influencing sexual behaviour of an individual. These then determine the outcome, that an individual is either at risk of exposure to HIV infection or not.

Fig.1.1 Conceptual-Framework**Background factors****Proximate factors****Outcome**

1.10.3 Operational framework

Below are the variables formulated from the conceptual frameworks that were included in the study tools.

Fig 1.2 Operational Framework



CHAPTER 2

LITERATURE REVIEW

2.1 HIV/AIDS and Disability

HIV/AIDS is a significant and almost wholly unrecognized problem among the disabled population worldwide (Huemann, 2004). While all individuals with disability are at risk of HIV/AIDS infection, HIV/AIDS educational, testing and clinical programmes are largely inaccurate to individuals with disability (Huemann, 2004). Disability-based challenges increase disabled persons' risk to HIV/AIDS. Lack of an effective communication, poor parental care, buttressed by negative attitude and cultures have made disability rights to social services scanty or seen as a less priority development targets (UNAIDS, 2006). Access to health-care is hindered, not only by health personnel untrained in disability perspectives, but also preventive health strategies that do not integrate hearing disability (UNAIDS, 2006).

A situational analysis of the HIV/AIDS and young people with disability in Rwanda and Uganda gave an in-depth picture of how young people with disability are affected by the scourge, the study also showed how they are less likely to learn how to protect themselves because of communication difficulty, discrimination by health service workers and educators and difficulties in accessing health centers (Yourisafzi & Edwards, 2004).

According to the study by Nganzi, (2004), in Zimbabwe, disabled people perceive themselves to be at a higher risk of HIV/AIDS infection due to their disability, regardless of their awareness levels. The studies further revealed that the many myths and misconceptions around HIV/AIDS and disability increase the vulnerability of the disabled people to HIV/AIDS. It also revealed that there was limited access to HIV/AIDS information and utilization of HIV/AIDS services by people with disability, mainly because of the nature of their disability, location of the health facility and attitude of the service providers.

In a study by Murangira, (2004), persons with disabilities pointed out that they sometimes had to face rape as a result of inability to fight rapists due to the severe physical disability. Other cases have been where the victim is either deaf and dumb such that even when overpowered, cannot raise an alarm to seek help. The deaf, blind and those with multiple disabilities are common victims in this regard. Too often, those that are expected to provide assistance to them are the same people that sexually abuse them. Sadly, those who acquire HIV/AIDS out of such circumstances lack knowledge on the existence of VCT services (Murangira, 2004). In Kenya, for example there exists only one VCT clinic for the deaf serving the whole of Nyanza, Western and Rift Valley Provinces (NYAWERI VCT) located next to the Nyanza Provincial General Hospital grounds and this is not accessible to most persons who are deaf while some may not even be aware of its existence. In developing counties including Kenya, access to health is a major challenge for disabled communities. HIV/AIDS management programmes are developed on the foundations of the existing health programmes which are not disability-

friendly. Kenya National Aids Strategic Plan 2005-2010 identifies disability as one of the vulnerable groups. The PWDs Strategic Plan 2006-2009 also outlines various issues including access to health as the strategic issues to be tackled.

2.2 HIV/AIDS and Deafness

Data on the global magnitude of the problem of the deaf are still scarce, but recent information indicate that there are 120 million people with a disabling hearing impairment (WHO, 1996). Applying this estimate to the African region there are at least 12 million people with hearing disability in the countries concerned (WHO, 1996). Estimates from deaf community mapping indicates that the level of HIV prevention is approximately 12% for the deaf in general (UNAIDS, 2006). There are 400,000 deaf people in Kenya (UNAIDS, 2006). Sexual relationship mainly because of rape with the general population increases the risk of HIV/AIDS infection. Over 40% of the deaf had their sexual experience at a very young age. Many have grown up knowing it is normal to have sex (UNAIDS, 2006). It is estimated that over 50,000 deaf people are living with HIV/AIDS in Kenya. Only slightly above 5000 have had access to deaf VCT as by December 2005 (UNAIDS, 2006). The mobile VCT is important in providing access to deaf VCT. Transmission of various STI during such sexual activities is common. Many deaf adults either need treatment for HIV or an STI. Most are living with an STI and do not know it is curable nor have sought treatment.

Several factors that include biological, socio-cultural and economic, pressure, socialization and denials predispose the youth to HIV/AIDS. Individuals with disability

are at equal risk of exposure to all known risk factors (World Bank, 2004). High rate of substance use exists among the deaf community. One in every seven deaf persons has a history of substance abuse, compared to one in ten in the hearing population (Natasha *et al.*, 1999). Substance abuse can be a risk factor for HIV by lowering inhibitions and impairing judgement, which can lead to unsafe sexual behavior. Sharing injection equipment is also a risk of infection. There is very little HIV or sexuality education in schools for the deaf especially for adolescents. Because of this, deaf persons have much less knowledge and awareness of other STDs, they do not have the vocabulary necessary to discuss these topics with each other (Natasha *et al.*, 1999).

2.3 HIV/AIDS - IEC materials and services among the deaf

The currently available services and resources as well as channels for disseminating HIV/AIDS information of any category (for example targeting prevention) do not specifically take into account PWDs. Communication barriers exist between the able-bodied and PWDs. Inappropriate methods of the disseminating critical information leave certain categories of PWDs isolated and excluded (Murangira, 2004). The nature/mode of information dissemination about HIV/AIDS is not user-friendly to PWDs (especially the deaf and dumb), the deaf cannot hear verbally disseminated message on HIV/AIDS. Many such categories remain ignorant about their sero-status and the available services and opportunities, for example information on the use of condoms as a preventive measure (Yourisafzi & Edwards, 2004).

Deaf people know about a quarter of the HIV prevention information that hearing people know, and their understanding of AIDS treatments is about ten years behind the mainstreams (Peinkoffer, 2004). The result is a rate of infection among the deaf that most observers agree dramatically higher than the 0.3% rate in the general population (Peinkoffer, 2004). Illiteracy is just one factor contributing to the increased risk of HIV for the deaf. Certain characteristics of the community itself including high rate of substance and alcohol abuse lead to behaviour that create and AIDS risk (Sleek, 1999). One in seven deaf people has a problem with drugs use which lowers sexual inhibitions and may include shared needles. In addition children with disability are more commonly victims of sexual abuse or incest which are correlated with a higher incidence of adult unsafe sex. The deaf being a marginalized group hence low self-esteem, might seek approval through sex, safe or not (Sullivan *et al.*, 1987).

2.4 Unavailability of interpreters

Lack of access to interpretation service appears to be a systematic problem. Many providers do not comprehend when interpretation is needed. They assume that the deaf and hard-of-hearing have mastered the English language or that medical terms are easily translated in American Sign Language (ASL). A shortage of the qualified interpreters exists in many areas. The shortage is likely to continue unless financial resources for procuring these services are increased and unless the relationship between interpretation services and health status becomes more widely understood (Guthman *et al.*, 1999). Ninety percent of parents of deaf children never master sign language hence rarely

provide any useful sex education to their children and therefore leave it up to the schools (OCHA, 2003).

2.5 Barriers to HIV/AIDS prevention among the deaf

The shortage of culturally competent providers is reflected in the lack of culturally appropriate prevention and treatment education materials. The undersupply of useful materials results in individuals not understanding HIV disease. The deaf remain unaware of the difference between HIV and other STDs, do not comprehend basic treatment concepts and may not understand the full importance of an HIV positive test result. Advocates speak with one voice about teaching individuals about HIV prevention and treatment. The best method for communicating with the deaf and hard-of-hearing is through graphics, photographs and diagrams (Northern & Dawns, 1991).

The deaf community is very tight-knit. This can offer strong support and strong condemnation at times. Confidentiality is very important in this community where news travels very fast. Many deaf persons would rather go alone to an all hearing HIV testing and counseling clinic and risk miscommunication and misunderstanding than bring an interpreter or go to a deaf clinic and risk being recognized and losing confidentiality. In some instances deaf people see it as a risk to be tested for HIV because they do not trust the hearing doctors to respect their confidentiality. In such cases interpreters can bridge the communication gap between the doctor and the patient (Grivois & Houtte, 1999).

CHAPTER 3

MATERIALS AND METHODS

3.1 Research Design

A cross sectional descriptive survey design was used in the study. The design was suitable for this study because survey research collects data generally at one point in time and given that the study area was wide it was appropriate to explore, describe and determine the characteristics of the study subjects effectively.

3.2 Operational variables

As indicated in the operational framework, the background factors are independent variables. They are all the determinants of the deaf youths' knowledge, attitude and practice (which are intermediate variables). The socio-demographic variables are age, sex level of education of the respondent and relationship with the household head. The dependent variables are risks associated with HIV/AIDS infection (premarital sex, sex without condom, occurrence of STI and delay in treatment, drug use, sexual violence) determining the outcome causing an individual to be either at risk or not at risk of HIV/AIDS. At risk implies that a deaf youth engages in activities that may lead to one getting HIV/AIDS while not at risk implies a youth abstains.

3.3 Study Area

The study was carried out in Nyanza Province which is one of the eight provinces in Kenya. The province got its name because it borders Lake Victoria. Nyanza Province shares its borders with Western and Rift valley provinces. It also borders Uganda and Tanzania. The province covers an area of 12,547 km² and had a population size of

4,392,196 in the year 2001 (ROK/CBS, 2001). It is the 3rd smallest province in Kenya and has 12 districts. The districts with special institutions for the deaf youths targeted were Kisumu, Bondo, Rachuonyo and Migori.

3.3.1 Administrative, Geographic and Physical Boundaries

3.3.1.1 Kisumu District

Kisumu District borders the following districts; Nyando to the east, Nandi to northeast, Vihiga to the north, Siaya to the northwest, Bondo to the west and Rachuonyo to the south. It lies within longitude 33 20'E and 35 20'E and latitude 0 20'E and 0 50'S. The district covers a total area of 918.5km² and has four administrative divisions namely Winam, Maseno, Kombewa and Kadibo (GOK/MOP/KDDP, 2002).

The district has a shore-line along Lake Victoria. This shore-line is 80km long, and has more than thirteen beaches all of which are fish landing bays. The mean annual rainfall varies with altitude and proximity to the highlands long the Nandi escarpment and Tinderet. Maseno has a mean annual rainfall of 1,630mm, Kisumu 1,280mm, Kibos 1,290mm and Koru 1,103mm. The lowland area forms a trough of low rainfall, receiving a mean annual rainfall of between 1,000mm and 1,800mm. This area has two rainy seasons, with the long rains occurring in August/September. During the short rains, the average annual rainfall ranges between 450mm and 600mm. Their reliability is low and the rains are distributed over a long period, making the cultivation of second crops difficult. Although there is entirely no dry month, the peak generally falls between March

and May, with a secondary peak in September to November. The mean annual temperature ranges from 20°C to 30°C (GOK/MOP/KDDP, 2002).

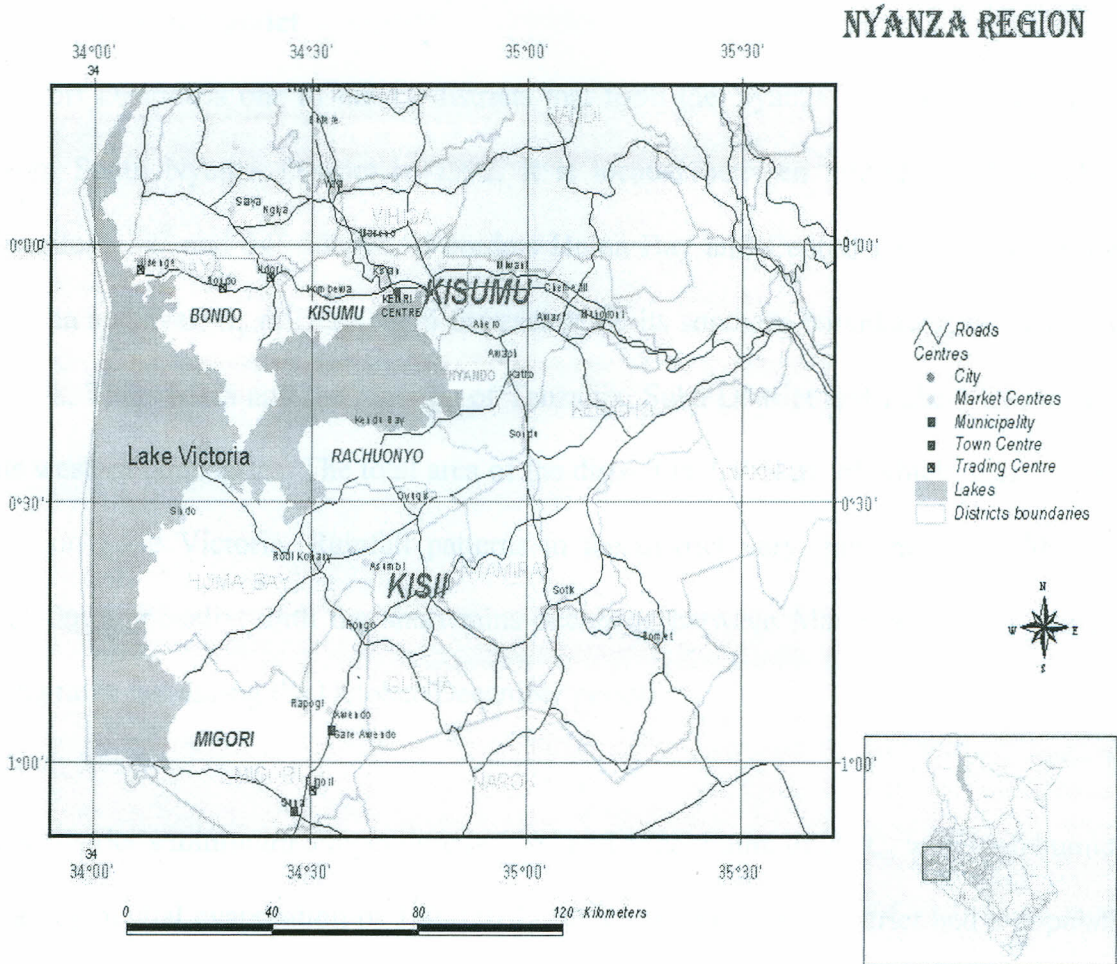
Kisumu District had a population size of 535,664 in the year 2002, with the total number of youthful population (15-25 years) of 128,367 (GOK/MOP/KDDP, 2002). The number of disabled and the percentage to total population by sex was not available. All the four divisions of Kisumu are seriously plagued by HIV/AIDS menace and this has seriously affected the human resource and economic development. The effect of HIV/AIDS pandemic in the district is felt in every sector of the economy. The prevalence rate of HIV/AIDS stands at 38% and it is among the highest in the country. The disease has affected the most productive active age bracket leading to the death of persons in their prime ages resulting to serious social and economic problems in the district (GOK/MOP/KDDP, 2002).

