

**ADDRESSING HIV/AIDS PANDEMIC IN THE EJURA-SEKYEDUMASE
DISTRICT: A STUDY OF KNOWLEDGE, ATTITUDES AND SEXUAL
BEHAVIOUR AMONG UNMARRIED 15-24 YEAR-OLDS**

KNUST

by

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CERTIFICATION

I hereby declare that this submission is my own work towards the PhD and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

Statistics show a rising incidence of HIV/AIDS infection in the Ejura-Sekyedumase District of the Ashanti Region in Ghana. In spite of this development, many people in the district have limited knowledge and serious misconceptions about the disease. Some deny its existence, while others attribute it to factors such as curses, witchcraft and mosquitoes. Discussions with parents, opinion leaders and young people also confirmed that premarital sex is on the ascendancy in the area, contributing to the increase in the pandemic. The research therefore sought to examine the effects of knowledge of HIV/AIDS and attitudes on the sexual behaviour of unmarried people aged 15-24 years in the study area. Both quantitative and qualitative data were employed. The quantitative data was obtained through questionnaire administered on a random sample of 450 unmarried people aged 15-24 years. The qualitative data was obtained through in-depth interviews and focus group discussions. The effects of knowledge and attitudes on sexual behaviour were and the testing of the hypotheses were done using the chi square tests, with $p \leq 0.05$ as the level of significance. Other modes of analysis were frequency tables and bar graphs. There were four hypotheses for the study: (1) Knowledge of HIV/AIDS is significantly higher among people living in urban areas compared to those living in the rural areas. (2) Higher knowledge of HIV/AIDS results in less sexual activity. (3) Positive attitudes towards premarital sex results in less sexual activity, and (4) The higher the level of self-perceived risk of acquiring HIV/AIDS, the lower the level of sexual activity. The study used a modified form of the Health Belief Model as its conceptual framework. The results showed that 47.3% of the respondents had had sex. The mean and the median ages at first sexual intercourse were 17.5 years and 18 years respectively. The

most important sources of information on HIV/AIDS were radio and television. Three of the four hypotheses were justified. Knowledge of HIV/AIDS was significantly higher in the urban area compared to the rural areas ($p=.000$). Secondly, high self-perceived risk of getting HIV/AIDS was associated with less premarital sex ($p=.000$). Thirdly, positive attitudes towards premarital sex resulted in less sexual activity ($p=.007$). However, the hypothesis on the relationship between knowledge of HIV/AIDS and sexual behaviour could not be justified as the result was not significant ($p=.058$). Other results were that education had a positive effect on knowledge and several attitude variables. Sexual activity was lower among respondents who perceived a higher self-efficacy to abstain from premarital sex ($p=.000$), and among those who believed they could refuse sex for money ($p=.007$). Condom use at last sexual intercourse was also higher among respondents who perceived a higher self-efficacy to insist on condom use ($p=.012$) and among those who believed that condoms are effective in preventing HIV/AIDS ($p=.009$). Contributions to knowledge by the research include the provision of a comprehensive conceptual framework and justification for a combination of qualitative and quantitative methods in studying knowledge, attitudes and sexual behaviour. The findings call for increased access to formal education to defuse false perceptions and beliefs about HIV/AIDS, sustained education and communication on HIV/AIDS, HIV/AIDS education in health settings, accessibility to condoms, and financial/economic empowerment. Unmarried people also need practical skills to be able to translate knowledge on HIV/AIDS into behavioural change. Some areas for further studies have also been suggested.

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LIST OF ABBREVIATIONS

| | |
|--------------|---|
| AIDS..... | Acquired Immune Deficiency Syndrome |
| CARE..... | Centre for Actuarial Research |
| CEDPA..... | Centre for Development and Population Activities |
| ESDA..... | Ejura-Sekyedumase District Assembly |
| FAO..... | Food and Agricultural Organisation |
| GDHS..... | Ghana Demographic and Health Survey |
| GSS..... | Ghana Statistical Service |
| HIV..... | Human Immunodeficiency Virus |
| MLGRDE..... | Ministry of Local Government, Rural Development and Environment |
| NHARCON..... | National HIV/AIDS Research Conference |
| NMIMR..... | Nogouchi Memorial Institute for Medical Research |
| STD..... | Sexually Transmitted Disease |
| STI..... | Sexually Transmitted Infection |
| UNAIDS..... | United Nations Joint Programme on HIV/AIDS |
| UNDP..... | United Nations Development Programme |
| UNESCO..... | United Nations Educational, Scientific Cultural Organisation |
| UNFPA..... | United Nations Fund for Population Activities |
| UNGASS..... | United Nations General Assembly Special Session on HIV/AIDS |
| UNICEF..... | United Nations Children's Fund |
| UNIFEM..... | United Nations Fund for Women |
| USAID..... | United States Agency for International Development |
| WHO..... | World Health Organisation |

DEDICATION

This work is proudly dedicated to the blessed memory of late Professor K. A. Andam, former Vice-Chancellor of the Kwame Nkrumah University of Science and Technology, Kumasi, for his visionary leadership and his compassion for the underprivileged.

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CHAPTER ONE

1.0 BACKGROUND TO THE STUDY

1.1 INTRODUCTION

The HIV/AIDS pandemic is one of the most serious health and development problems in the world. Sub-Saharan Africa is the region worst affected by the disease, accounting for about two-thirds of the estimated 33.2 million people living with HIV/AIDS worldwide (UNAIDS, 2007). Ghana's prevalence rate is one of the lowest in the region, with 1.9% being recorded in 2007 (National AIDS/STI Control Programme/Ghana Health Service, 2008). Nevertheless, the pattern of the disease in the country is disturbingly unpredictable. Moreover, the large number of people infected in absolute terms, who also mostly belong to the economically productive age group, and the negative effects of the pandemic on the country's socio-economic development further compound the problem, making HIV/AIDS a major challenge for the country.

People aged 15 to 24 years are particularly vulnerable to HIV/AIDS. They make up one-third of all those infected with the disease worldwide, and also half of all new infections every year (UNAIDS, 2004; UNFPA, 2003a; UNAIDS, 2002). In Ghana, in spite of the decrease in the national HIV prevalence rate between 2006 and 2007, the prevalence rate among people aged 15-24 years actually increased from 2.0% to 3.5% within the same period (National AIDS/STI Control Programme/Ghana Health Service, 2008).

This goes to indicate the extent of sexual activity in this age group, including premarital sex, in view of the fact that sexual intercourse is the main route of HIV/AIDS

transmission, particularly in Sub-Saharan Africa. Several studies have indeed established this fact. For example, the 2003 Ghana Demographic and Health Survey found that 60% of females and 39% of males aged 15-24 had had sex. By age 18, 52% of females and 28% of males aged 15 to 19 years as well as 43% of females and 26% of males aged 20 to 24 years had had sex (GSS and ORC Macro, 2004). A study among a nationally representative sample of 3,739 unmarried people aged 12-24 years in Ghana (Karim et al., 2003) also found 41% of the females and 36% of the males to be sexually experienced, with 17 years as the median age at first intercourse.

In a study of sexual health experiences of people aged 12-24 years in Takoradi, Sunyani and Tamale, Glover et al. (2003) also found that more than half of the respondents (52%) had had sexual intercourse, with women more likely to be sexually active. Similar high levels of sexual activity have been discovered among young people in other areas in Ghana and Sub-Saharan Africa (Awusabo-Asare et al., 2006; Munthali, Chimbiri and Zulu, 2004; Pettifor et al., 2004; Akinyemi et al., 1996). Thus an understanding of the patterns of sexual behaviour and the associated factors will go a long way to help identify strategies to control the pandemic (Filmer, 1998).

The causes of premarital sex have been identified to include the corrosion of traditional norms and values by modernity, economic considerations (poverty), unemployment, peer group influence, moral degeneration and adolescent dressing habits, ignorance and lack of knowledge about reproductive health issues (Nabila and Fayorsey, 1996; Buor, 1986). Youth is also a period in life characterised by an urge for sexual experimentation, leading many to become sexually active before marriage. Many also have misconceptions and limited knowledge about HIV/AIDS infection and prevention

(Rodriguez and Hayes, 2002). Stemming the tide of HIV/AIDS in this age would therefore significantly influence the overall course of the epidemic in Ghana.

The importance of addressing HIV/AIDS among young people has therefore been recognised: “A reduction in HIV incidence among today’s young people would not only avoid much suffering but would also be a critical step in controlling the spread of the virus” (National AIDS/STI Control Programme, 2001a). To respond to the reproductive health needs of young people, the Government of Ghana developed an Adolescent Reproductive Health Policy in 2000 and a National HIV/AIDS and STI Policy in 2004 (Awusabo-Asare et al., 2006). The Government has also adopted a multisectoral approach to fighting the HIV/AIDS disease, engaging all government departments, non-governmental organisations, the private sector and civil society (Ghana AIDS Commission, 2005a).

In identifying strategies to combat the menace, the need to provide more public education and information about the disease particularly its modes of transmission, prevention and effects has been a major option. The expectation is that the increased knowledge will translate into the requisite attitudinal and behavioural changes to avoid HIV infection. Several studies have also been carried out on people’s knowledge, attitudes and sexual behaviour with regard to HIV/AIDS. These studies have helped to increase understanding of the HIV/AIDS pandemic and led to some policy interventions.

However, a large number of these studies have treated knowledge, attitudes and sexual behaviour as separate outcomes, without actually examining the empirical relationships among them. Those that attempted an analysis of the relationships among them on the other hand tended to use either qualitative-only or quantitative-only

approaches, leading to a limited exploration of the issues. Some were also done without recourse to a clear cut conceptual framework. These concerns create gaps in the literature that need to be addressed.

It is argued that for a better understanding of sexual behaviour, and for the Ghanaian HIV/AIDS prevention efforts to be successful, there is the need to empirically investigate the effects of knowledge of HIV/AIDS and attitudes on sexual behaviour, in order to come out with more pragmatic policy options of remedy. Moreover, this will serve as a way of measuring and monitoring the effects of the numerous HIV/AIDS educational programmes on their target populations in terms of the ultimate outcome, which is change in sexual behaviour.

This research therefore seeks to expand upon previous studies by examining the effects of knowledge of HIV/AIDS and attitudes on sexual behaviour, using a combination of qualitative and quantitative analytical tools. The research uses primary data obtained from questionnaire among a random sample of 450 unmarried people aged between 15 and 24 years in the Ejura-Sekyedumase District of Ghana. This is supplemented by qualitative data from in-depth interviews and focus group discussions with selected health workers, parents, opinion leaders and unmarried people aged 15-24 years. The findings and recommendations will help in the formulation of policies that will address the HIV/AIDS pandemic in the study area.

1.2 PROBLEM STATEMENT AND JUSTIFICATION FOR THE STUDY

Statistics show a rising incidence of HIV/AIDS in the Ejura-Sekyedumase District. At the Ejura Government Hospital, a total of 47 people tested positive for HIV/AIDS in

2004, 63 in 2005 and 104 in 2006 (Biostatistical Department, Ejura Government Hospital, Ejura-Sekyedumase District, 2007). At the St. Luke Hospital at Kasei, a private medical facility in the district, a total of 27 people tested positive for HIV/AIDS in 2002. This rose sharply to 56 in 2003, 74 in 2004, 83 in 2005 and 97 in 2006 (Records Department, St. Luke Hospital, Ejura-Sekyedumase District, 2005). Records from the Regional AIDS Control Programme in Kumasi also showed that a cumulative total of 112 AIDS cases were recorded in the district between 1999 and 2005.

Discussions with health officials, HIV/AIDS activists and community leaders in the district revealed that the actual situation could be much higher since a large part of the HIV/AIDS cases are not captured in official records. This is because many HIV/AIDS patients in the district seek treatment at prayer camps and other traditional healers instead of reporting to the Ejura Hospital, while others travel to the nearby Mampong Hospital for their antiretroviral drugs. Also, many people keep the AIDS-related illness or death of family members secret to avoid stigmatisation by the community. Moreover, many people who might be infected do not know their HIV/AIDS status, since voluntary counselling and testing for HIV are not well-patronised in the district. Preliminary studies established that people are afraid to go in for voluntary testing because they fear that if they test positive, it would hasten their death through excessive worry about their condition. These situations translate into low reported number of actual HIV cases, and give people a false feeling that HIV/AIDS is not a major problem in the study area. They thus engage in high-risk sexual activity and expose themselves to the disease.

Further discussions with stakeholders suggested a higher HIV/AIDS prevalence rate in the urban areas compared to the rural areas. This was buttressed by the

observations of focus group discussants during the field exercise. A greater number of those from the urban areas compared to the rural areas indicated that they knew of people in their communities who had been infected with the disease. This brings into focus a rural/urban dimension of the HIV/AIDS problem in the study area.

Distributions of education, literacy levels and accessibility to information on HIV/AIDS in the district also have spatial implications. Educational facilities in the district are generally poorly developed. Illiteracy is also quite high, with only an estimated 32% of the total population being literate (MLGRDE, 2006). Educational facilities and literacy levels are skewed in favour of the urban areas, especially Ejura the capital, to the detriment of the rural communities, where the larger population (51.2%) are concentrated (ESDA, 2006). With their relatively higher standards of living, the urban population is able to access information about HIV/AIDS from multiple sources such as radio, television and newspapers, which are generally lacking in the rural areas. This makes the rural communities more likely to suffer from problems of ignorance, and misconceptions and superstitious beliefs about HIV/AIDS as many people attribute the disease to mosquitoes, witchcraft, curses, and punishment from fetishes.

Moreover, the market activities have a negative effect on school attendance by enticing many of the pupils away from the classroom to engage in trading during the market days. Eventually many of these children become school drop-outs, and thereby miss out on the protective effects of education against HIV/AIDS. The district has an average school drop-out rate of 75.9% at all levels of education, and this is higher for females than males (ESDA, 2006).

Within the district and especially among the large Moslem and rural communities, discussion of sexual matters at the family level is generally absent, and this tends to keep the youth uninformed about such matters. Consequently, they turn to unreliable sources such as friends and pornographic films for such information. Moreover, young people who are sexually active also face the problem of accessibility to the means of protection, as condoms are generally out of their reach due to traditional negative attitudes, myths and feelings of shyness associated with securing them, among others.

The preliminary studies additionally revealed that while the majority of people in the district are aware of the disease, serious misconceptions such as the belief that witchcraft and mosquitoes could transmit HIV/AIDS are also common. People also have a low perception of the reality of the disease, and also underestimate their chances of getting infected. Such attitudes are likely to promote high-risk sexual activity, with little regard for the consequences in terms of HIV/AIDS.

Discussions with both young people and adults further revealed that premarital sex is high in the district, with the general perception being that the numerous messages on HIV/AIDS had not led to any significant changes in people's sexual behaviour. With a large number of people living below the poverty line, many unmarried women are forced by economic necessity coupled with poor parental care to enter into sexual relationships with men in order to obtain their basic needs, thereby putting themselves at risk of HIV/AIDS (Discussions with opinion leaders and parents at Ejura, January 2007). Parents and opinion leaders further lamented the rising incidence of teenage pregnancies and unsafe abortions, and called for a serious look at the problem of premarital sex in the study area.

Unemployment is high in the district. A lot of the youth are not formally employed. Some are still in school. Others are in apprenticeship in hairdressing, dressmaking, carpentry, and masonry, etc. Still others live on the streets where they engage in market-related activities such as hawking, portering, truck pushing, etc. Such an unstable environment that characterise the lives of the youths predisposes them to casual sexual contacts, with likely consequences for HIV/AIDS (Discussions with Mr Albert Osei Kuffour, the District HIV/AIDS Focal Person, January 2007).

Another factor is the presence of numerous drinking spots, video centres, funeral ceremonies as well as both Christian and Islamic anniversaries. According to informants, such situations are associated with sexual risk taking by the youth. This is because they provide opportunities for young men to entice their female counterparts with money and drinks into having sex. Moreover, because such activities are normally associated with alcohol and substance abuse, young people who engage in sex under their influence may not take precautions to protect themselves.

Ejura, the district capital, is a popular market town, due to the large quantities of foodstuffs produced in the area. As such, it attracts a large mobile population from all over the country every week to engage in trading in foodstuffs and other household goods. People from neighbouring countries such as Burkina Faso and Niger also patronise the market. Numerous instances of sexual contacts between some of these traders and the youth in the district, particularly girls, have been reported. The brisk business activity has also attracted commercial sex workers into the district, making it one of the few areas in Ghana to be associated with such a phenomenon. Their presence nevertheless poses risks for people in the district in terms of HIV/AIDS, particularly for

the unemployed and unmarried youths who have been identified to patronise their services most.

Although the district has a predominantly traditional setting, opinion leaders fear that the infiltration of urbanisation and modernisation are eroding many of the customary mechanisms that helped to control premarital sexual activity in the past, leading to increasingly permissive sex attitudes. Many of the youths also face peer pressure and the desire for material items such as dresses and mobile phones to enter into sexual relationships.

All these situations call for an exploration of the prevailing knowledge and attitudes towards HIV/AIDS, and how they relate to sexual behaviour, in order to design appropriate intervention measures to address the problem of HIV/AIDS in the district. The study focuses on people aged 15-24 years as they are highly vulnerable to HIV/AIDS, with about 30% of the HIV prevalence in Ghana being found among them (Amoa, 2008).

1.3 RESEARCH QUESTIONS

The dimensions of the problem identified in the study area give rise to the following research questions:

1. What knowledge do unmarried people aged 15-24 years in the study area have about HIV/AIDS?
2. What are their attitudes towards HIV/AIDS and premarital sex?
3. How do knowledge of HIV/AIDS and attitudes relate to sexual behaviour?
4. What policy implications emerge from the findings?

1.4 RESEARCH OBJECTIVES

The overall aim of the research is to find out the effects of knowledge of HIV/AIDS and attitudes towards premarital sex on the sexual behaviour of unmarried people aged 15-24 years, using a combination of quantitative and qualitative analytical techniques. The specific objectives are to:

1. Find out the level of knowledge of the target group on HIV/AIDS.
2. Examine their attitudes towards HIV/AIDS and premarital sex.
3. Analyse the influence of knowledge of HIV/AIDS and attitudes on sexual behaviour.
4. Suggest policy interventions to address the HIV/AIDS pandemic in the district.

1.5 RESEARCH HYPOTHESES

In the light of the problem and the objectives of the research, the following hypotheses would be tested:

1. Knowledge of HIV/AIDS is significantly higher among people living in the urban areas than those living in the rural areas.
2. Higher knowledge of HIV/AIDS results in less sexual activity.
3. Positive attitudes towards premarital sex results in less sexual activity.
4. The higher the level of self-perceived risk of acquiring HIV/AIDS, the lower the level of sexual activity.

CHAPTER TWO

2.0 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 INTRODUCTION

This chapter seeks to position the study within the context of the literature. It takes a look at the nature and impact of the HIV/AIDS pandemic, with particular reference to Sub-Saharan Africa. It also examines the factors affecting sexual behaviour and HIV/AIDS transmission. This is followed by a detailed look at previous studies on knowledge, attitudes and sexual behaviour towards HIV/AIDS, reviewing their results and methodologies and identifying the gaps in them in the light of the current study. It ends with an exploration of some of the theories and models that have been used in studying HIV-related sexual behaviour, out of which one is selected for this research.

2.2 THE NATURE AND IMPACT OF HIV/AIDS

2.2.1 The nature of HIV/AIDS

Acquired Immune Deficiency Syndrome (AIDS) is a disease caused by the Human Immunodeficiency Virus (HIV). The virus works by destroying the body's immune system, thereby paving the way for a wide range of opportunistic infections like pneumonia, tuberculosis, thrush, herpes, chronic diarrhoea, and Kaposi's sarcoma to attack the person, eventually resulting in death (Ghana AIDS Commission, 2005a; Ghana AIDS Commission, 2004; National AIDS/STI Control Programme, 2001a). Although the origin of the AIDS virus is unclear, some researchers trace it to monkeys and

chimpanzees in Africa (The University of Arizona, 2004; Holmes, 2003; Nevid, 1993). AIDS was first recognised as a disease in 1981 (Isaksen, Songstad and Spissøy, 2002).

In Ghana, as in the rest of Sub-Saharan Africa, the predominant mode of HIV transmission is heterosexual sex, accounting for 80%-85% of transmissions. Mother-to-child transmission accounts for 12%-15%, while transfusion by blood and blood products account for less than 2% (Ghana AIDS Commission, 2004; UNCEF, 2004). Between 94% and 96% of HIV infections are caused by the HIV-1 strain (Ghana AIDS Commission, 2005a; Family Health International, 2005; Concern Worldwide, 2003; National AIDS/STI Control Programme, 2001a).

Shortly following infection, a person may experience mild flu-like symptoms, but these disappear soon afterwards. This initial stage is followed by a long incubation period of up to twenty years, during which the infected person may not show any sign of the disease at all, and hence may unknowingly transmit the virus to others (Buor, 2006; Isaksen, Songstad and Spissøy, 2002). Factors which influence the development of AIDS include health status and health-related behaviours (UNESCO, 2005a). In general, countries where the overall health of the population is poor may have shorter incubation periods than countries with better health conditions (Ghana AIDS Commission, 2004). Having a sexually transmitted infection also makes a person more susceptible to getting HIV (Isaksen, Songstad, and Spissøy, 2002).

Some of the signs and symptoms of AIDS include prolonged fever (lasting more than one month); prolonged and chronic diarrhoea (lasting over a month), significant weight loss (over a period of time and more than ten percent of body weight), persistent cough for more than one month, persistent skin infections, aggressive skin cancer (Kaposi

Sarcoma), oral thrush (candidiasis), recurrent shingles (“Ananse”), enlargement of the lymph glands, and tuberculosis (National AIDS/STI Control Programme, 2001a).

2.2.2 Impact of HIV/AIDS

2.2.2.1 Demographic Impact

Since it was first discovered in 1981, AIDS has killed more than 25 million people, making it one of the most destructive epidemics in recorded history (UNAIDS/WHO, 2005). In 2000, AIDS accounted for about 12% of all deaths in Ghana (Ghana AIDS Commission, 2005a) and this is expected to reach 28% by 2014 (Family Health International, 2005). The disease has reduced average life expectancy in some parts of Sub-Saharan Africa to 47 years, when it would have been 62 years without AIDS (Fredricksson and Kanabus, 2005; UNDP/UNFPA/ISSER, 2005). HIV/AIDS is also linked to decline in fertility (Caldwell et al., 1993). Studies from several African sites show that women with HIV have lower fertility than those without infection, by approximately 20% (National AIDS/STI Control Programme, 2001b).

2.2.2.2 Social Impact

AIDS leaves behind a large number of orphans. There are currently an estimated 15 million AIDS orphans around the world, mostly in Sub-Saharan Africa (UNAIDS/UNFPA/UNIFEM, 2004). In Ghana, it is estimated that about 140,000 children have been orphaned as a result of AIDS (Ghana AIDS Commission, 2005a). This situation leads to a disproportionate strain on social systems in providing care and supervision for these orphans. The result is an increase in the number of street children,

child labour, child prostitution and crime wave as these orphans find ways to survive (Foster and Williams, 2000).

In terms of health, the expensive treatment of the opportunistic infections associated with HIV/AIDS exerts a considerable strain on the country's health system. For example, the Government of Ghana spends about GH¢4million annually on maintenance of HIV/AIDS patients, representing about GH¢4,500 per patient per annum (Kwawukume, 2004). The 2001 Swaziland Human Development Report estimated that people living with HIV/AIDS occupied half of the beds in some health care centres in the country (Fredricksson and Kanabus, 2005). According to a study in Cote d'Ivoire, health care expenses rose by up to 400% when a family member had AIDS (Fredricksson and Kanabus, 2005).

The increasing need for funds on AIDS care would divert spending from other important health care needs, or leave many AIDS patients with inadequate care. For households in which a person is living with AIDS, it is estimated that even if no antiretroviral (ARV) drugs are used, income available for consumption by household members will be reduced by between 15% and 25% (Martin and Logan, 2005).

HIV/AIDS also affects the educational sector. The loss of teachers due to AIDS deaths results in disruption in the educational system. Scarce resources would have to be found to train and replace those who are being killed by the disease. In Swaziland it has been estimated that 13,000 new teachers will have to be trained over the next 17 years, just to keep services at their 1997 levels – 7000 more than it would take to train if there were no AIDS deaths (Fredricksson, and Kanabus, 2005). Already, school enrollment in that country is estimated to have fallen by 20%-36% due to AIDS, with girls being the

most affected (UNAIDS/UNFPA/UNIFEM, 2004). It is estimated that AIDS accounted for seven out of ten deaths among teachers in Cote d'Ivoire in 1998, and in Central African Republic schools have been closed due to staff shortages. In recent years, Malawi is reported to have lost so many teachers to AIDS that some schools have student-to-teacher ratios as high as 96:1 (Fredricksson, and Kanabus, 2005; UNAIDS/UNFPA/UNIFEM, 2004). As the epidemic advances, children may also be taken out of school to care for sick relatives or to take over household responsibilities (UNESCO, 2005a).

HIV/AIDS disproportionately affects women (UNFPA, 2003b). In sub-Saharan Africa, women make up 57% of infected adults and 76% of infected young people (aged 15-24 years) (UNAIDS/WHO, 2004; Helitzer-Allen, 1994). In Kenya and South Africa the ratio of infected women to men are 45 to 10 and 20 to 10 respectively (Baka, 2004). The risk of becoming infected with HIV during unprotected vaginal intercourse is two to four times higher for a woman than a man. This is because during sexual intercourse, a woman has a bigger surface area of mucosa exposed to her partner's sexual secretions than does a man. Furthermore, there is generally a higher concentration of HIV in semen than in the sexual secretions of a woman. Thirdly, women normally tend to have higher sexually transmitted infections, often asymptomatic but which if not properly treated can put them at a higher risk of HIV (UNAIDS, 1999; Helitzer-Allen, 1994).

Women and girls also bear the brunt of the epidemic as the burden of caring for people living with HIV/AIDS and orphans falls largely on them. Girls are much more likely than boys to be pulled out of school to help with the care of an HIV-infected household member or to fill the gap in food production or income (World Bank, 1997).

Older women caring for orphans and sick children may be isolated socially because of AIDS-related stigma and discrimination, while young women widowed by AIDS may also lose their lands and properties after their husbands die (Johnson and Budlender, 2002).

2.2.2.3 Economic Impact

There is a two-way relationship between poverty and HIV/AIDS. Poverty is a factor in HIV transmission, while the experience of HIV/AIDS by individuals and households can lead to an intensification of poverty and even push some non-poor into poverty.

When the disease strikes the breadwinner in the household, it prevents him or her from working, increases the amount of money spent on health care, and requires other household members to stop work or school in order to care for the patient. Death of the patient results in a permanent loss of income, and when children are withdrawn from school, the household suffers a severe loss of future earning potential. A study in South Africa estimated that households experience a decline in income of between 48% and 78% when a household member dies from HIV/AIDS, excluding the costs of funerals (Drimie, 2002).

By affecting people in their most productive years, HIV/AIDS impacts negatively on economic output. Sick people work less effectively and are often absent. Their deaths, apart from the human tragedy, disrupt the workplace, reduce productivity, increase annual investment in training and impose the need to train replacements (UNFPA, 2002). A study in some southern African countries estimated that the combined impact of AIDS-related

absenteeism, productivity declines, health-care expenditures, and recruitment and training could cut profits by at least 6% to 8% (Fredricksson, and Kanabus, 2005).

On the agricultural front, morbidity and mortality from AIDS have a negative impact on production, hence on food supply for households, increasing the incidence of malnutrition. Other effects are loss of labour for critical activities such as planting and harvesting. It is estimated that AIDS will have claimed the lives of one-fifth or more of agricultural workers in southern Africa by 2020 (UNAIDS, 2004). In a study to examine the effects of HIV/AIDS on agriculture in the Eastern Region of Ghana, Woode and Acguah (2004) found that the disease had resulted in loss of rented farm lands, decrease in crop cultivated, low crop yields, reduced levels of pest management, delayed mechanical land preparation, irregular farm visits, decrease in animal production, and reduced investment in farming, among others. A study in Thailand also revealed that one-third of rural families experienced reduction in agricultural output by half as a result of AIDS, while another 15% withdrew their children from school (UNDP/UNFPA/ISSER, 2005; Hsu, 2003). Another study by the FAO and UNAIDS also found that the agricultural output of small farmers in some parts of Zimbabwe fell by as much as 50% in five years because of AIDS (Bloom, River Path Associates and Sevilla, 2002).

HIV/AIDS can act as a significant brake on economic growth and development (International Labour Organisation, 2005; Drimie, 2002). It is estimated that Africa's annual growth per capita is being reduced by 0.7% per year because of HIV/AIDS (UNDP/UNFPA/ISSER, 2005; Hsu, 2003; UNFPA, 2002). On the macro level, AIDS affects the economy through loss of labour force, reduced productivity, higher wages,

higher production costs, drop in savings and capital accumulation, among others (Drimie, 2002).

A study in Burkina Faso, Rwanda and Uganda, established that not only does AIDS reverse efforts to reduce poverty, but it also actually increases the percentage of people living in extreme poverty (Fredricksson, and Kanabus, 2005). In general, AIDS-affected households are more likely to suffer severe poverty than non-affected households. AIDS-related expenses can absorb on the average one-third of a household's monthly income (UNAIDS, 2004). A study in South Africa found that households affected by HIV had a higher burden of illness and were more than twice as likely to be poor than non-affected households. They were also more likely to experience long-term poverty (UNAIDS/UNFPA/UNIFEM, 2004; Bachmann and Booysen, 2003).

In South Africa and Zambia, studies of AIDS affected households found that their monthly incomes fell by 66%-80% as a result of coping with AIDS-related sicknesses (UNAIDS, 2004). A study by the FAO in three Sub-Saharan African countries covering nearly 2000 households, also found that while non-HIV/AIDS-affected households were increasing the cultivation of export-oriented crops, those affected by the disease had to actually reduce the area under cultivation for all crops (FAO, 2003).

The other side of the coin is that being poor makes it more likely to be infected by HIV/AIDS, although it is said that HIV/AIDS itself is not a disease of poverty. A study in Thailand found that people from the poorest and least educated households were most likely to be infected with HIV, while in India, a household's socioeconomic status was a significant contributing factor to its likelihood of being infected (Bloom, River Path Associates and Sevilla, 2002). The risk of HIV infection is also higher among individuals

with lower levels of nutrition—a factor which is related to poverty; all things being equal. One study of women visiting antenatal clinics in Malawi found that 47% of the anaemic women in the sample were HIV-positive, compared with the average for all women visiting that antenatal clinic of about 30% (Basu, Gupta and Krishna,1997). However, the 2003 Ghana Demographic and Health Survey found higher rates of HIV infection among employed and middle income groups, contrary to the prevailing view of the epidemic being associated with poverty (Ghana AIDS Commission, 2005c).

2.3 PATTERNS OF SEXUAL BEHAVIOUR AND IMPLICATIONS FOR HIV/AIDS

As sexual intercourse is the main mode of transmission of HIV/AIDS in Sub-Saharan Africa, it is important to examine the dimensions of sexual activity that have implications for HIV/AIDS. In the first place, the age at which a person becomes sexually active is an important determinant of his or her risk of contracting HIV/AIDS. People who begin sexual activity at an earlier age are at a higher risk of becoming infected with HIV (Monasch and Mahly, 2006). For example, the 2003 Ghana Demographic and Health Survey found a higher incidence of HIV among people who started sexual activity before the age of sixteen compared to those who started it later (GSS and ORC Macro, 2004). A study in rural Zimbabwe also found that age at first sexual intercourse was among the strongest predictors of HIV seropositive status (Gregson et al., 2002).

Nevertheless, the 2003 Ghana Demographic and Health Survey found that 38% of females and 19% of males aged 15 to 19 years had ever had sexual intercourse; while 60% of young women and 39% of young men aged 15 to 24 had also had sex. Further analysis revealed that women and men residing in rural areas had sex earlier than urban

settlers. Age at first sex also increased with educational attainment and wealth quintile (GSS and ORC Macro, 2004). In rural Tanzania, one study found that 70% of youths aged 15-24 had had sexual intercourse, out of whom 25% had their first sexual experience before the age of 15 (Tengia-Kessy, Msamanga, and Moshiro, 1998).

The number of sexual partners a person has had is also associated with elevated risks of contracting HIV/AIDS (GSS and MI, 2003). For example, in their study of adolescent sexual networking and HIV transmission in rural Uganda, Konde-Lule, Sewankambo and Morris (1997) found higher levels of HIV infection among adolescents with more sexual partners in the preceding twelve months than among those with fewer partners. In Tanzania, Mwakagile et al (2001) also found that 41% of females with more than five lifetime partners were HIV-infected compared with just 14% among those with only one partner.

In many parts of Sub-Saharan Africa, young women have sexual relations with much older partners (so-called “sugar daddies”), which also increases their risk of HIV/AIDS. A study in Zimbabwe estimated that the risk of HIV infection increases with every year of age difference between partners (Kiragu, 2001). Age difference with sexual partner was correlated with HIV positive status in a survey in rural Zimbabwe (Gregson et al., 2002). Another study in the mid 1990s in 56 communities in rural Rakai District, Uganda, found that the risk of HIV infection doubled for adolescent women with male partners who were ten or more years older than they were, compared with women whose partners were closer in age (Kelly and Gray, cited in Bankole et al., 2004).

Another worrying trend with regard to sexuality and HIV/AIDS is the issue of rape and violence in relationships (Wood, Maforah and Jewkes, 1998). Forced vaginal

penetration as it occurs during rape could cause abrasions and cuts that can allow the HIV virus to cross the vaginal wall more easily (UNGASS, 2001). People under such circumstances also have less power and time to negotiate for condom use (MacPhail and Campbell, 2001). Women in Uganda who had coerced sex had eight times higher risk of acquiring HIV compared to those who had not been abused, and in Peru and Ethiopia young women who had experienced forced sex were more likely to report symptoms of sexually transmitted infections or vaginal discharge than women who had not been abused (UNICEF, 2004).

