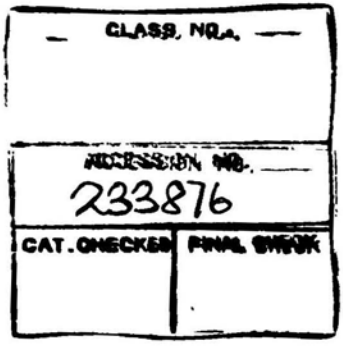
UNIVERSITY OF CAPE COAST

FACTORS THAT PREDISPOSE ADOLESCENTS TO HIV/AIDS/STIs IN COMMUNITIES IN AND AROUND THE UNIVERSITY OF CAPE COAST, GHANA.



BY

KABIRU KOREDELE AZEEZ

DISSERTATION SUBMITTED TO THE INSTITUTE FOR DEVELOPMENT STUDIES OF THE FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE IN HUMAN RESOURCE MANAGEMENT

OCTOBER, 2008

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: ..... Date: 2/12/08

Name: Kabiru Koredele Azeez

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: ..... Date: December 3, 08

Name: Prof. C.K. Brown

ABSTRACT

This study examined factors that predispose adolescents to Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome/ Sexually Transmitted Infections (HIV/AIDS/STIs) in the communities in and around the University of Cape Coast, Central Region, Ghana as a result of rising incidence of HIV/AIDS/STIs reported cases in the University Hospital, particularly among adolescents.

Using an exploratory cross-sectional study design, a probability sampling method was used to select 450 adolescents in 9 out of 12 communities in the study area. Using interview schedules, the data obtained from 435 available respondents was analysed by means of descriptive and inferential statistics using the Statistical Product for Service Solutions (SPSS) and Excel programmes.

The findings revealed that knowledge gap on HIV/AIDS/STIs among adolescents and some socio-cultural factors predisposed adolescents to HIV/AIDS/STIs. The results also indicate that, in addition to wrong perception about condom and its use, hard drug, multiple sexual partners and alcohol were identified by the respondents as risky behaviours predisposing adolescents to HIV/AIDS/STIs.

The researcher recommends that the Ghana Health Service (GHS) and the Ministry of Health (MOH) should intensify campaigns and programmes targeting adolescents on the factors that predispose adolescents to HIV/AIDS/STIs. Also, the Ghana Education Service (GES), Non-Governmental Organisations (NGOs) and other stakeholders should provide adolescents with the necessary

communication and other life skills to protect them from HIV/AIDS/STIs. The adolescents should avail themselves of information on HIV/AIDS/STIs because they form the pillars of the nation's future human resource base.

ACKNOWLEDGEMENTS

In the process of writing this research so many people, right from the beginning to the end, have, in diverse ways, contributed immensely to make this piece of work what it is today. I wish to sincerely thank Prof. C. K. Brown, my dynamic academic supervisor, for guiding me throughout the preparation of this write-up.

My profound appreciation goes to the University Central Administration as well as the University Health Administration for giving me the opportunity to enroll in the programme. It is my fervent hope that the knowledge acquired shall be beneficial to the University in particular and mankind in general. I wish to thank all my classmates who helped in various ways to make the programme a success.

DEDICATION

In memory of my Mother

TABLE OF CONTENTS

CHAPTER TWO: LITERATURE REVIEW

CHAPTER THREE: METHODOLOGY

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ARV	Anti Retro-Viral
ASRH	Adolescents Sexual and Reproductive Health
CDC	Centre for Disease Control and Prevention
CHRAJ	Commission on Human Rights and Administrative Justice.
DHMT	District Health Management Team
DOVVSU	Domestic Violence and Victim Support Unit
GDHS	Ghana Demographic and Health Survey
GES	Ghana Education Service
GSS	Ghana Statistical Service
GYBSS	Ghana Youth Risk Behaviour and Surveillance System
GYRHS	Ghana Youth Reproductive and Health Survey
HIV	Human Immunodeficiency Virus
MOEYS	Ministry of Education Youth and Sports
MOH	Ministry of Health
MHMT	Metropolitan Health Management Team
NACP	National AIDS Control Programme
NCCE	National Commission on Civic Education.
NGO	Non-Governmental Organisation
NHIS	National Health Insurance Scheme.
NMIMR	Noguchi Memorial Institute of Medical Research
P/S	Primary School

PLWHAs	Persons Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission of HIV
SPSS	Statistical Product for Service Solutions
SSS	Senior Secondary School
STDs	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
UCC	University of Cape Coast
UNAIDS	United Nations Joint Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organisation
YRBSS	Youth and Risk Behaviour Surveillance System

CHAPTER ONE

INTRODUCTION

Background to the study

The world is plagued by Human Immunodeficiency Virus/Acquired Immune-Deficiency Syndrome/Sexually Transmitted Infections (HIV/AIDS/STIs) and the most vulnerable groups are people under 25 years (UNFPA, 2003a). This vulnerable group, which forms the nucleus of the human resource needs of the world, accounts for half of all the new cases of HIV infection. The belief is that protecting them would be a major breakthrough for solving the human resource problem in the world and thus improving productivity and development.

The available evidence from the Cape Coast Metropolitan Health Management Team (MHMT) indicates that HIV/AIDS/STIs accounted for 42.4% of all adolescents' health problems in the Metropolis in 2004, and the number of HIV/AIDS cases seen at the University Hospital has also risen from 32 in 2004 to 45 in 2005 (MHMT, 2005).

The United Nations Joint Programme on HIV/AIDS (UNAIDS, 2003) reported that the main mode of transmission of HIV/AIDS in sub-Saharan Africa is heterosexual intercourse. This region contains almost two-thirds of all young people living with HIV—approximately 6.2 million people, 75% of whom are females (UNAIDS, 2003). In Eastern Europe and Central Asia, HIV prevalence

among young people is rising rapidly due to drug injection with contaminated equipment and, to a lesser extent, unsafe sex.

The dimensions of sexual and reproductive health problems affecting adolescents world-wide cannot be over-emphasized. Adolescence (i.e. ages 10-19 years) signifies an often difficult transition period captured in the phrase, no longer children, not yet adults. This period is characterized by physical, emotional and social changes that require understanding and ability to deal with them. Current adolescents experience an earlier onset of puberty and sexual activity; often have no knowledge about their sexuality and consequences of their sexual behaviour; are exposed early to sexually transmitted diseases (STDs); are highly vulnerable to substance abuse (tobacco, alcohol, other drugs); have high risks of pregnancy and abortion; are victims of sexual violence, exploitation, prostitution and discrimination; are frequently alienated from parents and communities or living in disrupted family situations; and are generally lacking in appropriate life skills to enable them cope with social and economic pressures and to make informed, responsible choices (UNAIDS, 2003).

About 17 million young women between the ages of 15 and 19 years give birth each year, accounting for more than 10% of all births world-wide. An estimated 4.4 million abortions are sought by adolescent girls each year. Of the sexually active adolescents, only 17 percent use contraceptives or condoms to prevent pregnancy or infection like HIV/AIDS and other STIs. An estimated one out of twenty adolescents each year contracts STIs, which often go untreated and

more than 50% of new HIV infections occur among 15-24 year olds (UNAIDS, 2003).

According to UNAIDS (2003), in most parts of the world, adolescents have been a neglected group in health and family planning programmes. They are often not regarded as sexually active before entering marriage. Therefore, they have been denied access to services by law or policy. However, earlier physical maturity, urbanisation, poverty and exposure to various media and other factors predispose adolescents to engage in premarital sexual activity, usually without the intent to have children. Often, the consequences of their sexual behaviour (pregnancy, STIs, abortion, abandonment, social stigma, etc.) result in a serious damage to their self-esteem, which can negatively impact on their opportunities for individual growth and development (UNAIDS, 2003).

It has often proved difficult to reconcile the educational and protective role of parents with the desire and capacity of young people to make their own decisions as they grow. It is also difficult to define the appropriate role of society in mediating what is viewed as primarily a family matter. Failing to deal with these issues, however, incurs a high cost in ill-health, wasted life opportunities and social disruption (UNAIDS, 2003). There is strong evidence that offering informed choices to young people promotes safer sexual practices and reduces unplanned pregnancies and STIs infection rates. On this basis, many countries are designing programmes for young people that include adolescent sexual and reproductive health issues and that recognise the importance of involving young people in designing programmes that affect their lives and their future. Some

programmes have successfully shown that adolescents are receptive to new ideas and are keen to make the most of their interest and energy to influence public debate and national decisions on the issues that affect them (UNAIDS, 2003).

Statement of the problem

In the year 2005, the University Hospital reported 45 positive cases of HIV/AIDS out of 80 individuals who were tested, compared with 32 positive cases in 2004 in the same facility. Out of the 77 positive cases detected in 2004 and 2005, 40 were females and 37 were males. There is a rise in the number of cases of other sexually transmitted infections (STIs) within the same period, majority of them being adolescents (MHMT, 2006).

Some studies have been done on adolescents in the Cape Coast metropolis by Awusabo-Asare (1999) and Awusabo-Asare and Anarfi (1995), but none has focused on adolescents in communities in and around the University of Cape Coast, who are faced with a variety of influences from the University students coming from all over the world as well as rapid influxes of other people in search of business opportunities in and around the University.

The University Health Directorate has introduced the STIs clinic as an interventional measure towards the reduction of sexually transmitted infections (STIs). This step was to help in the promotion of health education on STIs prevention, counselling and monitoring people with STIs. Despite these efforts little is known about adolescents and their reproductive health in the communities in and around the University of Cape Coast. This could possibly justify the study

on factors that predispose adolescents to HIV/AIDS/STIs. The communities around the University are faced with problems of poor documentation and inconsistent data on issues of adolescent reproductive health (MHMT, 2005). This study is, therefore, geared towards addressing these constraints of the communities. Addressing the sexual and reproductive health needs of adolescents is a matter for serious concern within each country because of its potential effect on the quantity and quality of human resource base of the nations and productivity (WHO, 1997).

Objectives of the study

The general objective of the study was to identify factors that predispose adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast.

The specific objectives of the study were to:

1. examine the knowledge, attitude, practices and behaviour of adolescents towards HIV/AIDS/STIs.
2. identify social and cultural factors that predispose adolescents to HIV/AIDS/STIs
3. determine adolescents' perception about condom and its use; and
4. determine risky behaviours that predispose adolescents to HIV/AIDS/STIs.

Research questions

The following research questions guided this study.

1. Does increased knowledge of adolescents on HIV/AIDS/STIs decrease their risk of contracting the diseases?
2. What social and cultural factors predispose adolescents to the risk of contracting HIV/AIDS/STIs?
3. Do increased knowledge and use of condoms by adolescents decrease their chances of contracting HIV/AIDS/STIs?
4. What risky behaviours predispose adolescents to HIV/AIDS/STIs?

Significance of the study

Not much work has been done in the area of factors that predispose adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast. The study will, therefore, serve as a guide to the Ministry of Health (MOH) and other stakeholders to modify and improve strategies to reduce adolescents' risk to HIV/AIDS/STIs in Ghana. This would be inferred from the data gathered from the respondents, and the suggestions offered by the researcher. The study would among other things, serve as a pivot on which further research works in the area could be done

Delimitation of the study

The study was limited to adolescents in communities in and around the University of Cape Coast in the Central Region.

Operational definition of terms

Adolescent: A male or female child between the ages of 10-19 years.

Acquired Immune-Deficiency Syndrome (AIDS): Is a disease state as a result of infection with the Human Immunodeficiency Virus (HIV).

Commercial sex workers: Persons who indulge in sexual activities in exchange for money.

Female genital mutilation: The cultural act of excising part of the clitoris.

Hard drugs: Unapproved drugs used for elating mood.

HIV: Infection of an individual with the Human Immuno-deficiency Virus

Sexually Transmitted Infections (STIs): The presence in an individual of germs that are transmitted by unprotected sexual intercourse.

Knowledge about HIV/AIDS/STIs: Refers to the awareness and understanding of the signs and symptoms of HIV/AIDS/STIs

Perception of condom use: Knowledge, attitudes and use of condoms

Risky behaviour: Activities that expose an individual to the danger of contracting HIV/AIDS/STIs.

Coerced sexual relationship: A situation where an individual is forced or tricked to have sexual intercourse against his or her wish.