3.3.1.2 Bondo District

Bondo District was carved out of Siaya District in 1998. The total area of Bondo District is 1972km² of which 972km² is land surface while 1000km² is covered with waters of Lake Victoria. The district lies between latitude 0⁰ to 30⁰S of the equator and longitude 30⁰ to 34⁰E. It borders Siaya and Busia Districts to the northwest, Kisumu to the east and Rachuonyo, Homabay and Suba Districts across the lake to the southeast and south. To the west lies the Republic of Uganda. The district has two constituencies namely Bondo and Rarieda. Rainfall in the district is bimodal with long rains coming March and June and short rains between September and November. The district is drier to the south along

the shores of Lake Victoria but progressively gets wetter towards the hinterland as the altitude rises. The annual rainfall ranges from 800mm to 1600mm. Rainfall is 5% to 6% reliable, while mean temperature is 22.5°C. Humidity is relatively high with mean evapo-transpiration rate of 1800mm per annum. The rainfall has a moderate influence on temperatures and potential for rain-fed farming. The district's mean rainfall is 910mm.

Figure 3.1 Map of the study districts



The district had a population of 248,003 in 2002 and was projected to 273,848 by 2008. The population of the youth (15-25 years) was 66,082 and the number of disabled population was 7,350 (GOK/MOP/BDDP, 2002). In Bondo, like other parts of Kenya AIDS is not just a serious threat to our socioeconomic development but a real threat to existence. It has reduced many families to the status of beggars. Like other districts, Bondo is slowly losing its workforce to HIV/AIDS with a prevalence rate of 29.4% (GOK/MOP/BDDP, 2002).

3.3.1.3 Migori District

Migori District is one of the 12 districts that form the Nyanza Province. It was carved from South Nyanza District in 1992. It is located between latitude $0^{\circ} 40'$ south and longitude 34° and $34^{\circ} 50'$ east. It borders Homa Bay and Central District, to the north; Gucha and Transmara Districts to the east while its southern boundaries are shared with Kuria, Trans Mara and the republic of Tanzania. Suba District and Lake Victoria are on its western boundaries. The total area of the district is $2,505\text{km}^2$ of which 475km^2 covers section Lake Victoria. Rainfall patterns in the district vary, ranging from 700mm to 1,800mm annually, with the short rains occurring between March and May, while the long rains fall during the October-December period.

The district's minimum temperature is 17°C and a maximum of 20°C , with high humidity and a potential evaporation of 1,800 to 2,000mm per year. The district had a population size of 565,080, a youthful population (15-25 years) of 134,951 and disabled population of 25,000 in 2002 (GOK/MOP/MDDP, 2002).

Prevalence and mortality rates of HIV/AIDS in the district are increasing and alarming. Prevalence rates of the general population stand at 30%. Secondary school students are estimated at 5%. About 60% of patients admitted in medical wards at the district hospital are suffering from HIV/AIDS-related ailments (GOK/MOP/MDDP, 2002).

3.3.1.4 Rachuonyo District

Rachuonyo District is one of the 12 districts constituting Nyanza Province. It was carved out of Homa Bay District in 1996. It is located in the south western part of Kenya and borders Nyando District to the northeast, Kisii and Nyamira Districts to the south east, Homa Bay District to the southeast and southwest, Kericho District to the east, and Lake Victoria whose waters form part of the district to the north and west. The district lies between longitudes $34^{\circ} 25'$ and $35^{\circ} 0'$ east and latitudes $0^{\circ} 15'$ and $0^{\circ} 45'$ south. It covers a total area of 945.2km^2 out of which approximately 365km^2 is under water, mainly in Lake Victoria

Rachuonyo District falls under two main relief regions; Lakeshore lowland and the Upland Plateau. The Lakeshore Lowland's altitude ranges between 1,135m and 1,300m above sea level with temperatures ranging from 17°C to 25°C . On the other hand, the Upland Plateau has its altitude ranging between 1,350m and 1,700m above sea level with temperatures between 14°C and 20°C .

The district has two rain seasons; the long rain season which starts from late February and runs through to June with rainfall ranging between 500mm to and 1000mm and the short rain season which occurs between the months of August and November with rainfall ranging between 250mm and 700mm. By 2002, population size of the district was 321,877, the total number of youthful population (15-25 years) was 69,973 and the number of disabled population was not available (GOK/MOP/RDDP, 2002).

HIV/AIDS prevalence in the district is 30% (GOK/MOP/RDDP, 2002). It has affected all groups of people but the most affected are those between 15-45 years who are sexually active. The high prevalence rate is impacting negatively on the district's development. Besides placing a lot of strain on the health budget, it depletes the little resources of the people in attempting to treat the opportunistic diseases associated with it. It has also affected both education and agricultural sectors (GOK/MOP/RDDP, 2002). In education it has caused high dropout rates in schools among pupils whose parents are unable to pay school levies. Such pupils drop-out to care for their ailing relatives (GOK/MOP/RDDP, 2002).

3.4 Study Population

There are thirty-two institutions for the deaf in Kenya and out of these, seven are in Nyanza Province. This study focused on six institutions selected from a population of seven targeted in the investigation. Maseno primary school for the deaf (Kisumu District), Nyangoma special schools for the deaf (both primary and technical institute) from Bondo District. Sikri vocational training institute (Rachuonyo District) and Kuja

primary and secondary special schools for the deaf (Migori District). The records obtained from the various institutional-registers gave accessible population of 817 enrolled students.

Table 3.1 Institutions and the population of deaf students enrolled

<i>Category</i>	<i>Name</i>	<i>Number of students</i>		<i>Total</i>
		Males	Females	
Primary school	Maseno	108	75	183
	Nyangoma	110	82	192
	Kuja	109	91	200
Secondary school	Kuja	100	0	100
Vocational institute	Sikri	60	0	60
Technical institute	Nyangoma	82	0	82
				817

3.4.1 Inclusion Criteria

All youths aged 12-24 years who are willing to participate in the study.

Key informants attached to the special schools e.g social workers, teachers, parents e.t.c willing to participate

3.4.2 Exclusion Criteria

Any student/pupil less than 12years or more than 24years of age. Any student/pupil or key informant meeting the conditions for the study but not willing to take part in the study.

3.5 Sampling Technique and Sample Size

3.5.1 Sampling Techniques

In this study, the deaf youths were the main respondents, while the special institutions for the deaf were taken as the sampling units. Multistage sampling, Stratified random sampling, Purposive sampling techniques and Simple random sampling were used to select the sample.

Multistage sampling was used in this study as there are eight provinces in Kenya hence being a wide geographical area out of which Nyanza was sampled because the researcher was familiar with the region. Thirty two institutions for the deaf are established in the country and out of these, seven are found in Nyanza Province. The province has twelve districts and those with special institutions for the deaf were also purposively sampled.

Stratified sampling technique was used here to select the institutions that were included in the sample. It was applied to put the institutions into four strata; primary, secondary, technical and vocational. Each stratum had subjects with varying characteristics like age, educational levels e.t.c which formed variables for the study.

Simple random sampling method was applied in selection of the study subjects from the institutions. Purposive sampling technique was used to select the key informant interviewees.

3.5.2 Sample Size

Nyanza Province had a population of 4,392,196 (ROK/CBS, 2001), population of PWDs and prevalence of the deaf were not known. For an accessible population of 817 subjects a sample size of 384 was chosen as shown below.

A sample formula by Fisher *et. al* (1998) for a population >10,000 was used.

$$n = \frac{Z^2 pq}{d^2}$$

Where,

n = desired sample size if $n > 10,000$

z = standard normal deviate at required confidence interval of 95%

p = proportion in target population with characteristic being used.

$q = 1 - p$

d = the level of statistical significance set

$$n = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2}$$

$$= 384$$

A sample size of 384 youths was therefore included in the study all from the special institutions for the deaf. The samples size within each institution was selected in such a way that it was proportionate to the relative size of the institution in the population as shown in Table 3.2. The sample of students within each institution was selected using simple random sampling. The ratio of boys to girls was considered in selection of study subjects to avoid bias in random sampling selection.

Table 3.2 Sample size per institution

Institution	(a) Population(2005)	(c) Sampling = $\frac{a}{b} \times 384$	Sample Size
Maseno Primary	183	$\frac{183}{817} \times 384$	86
Nyangoma Primary	192	$\frac{192}{817} \times 384$	90
Kuja Primary	200	$\frac{200}{817} \times 384$	94
Kuja Secondary	100	$\frac{100}{817} \times 384$	47
Nyangoma Technical	82	$\frac{82}{817} \times 384$	39
Sikri Vocational	60	$\frac{60}{817} \times 384$	28
	817 (b)		384(c)

3.6 Construction of research instruments

Structured questionnaires, key informant interviews and focus group discussions were used to collect data. The selection of these tools was guided by the nature of the data that was to be collected, the time available as well as by the objectives of the study. The overall aim of the study was to investigate risk factors associated with HIV/AIDS infection among the deaf youths in selected educational institutions in Nyanza Province.

The questionnaire was divided into four sections. Section (1) was identification page. Section (2) contained 8 items on socio-demographic information of the respondents. Section (3) contained 21 items which attempted to get behavioural and risk taking information from the respondents. Section (4) contained 17 items that sought to identify the respondents' knowledge on HIV/AIDS and STIs. The respondents were further probed to respond to some statements as true or false and their level of knowledge was measured by how accurate their responses were to the questions asked.

The attitude of the respondents on HIV/AIDS and STIs was tested by a three- point Likert scale (Likert, 1932) in which they were to show whether they strongly agreed, strongly disagreed or were undecided with the statements.

Perception of the respondents on HIV/AIDS and STIs was also tested on a three-point Likert scale (Likert, 1932) in which the respondents were to show whether they were very likely, very unlikely or not sure of the risk of infection.

The FGD guide contained items, which aimed at probing the respondents further, on their understanding of risks associated with HIV/AIDS infection. There were 6FGDs, one in each institution and each FGD comprised 7 to 12 respondents (Kothari, 1990). The key informant schedule had relevant items that sought to capture information on HIV/AIDS in relation to the deaf from various groups of persons interacting with the deaf in one way or the other. The key informant interviewees included 2 social workers, 2 teachers, 2 healthcare providers, 2 policy makers and 2 parents.

3.7 Pilot study

To ensure validity and reliability of the results, the questionnaire was piloted at an institution, which was not part of the study. A random sample of twenty respondents, ten boys and ten girls was selected. Pre-testing of data instruments was done at Nyangueso Primary school for the deaf (Homabay District) before the actual survey was carried out to ascertain feasibility of the study instrument.

3.7.1 Validity

Pre-testing was done to determine whether the questions were acceptable, answerable, analyzable and applicable. It enabled the interviewers discern, alter or detect any questions that could have been misinterpreted or which could have been too sensitive to be asked hence offending the research subjects thus enabled a good final questionnaire to come up.

Validity of the questions in the research instruments was established by expert judgement through the jury technique. A panel of two experts in the area of HIV/AIDS were asked to assess the relevance of each item in the instrument to the study objectives and the overall purpose of the study and to rate each item on a 1 to 4 scale where 1 was Not Relevant (NR), 2 was Somewhat Relevant (SWR), 3 was Quite Relevant (QR) and 4 was Very Relevant (VR). The validities of the instruments was determined by calculating the Content Validity Index (C.V.I) and values of 0.76, 0.77 and 0.8 were got from the items in the questionnaire, FGD guide and KII guide respectively. All these values were well

above the 0.70, the least value of coefficient of validity commonly accepted in survey studies (Amin, 2005; Gay, 1987; Kathuri & Palls; 1993 Lester, 1990).