Another pattern of sexual behaviour that has implications for HIV/AIDS is low levels of condom use. Studies show that although many people are aware of condoms, only a few people actually use them. In the 2003 GDHS only 22% of women and 37% of men aged 15-24 years reported condom use at first sex. Condom use at first sex was more common among women aged 15-19 than among those aged 20-24, although the opposite was the case among men. It was also more common among young women and men who have never married, those residing in urban areas, and young men and women living in Greater Accra and the Volta Region. It also rose steadily and dramatically with increasing education and wealth quintile among both young women and men (GSS and ORC Macro, 2004).

Mention must also be made of other sexual practices such as lesbianism and homosexuality, which also seem to be creeping into the Ghanaian society (Awusabo-Asare, Abane and Kumi-Kyereme, 2004; Buor, 2000a). In rural Tanzania, having ever practised oral sex was significantly associated with HIV seropositivity among adolescent women (Tengia-Kessy, Msamanga and Moshiro, 1998).

2.4 DETERMINANTS OF SEXUAL BEHAVIOUR AND HIV/AIDS TRANSMISSION

Several studies have been conducted on the factors associated with sexual behaviour and HIV/AIDS transmission. With regard to premarital sex, Buor (1986) identified the following: the corrosion of traditional norms and values by modernity, economic considerations (poverty), peer group influence, parents' occupation, inadequate family life education, ignorance about family planning methods, and parents' marital status. Nabila and Fayorsey (1996) also trace the causes of adolescent sexual behaviour and pregnancies to poverty, unemployment, lack of parental care and support, separation, divorce and single parenthood, peer pressure, psychological and spiritual considerations, ignorance and lack of contraceptive knowledge and use, modernisation, moral degeneration and adolescent dressing habits, ignorance and lack of knowledge about reproductive health issues. These observations set the stage for a detailed look at the main determinants of sexual behaviour and HIV/AIDS transmission, with emphasis on premarital sex.

2.4.1 Poverty, sexual behaviour and HIV/AIDS transmission

Poverty is a major factor in pushing women and young girls into selling sex for food, money or services (UNFPA, 2004; UNAIDS, 2004; Brummer, 2002; Smith et al., 2003). In a study of female sex workers in Sri Lanka, nearly 37% of them described the need for survival as the major reason for their entry into the sex trade (Mahal, 2001). Anarfi (1997) also discovered that street girls in Accra sold sex for money in order to survive. A study in Tanzania among primary school pupils found that many girls

exchanged sex for money and other material rewards (Nnko and Pool, 1997). Two-thirds of 168 sexually active young women interviewed in Malawi reported having exchanged sex for money or gifts, while 18% of 274 sexually active female Nigerian university students reported that they had exchanged sex for favours, money, or gifts (Rivers and Aggleton, 2001). A study of high-risk sexual behaviour among Zambian out-of school female adolescents found that 90% of them had received money or gifts for sex (Feldman, 1995).

In some farming communities, women turn to prostitution during the dry season when economic activities go down (Ahiadeke et al., 2003). Parents' inability to cater for the needs of their children also force girls to go in for sexual partners who can provide them such needs (Anarfi, 2005; Fayorsey, 2002; Buor, 2000b). At Alajo, a suburb of Accra, Adda (1990) reported that economic hardships in many homes had created a situation where teenagers were tempted to yield to demands for sex by any man capable of providing their basic needs like food and clothing. Among young people in Bamenda, Cameroon, Rwenge (2000) found that those living in poor households were more likely to be sexually active and more likely to have had casual sex in the previous year than those living in wealthier households. In the United States, living in impoverished areas or areas with high levels of violence has been found to be related to the early onset of sexual activity (National Institute of Health, 2002).

Financial and material gains have also been found to be among the primary reasons why adolescent women go out with older men (UNAIDS/UNFPA/UNIFEM, 2004; Bohmer and Kirumira, 2000). In Cambodia, Demographic and Health Survey data showed that the poorest young women were 50% more likely to have had sex than their

wealthier counterparts (Bloom, River Path Associates and Sevilla, 2002). Another research in the same country showed that the poorest segments of the population were more likely to have had sex at a younger age, and less likely to use condoms frequently (Mahal, 2001). The 2003 Ghana Demographic and Health Survey showed a direct positive relationship between wealth quintile and current use of male condoms among married women, indicating the negative influence of poverty on condom use (GSS and ORC Macro, 2005).

2.4.2 Education, sexual behaviour and HIV/AIDS transmission

Education helps individuals to protect themselves against HIV infection. Worldwide, countries with lower adult literacy rates tend to have larger HIV epidemics. Also, developing countries with larger disparities in education and income levels between males and females also tend to have bigger HIV epidemics (Gregson, Waddel and Chandiwana, 2001).

According to one report, better educated youth begin sexual activity at a later age than those who are less educated (Awusabo-Asare, Abane and Kumi-Kyereme, 2004). Education is also positively associated with women's knowledge of HIV/AIDS (UNAIDS/UNFPA/UNIFEM, 2004; Baba, 2003; UNESCO, 2005b). Higher education levels are also correlated with delayed sexual debut, greater HIV awareness and knowledge about HIV testing sites, fewer sexual partners, higher rates of condom use, and greater communication about HIV prevention between partners – all factors that substantially lower HIV risk (UNESCO, 2005b).

In Zambia, for instance, a national surveillance reported that while the HIV prevalence rate for women aged 15-19 dropped from 27% in 1993 to 15% in 1999, the decline was greater among those with secondary and higher levels of education (UNFPA, 2002). With each additional year of education, girls “gain greater independence, are better equipped to make decisions affecting their sexual lives, and have higher income earning potential – all of which help them stay safe from HIV” (The Global Coalition on Women and AIDS, 2005:1).

In a recent study of eight Sub-Saharan African countries, women with eight years of schooling were up to 87% less likely to have had sex before the age of 18 compared to women with no schooling (The Global Coalition on Women and AIDS, 2005). In Rwanda, young women with secondary or higher education were five times as likely to know the main HIV transmission routes than were those with no formal education (UNAIDS/WHO, 2005). But education does more than give people access to HIV information: “it also increases their confidence and power in society, so that they are in a better position to act on what they know” (Jellema and Philips, 2004:10).

Even in the developed countries, young people who had had little education were more likely to initiate intercourse during adolescence than those who were better educated (Singh et al., 2001). In 17 African countries studied, the percentage of young women who had had sex was higher among those not currently in school than those still in school (Moreland and Logan, 2000). A study by the African Youth Alliance (2006a) also reported that the likelihood of ever having sex declined among male and female youth with primary, secondary, and higher education compared to those with no education.

In Zambia, young women with high school education were less likely to be HIV-positive than those who had not received secondary education (Jellema and Philips, 2004). Educated women are also less than half as likely to be subjected to female genital mutilation, a practice which increases risks for HIV/AIDS, and four times more likely to oppose the practice for their daughters (Jellema and Philips, 2004). A Brazilian study found that having less education was associated with less use of condoms among young people aged 15-24 (Calazana et al., 2005). Surveys in Haiti, Malawi, Uganda, and Zambia have also shown a strong link between higher education and fewer sexual partners (Bankole, 2004).

In the United States, a report by the National Institute of Health (2002) identified school-related factors that influence sexual behaviour to include poor school performance, lack of motivation, lack of future educational plans, low educational level of parents, lack of school safety, and diminished sense of attachment to school. In Bangladesh, one study of sexual behaviour among males reported that the experience of premarital sex was slightly less among the more educated (Caldwell and Indrani, 1999). Educated men were also less likely to patronise commercial sex and when they did so, were more likely to use condoms.

Other studies have however reported contrary findings. Example, Karim et al. (2003) found that increased educational attainment was associated with an elevated likelihood of being sexually experienced and with having had a greater number of partners. A study of differential AIDS mortality in Cote d'Ivoire also found that educated people had a higher risk of dying of AIDS, because they were more likely to have had several partners (Cogneau and Grimm, 2003).

In a study to describe the epidemiology of HIV-1 infection among adolescents aged 13-19 years in rural Rakai district, Uganda, it was found that HIV/AIDS was significantly higher among males and females with higher levels of education (Konde-Lule et al., 1997). Another study in the same country also found similar results: educational attainment was associated with HIV serostatus (Smith et al., 1999). This was explained as: “Education provides greater economic resources, which facilitate behaviours that put individuals at greater risk” (Smith et al., 1999:2). Mahal (2001) also found that in a cohort of almost 20,000 adults aged 15-59 followed over three and a half years in Uganda, HIV-associated mortality was highest among the better educated. It has also been noted that although more educated women start sex later, but because they typically experience longer periods between starting sex and getting married, they are liable to accumulate larger numbers of partners during this period than their less educated peers (Gregson, Waddel and Chandiwana, 2001).

2.4.3 Modernisation, sexual behaviour and HIV/AIDS

The processes associated with development such as modernisation, urbanisation and migration can facilitate rapid and extensive transmission of HIV infection (Gregson, Waddel, and Chandiwana, 2001). In traditional society there were strict norms and practises that were used to control premarital sex. Most societies frowned upon and even prohibited premarital sex until the appropriate puberty rites had been performed. Examples of such rites were the ‘Dipo’ among the Krobos and ‘Bragoro’ among the Akans in Ghana (Buor, 2006). Punishment for the deviant ranged from ridicule and ostracism to banishment from the society (Neema, Musisi, and Kibobo, 2004). Virginity

was upheld and there were gifts for the bride's parents if the husband found her to be a virgin at marriage (Buor, 2006; Neema, Musisi, and Kibobo, 2004).

In modern times, however, a combination of several factors such as population increase, increasing migration, urbanisation, education, disintegration of the extended family have conspired to weaken or dismantle the traditional constraints on premarital sexual activity (Buor, 2005; Munthali, Chimbiri and Zulu, 2004; Ogbuagu and Charles, 1993; Omorodion, 1993). In the 2004 National Survey of Adolescents in Ghana, only 5% of females were found to have gone through any sort of puberty initiation rites (Awusabo-Asare et al., 2006), indicating a sharp decline in the practice. A survey in Ghana among 1360 men and women (Anarfi, 1993) also found that most respondents believed that women and daughters should be virgins when they marry but only 10% of the males and 13% of the females were themselves virgins at marriage. With the outbreak of HIV/AIDS, some traditional leaders and researchers have called for the reintroduction of puberty rites as a strategy to prevent premarital sex.

A major feature of development is the increase in migration and mobility at both local and international levels, a factor which has been identified as a catalyst in the rapid spread of HIV (Anarfi, 1993). The link between mobility and HIV/AIDS is related to the conditions and structure of the migration process, including poverty, exploitation, separation from families and partners, and separation from the sociocultural norms that guide behaviours in stable communities (International Organisation for Migration, 2003). Men who migrate for work or have mobile jobs that take them away from their families (e.g. truck drivers, miners and construction workers) are in environments that increase their vulnerability to HIV through unprotected sex with commercial sex workers and

casual sex partners (Marcovici, 2002). With their wages, usually ready availability of liquor, and peer support, they induce women into either short or longer-term sexual relations (Collins and Rau, 2000). And for both migrant and local women, selling sex may become a means to obtain desperately needed money (Brummer, 2002). In some cases, the family members left behind may also engage in sex work to support themselves (Eckman, Huntley and Bhuyan, 2004).

A study in Senegal found that 27% of the men who had previously travelled to other African countries and more than 11% of women whose husbands had done so were infected with HIV. But in neighbouring villages where men had not migrated, less than 1% of the people were HIV positive (Bloom, River Path Associates and Sevilla, 2002). A study of women itinerant workers in Ghana also found them to be highly vulnerable to HIV/AIDS. Their condition was exploited for the sexual gratification of the men with whom they came into contact (Anarfi, Appiah and Awusabo-Asare, 1997).

Ineffective development policies that increase social and regional inequalities in economic opportunity and wealth may also have an impact on sexual interaction by increasing the economic attractions of prostitution. For example, it is reported that Structural Adjustment programmes in Africa in the late 1980s and early 1990s led to lower government spending, the decline of rural economies, and substantial rural-urban migration. The resultant separation of couples led to multiplication of the number of sexual contacts and intensified the spread of HIV (Parker, Easton and Klein, 2000). Zimbabwe's structural adjustment in the 1990s is also blamed for reduced social expenditures and condom availability (Parker, Easton and Klein, 2000). De Vogli and Birbeck (2005) have also argued that economic reforms such as devaluation and removal

of food subsidies that decrease access to basic needs for poor households will eventually result in increased exposure of women and children to HIV/AIDS, through for example, commercial sex and sex abuse.

The undertaking of large construction projects has also been identified as facilitating the spread of HIV. For example, in Ghana, the high rate of HIV/AIDS infection among Krobos particularly in Agormaya and its surrounding communities has been partly attributed to the construction of the Akosombo Dam (Aryee, 2005; Parker, Easton and Klein, 2000). The execution of the project lured women into providing sexual-economic exchanges for men in the construction area. And with the creation of the dam having destroyed local agricultural lands, many other women were forced to travel abroad to work as prostitutes (Parker, Easton and Klein, 2000). In Central and East Africa main transport routes have been identified as facilitating the spread of the disease (Buor, 2005).

During conflict situations women are rendered especially vulnerable to HIV/AIDS as they become victims of sexual abuse in the form of rape. For example, it is reported that hundreds of thousands of women were raped during the 1994 Rwandan conflict and the Liberian civil war of 1989-2003 (Baka, 2005). Without any ability to protect themselves, many of them were exposed to HIV/AIDS.

2.4.4 Culture, Sexual Behaviour and HIV/AIDS Transmission

In Sub-Saharan Africa, sexual activity appears to be driven largely by cultural beliefs and practices (Madise and Hinde, 2003). Cultural expectations encourage men to have multiple partners, while women are expected to abstain or be faithful

(UNAIDS/UNFPA/UNIFEM, 2004, Marcovici, 2002). As a result, men are more likely to engage in risky behaviour, often without protection (Weitz 2003; Rivers and Aggleton, 2001; Gupta, 2000). In a qualitative study in rural Hanover, Jamaica, Smith et al. (2003) found that the sexual attitudes and behaviours of the adolescents were shaped by cultural and gender norms that imposed different standards on males and females. A study in the United States also found that young men who supported traditional notions of manhood (e.g., being dominant, taking risks, not showing emotions) were more likely to use drugs, be violent, and practise unsafe sex (Population Council, 2004).

Apart from biological factors, women's vulnerability to HIV infection is further exacerbated by culturally sanctioned gender inequality as well as economic dependence on men. Women in such situations may have little control over their sexual lives and the sexual lives of their partners (UNAIDS, 2004; UNFPA, 2003c; Brummer, 2002; Odirile, 2000; Gupta and Weiss, 1995; Awusabo-Asare, Anarfi and Agyeman, 1993; Caldwell et al, 1993). A study among women attending antenatal care clinics in Soweto, South Africa, found that women were more likely to be HIV-positive in relationships where men wielded considerably more power and control than they did (Dunkle et al., 2004, cited in UNAIDS, 2004). Another study in India found women to be particularly vulnerable to HIV/AIDS due to factors such as unequal power and gender relations, gender-based violence, high degree of male control, mindsets among women conditioned by patriarchal norms, and low capacity to negotiate sexual and reproductive rights (Singh et al, 2004).

The social pressure to remain a virgin can contribute in a number of ways to the risks of STD and HIV for women. Some may engage in practices such as anal sex as a means of protecting their virginity (Eckman, Huntley and Bhuyan, 2004; Johnson and

Budlender, 2002; Rivers and Aggleton, 2001). This cultural expectation may also cause parents and the community to keep young women ignorant about sexual matters, since female ignorance of sexual matters is often viewed as a sign of purity and innocence, while having “too much” knowledge symbolises lack of virtue. This prevents them from seeking information about sex or services related to their sexual health (Rivers and Aggleton, 2001). In a study in Guatemala, male and female respondents felt that women should be uninformed about sexual matters (Gupta, 2000).

The cultural practices of early marriage and female circumcision expose girls to high HIV risks (UNICEF, 2002). Both female and male circumcision can be risk factors for HIV/AIDS through sharing of knives and casual sex during initiation ceremonies (Neema, Musisi, and Kibobo, 2004; Rivers and Aggleton, 2001). However, once completed, male circumcision may reduce the risk of HIV infection, a factor attributed to the removal of the foreskin, which contains a high density of HIV-specific cellular targets (Auerbach, Hayes and Kandathil, 2006). In studies across several African countries, HIV seroprevalence was found to be consistently lower in areas where male circumcision was practised than in areas where it was not practised (Van Howe, 1999). In the United States, one study found that uncircumcised homosexual men had a twofold increased risk of HIV infection (Newman, 2004). A study in South Africa also found that circumcised men were at least 60% less likely to become infected than uncircumcised men (UNAIDS/WHO, 2005).

The cultural practice of dry sex (the insertion of desiccants into the vagina to keep it dry for sexual intercourse), common among many women in Sub-Saharan Africa, is also a risk factor for HIV/AIDS. For example, in Ghana some women deceive their

prospective husbands that they are virgins by having dry sex with them, using items such as lime, alum, ginger, etc (Darko, 2005). However, such a practice can easily lead to lesions or cuts in the vagina during sex, making it easy for the HIV virus to enter the blood stream (Zambia Ministry of Health/ Central Bureau of Health, 1999.) In a study among commercial sex workers in Zaire, an association was found between the introduction of materials into the vagina and HIV infection (Bambra, 1999).

Having intercourse during menses has also been shown to be a risk factor for the spread of HIV, a practice which is reportedly common in some parts of Africa (Bambra, 1999). Body piercing and tattooing are also cultural behaviours that may lead to HIV infection or facilitate the transmission of the disease (Boyce et al, 2003). Practices such as ritual cleansing and wife inheritance, common in the Upper East Region of Ghana, have also been identified as risk factors (Odoi-Agyarko, 2004; Alogituah, 1990).

Discussing sex is a taboo in many African countries, thus denying a large number of young people the necessary information to protect themselves (Buor, 2000b). In Nigeria, 43% of respondents in a study by Wodi (2005) had never talked about HIV/AIDS with their parents or guardians. Families would not discuss sexually transmitted issues with their children with the fear that it would make them more promiscuous.

In Ghana, available data does not support a direct link between polygamy and HIV/AIDS, contrary to popular opinion. This is because the Northern Region which has the highest polygamy levels also has the lowest HIV/AIDS rates while the Eastern Region which has the lowest polygamy levels, exhibits the highest HIV/AIDS prevalence rates in the country (The Measure Project and Ghana AIDS Commission, 2003; Opong,

1998). Research has also established that in Africa the HIV/AIDS prevalence is lower in areas where the Islamic religion is practised (Oppong, 1998). Using data from the 1993 Ghana Health Demographic and Health Survey, Addai (2000) found that women belonging to the liberal religious groups (Protestants and Catholic) were more likely to experience premarital sex than those from the more conservative traditional religions. Muslim women were significantly less likely to report premarital sex compared to any group. Research in the developed countries has also identified low church attendance to be associated with early sexual debut in males (National Institute of Health, 2002).

It should also be noted that some cultural practices can also help to limit the spread of HIV/AIDS, particularly those that preserve and promote extended family structures. These extended family structures can provide information on appropriate sexual behaviour, advocate abstinence and mutual faithfulness, offer support in times of distress, and serve as a social safety net in times of need (Zambia Ministry of Health/ Central Bureau of Health, 1999). However in recent times the African extended family system is being destroyed by external factors such as urbanisation, rural-urban migration and westernization, leading to inadequate social and family support for people affected by HIV/AIDS (Ghana AIDS Commission, 2005c).

2.4.5 Influence of parents on sexual behaviour

Proper parental care has been identified as a positive influence on the sexual behaviour of young people (National Institute of Health, 2002). Studies have reported that young people who live with both parents are less likely to be sexually active than those who do not live with their parents (African Youth Alliance, 2006a; Karim et al.,

2003). A research in the United States of America also found that teenagers who reported a low level of satisfaction with their mothers were more than twice as likely as those highly satisfied with their relationship to be having sexual intercourse (Jaccard, Dittus and Gordon, 1996). In Nigeria, one study also discovered that adolescents who had family life education from parents were less likely to be sexually active (Odimegwu, Solanku, and Adedokun, 2002).

In a cross sectional survey of Nigerian secondary school students, Slap et al., (2002) found that sexual activity was more common among students from polygamous families than students from monogamous families. Other factors associated with increased likelihood of sexual intercourse were having a dead parent and lower educational level of parents. In the developed countries, research shows that young people from low-income families are more likely than those from wealthier families to be sexually experienced (Alan Guttmacher Institute, 1994). However, Ikamba and Ouedraogo (2003) discovered in their Tanzanian study that parents expected money from their daughters who were unemployed, thereby indirectly forcing them into commercial sex.

2.4.6 Peer Pressure and Sexual Behaviour

The influence of peer pressure on premarital sex can also not be underestimated. Young people whose friends are sexually active or who perceive their friends to be sexually active are more likely to be sexually active themselves (Blum and Mmari, 2004; Kiragu, 2001). In a study in Canada, students who stated that more than half of their friends had had sex were also more likely to have had sex themselves (Boyce et al.,

2003). Among Ecuadorian adolescents, Park et al. (2002) also found that those who reported that their peers were sexually experienced were significantly more likely to have had sex themselves. Others engage in sexual activity to raise their ego among their peers (Afenyadu and Goparaju, 2001). On the other hand, unmarried females who are less influenced by external pressure and also have higher educational goals have been found to be less likely to engage in sexual intercourse (DiCenso et al., 1997).

2.4.7 Substance abuse and sexual behaviour

The use of alcohol, marijuana and other hard drugs is associated with unsafe sexual behaviour among young people (Odoi-Agyarko, 2004; Mohammadi et al, 2006; Boyce et al., 2003). Kiragu (2001) reports that in Tanzania, youths aged 16 to 24 who smoked and drank alcohol were four times more likely than others that age to have had multiple sex partners, while in Kenya the single most important predictor of sexual activity among adolescent women was alcohol, drugs, or tobacco use. Among college students in the United States of America, those who had sex under the influence of alcohol or drugs were three times more likely not to have used any protection. In rural Moshi District of Tanzania, Tengia-Kessy, Msamanga and Moshiro (1998), found that among males, cigarette smoking, and ever-use of marijuana were associated with HIV seropositivity.

2.4.8 Place of residence and sexual behaviour

Some studies have established that the probability of having a non-regular sexual partner is higher in urban than rural areas; commercial sex is also more common in urban areas, and STD rates are higher (Bloom, River Path Associates and Sevilla, 2002).

Evidence also shows higher HIV prevalence rates in urban than in rural areas (Ntozi and Ahimbisibwe, 1999). In Ghana, HIV/AIDS prevalence is higher in urban areas than rural areas (Martin and Logan, 2005). The 2003 GDHS also found that urban residents were more likely than their rural counterparts to engage in multiple sexual behaviour. A survey on adolescent sexual and reproductive health in Botswana, Ghana, Tanzania, and Uganda by the African Youth Alliance (2006a) also revealed that urban women had more casual relationships than rural women, although in Ghana rural residents were more likely to have had sex than were their urban counterparts.

However, a five-year research on the level of AIDS-related knowledge, attitudes, and behaviour of female and male adolescents in urban and rural Zambia found that adolescents from rural areas tended to engage in more high-risk behaviours (Slonim-Nevo and Mukuka, 2002). In the study by Karim et al. (2003) in Ghana, residence in a rural setting was associated with an increased likelihood of having had sex among males, while females residing in small towns were substantially more likely than their counterparts residing in cities or large towns to have had multiple recent partners. Kwankye (2005) also discovered from his comparative study of Cape Coast and Makrongo in the Central Region of Ghana that the proportion that was sexually active was higher in the rural area than the urban district and also increased with age.

2.5 RELATIONSHIP BETWEEN KNOWLEDGE OF HIV/AIDS AND SEXUAL BEHAVIOUR

The important role of knowledge in addressing the HIV/AIDS pandemic has been recognised. Increased knowledge about HIV/AIDS is considered an important step in

behaviour change, while misconceptions can prevent individuals from making informed choices and taking appropriate action (Population Council , 2006; Awusabo-Asare et al, 1999). “Knowledge is an important foundation for positive sexual health, since effective protection against HIV/AIDS and other STIs requires an understanding of disease transmission, prevention and prognosis” (Boyce et al.2003:55). Lal et al., (2000:1) have also commented that “Knowledge about the spread of HIV and safe sexual practices has a critical impact on the prevention of HIV/AIDS”.

A Joint United Nations Programme on AIDS (UNAIDS, 2005) report revealed that countries that had significantly reduced rates of new HIV/AIDS infections were those that typically invested heavily in AIDS education and awareness initiatives. Commenting on the links between behavioural change and the decline in HIV/AIDS prevalence in Zimbabwe, the report further said that “Such changes in behaviour...reflect a combination of knowledge of the basic modes of HIV transmission linked to a growing personal experience of the realities of AIDS morbidity and mortality” (UNAIDS, 2005:5).

Other studies have shown that young people who have been exposed to appropriate sex education tend to delay sex or use condoms (UNESCO, 2005a; University of Arizona, 2004; UNAIDS, 2003; UNFPA, 2003a). Contrary to the fear that sex education leads to greater sexual activity or experimentation, a review of sixty-eight reports on sexual health education found that HIV and/or sexual health education either delayed the onset of sexual activity, reduced the number of sexual partners, or reduced unplanned pregnancy and STD rates (UNAIDS, 1997).

Similar results have also been established in the developed world. For example, an analysis of 250 North American programmes found that among sexually active young people, AIDS education programmes were effective in decreasing the number of sexual partners and increasing condom use (Kirby, 2002, cited in UNAIDS, 2004). In Nigeria, a study among unmarried male youths in the University of Ibadan (Adewole and Lawoyin, 2004) found that students who had obtained knowledge on HIV/AIDS early at the secondary school level were less likely to have multiple sexual partners, compared with those who acquired the knowledge later. In a study in Uganda, students who reported that they had taken precautions about AIDS were less likely to have ever had sexual intercourse (Twa-Twa, 1997), while in a Kenyan study, lack of factual knowledge (on HIV/AIDS) was among the factors found to be responsible for sexual intercourse among adolescent girls (Lema, 1990).

Using data from anonymous self-administered survey of military personnel in northern Thailand, London, VanLandingham and Grandjean (1997) found that men who had sex with other men were less knowledgeable about HIV/AIDS. In Ghana, knowledge about HIV/AIDS was found to be lower among students who currently had a sexual partner (Apoya et al., 2004). Using Demographic and Health Survey data from 23 low- and middle-income countries, Snelling et al. (2007) also found an association between increased knowledge of HIV/AIDS and condom use. In a study among men in Bangladesh, respondents who had heard of AIDS were less likely to have had sex with prostitutes than those who had not (Caldwell and Indrani, 1999).

Anarfi and Appiah (2004) have emphasized that since there is yet no cure for HIV/AIDS, education then becomes the only social vaccination against the disease. They

defined education to include everything done to increase and sustain people's awareness and knowledge of HIV/AIDS towards staying away from risk behaviours. Their analysis went on to discuss the role of both formal and informal education as tools in fighting the disease. Commenting on the kind of information that adolescents need, McIntyre (2004:12) has said: "All adolescents need information on how HIV spreads, how it can be prevented and how you cannot tell when someone is infected..." After a review of numerous data on knowledge, behaviour, life skills, access to services and HIV prevalence among young people from several sources, Monasch and Mahly (2006:25) concluded that "An important, but not sufficient, foundation for any prevention effort aimed at young people is to provide them with basic information on how to protect themselves and their partners from acquiring the virus".

According to Auerbach, Hayes and Kandathil, (2006:46) "behaviour change interventions to reduce the risk of HIV/AIDS are based on social science theories that emphasise the importance of knowing about the risks of HIV transmission, instilling motivation to protect oneself and others, changing expectation of outcomes, developing skills for engaging in protective behaviours and the ability to maintain protective behaviours, and to providing social support for protective actions". In a study on the mass media and HIV/AIDS in Ghana, Benefo (2004) reported that HIV/AIDS information had caused behaviour change among 57% of women and 58% of men. In Uganda, more than 44% of respondents agreed that people had changed their behaviour due to their knowledge of AIDS (Ntozi and Ahimbisibwe, 1999).

Other studies similarly report of positive influence of knowledge of HIV/AIDS on sexual behaviour, including delaying sexual intercourse, using condoms, stopping sex

with prostitutes, etc, (Bankole, 2004; Ocran and Harlow, 2004; Camlin and Chimbwete, 2003; Magnani et al, 2002; Uwalaka and Matsuo, 2002; Fayorsey, 2002; Araoye and Adegoke, 1996; Anarfi and Antwi, 1995).

In spite of these findings, other studies indicate low levels of knowledge of HIV/AIDS among young people coupled with misconceptions about the disease (UNGASS, 2001). Generally, knowledge of HIV/AIDS is higher among young men than women (Aluede et al., 2005; UNAIDS, 2003). It is also higher among people in urban areas than rural areas (UNAIDS, 2005; UNAIDS, 2003). Others have also warned that knowledge about HIV/AIDS does not automatically lead to responsible sexual behaviour (Adedimeji, 2005, Anarfi, 1997), and that knowledge must be complemented by attitudes and values that will lead to appropriate decisions (Coombe and Kelly, 2001). For example, an analysis of the communication strategies used in HIV/AIDS/STI campaigns in Jamaica during the period 1999-2003 revealed that in spite of the increased level of awareness about HIV/AIDS and its transmission, little desirable behaviour changes had occurred (White, 2005).

In Ghana, it has been observed that the expected behavioural changes have not occurred in spite of the several programmes that have been undertaken to create awareness of the disease (Anarfi, 2005; Kates and Leggoe, 2005; Awusabo-Asare et al, 1999). Several other studies have observed high-risk sexual behaviours among young people in spite of their good knowledge and awareness of HIV/AIDS (Adedimeji, 2005; Anderson and Beutel, 2004; Ikamba and Ouedraogo, 2003; Afenyadu and Goparaju, 2003; Braithwaite and Thomas, 2001; Meekers, Klein and Foyet 2001; Odirile, 2000; Nabila and Fayorsey, 1996). A study among college students in the United States of

America also found a mismatch between knowledge about sexual issues and sexual behaviour (Castora, 2005).

Low levels of condom use in spite of awareness of the risks have also been reported (GSS and ORC Macro, 2004; Karim et al., 2003; Winfield and Whaley, 2002; Anarfi, 1997; Anarfi and Antwi, 1995; Ogbuagu and Charles, 1993). In a study to test the usefulness of the Health Belief Model in predicting condom use among African American college students, Winfield and Whaley (2002) found that high levels of HIV/AIDS risk knowledge was not significantly correlated with condom use. In a research in Cote d'Ivoire, researchers found that accuracy of knowledge about AIDS did not significantly predict condom use (Zellner, 2003).

On the other hand, the majority of studies on knowledge and sexual behaviour have treated these variables as discrete outcomes, without finding the empirical relationships between them. The following review examines some of these studies, their key findings and their shortcomings in the light of the present research.

In a study of socioeconomic correlates of sexual behaviour, Filmer (1998) used multivariate techniques to analyse individual-level demographic and health survey data from nine sub-Saharan African countries. The study found that men were more likely to report non-marital sex and a higher number of sexual partners than women. Women in urban areas were significantly more likely to have had a non-regular partner than those in rural areas in all the countries studied, except Kenya. Education was strongly related to the probability of using a condom with a non-regular partner. Among respondents aged 15-19 years, the study found that the proportion that had ever had sex increased with age. It was observed that in almost all the sample, the higher the educational level, the lower

the probability that the respondent had ever had sex. However, although knowledge of HIV/AIDS was measured in the study, its relationship with sexual behaviour was not examined.

Gurung (2004) also examined the knowledge and attitude on HIV/AIDS and sexual behaviour among Nepalese street youth. A significant number of all respondents believed that one could contract HIV through mosquito bites and kissing. In the study, knowledge of HIV/AIDS was categorized on three different levels: 'good knowledge', 'some knowledge', and 'poor knowledge' based on scores from the questionnaire. Nearly 58% of the respondents fell under the category of good knowledge, while 17% were ranked as poor. Females had comparatively lower knowledge. Unfortunately, the data on knowledge of HIV/AIDS was not used to examine sexual behaviour.

Arguing against the use of data from small geographic areas, Chatterji et al (2004) used population-based demographic and health survey data from twelve Sub-Saharan African countries to explore the relationship between men's and women's individual socio-demographic characteristics and the probability that they will engage in transactional sex. Household economic status was derived from the World Bank's Standard of Living Index (SLI) that measured wealth based on household possessions.

In eight of the twelve countries, young women in rural areas were significantly less likely to engage in transactional sex as compared with urban women. Also in eight of the countries, Muslim women were less likely to be involved in sexual exchange than women belonging to other religions. Young men who were currently in school were significantly less likely than those out of school to be involved in sexual exchange.

One limitation to the study was that the dataset did not contain information regarding knowledge of the risks of transactional sex, and so it was not possible to assess the relationship between (this type of) knowledge and transactional sex, which could have given a measure of the relationship between knowledge and sexual behaviour.

A detailed review and compilation of researches on a wide range of adolescent sexual and reproductive health issues including HIV/AIDS were carried out by Awusabo-Asare, Abane and Kumi-Kyereme (2004). The report also reviewed some of the laws, policy documents and national bodies whose activities have implications for the sexual and reproductive health of young people. However, the study was based only on secondary sources of information. Also, knowledge, attitudes and sexual behaviour were discussed as discrete outcomes, with no attempt to find out their interrelationships.

Using data from the 1998 Kenya Demographic and Health Survey, Akwara, Madise and Hinde (2003) used logistic models to examine the direction and strength of the association between perceived risk of HIV/AIDS and risky behaviour. The study focused on sexual behaviour in the last twelve months before the survey. In the research, perception of risk was determined with the question: “Do you think your chances of getting AIDS are ‘small’, ‘moderate’, ‘great’, ‘none’ or ‘don’t know’?” Knowledge of HIV/AIDS was also measured by a series of questions on the ways in which AIDS can be transmitted. This was used to form a three-category variable coded as ‘low’, ‘moderate’ and ‘high’ knowledge.