Organisation of the chapters

This research work is organised into five chapters. The first chapter, which is the introduction, deals with the background to the study, statement of the problem, objectives, research questions, significance and delimitation of the study, operational definition of terms and organisation of the chapters. The second chapter is the review of related literature which discusses the global situation of HIV/AIDS/STIs, the HIV/AIDS situation in Ghana, factors predisposing adolescents to HIV/AIDS/STIs, knowledge and experiences about STIs, knowledge on HIV/AIDS, attitudes towards HIV/AIDS/STIs, sexual behaviour of adolescents, coerced sexual relationships, condom use, risky behaviour, HIV/AIDS/STIs and poverty, HIV/AIDS/STIs and gender. The summary and conclusion of the literature review are also provided. The method of research is found in Chapter Three. The data gathered are presented, analysed and discussed in Chapter Four. Finally, the summary, conclusions and recommendations are captured in Chapter Five.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In this chapter, a review of related literature is presented. It takes a look at global and national issues on HIV/AIDS/STIs. The factors predisposing adolescents to HIV/AIDS/STIs, such as knowledge and experiences about STIs, knowledge on HIV/AIDS and attitudes towards HIV/AIDS, sexual behaviour of adolescents, coerced sexual relationships, condom use and risky behaviour, are highlighted. HIV/AIDS and poverty, HIV/AIDS and gender are also discussed.

Global situation of HIV/AIDS/STIs

HIV/AIDS is among the greatest crises the world faces today. In two decades, the pandemic has claimed nearly 30 million lives (UNAIDS, 2003). An estimated 40 million people are now living with HIV/AIDS, 95% of them in developing countries, and 14,000 new infections occur daily. HIV/AIDS is destroying families and communities and sapping the economic vitality of countries. Globally, it is estimated that 11.8 million people aged between 15-24 years were living with HIV/AIDS by 2002. About half of all new HIV infections worldwide, approximately 6,000 per day, occur among young people (UNAIDS, 2003).

The loss of human resource to AIDS, for example teachers, contributes to illiteracy and lack of skills. The decimation of civil servants weakens core government functions, threatening security. The burden of HIV/AIDS, including the death toll among health workers, is pushing health systems to the brink of collapse. In the most recent severely affected regions, the impact of disease and death is undermining the economic, social and political gains of the last half-century and crushing hopes for a better future (UNFPA, 2003b).

More than 10% of the world's population live in sub-Saharan Africa which is home to almost 64% of all people living with HIV, estimated to be 24.5 million (Eaton et al, 2003). Between 1.5 and 3.0 million of them are children younger than 15 years of age. Indeed, almost nine out of ten children (younger than 15 years) living with HIV are in sub- Saharan Africa. An estimated 2.7 million people in the region became newly infected, while about 2.0 million adults and children died of AIDS annually. There were some 12.0 million orphans living in sub-Saharan Africa in 2005 (UNAIDS, 2006).

According to WHO/UNAIDS (2006), an estimated 930,000 adults and children died of AIDS in southern Africa in 2005, one-third of all AIDS deaths globally. Access to antiretroviral therapy has increased more than eight-fold since the end of 2003, with about 810,000 people on treatment in December 2005. One out of six (17%) of the 4.7 million people in need of antiretroviral therapy in sub-Saharan Africa now receive it. Progress is uneven, however, with coverage reaching or exceeding 50% in only three countries (Botswana, Namibia and Uganda) but remaining below 20% in most others. South Africa accounts for

one-quarter of all people receiving antiretroviral therapy in sub-Saharan Africa (WHO/UNAIDS, 2006). West and Central Africa (where estimated national HIV prevalence is considerably lower than in the south and east of the region) also show no signs of changing HIV infection levels, except for urban parts of Burkina Faso (where prevalence appears to be declining) (WHO/UNAIDS, 2006).

Although the epidemics in West Africa vary in scale and intensity, this sub region historically has been less severely affected than other parts of sub-Saharan Africa. National adult HIV prevalence is yet to exceed 10% in any West African country. Of all the modes of transmission of HIV infection, sexual transmission is predominant in sub-Saharan Africa, accounting for as many as 90 % of all HIV infections (De Kock et al, 1994). It is currently estimated that about 14 million people in sub-Saharan Africa are infected with HIV, over 60% of the global total (WHO, 2003). Previous studies in sub-Saharan Africa have found the risk factors for HIV to be infections with sexually transmitted diseases (STIs) and genital ulcers, multiple sexual partners, lack of circumcision in men, frequent sex with prostitutes, use of herbs and other substances for enhancement of sexual pleasure and exposure of men to menstrual blood (Mbugua et al, 1995; Runganga and Kasule, 1995; Malamba et al, 1994; Hunter et al, 1994; Bwayo et al, 1994).

The low prevalence of HIV/AIDS/STIs in some parts of the sub-region even though a welcome news, might also be a challenge for more active search for cases and putting in place measures to help those affected as well as protecting those not affected.

The HIV/AIDS/STIs situation in Ghana

Ghana is declared generally as a low prevalence country by the United Nation's Joint Programme on AIDS (UNAIDS) definition (NACP, 2005). The first case of HIV/AIDS was reported in Ghana in March, 1986. Since then, the cumulative number of reported AIDS cases has risen from 42 at the end of 1986 to 52,916 as at December, 2001 (Ghana AIDS Commission, 2004). Initially, the proportion of males to females living with AIDS was one male to five females. The trend has, however, changed; the gap has narrowed, with females accounting for 61% of the cumulative AIDS cases from 1986 to 2001. The largest share of AIDS cases is among 25–29-year-olds among females and 30–34-year-olds among males, indicating that females are infected earlier than males. Among adolescents in Ghana, 66 cases of AIDS were reported for 10–14-year-olds, while 111 cases of AIDS were reported for 15–19-year-olds in 2002 (NACP, 2003). The median HIV/AIDS prevalence rate for the adult population has increased from 2.3% in 2000 to 3.4% in 2002. The figures for 2006 and 2007 are 2.2% and 1.9% respectively. The estimated HIV/AIDS prevalence rate among 15–24-year-olds in Ghana in 2002 was 3.4% and among 15–19-year-olds, it was 2.3% (GSS, 2003a).

Approximately 400,000 adults are living with HIV/AIDS in Ghana (NACP, 2005). The prevalence among patients with sexually transmitted infection (STI) and blood donors is 17% and 4% respectively (NACP, 2005). HIV prevalence rates are not uniform across Ghana's regions. They range from a low of 1.7% in the Northern region to a high of 6.5% in the Eastern region. Above

average rates are seen in the Western region at 4.9%, the Eastern region at 6.5%, Ashanti 4.1% and the Upper West region 3.9%. HIV/AIDS prevalence seems to be higher in densely populated areas particularly in regional capitals such as Kumasi, Koforidua and Accra. Prevalence is also high in mining towns such as Obuasi and Tarkwa, as well as in border towns (NACP, 2005).

What is clear is that the HIV epidemic in Ghana, especially with respect to adolescents, presents an unclear picture which needs to be researched into. While it is too early to conclude that HIV prevalence in Ghana is on the decrease (NACP, 2006), there is an opportunity to put well-targeted interventions in place to reduce HIV transmission further, particularly among adolescents.

Factors predisposing adolescents to HIV/ AIDS/STIs

Sexually Transmitted Infections (STIs) are of significant public health concern, and their significance is further increased by their contribution to HIV transmission (Awusabo-Asare and Anarfi, 1995). From the literature, factors predisposing adolescents to HIV/AIDS/STIs include: knowledge and experiences about STIs; knowledge on HIV/AIDS; attitudes towards HIV/AIDS/STIs; sexual behaviour; coerced sexual relationships; condom use; and risky behaviour. These are discussed below.

Knowledge and experiences about STIs

The problems in obtaining accurate information about STIs are numerous. People are afraid to report STI symptoms for fear of being labeled promiscuous.

Sexually Transmitted Infections (STIs) are also likely to be underreported because such infections are not considered to be major problems. Misconceptions about STIs also exist. For example, 51% of males and 37% of females interviewed on the streets of Accra stated that one could get an STI through witchcraft, through juju (voodoo) as punishment for adultery, or for females, as a result of eating lots of sweets (Sallar, 2001). After HIV/AIDS, the most commonly known STI among adolescents is gonorrhea, of which 41% of 15–19-year-old females and 46% of males are aware (Awusabo-Asare and Anarfi, 1995). The authors, Awusabo-Asare and Anarfi (1995), also reported that 74% of adolescents had heard of gonorrhea and 51% had heard of syphilis. In 1993, 97% of males and 94% of females aged 15–24 had heard of STI. Out of this, 29% of the males and 5% of the females reported ever contracting STI (Awusabo-Asare and Anarfi 1995).

In a study among street youth aged 8–19 years, 59% could not mention any other STI besides AIDS (Anarfi, 1997). Results from another study of street youth showed that 98% had heard of at least one STI (Awusabo-Asare and Anarfi, 1995). Data gathered by Tweedie and Witte (2000) suggest that, although young people are aware of formal medical services for STI diagnosis and treatment, when they are confronted with an STI, the vast majority do not actually utilise formal medical services. In the 1998 report of the Ghana Youth Risk Behaviour and Surveillance System (GYBSS), 94% of both males and females reported a hospital or clinic as the place one can go for STI treatment, followed by drugstore (27% of males and 19% of females) (Tweedie and Witte, 2000). Of those who

ever had sex and ever had an STI, 75% of males and 57% of females sought treatment. The most common sources for treatment were drugstores (41% of males and 16% of females), hospitals/clinics/health posts (39% of males and 49% of females) and pharmacies (19% of males and 21% of females). Major reasons for not seeking professional medical treatment for an STI were that the infection was not serious and that the infection just went away (Tweedie and Witte, 2000).

A study of 1,147 street youth in Accra showed that of those who ever contracted an STI (58 males and 27 females), 43% of the males and 15% of the females self-medicated, 35% of the males and 22% of the females sought treatment from a druggist and only 18% went to a hospital or health center (Anarfi, 1997).

From the literature above by the various authors, it is clear that adolescents' knowledge and experiences about STIs is scanty and worth researching into, particularly in communities in and around the University of Cape Coast.

Knowledge on HIV/AIDS

In 1998, 97% of both females and males aged 15–19 years had heard of HIV/AIDS. However, there are important gaps in young people's knowledge about HIV/AIDS (GSS, 1999). For example, 24% of young females and 21% of young males in the 1998 Ghana Demographic and Health Survey (GDHS) did not know of any specific ways through which HIV could be transmitted (GSS, 1999). Only 65% of young females and 71% of young males agreed to the statement that

a healthy looking person can have the AIDS virus. These rates were the lowest among all the age groups in the 1998 GDHS.

About one-quarter of both females and males aged 15–19, who have heard of HIV, believe they are at some risk of getting HIV. Thus, the vast majority of adolescents in Ghana do not consider themselves at any personal risk of HIV/AIDS (Awusabo-Asare and Anarfi, 1995). If this is so, then, there are important gaps in young people's knowledge about HIV/AIDS.

Attitudes towards HIV/AIDS/STIs

Previous research by Ogden and Nyblade (2005) found that shame, blame, and judgment are key underlying causes of HIV-related stigma. These values, therefore, constitute a key dimension of stigma toward people living with HIV/AIDS, such that people's stigmatising attitudes are founded in their perceptions and beliefs about how HIV was contracted. Many associate HIV with behaviours perceived as being socially unacceptable or deviant and under the control of the individual such as sex outside marriage, sex with multiple partners, and injecting hard drug- leading to assumptions about the moral character of Persons Living With HIV AIDS (PLWHA). This, in turn, leads to shame and blame of those infected with HIV (Horizon/Population council, 2003). Therefore, assessment of people's shame, blame and judgmental attitudes is a domain essential to fully understand HIV stigma, and such assessment provides one entry into measuring stigma related to HIV and AIDS (Banteyerga et al, 2003).

A study in Ghana by Appiah and Afranie (2000) indicated that community perceptions of PLWHAs showed a high level of stigma. The community members held the view that people who get the disease are immoral, promiscuous and a disgrace to their families and communities. The community also held the view that people who had HIV/AIDS should be feared. In short, people hold negative perception about people living with HIV/AIDS. This should not be the case. It is time to educate people on the need to show compassion, love, understanding and other positive attitudes towards people living with HIV/AIDS.