3.7.2 Reliability

The reliability of the instruments was established by expert judgement. It was determined through Internal Consistency Method which was determined by Cronbach Coefficient technique. Relevant statements from questionnaire, KII and FGDs made to appear in their positive form and a 5-point Likert scale (Likert, 1932) was used to score these statements as follows; Strongly Agree-5, Agree-4, Disagree-3, Strongly Disagree-2, Undecided-1. Cronbach's Coefficient Alpha was worked out and the coefficient was 0.78, 0.75, 0.76 for the items in the questionnaire, FGD guide and KII guide respectively. These values were well above 0.70, which is the least accepted value of reliability coefficient in survey studies (Kathuri & Palls, 1993).

3.8 Data collection technique

The researcher made an initial visit to the schools to establish a rapport and to make the necessary appointments for data collection process. One day training of the research assistants was done and this involved understanding of questionnaires, discussions guide, interviewing technique that was used in the selection of study subjects and filling of questionnaires. English language was used for communication to answer questions. The respondents' questionnaires were administered during the weekends on the appointment day in order not to interfere with the institutions teaching and learning activities. Focus group discussions were held after administration of the questionnaires. The key

informants were interviewed after seeking appointments with them. Two research assistants who were sign language interpreters were employed in the study. They familiarized themselves with the questionnaire and each of them ensured that they were comfortable in participating in the study. The research assistants translated the questionnaire into sign language for the respondents as they filled the answers by themselves. Class teachers helped in ensuring the questions were answered accurately.

3.9 Data analysis

Data collected in the field was continually supervised and quality controlled by the researcher. Raw data from questionnaires was coded and entry done using the Statistical Package of Social Sciences (SPSS) for Windows version 11.0 (SPSS Inc., Chicago, IL), software package. Once entered, the data was thoroughly cleaned and data analysis was done using the utility package of SPSS.

Both descriptive and inferential methods were used. Descriptive methods were presented in form of tables, figures, pie charts and bar graphs. Measures of location including means, frequency distribution and cross tabulations were done to establish the relationship between variables.

Inferential methods mainly Chi-square test was used to test for relationship between independent and dependent variables which included age, education level, relationship with the household head, knowledge, attitude and practice. Chi-square test is a strong measure of association as it compares only two variables (Kathuri & Palls, 1993; Agresti

& Finlay, (1997). In tabulation all percentages have been worked out based on the grand totals. Other information from in depth interviews was analysed using qualitative methods. Other findings in qualitative form were presented as text. The presentation follows the research objectives.

3.10 Logical and Ethical Considerations

Clearance to carry out research was sought from the Ministry of Education after getting approval from Kenyatta University Board of Graduate School. Once in the field, further clearance was obtained from the, District Education Officers and from principals of various special institutions. Informed consent was obtained through sign language from all study subjects before interview and participation in the study was voluntary.

CHAPTER 4

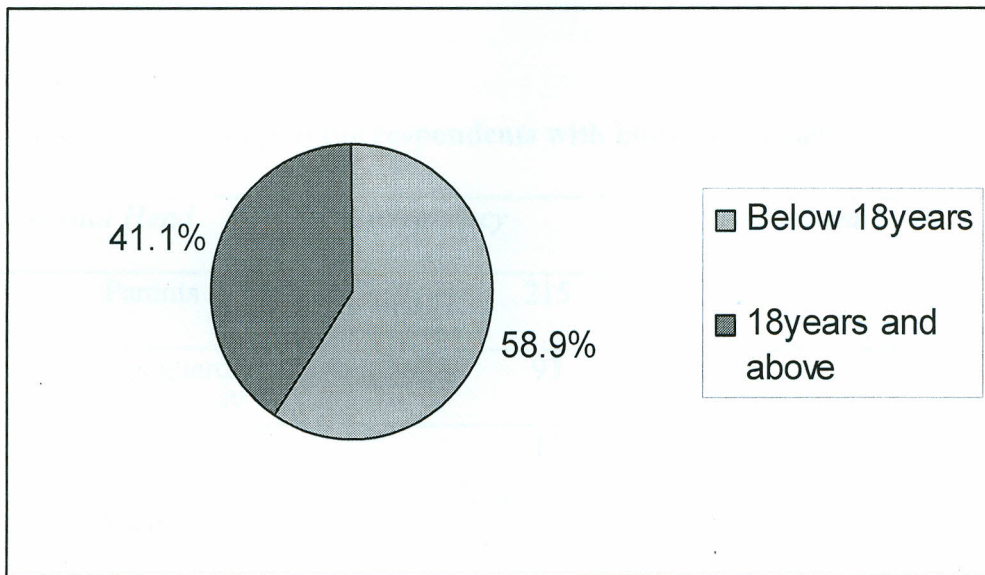
RESULTS

4.1 Socio-demographic characteristics of the respondents

4.1.1 Distribution of the respondents by age

The study population comprised 384 respondents with 286 boys and 98 girls. The ages of the respondents ranged from 12 to 24 years. The mean age of the respondents was 17.75 with 58.9% below 18 years of age and 41.1% 18 years old and above (Figure 4.1).

Figure 4.1 Distribution of the respondents by age



4.1.2 Relationship of the respondent with the household head

The results indicate that some of the respondents in the study were orphans and 28.1% had lost both parents. As a result of loss of parents 56% of the respondents currently lived

with their parents, 24.2% with guardians/relatives, 4.4% with friends, and 15.4% lived with sponsors (Table 4.1 and Table 4.2).

Table 4.1 Parents of the respondents alive or dead

<i>Parents alive or dead</i>	<i>Frequency</i>	<i>Percent</i>
Both Alive	153	39.8
None Alive	108	28.1
Father alive/single parent	53	13.8
Mother alive/single parent	51	13.3
Both alive but divorced/separated	19	4.9
Total	384	100

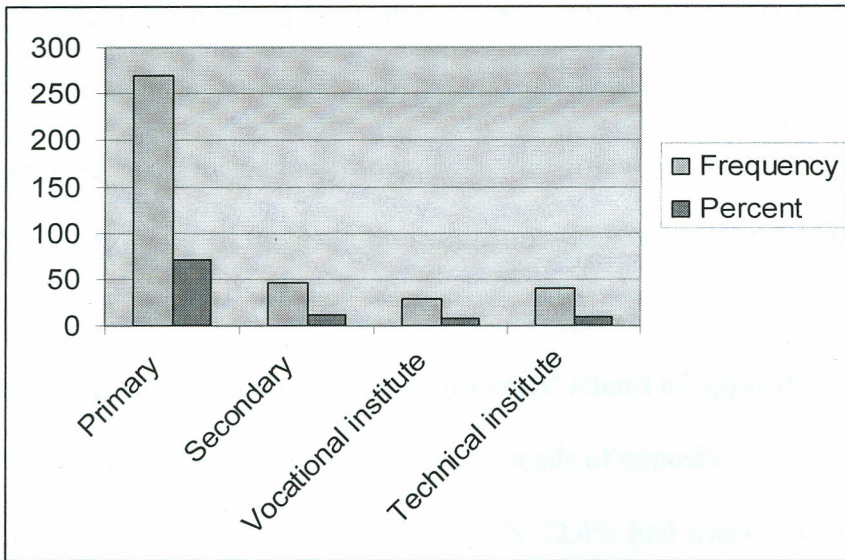
Table 4.2 Relationship of the respondents with household head

<i>Household Head</i>	<i>Frequency</i>	<i>Percent</i>
Parents	215	56
Relatives/guardian	93	24.2
Friends	17	4.4
Sponsor	59	15.4
Total	384	100

4.1.3 Level of education of the respondents

The results revealed that 70.3% of the respondents were in primary school, 12% in secondary, 7.3% in a vocational institute and 10.4% in a technical institute (Fig 4.2).

Fig 4.2 Distribution of respondents by educational level

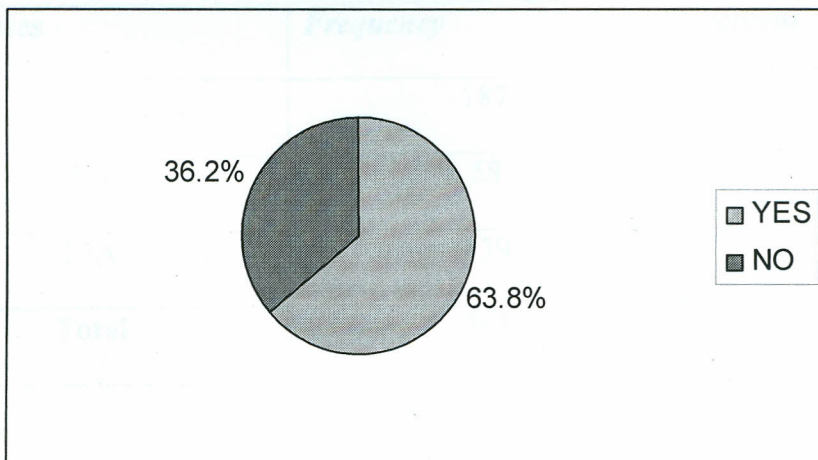


4.2 Behavioural and risk-taking characteristics

4.2.1 Respondents with friends of opposite sex.

The results indicate that, 63.8% of the respondents had friends of opposite sexes while 36.2% did not (Fig 4.3).

Fig 4.3 Distribution of respondents with or without friends of opposite sex



4.2.2 Number of friends of opposite sex per respondent

The results further indicated that 42.7% of the respondents had one friend, 23.7% had two, 6% had numerous and 36.2% did not have any. A total of 139 had no friends of opposite sex. Out of the respondents with friends of opposite sex, 48.2% did not have friends from the same institution while only 15.6% had friends from the same institution

4.2.3 Disability status of the respondents' friend of opposite sex

According to the findings, 41.4% had friends of opposite sex from the general population (Persons without disabilities) while only 22.4% had friends with disabilities which were either similar or dissimilar to their own.

4.2.4 Respondents who had had sexual contact

The results showed that, 48.7% had had sexual contact with their friends, 15.1% had not, while 36.2% had no friends of opposite sex (Table 4.3).

Table 4.3 Distribution of respondents who had had sexual contact

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Yes	187	48.7
No	58	15.1
N/A	139	36.2
Total	384	100

4.2.5 Age of first sexual exposure and reason

The minimum age for first sexual exposure was 9 years and maximum age was 24 years.

The mean age at first sexual exposure was 15.54 years with a standard deviation of 3.019.

When further asked to give reasons for engaging in pre-marital sex, 22.7% mentioned love, 19.5% said, fun and 6.5% cited financial support as shown in table (Table 4.4).

Table 4.4 Distribution of respondents by reasons for engaging in pre-marital sex

<i>Reasons</i>	<i>Frequency</i>	<i>Percent</i>
Fun	75	19.5
Love	87	22.7
Financial support	25	6.5
N/A	197	51.3
Total	384	100

4.2.6 Distribution of respondents by knowledge about the condom

When the respondents were asked whether they and their partners knew what condom was and what it was used for, 39.3% affirmed while only 9.4% did not know what condom was as shown in (Table 4.5).

Table 4.5 Distribution of respondents by knowledge about condom and Condom-use

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Yes	151	39.3
No	36	9.4
Total	187	48.7
N/A	197	51.3
Total	384	100

4.2.7 Distribution of respondents by use of condom during first sexual exposure

According to the results only 11.2% of the respondents had used condoms during first sexual exposure, 37.4% had not (Table 4.6).

Table 4.6 Distribution of respondents by use of condom during first sexual exposure

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Yes	43	11.2
No	144	37.4
Total	187	48.7
N/A	197	51.3
Total	384	100

4.2.8 Communication on sex related issues by respondents and their parents/relatives/guardians

According to the results, only 12% of the respondents communicated on matter related to sex- risks with their parents /relatives/guardians while 88% did not. The results further showed 51.0% held talks on sex-risks related matters with their teachers, 18.8% with boyfriends/girlfriends, 16.4% with church leaders and only one percent with other persons (Table 4.7).

Table 4.7 Distribution of respondents who communicated on sex related issues with other persons different from parents/relatives/guardians.

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Girlfriend/boyfriend	72	18.8
Teachers	196	51
Church leaders	63	16.4
N/A	46	12
Total	384	100

4.2.9 Respondents main source of information regarding risks/dangers of sex

The results revealed that 38.5% were informed of the sex risks by their teachers, 29.2% by their friends, 18% by the media and 14.3% by church leaders (Table 4.8).