In all, about 45% of men and 11% of women reported risky sexual behaviour. The most commonly reported risky sexual behaviour by men was having multiple partners and for women it was having a casual partner. Overall, 28% of women and 27% of men

perceived themselves to be at no risk at all from HIV infection, while only 10% and 5% respectively perceiving their risk of infection to be great. The results established a strong positive association between perceived risk of HIV/AIDS and risky sexual behaviour.

However, the study limited its definition of sexual behaviour to the last twelve months of the survey. This may be very problematic as it does not capture the sexual behaviour of people outside of that range. The use of lifetime number of sexual partners would have complemented this measure. Differences in sexual behaviour by differences in knowledge of HIV/AIDS were also not brought out in the research.

The sexual and reproductive health status of in-school and-out-of-school adolescents in Ghana has also been studied (Afenyadu and Goparaju, 2003). The research used both qualitative and quantitative methods to collect data from respondents in Dodowa, Ghana. Over 55% of the adolescents interviewed reported ever having had sex. The main reasons identified for the practice of pre-marital sex were money, sexual pleasure and peer pressure. However, the only link between HIV/AIDS and sexual behaviour was the mention that “though there was much awareness about HIV/AIDS among adolescents, this knowledge seemed not to have been reflected in their sexual lifestyles” (Afenyadu and Goparaju, 2003:26), without actually going further to measure the effects of knowledge on sexual behaviour.

In a study of knowledge, attitude and practice on HIV/AIDS, Fayorsey (2002) found that knowledge of HIV/AIDS had changed the sexual behaviour of two-thirds (66%) of the students surveyed. Of these, one-third said they had not started sexual intercourse because of their knowledge of the risks of HIV/AIDS, 25% said they had

reverted to secondary virginity, while another 25% said they had stopped having sex with prostitutes because of their concern about AIDS.

However, sexual behaviour was defined to include activities such as petting, anal intercourse and vaginal intercourse. Such an approach seems too hazy and does not give a definite insight into sexual behaviour. For example, to what extent can one describe petting as a form of sexual intercourse, with likely risks for HIV/AIDS? The mode of obtaining this information from respondents was also problematic, with respondents being asked “Are you currently sexually active?” This is not probing enough, because a respondent who answers “no” would be assumed to never had had sex, although that may not necessarily be the case.

Among the Nigerian military, Adebajo et al. (2002) identified low knowledge of HIV/AIDS amidst risky sexual behaviour. The study however had a major drawback in the sense that in spite of the bold attempt to calculate knowledge of HIV/AIDS, there was no subsequent effort to examine its effects on sexual behaviour to provide any empirical basis about the relationship between the two.

In a research of knowledge and attitudes of college students in India (2000), Lal et al. combined both knowledge and attitudes scores, while multivariable linear regression was used to study the association of these scores with selected predictor variables. Male students and urban residents demonstrated a higher knowledge of AIDS and STDs. Students from urban areas and those belonging to the Christian religion also demonstrated more favourable attitudes towards AIDS. However for the purpose of the present review, the study fell short to the extent that it did not use the knowledge and attitude scores to examine sexual behaviour.

A study by Glover et al., (2003) sought to assess adolescents' knowledge, attitudes and behaviours relating to a wide range of reproductive health and gender issues in Takoradi, Sunyani and Tamale. It was based on a purposive sampling procedure involving 705 never-married youths aged 12-24. The research found that overall, 52% of respondents had ever had sexual intercourse, with young women more likely to be sexually experienced than young men. The proportion that was sexually experienced increased with age. In multiple logistic regression analyses, respondents who were older, female or out-of-school were significantly more likely than others to be sexually experienced.

In the study, although there were questions on knowledge of HIV/AIDS, they were however not used to examine differences in sexual behaviour. The research also dealt with attitudes to condom use. Unfortunately, there was no attempt to relate these attitudes to actual condom use, although it was reported that half of sexually experienced respondents had ever used a condom, and that this increased with age.

The knowledge, attitudes and beliefs of Rwandan women towards HIV/AIDS has been studied by Lindan et al., (1991). The study involved a sample of 1,458 childbearing women aged 19-38 years. The study found the HIV prevalence rate among the sample to be as high as 32%. Most respondents however frequently underestimated their risk of HIV infection. In this research too, the effects of knowledge and attitudes on sexual behaviour were not examined. The research also focused on only women.

Ikamba and Ouedraogo's (2003) study of sexual behaviour in Tanzania also revealed a high level of high-risk sexual behaviour. The study established that 55% of girls and 45% of boys had their first sexual intercourse between the ages of 14 to 17

years. Although knowledge of HIV/AIDS was very high, other misconceptions such as sharing of eating utensils and shaking of hands as routes of transmission of the disease were found.

Here, too, although knowledge of HIV/AIDS was obtained, its effects on sexual behaviour was not examined. Information on self-perceived risk of acquiring HIV/AIDS was also sought but its association with sexual behaviour was not examined. The closest the research came to in terms of building a relationship between knowledge and behaviour was the general observation that the youths had multiple partners in spite of such a high knowledge of the risks and that although there was an indication that most youths knew the importance of using condoms, but only 49% used them.

A baseline survey to generate information for intervention strategies to reduce young Indian women's vulnerability to STI/HIV was conducted by Singh et al., (2004). The procedure involved a mixture of quantitative and qualitative techniques, among a sample of 450 married and unmarried women aged 13 to 24 years. The study found levels of awareness of HIV/AIDS to be low, coupled with misconceptions regarding modes of transmission and prevention. The median age at first sexual encounter was 16 years, although 38% of the young women had sex before age 15. The research was very detailed and covered a wide range of women's reproductive health issues.

A major limitation however was that in spite of the large amount of information regarding knowledge and attitudes, no attempts were made to compute the knowledge and attitude levels, nor examine their relationships with sexual behaviour. Extensive data on background characteristics was collected, but their differences in terms of knowledge, attitudes or sexual behaviour were not properly examined.

Another study in India examined the knowledge, attitudes, behaviour and practices among truckers and cleaners/helpers about reproductive health and HIV/AIDS (ORG Centre for Social Research, 2003). The sample consisted of 299 respondents. The study showed that although more than four in five respondents had heard of HIV/AIDS, just over half of them knew that AIDS could be prevented, and only one in five were aware that HIV/AIDS is incurable. More than 40% of the respondents had misconceptions on the mode of HIV/AIDS transmission, including transmission through mosquito bites and through sharing of meals with an infected person.

The median age of first sexual intercourse was 18 years. Overall, nearly one-third of the respondents had sex with non-regular partners in the year before the survey, while about 80% had sex outside their regular relationships while on travel. The effects of knowledge of HIV/AIDS and attitudes on sexual behaviour were however not examined.

Finally, a study by Booyesen and Summerton (2002) explored the relationship among poverty, risky sexual behaviour, and vulnerability to HIV infection, using data from the 1998 South African Demographic and Health Survey. The main research question was whether poor women were less likely to engage in risky sexual behaviour thereby increasing their vulnerability to HIV infection. The study found little evidence that poverty is associated with risky sexual behaviour, although poorer women were slightly less knowledgeable about HIV/AIDS. The problem with this study is that it did not adequately demonstrate how knowledge of HIV/AIDS was measured.

2.6 RELATIONSHIP BETWEEN ATTITUDES AND SEXUAL BEHAVIOUR

Attitudes and perceptions about HIV/AIDS and sexuality have also been found to influence people's sexual behaviour (Anarfi, 1997; Awusabo-Asare and Anarfi, 1997; Anarfi, 2005; Awusabo-Asare et al, 1995) and have played a major role in perpetuating the spread of HIV/AIDS in Sub-Saharan Africa (Buor, 2006). A look at the literature shows that people have different attitudes and perceptions about the disease. Some people see HIV/AIDS as a punishment from God on a sinful generation (Smith, 2003), while others see it as a "white man's disease that was introduced to East Africa in the course of their popular safaris" (Isiugo-Abanihe, 2004:123). The belief in witchcraft and other supernatural power as causative agents for HIV/AIDS implies that the disease cannot be avoided, and is thus part of the reason why many people feel helpless to change behaviour (Caldwell, 1999; Caldwell et al, 1992).

The belief that one can get HIV by sharing a meal with an infected person and the belief that HIV/AIDS could be transmitted through witchcraft have also been found to be associated with discriminatory attitudes towards people living with HIV/AIDS (Letamo, 2003). In Sub-Saharan Africa, the misconception that mosquitoes could transmit the HIV/AIDS virus could cause people to adopt a defeatist attitude and risk-taking behaviour in the face of HIV/AIDS as it implies that regardless of what one does, one cannot avoid being infected as a resident of a mosquito-endemic region (Wodi, 2005). This perception can also discourage the use of condoms (Akwara, Madise and Hinde, 2003). In all, fatalistic attitudes about HIV/AIDS and death discourage behavioural change (Anarfi, 2005; Awusabo-Asare et al., 1999).

The perception that a healthy-looking person cannot carry the AIDS virus could also lead to a situation where people do not take precautions when having sexual intercourse with healthy-looking partners (Helitzer-Allen, 1994). Similarly, the belief that AIDS is a disease for 'high-risk' groups (such as prostitutes) can influence people's perceptions and behaviour, as it causes them to discount their own risk. For example, Pappoe et al, (2004) found that girls who associated condoms with commercial sex workers were less likely to use them. Furthermore, people who see AIDS as punishment for immoral behaviour and see their own lifestyle as being morally upright may perceive their chances of being infected to be low (Akwara, Madise and Hinde, 2003).

The way people view sexuality also has a significant influence on their sexual behaviour. Studies indicate that many young people approve of premarital sex (Boyce et al., 2003; Asuzu, 1994). To others, abstinence or suppression of sexual desire leads to ill health (Awusabo-Asare, 1999). Such attitudes may underlie the perceived lack of significant behavioural changes in the face of HIV/AIDS. In a study of Brazilian teenagers, Paiva (1993) found that there was a strong belief among adolescent boys that not having sex for a long time is harmful and that infidelity among men is natural.

In a South African study, male youths viewed sex as an expression of pleasure and affection. Having multiple sexual partners was a particularly status symbol, "the yardstick by which masculinity, intelligence and success were measured among one's male friends" (Varga, 1997:55). In the same study, a number of respondents stated they did not believe in the existence of HIV/AIDS, and for them, it was not a relevant factor in sexual decision-making. In Uganda, the majority of young males in a study by Hulton, Cullen and Khalokho (2000) did not consider sexual abstinence a realistic preventive option. A

study of premarital sexual relationships in urban Cameroon found that it was not socially acceptable for young people to abstain from sex (Meekers and Calvès, 1997). Street children in Accra said that it was not possible for a person to stay without sex (Anarfi, 1997; Anarfi and Antwi, 1995). Their reasons were that sex was natural and a biological necessity, and that one would fall sick or become stupid if one does not engage in sex.

It has also been reported that the perception that sex with a virgin can cure HIV/AIDS leads many HIV-infected males to seek out young virgins for sexual intercourse, causing a high incidence of rape cases (UNICEF, 2002; Bambra, 1999). In Botswana, Odirile (2000) discovered that men who had been ill for lengthy periods may be advised by traditional doctors to sleep with a virgin. In an anthropological study of condom use among young people in Nigeria, Jordan (2003) found that men thought that only women who had many partners would have the confidence to ask for condoms during sexual intercourse.

There is also the issue of low risk perception among some people (Bambra, 1999). Focus group participants in a Malaysian study (Ng and Kamal, 2006) felt they were not at risk to HIV/AIDS, citing having a stable, “clean” partner as the main reason. Research shows that people who consider themselves to be at no risk of contracting HIV/AIDS tend to have a higher chance of ever having sex (USAID, 2003; African Youth Alliance, 2006a), while those who consider themselves to be at risk are more likely to adopt safe measures to avoid infection (Ghana AIDS Commission, 2005b; Ocran and Harlow, 2004; Adih and Alexander, 1999). Another study in South Africa by Pettifor et al (2004) found that 67% of sexually active young people thought of themselves as being at low risk for

HIV infection. Knowledge of HIV/AIDS has been found to be associated with higher perceived risk and with better efficacy (Goodman, Chesney and Tipton, 1995).

Attitudes and perceptions also affect condom use. Negative attitudes towards condoms serve as perceived barriers which can discourage their use, despite good awareness (Swart-Kruger and Richter, 1997; Jemmott and Jemmott, 1990). Some of these perceptions include the belief that condoms can break or tear during sexual intercourse, that condoms can slip off and disappear into women during sexual intercourse, or that condoms can cause injury or death (Eaton, Flisher and Aarø, 2003). Other complaints about condoms include reduction in sexual pleasure, that they are not safe, or that they can bring diseases (Maswanya et al., 1999). Others express doubts about the quality of condoms and the idea that condom use suggests mistrust (Temin et al, 1999).

A British study found that the more college students viewed the AIDS problem as severe, the more likely they were to use condoms (Poureslami, Roberts and Tavakoli, 2001). Moreover, those who believed that they could become infected with HIV were more likely to report condom use. In a study of the determinants of condom use among young people in urban Cameroun, Meekers and Klein (2002) found that self-efficacy, among other factors, was associated with higher levels of condom use.

In an analysis of data across Sub-Saharan Africa, it was found that among the major reasons found for non-use of condoms were trust of one's partner, dislike of condoms, partner objection, non-availability of condoms or not having a condom at hand at the time of sex (Agha, 2002). The factors associated with condom use in the study by Kanya (1997) among men with casual partners in Kampala, Uganda included higher condom self-efficacy, lower embarrassment about condoms, knowing where to buy a

condom, and increasing number of casual sex partners. Other studies found that young people who expressed less negative attitudes about condoms were more likely to use them (African Youth Alliance, 2006b; Adedimeji et al, 2005).

In spite of the foregoing, numerous studies on attitudes and sexual behaviour clearly failed to establish the linkages between the two. A study by Ntozi and Kirunga on change in sexual behaviour and community attitudes in Uganda (1997) reported change in people's attitudes and sexual behaviour. This was attributed to the frequent exposure of the community to AIDS patients and the appreciation of the suffering of the patients and that of their families. The study however measured change in attitude and behaviour not directly but by asking respondents whether they thought people had changed their behaviour in response to HIV/AIDS. This cannot be said to be a good measure of the variables, and should have at least been complemented by a more direct measure.

Awusabo-Asare has carried out quite a number of researches on young people and HIV/AIDS in Ghana. One of such studies was among selected students in the Central Region of Ghana on a wide range of issues including attitudes to sexual behaviour, sexually transmitted diseases, HIV and condom use (Awusabo-Asare, 1999). Among the major findings were that over 80% of the respondents did not consider themselves to be at risk of HIV infection or from pregnancy, while over 40% agreed with the statement that a girl who carried a condom in her purse was not a good girl. Some respondents believed that people may contract HIV no matter what they do, if they are predestined to be infected. Others thought that some people are going to die anyway, and it may not matter much what they die from. Attitudes to condoms were also frequently negative. However, the actual effects of these attitudes on sexual behaviour were not examined.

In a nationally representative, household-based survey among 4,430 adolescents aged 12-19 years in Ghana, Awusabo-Asare (2006) found that 30% of females and 16% of males aged 15-19 years had ever had sex, while 12% of females and 5% of males indicated that they had been physically forced or threatened to have sexual intercourse. Alongside accurate knowledge about HIV/AIDS, some respondents held misconceptions about the disease, such as the belief that the disease could be spread by sharing food with an infected person or through mosquito bites. About 20% of adolescents knew someone who had HIV and just one-third knew of someone who had died or people said had died of AIDS. Self-perceived risk of HIV was low among the respondents with about two out of three adolescents saying they felt not at risk.

Although the research sought respondents' attitudes about sexuality, the responses were not used to relate to sexual behaviour, making it impossible to deduce the effects of these attitudes on sexual behaviour. Additionally, knowledge of HIV/AIDS in the research was not explored deeply enough, neither was there an attempt to find the levels of knowledge across the various background characteristics. More importantly, knowledge was not used to relate to sexual behaviour.

In a study of HIV/AIDS in tertiary institutions in Ghana, Anarfi and Awusabo-Asare (2002) found that awareness of HIV/AIDS among the students was almost universal. Although the study enquired into self-perceived risk and knowledge of a person who had died of HIV/AIDS, this information was not used to examine sexual behaviour.

Using self-administered questionnaire, Buga, Amoko and Ncayiyana (1996) examined the sexual behaviour, knowledge and attitudes to sexuality among adolescent

school girls in Transkei, South Africa. Of the 1,072 respondents, 75% were sexually active, with 19% of them having initiated sexual intercourse before menarche. With regard to attitudes, the study reported that majority of the respondents disapproved of premarital sex, but the effects of these responses on sexual behaviour were not examined. The use of self-administered questionnaire on the other hand is more likely to give respondents greater room to manipulate the information they give to a researcher.

Ndubani and Höjer (2001) have also studied sexual behaviour and sexually transmitted diseases among young men in Zambia. The study involved interviews and focus group discussions with a purposely selected sample of 126 young men aged between 16 and 26 in rural Zambia. In this study, sexual behaviour was measured by asking the respondents to give the number of girlfriends (regular sexual partners) they had had both in the past year and at the time of interview.

The study revealed a wide range of perceptions among the respondents. One of these was the belief that it is good to experiment with sexual activity before one marries, and that one should not eat the same type of food every day, implying that one should not stay with the same partner all the time. Others wrongly perceived that using condoms frequently would render them impotent. However the study failed to examine the effects of these perceptions on sexual behaviour.

2.7 METHODOLOGICAL APPROACHES TO KNOWLEDGE, ATTITUDE AND SEXUAL BEHAVIOUR STUDIES

This section takes a look at some of the methodological approaches that have been used in earlier studies of knowledge, attitudes and sexual behaviour. The insights from their shortcomings will inform the approach to the present study.

A comparative study of female adolescent and reproductive change was carried out at Cape Coast and Makrong by Kwankye (2005). Variables such as age at first sex, first marriage, first pregnancy and first birth were examined as a way of finding out any changes that might have occurred in the recent past. It came out that a little over a third of the female adolescents had ever had sex at the time of the survey. The percentage of adolescents who had had sex increased with age. The peak period of first sexual activity was within 15-19 years where as high as 82% of the respondents indicated having had sexual intercourse for the first time. Overall, the study found a possible decline in the age at first sexual intercourse for respondents in both study areas. The study however focused on only females and also used only descriptive mode of analysis.

Among Nigerian university students studied by Aluede et al. (2005), it was found that male students had significantly higher knowledge about HIV/AIDS than female students. Surprisingly, younger students also had significantly higher knowledge than their older counterparts. Moreover, knowledge also varied according to the field of study of the students, with students from the faculty of health sciences having the highest knowledge. The research was however restricted in the sense that it was carried out in a school environment, making generalisation of the findings not possible. It also focused on only the knowledge of the students, with no report on their attitudes or sexual behaviour.

Another Zambian study (Malibata, 1994) looked at the sexual practices of adolescents in three secondary schools. The study showed that almost half of the respondents were involved in sexual intercourse. Other practices included oral sex, anal sex, putting objects into the anus and placing objects into the vagina. A significant proportion of the girls practised dry sex by using toilet roll or cloth. The study however failed to elicit information on the knowledge and attitudes towards HIV/AIDS and sexuality, let alone to talk of finding the relationship between knowledge and attitudes and sexual behaviour.

In Haiti, a study designed to examine sexual behaviours and identify potential predictors of HIV/AIDS-related sexual behaviour among youth was undertaken by Hoschneider and Alexander (2003). Data was gathered from a cross-sectional survey conducted with 491 sexually active students aged 15-19 years attending primary and secondary schools. Data was analysed using multiple logistic regression procedure.

The study found that only 18% of the sexually active adolescents reported always using condoms while 27% reported having used a condom the last time they had sex. Over 40% had had three or more lifetime partners. Findings from the multivariate logistic regression analyses revealed that consistent condom use, condom use at last sexual intercourse, and fewer lifetime partners were significantly associated with high levels of self-efficacy to communicate about HIV/AIDS or use a condom. The study however failed to elicit information about knowledge of HIV/AIDS, although information on attitudes and sexual behaviour was captured.

Wodi's study (2005) examined knowledge of HIV/AIDS, attitudes and opinions among adolescents in the River State of Nigeria. The study was based on a 28-item

questionnaire to secondary school students. The study found that although 93% of respondents had heard of HIV/AIDS, it did not appear to improve their knowledge and perceptions or translate into safe sexual behaviour. Over a third of the respondents believed that a person could get infected with HIV through mosquito bites. The study however was based on a convenience sample and its findings therefore cannot be said to be quite representative. The items in the questionnaire were also too small to promote deeper exploration of the issues. It also lacked a qualitative component. The link between knowledge and sexual behaviour was also only assumed and not proved by empirical evidence.

Hallman (2004) used household survey data to investigate how relative socioeconomic status influenced the sexual behaviours of young women and men aged 14-24 years in KwaZulu-Natal Province. Logistic regression was used as the mode of analysis. Relative socioeconomic disadvantage was found to significantly increase the likelihood of a variety of unsafe sexual behaviours and experiences, including increase in female odds of exchanging sex for money or goods; it also raised female chances of experiencing coerced sex, and male and female odds of having multiple sexual partners in the year before the survey. Socioeconomic disadvantage also lowered female chances of secondary abstinence in the year before the survey, female and male age at sexual debut, condom use at last sex, and communication with most recent sexual partner about sensitive topics. The study however did not have a qualitative component, which would have helped to explore deeper the links between relative socioeconomic status and sexual behaviour.

Among unmarried youth in Ghana, Karim et al. (2003) studied the factors associated with their elevated risks of pregnancy and sexually transmitted infections. A nationally representative sample of 3,793 unmarried youths aged 12-24 years was surveyed. The study reported that 36% of the males and 41% of the females had ever had sex. The median age at first sexual intercourse was 17 years. Results of the multivariate analysis showed that increased educational attainment was associated with an elevated likelihood of being sexually experienced and with having had a greater number of partners. In contrast, youth who were currently attending school were less likely than others to have ever had sex.

Residence in a rural setting was associated with an increased likelihood of being sexually initiated among males. Female respondents who were not staying with their parents were more likely than those living in two-parent households to be sexually experienced. With regard to condom use, only 18% of males and 27% of females reported having used a condom during their first sexual encounter, although condom use at last sex was higher (43% and 37% respectively). Increasing levels of self-efficacy with regard to condom use and partner communication were strongly associated with condom use during last sex and with consistent use among youth of both genders. The study however relied on only quantitative data, and therefore missed out on qualitative information which could have enhanced and validated its results.

An ethnographic study of sexual behaviour among male adolescents in Zambian secondary schools using a sample size of 64 found most of the public school mates to be sexually active with one or more girlfriends (Feldman, 1993). Few of the males used condoms or practised other safe sex behaviours. Condoms were seen as being ineffective

in preventing HIV, and condoms from the United States were generally thought to have holes put into them (intentionally). The study however had a very small sample, making its findings most likely to be unrepresentative. The research also covered only males. Thus the perspectives of females were missing from the analysis. Another shortcoming was that it was also limited to only adolescents in school.

In Iran, a population-based study of 1,385 males aged 15-18 years (Mohammadi, 2006) assessed beliefs and knowledge regarding reproductive health, and sexual activity. Quantitative measurements of knowledge about reproductive physiology, contraceptives and condoms were determined. A major breakthrough in this study was the quantitative measurement of attitude towards premarital sex, using a five-point Likert scale. In analysing the data, T-tests and chi-square tests were employed for bivariate analysis, while logistic regression was used for multivariate analysis.

Factors found to be associated with sexual experience included being older, not currently in day school and those displaying low levels of religiosity. Logistic regression revealed the most significant predictors of sexual experience were alcohol consumption and access to satellite television. Moreover, adolescents who were older, those who smoked and those with more permissive attitudes towards sex were more likely than others to have engaged in sexual activity.

Some limitations of the study however were that the questionnaires were self-administered and therefore more vulnerable to manipulation by respondents as well as reporting bias. It was also a quantitative-only study, without the opportunity to engage participants in qualitative or in-depth discussions of youth norms or behaviours and experiences. Moreover, the questionnaires did not attempt to identify the precise sexual

experiences of the young men, but rather lumped together practices such as kissing, hugging and actual penetrative sex in the same category. This is both questionable and least desirable.

Adih and Alexander's study (1999) focused on the psychological and behavioural factors that influence condom use to prevent HIV infection among young men in Ghana. The research involved a community-based sample of 601 young men aged 15-24, and was based on constructs from the Health Belief Model and Social Learning Theory as its conceptual framework. Multiple regression analyses revealed the significant predictors of condom use as perceived susceptibility to HIV infection, perceived self-efficacy to use condoms, perceived barriers to condom use, and perceived social support. However, the study focused on only young men thereby leaving out young women, who are increasingly being affected by HIV/AIDS. It was also purely quantitative-based; therefore qualitative insights into factors affecting condom use were not explored.

In a study to examine the factors influencing adolescent behaviour and their knowledge and perceptions of the risk of contracting STDs/HIV/AIDS in Kenya, Toroitich-Ruto (1997) found that sexual activity started early among the adolescents. Multivariate analysis showed that the factors influencing the onset of sexual activity were age, religion, type of residence, education and career expectations, type of school attended, performance in school, parent's marital status and correct knowledge of the ovulatory cycle.

The study further reported that although the adolescents were knowledgeable about sexually transmitted infections and HIV/AIDS, they were not using condoms for

prevention. Reasons for non use of condoms were however not explored. The study was also based on secondary data, whose reliability could not be ascertained.

Using data from the 1998 South Africa Demographic and Health Survey (DHS), Camlin and Chimbwete (2003) found association between knowledge that condoms can prevent HIV/AIDS and condom use. Other predictors of condom use were sex with a non-marital partner, higher educational level, younger age, and urban residency. A limitation of the study was that it was based on secondary data, and there was also no qualitative component to the research. Moreover, it focused on only women, thereby leaving men out.

Using data from Mexico, Thailand and South Africa, Stewart et al. (2001) examined the notion of whether school programs lead to increased safe behaviours among students, or whether they are only able to increase knowledge and positive attitudes about HIV/AIDS. The study focused on selected key variables including HIV knowledge, attitudes towards people living with HIV/AIDS, confidence in acquiring and using condoms, and reported sexual behaviour. The study revealed a statistically significant association between age of the students and the likelihood of sexual intercourse. In all three sites more boys than girls were sexually experienced. Among those who had ever had sex, the proportion of those who had sex by age 15 ranged from 92% in Mexico to 8% in Thailand. The report however was based on only descriptive analysis, and also lacked a qualitative aspect. It was also a school-based study, leaving out young people who were not attending school. The relationship between knowledge, attitudes and sexual behaviour was also not examined.

In another study, Isiugo-Abanihe (2004) examined married men and women's perceptions of AIDS, and the effects of socioeconomic factors on their extramarital sexual behaviour in Nigeria. The study reported that about 54% of the men and 39% of the women had had extramarital relations. Education was found to be positively associated with extramarital relations. Respondents who knew that having multiple sexual partners was a risk factor for HIV/AIDS were less likely to have had extramarital relations in the past week, thus "suggesting an important link between knowledge and behaviour" (Isiugo-Abanihe, 2004:123-124).

However, the knowledge of HIV/AIDS was determined by only one question, that is, whether a person knew that having multiple partners is a risk factor for the disease. This cannot be said to be an adequate measure of knowledge. The need for a research that uses many questions to measure knowledge is therefore important. The attitude component also was not given adequate coverage. Finally, there was no qualitative aspect to the research. Therefore, in-depth analysis of the issues and themes of the research was not done.

Awusabo-Asare's (2005) study of the perceptions and risk-taking behaviour of young people on pregnancy and HIV/AIDS infection was based on data from 16 focus group discussions and 102 in-depth interviews among adolescents aged 12-19 years in four districts in Ashanti, Greater Accra and Northern Regions. However, it was purely a qualitative study and no efforts were made to quantitatively measure the attitudes and perceptions. Moreover, no efforts were made to relate the attitudes to sexual behaviour. The only evidence of a plausible link between knowledge and sexual behaviour was what the author described as: "some of the young people were prepared to take risks (in sexual

behaviour) in spite of their knowledge about HIV infection and pregnancy” (Awusabo-Asare 2005: 219).

Dlali (2004) also undertook a study of the attitudes, beliefs and knowledge of South African university students on HIV/AIDS. The results showed that the students were very much aware of the causes, symptoms, modes of transmission and prevention strategies of HIV/AIDS. Some however believed that traditional healers could cure the disease. The research also found that seeing a person with HIV/AIDS played a significant role in influencing young people’s sexual behaviour. A major drawback of the study was the use of a very small and convenient sample of only 20 students, making its findings woefully unrepresentative. The study was also purely qualitative and did not have any quantitative aspect to make its findings more realistic.

Criticising the use of quantitative techniques in understanding sexual behaviour, Temin et al (1999) sought to study sexual behaviour and perceptions of Nigerian adolescents through purely qualitative procedures. Focus group participants were asked to comment on the extent of sexual activities among their peers. The participants agreed that sexual activity was common among their peers, with males more likely to state that levels of sexual activity were higher among males than females, and females felt the reverse was true. However, a study of sexual behaviour in this way is most likely to be incomplete because it does not give a clear picture of the extent of sexual behaviour. For example, the perceptions of the level of sexual activities among peers could not be used to relate to respondents’ own sexual behaviour. The best practice is therefore to combine qualitative and quantitative methods.

A study of street children's vulnerability to sexually transmitted diseases (Anarfi, 1997) observed that most of the street children were sexually active, with first sexual experience occurring on the street and with prostitutes. Some of the girls engaged in sexual activity for money in order to survive. Some of them had multiple sexual partners while others experimented with unconventional sexual practices including homosexual acts.

Knowledge of HIV/AIDS among them was quite low, as a quarter could not name any mode of transmission of the disease. Others also wrongly mentioned 'eating bad foods', 'use of toilet', 'touching someone with AIDS', 'witchcraft' as some possible causes of the disease. About 53% of the respondents had experienced sexual intercourse, with females being a little more likely than males to be sexually active. The mean age at first sexual intercourse was 14.5 years for both sexes. Although 83% of them knew about condoms, only 28% had ever used them. This was described as not surprising since only half of them said condoms could protect them from AIDS. About 23% of both sexes said it was not possible for a person to go without sex, with boys more likely than girls to hold this attitude.

One limitation of the study was the use of a purposive sampling procedure in selecting respondents, which means that not every potential respondent was given a fair and equal chance of being selected. The relationship between knowledge and attitude on one hand and sexual behaviour were also not explored. Bringing the research to children as low as eight years also raises a number of ethical questions.

In Nigeria, Slap (2003) explored the issue of whether family structure (polygamous or monogamous) is associated with sexual activity among students. It was a cross

sectional school survey with a two-stage, clustered sampling design, involving 4218 students aged 12-21 years attending 39 schools in Plateau State, Nigeria. The independent variables of interest included sexual history, age, sex, religion, family polygamy, educational level of parents, having a dead parent, and sense of connectedness to parents and school. The main result was that 34% of the students reported ever having sexual intercourse, and 41% reported a polygamous family structure. The research found that sexual activity was more common among students from polygamous families than monogamous families.

However, the study was limited in a number of ways. These included the non-random selection of participants in some schools, the exclusion of a large number of respondents (1,513) due to reasons such as giving of inconsistent responses, with no replacements found for them. Finally, the study collected data from only adolescents in school, and therefore the results cannot be generalised to cover all adolescents.

In Kenya, Nzyuko et al. (1997) studied the HIV-related risk behaviours of adolescents frequenting truck stops along the Trans-Africa Highway. It was based on a cross-sectional study of 200 adolescents aged 15-19, using a standardized questionnaire. The study uncovered that 93% of girls and 87% of boys had ever had sexual intercourse. Forty-six percent of the girls reported usually having sex with truck drivers. Seventy-eight percent of the girls reported usually exchanging sex for gifts or money, while 59% of the boys also usually exchanged gifts or money for sex. The report found that respondents who engaged in these risky behaviours were generally less likely to be in school, less likely to live with relatives and less likely to report getting along well with their parents. The study was however limited by the absence of a qualitative component

as well as its focus on only 15-19 year-olds, leaving out those aged 20-24, who also form an essential part of the youth

In Zambia, Chela (1992) examined the HIV knowledge, attitudes and practices of street adolescents aged 15-19 years. The study was based on the opinions of street adolescents who participated in group discussions. The study found out that although there was public awareness about AIDS, there were however instances of poor knowledge and misconceptions. Most adolescents also practised unsafe sex. Most did not use condoms because they said it interfered with sexual pleasure. The study however was based on only qualitative analysis, and therefore missed the essential contribution that a quantitative element would have made to it.

2.8 THEORIES AND MODELS OF SEXUAL BEHAVIOUR

Several theories and models have been used to study and understand sex-related behaviour, particularly in the context of HIV/AIDS. Many HIV/AIDS prevention programmes also rely on some of the insights provided by these theories. This review examines some of the most frequently used theories and models of sexual behaviour from varied perspectives. These theories can generally be divided into three. First are theories that focus on individual psychological process such as attitudes and beliefs; those that extend to the social environment, and those that address broader structural and environmental concerns.

2.8.1 Individual Level Theories

These are theories that focus basically on the individual. In so far as HIV transmission is primarily a matter of one's behaviour, theories about how individuals change their behaviour have provided the foundation for most HIV prevention efforts worldwide. Nearly all the psychosocial theories originated in the West but have been used for HIV/AIDS studies internationally, albeit with mixed results (King, 1999). A common thread running through all such theories is the assumption that behavioural changes occur by altering potential risk-producing situations and social relationships, risk perceptions, attitudes, self-efficacy beliefs, intentions and outcome expectations (Kalichman, 1997, cited in King, 1999). Some of these theories include the Health Belief Model, Social Cognitive Theory, the Theory of Planned Behaviour, and the AIDS Risk Reduction Model.

2.8.1.1 Social Cognitive Theory

The Social Cognitive Theory, also known as Social Learning Theory, was developed by Bandura. The theory asserts that providing information alone is not sufficient to change behavior, rather sustained behavior change requires the skills to engage in the behavior and the ability to use these skills consistently and under difficult circumstances (Population Council, 2006).