Sexual behaviour of adolescents

According to United States Congress (1991), there has been a significant rise in adolescents' sexual activity, but more than half are still sexually abstinent until age 17 years. Among the 15 – 19 year –olds in 1990, 50% of the unmarried women and 75% of the unmarried men reported having had sexual intercourse, compared to about 25% of females who reported in 1970 ever had intercourse (CDC, 1993). The report further stated that, among ninth graders, 32 percent of the females and 43 percent of the males have had sexual intercourse, and 18.8 percent of all youth in grades 9-12 have had sexual partners (Warren and King, 1994). The initiation of sexual behaviours among youth is related to several variables including age, sex, physical development, race/ethnicity, and socioeconomic factors (Brook-Gunn and Furstenberg, 1989; Forrest and Singh, 1990). The male-female differential sexual activity is difficult to explain. However, previous studies have attempted to explain it through both biological

and social concepts. While it is generally agreed that both interest in and practice of sex among males are hormonally influenced, in females, the social environment appears to play a more significant role (Rhodes, 2002).

According to the Centre for Disease Control and Prevention (CDC, 2001a) two thirds of more than 12 million cases annually of sexually transmitted infections occur in people under 25 years of age, and about one out of four sexually active teens will get STI by the age 20 (CDC, 2001a). All regions require reporting of gonorrhea, syphilis and AIDS to country public health departments and most regions require reporting of chlamydia infection. But there are no consensus efforts among the regions about the reporting of other sexually transmitted diseases such us herpes, human papilloma virus, chanchroid or HIV (CDC, 2001b). In spite of major increases in sexual activity, changes in the rates of disease presents a mixed picture, with increases in some disease among some groups, and decreases or leveling off in others (CDC, 2001c).

The GDHS (2003) shows that more women than men had first sex by ages 15 and 18 years. Seven percent of women and 4% of men had sex by exact age 15 years, while 46% of women and 27% of men had sex by age 18 years. Women and men residing in rural areas have sex earlier than urban settlers. Variations in background characteristics are greater among women than men. Young women in Northern Ghana are most likely to initiate sex at an early age. In contrast, young women in Greater Accra are least to initiate sex at an early age. Age at first sex increased with educational attainment (GSS, 2003b).

Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure (Glynn, 2001). They are not likely to use condoms (CDC, 1999). In Kisumu, Kenya, 25% of sexually active young boys and 33% of young girls said they had not used a condom during their first and subsequent sexual encounters (Glynn, 2001). Erratic condom use with regular and non-regular sexual partners was also reported in studies in Argentina, Korea and Peru (UNFPA/UNAIDS, 2004). From the foregoing, the increase in sexual activity of the adolescent, coupled with scanty knowledge about HIV/AIDS/STIs, predispose them to contracting the diseases.

Coerced sexual relationships

From a very early age, many young women experience rape and forced sex. For example, 20% of all young girls interviewed in Kisumu, Kenya, and Ndola, Zambia, said their first sexual encounter involved physical force (Glynn, 2001). According to the 1998 GYBSS, 2% of males and 12% of females were forced into their first sexual experience, with 0.5% of males and 0.6% of females reporting that their first sexual intercourse was with a family member (Tweedie and Witte, 2000). A study in Accra indicated that 8% of males and 25% of females who had ever had sex reported having been coerced to have sex at some point in time (Nabila et al, 1997). Another study by Manzini (2001) reported that 25% of 15–24-year-old girls in KwaZulu-Natal, South Africa said they had been tricked or persuaded into their first sexual experience.

Furthermore, Awusabo-Asare (1999), in a study among young people aged 12–24 in junior secondary, senior secondary and university in the Central Region, observed that out of 415 adolescents who had had sex with their boyfriend or girlfriend, 19% reported that they were forced; of the 211 who had had sex with schoolmates, 13% reported being forced; of the 234 who had had sex with neighbors, 13% said they were forced; and of the 101 who had had sex with teachers, 6% reported that they were forced (Awusabo-Asare, 1999). A qualitative study in urban Accra, based on 29 case studies of girls aged 13–19 years, found that about one-third of the girls described their first sexual experiences as involving force, deception or rape (Tweedie and Witte, 2000). Many of the girls who were forced at their first sexual intercourse were still with the same boys and even had children with them (Henry and Fayorsey, 2002).

Another dimension of sexual coercion is the perception among males, and even many females, that women do not mean what they say when they say no to sex. Approximately two-thirds of both males and females aged 12–24 in the 1998 Ghana Youth Reproductive Health Survey (GYRHS) who had ever had sex stated that most girls did not really mean no when they said no to sex. Such attitudes can translate into an acceptance of sexual violence, because a substantial proportion of adolescent males do not appear to believe that girls really mean what they say and, therefore, with a little pressure a girl could be made to change her mind. Tweedie and Witte (2000) also reported that 13% of males and 14% of females who had ever had sex indicated that it is acceptable for a boyfriend to beat his girlfriend when she does not provide sex (Tweedie and Witte 2000).

Unpublished data from the Domestic Violence and Victim Support Unit (DOVVSU) of the Ghana Police Service in 2003 also suggest that sexual coercion of young females is a problem.

From the above research works, violent or forced sex can increase the risk of transmitting HIV because forced vaginal penetration commonly causes abrasions and cuts that allow the virus to cross the vaginal wall more easily. In 2002 and 2003, 28 and 24 defilement cases, respectively, were reported to the Cape Coast office of the DOVVSU. In addition, there were five cases of rape in 2002 and nine cases in 2003 (DOVVSU, 2003) justifying the need for further studies on coerced sexual relationship as a factor predisposing adolescents to HIV/AIDS/STIs.

Condom use

While condoms are the best weapons against HIV transmission, studies continue to show limited use of this barrier method in sexual intercourse in sub-Saharan Africa (Volk and Koopman, 2001; Adih and Alexander, 1999). Jemmot (2000) discussed the fact that although the use of condoms can reduce the risk of sexually transmitted infections, most sexually active adolescents do not consistently use condoms.

At this time of rise in HIV infection, the use of the condom as a protection against STIs, in addition to its use as a family planning method, has become important. As with other modern contraceptives, adolescents' awareness of the male condom is high. However, despite the fact that it is one of the most

commonly-used methods, overall levels of condom use are still low (UNICEF/UNAIDS/WHO, 2002). In 1998, 71% of females and 88% of males aged 15– 19 years who had ever had sex knew where to obtain a condom and 29% of females and 55% of males aged 15–19 years who had experienced sex had ever used male condom (GSS, 1999). Moreover, 12% of currently sexually active young females reported current condom use, as did 27% of currently sexually active males. These proportions are slightly higher when looking at condom use at last intercourse among those who have had sex in the last 12 months: 16% among women and 28% among men. Among those using condoms at last sex, approximately half of 15–19-year-old females and one-quarter of 15–19-year-old males used a condom to prevent the transmission of HIV/AIDS (GSS, 2003a).

A study of street youth in Accra aged 8–19 years showed that, although 83% of the respondents knew about condoms, only 28% of the sample had ever used condoms and 21% had used condoms in the three months prior to the survey (Anarfi, 1997). An earlier study by Anarfi and Antwi (1995) found that 90% of 10–24year-olds knew of condoms but 34% had ever used them. All those who used condoms reported that, they were used to prevent STIs and 4% specifically mentioned HIV/AIDS. Thirty-three percent of the respondents did not use condoms because they did not like the method and another 11% felt that condoms did not give any protection.

In a study in Yilo-Krobo District among males aged 15–24 who had ever had sex, 65% had used condoms at least once and 21% used the condom at last intercourse (Adih and Alexander, 1999). Young males who perceived themselves

to be at high risk were more likely to use condoms at their last sexual encounter than those who did not perceive themselves to be at high risk. In a study in three districts in Ghana, 68% of the respondents aged 10– 19 years and who had ever had sex indicated that condoms could be used for protection against STIs but only 41% had ever used condoms. Of those who had ever used condoms (137 males and 87 females), 28% reported that they used them to prevent pregnancy, 6% to prevent STIs and 12% for HIV prevention; the remainder used them to prevent two or more of these outcomes (Sallar, 2001). Adomako (1991) identified condoms as the most preferred method of contraception and for protection against STIs among secondary school students in Ghana (Adomako, 1991). In her study involving nine senior secondary schools in Ghana, 52% of the respondents who had ever had sex indicated that they had ever used a condom as a birth control method. Current use of contraceptives among those who had had sex was 46% for condoms, 16% for spermicides and 2% for the pill (Adomako, 1991).

The acceptability of condoms is still fraught with challenges. In the 1998 GYRHS, 44% of both males and females who had never used condoms did not consider a girl who carried a condom in her purse to be wise. Moreover, 43% of males who had never used condoms said they would not be able to buy condoms because it was too embarrassing (Tweedie and Witte, 2000). Another study of 12–24 year-olds in three Ghanaian towns found that 65% of respondents thought it inappropriate for males to carry condoms and 78% thought it inappropriate for females to carry condoms (Glover, 2003). A study of students aged 12–24 in the Central Region of Ghana found that over 40% of the respondents agreed with the

statement that a girl who carried a condom in her purse was a bad girl (Karim, 2003). In a study on adolescent sexual and reproductive health behaviour among junior secondary and senior secondary school students and out of school youth, Afenyadu and Goparaju (2003) reported that 60% of respondents used condoms selectively. Another study of young people (12–24-year-olds) showed that while almost all of them knew of condoms, 48% could identify any of the four elements of correct condom use (Glover, 2003).

From the foregoing and in this era of HIV/AIDS, reported levels of condom use are still low. The evidence is thin on consistency and correct use of condoms among adolescents in Ghana. Majority of sexually-active adolescents do not use condoms.

Risky behaviour

In Central Asia and Eastern Europe, there is evidence that the age of initiation of injecting hard drug is falling (Rhodes, 2002). Furthermore, overall hard drug use appears to be increasing, due to rapid social and political change, sharp declines in living standards, and an increase in regional heroin availability (UNDP, 2003). Young people injecting hard drugs are particularly at risk, since they may not have the knowledge or skills to protect themselves from infection via contaminated injecting equipment (UNAIDS, 2003).

Injection of hard drugs poses a threat to HIV infection not only to the individual who engages in it but also to their sex partners (UNAIDS, 2006). In the USA, it is estimated that 9 out of 10 cases of heterosexual transmission of

HIV in New York City are related to sex with a hard drug user. In some places, including much of China and parts of India and Myanmar, more women are infected through sex with drug users than in any other way. Fairly 83% of injecting drug users in Brazil's Rio de Janeiro said they did not use condoms with their regular partners, and 63% never used them even with their casual partners. Injecting drug use also contributes to mother –to-child transmission of HIV. In Uruguay, 40% of babies with HIV are born to mothers who inject drugs. (UNAIDS, 2006).

When injecting drug-users sell sex to pay for drugs, their prospect of sexual transmission obviously looms large, but because both commercial sex and drug-users are hidden, they are doubly hard to quantify. In a study of injecting drug-users in Argentina (Buenos Aires), Brazil (Rio de Janeiro) and Canada, a third or more of respondents of both sexes said they had exchanged sex for drugs at least once. The overlap appears to increase the risk of infection. In a study among 212 male injecting drug-users in Quebec City, Canada, the prevalence of HIV was close to 30% among users who were also sex workers and just under 10% among men who did not report of sex work. Adolescents who drink alcohol or use drugs before engaging in sexual intercourse are less likely to use protection or contraceptive measures such as condoms, and are, therefore, at a high risk of becoming pregnant or acquiring STIs or HIV/AIDS (Godin and Michaud, 1996).

Marriage and other long-term monogamous relationships do not protect women from HIV. In Cambodia, a recent study found 13% of urban and 10% of rural men reported having sex with both a sex worker and their wife or steady

girlfriend (Cambodian National Institute of Statistics/Orc International, 2000). Meanwhile, the country's 2000 Demographic and Health Survey found only 1% of married women used condoms during their last sexual intercourse with their husbands (Cambodian National Institute of Statistics/Orc International, 2000).

The risk of this behaviour to wives and girlfriends is clear. In Thailand, a 1999 study found 75% of HIV-infected women were likely infected by their husbands (Xu, 2000). Nearly half of these women reported heterosexual sex with their husbands as their only HIV-risk factor (Xu, 2000). In some settings, it appears marriage actually increases women's HIV risk. In some African countries, adolescent, married 15–19-year-old females have higher HIV infection levels than non-married sexually active females of the same age (Glynn, 2001).

From the literature, risky behaviours, such as hard drug injection, alcohol use, multiple sexual partners and non-use of protection during sex, were identified to be factors predisposing adolescents to HIV/AIDS/STIs.