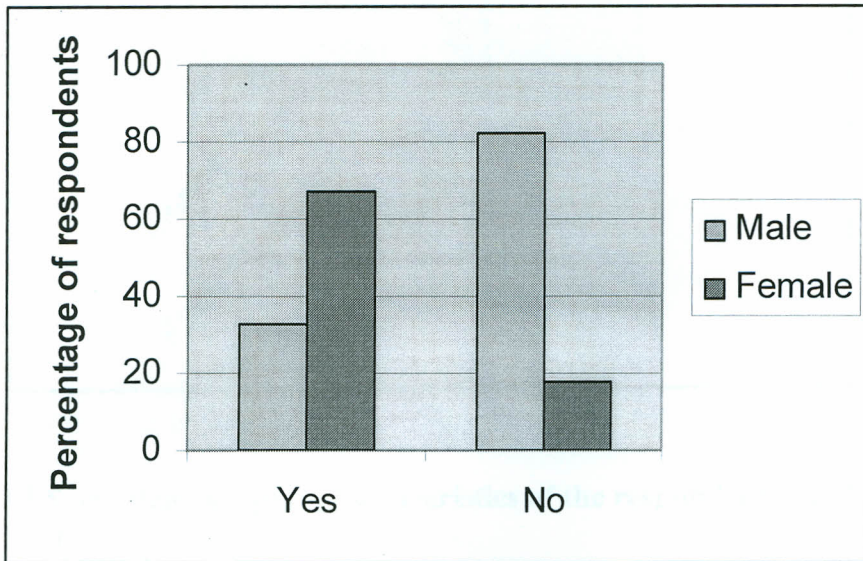
Table 4.8 Distribution of main source of information regarding risks/dangers of sex

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Media	69	18
Friends	112	29.2
Teachers	148	38.5
Church leaders	55	14.3
Total	384	100

4.2.10 Respondents and sexual harassment

When asked whether they had been sexually harassed twice as many girls as boys had been sexually harassed (Fig 4.4).

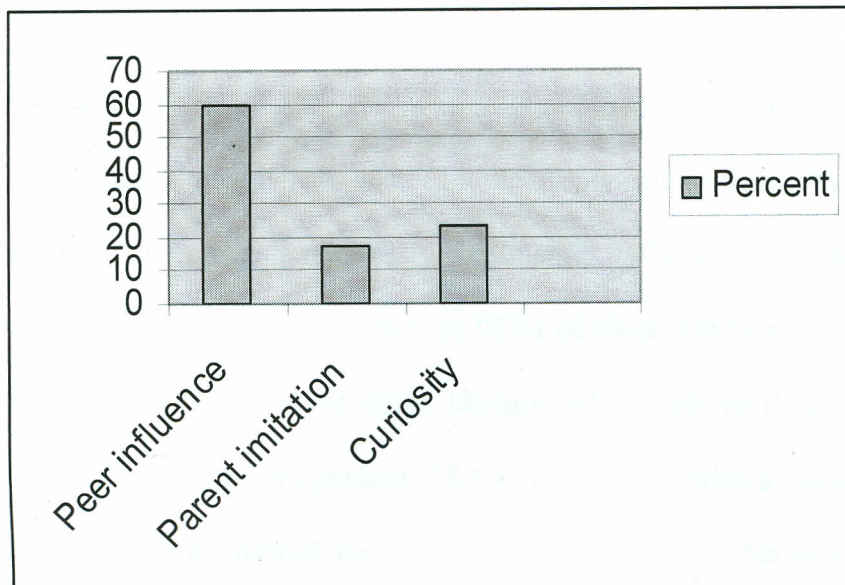
Fig 4.4 Distribution of respondents by sexual harassment and gender



4.2.11 Respondents and drug use

The results showed that majority of the respondents, (78.4%) had not used drugs while, 21.6% had used drugs. Out of those who had used drugs, the respondents who had used either Alcohol/Cigarettes/ Miraa (mild drugs) were 60.2% and those who had used the hard drugs (Bhang/Cocaine) were 39.8%. Reasons for taking drugs were sought from the respondents and 60% mentioned peer influence, 23% curiosity, and parental imitation (17%) (Fig 4.5).

Fig 4.5 Distribution of respondents by reasons for taking drugs



4.3 Socio-demographic characteristics of the respondents by HIV/AIDS risk factors

4.3.1 Relationship between age and pre-marital sex

The results revealed that 20.8% of the respondents initiated coitus when they were under 18 years while those above 18 years were 27.9%, 15.1% of the respondents had friends of opposite sex but had not engaged in premarital sex while 36.2% did not have friends of opposite sex therefore did not answer this question. The relationship between age and premarital sex was highly significant ($\chi^2=27.601$, $df = 4$, $p=0.0001$) (Table 4.9).

4.3.2 Relationship between age and condom use during first sexual exposure

The findings revealed that a small proportion, 5.5% of the respondents under 18 years of age had used condom during first coitus while 15.4% had not. For those 18 years old and above, 5.7% had used a condom while 22.1% had not and 51.3% of the respondents did

not answer this question. There was no significant relationship between age and condom use ($\chi^2=9.095$ $df= 4$, $p=0.059$) (Table 4.9).

4.3.3 Relationship between age and delay in treatment of STIs

The results showed that 0.01% of the respondents under 18years of age sought STI treatment after one week (early treatment), 8.9% after two weeks or more (delayed treatment). Zero point zero two (0.02%) of those 18years old and above sought early treatment while 21.1% of those 18years old and above delayed in seeking treatment. Seventy eight point six percent (78.6%) of the respondents did not answer this question. Chi-square test showed no significant in relationship between age and delay in STI treatment ($\chi^2=6.876$, $df = 8$, $p=0.550$) (Table 4.9).

4.3.4 Relationship between age and drug use

According to the findings respondents under 18years of age 11.7% had used some form of drugs while 47.9% had not. Nine point nine percent (9.9%) of those 18 years old and above had used drugs while 30.5% had not. Chi-square analysis showed a significant relationship between age and drug abuse ($\chi^2=10.170$, $df=4$, $p=0.038$) (Table 4.9).

4.3.5 Relationship between age and sexual harassment

The results indicated that 13.0% of the respondents under age 18years had been sexually harassed while 46.6% had not. Two point nine percent (2.9%) of those over 18 years had been Chi-square test showed a strong significant relationship between age and sexual harassment ($\chi^2 =17.854$, $df=4$, $p=0.001$) (Table 4.9).

4.3.6 Relationship between age and perception of risk.

According to the findings, perception of HIV/AIDS risk for under 18 year respondents was very likely (10.7%), very unlikely (40.6%) and not sure (8.3%). That for 18 year old and above respondents was; very likely (15.1%), very Unlikely (13.8%) and not sure (11.5%). The Chi-square test revealed a strong significant relationship between age and perception of risk. ($\chi^2=48.944$, $df=8$, $p=0.0001$)

4.3.7 Relationship between age and parent-child talk (communication through sign language)

The results indicated no relationship between age of the respondent and parent child-talk on sex related issues ($\chi^2=6.031$, $df=4$, $p=0.197$). Seven percent (7.0%) of respondents under 18 years held talks while 52.6% did not. Four point nine percent (4.9%) of those 18 years and above held such talks while 35.4% did not.

4.3.8 Relationship between age and knowledge of HIV/AIDS

The results further indicated that 80% of the respondents 18 years old and above, knew about HIV/AIDS while those under 18 years were only 20%, hence more older individuals knew about HIV/AIDS as compared to the younger ones. There was a strong significant relationship between age and knowledge of HIV/AIDS ($p = 0.0001$). Majority of the respondents (50%) got HIV/AIDS knowledge from the teachers (Fig 4.6).

Table 4.9 Relationship between age and HIV/AIDS risk factors

HIV/AIDS risk factors	Respondents (n = 384) Age		χ^2	df	p-value	Remarks
	<18 years	\geq 18 years				
Pre-marital sex (1st coitus)	80 (20.8%)	107(27.9%)	27.601	4	0.0001	** S
Non-condom use at 1st coitus	59 (15.4%)	85 (22.1%)	9.095	4	0.059	NS
Delay in STI treatment	34 (8.9%)	108 (21.1%)	6.876	8	0.55	NS
Drug use	45 (11.7%)	38 (9.9%)	10.17	4	0.038	*S
Sexual Harassment	50 (13.0%)	11 (2.9%)	17.854	4	0.001	**S

Note

** Highly Significant at the level of 0.05

*Significant at the level of 0.05

NS- Not Significant at 0.05

4.3.9 Relationship between level of education the respondents and pre-marital sex

The results showed that there was a strong relationship between. Level of education and pre-marital sex ($\chi^2=14.090$, $df=3$, $p=0.003$). Most respondent who had had sexual contact were from primary schools and they comprised 29.2% while those who had not were 12.8%. This was followed by technical institute that had 9.1% who had engaged in premarital sex while 0.3% had not. Secondary school had 5.5% who had engaged in premarital sex while 1.0% had not. Vocational institute had 4.9% who had engaged in

premarital sex while 1.0% had not. Thirty six point two (36.2%) of the respondents did not answer this question (Table 4.10).

4.3.10 Relationship between level of education and condom use at first sexual exposure

Out of the respondents who had had sexual contact 22.9% of those in primary schools had not used condom during the first contact while only 6.3% had used condom. This was followed by technical institute which had 5.7% that had not used the condom while only 3.4% had used. Secondary school had 4.7% who had used the condom while 0.7% had not. Vocational institute had 4.2% who had used the condom while 0.7% had not. Thirty six point two percent of the respondents did not answer this question. Chi-square test indicated no relationship between education level and condom use ($\chi^2=5.568$, $df=3$, $p=0.135$) (Table 4.10).

4.3.11 Relationship between level of education and sexual harassment

According to the findings there was a strong relationship between levels of education and sexual harassment ($\chi^2=26.952$, $df=3$, $p=0.0001$). Fifteen point four percent (15.4%) of those in primary schools had been sexually-harassed while 54.9% had not. The vocational institute had 0.3% who had been sexually harassed while 7.0% had not. Twelve percent (12.0 %) and 10.4% of those in secondary school and technical institute respectively had not been sexually harassed (Table 4.10).

4.3.12 Relationship between level of education and delay in STI treatment

The results revealed a strong relationship between level of education and delay in STI treatment ($\chi^2=15.294$, $df=6$, $p=0.018$). Of the respondents who had suffered from STI, 10.6% from primary schools had received delayed treatment while 0.5% had received early treatment. Three point nine percent (3.9%) from secondary had received delayed treatment while 1.6 % had early treatment. Vocational institute had 1.7% who had received delayed treatment while none had early treatment. Seventy eight point percent did not answer this question since they neither had friends of opposite sex nor had suffered from STI infection (Table 4.10).

4.3.13 Relationship between level of education and drug abuse

The results showed that there was no significant relationship between level of education and drug use ($\chi^2=3.3413$, $df=3$, $p=0.342$). Sixteen point nine percent (16.9%) in primary schools had used drugs while 53.4% had not. Secondary school had 1.8% who had used drugs while 10.2% had not. Technical institute had 1.6% who had used drugs while 8.9 % had not. Vocational institute had 1.3% who had used drugs and 6.0% had not (Table 4.10).

4.3.14 Relationship between level of education and perception of risk

There was a strong significant relationship between level of education and Perception of risk ($\chi^2=64.460$, $df=6$, $p=0.0001$). Those in Primary schools indicated very likely (18%), very unlikely (44.8%) and 7.6% were not sure. Respondents in Secondary school had very likely (2.1%), very unlikely (4.7%) and not sure (5.2%). Vocational institute had very likely (2.1 %), very unlikely (1.0%) and note sure (7.6%).

4.3.15 Relationship between level of education and parent-child talk (communication)

The results showed a strong relationship between education and parent-child talk ($\chi^2=18.512$, $df=3$, $p=0.0001$). Those in Primary schools had 6.3% who held talks (communicated) while 64.1% did not. Secondary school respondents had 1.6% who did and 10.4% who did not. Vocational institute had 0.8% who held talks while 6.5% who did not. Technical institute had 3.4% who did and 7.0% who did not.

Table 4.10 Relationship between level of education and HIV/AIDS risk factors

HIV/AIDS risk factors	Respondents educational level (n=384)				χ^2	df	p-value	Remarks
	Primary	Secondary	Vocational	Technical				
Pre-marital sex (1st coitus)	112 (29.2%)	21 (5.5%)	19 (4.9%)	35 (9.1%)	14.09	3	0.003	** S
Non-condom use at 1 st coitus	88 (22.9%)	18 (4.7%)	16 (4.2%)	22 (5.7%)	5.568	3	0.135	NS
Delay in STI treatment	41 (10.6%)	8 (1.6%)	7 (1.7%)	15 (3.9%)	15.294	6	0.018	*S
Drug use	65 (16.9%)	7 (1.8%)	5 (1.3%)	6 (1.6%)	3.413	3	0.342	NS
Sexual Harassment	59 (15.4%)	0 (0%)	1 (0.3%)	0 (0%)	26.952	3	0.001	*S

Note

** Highly Significant at the level of 0.05

* Significant at the level of 0.05

NS- Not Significant at 0.05

4.3.16 Household head relationship verses pre-marital sex (1st Sexual exposure)

The results indicated no significant relationship between respondents' household head relationship with premarital sex ($\chi^2=6.738$, $df=3$, $p=0.081$). Out of the respondents who had engaged in premarital sex, 51.9% lived with their parents, 23.5% with sponsors, 19.8% with their guardians and 4.8% with their friends (Table 4.11).

4.3.17 Household head relationship verses non-condom use

According to the results no significant relationship occurred between household head relationship and non-condom use ($\chi^2=1.918$, $df=3$ $p=0.59$). Out of the respondents who had engaged in premarital sex, 49.3% lived with their parents, 24.5% lived with sponsors, 19.8% lived with guardians and 4.8% lived with friends (Table 4.11).