The theory explains that human behaviour is dynamic and reciprocal in which personal factors, environmental influences, and behaviour continually interact (Rimer and Glanz, 2005). It is based on the premise that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions

(Polis and Upenieks, 2003). Thus people serve as models of human behaviour and that some (significant others) are capable of eliciting behavioural change in certain individuals, based on the individual's value and interpretation system (Bandura, 1986, cited in Kerrigan, 1999). In other words, the theory focuses on the important roles played by vicarious, symbolic, and self-regulatory processes in psychological functioning and looks at human behaviour as a continuous interaction between cognitive, behavioural and environmental determinants (Bandura, 1977, cited in King, 1999).

Supportive cultural values and government policies, and sustainable source of information are presumed to be environmental and structural variables respectively necessary for behaviour change (Asiimwe, Kibombo, and Neema, 2003).

2.8.1.2 Theory of Reasoned Action

The Theory of Reasoned Action, advanced in the mid-1960s by Fishbein and Ajzen, is based on the assumptions that human beings are rational and make systematic use of the information available to them, that people consider the implications of their actions before they decide to engage or not engage in a given behaviour, and that the behaviours being explored are under volitional control (Population Council, 2006; Fishbein, Middlestadt and Hitchcock, 1994, cited in Denison, 1996). The theory specifically focuses on the role of personal intention in determining whether a behaviour will occur. A person's intention is a function of two basic determinants:

1. Attitude toward performance of the behaviour (e.g. whether engaging in the behaviour is considered good or bad), and

2. The individual's belief in the subjective norms that dictate societal expectations regarding that behaviour (e.g. what the individual believes family and friends think they should do) (Brindis, Sattley, and Mamo, 2005).

Normative beliefs play a central role in the theory, which generally focus on what an individual believes other people, especially influential people, would expect him/her to do. The theory states that one of the influential elements for behavioural change is an individual's perception of social norms or beliefs about what people who are important to the individual do or think about a particular behaviour (Fishbein and Ajzen, 1975, cited in Kerrigan, 1999). For example, if among friends abstinence until marriage is perceived as a norm, there is much higher probability that everyone in the group will adapt this behaviour (Polis and Upenieks, 2003).

However, some limitations of the theory include its inability, due to its individualistic approach, to consider the role of environmental and structural issues and the linearity of the theory components (Kippax and Crawford, 1993, cited in Denison, 1996).

2.8.1.3 Stages of Change Model

This model was developed early in the 1990s specifically for smoking cessation by James Prochaska and Carlo DiClemente. It has as its basic premise the fact that behaviour change is a process, not an event (Rimer and Glanz, 2005). The model thus posits five stages that individuals or groups pass through when changing behaviour:

1. Pre-contemplation: Individual has the problem (whether he or she recognises it or not) and has no intention of changing.

2. Contemplation: Individual recognises the problem and is seriously thinking about changing.
3. Preparation for Action: Individual recognises the problem and intends to change the behaviour within the next month.
4. Action: Individual has enacted consistent behaviour change (e.g., consistent condom usage) for less than six months.
5. Maintenance: Individual maintains new behaviour for six months or more.

In order for an intervention to be successful, it must target the appropriate stage of the individual or group (King, 1999). The stages are however not considered to be linear; rather, they are components of a cyclical process that varies for each individual (Rimer and Glanz, 2005).

However, as a psychological theory, the Stages of Change focuses on the individual without assessing the role that structural and environmental issues may have on a person's ability to enact behaviour change. In addition, since the stages of change presents a descriptive rather than a causative explanation of behaviour, the relationship between stages is not always clear (King, 1999).

2.8.1.4 AIDS Risk Reduction Model

The AIDS Risk Reduction Model (ARRM) is one of several “stages of change” models. Developed by J.A. Catania, it provides a framework for explaining and predicting the behaviour change efforts of individuals specifically in relation to the sexual transmission of HIV/AIDS. It posits that change is a process, and that individuals move

from one step to the next as a result of a given stimulus (Population Council, 2006). In the ARRM, an individual must pass through three stages:

STAGE 1: Behaviour labelling: Recognising and labelling one's behaviour as high risk.

STAGE 2: Commitment to change: Making a commitment to reduce high-risk sexual contacts and to increase low-risk activities.

STAGE 3: Taking action: This stage is broken down into three phases: information seeking; obtaining remedies, and enacting solutions.

In addition to these stages, the authors of the model identified other internal and external factors that may motivate individual movement across stages. For instance, aversive emotional states (e.g., high levels of distress over HIV/AIDS or alcohol and drug use that blunt emotional states) may facilitate or hinder educational campaigns, an image of a person dying from AIDS, or informal support groups, may also cause people to examine and potentially change their sexual activities (Denison, 1996).

A general limitation of the model is its focus on the individual. For instance, many women in an ARRM-based study in Kampala, Uganda, felt at risk for HIV, not due to their own behaviour but because of the behaviours of their sexual partners-an issue the women reported was outside of their control (McGrath et al., 1993, cited in Denison, 1996).

2.8.2 SOCIAL THEORIES AND MODELS

In contrast to the individual theories, social theories and models do not focus on psychological processes as the basis for sexual behaviour, but rather see individual behaviour as determined by social norms, relationships and gender imbalances. This is

because it was realised that focusing only on individual psychological process overlooks the interactive relationship of behaviour in its social, cultural, and economic dimension, thereby missing the possibility to fully understand crucial determinants of behaviour. Societal norms, religious criteria, and gender-power relations infuse meaning into behaviour, enabling positive or negative changes (King, 1999). Some of the theories under consideration here include the Diffusion of Innovation Theory, Theory of Gender and Power, and Social Network Theory.

2.8.2.1 Diffusion of Innovation Theory

This theory is credited to Everett Rogers, and explains how ideas, products, and social practices that are perceived as new spread throughout a society or from society to another (Rimer and Glanz, 2005). The theory posits that certain individuals (opinion leaders) from a given population act as agents of behavioural change by disseminating information and influencing group norms in their community (Rogers, 1983, cited in Kerrigan, 1999).

Rogers described the process of adoption of a new behaviour as a classic “bell curve”, with five categories of adopters: innovators, early adopters, early majority adopters, late majority adopters, and laggards (Rimer and Glanz, 2005). By identifying the characteristics of people in each adopter category, practitioners can more effectively plan and implement strategies that are customized to their needs (Rimer and Glanz, 2005).

Interventions using this theory take into account four elements: the innovation, the communication channel, the social system, and time. If enough key leaders adopt the

desired behavior—such as remaining faithful to a spouse—a new norm can be established in the community and can thus be disseminated widely through the social networks and thereby have a better chance of being adopted by the community.(Rogers, 2000, cited in Population Council, 2006).

2.8.2.2 Theory of Gender and Power

Developed by R.W. Connell, the Theory of Gender and Power addresses the wider social and environmental issues relating to women, such as gender-based power imbalances, in contrast to the psychosocial theories which are essentially gender-blind (King, 1999). It is a social structural model that seeks to understand women's risk as a consequence of different social structures. It argues that self-protection by women is often swayed by economic factors, abusive partnerships, and the socialization of women to be sexually passive or ignorant.

The theory can help guide interventions with both women and men incorporating the structure of gender relations, societal definitions of masculinity and femininity, and economic power (Connell, 1987, cited in Population Council, 2006). In applying the theory, it is assumed that gender-based inequalities and disparities in cultural expectations that arise from each of the three structural components produce differing risk factors that shape teen risk for unintended pregnancy and STIs ((Brindis, Sattley, and Mamo, 2005).

2.8.2.3 Social Network Theory

The Social Network Theory looks at social behaviour not as an individual phenomenon but through relationships, and appreciates that HIV risk behaviour, unlike many other health behaviours, usually directly involves two people (Morris, 1997, cited

in King, 1999). With respect to sexual relationships, social networks focus on both the impact of selective mixing (i.e., how different people choose with whom they mix with), and the variations in partnership patterns (length of partnership and overlap) (Population Council, 2006). The intricacies of relations and communication within the couple (the smallest unit of the social network) are critical to understanding HIV transmission in this model. So also are the scope and character of one's broader social network (those who serve as reference people and who sanction behavior) key to comprehending individual risk behaviour (Auerbach, 1994, cited in King, 1999).

In sum, social theories and models see individual behaviours enshrined in their social and cultural context. Instead of focusing on psychological processes, they rather tend to focus on social norms, relationships and gender imbalances that create the meaning and determinants of behaviour and behaviour change (King, 1999).

2.8.3 STRUCTURAL AND ENVIRONMENTAL THEORIES

Theories focusing on structural and environmental perspectives argue that determinants of sexual behaviour can be seen as a function not only of individual and social but of structural and environmental factors as well (Tawil, 1995, cited in King, 1999). These factors include civil organisational elements as well as policy and economic issues.

2.8.3.1 Theory for Individual and Social Change or Empowerment Model

This theory asserts that social change happens through dialogue to build up a critical perception of the social, cultural, political and economic forces that structure

reality and by taking action against forces that are oppressive (Parker, 1996, cited in King, 1999). In other words, empowerment should increase problem solving in a participatory fashion, and should enable participants to understand the personal, social, economic and political forces in their lives in order to take action to improve their situations (Israel, 1994, cited in King, 1999).

Interventions using empowerment approaches must consider key concepts such as beliefs and practices that are linked to interpersonal, organisational and community change. Intervention activities can address issues at the community and organisational level such as central needs the community identifies, and any history community organising among community members. The theory also prescribes including participants in the planning and implementation of activities (King, 1999).

2.8.3.2 Social Ecological Model for Health Promotion

According to this model, patterned behaviour is the outcome of interest and behaviour is viewed as being determined by the following:

1. Intrapersonal factors - characteristics of the individual such as knowledge, attitudes, behaviour, self-concept, skills;
2. Interpersonal processes and primary groups formal and informal social network and social support systems, including the family, work group and friendships;
3. Institutional factors - social institutions with organizational characteristics and formal and informal rules and regulations for operation;
4. Community factors - relationships among organizations, institutions and informal networks within defined boundaries;

5. Public policy - local, state and national laws and policies (McLeroy, et. al., 1988).

The theory acknowledges the importance of the interplay between the individual and the environment, and considers multi-level influences on unhealthy behaviour (Choi, 1998, cited in King, 1999). In this manner, the importance of the individual is de-emphasised in the process of behavioural change.

2.8.3.3 Socioeconomic factors

Several studies have shown that socioeconomic factors such as poverty and unemployment have a strong influence on individual sexual behaviour. Already, those countries with the lowest standards of living are also the ones with the highest HIV incidence (Sweat, 1995; Tawil, 1995). Within both rich and poor countries, poverty is associated with HIV, and HIV intensifies poverty (Fredricksson and Kanabus, 2005).

The proposed mechanisms for this relationship include non-cohabitation between young married couples which can arise from critical economic situations forcing urban migration, seasonal work and truck driving, sex work, civil disturbances and war (King, 1999). Civil disturbance and war lead to displaced and refugee populations who not only lose their social and familial support systems but become highly vulnerable to HIV owing to intense social and economic strain in an alien culture (Spraos, 2008; UNEP/UNAIDS, 2008). In such situations, HIV concerns take a very low priority in a risk hierarchy, and any previous or planned efforts for the control of HIV transmission are disrupted, if not destroyed.

In sum, social theories and models incorporate the concept of addressing enabling environments and contextual factors. Elements of these models and theories include:

Moving away from people as objects of change, towards people and communities as agents of change; shifting from delivering messages towards supporting dialogue; moving away from a focus on individual behaviour towards a focus on social norms, policies, culture and supportive environments; emphasis on negotiation and partnership instead of persuasion, and finally moving away from external technical expertise towards integrating communities in assessing issues of concern (Parker, 2004, cited in Uckrow, 2007).

2.9 CONCEPTUAL FRAMEWORK FOR THE STUDY

The preceding sections have established the existence of several theories and models of sexual behaviour. These theories exist at three levels namely, the individual, social environment structural and environmental levels. Of the three, however, it is that of the individual that fit into the philosophy of the present research in view of its focus on beliefs and attitudes, risk perceptions, self-efficacy and intentions. The remaining two focus on themes that are not in tandem with the focus of the research. For example, social theories concentrate on social norms, relationships and gender imbalances, and largely ignore the importance of beliefs and attitudes. Structural models also emphasise on even a wider set of themes such as civil organisation, policy and economic issues.

However, among the individual level theories, the Health Belief Model is adopted and adapted for the present study. This is because it is the one that directly seeks to link attitudes, beliefs, perceptions and knowledge to sexual behaviour. The remaining individual level theories detour to other considerations that make them inappropriate for the study. For example, the Social Cognitive Theory emphasises on learning and

observing from others as an important means of changing one's behaviour. The Theory of Reasoned Action on the other hand focuses on social norms and beliefs about what people expect a person to do, and not about the disease (HIV/AIDS) per se. Finally, the Stages of Change and the AIDS Risk Reduction Model merely describe the stages that people go through when changing behaviour.

The study is based on a modified form of the Health Belief Model as its conceptual framework. The model is one of the psychological models of health behaviour and seeks to explain and predict health behaviours by focusing on the attitudes and beliefs of individuals (Population Council, 2006; King, 1999). The model thus sees health behaviour is a function of knowledge and attitudes or perceptions about the disease. In other words, what people know and believe about a health condition determines or influences their behaviour towards it. People's knowledge and attitudes about HIV/AIDS therefore influence their sexual behaviour (Population Council, 2006; University of Twente, 2004; King, 1999). The attitudes or perceptions in the model that influence behaviour are:

1. Perceived susceptibility to HIV/AIDS (whether one feels at risk of contracting HIV/AIDS).
2. Perceived seriousness or severity of HIV/AIDS (whether one feels that getting HIV/AIDS will seriously affect his or her life).
3. Perceived benefits of taking preventive action (whether one feels that abstinence or condom use for instance is effective in preventing HIV/AIDS).

4. Perceived barriers to preventive action (the person's assessment of the negative aspects of taking a particular preventive action, for example, that abstinence makes one odd or condom use leads to reduction in sexual pleasure).
5. Cues to action (events that influence a person's preventive behaviour, such as witnessing the death or illness of a close friend or relative caused by AIDS).
6. Self efficacy (a person's perceived confidence in his or her ability to successfully perform a specific preventive behaviour) (Poureslami, Roberts and Tavakoli, 2001).

The model was developed in the 1950s as part of efforts by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programmes. It has since become one of the most widely used approaches to understanding health behaviours, including sexual behaviour and HIV/AIDS, particularly in developed countries (Denison, 1996; Agha, 2002). Figure 2.9.1 shows the original Health Belief Model.

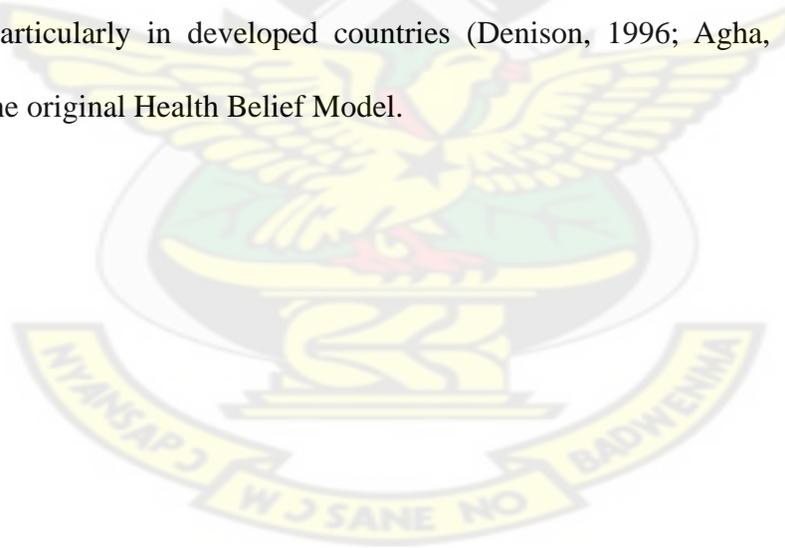
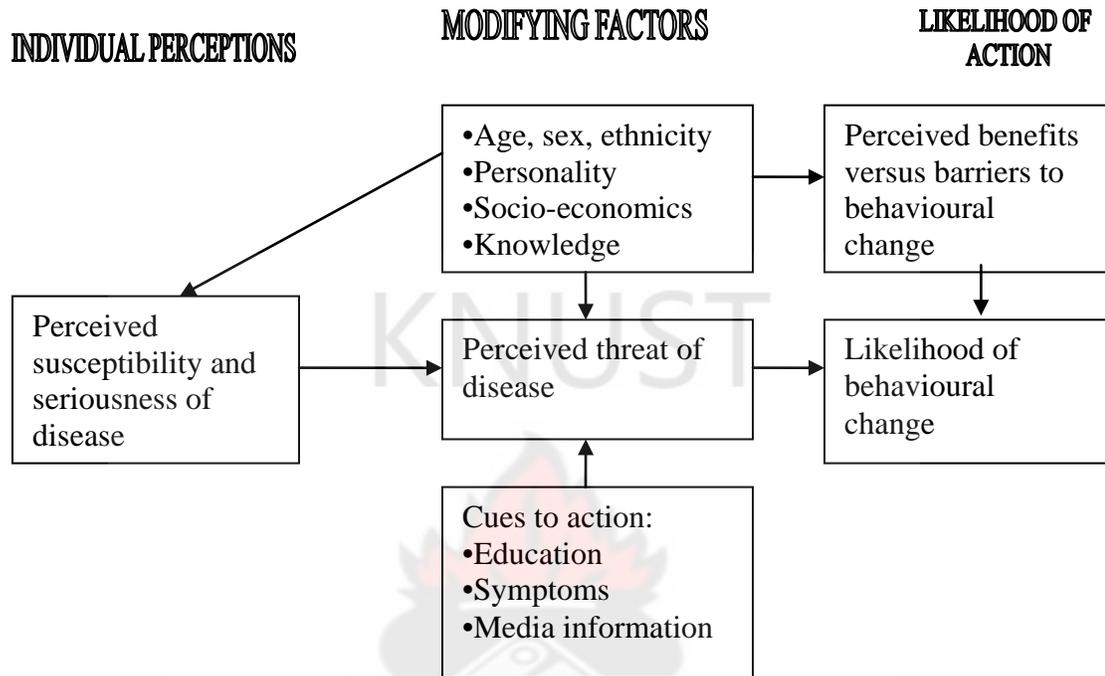


Figure 2.9.1 The Health Belief Model



Source: Glanz, Rimer, and Lewis, (2002:52).

Figure 2.9.1 shows that the variables are organised into three main categories: individual perceptions, modifying factors, and likelihood of action. Individual perceptions are factors that affect the perception of illness or disease; they deal with the importance of health to the individual, that is, perceived susceptibility and perceived severity of the disease. The likelihood of action refers to the likelihood of taking the recommended preventive health action such as abstinence, limiting number of sexual partners or using condoms. Modifying factors include demographic variables, perceived threat, and cues to action. In effect, an individual must perceive a threat to his/her health, must be cued to action, and his/her perceived benefits must outweigh his/her perceived

benefits in order for the resultant action (sexual behaviour) to be taken (Brindis, Sattley and Mamo, 2005; Brown, 1999).

However, in this research the original model has been modified to take into consideration a number of factors. First, equal recognition is given to the role of knowledge of disease (that is, HIV/AIDS) as much as that of attitudes, in influencing sexual behaviour, since the original model overemphasises attitudes while downplaying the knowledge factor.

Another modification is to make room for the influence of external factors such as the role of culture, peer pressure, economic considerations, urbanisation and modernisation, in addition to knowledge and attitudes, in examining the factors affecting sexual behaviour, particularly in the context of Sub-Saharan African research. As it has been clearly demonstrated in the literature, these external factors influence sexual behaviour either directly (Madise and Hinde, 2003) or indirectly through their influence on knowledge and attitudes. For example, young people may be kept from learning about sexuality and health issues because of cultural and religious beliefs (Cornejo and Silva, 2004), and therefore be poorly informed about HIV/AIDS and how to protect themselves. This modification responds appropriately to the criticism levelled against the Health Belief Model as being too simplistic—focusing on only knowledge and attitudes—without looking at factors beyond the individual level (Adedimeji, 2005; Eaton, Flisher and Aarø, 2003; Smith, 2003; Denison, 2002; Freudenthal, 2001).

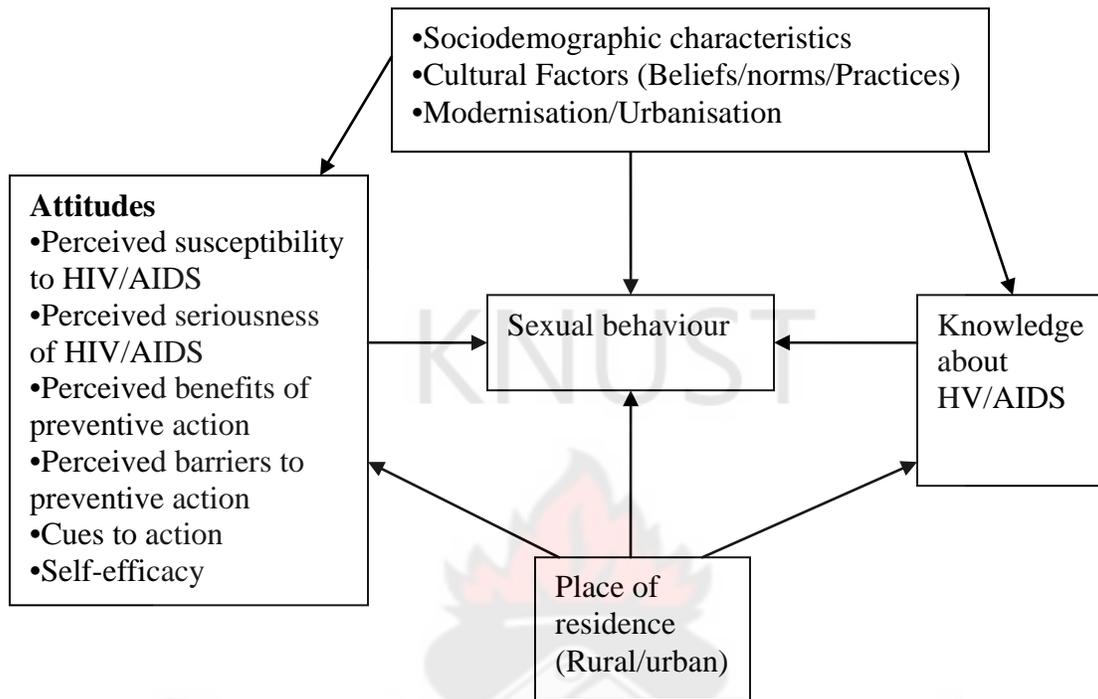
Another major modification is the highlighting of the spatial (rural/urban) component. This is because it is anticipated, from the dimensions of the problem in the study area, that spatial differences in knowledge, attitudes and sexual behaviour, and this

must find expression in the conceptual framework. The inclusion of the spatial aspect further enhances the geographical nature of the study. The original diagram as shown above has also been expanded to include the concept of self-efficacy, a variable which was added later to the model (Population Council, 2006), and therefore does not appear in the original model. Finally, following the trend of previous researchers who based their studies on the model, the attitude variables have also been reorganised to stand on their own, instead of seeking to suggest linkages among them.

Figure 2.9.2 therefore emerges as the conceptual framework for the present study taking into consideration the overall theme and scope of the research. The diagram indicates that knowledge and attitudes about HIV/AIDS influence sexual behaviour. Knowledge and attitudes themselves depend on several factors such as a person's sociodemographic/background characteristics, cultural factors and the role of modernisation and urbanisation. Some of the sociodemographic factors include sex, age, education, income, employment, ethnicity, religion, living arrangements, etc. These factors shape knowledge and attitudes directly. The framework also portrays the spatial dimension of the research in terms of place of residence (rural/urban). It indicates that place of residence influences knowledge, attitudes and sexual behaviour.

The conceptual framework is appropriate for the study because it captures the general nature of HIV/AIDS prevention programmes in Ghana which emphasise public education, awareness creation and attitudinal changes about the disease, with the expectation that these will positively influence sexual behaviour.

Figure 2.9.2 Modified Health Belief Model



Source: Adapted from Glanz, Rimer, and Lewis (2002:52).

2.10 SUMMARY

A number of observations emerge from the literature review concerning knowledge of HIV/AIDS, attitudes and sexual behaviour. In general, many people know about HIV/AIDS as a disease. Nevertheless, knowledge of specific issues pertaining to the disease is low, leading to some misconceptions, misinformation and negative attitudes towards the disease. There are variations in knowledge by place of residence, gender and education. A significant number of young people are sexually active, with sexual experience beginning at very early ages for some. Some of the factors associated with

sexual behaviour and HIV/AIDS include education, parental factors, poverty, peer pressure, cultural norms and practices.

Nevertheless, most of the studies have treated knowledge, attitudes and sexual behaviour largely as discrete items or outcomes, without analysing the empirical relationships between them. Those that sought to establish some relationships used either purely qualitative or quantitative methods of analysis. Still others lacked a clear conceptual framework. This has made it difficult to structure a formidable knowledge-attitude-sexual behaviour policy that can adequately deal with the HIV/AIDS menace in the countries in Sub-Saharan Africa. It has also delayed the large scale application of models such as the Health Belief Model in studies of factors affecting sexual behaviour, leading to poor understanding of how knowledge and attitudes affect sexual behaviour.

A study that integrates knowledge, attitudes and sexual behaviour and also employs the most appropriate methodological approach is therefore urgently needed in order to fill the identified gaps in the literature. This study will therefore continue from where previous studies ended by examining the effects of knowledge and attitudes on sexual behaviour, employing a well-defined conceptual framework and using a combination of quantitative and qualitative analytical methods. The review has also explored a wide variety of sexual behaviour theories that have been used in HIV/AIDS studies and interventions, including those that focus on the individual, those that cover the social environment and finally those that take into consideration the broader structural and environmental concerns. Out of these, the Health Belief Model has been selected to serve as the conceptual basis for this research.

CHAPTER THREE

3.0 BACKGROUND TO THE STUDY AREA

3.1 INTRODUCTION

This chapter discusses the physical, demographic and socio-economic characteristics of the study area, the Ejura-Sekyedumase District. The chapter seeks to establish the implications of the identified features in the district in terms of HIV/AIDS.

3.2 LOCATION, SIZE AND ADMINISTRATIVE STRUCTURE

The Ejura-Sekyedumase District is located in the northern part of the Ashanti Region. It covers a total area of 1,782 square kilometres. This is about 7.3% of the total land area of the Ashanti Region, making it the fifth largest of the twenty-one districts in the region (Ministry of Local Government, Rural Development and Environment, 2006). It shares borders with Atebubu and Nkoranza Districts to the north, Sekyere West District to the east, Afigya Sekyere District to the south and the Offinso District to the west. Its capital is Ejura, which is about 98 kilometres from Kumasi, the Ashanti Regional capital.

Its location in the northern Ashanti makes it close to the three northern regions of Ghana. The district is therefore a major destination for migrants from the northern part of the country. This condition has implications for HIV/AIDS in view of the fact that migration increases the extent of sexual networking, thereby facilitating the rapid spread of the disease (Johnson and Budlender, 2002).

Map 3.2.1 Location of the Ejura-Sekyedumase District in National Context

KNUST



Map 3.2.2 Location of the Ejura-Sekyedumase District in Regional Context

KNUST



Map 3.2.3 Map of the Ejura-Sekyedumase District showing study locations

KNUST



Discussions with health officials and HIV/AIDS activists revealed that the location of the district in the middle belt makes it prone to drug abuse, as the area is noted for the prolific cultivation and smoking of Indian hemp. Others also engage in cigarette smoking and alcohol use. This situation is likely to be associated with sexual risk taking. For instance, in Tanzania, people who smoked and drank alcohol were four times more likely than others that age to have multiple sex partners (Kiragu, 2001).

The Ejura-Sekyedumase District Assembly is the highest administrative and political authority in the district, responsible for formulating and implementing development plans, programmes and projects for the overall development of the district. It oversees the activities of the District AIDS Committee, a multi-sectoral body made up of representatives of key decentralised agencies and identified groups and chaired by the District Chief Executive, which is directly responsible for the implementation of all HIV/AIDS programmes in the district. There is also a District HIV/AIDS Focal Person who is responsible for coordinating, monitoring and evaluating activities of all institutions working on HIV/AIDS in the district. Other partners in HIV/AIDS activities in the district are the District Health Management Team, Ghana Health Service, Ghana AIDS Commission, Ghana Education Service and non-governmental as well as community-based organisations.

3.3 PHYSICAL CHARACTERISTICS

3.3.1 Weather and Climate

The district experiences both equatorial and savannah climatic conditions as a result of its location in the transitional zone (ESDA, 2006; Dickson and Benneh, 1990).

Temperatures are generally high throughout the year, averaging 30°C for all months, except July and August, which often record below 25°C. Relative humidity is also high, with an average of 75%-80% during the rainy season. The district experiences the double maxima regime pattern of rainfall. The major rainy season occurs between April and July, whilst the minor is between September and November. These rainy seasons coincide with the major and minor farming periods respectively. Average annual rainfall ranges between 1,200mm and 2,000mm (ESDA, 2006). The dry season normally occurs between November and March.

The high temperatures make the area suitable for the production of cereals and vegetables. However, over the years the rainfall pattern has become increasingly unreliable, leading to very low agricultural yields and consequently household financial and food insecurity (ESDA, 2006). As a result, the majority of the farmers are poor and enjoy very low standards of living. This situation, as it was revealed in the focus group discussions at Kyenkyenkura, negatively influence parents' ability to take proper care of their children. In this scenario, the youth especially females are forced to practise premarital sex in order to obtain their needs.

3.3.2 Vegetation and soils

Two types of vegetation are found in the district. These are semi-deciduous forest in the south-western and open or derived savannah in the north-eastern part. The soils in the district are generally well drained, deep, light in colour, well-aerated and rich in organic matter and plant nutrients (Nsiah-Gyabaah, 1996). They are easy to till and therefore favour the cultivation of root and tuber crops, cereals and vegetables. In

general, these physical conditions are suitable for agricultural activities, particularly the cultivation of maize, yam, and vegetables. Farming is therefore the major occupation in the district. The conditions also serve as a pull factor in attracting prospective farmers particularly from northern Ghana, to settle in the district. This further enhances the links between migration, sexuality and HIV/AIDS within the district.

On the other hand, human activities such as bush burning, charcoal making, deforestation, and overgrazing have negatively affected the vegetation and soil fertility. This translates into poor agricultural yields. It also makes farming expensive to undertake as farmers are forced to apply artificial fertilizer to the crops at least twice before harvesting. The situation drains the scarce resources of already poor farmers, making some of them unable to take proper care of their children. As a result, many are left to fend for themselves by engaging in premarital sexual activities.

3.3.3 Geology, Relief and Drainage

The rock type in the district is of the Upper Voltaian series, which consists mainly of sandstones, and Pre-Cambrian Upper Birimian rock series, which consist mainly of shale and mudstone (ESDA, 2006; Nsiah-Gyabaah, 1996). The terrain is generally low-lying and undulating, and is suitable for mechanised farming. The Afram River, a tributary of the Volta, runs through the district, together with several streams.

These physical and drainage conditions imply great potential for mechanised farming as well as irrigation farming which could substantially increase yields and profit margins and also promote all-year farming. However, lack of adequate exploitation of these physical resources have led to a situation where the majority of farmers only work

on a small scale and employ simple tools. Tractors are only employed to plough the lands before cultivation and also to cart farm produce to the market. Irrigation is also done to a very insignificant extent. At such a scale of operation, farmers only obtain meagre incomes, making it difficult for them to break out of the poverty cycle to be able to transform their lives and that of their dependants. This has a bearing on the risk of HIV/AIDS as young people are forced to engage in premarital sex at an early age to be able to cater for themselves. Mechanised farming in the district is practised mainly by the Ejura Farms Limited, a government-owned large-scale commercial agricultural concern.

3.4. DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

3.4.1 Population size and distribution

The district has a total population of about 81,115, with an annual growth rate of 3.4%. Males make up about 51.7% of the population while females constitute 48.3% (ESDA, 2006). There are about 130 settlements in the district. About 48.8% of the population live in the three urban communities of Ejura, Sekyedumase and Anyinasu. These communities have relatively better infrastructural facilities and populations exceeding five thousand people. The remaining 51.2% of the population are found in the rural communities. These areas exhibit more pronounced incidence of poverty, deprivation, illiteracy and low levels of HIV/AIDS awareness.

Many of the HIV/AIDS non-governmental organisations that operate in the district are concentrated in the urban settlements. The implication is that the rural communities are deprived of regular public education and awareness on HIV/AIDS. This factor contributes to the lower awareness of the disease in the rural areas compared to the urban areas.

Ashantis are the indigenous people, and, together with other few Akans, form the major group in the district, representing about 52.6% of the population. People from the three northern regions in Ghana make up 42.6%, Ewes make up 1%, other Ghanaian groups make up 1% while non-Ghanaians (mostly migrants from Togo and Nigeria) make up 2.8% of the district population (ESDA, 2006). The population in the district is therefore heterogeneous. This provides a background for different cultural practices and beliefs to persist in the district, some of which have implications for HIV/AIDS. For example, among the people from the north, tribal markings, widowhood inheritance, female genital mutilation (often with the use of crude implements), and early marriages are known to be practised (Discussions with Mr Albert Osei Kuffour, the District HIV/AIDS Focal Person, January 2007), exposing people to the risk of HIV/AIDS.

3.4.2 Cultural characteristics

Although predominantly traditional, the district is gradually experiencing transformation due to the effects of inroads of modernisation. Interviews with parents and opinion leaders revealed that this has led to the breakdown of certain traditional norms and values that promoted sexual morality in the past. The result is the promotion of liberal attitudes towards sexuality, leading to increase in premarital sexual activities.

Social and leisure activities in the district are organised around marriage ceremonies, funeral rites, and the observance of various religious ceremonies. There is usually unrestricted access to alcoholic drinks during such occasions, leading to increased casual sex contacts.