HIV/AIDS/STIs and poverty

Poverty does seem to create conditions for social and economic transactions particularly sex and child labour that make the poor more susceptible and vulnerable to HIV/AIDS infection (GSS, 2003b). For instance, high youth unemployment, limited job opportunities and the associated risky survival strategies all promote involvement in commercial sex work, early sexual relations and child labour conditions that enable HIV/AIDS and poverty to mutually reinforce each other (GSS, 2003b). Poverty may undermine condom use. The

Ghana Demographic and Health Survey shows a direct positive relationship between wealth and current use of male condoms among married women, with the wealthiest reporting rate of condom use of 6.2%, compared to a rate of 0.7% among the poorest (GSS, 2003b).

HIV infection is a serious threat to productivity and secured livelihoods. According to a study conducted in Thailand, a third of HIV/AIDS- affected rural families lost half of their agricultural output and 15% had to withdraw their children from school. Half of the elderly in the families were left unsupported and cared for (World Bank, 2000; Anarfi, 2004). An HIV/AIDS impact assessment study in urban Cote d'Ivoire revealed that expenditure on education in HIV/AIDS affected households had fallen by 50%, food consumption by 41% while expenditure on health had increased more than 400% (Anarfi, 2004). According to the World Bank (2000), Africa will be experiencing a reduction of income growth per capita of 0.7% per year as a result of AIDS. Specific studies on the South African economy also established that the country's economic growth will be 17% slower and per capita income at 7-10% less by 2010 than would have been the case without AIDS (Lewis and Arndt, 2000). All these point out the relationships between poverty and AIDS.

In addition to the obvious links between poverty and health, the former can be a driving factor for risky behaviour. Men can impress young girls with money and gifts because the girls are poor. An ever-growing number of street children in Accra, Kumasi, Tema and other large towns encourage involvement in transactional sex. Despite the low cost of condoms, many sexually active

adolescents cannot afford them. Poor households are particularly in danger of breaking down, with the children migrating elsewhere (Rugalema, 2000; Akintola and Quinlan, 2003). AIDS-affected households also appear more likely to suffer severe poverty than non-affected households, and older parents who lose adult children to AIDS are exceptionally prone to destitution (Rugalema, 1998). The most common explanation is that poverty and hardship drive girls into transactional sex with richer men.

However, a regional survey found that economic necessity is one of several factors influencing HIV/AIDS/STIs and poverty (Luke and Kurz, 2002). Many girls also sought out older men because they were viewed as good marriage partners or providers of better lives in the areas of education and work opportunities. They also reported that gifts of clothes, jewellery and perfume enhanced the girls' self-esteem and their status among their peers (Luke and Kurz, 2002).

Whatever the reasons, the UN Secretary-General's Task Force on Women, Girls and HIV/AIDS in Southern Africa has found that both transactional sex and intergenerational sex have become the norm in many countries. For example, a study in Zimbabwe found that nearly 25% of women in their 20s are in relationships with men at least 10 years older (United Nations, 2003). It is also clear that these relationships are a major factor in the feminisation of AIDS in Africa. African men are expected to have many sex partners, and on average, those living with HIV became infected in their mid-to-late 20s.

In comparison, adolescent females generally form longer sexual relationships with one partner than their male counterparts (Pisani, 2003). Despite this relative fidelity, many living with HIV were infected soon after they started having sex. A Zambian study showed that 18% of women who said they became sexually active within the last year were HIV-positive. In South Africa, 20% of sexually active girls between the ages of 16 and 18 were infected (Pisani, 2003). Intergenerational sex appears to be a driving factor in the epidemic in Southern Africa. These relationships are based on equations of power and economics that leave girls vulnerable to abuse, exploitation, violence and HIV (Luke and Kurz, 2002). Poverty not only influences adolescents' perception on HIV/AIDS/STIs, but also has a relationship with condom use, risky behaviour and to some extent socio-cultural practices that predispose adolescents to HIV/AIDS/STIs.

HIV/AIDS/STIs and gender

Several studies have confirmed that HIV infection has heightened vulnerability differences between males and females. Women are known to be more likely to become infected with HIV, and are more often adversely affected by the AIDS pandemic than men. Two million more females than males carry AIDS virus in Africa (Anarfi, 2004), while the trend is moving towards a balance in Ghana (GSS, 2003b). The reasons for greater female susceptibility are biological, socio-cultural and economic. Biologically, women are 2-4 times more vulnerable to HIV infection than men because during unprotected vaginal

intercourse women receive more semen, which is capable of containing a higher level concentration of HIV than a woman's vaginal secretion. Also, the female sex organ and the cervix provide large mucosal surfaces for entry of the AIDS virus, unlike the penis (Anarfi, 2004).

From the socio-cultural perspective, women's higher susceptibility to HIV/AIDS/STIs is attributable to differences in the prescribed role expectations and power relations between women and men particularly when it comes to negotiating for the use of the condom or abstinence (Anarfi, 2004). It can, therefore, be deduced that reasons for greater female susceptibility to HIV/AIDS/STIs are biological, socio-cultural and economic. The relative vulnerability of women is reinforced by their limited access to resources - education, training and gainful employment - which renders them more socially and economically dependent on men.

Summary and conclusion

From the literature above, it is clear that adolescents' knowledge and experiences about STIs is scanty and worth researching into, particularly in communities in and around the University of Cape Coast. It is also obvious that, in Ghana, there are important gaps in young people's knowledge about HIV/AIDS/STIs. Negative perception of adolescents about HIV/AIDS/STIs, increase in sexual activity coupled with scanty knowledge about HIV/AIDS/STIs predispose them to contracting the diseases.

In addition, violent or forced sex can increase the risk of transmitting HIV because forced vaginal penetration commonly causes abrasions and cuts that allow the virus to cross the genital wall more easily. Coerced sex is on the increase as reported by DOVVSU of the Ghana Police Service, Cape Coast. The acceptability of condoms is still fraught with challenges because consistency and correct use of condoms among adolescents in Ghana is low. Risky behaviours, such as hard drug injection, alcohol use, multiple sexual partners, non-use of protection during sex and commercial sex, have been identified to be factors predisposing adolescents to HIV/AIDS/STIs.

Poverty influences adolescents' perception on HIV/AIDS/STIs and has a relationship with condom use, risky behaviour and, to some extent, socio-cultural practices that predispose the adolescents to HIV/AIDS/STIs. In terms of gender, reasons for greater female susceptibility to HIV/AIDS/STIs are biological, socio-cultural and economic. The relative vulnerability of women is reinforced by their limited access to resources - education, training and gainful employment - which renders them more socially and economically dependent on men.

The burden of HIV/AIDS/STIs, including the death toll among adolescents, is enormous and a drain to the human resource base of any nation. The loss of teachers, health workers and civil servants to HIV/AIDS/STIs contributes to illiteracy and lack of skills and is undermining the socio-economic and political gains of the last two decades and crushing hopes for a better future (UNFPA, 2003b).

CHAPTER THREE

METHODOLOGY

Introduction

In the previous chapter, a review of the related literature on the subject matter of this study was made. This chapter takes a look at the methods used in collecting data for the study and analysis of the results.

The study design

The exploratory, cross-sectional study design was employed in this research. The respondents were adolescents within the age group 10-19 years residing in communities in and around the University of Cape Coast at the time of the study.

The study area

The study was conducted in the communities in and around the University of Cape Coast located in the Central Region of Ghana. Figure 1 depicts the map of Ghana showing the Central Region. Within the Central Region of Ghana, the study area is found in the Cape Coast Metropolis. Figure 2 depicts the map of Central Region showing the Cape Coast Metropolis. Figure 3 shows the UCC sub-metro with its surrounding communities within the Cape Coast Metropolis.

FIG. 1: MAP OF GHANA SHOWING THE CENTRAL REGION
Source: Department of Geography and Tourism , U.C.C. 2008

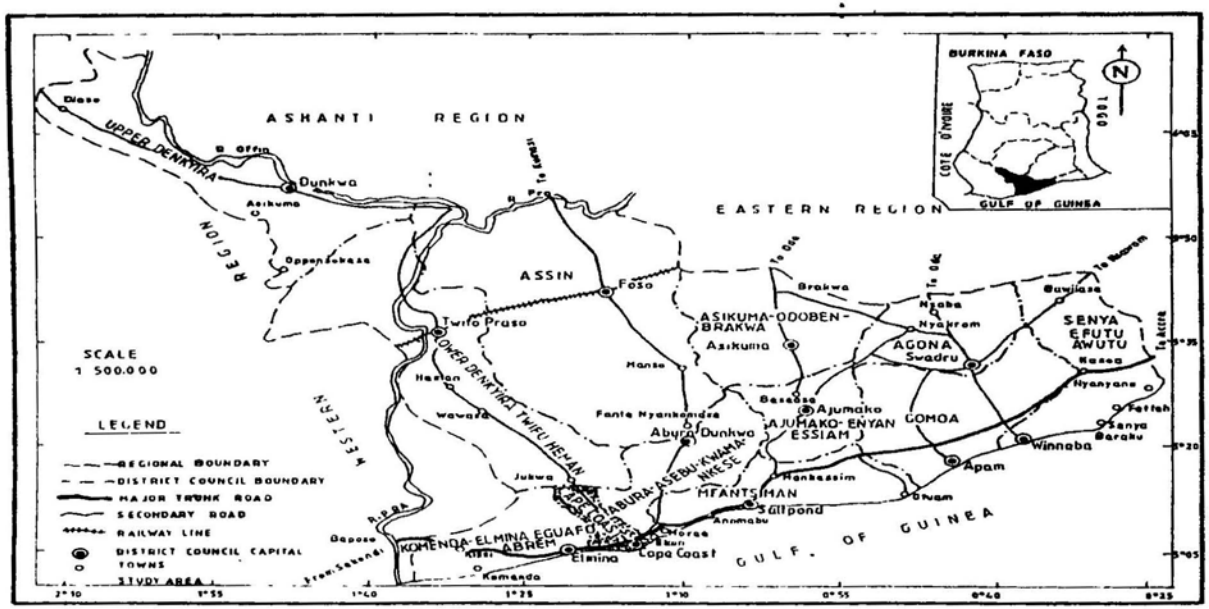


FIG. 2: MAP OF THE CENTRAL REGION SHOWING THE CAPE COAST METROPOLIS

Source: Cartography Unit U.C.C.

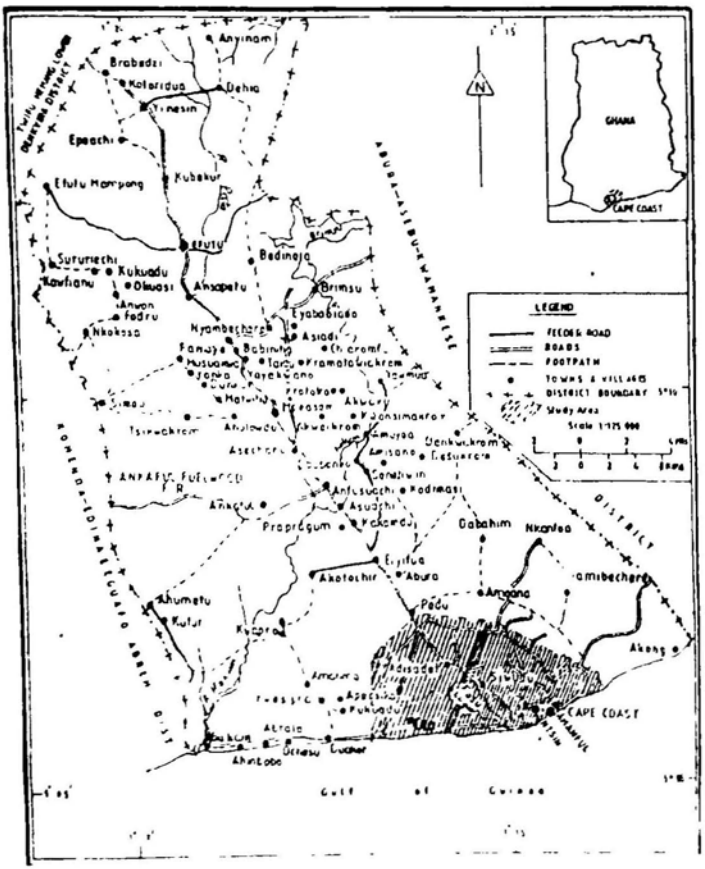


FIG. 3: MAP OF THE CAPE COAST METROPOLIS SHOWING THE STUDY AREA

Source: Department of Geography and Tourism, U.C.C. 2008

The University of Cape Coast and the 12 communities within its catchment area serve as one of thirteen sub-metros of the Cape Coast Metropolis in the Central Region of Ghana. It is located along the coastal belt of the country. The University Hospital serves as the main hospital for the sub-metro, supported by an NGO Clinic at Kwaprow. The hospital runs outreach clinics in all twelve communities within its catchment area and a Students' Clinic at the new site. There are a number of private maternity homes and prayer camps within the study area. There is effective collaboration between the hospital and these facilities to ensure the safety of the public and timely referral. The people in the area are engaged in fishing, subsistence farming and minor trading.