4.3.18 Household relationship verses delay in STI treatment

Chi square test analysis indicated no significant relationship between household head and delay in STI treatment ($\chi^2=4.352$, $df=6$, $p=0.629$). Out of the respondents who had suffered from STI infections, 46.4% lived with their parents, 28.6% lived with sponsors, 25.0% lived with guardians and 0% lived with friends (Table 4.11).

4.3.19 Household head relationship verses drug use

The results showed no significant relationship between household relationship with drug use ($\chi^2=2.698$, $df=3$, $p=0.441$). Out of the respondents who had abused drugs, 56.6% lived with parents, 25.3% lived with guardians 16.9% lived with sponsors and 1.2% lived with friends (Table 4.11).

4.3.20 Household head relationship verses sexual harassment

The results revealed a highly significant relationship between household head relationship with sexual harassment ($\chi^2=12.060$, $df=3$, $p=0.007$). Out the respondents who had been sexually harassed, 73.8% lived with parents, 13.1% lived with sponsors, 8.2% lived with guardians and 4.9% lived with friends (Table 4.11).

Table 4.11 Relationship between household head and HIV/AIDS risk factors

HIV/AIDS risk factors	Relationship to household head (n=384)				χ^2	df	p-value	Remarks
	Parents	Guardian	Friends	Sponsor				
Pre-marital sex (1st coitus)	97 (51.9%)	37 (19.8%)	9 (4.8%)	44 (23.5%)	6.738	3	0.081	NS
Non-condom use at 1st coitus	71 (49.3%)	31 (21.5%)	7 (4.9%)	35 (24.5%)	1.918	3	0.59	NS
Delay in STI treatment	13 (46.4%)	7 (25%)	0 (0%)	8 (28.6%)	4.352	6	0.629	NS
Drug use	47 (56.6%)	21 (25.3%)	1 (1.2%)	14 (16.9%)	2.698	3	0.441	NS
Sexual Harassment	45 (73.8%)	5 (8.2%)	3 (4.9%)	8 (13.1%)	12.06	3	0.007	**S

Note

** Highly Significant at the level of 0.05

* Significant at the level of 0.05

NS- Not Significant at 0.05

4.3.21 Distribution between Household relationship and parent-child talk

The results revealed no significant relationship between household relationship and parent-child talk ($\chi^2=7.353$, $df=3$, $p=0.061$). Out of the respondents who held sex related talks, 54.3% lived with parents, 37% lived with guardians, 8.7% lived with sponsors and 0% lived with friends.

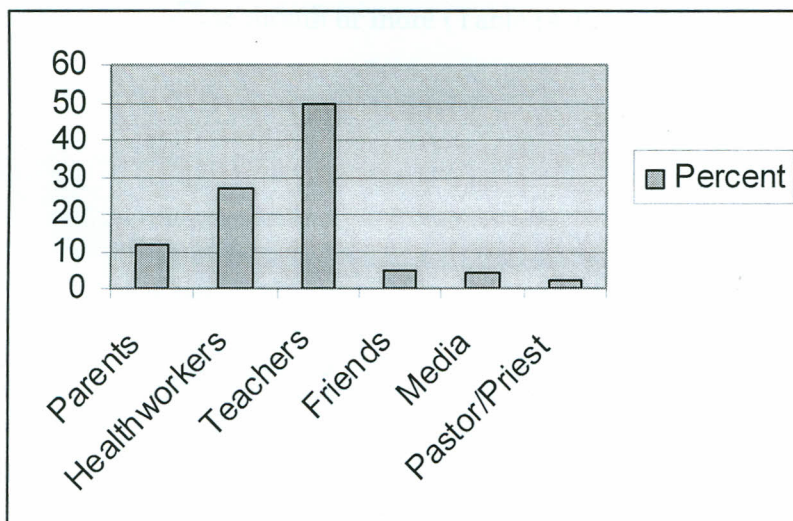
4.3.22 Distribution between household head relationship and perception of risk

The results indicated a strong relationship between household relationship and perception risk of HIV/AIDS infection ($\chi^2=20.574$, $df=6$, $p=0.002$). Out of the respondents who perceived themselves to be very likely at risk of HIV/AIDS infection, 55.6% lived with parents, 23.2% lived with sponsors, 19.2% lived with guardians and 2% lived with friends.

4.4 Knowledge, Attitude, Perception and Practice in relation to HIV/AIDS and related STIs.

4.4.1 Respondents' knowledge on HIV/AIDS

Fig 4.6 Initial sources of HIV/AIDS information



The results revealed that 85.9% of the respondents knew about HIV/AIDS while only 14.5% did not. When further asked about their initial sources of HIV/AIDS information, 50% cited teachers, followed by health workers, 27%, 12% got the information from parents, 5% from friends, 4% from the media and 2% from the pastors/priests (Fig 4.6).

4.4.2 Respondents' knowledge on HIV/AIDS prevention

When asked whether they knew if HIV/ AIDS could be prevented, 72.1% affirmed, 11.7% disagreed and 16.1% did not know. When those who said yes were further probed on methods of HIV/AIDS prevention, 30.0% mentioned abstinence, 20.1% said condom use, 10 % mentioned being faithful to one faithful partner and 10% mentioned avoiding sex with casual partners.

4.4.3 Respondents and STI occurrence/treatment duration

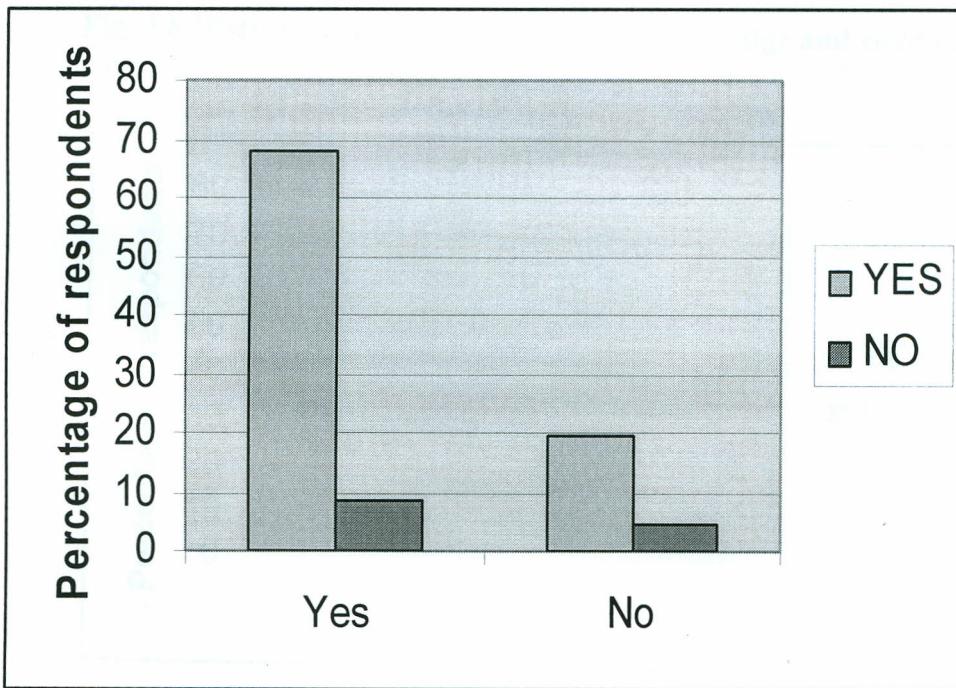
Twenty one point four percent (21.4%) of the respondents had suffered from STIs while seventy 78.4% had not. Out of those who suffered from STIs was only a minority, 2.9% sought early treatment (one week) 9.1% took between two to three weeks and 9.4% sought treatment after one month or more (Table (4.12)).

Table 4.12 Distribution of respondents by duration for STI treatment

<i>Duration of treatment</i>	<i>Frequency</i>	<i>Percent</i>
One week	11	2.9
Two-three weeks	35	9.1
One month or more	36	9.4
N/A	302	21.4
Total	384	100

4.4.4 Relationship between HIV/AIDS knowledge and pre-marital sex

Fig 4.7 Distribution of HIV/AIDS knowledge by pre-marital sex.



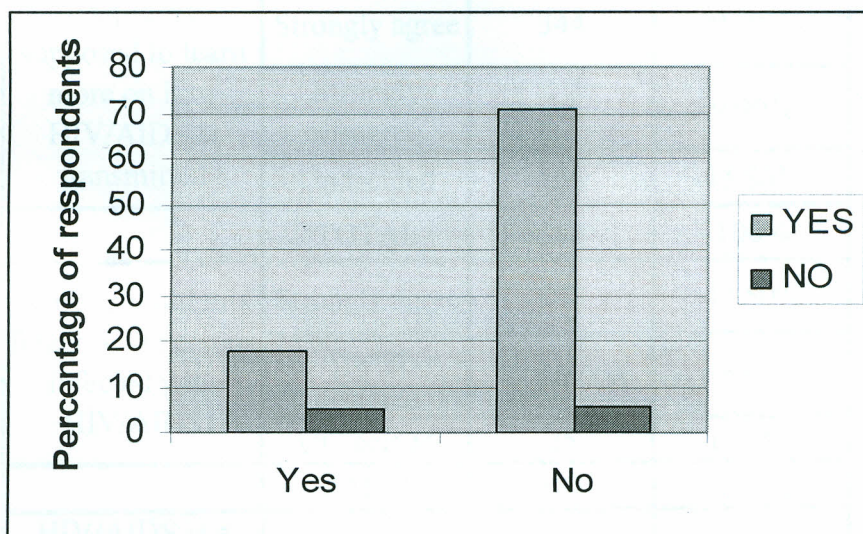
According to the findings there was no relationship between HIV/AIDS knowledge and pre-marital sex ($\chi^2=2.333$, $df=1$, $p=0.127$). Sixty seven point eight percent (67.8%) of those who knew about HIV/AIDS had engaged in pre-marital sex while 8.6% of those

who did not know about HIV/AIDS had engaged in pre-marital sex. Twenty three point seven percent (23.7%) of the respondents had not engaged in pre-marital sex (Fig 4.7).

4.4.5 Relationship between HIV/AIDS knowledge by condom use at first sexual exposure

The results showed that 71.1% who knew about HIV/AIDS did not use condom at first coitus while 17.6% of those who knew about HIV/AIDS used condoms at first coitus. Five point three percent (5.3%) of those who did not know about HIV/AIDS used condoms, while 5.9% of those who did not know about HIV/AIDS did not use condoms. However, Chi-square test indicated a significant relationship between HIV/AIDS knowledge and condom use at first coitus ($\chi^2=8.101$, $df=1$, $p=0.004$) (Fig 4.8).

Fig. 4.8 Distribution between HIV/AIDS knowledge and condom use at first coitus.



4.4.6 Respondents' attitude on HIV/AIDS and related STIs

When asked what their attitude on HIV/AIDS was by various statements. The results revealed varied responses from the statements indicating varied opinions as regards to

HIV/AIDS. A majority, (61%) percent were undecided that HIV/AIDS infection was due to sin against God, 26% strongly agreed, while only 13% strongly disagreed. Fifty two point three percent (52.3 %) strongly disagreed that people should be willing to go for

Table 4.13 Distribution of respondents by attitude towards HIV/AIDS

Statement	Response	Frequency	Percentage
HIV/AIDS infection is due to sin against God	Strongly agree	100	26.00%
	Strongly disagree	50	13.00%
	Undecided	234	61%
	TOTAL	384	100%
People should be willing to go for HIV/AIDS tests.	Strongly agree	61	15.90%
	Strongly disagree	201	52.30%
	Undecided	122	31.80%
	TOTAL	384	100%
People are supposed to learn more on how HIV/AIDS is transmitted	Strongly agree	344	46.30%
	Strongly disagree	38	9.90%
	Undecided	168	43.80%
	TOTAL	384	100%
People should mix freely with persons infected with HIV/AIDS	Strongly agree	192	49.50%
	Strongly disagree	167	56%
	Undecided	25	6.50%
	TOTAL	384	100%
HIV/AIDS is a disease like any other and all persons with or without disability can get it.	Strongly agree	200	52.10%
	Strongly disagree	143	37.20%
	Undecided	41	10.70%
	TOTAL	384	100%

HIV/AIDS tests, 31.8% were undecided while 15.9% strongly agreed. Forty six point three percent strongly agreed that people should learn more on HIV/AIDS transmission, 43.8% were undecided and 9.9% strongly disagreed. Fifty six percent of the respondents strongly disagreed that people should mix freely with those infected with HIV/AIDS, 49.5% strongly agreed while 6.5% were undecided. Fifty two point one percent strongly agreed that HIV/AIDS infection would occur with or without a disability, 37.2% strongly disagreed while 10.7% were undecided (Table 4.13).

4.4.7 Persons perceived to be at greater risk of HIV/AIDS infection

Table 4.14 Distribution of respondents by persons perceived to be at greater risk of HIV/AIDS infection

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Disabled persons	142	37
Persons without disabilities	237	61.7
Don't know	5	1.3
Total	384	100

When the respondents were asked to identify which groups of persons they felt were at greater risk of HIV/AIDS infection, 61.7% mentioned persons without disabilities, 37% mentioned disabled persons and 1.3% did not know. When they were further probed to

say whether a healthy looking person could be HIV/AIDS positive, 53.3% affirmed, 19.3% disagreed and thirty percent did not know (Table 4.14).