Stigmatisation of people living with HIV/AIDS also persists. People find it difficult to declare their HIV status as they risk rejection by the community. It has been noted that

this situation is dangerous in the sense that it can make people living with the disease become frustrated and therefore decide to spread the disease (Discussions with Mr Addai, HIV/AIDS activist, December, 2006).

3.4.3 Education

The district has a total of 58 nursery/kindergarten schools with an enrollment of 3280; 75 primary schools with an enrollment of 11,341; 32 junior high schools with 2861 students; two senior high schools with 508 students; and one tertiary institution (Ejura Agricultural College) with 60 students. There are also a total of 519 teachers (372 males and 147 females) in the district (ESDA, 2006). The secondary and tertiary institutions are all located in the urban settlements, thereby making accessibility to higher education a problem for the rural population. School participation rate in the district is estimated at only 25%, while drop-out rate is over 70% (ESDA, 2006). Educational facilities in the district are generally poorly developed. Illiteracy is very widespread, with only an estimated 32% being literate (MLGRDE, 2006). This situation leads to problems of ignorance and misconceptions and superstitious beliefs about HIV/AIDS as many people attribute the disease to witchcraft, curses, and punishment from fetishes.

3.4.4 Employment and economic activities

The predominant economic activities in the district are farming and trading. Farming alone employs about 60% of the labour force (ESDA, 2006). The major crops produced are maize, yam and vegetables, mainly practised on subsistence level using simple farm implements. Challenges facing farming activities include high cost of land preparation and fertilizer application, high dependence on the weather, lack of agro-

processing industries, lack of storage facilities and poor selling prices for farm produce, leading to low returns for farmers. Most of them are thus very poor. These conditions, coupled with the sheer drudgery in farmwork, do not make the occupation attractive.

Trading employs about 27% of the population (ESDA, 2006). Weekly markets are held on Mondays at Ejura, Thursdays at Sekyedumase, and Tuesdays at Anyinasu. People travel from all over the country to deal in both agricultural and manufactured household goods. The presence of the trading activities has attracted commercial sex workers into the district, a condition which poses a huge risk to the inhabitants, particularly unmarried youths and male traders who mostly patronise their activities. Judging by the very high levels of HIV prevalence among commercial sex workers in Ghana, (estimated at 54% and 23% respectively among commercial sex workers in Accra and Kumasi by GSS and ORC Macro, 2004), and between 75% and 80% by Sai, 2005), people who patronise these activities without adequate protection put themselves at serious risk of acquiring HIV/AIDS. Anarfi (1993) has also demonstrated that trading activities are associated with high vulnerability to HIV/AIDS and other STI infections since the people who engage in them are involved in long-distance travelling away from families and are thus sexually exposed to strangers. In Nigeria, a survey of sexual networking among market women in Benin City in Nigeria by Omorodion (1993) revealed a high level of extra-marital sex among them. Meanwhile, a high proportion of the market women and those in close contact with them were found to have contracted sexually transmitted infections.

The trading activities have also brought about a large number of vulnerable groups including long distance drivers, street children, and market men and women. The market activities also have a negative effect on school attendance as it entices school children to

engage in trading instead of staying in the classrooms. Most of them eventually become drop-outs, thereby being denied the protection that education provides from HIV/AIDS.

Large scale manufacturing industries are absent in the district. Many former state-owned companies such as the Ghana Tobacco Company and the Workers' Brigade have also long ceased to exist. As a result, unemployment rates are high, leading to widespread incidence of poverty. It is estimated that 62% of the households in the district are below the poverty line, with 21% below the hard-core poverty line (ESDA, 2006). Interviews with opinion leaders revealed that this situation promotes sexual promiscuity as women fall prey to men's sexual requests. Some females also use sexual intercourse as a means of solving their financial problems.

3.4.5 Health and health care

The district has seven health facilities. This is made up of two hospitals, four community clinics and one health centre (District Health Management Team, 2005). Health personnel generally refuse posting to the district due to its deprived conditions. In 2004 there were four doctors, three medical assistants and 15 general nurses serving the district's population (District Health Management Team, 2005). In a survey of access to health care in the district, 41% of the population complained of inadequate facilities and health personnel, 27% complained of high cost, 17% mentioned the problem of poor attitude of staff while the remaining 15% also complained of long queues in the various health centres (Ministry of Local Government, Rural Development and Employment, 2006).

In general, medical facilities in the district are poorly resourced and overstretched, denying many people of health care. Many people thus resort to self-medication, use of

unprescribed drugs and the patronage of quack doctors. Indeed, according to the HIV/AIDS Focal Person, many people particularly in the rural areas regularly go to quack doctors and pharmacists for injection. This practice could be dangerous for HIV/AIDS transmission if unsterilised instruments are used. Many AIDS patients also patronise herbalists and spiritual prayer camps instead of seeking orthodox remedies.

Table 3.4.5.1 shows the disease and mortality situation in the district.

Table 3.4.5.1 Disease and mortality situation in the Ejura-Sekyedumase District, 2004

| Top 10 Non-Communicable diseases, 2004 | | Top 10 OPD Cases, 2004 | | Top 10 causes of admission, 2004 | | Top 10 causes of death, 2004 | |
|--|------------|------------------------|------------|----------------------------------|------------|------------------------------|------------|
| Disease | % of Cases | Disease | % of Cases | Disease | % of Cases | Disease | % of Cases |
| Hypertension | 36.8 | Malaria | 59.2 | Malaria | 48.9 | Malaria | 46.8 |
| Rheumatism | 25.4 | Cough/Cold | 9.5 | Diarrhoea | 10.0 | Anaemia | 13.9 |
| Anaemia | 23.6 | Hernia | 9.1 | Anaemia | 9.3 | Pneumonia | 11.9 |
| Diabetes | 5.7 | Diarrhoea | 6.1 | Typhoid | 8.5 | Hepatitis | 10.1 |
| Malnutrition | 9.9 | Typhoid | 4.6 | Pneumonia | 8.2 | Typhoid | 5.1 |
| Asthma | 4.8 | Intestinal Worms | 2.8 | Gynaecological | 5.7 | Meningitis | 3.8 |
| Sickle Cell | 0.9 | RTA | 2.7 | Preg. Rel. Comp. | 3.3 | Diarrhoea | 2.5 |
| Cardiac Dis. | 0.3 | Rheumatism | 2.1 | RTA | 3.2 | Malnutrition | 1.3 |
| Epilepsy | 0.1 | Pneumonia | 2.0 | Cough/Cold | 2.6 | Food Poisoning | 1.3 |
| Psychosis | .04 | Anaemia | 1.9 | H/Accidents | 0.9 | RTA | 1.3 |
| Total | 100 | | 100 | | 100 | | 100 |

Source: Ejura-Sekyedumase Health Directorate Annual Report, 2004.

The table shows that malaria is the predominant health condition in the district. It is the major out-patient case, the major cause of hospital admissions as well as the main cause of mortality. This situation has implications for HIV/AIDS in the district in view of

the fact that people with AIDS are also highly susceptible to malaria, and the fact that people with poorer general health (including those who have malaria) tend to have more HIV in their bodily fluids, which makes them more likely to transmit the virus (Noble, 2008). Therefore, one strategy of managing the HIV/AIDS situation in the district would be to improve the overall health condition of the people, particularly in the area of malaria prevention and control. The Ejura and Kasei Hospitals provide HIV/AIDS voluntary counselling and testing (VCT). The former is however the only site for Prevention of Mother-to-Child Transmission (PMCT) services. Considering its location in the district, most people in the hinterlands are unable to access this facility.

3.4.6 Transportation

The commonest means of transportation in the district is by vehicles, although the use of tractors, motorbikes, bicycles and travelling on foot are also quite popular. The two major roads in the district are the 20-kilometre asphalt road from Aframso to Kasei, and the 15-kilometre road from Aframso to Sekyedumase. The rest are untarred feeder roads. Most of them become unmotorable during the rainy season, limiting their use to mostly tractors and other cross-country vehicles belonging to non-governmental organisations. This leads to huge post-harvest losses for agricultural goods due to inability to reach the market centre at Ejura in good time.

The conditions of the roads further make it difficult to reach the remote communities with HIV/AIDS messages. These rural communities therefore disproportionately suffer from inadequate access to HIV/AIDS prevention programmes.

3.5 SUMMARY

In conclusion, the background characteristics of the districts have a lot of implications for HIV/AIDS. These include a large migrant population, trading activities, the presence of commercial sex workers, low levels of education, various socio-cultural practices, relative deprivation in the rural areas, the influence of modernity, low access to orthodox medicine, peer pressure, poverty, negative attitudes towards the disease, unemployment, drug abuse, and self-medication.



CHAPTER FOUR

4.0 RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter describes the methodological approach to the study. This is necessary in order to provide the right setting for interpreting the findings and conclusions of the research. The chapter covers aspects such as the delineation and measurement of the variables in the research, the sampling design, data collection procedures as well as methods of data analysis.

4.2 THE RESEARCH DESIGN

The study is a cross-sectional survey that seeks to establish the effects of knowledge and attitudes about HIV/AIDS on the sexual behaviour of unmarried people aged 15-24 years in the Ejura-Sekyedumase District, as a means of addressing HIV/AIDS pandemic in the study area.

The dependent variable in the research is sexual behaviour, defined as the number of partners that an unmarried person aged 15-24 years has ever had sexual intercourse with. The independent variables are sex, age, place of residence, ethnicity, religion, education, employment status, income, living arrangements (who a respondent currently stays with), parents' education and parents' income (for those living with their parents only), knowledge of HIV/AIDS, and attitudes.

Age, sex, place of residence, and employment were entered as dichotomous variables. Ethnicity and religion were entered as nominal variables, while knowledge,

education and income were entered as ranked variables. This was to make it possible for crosstabulation, the main analytical method tool used for the research. The majority of attitude variables were entered as ranked variables using the Likert-type scale.

4.3 OPERATIONALISATION AND MEASUREMENT OF THE STUDY VARIABLES

For the purpose of the quantitative analysis, certain key terms in the research were operationally defined to afford their measurement. It is therefore necessary to specify these variables, their meanings, codes and how they were measured. Table 4.3.1 shows the operationalisation and coding of the key study variables.

Table 4.3.1 Operationalisation and coding of the study variables

| VARIABLE | OPERATIONAL DEFINITION | CODES |
|-------------------------------------|---|-----------------------|
| Sexual behaviour [Ranked] | The number of persons a respondent has ever had sexual intercourse with | None 0 |
| | | One 1 |
| | | Two or more 2 |
| Age [Ranked] | The number of full years attained at last birthday | 15-19 0 |
| | | 20-24 1 |
| Sex [Dichotomous] | The gender of respondent, that is, whether male or female | Male 0 |
| | | Female 1 |
| Place of residence [Dichotomous] | The place respondent stays at the time of interviewing | Rural 0 |
| | | Urban 1 |
| Ethnicity [Nominal] | The ethnic background of respondent | Akan 1 |
| | | Northern Ghana 2 |
| | | Other 3 |
| Religion [Nominal] | The religious affiliation of respondent | Christian 1 |
| | | Moslem 2 |
| | | Traditional/Other 3 |
| Education [Ranked] | The completed level of education attained at time of interview | None 0 |
| | | Primary 1 |
| | | JHS/Middle school 2 |
| | | Secondary and above 3 |
| Employment status [Dichotomous] | Engagement in an income-generating activity, whether in | Unemployed 0 |
| | | Employed 1 |

| | | | |
|---|--|--|-----------------------|
| | the formal or informal sector | | |
| Income [Ranked] | Both monthly cash income and income in kind of a household | Less than GH¢50 GH¢50to GH¢99.9 GH¢100 and above | 1 2 3 |
| Living arrangements [Dummy] | The person that respondent stays with | Alone With parents Other | 1 2 3 |
| Knowledge of HIV/AIDS [Ranked] | Based on a score of 13 HIV/AIDS questions in the questionnaire | Low (0-5) Moderate (6-9) Good (10-13) | 1 2 3 |
| Ever seen anyone who has HIV/AIDS or has died of AIDS [Dichotomous] | Whether respondent has ever seen anyone who has HIV/AIDS or has from AIDS. | No Yes | 0 1 |
| Personally know of anyone who has HIV/AIDS or has died of AIDS [Dichotomous] | Whether respondent personally knows anyone who has HIV/AIDS or has from AIDS. | No Yes | 0 1 |
| Self-perceived risk of HIV/AIDS [Ranked] | A person's assessment of his or her chances of ever acquiring HIV/AIDS. | Don't know No chance Small chance High chance | 0 1 2 3 |
| Prevalence of HIV/AIDS in the society [Ranked] | How widespread respondent perceives HIV/AIDS in the society | Don't know Very low Low High | 0 1 2 3 |
| Abstinence from premarital sex will make one sick or look stupid or odd in the society [Ranked] | Respondent's level of agreement or disagreement with statement | Don't know Strongly agree Agree Disagree Strongly disagree | 0 1 2 3 4 |
| Abstinence from premarital sex will lead to problems in marriage during sexual intercourse [Ranked] | Respondent's level of agreement or disagreement with statement | Don't know Strongly agree Agree Disagree Strongly disagree | 0 1 2 3 4 |
| The use of condoms suggests sexual promiscuity or mistrust of one's sexual partner [Ranked] | Respondent's level of agreement or disagreement with statement | Don't know Strongly agree Agree Disagree Strongly disagree | 0 1 2 3 4 |
| Self-perceived confidence in abstaining from premarital sex until marriage [Ranked] | Respondent's level of confidence in abstaining from sexual intercourse until marriage. | Don't know Not confident Confident Very confident | 0 1 2 3 |
| Self-perceived confidence to refuse sex with | Respondent's level of confidence in refusing to have | Don't know Not confident | 0 1 |

| | | | |
|--|---|----------------|---|
| someone who offers money [Ranked] | sex with someone who offers them money. | Confident | 2 |
| | | Very confident | 3 |
| Self-perceived confidence to insist on condom use during sexual intercourse if even one's sexual partner does not want to [Ranked] | Respondent's level of confidence in insisting on using condoms if even one's partner does not want to use one | Don't know | 0 |
| | | Not confident | 1 |
| | | Confident | 2 |
| | | Very confident | 3 |

4.3.1 Measurement of knowledge of HIV/AIDS

Knowledge of HIV/AIDS was measured by a series of questions, and the scores were summed up to generate level of knowledge for each respondent. First of all, any correct response to the question “Mention all the ways in which you know a person can be infected with HIV/AIDS” was scored as one mark. The responses included sexual intercourse (with an infected person), sharing razors, needles or other sharp objects with an infected person, through blood transfusion, and from mother to child (during pregnancy, delivery or breastfeeding). A maximum of four marks was thus expected.

Similarly, a score of one was awarded for any correct response to the question “Mention all the ways in which you know a person can avoid getting HIV/AIDS” The responses included abstaining from sexual intercourse, remaining faithful to one sexual partner, using condoms during sexual intercourse, not sharing needles, toothbrushes, blades and other sharp instruments with an infected person. A maximum of four marks was also expected from this question.

Thirdly, respondents were asked to indicate “True”, “False”, or “Don't know” to each of five statements about HIV/AIDS. These were “A healthy looking person can have the AIDS virus”, “HIV/AIDS can be spread by mosquito bites”, “HIV/AIDS can be spread by witchcraft, juju or other supernatural means”, “HIV/AIDS can be cured”, and

“One can be infected with HIV/AIDS by eating from the same bowl with an infected person”. Each correct response was scored as one mark, while a wrong and a “Don’t know” response were scored as zero. A maximum of five marks was expected from this part. Combining these three sets of questions yielded a total score ranging from 0 the lowest score to 13 the highest score. A score of 0-5 was defined as low knowledge of HIV/AIDS; a score of 6-9 was defined as moderate knowledge of HIV/AIDS; while a score of 10-13 was taken as good knowledge of HIV/AIDS.

4.3.2 Measurement of Attitudes

A number of attitude variables were measured. These were: attitudes towards self-perceived risk of acquiring HIV/AIDS; attitudes towards the seriousness or severity of the HIV/AIDS pandemic, attitudes towards premarital sex, attitudes towards condoms, cues to action, and self-efficacy. Each item was measured and analysed separately, in keeping to the format in the conceptual framework.

Self-perceived risk was measured by the question: “What do you think are your chances of getting HIV/AIDS?” The responses were ranked on a 0-4 Likert-type scale ranging from “Don’t know”, “No chance”, “Small chance”, and “High chance”, with higher values indicating higher self-perceived risk.

Attitudes towards the severity of HIV/AIDS infection was measured by three questions, each of which was assessed independently. The first asked respondents how they perceived the prevalence of HIV/ADS in the society. The responses were ranked 0-4 from “Don’t know” “Very low” to “High”, with increasing values representing perception of higher levels of prevalence. The second question asked respondents whether they

thought that dying from AIDS was the same as dying from any other disease. Responses were ranked 0-4 from “Strongly agree” to “Strongly disagree” with higher values representing greater level of disagreement with the statement. The last question under this schedule asked respondents to indicate how seriously their lives would be affected if they became infected with HIV/AIDS. The responses were “Not serious”, “Serious” and “Very serious”. The idea behind this was that the higher a person perceived the seriousness of the HIV/AIDS to be, the greater would be the changes in sexual behaviour.

Attitudes towards premarital sex were measured by two questions. The first was “Do you think abstinence from sex will make a person sick or look stupid or odd in the society?” and the second was “Do you think a person who maintains virginity until marriage will encounter problems in marriage during sexual intercourse?” The responses to both questions were ranked 0-4 ranging from “Strongly agree” to “Strongly disagree”. Higher ranks indicated greater level of disagreement with the statement.

Attitudes towards condom use were also measured with two questions. One was “Do you think the use of condoms suggests sexual promiscuity or mistrust of one’s sexual partner?” The responses were assessed on a five-point Likert scale ranging from “Don’t know”, “Strongly disagree” to “Strongly agree”. The second item asked “Do you think condoms are effective in preventing HIV/AIDS?” with the responses being “Yes”, “No”, and “Don’t know”

Four self-efficacy variables were measured. The first dealt with how confident respondent felt in being able to abstain from sexual intercourse until marriage. The second dealt with respondent’s confidence in staying with only one sexual partner in his or her lifetime, and the third on whether respondent would be able to refuse if someone

offers money for sex with him/her. The final one asked how confident respondent was in insisting on condom use during sexual intercourse if even his or her partner did not want to use one. The responses to all these questions were measured on a four point Likert-scale ranging from “Don’t know”, “Not confident”, “Confident”, to “Very confident”. Higher values represented greater levels of self-efficacy.

Cues to action (two questions) were measured in terms of whether respondent had ever seen anyone who had HIV/AIDS, and whether respondent personally knew of anyone (relative, friend, community member, etc) who had HIV/AIDS or had died from AIDS. The dichotomous responses were “Yes” and “No”.

4.3.3 Measurement of sexual behaviour

Data for sexual behaviour was ranked from 0 to 2. “Never had sex” was ranked 0, “one sexual partner” was ranked 1, and “two or more partners” was ranked 2. The interpretation is that the higher the number of sexual partners, the higher the level of sexual activity, and vice versa.

Ever had sexual intercourse was measured by the question “Have you ever had sexual intercourse?” The responses were “Yes” and “No. The remaining sexual behaviour questions focused on those who responded Yes” to this question. Number of sexual partners was asked by the question: “How many sexual partners have you had in your lifetime?”, with responses being “1”, and “2 or more”. Having had two or more sexual partners signified multiple sexual partnership.

A related question on condom use at last sexual intercourse was assessed by the question “Did you use a condom with your partner the last time you had sexual intercourse?” The responses were “Yes” and “No”

4.4 SAMPLING

A sample of 450 unmarried men and women aged 15 to 24 years from ten communities in the study area, selected by a modified multi-stage approach, was used for the research. The universe population of the study area is 81,115 while the target population from which the sample was drawn is 19,232 (ESDA, 2006). The sample therefore represents 0.55% of the total population and 2.3% of the target population.

The research communities are: Ejura, Babaso, Nokwareasa, Bissiw No.1, Kyenkyenkura, Aberewano, Dijau, Frante, Kobiriti, and Teacherkrom. The overriding factor in their selection was the fair and adequate coverage of the district to ensure representativeness of the findings. In doing this, the district was first divided into three parts namely; west, north, and south, using the Pru and Awura Forest Reserves and the Kumasi-Ejura road as the boundaries. A number of communities were then selected from each part taking into consideration physical accessibility, as well as time and financial constraints. Table 4.4.1 shows the communities selected from each portion. Of these, Ejura is urban while the rest are all rural communities.

The total sample consisted of 230 from the rural communities and 220 from Ejura. The higher number from the rural areas was to reflect the situation in the district where the rural population is 51.2% and the urban 48.8% (ESDA, 2006). The allocation of respondents to the communities took into consideration their population sizes. Ejura, with

the largest population of 29,478, was allocated 220 respondents. Frante, with a population of 2,043, was allocated 60 respondents. The next largest community, Kobiriti which has a population of 676, was allocated 30 respondents. The remaining communities of Teacherkrom, Kyenkyenkura, Aberewano, Dijau, Babaso, Nokwareasa and Bissiw No.1, each with a population of less than 500, were each allocated 20 respondents. Table 4.4.1 shows the selected communities, their populations and sub-samples allocated to them.

Table 4.4.1: Selection of study locations and allocation of sub-samples

| Portion of district | Communities selected | Population | Sub-sample |
|----------------------------|-----------------------------|-------------------|-------------------|
| South | Ejura | 29, 478 | 220 |
| | Babaso | Less than 500 | 20 |
| | Nokwareasa | Less than 500 | 20 |
| | Bissiw No.1 | Less than 500 | 20 |
| North | Kyenkyenkura | Less than 500 | 20 |
| | Aberewano | Less than 500 | 20 |
| | Dijau | Less than 500 | 20 |
| West | Frante | 2, 043 | 60 |
| | Kobiriti | 676 | 30 |
| | Teacherkrom | Less than 500 | 20 |
| Total | 10 | | 450 |

At Ejura, the respondents were equally drawn from five randomly selected suburbs namely Ejura-fie, Badukrom, Sabonline, Dagombaline, and Low Cost.

Selection of respondents was done at the household level. On reaching the field, all households in the area were numbered. The numbers were written on pieces of paper and shuffled. A blindfolded person was made to pick the required number of households. This

method ensured that the sampling was random and afforded all eligible respondents equal chance of being selected. All eligible persons in each selected household were identified and interviewed. To be included in the sample, a person had to be between 15-24 years and also unmarried. Interviewing stopped at the point where the required number of respondents for that particular community was reached.

4.5 DATA COLLECTION

Data collection took place between February and May 2007. Both quantitative and qualitative data were sought for the research. The quantitative data was obtained through questionnaire. The questionnaires were mostly precoded and consisted of forty-six items divided into four sections. These were sociodemographic background, knowledge of HIV/AIDS, attitudes, and sexual behaviour. The questionnaires were pre-tested on 20 respondents from Ejura and another 20 from Babaso. The outcome helped to fine-tune the final items. Three research assistants were recruited and trained to assist in the data collection. They were trained teachers who resided in the district and therefore knew the terrain well.

Ethical issues were addressed during data. In each community, the opinion leaders, parents and the target population were briefed on the objectives of the research and their permission sought before fieldwork began. Informed consent was also obtained from both household heads and from individual respondents before interview. Participation in the research was voluntary, and respondents were assured of the strict confidentiality of their responses. Finally, actual interviews took place at locations out of hearing range of other household members in order to avoid interferences and ensure privacy.

The average completion time for each questionnaire was fifty minutes. The questionnaires were written in the English language but they were translated and delivered in the Twi language on the field, in view of it being the most widely-spoken in the study area. In a few instances, interpreters were found to facilitate interviewing respondents who could communicate in neither Twi nor English.

The qualitative data were obtained through in-depth interviews and focus group discussions. A focus group discussion has the advantage of encouraging participants to discuss and explore issues among themselves and to share their experiences and beliefs. In effect, the method provides substantial information quickly and gives the opportunity to identify and explore beliefs, attitudes and behaviour (World Health Organisation, 2005). A total of ten focus group discussions were held, five at Ejura and five at Kyenkyenkura, thus bringing out the spatial (rural-urban) perspectives.

At each site, one focus group discussion was held with a cross-section of opinion leaders and parents, while two each were held with unmarried people aged 15-19 (males females), and those aged 20-24 (males and females). The focus group discussions with young people focused on their knowledge, attitudes and perceptions about HIV/AIDS, and factors associated with premarital sex in the communities. The purpose of the meeting with the adult group was to seek their perspectives on the sexual behaviour and attitudes of the youth.

To ensure smooth and maximum participation, all discussions were held in the Twi language. A check list was used to facilitate the discussions. Each session lasted approximately one hour and was video-recorded, with the consent of participants. The sessions were moderated by the researcher while two other people assisted. Each group

consisted of nine persons. The participants were recruited with the assistance of two key informants from the communities. All the participants were served with snacks at the end of the discussions.

In addition to this, separate in-depth interviews were held with the HIV/AIDS Focal Person for the Ejura-Sekyedumase District, two heads of non-governmental organisations engaged in HIV/AIDS activities and two district health officials. These two methods provided much needed qualitative data to support the data from the structured questionnaire.

4.6 DATA PROCESSING AND ANALYSIS

The quantitative data was entered onto the computer and analysed statistically using the Statistical Package for the Social Sciences (SPSS) software (version 11). The main methods employed were the chi square test, frequency tables, and bar graphs.

Chi square test was used to examine differences in knowledge, attitudes and sexual behaviour by socio-demographic characteristics. The same method was used to examine the differences in sexual behaviour by knowledge and attitudes factors as well as the testing of the research hypotheses. The level of significance was set at $p \leq 0.05$. Frequency tables and graphs were also used to organise some knowledge and attitude responses, in order to discover the trends, magnitude and direction. The qualitative data were analysed thematically by comparing the different responses in order to identify common trends, similarities and contrasts. They were used to validate the findings of the quantitative data.

CHAPTER FIVE

5.0 KNOWLEDGE ABOUT HIV/AIDS

5.1 INTRODUCTION

This chapter examines the knowledge of respondents on HIV/AIDS, in line with the first objective of the study. Frequency tables and crosstabulations are used to organise the responses, and their differences across selected socio-demographic variables brought out. Qualitative analyses are then used to throw more light on the quantitative data. The background characteristics of the respondents are discussed first.

5.2 BACKGROUND CHARACTERISTICS OF THE RESPONDENTS

The sociodemographic characteristics of the 450 respondents are presented in Table

5.2.1.

Table 5.2.1 Background characteristics of the respondents

| Variable | Frequency | Percent |
|---------------------------|-----------|---------|
| Sex | | |
| Male | 219 | 48.7 |
| Female | 231 | 51.3 |
| Age | | |
| 15-19 | 234 | 52.0 |
| 20-24 | 216 | 48.0 |
| Place of residence | | |
| Rural | 230 | 51.1 |
| Urban | 220 | 48.9 |
| Ethnicity | | |
| Akan | 180 | 40.0 |
| Northern Ghana | 216 | 48.0 |
| Other | 54 | 12.0 |
| Religion | | |
| Christian | 273 | 60.7 |
| Moslem | 165 | 36.7 |

| | | |
|---|-----|------|
| Other | 12 | 2.7 |
| Educational status | | |
| None | 88 | 19.6 |
| Primary | 117 | 26.0 |
| Junior high school | 174 | 38.7 |
| Secondary and above | 71 | 15.8 |
| Employment status | | |
| Unemployed | 300 | 66.7 |
| Employed | 150 | 33.3 |
| Income per month | | |
| Less than GH¢50 | 404 | 89.8 |
| GH¢50 to GH¢99.9 | 33 | 7.3 |
| GH¢100 and above | 13 | 2.9 |
| Living arrangements | | |
| Alone | 48 | 10.7 |
| With parents | 300 | 66.7 |
| Other | 102 | 22.7 |
| Highest education of parent (for those living with parents only) | | |
| None | 168 | 56.0 |
| Primary | 32 | 10.7 |
| Junior high school | 56 | 18.7 |
| Secondary and above | 44 | 14.7 |
| Total monthly income of parents (for those living with parents only) | | |
| Less than GH¢50 | 150 | 50.0 |
| GH¢50 to GH¢99.9 | 91 | 30.3 |
| GH¢100 and above | 59 | 19.7 |

Source: Based on field data, February-May, 2007

The sample was made up of 450 unmarried people aged 15 to 24 years. Females made up 51.3% while males made up 48.7%. The proportion of respondents aged 15-19 years in the sample was 52% whereas those aged 20-24 years was 48%. A little more than fifty one percent were from rural areas while 49% were from Ejura, the urban area. Respondents from northern Ghana were the most predominant among the sample, constituting 48% of the sample size. However, in terms of religion, Christians dominated,

forming 61% of the sample size, indicating that some of the people from northern Ghana were also Christians.

The majority of the respondents (38.7%) had attained junior high school education, while about one-fifth had never had any formal education. About two-thirds of respondents were not employed, and this fact might significantly contribute to the very low income levels. Income distribution shows that nearly 90% received monthly incomes of less than GH¢50, while only about 3% had monthly incomes of GH¢100 and above. About one-third of the respondents lived with their parents, nearly 11% lived alone, while the remaining were in other residential arrangements such as staying with family members, friends, etc. Among those staying with their parents, substantially more than half of these parents (55.7%) had not had any formal education; only 14.7% had benefitted from secondary education and above. Also, exactly half of these parents had monthly incomes of less than GH¢50, while only about 20% received monthly incomes of GH¢100 and above.

The interaction between these background factors and knowledge, attitudes and sexual behaviour would then be examined. The overall picture given by the background characteristics of the respondents though is that of low educational levels and very low incomes.

5.3 LEVELS OF KNOWLEDGE OF HIV/AIDS

The calculation of the knowledge scores revealed that 14.2% of the respondents had low knowledge of HIV/AIDS, 52.2% had moderate knowledge while 33.6% had

good knowledge about HIV/AIDS. The differences in knowledge by background characteristics are shown in Table 5.3.1.

Table 5.3.1: Levels of knowledge of HIV/AIDS by selected sociodemographic factors

| Variable | Knowledge of HIV/AIDS | | | X ² | p-value |
|---|-----------------------|----------|------|----------------|---------|
| | Low | Moderate | Good | | |
| Sex | | | | | |
| Male | 14.2 | 50.2 | 35.6 | .866 | .649 |
| Female | 14.3 | 54.1 | 31.6 | | |
| Age | | | | 2.578 | .276 |
| 15-19 | 16.2 | 53.0 | 30.8 | | |
| 20-24 | 12.0 | 51.4 | 36.6 | | |
| Place of residence | | | | 37.905 | .000 |
| Rural | 20.0 | 59.1 | 20.9 | | |
| Urban | 8.2 | 45.0 | 46.8 | | |
| Ethnicity | | | | 18.395 | .001 |
| Akan | 6.1 | 53.3 | 40.6 | | |
| Northern | 19.4 | 51.9 | 28.7 | | |
| Other | 20.4 | 50.0 | 29.6 | | |
| Religion | | | | 18.277 | .001 |
| Christian | 9.2 | 53.1 | 37.7 | | |
| Moslem | 21.8 | 49.7 | 31.1 | | |
| Traditional/other | 25.0 | 66.7 | 8.3 | | |
| Educational status | | | | 157.016 | .000 |
| None | 46.6 | 44.3 | 9.1 | | |
| Primary | 14.5 | 66.7 | 18.8 | | |
| J.S.S. | 3.4 | 55.7 | 40.8 | | |
| Secondary and above | 0.0 | 29.6 | 70.4 | | |
| Employment status | | | | 5.005 | .082 |
| Unemployed | 12.0 | 55.3 | 32.7 | | |
| Employed | 18.7 | 46.0 | 35.3 | | |
| Income per month | | | | 15.955 | .003 |
| Less than GH¢50 | 15.1 | 54.2 | 30.7 | | |
| GH¢50-GH¢99.9 | 3.0 | 36.4 | 60.6 | | |
| GH¢100 and above | 15.4 | 30.8 | 53.8 | | |
| Living arrangements | | | | 14.395 | .006 |
| Alone | 6.3 | 37.5 | 56.3 | | |
| With parents | 16.3 | 52.7 | 31.0 | | |
| Other | 11.8 | 57.8 | 30.4 | | |
| Monthly income of parents (for those living with parents only) | | | | | |

| | | | | | |
|--|------|------|------|--------|------|
| Less than GH¢50 | 20.7 | 58.0 | 21.3 | 19.065 | .001 |
| GH¢50-GH¢99.9 | 6.6 | 50.5 | 42.9 | | |
| GH¢100 and above | 20.3 | 42.2 | 37.3 | | |
| Highest education of parents (for those living with parents only) | | | | | |
| None | 22.0 | 50.6 | 27.4 | 33.742 | .000 |
| Primary | 12.5 | 65.6 | 21.9 | | |
| JHS/Middle School | 12.5 | 66.1 | 21.4 | | |
| Secondary and above | 2.3 | 34.1 | 63.6 | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that the relationship between knowledge of HIV/AIDS and sex, age, and employment are not significant, since their probability values are above the .05 limit set for this research. The relationships between knowledge and all the other background characteristics are however significant.

The table shows that respondents in the urban area have higher knowledge of HIV/AIDS compared to those in the rural areas. Only about 8% of those in the urban areas have low knowledge compared to 20% for those in the rural areas, while 46.8% of those in the urban area compared to 20.9% in the rural areas have good knowledge of HIV/AIDS. The higher knowledge in the urban area is confirmed by the rather high probability value of .000. This finding clearly validates the first hypothesis on the relationship between knowledge and place of residence.

The results also show a positive relationship between education and knowledge of HIV/AIDS. The level of knowledge of HIV/AIDS increases as education increases. This relationship occurs at the probability value of .000, indicating a very high level of significance. In the same way, parents' level of education has a positive effect on respondent's knowledge of HIV/AIDS. As the level of parent's education rises, respondent's knowledge of HIV/AIDS also rises. What is however a bit confounding is

the finding that respondents who live alone have significantly higher knowledge of HIV/AIDS compared to those living with parents.