The study population

The study population comprised all adolescents within the age group of 10-19 years in the communities in and around the University of Cape Coast. It included those who were in school, out of school or never been to school. According to GSS (2003a), the University of Cape Coast and its surrounding communities cover an area of 234km^2 with an adolescent population of 4,500.

Sampling techniques

According to GSS, the University of Cape Coast and its surrounding communities has a projected total population of 20,069 for 2006, and it is estimated that 21.9% of every population is made up of adolescents aged 10-19 years. Therefore, the projected population size of adolescents for the University

of Cape Coast sub-metro for 2006 (sampling frame) was 4,500 (GSS, 2003a). According to Mitchell and Jolly (1988), for a target population of 5000, a sample size of 357 is representative at 95% confidence level (Mitchell and Jolly, 1988). For representativeness and objectivity, 450 of the adolescent population were used as the expected sample size out of which data was obtained from 435 available respondents.

Out of the 12 communities in the catchment area, 9 were randomly selected as a representative of the study area by using the lottery method. These communities are Duakrow, Okyeso, Ahiaboboe, Amamoma, Kwesi pra, Akotokyere, Apewosika, Kokoado, and Ola Estate. By the quota system, each of the 9 communities was allocated 50 adolescents. The houses in the selected communities were numbered and, by the lottery method, 50 houses were randomly selected in each community to make a total of 450 houses in the 9 communities. An eligible respondent was randomly selected from each house for inclusion in the study. Where there were more than one eligible respondent in a house, further balloting was done to select one of them as the respondent (Sarantakos, 1993). Out of the 450 eligible adolescents selected, data was collected from 435 of them who were available at the time of the study.

The research instrument

The research instrument used was the interview schedule (Appendix). Both close and open-ended questions were used. The instrument was divided into seven subheadings: socio-demographic characteristics; sexually transmitted

infections; HIV/AIDS; behaviour and attitude of adolescents towards HIV/AIDS; social and cultural factors; perception on condom and its use; and risky behaviours.

Under the first subheading (socio-demographic characteristics), 10 items were designed to elicit respondents' background information. Under the second subheading, 8 items were used to gather views on sexually transmitted infections (STIs). Under the third subheading, 11 items were used to gather views on HIV/AIDS. Under the fourth subheading, 10 items were used to gather views on behaviour and attitude of adolescents towards HIV/AIDS. Under the fifth subheading, 15 items were used to gather views on social and cultural factors. Under the sixth subheading, 16 items were used to gather views on perception on condom and its use. Under the seventh subheading, 10 items were used to gather views on risky behaviour, among others.

Pilot study

The interview schedule was tested in three communities within the catchment area that were not selected for inclusion in the study. These communities were: Abakam, Ola-Medina and Kwaprow. The rationale was to test the reliability and validity of the instrument, and it was found to be acceptable for the fieldwork.

The fieldwork

Permission was sought from the University Administration, traditional and opinion leaders, parents and respondents to carry out the fieldwork in the study area. After training the research assistants, they were introduced to the stakeholders in the communities under study. The research assistants were then allocated to selected communities to conduct the study. On a daily basis, the principal investigator ensured that the research assistants had all they needed for the field work for the day. In each community, the researchers identified eligible respondents from each selected house and took the respondents through the interview schedule, item by item. The data was collected on weekends to give a fair chance to all respondents (in school, out of school or never been to school) to participate in the study. The study period lasted from June 15 to August 8, 2006.

Data processing and analysis

The interview schedules were edited to ensure that all the items were answered by each respondent. Editing ensures that "data are clean i.e. free from inconsistencies and incompleteness" (Kumar, 1999: 200). The responses were tallied (item by item), and where necessary, the raw scores were put into identical classes which were later on converted into percentages by means of the Statistical Product and Service Solution (SPSS). Frequency distribution tables were then generated to show the spread of the scores. Both close and open-ended items were analysed. Where the respondents were to specify other answers, their responses were also analysed according to content.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter is concerned with the presentation and discussion of the findings of the research. It is divided into two main sections: background characteristics; and findings and discussion of objectives and research questions.

Background characteristics of respondents

The 435 respondents were made up of 221 males and 214 females, with a sex ratio (number of males per 100 females) of 103.3. The modal age-group was 14-16, accounting for (41.82%) of the respondents (Table 1).

Table 1: Age-Sex distribution of respondents

Age-group	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
10-13	69	31.22	62	28.97	131	30.01
14-16	95	42.99	87	40.66	182	41.82
17-19	57	25.79	65	30.37	122	28.17
TOTAL	221	100.00	214	100.00	435	100.00

Source: Field Data (2006).

Other background characteristics showed that 52% of respondents were Fantis, 54.7% of the respondents were Christians and 45.3% were Moslems. Also, 85% of the respondents were students and 64% of them stayed with both parents

Perception of adolescents about HIV/AIDS/STIs

The first objective was to examine the perception of adolescents about HIV/AIDS/STIs. There were 29 items in the interview schedule used to gather views on knowledge, attitude, practices and behaviour of adolescents about HIV/AIDS/STIs. Four hundred and five (93.1%) said they were aware that people can contract STI through sexual intercourse, while the remaining thirty (6.9%) were not aware. This is consistent with the finding of Awusabo-Asare and Anarfi (1995) that 97% of the youth (15-19 years) had heard of at least one STI. HIV/AIDS was the main STI which was commonly known among the respondents because 91.3% of them knew about HIV/AIDS as an STI. A high percentage (98.1%) also believed in the existence of HIV/AIDS/STIs. Majority (85.1%) of the participants in the study indicated abstinence as a means of HIV/AIDS/STIs prevention.

Also, 50% of the respondents knew that avoidance of sharing sharp instruments and use of condom are other alternatives of preventing HIV/AIDS/STIs infection. Furthermore, 16% of the adolescents mentioned that avoidance of commercial sex workers could also serve as another way of preventing HIV/AIDS/STIs infection. This confirms earlier work by Ghana Statistical Service (1999) that majority of adolescents, who are aware of

HIV/AIDS/STIs, also believed in its existence. Similarities in results could be attributed to widespread educational campaigns by various bodies such as NGOs, DHMT, Ghana Education Service and other collaborators on HIV/AIDS/STIs in addition to activities of PLWHAs. Almost a third (29.4%) had no idea about how long it takes HIV to progress into the AIDS stage. One hundred and nineteen (27.4%) respondents said HIV takes several years to progress into AIDS. Over half of the respondents (64.7%) said it was not possible to identify someone with HIV by just looking at the person, compared with 28.8% who said it was possible. In addition, while 42.1% had ever seen a person with AIDS, majority (54.4 %,) of them had not.

Interestingly, there were gaps between knowledge and awareness of the respondents. The high level of awareness observed did not necessarily mean an increase in knowledge because 32.0% of the adolescents had no knowledge about any sign and symptoms of HIV/AIDS/STIs, while loss of weight, which is mostly associated with HIV/AIDS, is one of the major signs and symptoms being generalized as signs and symptoms of all STIs. One possible reason that could be responsible for this gap is the fact that much emphasis is placed on HIV/AIDS to the neglect of other STIs (Appiah and Afranie, 2000).

The majority of adolescents in communities around the University would not want to have anything to do with PLWHAs. Over 50% of them would not want to have any social interaction with PLWHAs; seventy-seven percent would not even seek health care from health personnel who are HIV positive. The reasons that can be attributed to this attitude could be the low level of knowledge

on HIV mode of transmission, coupled with the associated stigma. However, Helen (2002) reported that it is safe to live, work and spend leisure time with PLWHAs provided it does not involve blood–to–blood contact or penetrative sex. This finding confirms previous reports by Appiah and Afranie (2000), who found that many people associate HIV with behaviours perceived as being socially unacceptable or deviant. The findings here indicate that there is a very high level of stigma towards HIV/AIDS/STIs.

Similarly, 77.5% of the respondents were not prepared to buy food from an HIV positive person. Appiah and Afranie (2000) reported about community members' attitude towards HIV/AIDS/STIs and their findings were not different from those in this study. It is established in their study that people who have the disease are immoral and should be feared. The disclosure of HIV status has several advantages and buying food from a person who is HIV positive has not proved to be a mode of transmission (Helen, 2002). This, therefore, calls for more education on the mode of HIV/AIDS/STIs transmission and stigma reduction.

The findings in this study indicate that some people who contract STIs would not seek appropriate treatment. Twelve out of 30 adolescents (40%) who had STIs in the past 12 months prior to the study did not seek appropriate treatment. Tweedie and Witte (2000) reported that 75% of adolescents who had STIs did not seek treatment. Inadequate health care facilities, coupled with stigma, are the possible reasons that can be blamed for this attitude. Anarfi (1997) also found that adolescents would not seek treatment when they have STI

because they think it is not serious and that the disease will go by itself. From the above discussion and supported literature, increased knowledge of adolescents on HIV/AIDS/STIs will decrease their risk of contracting the diseases.

Social and cultural factors predisposing adolescents to HIV/AIDS/STIs

Fifteen(15) items were used to gather views on social and cultural factors predisposing adolescents to HIV/AIDS/STIs. A high proportion (88.0%) said they have never been encouraged to have sexual intercourse. Out of those who have been encouraged, 88% of them were encouraged by their friends, while 12% said it was either a teacher or a parent. Also, 24.4% of the respondents said their friends have frequented commercial sex workers and 20.8 % of them said they had no support to delay sexual intercourse until marriage. Again, 15.4% said they were pressurised to have sexual intercourse by their friends. Some respondents (58.4%) agreed that it was common to engage in sexual intercourse before marriage, while the remainder 41.6 % said it was not. Twenty percent of the respondents have ever engaged in sexual intercourse, while 80.0% said they have never had sexual intercourse. Eighteen percent of respondents admitted having multiple sexual partners in the past three months preceding the study. As many as 72.0% of the respondents agreed that it was common for widows to remarry in the same family within the same community while 28% said it was not. Table 2 represents responses adolescents gave to social and cultural factors in their communities.

Table 2: Some social and cultural factors predisposing adolescents to HIV/AIDS/STIs

Statement	Yes/Agree (%)	No/Disagree (%)
Ever been encouraged to have sexual intercourse	12.0	88.0
Friends have frequented commercial sex workers	24.4	75.6
Support from friends to wait until marriage before Having sexual intercourse	79.2	20.8
Pressure from your friends to have sexual intercourse	15.4	84.6
Common to have sex before marriage	58.4	41.6
Ever engaged in sexual intercourse	20.0	80.0
Many sexual partners in the past three months	18.0	82.0
Widows can remarry in the same family	72.0	28.0
Female genital mutilation is practiced in this community	33.4	67.6
The adolescent has a right to choose a sexual partner	74.3	25.7
Widowhood rites in this community put people at risk of contracting HIV/AIDS/STIs	11.0	89.0
Forced marriage is common in this community	25.7	74.3
Wife inheritance is common in this community	9.0	91.0

Source: Field Data (2006).

A further analysis of the figures in Table 2 indicate that the majority (67.6%) of the respondents did not agree with the statement that female genital mutilation was common in their communities. Also, the majority (74.3%) of respondents said they had the right in their culture to choose their partners. In the same vein, 74.3% of the respondents said it was not true that forced marriage was commonly practiced within the study area.

The initiation of sexual behaviours among the youth is related to several variables such as age, sex, physical development, race/ethnicity and socioeconomic status (Forrest and Singh, 1990; Brook-Gunn and Furstenberg, 1989). Not withstanding the negative peer influence from friends to engage in sexual activity by 15.4% of respondents, there is still a lot of support among peers not to indulge in sex until marriage (84.6%). This view needs to be improved upon. The need to cater for those without support is equally a challenge that the University Health Administration and the MHMT should give priority to. The misconception among some adolescents in the communities (58.4% of respondents) that sex before marriage is normal deserves attention from all stakeholders.