4.4.8 Respondents' perception of risk of HIV/AIDS

The study sought to find if the students' perception of risk of infection with HIV/AIDS and the results were as follows: Twenty five point eight percent (25.8%) felt they were very likely to be at risk of being infected with HIV/AIDS, 54.4% felt very unlikely to be at risk and 19.8% were not sure. They were further requested to give reasons as to why they felt at risk or not, 9.7% said their sexual partners were not trustworthy, 7.8% said they rarely use condoms during sexual intercourse and 8.3% said needles and syringes used for injecting could easily transmit HIV/AIDS. Those who did not perceive themselves to be at risk were further requested to give reasons 17.2% said they had only one partner who were free of HIV/AIDS, 27.9% said they had completely abstained from any sexual contact from the time they first learnt of HIV/AIDS, 9.4% said they engaged in protected sex (Table 4.15).

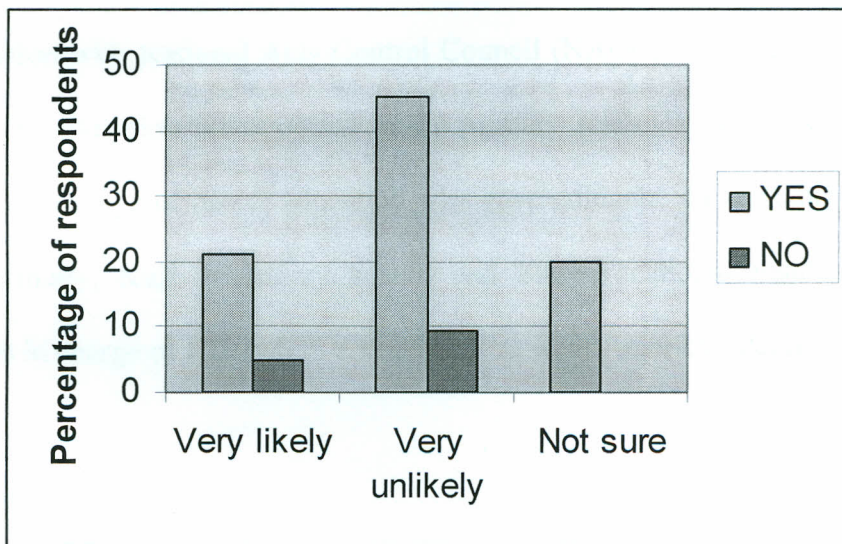
Table 4.15 Distribution of responses by perception of risk of HIV infection

<i>Responses</i>	<i>Frequency</i>	<i>Percent</i>
Very likely	99	25.8
Very unlikely	209	54.4
Not sure	76	19.8
Total	384	100

4.4.9 Relationship between HIV/AIDS knowledge and perception of risk

According to the findings there was a strong significant relationship between knowledge of HIV/AIDS and perception of risk ($\chi^2=15.556$, $df=2$, $p=0.0001$). Forty five point one (45.1%) of the respondents who knew about HIV/AIDS did not perceive themselves to be at risk of HIV/AIDS, (21.1%) of the respondents who knew about HIV/AIDS perceived themselves to be at risk, 4.7% of those who did not know about HIV/AIDS perceived themselves to be at risk, 9.4% who did not know about HIV/AIDS did not perceive themselves to be at risk while 19.8% were not sure (Fig 4.9).

Fig 4.9 Distribution between HIV/AIDS knowledge and perception of risk



4.4.10 Distribution between HIV/AIDS knowledge and delay in STI treatment

The results indicated no significant relationship between HIV/AIDS knowledge and delay in STI treatment ($\chi^2=2.135$, $df=2$, $p=0.344$) Out of the respondents who knew about HIV/AIDS, 47.9% received treatment after two weeks of infection, 32.9% received treatment after one month and 19.2% received treatment after one week of infection.

4.4.11 Distribution between HIV/AIDS knowledge and drug use

The chi-square test analysis indicated no significant relationship between HIV/AIDS knowledge and drug use ($\chi^2=0.224$, $df=1$, $p=0.636$). Out of those who knew about HIV/AIDS 78.8% had not abused drugs while 21.2% had abused drugs.

4.5. HIV/AIDS Prevention Services

4.5.1 Information education and communication materials (IEC)

Within the educational institutions under study, the teachers were the main agents of Information, Education and Communication. They used Sign Language Charts and Booklets from Kenya National HIV/AIDS Education Programme (KNDAEP) in conjunction with National Aids Control Council (NACC). The recent school curriculum had AIDS education incorporated in the primary school syllabus. The institutions had teachers in charge of health education who gave guidance on reproductive health issues. Kuja primary, Kuja secondary school and Sikri vocational institute had additional teachers in charge of HIV/AIDS education who were American Peace-Corps Volunteers.

4.5.2 Media

The deaf youths did not get many services from radio, television or print media because of their disability. However, they occasionally got some video shows translated in sign language.

4.6 Focus Group Discussions

Information in this section was put in themes to address the various objectives. The discussants were further probed to get in-depth information on the main theme, of understanding HIV/AIDS risk factors among the deaf youths.

4.6.1 Socio-demographic factors

When the discussants were asked which age group they felt was the most vulnerable to HIV/AIDS and why, majority of the groups mentioned, ages between 12 to 17 years and 18 to 25 years, because they were sexually active. Others suggested, older youths were not vulnerable, because they knew more about HIV/AIDS than the younger ones while other groups suggested, church leaders, because most of the time they preached about HIV/AIDS. When asked what should be done to prevent the spread of the disease among such age groups, some groups suggested, counseling and encouraging the youth to visit VCT. At VCT before the testing was done the counselor shares most of the information with one, they added. The discussants further suggested, teachers and peer groups when asked whom they thought related well with the youth and would discuss well, HIV/AIDS risk factors freely with them.

The respondents were asked if one's level of education puts one at risk of HIV/AIDS. Most groups affirmed this and some said that lack of education was a risk in itself and not knowing how to read and write could cause language barrier hence no protection during sex. When asked if parental education put one at risk of HIV/AIDS, most of the groups disagreed. Their opinion was further sought on whether financial support to the youth

could be a risk factor in the spread of HIV/AIDS, some discussants felt that if not adequately supported financially some individuals could resort to bad habits in exchange for money and this could be dangerous.

When the discussants were asked whether ones' parental status puts one at risk of contracting HIV/AIDS most of the discussants, disagreed. The discussants were further probed to identify which group was greatly at risk of contracting the HIV/AIDS between the deaf youths with or those without parents, most of the groups suggested those without parents, they would lack parental guidance.

4.6.2 Behavioural factors

It was sought from the discussants what the key to good health was, most of the groups suggested, careful behaviour. When asked whether premarital sex could affect the health of deaf youths, majority of the groups unanimously affirmed so. When further probed to give the reason why, varied answers were got from different groups, they said, premarital sex could cause destruction to reproductive organs due to infections if any, this could lead to spread of HIV/AIDS, school dropouts among girls due to pregnancy, it could bring a bad name to parents incase the pregnant girl was sent home and the latter could lead to spread of STIs.

The discussants were asked what activities among the deaf youths lead to high risk of contracting HIV/AIDS and they mentioned the following: rape, drug use, reading pornographic materials like magazines and watching romantic programmes on videos and

televisions. Their perception was sought on the following: having boyfriend /girlfriend, having many sexual partners and using the condom. Most of the groups responded that having a friend of opposite sex and using a condom during sexual intercourse were good. However, from another group we got the information that sex was sweet and the higher the number of sexual partners one had, one felt that he was strong and an over comer. It was sought from the discussants what activities would enhance behaviour change among the deaf youths in relation to HIV/AIDS. In response to the above we got from the groups, the following: counseling within the school by teachers, holding seminars and workshops for deaf youths, encouraging talks from guest speakers and group discussions.

4.6.3 HIV/AIDS prevention and strategies

When asked whether they understood safe-sex and its effectiveness in controlling HIV/AIDS among deaf youths some groups suggested, ABC of sex (Abstain, Be faithful, use Condom). When asked what advice they would give other deaf youths on HIV/AIDS some of their responses were that people were dying of HIV/AIDS, people were suffering from HIV/AIDS and AIDS had no cure.

CHAPTER 5

DISCUSSION

5.1 Socio-demographic characteristics

5.1.1 Age of the respondents

In this study there were 384 respondents 286 boys and 98 girls. Enrolment of girls was notably low compared to that of the boys in the primary schools studied. This has an implication that most parents still believed in exposing more of their male children to education than the girls thereby making the girls child lag behind. One key informant made the remarks that deafness was seen as a curse and a burden to society therefore sensitization of the parents was very important. The mean age for the respondents was 17.75 years and this meant that the deaf children started school when they were older because of their hearing impediment and that made communication quite difficult. As a result of late admission to schools, the findings revealed that respondents over 20 years of age were in primary schools and this meant that issues of adolescent caught up with a majority of deaf youths while still in primary schools. When age of the respondents was analyzed by some of the HIV/AIDS risks, there was a significant relationship between age and premarital sex ($p=0.0001$). A large number of the respondents below the age of 18 years had engaged in pre-marital sex and more respondents over the age of 18 years were likely to engage in pre-marital sex. The mean age for first sexual contact was 15.54 years and the minimum age for first sexual contact was 9 years. The findings of this study are consistent with those of Mwangi, (2000) in whose study, 23.2% of the pupils indicated that they had already had sexual intercourse, with age 10 years being the modal age of sexual intercourse onset. The findings of this study also compared well with

another study carried on young men and women of ages 15 to 19 years who had had sexual intercourse before their 15th birthday (UNICEF, 1997-2001). The results were as follows; Malawi 27% boys, 18% girls, Kenya 32% boys, 15.5% girls, United Republic of Tanzania 24% boys, 14.5% girls (UNICEF, 1997-2001). The findings of this study further revealed that because of communication barriers amongst the deaf, the only way for them to express love to one another was by engaging in sex. To them, friendship was an equivalent of sex. Otherwise without sex there is no affair. When the respondents were further probed to give reasons for engaging in premarital sex, 22.7% mentioned love, 19.5% said fun and 6.5% cited financial support.

According to one key informant sexual intercourse was a form of expressing desire for marriage. The findings of this study were similar to that of Konde-Lule *et al.*, (1997), which showed that young people, both male and female became sexually active, by age 15. While it is difficult for many adults to admit, large numbers of young people begin sexual activities at a relatively early age. They become sexually active before marriage, are not monogamous and do not use condoms regularly enough to ensure protection. In many countries a significant proportion of the young people start sexual activity before the age of 15 (UNAIDS, 2002). Studies by (Mugambi, 2001; ROK, 2000b) have indicated that nearly 75% of young Kenyans became sexually active before 20 years of age. Wendo (2003) recorded the mean age of first sexual contact at 16.64 for college-going students. Unfortunately as observed in this study and as supported by another study by Mwangi (2000) most parents hardly shared information on HIV/AIDS with their children.

Analysis of age by drug use revealed a significant relationship ($p=0.038$) and respondents less than 18 years of age were more likely to use drugs as compared to those 18 years old and above (Table 4.9). Most of the respondents (60%) cited peer influence as the main reason why they engaged in drug use.

The findings of the study showed that a strong significant relationship existed between age and sexual harassment ($p= 0.001$). Respondents who were less than 18 years of age were more likely to be sexually harassed than the older ones. According to one key informant, people capitalized on their hearing handicap and those who impregnated the deaf girls were mainly the hearing individuals. The deaf youth were more at risk of rape as compared to the hearing because they were not able to defend themselves in court and most persons without disabilities also assumed that the deaf were not infected, he said. This was supported by the evidence got from the findings of the study, which showed that the deaf youths had friends of opposite sex who were mainly out of the institutions where they studied. Out of the respondents who had friends of opposite sex, 48.2% had friends without disabilities from outside their institutions while only 15.6% had friends of opposite sex within their institutions. Similarly, out of their friends of opposite sex, 41.4% were individuals without disabilities and only 22.4% had disabilities.

The study further revealed no significant relationship between age and parent/relative-talk on risks associated with HIV/AIDS ($p=0.197$), the younger respondents less than 18 years were more likely to hold talks with their parents as compared to the older ones. Lack of communication between the parents and children was compounded by the fact

that parents were not conversant with appropriate sign language vocabulary which would be useful in passing accurate information that would guide and counsel the sexually active young individuals. Culturally most parents felt shy to communicate freely on matters of sexuality with adolescents (Senderowitz, 1995) and deafness of the youth worsened this matter. Young people live in a paradoxical situation of prohibition and silence on matters of sexuality (Becker *et al.*, 1999).

When age and perception of risk was analyzed, there was a strong significant relationship ($p=0.0001$). Risk perception for respondents under 18 years was as follows very likely (10.7%), very unlikely (40.6%) and not sure (8.3%). That for 18 year and above respondents were; very likely (15.1%), very unlikely (13.8%) and not sure (11.5%). This revealed that respondents over 18 years of age perceived themselves to be more at risk of HIV/AIDS as compared to respondents under 18 years of age. The findings disagree with that of Mando (2005) which found no significant relationship between age and perception on HIV/AIDS among primary school pupils.