In terms of ethnicity and religion, Akans and Christians demonstrate higher knowledge of HIV/AIDS compared to the other groups. There is however no clear pattern with regard to income. What is evident is that respondents who earn between GH¢50 and GH¢99.9 have better knowledge compared to those in the other income categories. A similar result is repeated with regard to parents' income, with the highest knowledge of HIV/AIDS occurring among respondents whose parents are in the middle income category.

5.4 SOURCES OF INFORMATION ABOUT HIV/AIDS

All the 450 respondents interviewed said they knew or had heard of the HIV/AIDS disease. Table 5.4.1 shows respondents' most common sources of information about HIV/AIDS. The responses are over 100% due to multiple responses.

Table 5.4.1 Respondent's sources of information about HIV/AIDS, according to frequency of responses

| Source of information about HIV/AIDS | Percent |
|---|----------------|
| Radio | 86.0 |
| Television | 72.0 |
| School | 55.8 |
| Friends | 36.4 |
| Community meetings/AIDS campaigns | 31.4 |
| Health Personnel/Hospital | 30.2 |

| | |
|----------------|------|
| Family members | 26.5 |
| Other | 16.0 |

Source: Based on field data, February-May, 2007

It can be seen that the most common source of information about HIV/AIDS is the radio (86%). This is followed by television (72.2%), school (55.8%), and friends (36.4%). Family members as a source of information is however very low (26%). The responses show that young people obtain information about HIV/AIDS from friends more than from family members. Also comparatively low is health personnel (hospital) as a source of HIV/AIDS information.

5.5 KNOWLEDGE ABOUT WAYS OF HIV/AIDS TRANSMISSION

The survey asked respondents to mention ways in which they knew a person could be infected with HIV/AIDS. The results are presented in Table 5.5.1. Sexual intercourse is the most commonly identified means (95%). This is followed by sharing razors, needles or other sharp items with an infected person (86%), and then blood transfusion (37.1%). It should be noted that the percentages sum up to more than 100% due to multiple responses. The results of the focus group discussions also confirm these findings. This is because the predominant ways of HIV/AIDS mentioned during the discussions were sexual intercourse and to some extent the sharing of sharp items with an infected person.

Table 5.5.1 Ways in which a person can get HIV/AIDS, as reported by respondents

| Mode of HIV/AIDS transmission | Frequency | Percent |
|--|------------------|----------------|
| Sexual intercourse with an infected person | 426 | 94.7 |
| Sharing razors, needles or other sharp items | 387 | 86.0 |
| Blood transfusion | 167 | 37.1 |
| From mother to child | 95 | 21.1 |
| Other | 96 | 21.3 |
| Don't know | 10 | 2.2 |

Source: Based on field data, February-May, 2007

5.6 KNOWLEDGE ABOUT WAYS OF PREVENTING HIV/AIDS

Another question asked respondents to mention the ways they knew a person could avoid HIV/AIDS. The results are summarised in Table 5.6.1. Abstaining from sexual intercourse and not sharing sharp items with another person were the most frequently given responses (78% and 65% respectively). Using condoms was mentioned by more than half of the respondents (58%). Remaining faithful to one sexual partner was also quite prominent as it was mentioned by more than 40% of respondents. Here too, the percentages are more than 100% due to multiple responses. The qualitative study also generally reflected this trend.

Table 5.6.1 Ways in which a person can avoid getting HIV/AIDS, as reported by respondents

| Way of avoiding HIV/AIDS | Frequency | Percent |
|---|------------------|----------------|
| Abstaining from sexual intercourse | 351 | 78.0 |
| Not sharing blades, needles and other sharp items with an infected person | 291 | 64.7 |
| Using condoms during sexual intercourse | 263 | 58.4 |
| Remaining faithful to one sexual partner | 183 | 40.7 |
| Other | 66 | 14.7 |
| Don't know | 10 | 2. |

Source: Based on field data, February-May, 2007

5.7 MISCONCEPTIONS ABOUT HIV/AIDS

To further explore the extent and accuracy of knowledge about HIV/AIDS, respondents were asked to respond “True”, “False” or “Don't know” to five statements about HIV/AIDS. The results are presented in Table 5.7.1.

Table 5.7.1 Responses to statements about HIV/AIDS

| Statement | Response | | | |
|--|-----------------|--------------|-------------------|--------------|
| | True | False | Don't know | Total |
| A healthy looking person can have the AIDS virus | 76.2 | 18.2 | 5.6 | 100.0 |
| HIV/AIDS can be spread by mosquito bites | 48.4 | 51.6 | 10.0 | 100.0 |

| | | | | |
|--|------|------|------|-------|
| HIV/AIDS can be spread by witchcraft, juju or other supernatural means | 33.6 | 53.3 | 13.1 | 100.0 |
| HIV/AIDS can be cured | 7.6 | 88.2 | 4.2 | 100.0 |
| One can be infected with HIV/AIDS by eating from the same bowl with an infected person | 16.4 | 77.3 | 6.2 | 100.0 |

Source: Based on field data, February-May, 2007

The table shows that the majority of respondents (76.2%) knew that a healthy looking person could have the AIDS virus. Knowledge that HIV/AIDS is incurable is also high (88.2%). An intriguing finding is that nearly half of all respondents (48.4%) believed that HIV/AIDS could be transmitted by mosquito bites. Another 34% were of the view that the disease could be transmitted by witchcraft, juju or other supernatural means, while a little more than 16% also thought that one could be infected HIV by eating from the same bowl with an infected person. The prevalence of these misconceptions followed the trend of the levels of knowledge about HIV/AIDS. For example, the perceptions that mosquitoes and witchcraft could transmit HIV/AIDS were higher among females compared to males, and higher among respondents living in the rural areas. It however decreased with increase in education.

These perceptions were reflected in the focus group discussions. In relation to mosquitoes, one respondent said: *“Yes. If I have AIDS and a mosquito bites me and it comes to bite you too, it can transmit the disease from me to you”* (Male, 17, Kyenkyenkura). Another person added: *“This is because I have learnt that AIDS is spread through contact with blood, and so since mosquitoes suck blood, they can suck*

one person's blood and transfer it to another person, thereby giving him the disease" (Female, 19, Ejura). Those who disagreed also gave their reasons. Some said that when a mosquito draws a person's blood, it uses it to feed itself and when it bites another person it transfers its own blood to him or her, not someone else's blood. Others said that it was not possible since the blood which mosquitoes draw from a person is not the one which contains the virus. The topic became a heated debate in all the discussions. At Kyenkyenkura, one person asked: *"so if you say mosquitoes cannot transmit AIDS, how come they are able to transmit malaria?"* (Male, 24, Kyenkyenkura).

The participants were equally divided on the issue of HIV/AIDS transmission via witchcraft and other supernatural forces. Those who agreed to it were very strong in their opinions: *"If there are witches in your family and they see that you are progressing in life, they can buy the disease for you spiritually"* (Female, 16, Kyenkyenkura). Others asserted that someone who hates you can buy the disease for you spiritually or inject you with a spiritual needle, whether you are a relative or not. To them, that explains why some people who might not be sexually promiscuous can still have the disease. *"If witches give you the disease (AIDS) it cannot be detected at the hospital, because it is a spiritual thing, and so the doctors cannot see it. It is the traditional doctors who can tell you the real truth, and also fight it for you; it is not a hospital disease"* (Male, 18, Ejura).

However the general consensus in all the groups at Ejura was that it was not possible to get HIV by eating with an infected person. The explanation was that there is no exchange of either blood or the AIDS virus during meals. However, participants in the female groups at Kyenkyenkura were uncertain of this, and actually expressed the

concern that there was such a chance if for example the infected person has a cut on him or her through which the virus can pass into the food.

5.8 DISCUSSION

The research established a significant relationship between place of residence and knowledge of HIV/AIDS, with respondents in the urban area having better knowledge of HIV/AIDS compared to those in the rural areas. This validates the first hypothesis for the research, which is “Knowledge of HIV/AIDS is significantly higher among people living in urban areas than people living in the rural areas”. The rural disadvantage in knowledge about HIV/AIDS also confirms the observations by UNAIDS (2005) and Lal et al. (2000) in their study in the Kerala district in India.

The emergence of the electronic media (radio and television) as the predominant source of information about HIV/AIDS among young people as discovered in this research is similar to the finding by Bohmer and Kirumira (2000) among Ugandan students; Fawole, Asuzu and Oduntan (1999) in their study among Nigerian students, and that of Fayorsey (2002) among students in Ghana. The finding that the youth in the study area obtain information about HIV/AIDS more from friends than from family members (and parents) could be an indication of low level of communication with family members concerning sexual matters. It also confirms the findings by Wodi (2005), Ruby (2004) and Senderowitz (1998). The low level of HIV/AIDS information at the hospital would however call for more education on HIV/AIDS at health centres in the district. The study also found that respondents living alone had higher knowledge compared to those living with their parents. One possible reason might be that the former are more likely to be

older, more economically independent and thus more able to explore multiple sources of HIV/AIDS information compared to those still living with their parents.

In this study, all the 450 respondents indicated that they were aware (or had heard of) HIV/AIDS. This corroborates the observation in the 2003 GDHS that awareness of HIV/AIDS in Ghana is almost universal. Indeed, awareness of HIV/AIDS in this research was 100% for both men and women compared to 98% among women and 99% among men in the 2003 GDHS (GSS and ORC Macro, 2004).

The majority of respondents in the survey were able to identify the major routes of HIV/AIDS transmission. The ways of prevention were also well known. Nevertheless, significant misconceptions about the disease still prevailed. These perceptions were higher among rural and less educated respondents, confirming the relatively low levels of knowledge of HIV/AIDS among these groups. The 34% of people who responded that the disease could be transmitted by supernatural means in this research compares with the figure of 38% that Anarfi and Antwi (1995) found in their study among street youth in Accra.

On the other hand, the proportion of respondents who associated the disease with mosquito bites (48.4%) is much higher than the 14% discovered by Bannerman, Hammah and Adom (2004). The proportion who did not think that a healthy looking person could have the HIV/AIDS virus is similar to that of Fayorsey (2002). Similar other wrong perceptions about HIV/AIDS run in the studies by Wodi; (2005); Evelyn and Osafu, (1999); Araoye and Adegoke, (1996); and Asamoah-Odei, (1992).

These wrong conceptions about the disease must be addressed as they could induce a defeatist attitude towards the disease hence, inhibit behavioural change (Wodi, 2005;

Caldwell, 1999; Caldwell et al, 1992). For example, it has been identified that the perception that a healthy-looking person cannot carry the disease could make people take less precautions when having sexual intercourse with healthy-looking casual partners (Helitzer-Allen, 1994).

It is however encouraging that the commonest means of preventing HIV/AIDS identified by respondents was abstinence from sexual intercourse, and this consideration received a higher rating compared to condom use (78.0% versus 58.4%). This was also confirmed in the focus group discussions, as respondents generally agreed that the best way to prevent HIV/AIDS infection was through abstinence. The finding also compares favourably with what was obtained in the 2003 GDHS where 79.2% of men and 81.9% of women aged 15-24 mentioned abstinence from sex as a way of reducing the risk of getting HIV/AIDS. The proportion of respondents who mentioned condom use in the 2003 GDHS is however much higher (76.6% of women and 77.6% of men) than in the present survey.

In conclusion, the examination of the knowledge of HIV/AIDS reveals that the largest majority of the respondents have moderate knowledge of the disease. Both the quantitative and qualitative data indicate a high level of HIV/AIDS misinformation. Factors which are significantly associated with knowledge according to the chi square probability test are place of residence, ethnicity, religion, education, and income. The hypothesis that living in the urban area is positively associated with knowledge of HIV/AIDS has also been validated.

CHAPTER SIX

6.0 ATTITUDES TOWARDS HIV/AIDS

6.1 INTRODUCTION

The second objective of the study was to find out the attitudes of respondents towards HIV/AIDS. Series of questions on attitudes were asked, and the responses are analysed in this chapter. The quantitative analysis will be complemented by the findings of the focus group discussions.

6.2 SELF-PERCEIVED RISK OF ACQUIRING HIV/AIDS

The first question on attitudes was on attitudes towards personal risk of acquiring HIV/AIDS. That is, respondents' assessment of their own chances of being infected with HIV/AIDS. Overall, the survey revealed a low perception of risk among the respondents. In all, 12.9% said they did not know their chances of getting HIV/AIDS, while 42.2% said they had no chance of acquiring the disease. Thirty eight percent said they had a small chance of getting HIV/AIDS, while just around 7% said they had a high chance of being infected. The responses to this question were crosstabulated with background characteristics to determine the significance of the differences. The results are presented in Table 6.2.1.

Table 6.2.1 Self-perceived risk of acquiring HIV/AIDS, according to background characteristics

| Variable | Self-perceived risk of getting HIV/AIDS | | | | X ² | p-value |
|----------|---|-----------|--------------|-------------|----------------|---------|
| | Don't know | No chance | Small chance | High chance | | |
| Sex | | | | | | |
| Male | 11.0 | 39.7 | 41.1 | 8.2 | 4.035 | .258 |
| Female | 14.7 | 44.6 | 35.1 | 5.6 | | |

| | | | | | | |
|---|------|------|------|------|--------|------|
| Age | | | | | | |
| 15-19 | 13.2 | 52.1 | 29.9 | 4.7 | 23.173 | .000 |
| 20-24 | 12.5 | 31.5 | 46.8 | 9.3 | | |
| Place of residence | | | | | | |
| Rural | 9.1 | 43.5 | 37.4 | 10.0 | 11.988 | .007 |
| Urban | 16.8 | 40.9 | 38.6 | 3.6 | | |
| Ethnicity | | | | | | |
| Akan | 13.9 | 27.8 | 49.4 | 8.9 | 31.575 | .000 |
| Northern | 11.1 | 50.0 | 32.4 | 6.5 | | |
| Other | 16.7 | 59.3 | 22.2 | 1.9 | | |
| Religion | | | | | | |
| Christian | 13.9 | 34.1 | 43.2 | 8.8 | 23.485 | .001 |
| Moslem | 10.9 | 56.4 | 28.5 | 4.2 | | |
| Traditional/other | 16.7 | 33.3 | 50.0 | 0.0 | | |
| Educational status | | | | | | |
| None | 22.7 | 46.6 | 25.0 | 5.7 | 27.110 | .001 |
| Primary | 9.4 | 51.3 | 31.6 | 7.7 | | |
| J.S.S. | 9.8 | 40.0 | 42.5 | 7.5 | | |
| Secondary and above | 14.1 | 26.8 | 53.5 | 5.6 | | |
| Employment status | | | | | | |
| Unemployed | 11.7 | 48.0 | 33.3 | 7.0 | 13.333 | .004 |
| Employed | 15.3 | 30.7 | 47.3 | 6.7 | | |
| Income per month | | | | | | |
| Less than GH¢50 | 13.1 | 44.3 | 36.1 | 6.4 | 24.474 | .000 |
| GH¢50-GH¢99.9 | 3.0 | 15.2 | 66.7 | 15.2 | | |
| GH¢100 and above | 30.8 | 46.2 | 23.1 | 0.0 | | |
| Living arrangements | | | | | | |
| Alone | 14.6 | 12.5 | 66.7 | 6.3 | 23.704 | .001 |
| With parents | 12.3 | 45.3 | 35.7 | 6.7 | | |
| Other | 13.7 | 47.1 | 31.4 | 7.8 | | |
| Total monthly income of parents (for those living with parents only) | | | | | | |
| Less than GH¢50 | 10.0 | 50.0 | 33.3 | 6.7 | 6.124 | .409 |
| GH¢50-GH¢99.9 | 12.1 | 41.8 | 37.4 | 8.8 | | |
| GH¢100 and above | 18.6 | 39.0 | 39.0 | 3.4 | | |
| Highest education of parents (for those living with parents only) | | | | | | |
| None | 11.9 | 50.6 | 31.0 | 6.5 | 11.129 | .267 |
| Primary | 6.3 | 43.8 | 46.9 | 3.1 | | |
| JHS/Middle school | 17.9 | 39.3 | 32.1 | 10.7 | | |
| Secondary and above | 11.4 | 36.4 | 47.7 | 4.5 | | |

Source: Based on field data, February-May, 2007

Table 6.2.1 shows that differences in self-perceived risk by sex, monthly income of parents and highest education of parents are not significant. Differences by age, place of residence, ethnicity, religion, education, employment, income and living arrangements are however significant. In terms of age, self-perceived risk is higher among respondents aged 20-24 years compared to those aged 15-19 years. Rural respondents, Akans as well as respondents who belong to the Christian faith also have higher levels of perceived risk, compared to the others. All these relationships occur at the chi square probability of less than 0.05, and are therefore significant.

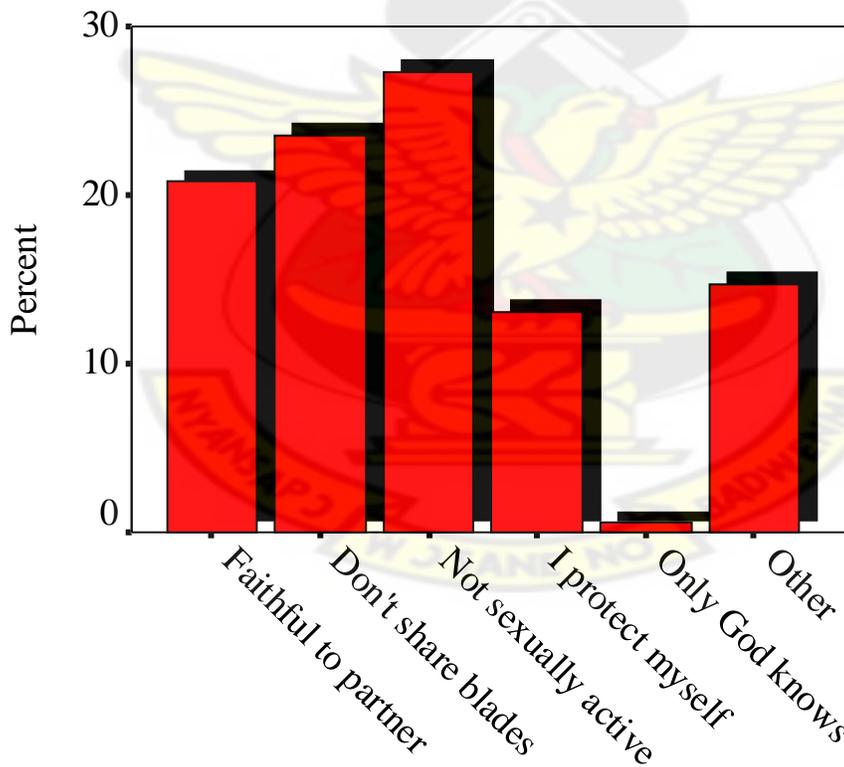
In terms of education, it can be seen that perception of high risk is almost similar across all the educational categories. However, respondents with secondary education and above are least likely to say that they have no chance of being infected, and more likely to acknowledge a small chance of being infected. This implies that education has a somewhat positive effect on risk perception. In the same way, the employed are less likely to indicate that they have no chance of being infected and more likely to admit to a small chance of being infected, although the differences in terms of 'high chance' of being infected appear almost the same. There is thus a positive effect of employment on risk perception, although the effect is only minimal.

The relationship between income and risk perception shows that the highest income earners also have the lowest risk perception level: those who earn GH¢100 and above have the highest proportion of 'no chance' and the lowest proportion of 'small chance' and 'high chance' of being infected. In the same way, risk perception seems to be highest among respondents who live alone compared to those living with their parents and those in 'other' arrangements. This is because, compared to the others, they are less

likely to indicate ‘no chance’ of being infected and far more likely to indicate a ‘small chance’ of being infected.

Among those who said they had no chance of being infected with HIV/AIDS, the questionnaire sought to find out their reasons for saying so. The results are summarised in Figure 6.2.1. It shows that the major reason why respondents said they were not at risk is that they were not sexually active or did not have a sexual partner. This is followed by those who said they did not share blades or other sharp items with anyone, those who said they were faithful to their partners and then those who said they protected themselves, in that order.

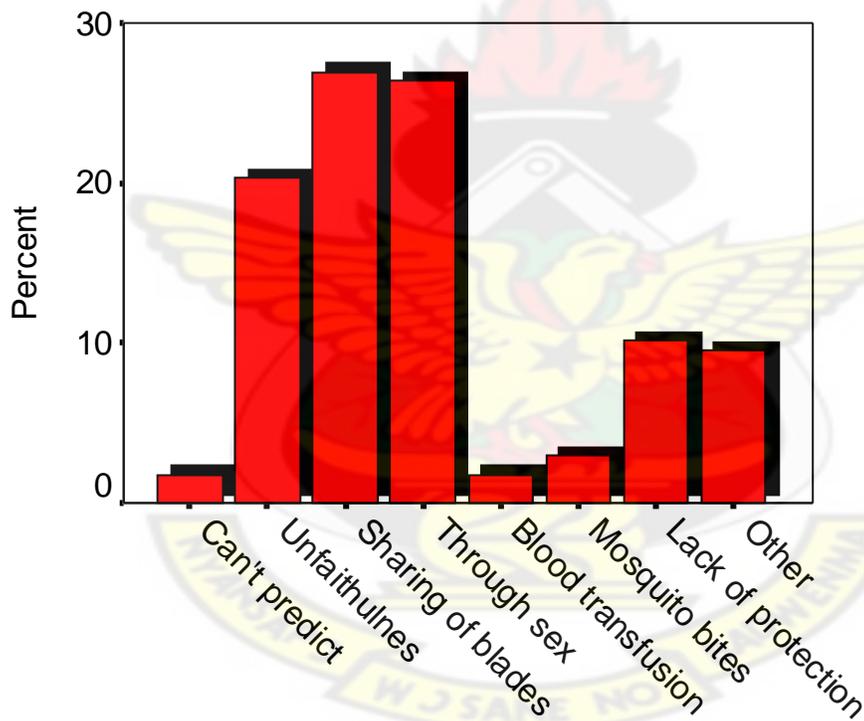
Figure 6.2.1 Respondents’ reasons for not being at risk to HIV/AIDS



Source: Based on field data, February-May, 2007

Similarly, several reasons were given by those who thought themselves as being at some risk to HIV/AIDS, and these are indicated in Figure 6.2.2. It shows that sharing of blades and other sharp items was the most important reason why respondents said they were at risk to HIV/AIDS. This is followed closely by sexual intercourse. Another important reason given was unfaithfulness to one's partner. Concerns about mosquito bites are surprisingly low, in spite of the fact that almost 50% of the respondents indicated that mosquitoes could cause HIV/AIDS.

Figure 6.2.2 Respondents' reasons for being at risk to HIV/AIDS

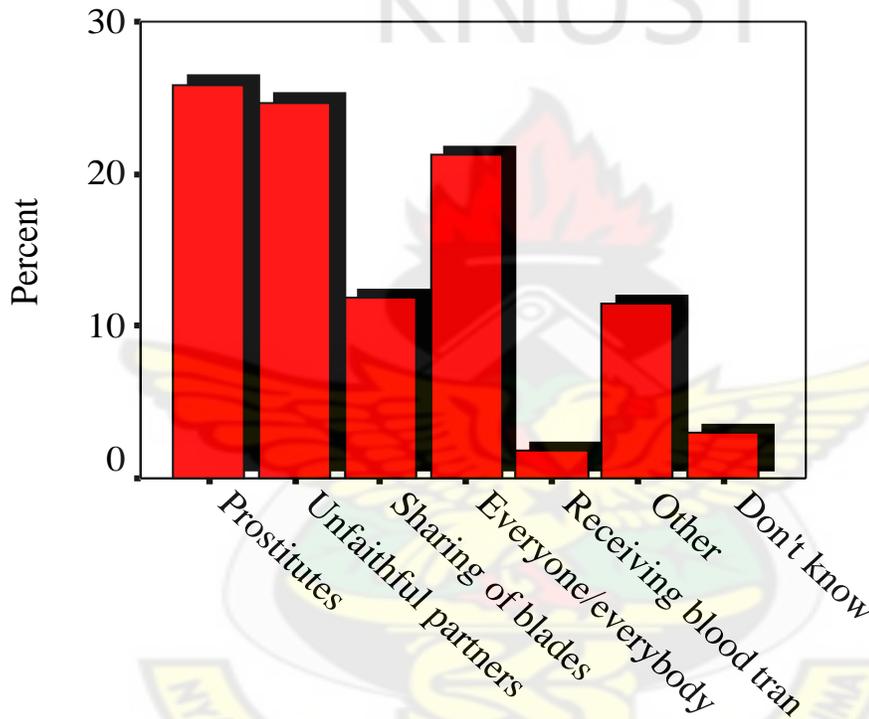


Source: Based on field data, February-May, 2007

In further exploration of self-perceived risk, respondents were asked to give the category of people who they felt were at risk to HIV/AIDS. The results of these responses

are presented in Figure 6.2.3. The table shows that the most frequently mentioned category of people that respondents saw as being at risk to HIV/AIDS are prostitutes and unfaithful partners. Only around 22% stated that everyone is equally at risk to HIV/AIDS, while about 13% mentioned those who share blades and other sharp instruments.

Figure 6.2.3 The type of people who are at risk to HIV/AIDS, as reported by respondents



Source: Based on field data, February-May, 2007

The discussion in the qualitative survey also confirmed findings of low risk perception in the study area. Respondents reported that in general young people in the study area have the perception that AIDS can only infect others but not them. They hinted that this perception was contributing to low behavioural change and high risk sexual

behaviour. For example, one female respondent at Ejura, (aged 16) reported: “*Some also say; I have had sex many times in the past without getting HIV/AIDS, what shows that I will get it now? And so they continue to indulge in sex*”. At Kyenkyenkura, a girl (aged 19) remarked that “*there are some people when you tell them about AIDS they retort that even merely jumping over a gutter can also give you AIDS*” (meaning that it is not only through sex that the disease can be transmitted).

6.3 ATTITUDE TOWARDS THE REALITY AND SERIOUSNESS OF HIV/AIDS

Three questions relating to attitudes about the reality and seriousness of the HIV/AIDS pandemic were asked. The first asked respondents to indicate their perception of the level of HIV/AIDS prevalence. In all, 3.1% said they had no idea as to how prevalent HIV/AIDS was. Around 17% thought the HIV/AIDS prevalence was very low, nearly 37% said it was low, while around 43% thought it was high. Table 6.3.1 shows the distribution of respondents’ perception of the level of HIV/AIDS prevalence by selected sociodemographic characteristics.

Table 6.3.1 Perception of the level of HIV/AIDS prevalence, by selected background characteristics

| Background characteristic | Perception of the level of HIV/AIDS prevalence | | | | | X ² | p-value |
|---------------------------|--|----------|------|------|--------|----------------|---------|
| | Don’t know | Very low | Low | High | | | |
| Sex | | | | | | | |
| Male | 4.1 | 12.3 | 35.6 | 47.9 | 9.800 | .020 | |
| Female | 2.2 | 21.6 | 38.1 | 38.1 | | | |
| Age | | | | | | | |
| 15-19 | 3.0 | 16.7 | 41.5 | 38.9 | 4.650 | .199 | |
| 20-24 | 3.2 | 17.6 | 31.9 | 47.2 | | | |
| Place of residence | | | | | | | |
| Rural | 5.7 | 10.0 | 36.1 | 48.3 | 26.915 | .000 | |
| Urban | 05 | 24.5 | 37.7 | 37.3 | | | |
| Educational status | | | | | | | |
| None | 6.8 | 15.9 | 42.0 | 35.2 | 17.666 | .039 | |

| | | | | | | |
|--------------------------|-----|------|------|------|-------|------|
| Primary | 5.1 | 12.0 | 41.0 | 41.9 | | |
| JHS | .6 | 21.3 | 31.6 | 46.6 | | |
| Secondary+ | 1.4 | 16.9 | 36.6 | 45.1 | | |
| Employment status | | | | | | |
| Unemployed | 2.3 | 18.7 | 38.7 | 40.3 | 5.164 | .160 |
| Employed | 4.7 | 14.0 | 33.3 | 48.0 | | |
| Income per month | | | | | | |
| Less than GH¢50 | 3.5 | 17.6 | 35.9 | 43.1 | 6.307 | .390 |
| GH¢50-GH¢99.9 | 0.0 | 15.2 | 51.5 | 33.3 | | |
| GH¢100 and above | 0.0 | 7.7 | 30.8 | 61.5 | | |

Source: Based on field data, February-May, 2007

The table shows that among the selected variables, only sex, place of residence and educational status have significant relationships with perception of the level of HIV/AIDS, since their probability values are less than 0.05. That of age, employment status and income per month are not significant. The table further reveals that males are more likely to perceive a high prevalence of HIV/AIDS compared to females. Rural residents are also more likely to see a high prevalence of HIV/AIDS compared to those living in the urban areas, and the effect is highly significant. Education also seems to exhibit a positive association with the perception of a high level of prevalence of HIV/AIDS. This is because perception of high HIV/AIDS level is lowest among the lowest educational categories, and higher among those with both JHS and secondary education and above.

A related question asked respondents whether they thought that dying from AIDS is the same as dying from any other disease. In all, 6% of the respondents strongly agreed to this statement, 9.6% agreed, 47.6% disagreed, while 36.4% strongly disagreed. Crosstabulation was used to show the differences in these responses by sex, age, place of residence, education, employment and income per month. The results are displayed in Table 6.3.2.

Table 6.3.2 Differences in responses about whether dying from AIDS is the same as dying from other causes, by selected background characteristics

| Background characteristic | Dying from AIDS is the same as dying from any other cause | | | | | | X ² | p-value |
|---------------------------|---|----------------|-------|----------|-------------------|--------|----------------|---------|
| | Don't know | Strongly agree | Agree | Disagree | Strongly disagree | | | |
| Sex | | | | | | | | |
| Male | .9 | 6.4 | 8.2 | 47.0 | 37.4 | 3.158 | .532 | |
| Female | 0.0 | 5.6 | 10.8 | 48.1 | 35.5 | | | |
| Age | | | | | | | | |
| 15-19 | 0.0 | 6.4 | 12.8 | 49.1 | 31.6 | 11.109 | .025 | |
| 20-24 | .9 | 5.6 | 6.0 | 45.8 | 41.7 | | | |
| Place of residence | | | | | | | | |
| Rural | .9 | 7.0 | 9.6 | 49.1 | 33.5 | 4.012 | .404 | |
| Urban | .0 | 5.0 | 9.5 | 45.9 | 39.5 | | | |
| Educational status | | | | | | | | |
| None | 2.3 | 6.8 | 10.2 | 48.9 | 31.8 | 35.050 | .000 | |
| Primary | .0 | 6.0 | 12.0 | 58.1 | 23.9 | | | |
| JHS | .0 | 6.9 | 10.9 | 43.7 | 38.5 | | | |
| Secondary + | .0 | 2.8 | 1.4 | 38.0 | 57.7 | | | |
| Employment status | | | | | | | | |
| Unemployed | .0 | 4.7 | 11.0 | 50.0 | 34.3 | 10.863 | .028 | |
| Employed | 1.3 | 8.7 | 6.7 | 42.7 | 40.7 | | | |
| Income per month | | | | | | | | |
| Less than GH¢50 | .5 | 5.4 | 10.4 | 49.5 | 34.2 | 18.105 | .020 | |
| GH¢50-GH¢99.9 | .0 | 12.1 | 3.0 | 21.2 | 63.6 | | | |
| GH¢100 and above | .0 | 7.7 | .0 | 53.8 | 38.5 | | | |

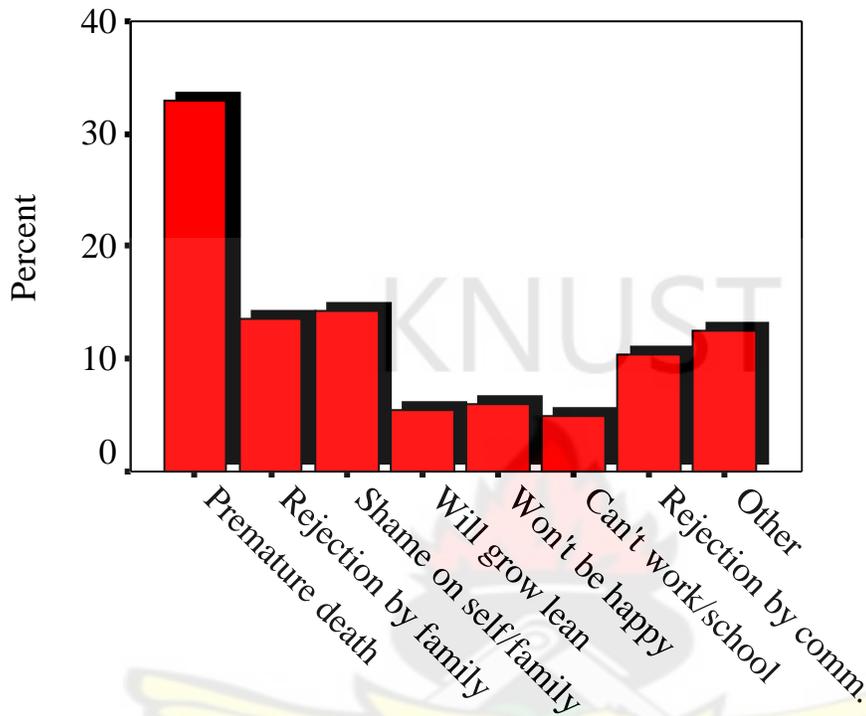
Source: Based on field data, February-May, 2007

The crosstabulation shows that differences in responses to the statement in terms of age, education, employment and income are significant, but that of sex and place of residence are not. From the table, it is realised that age is positively associated with strongly disagreeing with the statement. Moreover, the level of strongly disagreeing with the statement increases as education level increases. There is thus a positive association between education and rejection of the statement. Employment is also positively associated with rejection of the statement, with the employed more likely to strongly

reject the statement compared to the unemployed. Among the income categories, those who earn higher incomes are more likely to strongly disagree with the statement compared to those in the lowest income bracket, with those earning between GH¢50 and GH¢99.9 a month most likely to disagree.