Some social and cultural factors that predisposed adolescents to HIV/AIDS/STI were selected and ranked in descending order. These are: female genital mutilation; friends frequenting commercial sex workers; no support from friends to wait until marriage before having sexual intercourse; ever engaged in sexual intercourse; many sexual partners in the past three months; and pressure from friends to have sexual intercourse (Table 3).

Table 3: The ranking of some social and cultural factors predisposing adolescents to HIV/AIDS/STI.

Statement	Yes/Agree (%)	Rank
Female genital mutilation is practiced in this community	33.4	1
Friends have frequented commercial sex workers	24.4	2
No support from friends to wait until marriage before having sexual intercourse	20.8	3
Ever engaged in sexual intercourse	20.0	4
Many sexual partners in the past three month	18.0	5
Pressure from your friends to have sexual intercourse	15.4	6

Source: Field Data (2006).

As evidenced from Table 3, it will be imperative to design sexual and reproductive health programmes targeting all stakeholders, particularly parents and their wards. The study results tally with earlier findings of Tweedie and Witte, (2000); Awusabo-Asare, (1999), and Anarfi and Antwi, (1995) that some social and cultural factors increase adolescents' risk of contracting HIV/AIDS/STIs.

Perception about condom and its use

The third objective was to determine adolescents' perception about condom and its use. Sixteen (16) items were used to gather views on perception about condom and its use. More than half of the respondents (62.5%) said they had ever seen the male condom. On the other hand, 20.1% claimed they had ever seen the female condom. The results indicate that the male condom is known more than the female condom. Among those who ever had sex, 50% used condoms and the reasons assigned are in conformity with those found by Sallar (2001). Adolescents use condoms selectively first for HIV/AIDS prevention, followed by pregnancy and STIs. This selective use of condom is further stated by Afenyadu and Goparaju (2003). Constant, correct and consistent use of the condom is the best method of HIV/AIDS/STIs prevention (Helen, 2002). An earlier study by Anarfi and Antwi (1995) found that 90% of 10–24-year-olds knew of condoms but 34% had ever used them. Condom usage in this study is higher (50%) than 34% reported by Anarfi and Antwi (1995).

Reasons respondents gave for not using condoms include; the use of condom was a sign of not trusting one's partner (22.61%), it was embarrassing to be seen purchasing a condom (22.78%), Pastor/Imam says it is a sin to use condom (20.48%), once a relationship moves from casual to serious there was no need to use a condom (17.61% of respondents) and condom use promotes immorality (17.52%). Table 4 presents the reasons for not using a condom by the respondents.

Table 4: Reasons for not using condom

Reason	Number	%
Sign of not trusting ones' partner	244	22.61
Embarrassing to be seen purchasing condom	235	22.78
Pastor/Imam says it is a sin to use condom	221	20.48
Relationship moved from casual to serious	190	17.61
Condom use promotes immorality	189	17.52
Total	1079*	100.00

*The total number (1079) exceeds the sample size (435) due to multiple responses.

Source: Field Data (2006).

From the findings of this study, it is evident that increased knowledge and use of condoms by adolescents will decrease their chances of contracting HIV/AIDS/STIs.

Risky behaviours that predispose adolescents to HIV/AIDS/STIs

The fourth objective was to determine knowledge about risky behaviours that predispose adolescents to HIV/AIDS/STIs. Ten items were used to gather views on risky behaviour. Table 5 provides a summary of the responses.

Table 5: Risky behaviours that predispose adolescents to HIV/AIDS/STIs

Risk factor	Number	%
Use of hard drugs	259	30.22
Non-use of condom during sex	218	25.44
Multiple sexual partners	213	24.85
Use of alcohol	167	19.49
Total	857*	100.00

* The total number (857) exceeds the sample size (435) due to multiple responses

Source: Field Data (2006)

From Table 5, 30.22% of the responses of the respondents suggest that persons who use hard drugs have higher chances of being infected with HIV/AIDS/STIs. Also, 25.44% of the responses of the respondents suggest that non-use of condom during sex predisposes a person to contracting HIV/AIDS/STIs while 24.85% of the responses of the respondents were on the fact that multiple sexual partners exposed one to increased risk of contracting HIV/AIDS/STIs. Again in Table 5, it can be deduced that 19.49% of the responses indicated that the use of alcohol increased one's chances of contracting HIV/AIDS/STIs infection. If injecting hard drug is the popular response adolescents attributed to the risk of contracting HIV/AIDS/STIs, then, it is in conformity with UNAIDS (2003) report that young people injecting drugs are particularly at risk since they may not have the knowledge or skill to protect themselves from infection via contaminated equipment. Also, Health Action

Information Network (1992) found a relationship between high risks of infection and multiple sexual partners and concluded that prostitutes are at a particularly high risk because of their high rate of partner exchange and exposure to infection with other STIs (Health Action Information Network, 1992).

To sum up on risky behaviours, it can be said that the fact that the respondents know that hard drug use, non-use of protection during sex, multiple sexual partners, and the use of alcohol can put them at risk suggests that the adolescents have some knowledge about risky behaviours that predispose them to HIV/AIDS/STIs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In the previous chapter, the data collected for this study was presented, discussed and analysed. This last chapter gives the summary, conclusions and recommendations of the research on the factors predisposing adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast

Summary

The study examined the factors that predispose adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast. It was conducted with 435 adolescents in 9 out of 12 communities selected by the lottery method within the UCC sub-metro in the Cape Coast Metropolis of the Central Region, Ghana. An interview schedule of 80 items was used to elicit information from the respondents. Adolescents between the ages of 10-19 years, males and females were the respondents.

The study centered on four main areas, namely: knowledge, attitude, practices and behaviour of adolescents with regard to HIV/AIDS/STIs; social and cultural factors that predispose adolescents to HIV/AIDS/STIs; perception about

condom and its use; and risky behaviours that predispose adolescents to HIV/AIDS/STIs.

After tallying, frequency distribution tables were generated to show the spread of the scores. Both close and open-ended items were analysed, item by item. The main research items were grouped under the main research objectives and questions. Percentages and proportions were computed using the Statistical Product for Service Solutions (SPSS) software. For each objective, the responses were compared with previous research findings, noting deviations and conformities to the research questions.

The main findings of the study were:

1. There were gaps between the knowledge and awareness of the respondents because 32.0% of the adolescents had no knowledge about any sign and symptoms of HIV/AIDS/STIs, while loss of weight, which is mostly associated with HIV/AIDS, was one of the major signs and symptoms being generalised as signs and symptoms of all STIs.
2. The findings in this study indicate that 12 out of 30 adolescents who had STIs in the past twelve months prior to the study did not seek appropriate treatment because they thought STIs were minor illnesses and would go by themselves. They also self-medicated, visited drugstores and felt embarrassed going to hospital for fear of being labeled a bad adolescent.
3. There were 218 adolescents (over 50% of the respondents) who would not want to have any social interaction with PLWHAs, while 335 (77% of the

respondents) would not even buy food or seek health care from HIV-positive persons.

4. Some socio-cultural factors predisposing adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast include: the practice of female genital mutilation; friends frequenting commercial sex workers; ever engaged in sexual intercourse; having many sexual partners in the past three months and pressure from friends to have sexual intercourse.
5. The reasons given for non-use of condom include: condom use means lack of trust for partners; it is embarrassing to be seen buying condoms; Pastor/Imam says it is a sin to use condom; once a relationship moves from casual to serious, condom use is no longer necessary; and condom use is associated with immorality.
6. Hard drug use, multiple sexual partners, alcohol use and non-use of protection during sex were known by respondents as risky behaviours predisposing adolescents to HIV/AIDS/STIs.

Conclusions

The following conclusions were drawn from the findings of the study.

1. The current knowledge of adolescents about HIV/AIDS/STIs is not sufficient to reduce their risk of contracting HIV/AIDS/STIs.
2. Social and cultural factors predisposing adolescents to HIV/AIDS/STIs were: the practice of female genital mutilation; friends frequenting

commercial sex workers; ever engaged in sexual intercourse; having many sexual partners in the past three months; and pressure from friends to have sexual intercourse.

3. With regard to perception about the condom and its use, it was observed that the adolescents have some misconception about the purchase and use of condom due to stigma and lack of knowledge, even though they are aware of some of the benefits of using the condom.
4. The use of hard drugs, alcohol, multiple sexual partners and non-use of protection during sex were identified by the respondents as risky behaviours that predispose adolescents to HIV/AIDS/STIs.
5. The adolescents are still at risk of contracting HIV/AIDS/STIs in spite of numerous campaigns and programmes to protect them and other vulnerable groups.

Recommendations

From the findings of this research, the following recommendations are made:

1. It is clear that increased knowledge of adolescents about HIV/AIDS/STIs will decrease their risk of contracting the diseases. It, therefore, behoves HIV/AIDS/STIs advocates to disseminate information on HIV/AIDS/STIs geared towards behavioural change to all and sundry, particularly adolescents. They should also organise training for teachers/implementers to allow them to master the basic information on HIV/AIDS/STIs so that

they can, in turn, pass on the information to the adolescents and others in the communities.

2. The University Health Service, in collaboration with the MHMT, should sensitise the communities and take services nearer to the communities, specifically Voluntary Counselling and Testing (VCT) and treatment of opportunistic infections. .
3. The GES/MOEYS should add HIV/AIDS/STIs content into their curriculum particularly in the basic schools where the majority of the respondents belong. They should also provide a supportive environment for schools and communities to form anti-HIV/AIDS/STIs groups and clubs.
4. The mass media should add HIV/AIDS/STIs education to their programme in order to inform the populace on the dangers of HIV/AIDS/STIs and the benefits of staying protected.
5. With regard to socio-cultural factors predisposing adolescents to HIV/AIDS/STIs, chiefs, opinion leaders and parents should put in place programmes and laws to fight poverty and harmful cultural practices that are detrimental to human life, such as female genital mutilation, widowhood rites and wife inheritance.
6. To increase condom use by adolescents, misconception about the condom and its use should be addressed by MOH, GES, NCCE and other stakeholders through well designed programmes. Manufacturers of condoms also need to improve on the specification, safety, effectiveness

and conveniences of their products, particularly the female condom. The distribution network should be friendly; preferably the condom should be placed in areas devoid of stigma (such as lorry parks and public toilets). Condoms should also be made affordable, if not free. Religious leaders can promote the use of condom by preaching about its benefit.

7. The law enforcement agencies, such as the Police, Customs and the Judiciary, should give stringent punishment to drug peddlers so as to protect the adolescents from the use of hard drugs.
8. The Food and Drugs Board and related agencies should place heavy tariffs on the importation, production and sale of alcohol to serve as disincentive to the use of alcohol, particularly by the adolescents.
9. On the issue of gender and HIV/AIDS/STIs, authorities such as DOVVSU and CHRAJ need to clearly transmit the message that sexual exploitation and violence against young girls and boys are unacceptable.
10. The government, NGOs, chiefs, teachers, political and opinion leaders, celebrities, researchers, the University authorities, district assemblies, youth groups and other stakeholders could use the findings from this study on factors predisposing adolescents to HIV/AIDS/STIs to bridge the gap between adolescents' knowledge and awareness on HIV/AIDS/STIs and also as a basis for further studies on adolescents in general and their reproductive health in particular because protecting them strengthens the human resource base of the communities, the country and the entire world.

REFERENCES

Adih, W.K. and Alexander, C. S. (1999). Determinants of condom use to prevent HIV infection among the youth in Ghana. *Journal of Adolescent Health*, 24: 63–72.

Adomako, A. (1991). To be or not to be a prostitute: The example of Ghanaian prostitutes in the Netherlands. *Paper presented at the Development and Women's Studies Seminar on Women and Development*, University of Ghana: Institute of African Studies.

Afenyadu, D. and Goparaju, L. (2003). Adolescent sexual and reproductive health behavior in Dodowa, Ghana. *Report submitted to Centre for Development and Population Activities in Africa*, Ouagadougou, Burkina Faso.

Akintola, O. and Quinlan, T. (2003). Empirical evidence for the demographic and socioeconomic impact of HIV/AIDS. *Report of the scientific meeting* Durban.

Anarfi, J.K. (1997). Vulnerability to sexually transmitted disease: street children in Accra . *Health Transition Review*, 7 (suppl.): 281–306.

Anarfi, J.K. (2004). Population movement and AIDS epidemic in Africa. *A paper presented at the seminar on HIV, the Resurgent Infection and Population Change in Africa*. Accra, Ghana.