5.1.2 Level of education of respondents

On the level of education of these deaf youths, majority were found in primary schools (Fig 4.2). Their number reduced as we got to secondary level where only a few individuals who passed their Kenya Certificate of Primary examinations fairly, moved to secondary schools. The technical institutes had students who had some formal primary and secondary education. In the technical institutes they were placed into various courses according to their potential talents and intellectual quotients, which they display. Those

who had completed primary education were placed to do a two year artisan course on carpentry, electrical installation, building etc. Individuals with secondary education were placed in three-year craft courses on relevant advanced artisan courses. The vocational institute acted as a rehabilitation center for destitute boys most of whom were mainly total orphans and street boys that did not have any formal education. In this institution they were mainly taught general agriculture, woodwork and weaving. The mental ability of individuals in vocational institute was lower as compared to those in primary schools.

5.1.2.1 Level of education and risks associated with HIV/AIDS infection

Analyzing level of education and pre-marital sex revealed a significant relationship ($p=0.003$). Secondary and technical institute students were more likely to engage in pre-marital sex than those in primary and vocational institute (Table 4.10). Individuals in the above institutions were more mature, conversant in sign language communication and able to engage in love relationships.

The study further showed a strong relationship between level of education and sexual harassment ($p=0.0001$). Individuals in primary schools were more likely to be sexually harassed than those in higher institutions of learning like secondary and technical because they are young, weak, defenseless hence more vulnerable. Similar results had been reported by Sullivan *et al.*, 1987), whose study on American deaf school-going youth, revealed that they were more vulnerable to sexual abuse because of being young and defenseless.

Analysis level of education and delay in STI treatment showed a significant relationship ($p=0.018$). Respondents in vocational institute and primary schools were more likely to delay in going for STI treatment than those in secondary and technical institute. Delay in STI treatment could be as a result of the problems the respondents faced when they visited health facilities, for health related problems and also most probably shyness due to embarrassment. Majority of the respondents, 67.7% cited communication breakdown as a hindrance to proper health seeking behaviour, while 32.3% mentioned stigmatization problems.

PWDs are viewed to be sexually inactive hence not at risk of any sex related illness. This was a big misconception among normal people on the deaf. It was only their ears that could not hear otherwise they had normal hormones in their body systems, reiterated, one key informant. Another key informant said that PWDs are viewed with disbelief by some Health Care Providers (HCP), when they sought medical attention for sexually transmitted illness or for pregnancy-related cases and especially those who did not know the sign language. One parent narrated how she took her daughter to hospital thinking she had a sexually transmitted infection while she was in the early stages of pregnancy. The drugs given prompted a miscarriage and this offended the daughter who felt the mother had conspired with the HCP to terminate her pregnancy and made her undergo a lot of pain. This resulted from lack of communication skills, which made the parent to give the HCP wrong information about the girl hence wrong diagnosis.

The study further revealed a strong significant relationship between level of education and parent/relative-talk (communication) ($p=0.0001$). Respondents in technical institute were more likely to (communicate) with parents/relatives/guardian associated with HIV/AIDS where possible. This again could be attributed to their level of maturity making them able to communicate sensitive issues with their parents/relatives/guardian.

Risk perception of the respondents by level of education showed a strong significant relationship ($p=0.0001$). Eighteen percent of the respondents, who perceived themselves to be very likely at risk of getting HIV/AIDS were those in primary schools. However this showed a false belief among other youth because majority of them were sexually active. A misconception existed among the respondents on issues related to HIV/AIDS. When they were asked which groups of persons were more at risk of HIV/AIDS infection, a majority (61.7%) mentioned the persons without disabilities while only (37%) mentioned PWDs. These findings agree with Akinyi (2003), where only 52% of the students felt that they were at risk of contracting HIV/AIDS because they were sexually active. The results of this study concur with Karuru (2004) which revealed that majority of the adolescents, (59%) did not perceive themselves to be at risk of contracting HIV/AIDS and only 41%, considered themselves to be at risk. Weistein (1994) reported that lack of perceived risk of HIV/AIDS infection was a barrier to safe sex among young people. Perception of risk and the illusion of vulnerability can be a significant obstacle to change especially where critical health issues are concerned. The illusion of vulnerability prevents people from making realistic estimates of personal risk that in turn acts as against the adoption of preventive behaviour.

5.1.3 Household head relationship with respondents

There are only 32 institutions for the deaf in the whole country and Nyanza Province has seven of out of these. Respondents who are lucky to have well informed parents that have been sensitized on the importance of educating the deaf child from various parts of the country find their way into the few institutions. The study revealed that most of respondents lagged behind in a lot of information. This could be the result of communication barriers due to inadequate communication sign language skills possessed by parents/relatives.

Culturally most tribes are not comfortable to discuss aspects of sexuality with their growing up children. This is the main reason why most youth will hide serious issues like an occurrence of a sexually transmitted disease from their parents only to disclose when it is almost too late and a lot of damage has been done to the body. The problem is magnified among the deaf youth who cannot communicate effectively with their parents/relatives.

The findings of this study showed that communication barriers between parents and their deaf children was an issue of major concern. Out of all the respondents, only 12% held talks regularly with their parents on sex related issues while 88% did not. These studies are at variance with those of Kiragu and Zabin, (1993) from United States, where 37% of the respondents reported that they discussed sexual issues with parents while 30% with friends. The study findings further revealed that respondents discussed such sensitive issues with other persons, teachers (51%), boyfriend/girlfriend (18.8%), church leaders (16.4%). Teachers were most preferred by respondents and the main reason could be ease

of communication and freedom of interaction. Karosfsky *et al.*, (2003) explains that communication with parents and other family members concerning sex and reproduction is protective against sexual risk taking behaviour.

5.2 Knowledge of HIV/AIDS and risk taking behaviours.

The majority of the youth had basic facts on HIV/AIDS. Eighty five point nine percent (85.9%) of the respondents knew about HIV/AIDS while only 14.1% did not. However there is clear evidence that younger individuals were not as informed as the older youth about HIV/AIDS. Fifty percent (50%) got HIV/AIDS knowledge from the teachers. Various studies have found that most youth knew about HIV/AIDS. Kinyua, (2001) observed that 99% of his respondents in a related study had heard of existence of HIV/AIDS. Mwangi, (2000) also observed that 99% of the respondents had heard of existence of HIV/AIDS. Similar results were realized by Okweso, (2002) who indicated that 83.3% of the respondents on a related study had heard of existence of HIV/AIDS.

The findings of this study indicated a significant relationship between HIV/AIDS and condom use at first sexual contact ($p=0.004$). Only 17.6% of the respondents who knew about HIV/AIDS had used condom at first sexual contact. These findings indicate that knowledge of HIV/AIDS does not translate into condom use at sexual contact. Previous studies are consistent with the findings of this study, for instance, Ndaya, (2004) claimed that although 78% of the students knew that risk of getting HIV/AIDS was increased by engaging in unprotected sex, hardly do they use condoms. Only 15.3 % of the study population reported to have used condoms on regular basis. Studies by Karuru (2004)

The results of this study further revealed a significant relationship between HIV/AIDS knowledge and perception of risk of infection ($p=0.0001$). The perception of risk of HIV/AIDS infection of the respondents did not correspond with their high knowledge.

Only twenty five point eight percent (25.8%) of the respondents perceived themselves to be at risk while fifty four percent (54.4%) of the respondents did not. This is a false perception among the deaf youths that accelerates their chances of being infected with the HIV.

These results support findings by Ndaya (2004) in which majority of the adolescents (59%) did not perceive to be at risk of contracting HIV/AIDS and only 41% considered themselves to be at risk. The results revealed varied opinions on the respondents' attitude to HIV/AIDS and this may be a risk factor predisposing the deaf youths to HIV/AIDS.

Young people are particularly vulnerable to HIV/AIDS infection because of their poor perception on HIV/AIDS issues. Elsewhere in South Africa, studies have shown that young people do not consider themselves to be at risk of contracting HIV/AIDS while others said in a FGD that if they became infected; other people would be responsible, not themselves (Campbell and Macphail, 2001). Personal perception of risk is usually low among many youth there are misconceptions about transmission modes and the efficiency of prevention measures. This makes them vulnerable to HIV/AIDS through risky sexual behaviour or and substance use.

The findings of this study were consistent with studies done before. The current study revealed that there was no significant relationship between knowledge of HIV/AIDS and premarital sex of the deaf youths. Fifty percent of the respondents who knew about HIV/AIDS had engaged in premarital sex. These results were consistent with those of Carr (2000) which reported that 50% to 75% of young people aged between 15-19 years in South Africa who knew about HIV/AIDS had engaged in premarital sex.

4. HIV/AIDS awareness and sexual harassment

Currently, little is known about HIV/AIDS and PWDs and especially the deaf. The factors identified in this study are similar to those documented in various settings throughout Africa and other developing countries. Such findings can be used as the basis for a number of policy and programme recommendations. Appropriate timely interventions are needed to promote HIV/AIDS awareness creation and prevention methods for the deaf youths.

1. Knowledge of HIV/AIDS did not translate to safe sexual practices. The majority of the respondents were sexually active during the 1st sexual exposure. Also

2. The majority of the respondents were sexually active at a relatively early age. This is a concern because it may lead to the spread of the disease.

4. There was lack of awareness of HIV/AIDS among the respondents. This is a concern because it may lead to sexual risk taking behaviour.

5. The majority of the respondents were sexually active. This is a concern because it may lead to the spread of HIV/AIDS infection. This is a concern because it may lead to the spread of the disease.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

1. Predisposition of the deaf youths to HIV/AIDS was greatly influenced by socio-demographic characteristic such as age, level of education, relationship to household head and HIV/AIDS knowledge which showed strong significant relationships with risks associated with HIV/AIDS infection such as sexual harassment, perception of risk e.t.c

[Age, level of education by sexual harassment; ($\chi^2=17.854$, $df=4$, $p=0.001$); ($\chi^2=14.090$, $df=3$, $p=0.135$) respectively.]

2. Behaviour of the respondents indicated that majority did not believe abstinence as possible. There were very low levels of secondary abstinence among the deaf youths.

Majority (63.8%) had friends of opposite sex and nearly half (48.7%) had had sexual contact.

3. Knowledge of HIV/AIDS did not translate to safe sex practices as only 11.25% used condoms during the 1st sexual exposure. Since large numbers of young people are beginning sexual activity at a relatively early age, action on prevention must be done at this early age if we are to control the disease.

4. There was lack of perceived risk of infection among the deaf youths despite engaging in sexual risk taking behaviour. Only 25.8% perceived themselves to be very likely at risk of HIV/AIDS infection. This is a false perception among the deaf youths that accelerates their chances of being infected by the HIV.

5. Communication barriers exist between normal persons and PWDs. A small number (12%) communicated on sex related issues with parents. This implies that most crucial information on HIV/AIDS is not reaching the deaf since communication with parents concerning sex and reproduction is protective against risk taking behaviour.

6. The study therefore rejects the null hypothesis that socio-demographic and behavioural factors have no significant influence on predisposure of the deaf youths to HIV/AIDS infection.

6.2 Recommendations

1. Comprehensive education should be established for the deaf community, not just around AIDS and HIV, but also around the wider issues of sexual health

2. Government and NGOs/civil society implementors also need to invest more resources in enhancing public education through electronic and print media in order to empower deaf youths with important information regarding risks associated with HIV/AIDS infection.

3. It is paramount that parents and Health Care Providers should be given basic sign language training to enhance accurate transmission of information to deaf youths, which will improve their understanding on risks associated with HIV/AIDS infection.

4. Youth friendly VCT centres for the deaf should be established in all provinces of the country and should be linked to support services and support groups following testing.

These support groups should be deaf youth friendly and should also involve religious groups, which advocate for a holistic approach to AIDS prevention and care.

5. Programs for the deaf should address issues specific to the deaf, such as negotiating safer sex with a hearing partner, advocating for health care services and breaking down barriers about sexual abuse and substance abuse among deaf persons.

6. Both government and NGOs implementors should consult and fully involve deaf youths in designing HIV/AIDS interventions and policy implementation.

6.3 Further Research

1. To develop a better educational intervention to prevent HIV infection, more research needs to be done on ways in which deaf youths understand their social and physical worlds, and to the social and cultural processes that help them to make sense of sexual desires, feelings and interests.

2. There is need to undertake research with more emphasis on sexual behaviour of other youths with disabilities.

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APPENDIX I

RESEARCH INSTRUMENTS

SECTION 1: IDENTIFICATION PAGE

CONSENT FORM

My name is Petronilla Odera.

I am a 2nd year master of public health student at Kenyatta University.

I am carrying out a study on HIV/AIDS risk factors among youth to meet part of the requirement for the course.

The information that you will give will be treated in confidence and is for academic purposes only.

Consent will be sought verbally.

Thanks for your cooperation.

Respondent number

1. Interviewer date.....

2. Namesign.....

(Information given here will be treated in confidence and is for academic purposes only.)

SECTION 2: QUESTIONNAIRE (PUT A TICK ON THE ANSWER OF YOUR CHOICE)

SOCIO-DEMOGRAPHIC INFORMATION (Information given will be treated in confidence and is for academic purposes.)