The last question pertaining to attitudes towards the severity of HIV/AIDS bordered on how respondents felt it would be to them if they became infected with HIV/AIDS. In other words, this question bordered on respondents' attitudes towards the consequences of their being infected with HIV/AIDS. In all, 2.7% said if they got infected with HIV/AIDS, it would not be a serious thing at all, 35.1% said it would be serious, while 62% said it would be very serious if they became infected with HIV/AIDS. The most common reasons why respondents felt their getting HIV/AIDS would be serious to them are summarised in Figure 6.2.3. It can be seen that the most common reason cited is that getting HIV/AIDS would mean their dying prematurely. This is followed by shame on self/family, rejection by family and rejection by the community.

Figure 6.3.1 Consequences of being infected with HIV/AIDS, as reported by respondents



Source: Based on field data, February-May, 2007

6.4 ATTITUDES TOWARDS PREMARITAL SEX

In the Health Belief Model, the perceived benefits versus costs of taking an action to reduce the risk of HIV/AIDS is an important determinant of sexual behaviour. In this research, perceived benefits versus costs was measured by attitudes towards premarital sex and condoms. The first question on attitudes towards premarital sex asked respondents whether they thought that abstinence from sex will make a person sick or appear odd. In all, 1.6% responded “Don’t know”, 5.6% strongly agreed, 16.7% agreed,

33.1% disagreed while 43.1% strongly disagreed. Table 6.4.1 shows the distribution of responses according to selected sociodemographic characteristics.

Table 6.4.1 Differences in attitude towards the statement that abstinence from premarital sex will make a person stupid or look odd by background characteristics

| Background characteristic | Does abstinence from premarital sex make a person stupid or look odd? | | | | | X ² | p-value |
|---------------------------|---|----------------|-------|----------|-------------------|----------------|---------|
| | Don't know | Strongly Agree | Agree | Disagree | Strongly disagree | | |
| Sex | | | | | | | |
| Male | 2.3 | 7.3 | 14.2 | 33.8 | 42.5 | 5.520 | .238 |
| Female | .9 | 3.9 | 19.0 | 32.5 | 43.7 | | |
| Age | | | | | | | |
| 15-19 | 1.7 | 3.8 | 16.2 | 32.5 | 45.7 | 3.524 | .474 |
| 20-24 | 1.4 | 7.4 | 17.1 | 33.8 | 40.3 | | |
| Place of residence | | | | | | | |
| Rural | 3.0 | 6.5 | 17.8 | 37.0 | 35.7 | 16.038 | .003 |
| Urban | .0 | 4.5 | 15.5 | 29.1 | 50.9 | | |
| Educational status | | | | | | | |
| None | 4.5 | 10.2 | 19.3 | 30.7 | 35.2 | 40.518 | .000 |
| Primary | 1.7 | 4.3 | 18.8 | 41.9 | 33.3 | | |
| JHS | .6 | 5.7 | 19.5 | 30.5 | 43.7 | | |
| Secondary + | .0 | 1.4 | 2.8 | 28.2 | 67.6 | | |
| Employment status | | | | | | | |
| Unemployed | 1.3 | 3.0 | 18.3 | 33.0 | 44.3 | 12.681 | .013 |
| Employed | 2.0 | 10.7 | 13.3 | 33.3 | 40.7 | | |
| Income per month | | | | | | | |
| Less than GH¢50 | 1.5 | 4.7 | 17.3 | 34.4 | 42.1 | 14.340 | .073 |
| GH¢50 to GH¢99.9 | .0 | 12.1 | 15.2 | 21.2 | 51.5 | | |
| GH¢100 and above | 7.7 | 15.4 | .0 | 23.1 | 53.8 | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that of the selected variables, those that show no significance with the statement are sex of respondent, age and income per month, in view of their probabilities being greater than the .05 used for this research. Respondents living in the urban area are more likely to strongly disagree to the statement compared with those in the rural areas. Education is also positively associated with strongly disagreeing with the statement that abstinence from premarital sex will make a person sick or look

odd in the society, and this occurs at the very high probability value of .000. Respondents who are unemployed are also more likely to strongly disagree compared to the employed.

The focus group discussions revealed that these attitudes about premarital sex were highly prevalent in both the rural and urban communities. At Ejura, a female respondent aged 15-19 reported: *“Some people claim that if you continue to be a virgin and do not engage in sex you will become stupid and when you walk, slime will be dripping out of your mouth”*. Others reported similar perceptions: *“They say if you don’t have a girlfriend you are ‘colo’, (that is, not civilised). But I don’t think that is true. If you don’t have a girlfriend it enables you to keep your virginity and live long”* (Male, 15 years, Ejura). At Kyenkyenkura, respondents expressed their frustrations with such perceptions: *“People say such things here too. They say that a girl who has never had sex before always looks timid and shy. If you talk with such a person she feels shy to respond. As for the one who has had sex before or who has been doing it regularly you can really see that she is very sharp and confident. But that thing spoils us because if you hear that you may also want to go and have sex”* (Female, 17). Some respondents reported their personal experiences: *“A friend of mine once told me that if I don’t have sex I will become stupid. So I said let me wait and see whether that will come true”* (Male, 15, Kyenkyenkura). At Ejura, a male participant aged 24 reported: *“Teasing of those who don’t have sexual partners contributes much to the practice here. If they mock you that you don’t have a girl, it will make you also do anything possible to get one. This causes a lot of competition for girls to the extent of even leading to quarrels”*.

The other question was on whether respondents thought that abstinence from premarital sex will make a person face problems later in marriage due to lack of

experience in sexual intercourse. A little more than 3.3% responded “Don’t know”, 7.1% strongly agreed with the statement, 31.1% agreed, 34.4% disagreed, while 24.0% strongly disagreed with the statement. Table 6.4.2 shows the differences in responses by background characteristics.

Table 6.4.2 Differences in attitude to the statement that a person who maintains virginity until marriage will encounter problems in marriage, by background characteristics

| Background characteristic | A person who maintains virginity until marriage will face problems in marriage during sexual intercourse | | | | | | X ² | p-value |
|---------------------------|--|----------------|-------|----------|-------------------|--------|----------------|---------|
| | Don't know | Strongly agree | Agree | Disagree | Strongly disagree | | | |
| Place of residence | | | | | | | | |
| Rural | 6.1 | 8.3 | 30.0 | 34.8 | 20.9 | 13.699 | .008 | |
| Urban | .5 | 5.9 | 32.3 | 34.1 | 27.3 | | | |
| Educational status | | | | | | | | |
| None | 9.1 | 10.2 | 26.1 | 30.7 | 23.9 | 34.876 | .000 | |
| Primary | 1.7 | 7.7 | 38.5 | 37.6 | 14.5 | | | |
| JHS | 2.9 | 6.9 | 33.3 | 33.3 | 23.6 | | | |
| Secondary + | .0 | 2.8 | 19.7 | 36.6 | 40.8 | | | |
| Employment status | | | | | | | | |
| Unemployed | 3.7 | 5.7 | 32.0 | 35.3 | 23.3 | 3.542 | .471 | |
| Employed | 2.7 | 10.0 | 29.3 | 32.7 | 25.3 | | | |
| Income per month | | | | | | | | |
| Less than GH¢50 | 3.7 | 6.9 | 30.9 | 34.9 | 23.5 | 16.737 | .033 | |
| GH¢50-GH¢99.9 | .0 | .0 | 36.4 | 36.4 | 27.3 | | | |
| GH¢100 and above | .0 | 30.8 | 23.1 | 15.4 | 30.8 | | | |

Source: Based on field data, February-May, 2007

The table shows that with the exception of employment, differences in attitudes about the statement for the remaining selected background characteristics are all significant, since they have chi square probability values of less than .05. The level of strong disagreement is higher among urban respondents compared to those living in the rural areas. The positive effect of education in dispelling wrong perceptions about

HIV/AIDS is yet again clearly demonstrated here. Strongly rejecting this statement increases as the level of education increases. The relationship is also significant, as shown by the high chi square probability value of 000. Finally, the proportion of respondents who strongly disagree with the statement increases as income increases, also significant at the .033 probability.

The focus group discussions further revealed that this perception was also common to some extent, as told by a female participant: *“Others claim that if you don’t practise it at this age, you will not know how to do it when you marry”* (Female, 18, Ejura). Two male respondents (aged 22) also threw more light on the issue: (1) *“There are some people who think that when you do such things you become more experienced”*. And (2) *“There are even some girls if you enter a room with them and are not able to do anything to them they will be making fun of you that you are not a man”*.

6.5 ATTITUDES TOWARDS CONDOM USE

Two questions were used to measure attitudes towards condoms. The first was whether respondents thought that using condoms during sexual intercourse suggests that you are promiscuous or that you mistrust your sexual partner. Nearly 3% respondents reported “Don’t know”, 10.4% strongly agreed with the statement, 40.7% agreed, 30.9% disagreed while 15.1% strongly disagreed. Table 6.5.1 shows the distribution of responses to the statement by selected background characteristics.

Table 6.5.1 Differences in attitudes towards the statement that using condoms during sexual intercourse suggests promiscuity or mistrust of one's sexual partner

| Background characteristic | Using condoms during sexual intercourse suggests sexual promiscuity or mistrust of one's partner. | | | | | | |
|---------------------------|---|----------------|-------|----------|-------------------|----------------|---------|
| | Don't know | Strongly agree | Agree | Disagree | Strongly disagree | X ² | p-value |
| Sex | | | | | | | |
| Male | 2.3 | 13.7 | 37.0 | 30.1 | 16.9 | 7.265 | .123 |
| Female | 3.5 | 7.4 | 44.2 | 31.6 | 13.4 | | |
| Age | | | | | | | |
| 15-19 | 3.0 | 9.4 | 44.4 | 29.5 | 13.7 | 3.211 | .523 |
| 20-24 | 2.8 | 11.6 | 36.6 | 32.4 | 16.7 | | |
| Place of residence | | | | | | | |
| Rural | 4.8 | 13.0 | 41.7 | 25.2 | 15.2 | 13.918 | .008 |
| Urban | .9 | 7.7 | 39.5 | 36.8 | 15.0 | | |
| Educational status | | | | | | | |
| None | 6.8 | 15.9 | 37.5 | 22.7 | 17.0 | 39.376 | .000 |
| Primary | 4.3 | 8.5 | 46.2 | 29.1 | 12.0 | | |
| JHS | 1.1 | 12.1 | 45.4 | 29.3 | 12.1 | | |
| Secondary + | .0 | 2.8 | 23.9 | 47.9 | 25.4 | | |
| Employment status | | | | | | | |
| Unemployed | 2.3 | 8.3 | 43.0 | 33.3 | 13.0 | 10.402 | .034 |
| Employed | 4.0 | 14.7 | 36.0 | 26.0 | 19.3 | | |
| Income per month | | | | | | | |
| Less than GH¢50 | 3.0 | 10.6 | 40.8 | 31.4 | 14.1 | 7.538 | .480 |
| GH¢50-GH¢99.9 | 3.0 | 3.0 | 42.4 | 27.3 | 24.2 | | |
| GH¢100 and above | .0 | 23.1 | 30.8 | 23.1 | 23.1 | | |

Source: Based on field data, February-May, 2007

It can be seen that the level of strongly disagreeing with the statement is almost the same for both urban and rural residents, and this relationship is significant at the .008 probability. Education is once again associated with strongly disagreeing to the statement that using condoms suggests sexual promiscuity or mistrust of one's sexual partner. This association is significant at the very high chi square probability of .000. Employment also

makes a positive effect on strongly disagreeing to the statement, significant at the .034 probability. Differences by sex, age and income per month are however not significant.

The other condom-related question was whether respondents believed that condoms could protect against HIV/AIDS. Overall, 7.1% responded “Don’t know”, 30.9% responded “No” while 62% responded “Yes” to the statement. Table 6.5.2 shows the distribution of the responses by selected background characteristics.

Table 6.5.2 Differences in responses to the statement that condoms are effective in preventing HIV/AIDS, by selected background characteristics

| Background characteristic | Are condoms effective in preventing HIV/AIDS? | | | | |
|---------------------------|---|------|------|----------------|---------|
| | Don't know | No | Yes | X ² | p-value |
| Sex | | | | | |
| Male | 6.4 | 29.2 | 64.4 | 1.084 | .582 |
| Female | 7.8 | 32.5 | 59.7 | | |
| Age | | | | | |
| 15-19 | 9.0 | 31.2 | 59.8 | 2.766 | .251 |
| 20-24 | 5.1 | 30.6 | 64.4 | | |
| Place of residence | | | | | |
| Rural | 8.7 | 22.6 | 68.7 | 15.505 | .000 |
| Urban | 5.5 | 39.5 | 55.0 | | |
| Educational status | | | | | |
| None | 18.2 | 22.7 | 59.1 | 36.500 | .000 |
| Primary | 6.8 | 20.5 | 72.6 | | |
| JHS | 2.3 | 36.8 | 60.9 | | |
| Secondary + | 5.6 | 43.7 | 50.7 | | |
| Employment status | | | | | |
| Unemployed | 7.0 | 31.7 | 61.3 | .256 | .880 |
| Employed | 7.3 | 29.3 | 63.3 | | |
| Income per month | | | | | |
| Less than GH¢50 | 7.4 | 31.2 | 61.4 | 7.476 | .113 |
| GH¢50 to GH¢99.9 | 3.0 | 18.2 | 78.8 | | |
| GH¢100 and above | 7.7 | 53.8 | 38.5 | | |

Source: Based on field data, February-May, 2007

The table shows that of the six selected variables, only place of residence and educational status show significant differences to the statement. In terms of place of

residence, a higher proportion of respondents from the rural areas (68.7%) compared to those from the urban areas (55%) are likely to admit that condoms are effective in preventing HIV/AIDS. There is a chi square statistical significance of .000 to confirm this relationship. In terms of education, the results are a bit baffling. It appears that the belief that condoms are effective in preventing HIV/AIDS decreases with increase in education, while the proportion who believe that condoms are not effective in preventing HIV/AIDS increases with increase in education. This shows that education is negatively associated with believing that condoms are effective in protecting against HIV/AIDS. This occurs at the probability value of .000.

Additional questions were used to find out the reasons behind these responses. Among those who said that condoms could protect against HIV/AIDS, the majority of them (47.7%) said that condoms prevent transmission of the virus from one person to another during sexual intercourse. Another 25.3% said it prevents the transmission of sperms, while 11.2% said it prevents transmission of blood.

Table 6.5.3 Reasons why condoms are effective in preventing HIV/AIDS, as reported by respondents

| Reason | Frequency | Percent |
|---|------------------|----------------|
| Condoms prevent physical sexual contact | 3 | 1.0 |
| Condoms prevent transmission of sperms | 70 | 25.3 |
| Condom prevent exchange of blood | 31 | 11.2 |
| Condoms prevent transmission of the virus | 132 | 47.7 |

| | | |
|--------------|------------|------------|
| Don't know | 9 | 3.2 |
| Other | 32 | 11.6 |
| Total | 277 | 100 |

Source: Based on field data, February-May, 2007

From Table 6.5.4 it can be seen that the major reason why respondents think that condoms are not effective in preventing HIV/AIDS is that they can burst (69%). Other reasons feature less prominently.

Table 6.5.4 Reasons why condoms are not effective in preventing HIV/AIDS, as reported by respondents

| Reason | Frequency | Percent |
|---------------------------------|------------------|----------------|
| Condoms can burst | 96 | 69.1 |
| Some condoms have holes in them | 7 | 5.0 |
| Some condoms have expired | 8 | 5.8 |
| Don't know | 1 | .7 |
| Other | 27 | 19.4 |
| Total | 139 | 100 |

Source: Based on field data, February-May, 2007

Opinions were also divided in the focus group discussions regarding the ability of condoms to protect people from HIV/AIDS. Those who believed that condoms could prevent HIV/AIDS explained that the device prevents the transmission of the virus from one partner to the other during sexual intercourse. As explained by a female participant at Kyenkyenkura: *“Yes. Because if the man has AIDS and he wears it you the woman will not get it. So it is good and we must use it because it helps us, it protects us”* (Female,

20). Others however were less trustful, and their main reason was that condoms often tear or burst during sexual intercourse. At Kyenkyenkura, a male participant (aged 24) testified that once during sexual intercourse the condom he was wearing burst, and he had to quickly get up to change it. Female participants also pointed to the unwillingness of some men to use condoms: *“Condoms can offer some protection, but some men (who are infected) can intentionally tear the end of the condom, so that his sperms will still get into you. Some men also insist that they want raw sex, and will not entertain any condoms. In that case since he is much stronger than you, he can force you and have his way”* (Female, age 19 years, Ejura).

A few others argued that condoms encourage sexual promiscuity while some contended that condoms need not be used when both partners are faithful to each other. Other complaints were that some condoms have very tiny holes through which the virus can pass to infect the other partner. Still others believed that the lubrication in condoms can cause cancer.

6.6 CUES TO ACTION

In the Health Belief Model, ‘cues to action’ refer to bodily or external signs that motivate a person to change his or her behaviour. The principle says that for example, witnessing the illness or death of a person due to HIV/AIDS would lead to behaviour change to avoid a similar fate. In this research, ‘cues to action’ was measured by whether a respondent had ever seen or knew of anyone who had had HIV/AIDS or had died from AIDS. In all, over than half (52.7%) of the respondents said they had ever seen someone who had had HIV/AIDS or had died from AIDS. Additionally, 30.2% said they personally

knew of someone (relative, friend, community member, etc), who had AIDS or had died from the disease. The sociodemographic characteristics of the different responses are indicated in Table 6.6.1.

Table 6.6.1 Respondents who have ever seen anyone who has HIV/AIDS or has died from AIDS, by selected background characteristics

| Background characteristic | Ever seen a person who has HIV/AIDS or has died from AIDS | | | |
|---------------------------|---|------|----------------|---------|
| | No | Yes | X ² | p-value |
| Sex | | | | |
| Male | 42.5 | 57.5 | 4.055 | .044 |
| Female | 51.9 | 48.1 | | |
| Age | | | | |
| 15-19 | 52.6 | 47.4 | 5.351 | .021 |
| 20-24 | 41.7 | 58.3 | | |
| Place of residence | | | | |
| Rural | 50.0 | 50.0 | 1.342 | .247 |
| Urban | 44.5 | 55.5 | | |
| Ethnicity | | | | |
| Akan | 46.7 | 53.3 | 1.004 | .605 |
| Northern Ghana | 46.3 | 53.7 | | |
| Other | 53.7 | 46.3 | | |
| Religion | | | | |
| Christian | 44.3 | 55.7 | 4.319 | .115 |
| Moslem | 53.3 | 46.7 | | |
| Other | 33.3 | 66.7 | | |

Source: Based on field data, February-May, 2007

From Table 6.6.1 it can be seen that differences in ever seen a person who had HIV/AIDS or had died of the disease in terms of place of residence, ethnicity, and religion are not significant. Those of sex and age are however significant. The table shows that knowing a person who had HIV/AIDS or had died from AIDS increases with age. It is also higher among males than females.

A related question was whether respondents knew of someone (family member, friend or community member) who had HIV/AIDS or had died from the disease. The responses are summarised in Table 6.6.2.

Table 6.6.2 Respondents who personally know of anyone who has HIV/AIDS or has died from AIDS, by selected background characteristics

| Background Characteristic | Know anyone who has HIV/AIDS or has died from AIDS | | | |
|---------------------------|--|------|----------------|---------|
| | No | Yes | X ² | p-value |
| Sex | | | | |
| Male | 69.4 | 30.6 | .028 | .867 |
| Female | 70.1 | 29.9 | | |
| Age | | | | |
| 15-19 | 77.4 | 22.6 | 13.256 | .000 |
| 20-24 | 61.6 | 38.4 | | |
| Place of residence | | | | |
| Rural | 78.7 | 21.3 | 17.742 | .000 |
| Urban | 60.5 | 39.5 | | |
| Ethnicity | | | | |
| Akan | 67.8 | 32.2 | .784 | .676 |
| Northern Ghana | 71.8 | 28.2 | | |
| Other | 68.5 | 31.5 | | |
| Religion | | | | |
| Christian | 68.1 | 31.9 | .936 | .626 |
| Moslem | 72.1 | 27.9 | | |
| Other | 75.0 | 25.0 | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that of the selected background characteristics, it is age and place of residence that are significantly related to personal knowledge of someone with HIV/AIDS, and they both occur at the very high probability of .000. Comparison of the percentage figures shows that personal knowledge of a person who has HIV/AIDS or had died from AIDS is higher among males than females, and higher among urban residents than rural residents.

In the focus group discussions, all the participants in the rural location said they had not seen or heard of anyone with the disease in their community. Some respondents at Ejura however said that they had seen some before, and some even revealed that some of their family members had been infected before. This is an indirect indication that the level of prevalence of the disease is higher at Ejura than in the rural communities.

6.7 PERCEIVED SELF-EFFICACY

The concept of perceived self-efficacy relates to a person's assessment of his or her ability to undertake certain tasks that would lead to avoiding HIV/AIDS, and is a principal determinant of people's actual sexual behaviour in the Health Belief Model. In this research, the self-efficacy issues that were measured were: respondents' confidence in abstaining from premarital sex until marriage, confidence in remaining faithful to one sexual partner in one's lifetime, confidence in refusing sex for money, and confidence in insisting on condom use if even one's sexual partner does not want to use one.

With regard to abstaining from sexual intercourse until marriage, 25.3% of all the respondents said they were not confident they could abstain from sexual intercourse until marriage, 38.7% said they were confident they could abstain, while 31.1% said they were very confident. Table 6.7.1 illustrates these responses by selected background characteristics.

Table 6.7.1 Differences in self-perceived confidence in abstaining from sexual intercourse until marriage by selected background characteristics

| Background characteristics | Confidence in abstaining from sexual intercourse until marriage | | | | | |
|----------------------------|---|---------------|-----------|----------------|----------------|---------|
| | Don't know | Not confident | Confident | Very confident | X ² | p-value |
| Sex | | | | | | |
| Male | 4.1 | 29.2 | 35.6 | 31.1 | 4.106 | .250 |

| | | | | | | |
|---|-----|------|------|------|--------|------|
| Female | 5.6 | 21.6 | 41.6 | 31.2 | | |
| Age | | | | | | |
| 15-19 | 4.7 | 17.9 | 41.5 | 35.9 | 15.098 | .002 |
| 20-24 | 5.1 | 33.3 | 35.6 | 25.9 | | |
| Place of residence | | | | | | |
| Rural | 2.6 | 21.7 | 41.3 | 34.3 | 9.833 | .020 |
| Urban | 7.3 | 29.1 | 35.9 | 27.7 | | |
| Educational status | | | | | | |
| None | 5.7 | 27.3 | 36.4 | 30.7 | 8.026 | .532 |
| Primary | 4.3 | 23.1 | 42.7 | 29.9 | | |
| JHS | 3.4 | 23.0 | 41.4 | 32.2 | | |
| Secondary + | 8.5 | 32.4 | 28.2 | 31.0 | | |
| Employment status | | | | | | |
| Unemployed | 6.0 | 20.0 | 41.3 | 32.7 | 14.733 | .002 |
| Employed | 2.7 | 36.0 | 33.3 | 28.0 | | |
| Income per month | | | | | | |
| Less than GH¢50 | 5.2 | 23.0 | 39.6 | 32.2 | 20.782 | .002 |
| GH¢50 to GH¢99.9 | .0 | 57.6 | 24.2 | 18.2 | | |
| GH¢100 and above | 7.7 | 15.4 | 46.2 | 30.8 | | |
| Living arrangements | | | | | | |
| Alone | 4.2 | 41.7 | 29.2 | 25.0 | 11.264 | .081 |
| With parents | 5.0 | 22.0 | 38.7 | 34.3 | | |
| Other | 4.9 | 27.5 | 43.1 | 24.5 | | |
| Monthly income of parents | | | | | | |
| Less than GH¢50 | .7 | 20.0 | 48.0 | 31.3 | 20.617 | .002 |
| GH¢50 to GH¢99.9 | 9.9 | 26.4 | 26.4 | 37.4 | | |
| GH¢100 and above | 8.5 | 20.3 | 33.9 | 37.3 | | |
| Highest education of parent (for those living with parents only) | | | | | | |
| None | 4.8 | 20.2 | 35.1 | 39.9 | 12.321 | .196 |
| Primary | 3.1 | 15.6 | 56.3 | 25.0 | | |
| JHS | 3.6 | 28.6 | 44.6 | 23.2 | | |
| Secondary + | 9.1 | 25.0 | 34.1 | 31.8 | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that differences in self-perceived confidence in abstaining from sexual intercourse until marriage by sex, educational status, living arrangements, and parent's education are not significant. Differences by age, place of

residence, employment, income per month and monthly income of parents are however significant. The table shows that self-perceived confidence in abstaining from premarital sex is higher among respondents aged 15-19 compared to their older counterparts. This is significant at the probability of .002. Rural respondents also have higher confidence in practising abstinence compared to those in the urban areas, and the effect is significant at the .020 probability. Surprisingly, the unemployed profess a higher self-perceived ability to stay away from sex until marriage compared to the employed, and this is significant at the .002 probability. In the same way, income does not appear to have a positive effect on people's perceived ability to practise abstinence. This is because respondents who earn the lowest incomes (less than GH¢50) have greater self-perceived ability to stay away from premarital sex until marriage compared to those in the higher income categories.

On the other hand, parents' income has a positive effect on the variable. Respondents whose parents are in the higher income categories (GH¢50 to GH¢99.9 and GH¢100 and above) have greater perceived ability to abstain from premarital sex compared to those in the lowest income group (less than GH¢50). This effect is significant at the .002 probability.

Another self-efficacy measure dealt with respondents' ability to stay with only one sexual partner in one's lifetime. In all, 15.8% said they were not confident they could do this, 41.3% said they were confident, while 39.8% said they were very confident in being able to stay with only one sexual partner in their lifetime. Table 6.7.2 shows the differences in responses to this question by selected background characteristics.

Table 6.7.2 Differences in self-perceived confidence in staying with only one sexual partner in one's lifetime

| Background characteristics | Confidence in staying with one sexual partner in one's life time | | | | | |
|--|--|---------------|-----------|----------------|----------------|---------|
| | Don't know | Not confident | Confident | Very confident | X ² | p-value |
| Sex | | | | | | |
| Male | 2.7 | 20.5 | 41.6 | 35.2 | 8.635 | .035 |
| Female | 3.5 | 11.3 | 41.1 | 44.2 | | |
| Age | | | | | | |
| 15-19 | 2.6 | 13.2 | 44.4 | 39.7 | 3.588 | .310 |
| 20-24 | 3.7 | 18.5 | 38.0 | 39.8 | | |
| Place of residence | | | | | | |
| Rural | 1.3 | 14.3 | 44.8 | 39.6 | 6.906 | .075 |
| Urban | 5.0 | 17.3 | 37.7 | 40.0 | | |
| Educational status | | | | | | |
| None | 3.4 | 12.5 | 43.2 | 40.9 | 17.831 | .037 |
| Primary | .9 | 18.8 | 45.3 | 35.0 | | |
| JHS | 4.0 | 11.5 | 44.8 | 39.7 | | |
| Secondary + | 4.2 | 25.4 | 23.9 | 46.5 | | |
| Employment status | | | | | | |
| Unemployed | 2.7 | 12.3 | 44.7 | 40.3 | 9.828 | .020 |
| Employed | 4.0 | 22.7 | 34.7 | 38.7 | | |
| Income per month | | | | | | |
| Less than GH¢50 | 3.0 | 14.1 | 42.3 | 40.6 | 10.278 | .113 |
| GH¢50 to GH¢99.9 | 3.0 | 33.3 | 33.3 | 30.3 | | |
| GH¢100 and above | 7.7 | 23.1 | 30.8 | 38.5 | | |
| Living arrangements | | | | | | |
| Alone | 4.2 | 27.1 | 33.3 | 35.4 | 8.710 | .191 |
| With parents | 3.3 | 12.7 | 43.0 | 41.0 | | |
| Other | 2.0 | 19.6 | 40.2 | 38.2 | | |
| Monthly income of parents (for those living with parents only) | | | | | | |
| Less than GH¢50 | 2.7 | 13.3 | 52.0 | 32.0 | 13.572 | .035 |
| GH¢50 to GH¢99.9 | 4.4 | 14.3 | 34.1 | 47.3 | | |
| GH¢100 and above | 3.4 | 8.5 | 33.9 | 54.2 | | |
| Highest education of parents (for those living with parents only) | | | | | | |
| None | 2.4 | 12.5 | 44.0 | 41.1 | 3.354 | .949 |
| Primary | 6.3 | 9.4 | 50.0 | 34.4 | | |
| JHS | 3.6 | 12.5 | 42.9 | 41.1 | | |
| Secondary + | 4.5 | 15.9 | 36.4 | 43.2 | | |

Source: Based on field data, February-May, 2007

With regard to this item, the crosstabulation shows that differences in responses in terms of age, place of residence, income per month, living arrangements and education of parents are not significant, since their probability values are greater than the .05 set for this study. Differences by sex, educational status, employment status, and monthly income of parents are significant, in view of the fact that their probability results are less than .05. The results show that females have greater confidence in staying with only one partner compared to males, and the relationship is significant at the probability of .035. Education is positively associated with greater self-perceived ability to remain faithful to one partner, and the effect is significant at the .037 probability. This is because the proportion of respondents who say they are very confident they could stay with only one partner in their lifetime generally increases with increase in education.

The unemployed also have higher perceived ability compared to those who are working, significant at the .020 probability. Finally, parents' income demonstrates a positive influence on respondents' sexual behaviour. This is because of the direct relationship between parents' income and respondents' 'very confident' ability to stay with only one sexual partner in one's lifetime, significant at the .035 probability.

The other self-efficacy variable examined respondent's ability to refuse sex with a person who offers him or her money. Overall, 20% said they were not confident they could abstain from sex if offered money, 31.8% said they were confident, and 45% said they were very confident. The socioeconomic variables of sex, place of residence, education, employment, income, and parents' income are used to examine the differences to this response in Table 6.7.3.

Table 6.7.3 Differences in self-perceived confidence in refusing sex with someone who offers money

| Background characteristics | Confidence in refusing sex with someone who offers money | | | | | X ² | p-value |
|--|--|---------------|-----------|----------------|--------|----------------|---------|
| | Don't know | Not confident | Confident | Very confident | | | |
| Sex | | | | | | | |
| Male | 1.4 | 19.2 | 33.8 | 45.7 | 3.379 | .337 | |
| Female | 3.9 | 20.8 | 29.9 | 45.5 | | | |
| Age | | | | | | | |
| 15-19 | 3.0 | 17.5 | 35.5 | 44.0 | 4.035 | .258 | |
| 20-24 | 2.3 | 22.7 | 27.8 | 47.2 | | | |
| Place of residence | | | | | | | |
| Rural | 1.3 | 22.2 | 33.9 | 42.6 | 5.958 | .114 | |
| Urban | 4.1 | 17.7 | 29.5 | 48.6 | | | |
| Educational status | | | | | | | |
| None | 2.3 | 15.9 | 33.3 | 48.9 | 9.467 | .395 | |
| Primary | 3.4 | 21.4 | 35.9 | 39.3 | | | |
| JHS | 2.9 | 22.4 | 32.2 | 42.5 | | | |
| Secondary + | 1.4 | 16.9 | 22.5 | 59.2 | | | |
| Employment status | | | | | | | |
| Unemployed | 3.0 | 18.7 | 32.7 | 45.7 | 1.401 | .705 | |
| Employed | 2.0 | 22.7 | 30.0 | 45.3 | | | |
| Income per month | | | | | | | |
| Less than GH¢50 | 3.0 | 18.1 | 32.4 | 46.5 | 20.374 | .002 | |
| GH¢50 to GH¢99.9 | 0.0 | 48.5 | 24.2 | 27.3 | | | |
| GH¢100 and above | 0.0 | 7.7 | 30.8 | 61.5 | | | |
| Parents' income (for those living with their parents only) | | | | | | | |
| Less than GH¢50 | .7 | 19.3 | 40.0 | 40.0 | 11.500 | .074 | |
| GH¢50 to GH¢99.9 | 4.4 | 22.0 | 23.1 | 50.5 | | | |
| GH¢100 and above | 3.4 | 15.3 | 30.5 | 50.8 | | | |
| Highest education of parents (for those living with their parents only) | | | | | | | |
| None | 1.2 | 19.0 | 35.7 | 44.0 | 12.072 | .209 | |
| Primary | 6.3 | 12.5 | 46.9 | 34.4 | | | |
| JHS | 3.6 | 26.8 | 23.2 | 46.4 | | | |
| Secondary + | 2.3 | 15.9 | 27.3 | 54.5 | | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that among all the selected variables, it is only income per month that is significantly related to this self-perceived confidence measure, since it is the only one whose probability is less than .05. What comes out is that the higher a person's income, the higher the perceived ability to refuse sex with a person who offers money. The relationship is impressively significant at the probability of .002.

The last self-efficacy measured was respondents' ability to insist on using condom during sexual intercourse even if his or her partner does not want to use it. Over 26% said they were not confident they could do this, 42.4% said they were confident, while 23.6% said they were very confident they could do this. Differences in responses by selected sociodemographic variables are shown in Table 6.7.4.