Anarfi, J.K. and Antwi, P. (1995). Street youth in Accra city: Sexual networking in high-risk environment and its implications for the spread of HIV/AIDS. *Health Transition Review*, 5 (suppl.): 131–152.

Appiah, E.N. and Afranie, S. (2000). Infringement on the rights of people living with HIV/AIDS (PLWHA): Any evidence in Ghana? UNAIDS/UNICEF

Awusabo-Asare, K. (1999). All die be die: obstacles to change in the face of HIV infection in Ghana. In J.C. Caldwell (Ed.) *Resistances to behavioral change to reduce HIV/AIDS infection in predominantly heterosexual communities in Third World countries,* Canberra, Australia: Australian National University.

Awusabo-Asare, K. and Anarfi, J.K. (1995). Social dimensions of HIV/AIDS in Ghana. *Report submitted to Swedish Agency for Research Cooperation with developing countries*, University of Cape Coast and University of Ghana.

Banteyerga, H., Bond, V., Kidanu, A., Kidd, R., Kilonzo, G., Nyblade, L., MacQuarrie, K., Mathur, S., Mbwambo, J. and Pande, R. (2003). *Disentangling HIV and AIDS stigma in Ethiopia, Tanzania and Zambia,* Washington. ICRW.

Brooks-Gunn, J. and Furstenberg, F.F. (1989). Adolescents sexual behaviour, *The Psychologist*, 44: 249-256.

Bwayo, J. F., Plummer, M. and Omari, A. (1994). Human Immunodeficiency Virus infection in long-distance truck drivers in East Africa, *Archives of Internal Medicine*154, 12: 1391-1396.

Cambodian National Institute of Statistics/Orc International (2000). *Cambodia demographic and health survey 2000*: Available at www.childinfo.org/MICS2/ natlMICSrepz/Cambodia/PRELIMrj.pdf

Cates, W. J. (1990). The epidemiology and control of sexually transmitted diseases in adolescents. *Adolescent Medicine*. Oct;1(3):409-428.7)

Center for Disease Control and Prevention (CDC) (1993). Division of STD/HIV Prevention. *Annual Report*, Atlanta, GA.

Center for Disease Control and Prevention (CDC) (1999). STD surveillance Department of Health and Human Services, Atlanta, GA.

Center for Disease Control and Prevention (CDC) (2001a). HIV counseling and testing in publicly-funded sites. *Annual Report*. Available at: http://www.cdc.gov/hiv/pubs/cts98.pdf.

Center for Disease Control and Prevention (CDC) (2001b). Tracking the hidden epidemics. Trends in STDs in the United States. *Annual Report*, Atlanta.

Center for Disease Control and Prevention (CDC) (2001c). STD Surveillance. Department of Health and Human Services, Atlanta, GA.

De Kock, K..M., Ekpini, E., Gnaore, E., Kadio, A. and.Gayle H.D. (1994). The public health implications of AIDS research in Africa. *Journal of the American Medical Association* 272, 6:481-486.

Dixon, D. (1993). Poverty and vulnerability to HIV/AIDS/STIs. *World Food Programme Journal* No. 26.

Domestic Violence and Victim Support Unit (DOVVSU) (2003). *DOVVSU. Records*, Cape Coast, Ghana.

Donovan, P. (1993). *Testing positive: Sexually transmitted disease and public health response*, New York: Alan Guttmacher Institute.

Eaton, L., Flishera, J., and Aarob, L.E. (2003). Unsafe sexual behavior in South

African Youth. *Social Science and Medicine*, No.56.

Forrest, J.D. and Singh, S. (1990). The sexual and reproductive behaviour of American women, 1982-1988. *Family Planning Perspective*. 22: 206-214.

Frankfort-Nachmias, C and Nachmias, D. (1995). *Research methods in the social sciences*, Bristol: J W Arrowsmith Ltd.

Ghana AIDS Commission (2004). A situational appraisal of HIV/AIDS activities in Ghana: *Annual Report*, Accra: Ghana AIDS Commission.

Ghana Health Service (GHS) (2003). HIV sentinel survey 2002, *Annual Report*, Accra: Ministry of Health.

Ghana Statistical Service (GSS) (1999). *Ghana Demographic and Health Survey*. Accra: GSS.

Ghana Statistical Service (GSS) (2003a). *Macro 2004*. Maryland: Calverton.

Ghana Statistical Service (GSS) (2003b) Core welfare indicators questionnaire (CWIQ) survey. *Preliminary Analysis Report*. Accra: GSS.

Glover, E.K. (2003). Sexual health experiences of adolescents in three Ghanaian towns. *International Family Planning Perspectives*, 29: 32–40.

Glynn, J. R. (2001). The study group on heterogeneity of HIV epidemics in African cities. Why do young women have a much higher prevalence of HIV than young men? A study in Kisumu, Kenya and Ndola, Zambia. *AIDS* 15 (Suppl. 4): S51–60.

Godin, G. and Michaud, F. (1996). Canadian youth, sexual health and HIV/AIDS. Study summary of STI and AIDS prevention among young people. Canada: National Forum on Health.

Health Action Information Network. (1992). HIV prevention project among male sex workers. *Final Report*. Quezon City: Health Action Information Network,

Helen, J. (2002). *AIDS: African continent in crisis*. Avondale Harare, Zimbabwe: SAFAIDS.

Henry, R. and Fayorsey, C. (2002). *Coping with pregnancy: Experiences of adolescents in Ga Mashi, Accra*. Calverton, MD, USA: ORC Macro.

Hofferth, S.L. and Hayes, C.D. (1987). *Risking the future. adolescent sexuality, pregnancy and childbearing*. Washington DC: National Academy Press.

Horizons/Population Council (2003). *The PLWHA-friendly achievement checklist: A self-assessment tool for hospitals and other medical institutions caring for people living with HIV/AIDS (PLWHA)*. New Delhi: Horizons/SHARAN.

Hunter, D.J., Maggwa, B.N., Mati, J.K., Tukei, P.M and Mbugua, S. (1994). Sexual behaviour, sexually transmitted diseases, male circumcision and risk of HIV infection among women in Nairobi, Kenya *AIDS* 8,1:93-99

Jemmott, L.S. (2000). Saving our children: strategies to empower African-American adolescents to reduce their risk for HIV infection. *Journal of National Black Nurses Association*, 11: 4-14.

Karim, A.M. (2003). Reproductive health risk and protective factors among unmarried youth in Ghana. *International Family Planning Perspectives*, 29: 14–24.

Kumar, R. (1999) *Research methodology: A step-by-step guide for beginners.* London: Sage Publications Ltd.

Lewis, J. and Arndt, C. (2000). The macro implications of HIV/AIDS in South Africa: A preliminary assessment. A paper presented at the International AIDS Economics Network Symposium.

Luke, N. and Kurz, K. (2002). *Cross-generational and transactional sexual relations in sub-Saharan Africa.* Washington, AIDS mark. Available at www.icrw.org/docs/crossgensex-Report-902pdf.

Malamba, S.S., Maude, G. and Wagner, H.V. (1994). Risk community: a case-control study. *AIDS* 8, 1: 253-257.

Manzini, N. (2001). Sexual initiation and childbearing among adolescents in KwaZulu Natal. *Reproductive Health Matters* 9: 44–52.

Mbugua, S., Muthami, L.N. and Mutura, C.W. (1995). Epidemiology of HIV infection among long-distance truck drivers in Kenya. *East African Medical Journal*, 722, 8: 515-518.

Metropolitan Health Management Team (MHMT) (2005). *Annual Report,* Cape Coast. Ghana: MHMT

Metropolitan Health Management Team (MHMT) (2006). *Annual Report,* Cape Coast. Ghana: MHMT.

Mitchell, M. and Jolly, J.(1988). *Research design explained.* NewYork:Holt Rinehart and Winston.

Ministry of Health (MOH) (2001). The AIDS situation in Ghana, *Annual Report,* Accra: MOH.

Nabila, J.S., Fayorsey, C. and Pappoe, M. (1997). Assessment of adolescent reproductive health needs in Ghana. *Youth and Reproductive Health in Africa,* Accra: NACP/GHS

National AIDS Control Programme (NACP) (2003). *Quarterly Technical Bulletin on HIV/AIDS –STIs in Ghana*, Accra: NACP/GHS .

National AIDS Control Programme (NACP) (2005). *Quarterly Technical Bulletin on HIV/AIDS –STIs in Ghana*, Accra: NACP/GHS

National AIDS Control Programme (NACP) (2006). *Report on AIDS situation in Ghana*, Accra: Ghana Health Service.

Ogden, J. and Nyblade, L. (2005). *Common at its core: HIV-Related stigma across contexts*, Washington: ICRW.

Pisani, E. (2003). The epidemiology of HIV at the start of the 21st century: *reviewing the evidence,* Geneva: UNICEF.

Rhodes, T. (2002). *Behavioral risk factors in HIV transmission in Eastern Europe and Central Asia,* Geneva: UNAIDS.

Rugalema, G. (1998). It is not only the loss of labour, loss of household assets and household livelihood in Bukoba district, Tanzania. *Paper presented at the East and Southern Africa Regional Conference on Responding to HIV/AIDS*, Cape Town.

Rugalema, G. (2000). Coping or struggling? A journey into the impact of HIV/AIDS in Southern Africa. *Review of African Political Economy*, 86:537–545.

Runganga, A.O. and Kasule, J. (1995). The vaginal use of herbs/substances: An

HIV transmission facilitatory factor *AIDS Care* 7, 5: 639-645.

Sallar, A.M. (2001). *Sexual risk taking in the era of HIV/AIDS: A case study of adolescents resident in Ketu South, Upper Denkyira, and Offinso electoral areas in Ghana, 1995* Accra, Ghana: National AIDS Control Programme.

Sarantakos, S. (1993). *Social Research*. Australia: Charles Sturt University.

Tweedie, I. and Witte, K. (2000). *Ghana youth reproductive health survey report*. Accra: Ghana Social Marketing Foundation.

UNAIDS (2003). *Report on the global HIV/AIDS epidemic, July, 2002*. United Nations Joint Programme on HIV/AIDS, Geneva. Available at http://www.unaids.org/html/pub.

UNAIDS (2006). *Progress Report on the Global Response to HIV/AIDS,* Geneva: UNAIDS.

UNDP (2003). *Ukraine human development report, (special edition 2003)*, Geneva: UNDP.

UNFPA (2003a). *Prevention of HIV transmission to pregnant women, mothers and their children (PMTCT): inputs for the Bangkok Report*. Geneva: UNFPA.

UNFPA (2003b*). The State of the World Population, 2003. Making one billion count: investing in adolescents' health rights*. New York: UNFPA.

UNFPA/UNAIDS (2004). *Myths, perceptions and fears: addressing condom use barriers*. New York: UNFPA/UNAIDS.

UNICEF/UNAIDS/WHO (2002).*Young people and HIV/AIDS, Opportunity in crisis*, New York: UNICEF/UNAIDS/WHO.

United Nations (2003). Facing the future together. Report of the United Nations Secretary-General's Task Force on Women, Girls and HIV/AIDS in Southern Africa, Geneva: WHO.

United States Congress(1991). *Annual Report*, Washington: US Congress.

Volk, J.E. and Koopman, C. (2001). *Factors associated with condom use in Kenya: A test of the health belief model*, New York: AIDS Education and Prevention.

Warren, W.K. and King, A.J.C. (1994). *Development and evaluation of an AIDS/STD/Sexuality program for Grade 9 students*, Kingston, Ontario: Social Program Evaluation Group.

World Bank (2000). *Annual Report*, New York: World Bank.

World Health Organization (WHO) (1997). *Young people and sexually transmitted diseases*, Geneva. WHO Fact Sheet No.186.

World Health Organization (WHO) (2003). *Weekly epidemiological record on the current global situation of the HIV-AIDS pandemic*, Geneva: WHO Global program on AIDS.

WHO/UNAIDS (2006). *The female condom: An information pack*, Geneva: WHO/UNAIDS.

Xu, F. (2000). HIV-1 seroprevalence, risk factors, and preventive behaviours among women in Northern Thailand. *Journal of Acquired Immune Deficiency Syndrome*, 25 (4): 353–359.

APPENDIX

INTERVIEW SCHEDULE FOR ADOLESCENTS

Factors that predispose adolescents to HIV/AIDS/STIs in communities in and around the University of Cape Coast.

Instructions for Interviewer:

Please, inform the respondent that the information s/he will provide to you will not be shared with another person. The information provided will be solely used for this research.

Name of Community /Village.....

House Number/House location (state any land mark).....