201. Male [1] Female [2]

202. How old are you?.....

203. Are your parents alive?

Both alive [1] None alive [2] Father alive [3] Mother alive [4]
Both alive but divorced/separate [5] Other (specify) [6]

204. With whom do you currently live?

My parents [1] Relative/guardian [2] Friends [3] Sponsor [4] Other [specify] [5]

205. Which class/form/year of study are you in?

Class [5] [6] [7] [8] Form [1] [2] [3] [4] Year [1] [2] [3] [4]

206. Are school visits by relatives allowed in your institution?

Yes [1] No [2]

207. How many times are you visited by your parents/relatives in a term?

None [1] Once [2] Twice [3] Thrice [4]

208. Do you consider all your needs to be well taken care off by support from parents/relatives?

Yes [1] No [2]

SECTION 3. BEHAVIOURAL AND RISK TAKING INFORMATION
(Information given will be treated in confidence and is for academic purposes only.)

301. Do you have a friend of opposite sex?

Yes [1] No [2]

If yes, how many?

One [1] Two [2] Numerous [3]

302. Is your friend with you in the same institution?

Yes [1] No [2]

303. Does your friend have any disability?

Yes [1] No [2]

If yes, specify

Blind [1] Physically challenged [2] Deaf [3]

304. Have you had sex with your friend?

Yes [1] No [2]

305. How old were you when you had the first sexual contact?

306. What made you have sex with your friend?

Fun [1] Love [2] Financial support [3]

307. Do you or your partner know what condom is and what it is used for?

Yes [1] No [2]

308. Did you use a condom during your first sexual contact?

Yes [1] No [2]

309. Have you had sexual intercourse in the last 12 months?

Yes [1] No [2]

310. Do you usually hold talks with your parents/relatives on matters related with sex risks?

Yes [1] No [2]

If yes, how often

Daily [1] Once a week [2] Once a month [3] Others (specify) [4]

311. If No, do you discuss risks associated with sex with?

Girlfriend/Boyfriend [1] Teachers [2] Church leaders [3] Others [specify] [4]

312. Which of these is your main source of information regarding risks/dangers of sex?

Media [1] Friends [2] Teachers [3] Church leaders [4] Others (specify) [5]

313. What specific sex information have you had?

Reproductive [1] Rape [2] HIV/AIDS and STIs [3] Other [specify] [4]

314. What are the main topics that should be frequently shared with friends, teachers, and parents in your opinion?

Good morals/behaviour [1] STI/HIV/AIDS [2] Others (specify) [3]

315. Do you feel disadvantaged in the dissemination of information about sex related issues and risks because of your disability?

Yes [1] No [2]

316. Have you ever been sexually harassed (e.g raped, forced kissing, touched)?

Yes [1] No [2]

317. Did you report the matter anywhere?

Yes [1] No [2]

If yes, to whom did you report the matter?

Parents [1] Teacher [2] Health worker [3] Police [4] None [5] Other specify [6]

318. Did you seek medical attention after the ordeal?

Yes [1] No [2]

319. Do you think your disability predisposes you to sexual violence compared to the normal people?

Yes [1] No [2]

If yes, explain how

.....

320. Have you ever taken any of the drugs below?

Yes [1] No [2]

If yes which ones

Alcohol, Cigarettes, Miraa [1] Bhang, Cocaine [2] Other (specify) [3]

321. How did you start taking drugs?

Peer influence [1] Parent imitation [2] Curiosity [3] Other (specify) [4]

**SECTION 4. KNOWLEDGE, ATTITUDE AND PERCEPTION ON
HIV/AIDS AND OTHER RELATED STIs**

(Information given will be treated in confidence and is for academic purposes only)

• **KNOWLEDGE**

400. What do you think are the most common diseases in Nyanza Province?
STIs [1] Malaria [2] TB [3] Other [specify]
401. What are some of the STIs that you know of?
Syphilis [1] Gonorrhoea [2] HIV/AIDS [3] Other [specify] [4]
402. Have you suffered from STI?
Yes [1] No [2]
403. Did you seek medical attention?
Yes [1] No [2]
404. After how long did you go for treatment for the STI?
One week [1] Two weeks [2] One month [3] Other [specify] [4]
405. Where do you go for most of your health problems?
Private clinic [1] Government health facility [2] Mission hospital [3]
Traditional health/Herbal clinic [4]
406. Which of the following problems do you face when you seek treatment in a health facility?
None [1]
Communication barrier (lack of sign language interpreters [2]
Stigmatisation from Health care providers (HCP) [3]
Other (specify) [3]
407. Do you know about HIV/AIDS?
Yes [1] No [2]
408. If yes, how can a person get HIV/AIDS?
Infected mother to child [1] Many sexual partners [2] Sexual intercourse [3]
Contaminated sharp objects or needles [4] Kissing [5]
409. In your view what are some symptoms of HIV/AIDS?
.....
.....
410. Where did you first learn about HIV/AIDS?
Parents [1] Health workers [2] Teacher [3] Friends [4] Media [5]
Pastor/Priest [6]

411. In your views which group of people are at greater risk of HIV/AIDS infection?
 Disabled persons [1] Normal persons [2] Other (specify) [3]

Why the answer above?

.....

.....

412. Do you think that a healthy looking person can also be HIV/AIDS positive?
 Yes [1] No [2] Don't know [3]

413. Have you ever heard of VCT?
 Yes [1] No [2]

414. Have you ever visited one?
 Yes [1] No [2]

415. If yes, did you voluntarily undergo the test?
 Yes [1] No [2]

416. Where did you go for the test?
 Private clinic [1] Government health facility [2] Mobile clinic [3]
 VCT centre for the deaf [4] Other (specify) [5]

**WHICH OF THE FOLLOWING STATEMENTS IS TRUE OR FALSE
 ACCORDING TO YOU?**

TICK THE APPROPRIATE ANSWER

- ✓ A person can be infected with HIV/AIDS and not even know it.
TRUE/ FALSE
- ✓ One can tell someone infected with AIDS virus just by looking at him
TRUE/ FALSE
- ✓ A person who is sick with HIV/AIDS can give others. **TRUE/ FALSE**
- ✓ Risk of contracting HIV/AIDS is increased by the presence of other STI diseases
TRUE/ FALSE
- ✓ HIV/AIDS is transmitted by engaging in unprotected genital intercourse with
 infected person **TRUE/ FALSE**
- ✓ A person with many different sexual partners could be at risk of HIV/AIDS
 infection **TRUE/ FALSE**
- ✓ By reducing the number of sexual partners one reduces chances of HIV/AIDS
 infection **TRUE/ FALSE**

- ✓ Regular use of condoms helps to reduce risk of contracting HIV/AIDS.

TRUE/ FALSE

• **ATTITUDE**

READ EACH OF THE STATEMENTS BELOW AND DECIDE HOW MUCH YOU AGREE OR DISAGREE WITH THE STATEMENT. YOU CAN EXPRESS YOUR OPINION BY MARKING A TICK().

- ✓ HIV/AIDS infection is due to sin against God.

STRONGLY AGREE/UNDECIDED/STRONGLY DISAGREE

- ✓ People should be willing to go for HIV/AIDS tests.

STRONGLY AGREE/UNDECIDED/STRONGLY DISAGREE

- ✓ People are supposed to learn more on how HIV/AIDS is transmitted.

STRONGLY AGREE/UNDECIDED/STRONGLY DISAGREE

- ✓ People should mix freely with persons infected with HIV/AIDS

STRONGLY AGREE/UNDECIDED/STRONGLY DISAGREE

- ✓ HIV/AIDS is a disease like any other and all persons with or without disability can get it.

STRONGLY AGREE/UNDECIDED/STRONGLY DISAGREE

• **PERCEPTION**

417. Do you consider yourself at risk of getting HIV/AIDS?

Very likely [1] Very unlikely [2] Not sure [3]

418. If you perceive yourself to be at risk of getting HIV/AIDS, which of the reasons make you think so?

My sexual partners are not trustworthy. [1]

I rarely use condoms during sexual intercourse. [2]

Needles and syringes used for injecting drugs can easily transmit HIV. [3]

Others (Specify) [4]

419. If you do not perceive yourself to be at risk of getting HIV/AIDS what makes you believe so?

I have only one faithful partner who does not have HIV/AIDS [1]

I have completely abstained from any sexual contact from the time I first heard of HIV/AIDS. [2]

I protect myself from sexual partners and myself every time I have sex. [3]

420. In your opinion is HIV/AIDS preventable?

Yes [1] No [2] Don't know [3]

421. If Yes, which methods do you know of that can be used to prevent HIV/AIDS?

Condoms [1] Abstinence [2] Being faithful to one faithful partner [3]

Avoiding sex with casual partners [4] Other (specify) [5]

422. Which one of the above methods is more acceptable to you?

.....

423. What are your feelings about people with HIV/AIDS?

Don't like them [1] Feel sorry for them [2] Empathize with them [3]

Other (specify) [4]

Thank you very much for your participation

Section 5. GUIDE TO FOCUS GROUP DISCUSSION WITH THE YOUTHS

MAIN THEME

Understanding HIV/AIDS risk factors among the deaf

Socio-demographic factors

Age

Probes:

- a) What age group do you think is most vulnerable to HIV/AIDS and why?
 - b) What should be done to prevent the spread of the disease among such groups?
 - c) Who do you think relates well with the youth and would discuss well HIV/AIDS risk factors freely with them?
- c) Do you think household head relationship puts one at risk of contracting HIV/AIDS?

If YES

Which group is greatly at risk of contracting the HIV/AIDS between those with and without parents?

- e) What community support do you get to protect you from HIV/AIDS risks e.g family members, support groups, community support groups?
Which one do you prefer and why?

Behavioural factors

- a) What is the key to good health?
- b) Can sex affect the health of the youth who are deaf?
If so, why?
If not, why not?
- c) What activities among the youth lead to high risks of contracting HIV/AIDS?
- d) What is your perception towards the following?
 - ◆ Having boyfriend/girlfriend
 - ◆ Having many sexual partners
 - ◆ Using condom during sex
- e) What activities would enhance behaviour change among the deaf youth in relation to HIV/AIDS?
- f) Do you think one's level of education puts him at risk of HIV/AIDS?
If yes, why?
- g) In your opinion do you think financial support to the youth could be a risk factor in the spread of HIV/AIDS?

Health Care Services

Awareness

Probes

- a) What activities in your opinion create HIV/AIDS awareness among deaf youths in institutions?
- b) How can the activities be improved among the deaf?

Prevention and control strategies

Probes

- a) What do you think about VCT services and service providers?
- b) What hinders or helps the access to services among the deaf?
- c) What do you understand by safe sex and its effectiveness in controlling HIV/AIDS among the deaf?
- e) If you were advising other deaf youths on HIV/AIDS what would you tell them ?
Before we end is there anything you would want to add?

Thank you very much for your participation. Your comments have been very helpful.

Section 6. TO INTERVIEW KEY INFORMANTS [social workers/teachers/
/health care providers/policy makers/parents]

1. Are the deaf youths more at risk of HIV/AIDS infection than the normal youth?

If yes, why?

2. What factors put the deaf youths at a greater risk of infection?

3. What are the HIV/AIDS prevention messages given to the deaf youths?

4. What services are offered to the deaf youths in relation to HIV/AIDS prevention?

5. How effective are these services?

6. How often have the deaf youths voluntarily sought your advice or information on matters of risk factors associated with HIV/AIDS as a professional/parent/guardian?

Comment

7. How often have you had to initiate a discussion or advice on matters of risks associated with HIV/AIDS as a professional/parent/guardian?

Comment

8. Do you feel confident/competent doing above i.e discussing matters of risks associated with HIV/AIDS with deaf youths?

Comment

9. Who do you think would be the most competent and successful in discussing the matters of risks associated with HIV/AIDS with the deaf youths?

Comment

POLICY MAKERS (DHMT, PDE etc)

10. What interventions are there for HIV/AIDS awareness creation, prevention and control among the deaf youths?
11. What are your experiences with these interventions?
12. What suggestions do you have to improve such interventions for the deaf youths?

PARENTS

13. What challenges face the deaf youth in relation to HIV/AIDS risks?
REPEAT Qns. 10, 11&12

Before we end is there anything you would want to add?

Thank you very much for your participation. Your comments have been very helpful.

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MOEST 13/001/ 35C 432/3

22nd August, 2005

Petronilla A Odera
Kenyatta University
P.O. BOX 43844
NAIROBI

Dear Madam

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Risk factors associated with HIV/AIDS among deaf institutions in Bondo, Kisumu, Migori and Rachuonyo Districts for a period ending 31st December, 2006.

You are advised to report to the District Commissioners, the District Education Officers and the Heads of the deaf Institutions you will visit before commencing your study.

Upon completion of your research project, you are expected to deposit two copies of your research findings to this Office.

Yours faithfully

B. O. ADEWA
FOR: PERMANENT SECRETARY

Cc
The District Commissioner
Kisumu
Migori
Bondo
Rachuonyo Districts

The District Education Officer
Kisumu
Migori
Bondo
Rachuonyo Districts

The Principals
Schools for the Deaf

SEON/SME
Mr. Wambua
Please to n.g
H. K. K.
6.9.05.