Serial Number .....

Date of Interview .....

Interview Schedule No.....

Research Assistant's name .....

Research Assistant's signature .....

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS.

PLEASE CIRCLE ALL RESPONSES GIVEN

1	Sex of respondent (circle the sex of the respondent. Please do not ask.)	1. Male 2. Female
2	Age group of respondent (Circle appropriately)	1. 10-13 2. 14-16 3. 17-19
3	Ethnicity	1. Fanti 2 Ewe 3. Ga 88 Others(Specify)_____
4	What is your religious affiliation (please tick appropriately)	1. Christian 2. Moslem 3. Traditional 4. None
5	Are you in school or out of school	1. In school (if in school, go to Q 6) 2. Out of school 3. Non formal 4. Never been to school
6	State level of school (If in school)	1. Primary Education 2. J.S.S 3. SSS 4. Tertiary 5. Not Applicable(N/A)

		88. Others(Specify)_____
7	Who do you stay with?	1. Both Parents 2. Mother 3. Father 4. Sister/ Brother 5. Not Applicable(N/A) 88. Others(Specify)_____
8	What is your source of income?	1. Petty trading 2. Farming 3. Works for guardian 4. Moves from market selling 5. Not Applicable (N/A) 88. Others (Specify)_____
9	Marital status (Circle appropriately)	1. Married 2. Single 3. Divorced 4. Widow 5. Separated 6. Cohabitation
10.	Place of residence (JUST OBSERVE DO NOT ASK)	1. Urban(city /town) 2. Rural (villages)

SECTION B: SEXUALLY TRANSMITTED INFECTIONS

11	Are you aware people can get a disease/ infection through sexual intercourse	1. Yes 2. No
12	Do you know of any infections /disease a person can get through sexual intercourse?	1. Yes 2. No
13	Which infections do you know about? (probe by asking, any others and circle all that apply)	1. HIV/AIDS 2. Gonorrhea 3. Syphilis 4. Chanchroid 5. Chlamydia 6. Genital Warts 7. Genital Herpes 8. Hepatitis B 88. Other (Specify) _____ 98. Do not know/remember
14	What signs or symptoms suggest that a person has a sexually transmitted infection (STI)? Probe by asking, Any others?" and circle all that apply.)	1. Discharge from penis/vagina 2. Burning pain or itching on penis/vagina 3. Abnormal vaginal discharge 4. Sores or warts on penis/vagina 5. Painful urination

		6. Swelling in groin region 88. Others (Specify)_____ 98. Do not know/remember
15.	Have you ever had any of these symptoms in the last 12 months?	1. Yes 2. No 98. Do not remember/don't Know
16	How many times have you had STI in the past 12 months?	1. Once 2. Twice 3. More than three times 4. Not Applicable(N/A) 98. Do not remember/don't Know
17	Did you receive treatment for the STI?	1. Yes 2. No 3. Not Applicable (N/A) 98. Do not remember/don't Know
18	Where did you seek the treatment from?	1. Hospital /clinic 2. Drug stores 3. Health worker 4. Self treatment 5. Community drug

		sellers/peddlers 88. Others(Specify)_____

SECTION C: HIV/AIDS

19	Have you ever heard of an illness called AIDS?	1. Yes 2. No
20	Do you believe that AIDS exits?	1. Yes 2. No
21	Please mention all the ways in which you think a person can get AIDS. (Probe by asking anything else and circle all those apply)(**Causes**).	1. Sexual intercourse with infected person 2. Sharing cutting/sharp instruments 3. Infected Blood transfusion 4. Mother-to-child 5. Mosquito or insect bites 6. Sharing food, cups or glass or plates 7. Witch craft 8. Tattooing /tribal marks 88. Others(Specify)_____ 98. Don't know
22	What are the signs and symptoms of	1. Loss of weight

	HIV/AIDS. (Probe by asking anything else and circle all those apply).	2. Loss of appetite 3. Ananse/shingles 4. Boils 5. Diarrhoea over one month 6. Night sweat 7. Fatigue 8. Prolonged Headache 88 Others(Specify)_____ 98. Don't Know
23	What can a person do to avoid getting HIV/AIDS? Probe by asking anything else and circle all those apply).	1. Avoid sex / abstinence 2. Partners should stay faithful 3. Use condom for every act of sexual intercourse 4. Avoid sharing needles 5. Avoid commercial sex workers 88. Others(Specify)_____ 98. Don't know
24	How long does it usually take somebody to get sick with AIDS after being infected with HIV(the virus that causes AIDS)?	1. A few weeks 2. A few months 3. One or two years 4. Several years

		88. Others(Specify)_____ 98. Don't know/don't remember
25	Is it possible to identify some body that is HIV positive, by just looking at the person?	1. Yes 2. No 98. Don't know
26	Have you ever seen somebody who has AIDS? (NOT ON THE TV)	1. Yes 2. No
27	Do you think most of your friends are at risk of getting HIV(the virus that causes AIDS) (Activities that can let them get AIDS)?	1. Yes 2. No 98. Don't know
28	If yes why?	1. Because of their sexual life 2. Because of the rate they change sexual partners. 3. They frequent the commercial sex workers. 4. They do not like using condoms 5. Condoms are expensive 6 Not Applicable (N/A) 88. Others(Specify)_____

		98. Don't know
29.	If no why?	1. They often use condom 2. They have stable partners. 3. They are well-informed. 4. They are immune to the AIDS virus 5. Not Applicable (N/A) 88. Others(Specify)_____ 98. Don't know

SECTION D: BEHAVIOUR AND ATTITUDE OF ADOLESCENTS TOWARDS HIV/AIDS (Please state if you agree or disagree, or you don't' know)

30.	Someone who has HIV /AIDS can still have sex, safely, using a condom.	1 Yes Agree 2 No Disagree 98 Don't know
31	A person with HIV /AIDS should have the same opportunities as everyone else in life.	1 Yes Agree 2 No Disagree 98 Don't know
32	People with HIV/ AIDS should be isolated to stop further spread of the disease.	1 Yes Agree 2 No Disagree 98 Don't know

33	Although I have compassion for people with HIV/AIDS, I still don't like the idea of working with some one who has HIV/AIDS.	1 Yes Agree 2 No Disagree 98 Don't know
34	Most people with HIV/AIDS deserve to suffer as they have probably lived immoral lives.	1 Yes Agree 2 No Disagree 98 Don't know
35	Would you feel comfortable sharing plates and cups with people infected by HIV/AIDS (eating /drinking from the same plate or cup).	1 Yes Agree 2 No Disagree 98 Don't know
36	If you had an HIV test would you tell anyone the result?	1 Yes 2 No
37	If you know a health personnel who is HIV positive would you go to him or her for treatment?	1 Yes 2 No
38	Is it a good idea to buy food from someone who is HIV positive?	1 Yes 2 No
39	In your opinion, should community members blame people or families infected/ affected by HIV/ AIDS?	1 Yes 2 No

SECTION E: SOCIAL AND CULTURAL FACTORS

40	Have you ever been encouraged to have sexual intercourse?	1 . Yes 2. No 98. Don't know
41	If yes ,by whom	1. Friend 2. Uncle 3. Teacher 4. Parents 5. Not Applicable 88. Others(Specify)_____
42	Do you think that any of your friends have frequented a commercial sex worker?	1. Yes 2. No 98. Don't know
43	Is there support among your friends for you to wait until marriage before having sexual intercourse?	1. Yes 2. No 98. Don't know
44.	Is there pressure from your friends for you to have sexual intercourse?	1. Yes 2. No 98. Don't know
45	Have you had sexual intercourse before?	1. Yes 2. No
46	How many sexual partners have you had in the past three months?	1. None 2. One

		3. Two 4. More then two
47	Is it common to engage in sex before marriage?	1. Yes 2. No
48	With whom do you live most of the time?	1. Both parents 2. Mother only 3. Father only 4. Relative 5. On my own 88. Other(specify):_____ 98. Don't know
49	Is female genital mutilation practiced in this community?	1. Yes 2. No 98. Don't know
50	If yes why?	1. Prevent the girl from being immoral 2. To make her a good wife 3. Respect for culture 4. Source of income for those who do the circumcision 5. Not Applicable (N/A)

		88.Others (Specify)____
51	If no why?	1. It is cruel 2. It can lead to death 3. It can lead to infections/disease 4. It can lead to bareness 5. Religious reasons/beliefs 6. Not Applicable (N/A) 88. Others(Specify):_____ 98. Don't know
52	In your culture do you have a right to choose a partner?	1. Yes 2. No 98. Don't know
53	If yes why?	1. There is a reduction in gender inequality. 2. There is increase awareness about gender relationships. 3. The level of cultural norms and beliefs has gone down – urbanization, intermarriages 4. Increase in awareness,

		through human rights, level of education, 5. Because of religious beliefs 6. Not Applicable (N/A)
54	If no, why?	1. Culturally, parents of the bride make the choice of their daughter's groom. 2. Culturally, men have power in sexual affairs in terms of choice, paying dowry. 3. Groom's parents negotiate dowry to be paid. 4. Not Applicable (N/A) 88. Others(Specify):_____

SECTION F: PERCEPTION ABOUT CONDOM AND ITS USE

55	Have you ever seen a male condom?	1. Yes 2. No
56	Have you ever seen a female condom?	1. Yes 2. No
57	Have you ever used a condom?	1. Yes

		2. No 98. Don't remember
58	If yes, how often do you use a condom?	1. All the time 2. Once a week 3. When I am able to buy one 4. Sometimes 5. Not Applicable (NA)
59	What are the advantages of using condoms?(Probe by asking, anything else and circle all that apply).	1. No advantages 2. Less worry 3. STI prevention 4. Pregnancy prevention 5. HIV/AIDS prevention 6. Feel safer/protected 88. Others(Specify):_____ 98. Don't know
60	What are the disadvantages of using condoms? (Probe by asking, anything else? And circle all that apply.)	1. There are no disadvantages 2. Reduces pleasure 3. Can burst 4. Shows lack of trust in your partner 5. Causes itchiness/discomfort 6. Can come off inside the woman

		88. Other (specify)____ 98. Don't know
61	A boy/girl who carries condoms in his/her purse/wallet is protecting him/herself.	1. True 2. False 98. Don't know
62	When a relationship moves from casual to serious, it is no longer necessary to use a condom.	1. True 2. False 98. Don't know
63	A girl/woman would lose respect if she asks him to use a condom.	1. Agree 2. Disagree 98. Don't know
64	It is embarrassing to use/ purchase/carry a condom.	1. True 2. False 98. Don't know
65	Using a condom is a sign of not trusting your partner.	1. True 2. False 98. Don't know
66	Among your friends, is it common to use condom?	1. Yes 2. No 98. Don't know
67	I do not use condoms because my pastor/Imam says it is sin.	1. True 2. False
68	Use of condom promotes immorality.	1. True

		2. False 98. Don't know
69	Would you use a condom if your Pastor/Imam promotes it?	1. Yes 2. No 98. Don't know
70.	When was the last time you used a condom?	1. less than a week 2. two weeks ago 3. a month ago 4. Don't remember 5. Never used one before

SECTION G: RISKY BEHAVIOURS

71	In your opinion what is unsafe sex?	1. Sex without condom 2. Sex using microbicides 3. Anal sex 4. Oral sex 88. Others 98. Don't know
72	A person who uses "hard drugs" has high chance of being infected with HIV/STIs	1. Agree 2. Disagree 98. Don't know
73	Drinking of Alcohol increases one's	1. True

	chance of HIV/AIDS/STIs infection.	2. False 98. Don't know
74	Use of drugs (hard drugs –narcotic) enhances sexual feelings	1. Yes Agree 2. No disagree 98. Don't know
75	Multiple sexual partners increases ones risk of contracting HIV/AIDS/STIs.	1. Yes Agree 2. No disagree 98. Don't know
76	Non use of condom during sex increases ones risk of contracting HIV/AIDS/STIs.	1. Yes Agree 2. No disagree 98. Don't know
77	Have you engaged in more than one sexual relationship in the past three months?	1. Yes 2. No 98. Don't know
78	Have you had a sexual relationship with some body you met for the first time before?	1. Yes ,Agree 2. No disagree 98. Don't know
79	Has some body ever forced (rape)/tricked you to have sexual intercourse with you?	1. Yes 2. No 98. Don't know
80.	Do you think you have put yourself at risk of HIV/AIDS infection before	1. Yes 2. No 98. Don't know

THANK YOU FOR YOUR TIME