Table 6.7.4 Differences in self-perceived ability to insist on using condoms even if one's partner does not want to use it

| Background characteristic | Confidence in insisting on condom use if even one's partner does not want to use one | | | | X ² | p-value |
|---------------------------|--|---------------|-----------|----------------|----------------|---------|
| | Don't know | Not confident | Confident | Very confident | | |
| Sex | | | | | | |
| Male | 5.5 | 18.7 | 47.9 | 27.9 | 18.444 | .000 |
| Female | 9.5 | 33.8 | 37.2 | 19.5 | | |
| Age | | | | | | |
| 15-19 | 7.7 | 25.6 | 46.6 | 20.1 | 4.589 | .205 |
| 20-24 | 7.4 | 27.3 | 38.0 | 27.3 | | |
| Place of residence | | | | | | |
| Rural | 4.8 | 21.3 | 47.0 | 27.0 | 14.055 | .003 |
| Urban | 10.5 | 31.8 | 37.7 | 20.0 | | |
| Educational status | | | | | | |
| None | 17.0 | 15.9 | 42.0 | 25.0 | 33.762 | .000 |
| Primary | 4.3 | 23.1 | 50.4 | 22.2 | | |
| JHS | 4.6 | 32.2 | 44.3 | 19.0 | | |
| Secondary + | 8.5 | 31.0 | 25.4 | 35.2 | | |
| Employment status | | | | | | |
| Unemployed | 7.0 | 29.7 | 43.0 | 20.3 | 7.934 | .047 |
| Employed | 8.7 | 20.0 | 41.3 | 30.0 | | |

| | | | | | | |
|--|------|------|------|------|--------|------|
| Income per month | | | | | | |
| Less than GH¢50 | 7.7 | 27.0 | 42.1 | 23.3 | 1.967 | .923 |
| GH¢50 to GH¢99.9 | 9.1 | 21.2 | 45.5 | 24.2 | | |
| GH¢100 and above | 0.0 | 23.1 | 46.2 | 30.8 | | |
| Living arrangements | | | | | | |
| Alone | 16.7 | 18.8 | 43.8 | 20.8 | 8.886 | .180 |
| With parents | 7.3 | 27.0 | 41.3 | 24.3 | | |
| Other | 3.9 | 28.4 | 45.1 | 22.5 | | |
| Monthly income of parents (for those living with parents only) | | | | | | |
| Less than GH¢50 | 5.3 | 22.7 | 51.3 | 20.7 | 13.249 | .039 |
| GH¢50 to GH¢99.9 | 8.8 | 29.7 | 31.9 | 29.7 | | |
| GH¢100 and above | 10.2 | 33.9 | 30.5 | 25.4 | | |
| Highest education of parents (for those living with parents only) | | | | | | |
| None | 8.3 | 25.6 | 42.9 | 23.2 | 17.020 | .048 |
| Primary | 12.5 | 9.4 | 53.1 | 25.0 | | |
| JHS | 1.8 | 44.6 | 30.4 | 23.2 | | |
| Secondary + | 6.8 | 25.0 | 40.9 | 27.3 | | |

Source: Based on field data, February-May, 2007

The table demonstrates that differences in responses in terms of age, income per month and living arrangements are not significant. Differences by way of sex, place of residence, education, employment, monthly income of parents and education of parents are significant, as indicated by their respective probability values.

Males have greater confidence in insisting on condom use compared to females, significant at the .000 probability. Rural respondents also profess greater ability to insist on condom use compared to their urban counterparts. With regard to education, the pattern shows that those with secondary education and above have greater ability to insist on condom use compared to those in all the other education categories. This is an indication of the positive effect of education on a person's ability to insist on condom use.

This result is also significant at the .000 probability. Those who are employed, those whose parents are of middle income earning status (GH¢50 to GH¢99.9), as well as those whose parents have higher education (secondary and above) all have greater ability to insist on condom use during sexual intercourse, compared to their counterparts.

6.8 DISCUSSION

According to Awusabo-Asare et al. (2006) risk can be measured either subjectively, as the perception of the person involved (self-perceived risk), or objectively, using behavioral indicators. An individual's recognition of self-perceived risk can motivate him or her to take action to change behaviour. In this research, risk was measured subjectively. The study reveals a low level of self-perceived risk of HIV/AIDS among the respondents, with more than 42% saying they had no chance of getting infected. Only about 7% said they had a high chance of getting infected. This finding confirms the observation by Amoa (2008) that the low risk perception among the youth is one of the factors driving the AIDS epidemic. The question used to determine risk perception in this survey is similar to the one used by Madise and Hinde (2003), and the results are also similar. Low perceived risk was also found in the studies by Pettifor et al. (2004); Osei-Agyekum (1997); Awusabo-Asare et al. (2006); Akinyemi et al. (1996); Awusabo-Asare et al. (1999); Bandawe and Foster, (1996); Fawole, Asuzu and Oduntan, (2000); Feldman et al. (1997); Magnani et al. (2002); and Maswanya et al. (1999).

This research however found that self-perceived risk is higher among people aged 20-24 compared to those aged 15-19. Also, rural residents, Akans, Christians, low monthly income earners, as well as respondents who live alone have higher risk

perception levels compared to their counterparts. Differences in terms of education and employment were not clear, and seemed to be the same for all the categories. In order to get the fight against HIV/AIDS going, no efforts must be spared in stressing the fact that everyone is equally at risk to the disease, irrespective of age, place of residence, or social class.

Among the reasons for not being at risk were: not sharing sharp items with other people, not being sexually active, and faithfulness to one partner. Participants in the focus group discussions complained that some of their colleagues did not care about HIV/AIDS at all because they thought they could not be infected, saying it was only people like prostitutes and womanizers who stood a high chance of being infected, and this was also confirmed by the results of the survey.

Currently, the HIV/AIDS prevalence rate in Ghana has decreased to 1.9% (National AIDS/STI Control Programme/Ghana Health Service, 2008), and this has further confirmed Ghana as one of the lowest HIV/AIDS prevalent countries in Sub-Saharan Africa. The low prevalence scenario is generally reflected in respondents' responses. In the survey, nearly 37% thought the prevalence was low, while 43% said it was high. But, as has been warned by Amoa (2008), this perception of low prevalence could make people complacent and assume that they are less likely to be infected even if they engage in high-risk behaviour. It is important for HIV/AIDS programmes to stress that the actual HIV situation could be higher than that indicated in surveys, and that any risky behaviour could still lead to infection. For example, a research in Nigeria established that one of the main reasons why many people in that country did not change

their sexual behaviour was the belief that AIDS was not yet common in the country, and therefore attached little seriousness to it (Isiugo-Abanihe, 1994).

A further comment on the reasons for risk perception is worthwhile. Figure 6.2.1 shows that the most common reason for those who felt at no risk to HIV/AIDS was sex-related (“Not sexually active”). However, among those who felt at some risk to HIV/AIDS, the most common reason given according to Figure 6.2.2 was sharing of blades and other sharp items. Perhaps this is an indication that such practices might be going on and that people generally knew of their implications and yet kept on. Such practices may even possibly include the sharing of unsterilised syringes for injection, as was revealed in the in-depth interview with the HIV/AIDS Focal Person for the District (p. 84).

One intriguing finding with regard to the perception of HIV/AIDS prevalence was that respondents in the rural areas perceived a higher level of prevalence than those in the urban area. This is in spite of the fact that a lower proportion of rural respondents compared to those in the urban areas said they knew a person who had HIV/AIDS.

The larger number of respondents disagreed with the notion that dying from HIV/AIDS is the same as dying from any other disease. To them dying from HIV/AIDS or being infected by the disease is more serious because it would mean early/premature death, shame on one’s family, stigmatisation by society, and rejection by friends, among others. This finding appears to contradict others such as Awusabo-Asare et al. (1999) and Amoa (2008) who hold the position that the majority of the youth have the perception that ‘all die be die’, that is; it does not matter what a person dies from, since in the end we will all die. This study has shown that although such attitudes may exist, not every body

subscribes to them. In this research, only 6% and 9.6% respectively agreed and strongly agreed to the statement. The factors identified as being associated with strongly disagreeing to this statement are age, education, employment, and living in a urban area as opposed to a rural area. The results clearly indicate a situation whereby young people are aware of the danger and threat of HIV/AIDS, and yet think that they themselves cannot be infected.

The follow-up question on how respondents felt about the seriousness and hence the consequences of being infected with HIV/AIDS also portray the persistence of a strong level of stigma towards those who are infected in the study area. From Figure 6.3.1, it is seen that apart from concerns about premature death, the next three most important reasons why respondents felt that being infected with HIV/AIDS would imply drastic consequences were all stigma-related: shame on self/family, rejection by family, and rejection by the community, in that order. This perhaps indicates a scenario whereby young people are very aware of how HIV/AIDS-infected and affected families stigmatised and maltreated in the community.

Indeed, the presence of stigma for those infected and affected by the disease in the study area was confirmed in the discussions with Mr Addai, an HIV/AIDS activist in the study area (p. 81). It was revealed that stigma also affects people's willingness to undergo voluntary counselling and testing for HIV/AIDS, as they fear being rejected by the community when found positive. In the same way, the fear of stigma causes families whose relatives die of AIDS to hide it. It also makes people infected with the disease travel to the Mampong Hospital, a distance of about 40 kilometres, for their antiretroviral drugs instead of obtain them from the Ejura Hospital. All of these situations translate into

the low number of reported HIV/AIDS cases in the study area. It is however very dangerous because it gives people a false sense of security and is likely to fuel high-risk sexual behaviour. The issue of stigma in the district therefore must be critically looked into.

The results of the research appear to suggest that the perception that young people who do not have sexual intercourse look odd or stupid is not so much entrenched compared to the perception that absence of premarital sex will make a person face problems later on in marriage. This seems contrary to the finding of overwhelming presence of such attitudes among young especially by researchers such as Anarfi and Antwi, (1995); Anarfi, (1997); Eaton, Flisher and Aarø, (2003); Hulton, Cullen and Khalokho (2000); Meekers and Calvès, (1997); and Ndubani and Höjer, (2001).

On the other hand, a comparatively larger number of respondents strongly agreed and agreed to the statement that absence from premarital sex will make a person face problems later in marriage due to lack of experience (7.1% and 31.1% agreed respectively) The results show that perhaps attitude towards premarital sex is changing from 'abstinence will make a person sick or look odd' to 'concerns about future marriage'. A related issue was what the women groups complained in the focus group discussions that they are forced by into premarital sex by the men they may be having platonic relationship with because the men warn them that if they do not give in then they would not marry them. This perception was confirmed in the focus group discussions. Factors associated with strongly disagreeing with this notion were residence in a urban area, having higher education as well as being employed.

The attitudes towards condoms reveal a lot about how people view condoms in Ghana. More than 40% agreed to the statement that condom use suggests sexual promiscuity or mistrust of one's sexual partner. This is similar to the findings by Awusabo-Asare et al. (1999), who reported that over 40% of the respondents he studied agreed with the statement that a girl who carried a condom in her purse was not a good girl. Similar concerns about condoms discovered elsewhere were: reduction in sexual pleasure and not being safe (Maswanya et al., 1999); and the fear that condoms can slip off a man's penis and disappear into a woman (Glover et al, 2003). In this research, factors associated with strongly disagreeing with this statement were having higher education, being employed, earning higher monthly incomes, being male, as well as being in the age group 20-24 years.

Nearly one-third of the respondents (30.9%) believed that condoms cannot protect against HIV/AIDS. Not believing that condoms can protect against HIV/AIDS, a fact that has also been reported by other researchers such as Feldman (1993), is, in this research, significantly higher among urban respondents, those unemployed, those earning higher incomes, females, those aged 15-19 years and, surprisingly, those with higher educational levels. The most common reason given was that condoms could burst (69.1%). In the focus group discussions at Kyenkyenkura, a male respondent aged 24 gave a personal experience of how the condom he was wearing during sexual intercourse got torn in the middle of the act. When asked what he did next, he said he quickly got up, put a fresh condom on got back.

In this research, the proportion of respondents who reported that they personally knew someone who had had HIV/AIDS or had died of the disease (28%) is higher than

the 20% reported by Awusabo-Asare (2006). It is also higher among the urban respondents compared to those in the rural areas. This could be an indirect indication that the HIV/AIDS prevalence in the urban area is higher than that of the rural areas.

Perceived self-efficacy, which was one of the attitudes measured in this research, has also been studied by others such as Uwalaka and Matsuo (2002), and Adih and Alexander (1999). The factors that came out as significantly associated with high self-perceived efficacy in abstaining from sex until marriage were: being in the age group 15-19, living in a rural area, being unemployed, earning below GH¢50 a month, as well as high parental monthly income. Factors positively associated with self-efficacy in remaining faithful to one sexual partner in one's lifetime were: being female, having higher education, being unemployed, and high monthly income of parents. The only factor significantly associated with self-efficacy in refusing sex for money was monthly income. Those of perceived ability to insist on condom use are male, residence in a rural area, higher education, and high monthly income of parents.

CHAPTER SEVEN

7.0 EFFECTS OF KNOWLEDGE AND ATTITUDES ON SEXUAL BEHAVIOUR

7.1 INTRODUCTION

Having analysed the knowledge and attitudes of respondents in the preceding two chapters, this chapter examines the effects of these factors on sexual behaviour. The extent of sexual behaviour of the respondents will first be discussed before proceeding to examine the effects of knowledge and attitudes. A combination of both quantitative and qualitative analyses will be done.

7.2 FACTORS AFFECTING PREMARITAL SEX IN THE STUDY AREA

Of all the 450 respondents, 213 of them, representing 47.3%, reported having had sexual intercourse, while the remaining had never done so before. In all, 52.7% had never had sexual intercourse, 22.9% had had sex with only one person, while 24.4% had had sex with two or more people. The mean age at first sexual intercourse was 17.5 years while the median age at first sex was 18 years. Table 7.2.1 shows the distribution of sexual behaviour by background characteristics.

Table 7.2.1 Distribution of sexual behaviour by background characteristics

| Background characteristic | Ever had sex | | X ² | p-value |
|---------------------------|--------------|------|----------------|---------|
| | No | Yes | | |
| Sex | | | | |
| Male | 55.7 | 44.3 | 1.583 | .208 |
| Female | 49.8 | 50.2 | | |
| Age | | | | |
| 15-19 | 73.5 | 26.5 | 84.912 | .000 |
| 20-24 | 30.1 | 69.9 | | |
| Place of residence | | | | |

| | | | | |
|--|------|------|--------|------|
| Rural | 62.6 | 37.4 | 18.654 | .000 |
| Urban | 42.3 | 57.7 | | |
| Ethnicity | | | | |
| Akan | 45.6 | 54.4 | 9.428 | .009 |
| Northern | 54.6 | 45.4 | | |
| Other | 68.5 | 31.5 | | |
| Religion | | | | |
| Christian | 46.2 | 53.8 | 11.890 | .003 |
| Moslem | 62.4 | 37.6 | | |
| Traditional/other | 66.7 | 33.3 | | |
| Educational status | | | | |
| None | 52.3 | 47.7 | 24.448 | .000 |
| Primary | 65.0 | 35.0 | | |
| J.S.S. | 54.6 | 45.4 | | |
| Secondary and above | 28.2 | 71.8 | | |
| Employment status | | | | |
| Unemployed | 56.3 | 43.7 | 4.854 | .028 |
| Employed | 45.3 | 54.7 | | |
| Income per month | | | | |
| Less than GH¢50 | 55.0 | 45.0 | 14.353 | .001 |
| GH¢50-GH¢99.9 | 21.2 | 78.8 | | |
| GH¢100 and above | 61.5 | 38.5 | | |
| Living arrangements | | | | |
| Alone | 16.7 | 83.3 | 32.302 | .000 |
| With parents | 60.0 | 40.0 | | |
| Other | 48.0 | 52.0 | | |
| Monthly income of parents (for those living with parents only) | | | | |
| Less than GH¢50 | 63.3 | 36.7 | 1.628 | .443 |
| GH¢50-GH¢99.9 | 58.2 | 41.8 | | |
| GH¢100 and above | 54.2 | 45.8 | | |
| Highest education of parents (for those living with parents only) | | | | |
| None | 67.3 | 32.7 | 9.759 | .021 |
| Primary | 59.4 | 40.6 | | |
| JHS/Middle | 44.6 | 55.4 | | |
| Secondary and above | 54.5 | 45.5 | | |

Source: Based on field data, February-May, 2007

The crosstabulation shows that differences in ever had sex for all the background characteristics are statistically significant except for sex of respondent and monthly income of parents. It further shows that the proportion of respondents who had ever had sexual intercourse is higher among those aged 20-24, those living in urban areas, those who are Akans, as well as among Christians. There also appears to be a direct association between education and ever had sex as the proportion who had had sex increases with increase in educational attainment with the exception of those with no education. Indeed the percentage that had ever had sex is highest among those with secondary education and above.

In terms of employment, the employed are also more sexually active compared to the unemployed. The level of sexual activity is also highest among those in the middle income category (GH¢50-GH¢99.9) and lowest among those earning GH¢100 and above. Sexual activity is also highest among those who live alone and lowest among those living with their parents. The pattern of ever had sex with regard to parents' education is also not clear. What can be said is that it is lowest among those with no education and highest among those with JHS/Middle school education.

The focus group discussions provided further information about the extent of premarital sex in the study area. All discussants in both the rural and urban locations reported that premarital sex was really going on. While all the parents condemned the practice, opinions were divided among the youth as to whether premarital sex was good or bad. Those who condemned made it made references to the Bible to buttress their position, pointing out that premarital sex was a sin. Others said that a man who engages in premarital sex with a woman will not respect her afterwards and would go to marry

another woman: *“because he has already seen your nakedness; you are no longer attractive to him again”* (Female, 24, Ejura). Other reasons given why it was not good were that it could lead to diseases such as HIV/AIDS, sexual promiscuity, unsafe abortions and infertility. Besides, it leads to loss of concentration for those who are in school and also does not help in the achievement of one’s potential. Those who said it was good mentioned the fact that it helps people to get their future married partners, and also it provides financial relief to some people, without which they would go hungry.

On the factors accounting for the high prevalence of premarital sex, participants mentioned peer pressure, quest for material possessions, teasing by friends, financial and economic problems, proliferation of pornographic materials at video centres and on television, lack of proper parental control, and uncontrollable sexual feelings. Respondents at Kyenkyenkura stressed the absence of alternative job opportunities in the rural areas with the exception of farming. To them, this creates conditions of extreme poverty leading to poor parental responsibility and/or child neglect. As one participant reported: *“Sometimes we are asked to bring this book or that item to school, but your parents may not mind you. So you may be forced to go in for a boyfriend who can help you to get your school needs”* (Female, 15 years).

At Ejura, parents and opinion leaders in the focus group discussions generally blamed colleague parents for the high rate of sexual promiscuity among the youth. It was revealed that some parents overtly and covertly pushed their daughters into sexual promiscuity by suggesting to them that they are of age and should therefore go in for boyfriends who would cater for them as all their peers are doing.

Others put the blame on parents' failure to take care of their children's physical needs, as expressed in the statement of the Deputy Director of the National Commission on Civic Education: *"You can see that parents have virtually abandoned their children. They don't care about their welfare and their needs at all. So the children roam the streets and do whatever they like"*. Some also blamed the lack of effective parent-child communication as well as parents' inability to discuss sexuality matters with their children due to shyness, cultural attitudes and poor knowledge of sexuality among parents themselves, as the causes of the problem. For example, the pastor of a church complained: *"If you have a chat with some of these youths on a confidential level you will realise that the root of their situation is lack of openness and communication with their parents. Particularly among the females, some of them even don't know how to properly take care of themselves during their menses, and parents have no time to teach them. When such things happen, it leads to ignorance, and consequently, early sex"*.

Some opinion leaders however rejected these assertions, and rather blamed the youths themselves, claiming that parents are doing their best except that children of today are very difficult and incorrigible who refuse to take any advice from parents. One parent suggested that: *"There are some children who, in spite of all that their parents do for them, they will still go in for boyfriends. In this case, the problem has arisen not because the parents are irresponsible, but the children themselves are wayward and incorrigible, and there is also no fear of God in them"*.

Other factors identified in the discussions were:

- Sexually provocative dressing among females (including female teachers),
- Excessive drinking and smoking of Indian hemp
- The regular conduct of funerals, parties and other social events

- Hunger and economic needs which make some women sell their bodies for sex
- The collapse of several state enterprises in the district such as the Ghana Tobacco Company and the Workers' Brigade, leading to unemployment among the youth
- The practice of polygamy among the Moslem community leading to large family sizes and child neglect.
- The liberal attitudes of the churches towards fornication.
- The bad moral life of some parents themselves
- The negative influence of peer group pressure

At Kyenkyenkura, parents and opinion leaders blamed the situation mainly on poverty and lack of viable alternative employment opportunities apart from farming. To them the general deprivation in rural areas has led to poverty among parents. Faced with this situation, parents have lost control of their children because they cannot provide for their needs. Others simply have no time for their children: *“in the evening if their chickens do not come to sleep they will go round the whole community looking for them; but if their daughters do not come to sleep they simply don't care”* (Female opinion leader, Kyenkyenkura).

7.3 EFFECTS OF KNOWLEDGE AND ATTITUDES ON SEXUAL BEHAVIOUR

Table 7.3.1 displays the effects of knowledge and attitudes on sexual behaviour.

Table 7.3.1 Effects of knowledge of HIV/AIDS and attitudes towards HIV/AIDS and sexuality on sexual behaviour

| Knowledge and attitude variable | No. of sexual partners ever had | | | | X ² | p-value |
|--|---------------------------------|------|-----------|-------|----------------|---------|
| | None | 1 | 2 or more | | | |
| Ever seen anyone who has HIV/AIDS or has died from AIDS | | | | | | |
| No | 57.7 | 18.3 | 23.9 | 5.728 | .057 | |
| Yes | 48.1 | 27.0 | 24.9 | | | |
| Personally know of someone who | | | | | | |

| | | | | | |
|--|------|------|------|--------|------|
| has AIDS or has died from AIDS | | | | | |
| No | 59.2 | 20.4 | 20.4 | 18.379 | .000 |
| Yes | 37.5 | 28.7 | 33.8 | | |
| Level of knowledge of HIV/AIDS | | | | | |
| Low | 60.9 | 23.4 | 15.6 | 9.125 | .058 |
| Moderate | 54.5 | 23.8 | 21.7 | | |
| Good | 46.4 | 21.2 | 32.5 | | |
| Self-perceived risk of getting HIV/AIDS | | | | | |
| Don't know | 58.6 | 20.7 | 20.7 | 49.518 | .000 |
| No chance | 67.9 | 20.5 | 11.6 | | |
| Small chance | 34.5 | 26.9 | 38.6 | | |
| High chance | 48.4 | 19.4 | 32.3 | | |
| Level of HIV/AIDS prevalence | | | | | |
| Don't know | 64.3 | 7.1 | 28.6 | 2.724 | .843 |
| Very low | 54.5 | 22.1 | 23.4 | | |
| High | 52.4 | 24.7 | 22.9 | | |
| Very high | 51.3 | 22.8 | 25.9 | | |
| Dying from AIDS is the same as dying from any other cause | | | | | |
| Don't know | 100 | 0.0 | 0.0 | 14.679 | .023 |
| Strongly agree | 59.3 | 11.1 | 29.6 | | |
| Agree | 65.1 | 25.6 | 9.3 | | |
| Disagree | 56.5 | 20.6 | 22.9 | | |
| Strongly disagree | 42.7 | 27.4 | 29.9 | | |
| The seriousness of being infected with HIV/AIDS | | | | | |
| Don't know | 100 | 0.0 | 0.0 | 2.440 | .875 |
| Not serious | 58.3 | 25.0 | 16.7 | | |
| Serious | 53.2 | 20.3 | 26.6 | | |
| Very serious | 52.0 | 24.4 | 23.7 | | |
| Abstinence from sex will make one sick or look odd or stupid | | | | | |
| Don't know | 71.4 | 28.6 | 0.0 | 11.380 | .181 |
| Strongly agree | 44.0 | 12.0 | 44.0 | | |
| Agree | 44.0 | 29.3 | 26.7 | | |
| Disagree | 54.4 | 23.5 | 22.1 | | |
| Strongly disagree | 55.2 | 21.1 | 23.7 | | |
| Remaining a virgin until marriage will cause problems in marriage during sexual intercourse | | | | | |
| Don't know | 53.3 | 40.0 | 6.7 | 21.054 | .007 |
| Strongly agree | 46.9 | 31.3 | 21.9 | | |
| Agree | 40.0 | 29.3 | 30.7 | | |
| Disagree | 58.7 | 18.7 | 22.6 | | |

| | | | | | |
|--|------|------|------|--------|------|
| Strongly disagree | 62.0 | 15.7 | 22.2 | | |
| Self-perceived confidence to abstain from sexual intercourse until marriage | | | | | |
| Don't know | 54.5 | 13.6 | 31.8 | 96.829 | .000 |
| Not confident | 20.2 | 26.3 | 53.5 | | |
| Confident | 56.9 | 25.3 | 17.8 | | |
| Very confident | 73.6 | 18.6 | 7.9 | | |
| Self-perceived confidence to stay with only one partner in one's lifetime | | | | | |
| Don't know | 57.1 | 14.3 | 28.6 | 36.374 | .000 |
| Not confident | 31.0 | 16.9 | 52.1 | | |
| Confident | 57.0 | 24.2 | 18.8 | | |
| Very confident | 56.4 | 24.6 | 19.0 | | |
| Self perceived confidence to refuse sex with a person who offers money | | | | | |
| Don't know | 50.0 | 16.7 | 33.3 | 17.793 | .007 |
| Not confident | 36.7 | 24.4 | 38.9 | | |
| Confident | 60.8 | 21.0 | 18.2 | | |
| Very confident | 54.1 | 23.9 | 22.0 | | |

Source: Based on field data, February-May, 2007

The table shows that differences in sexual behaviour (number of sexual partners ever had) for ever seen a person who has HIV/AIDS or has died from AIDS, level of knowledge of HIV/AIDS, attitude towards the level of prevalence of HIV/AIDS, attitude towards dying from HIV/AIDS, attitude towards the seriousness of being infected with HIV/AIDS, and attitude towards the perception that abstinence from sexual intercourse until marriage will make one sick or stupid are not significant, since they have probability values of more than .05. The hypothesis on the relationship between knowledge of HIV/AIDS and sexual behaviour is therefore rejected, since the relationship is not significant ($p=.058$).

Differences are however significant for personal knowledge of a person with HIV/AIDS, self-perceived risk of getting HIV/AIDS, attitude towards dying from AIDS,

attitude towards the statement that remaining a virgin will lead to problems in marriage during sexual intercourse, self-perceived confidence to abstain from sexual intercourse until marriage, self-perceived confidence to stay with only one partner in one's lifetime, and self-perceived confidence to refuse sex for money, in view of their probability values being less than .05. It is realised that the level of sexual activity is higher among those who personally know of someone who has HIV/AIDS or has died from AIDS compared to those who have not, the effect being significant at the .000 probability. Such people are less likely to have abstained from sex, and more likely to have had only one sexual partner as well as two or more partners. This indicates that personal knowledge of HIV/AIDS is positively associated with sexual behaviour.

On self-perceived risk of getting HIV/AIDS, the proportion who have not had sex is higher among those who believe that they have a high chance of being infected compared to those who have a small chance of being infected (48.4% and 34.5% respectively). In other words, those who perceive a high chance of their being infected are more likely to abstain from sex compared to those who see their chance of being infected as small. Moreover, those who perceive a high chance of being infected are also less likely to have had one partner (or started sex) compared to those who perceive a small chance (19.4% and 26.9% respectively). They are also less likely to have had two or more sexual partners compared to those who perceive only a small chance of being infected (32.3% and 38.6% respectively). The conclusion, on the basis of the level of sexual activity between those who perceived a high chance of their being infected and those who perceive their chance of being infected as small, is that higher perception of risk is associated with less sexual activity. This finding is highly significant at the .000

probability. The fourth hypothesis on the relationship between self-perceived risk and sexual intercourse is therefore justified.

The table also shows that the proportion of respondents who have never had sexual intercourse is lowest among those who strongly disagree that dying from AIDS is the same as dying from any other cause (42.7%). The same category of people also have the highest proportion of those who have had only one sexual partner and two or more partners. This means that increasing rejection of the notion that dying from AIDS is the same as dying from any other disease is associated with an increase in sexual activity. In other words, sexual activity is higher among those who perceive that dying from AIDS is a more serious condition. This relationship is significant at the .023 probability.

With regard to the statement that abstinence from sexual intercourse will lead to problems in marriage, the table shows that increasing disagreement with the statement is associated with decrease in sexual activity. For example, the proportion who have never had sex is highest among those who strongly disagree to the statement (62%) compared to the rest. The proportion who have had only one sexual partner and those who have had two or more partners is also lowest among the same category of people compared to the others (15.7% and 22.2% respectively). This relationship is significant at the .007 probability. The third hypothesis has therefore been justified.

The crosstabulation also shows that self-perceived confidence to abstain from premarital sexual intercourse influences sexual behaviour. The proportion who have never had sexual intercourse is highest among those who are very confident that they can abstain from sexual intercourse until marriage compared to the rest. Those who are very confident they can abstain from premarital sex until marriage are also least likely to have

had only one partner (18.6%) and two or more partners (7.9%). The relationship is significant at the .000 probability. Similarly, the proportion who have had only one sexual partner is higher among those who are 'strongly confident' that they can stay with only one partner (24.6%) compared to those who are 'confident' and 'not confident' of this (24.2% and 16.9% respectively). This is also significant at the .000 probability.

Finally, the table shows that the proportion that have not had sex is highest among those who are 'confident' and 'very confident' that they can refuse sex with a person for money (60.8% and 54.1% respectively), compared to those who are not confident of this (36.7%). Similarly, those who are 'confident' as well as those who are 'very confident' that that they can refuse if offered money to have sex are less likely to have had sexual intercourse with even one person or two or more people. This indicates that self-perceived confidence in refusing sexual intercourse for money is associated with reduced level of sexual activity. This finding is also significant at the .007 probability.

7.4 EFFECTS OF KNOWLEDGE OF HIV/AIDS AND ATTITUDES ON CONDOM USE

In view of the fact that condom use is an important aspect of sexual behaviour and one of the means of controlling the HIV/AIDS pandemic, the effects of knowledge of HIV/AIDS and attitudes on condom use were also examined. The results are summarised in Table 7.4.1.

Table 7.4.1 Effects of knowledge of HIV/AIDS and attitudes towards condoms on condom use

| Knowledge/Attitude | Condom use during last sexual intercourse | | | |
|--|---|------|----------------|---------|
| | No | Yes | X ² | p-value |
| Level of knowledge of HIV/AIDS | | | | |
| Low | 72.0 | 28.0 | 2.395 | .302 |
| Moderate | 65.4 | 34.6 | | |
| Good | 56.8 | 43.2 | | |
| Condom use suggests sexual promiscuity or mistrust of one's partner | | | | |
| Don't know | 75.0 | 25.0 | 6.439 | .169 |
| Strongly agree | 82.6 | 17.4 | | |
| Agree | 60.6 | 39.4 | | |
| Disagree | 64.5 | 35.5 | | |
| Strongly disagree | 50.0 | 50.0 | | |
| Condoms are effective in preventing HIV/AIDS | | | | |
| Don't know | 100.0 | 0.0 | 9.499 | .009 |
| No | 73.9 | 26.1 | | |
| Yes | 55.8 | 44.2 | | |
| Self-perceived confidence to insist on condom use with sexual partner | | | | |
| Don't know | 88.2 | 11.8 | 10.999 | .012 |
| Not confident | 72.3 | 27.7 | | |
| Confident | 54.4 | 45.6 | | |
| Very confident | 56.1 | 43.9 | | |

Source: Based on field data, February-May, 2007

From Table 7.4.1 it is realised that differences in condom use at last sexual intercourse in terms of level of knowledge of HIV/AIDS and attitude towards the statement 'condom use suggests sexual promiscuity or mistrust of one's sexual partner' are not significant. From the table it can be seen that believing that condoms can protect against HIV/AIDS is significantly associated with its use during last sexual intercourse. More than 44% of those who believe that condoms can protect against HIV/AIDS used

condoms during their last sexual intercourse, compared with only around 26% of those who believe that condoms cannot protect against HIV/AIDS. This effect is statistically significant at the .009 probability.

Finally, the results also show that self-perceived confidence to insist on condom use is also significantly associated with its use during last sex. Condom use during last sexual intercourse among those who are confident and very confident in insisting on its use are 45.6% and 43.9% respectively, while among those who are not confident in insisting on its use it is 27.7%. This effect is significant at the probability of .012.

7.4 DISCUSSION

The proportion of respondents that have had sex in this study is lower than that of Tengia-Kessy, Msamanga, and Moshiro, (1998); Anarfi, (1997); Buga, Amoko and Ncayiyana (1996,); Afenyadu and Goparaju (2003); but higher than that of Slap (2003); Ruby (2004); Kwankye (2005); and Isiugo-Abanihe and Oyediran (2003). The median age at first intercourse is also higher than that of Karim et al. (2003), Singh et al. (2004), Anarfi (1997), but similar to that of the ORG Centre for Social Research (2003).

The finding of a higher level of sexual activity among respondents from the urban areas compared to the rural areas contradicts that of Kwankye (2005) but confirms that of 2003 Ghana Demographic and Health Survey (GSS and ORC Macro, 2004). The finding that sexual activity increases with age confirms Kwankye (2005), Filmer (1998) and Isiugo-Abanihe and Oyediran (2003). Moreover, the finding of a positive association between education and premarital sex is similar to that of Isiugo-Abanihe and Oyediran (2003) and Karim et al. (2003), but contrary to that of Filmer (1998).

In this research, cues to action (that is, seeing or knowing someone who has HIV/AIDS) did not lead to a reduction in sexual behaviour, contrary to the prediction in the Health Belief Model (Population Council, 2006; University of Twente, 2004; Roberts and Tavakoli, 2001; King, 1999; Poureslami). Indeed, those who knew someone with HIV/AIDS tended to be more sexually active. This also contradicts the finding by Dlaki (2004). This perhaps questions the practice of showing people infected with HIV/AIDS on television and on HIV/AIDS programmes with the expectation that it will scare people away from high-risk behaviours. There is therefore the need for a paradigm shift in this approach. Instead of people who look very old, sick and emaciated, (people who the youth cannot identify with), showing HIV-infected people who look healthy and are from the same community would perhaps make a better impact.

The relationship between knowledge of HIV/AIDS and sexual behaviour proved not to be significant, resulting in a refutation of the hypothesis on knowledge of HIV/AIDS and sexual behaviour. This contradicts the findings of Adewole and Lawoyin (2004), Ntozi and Ahimbisibwe, (1999), London, VanLandingham and Grandjean (1997), and Ocran and Harlow (2004). It is on the other hand similar to the findings by White (2005), Adedimeji (2005), Nabila and Fayorsey (1996), Kiragu (2001), and Fayorsey (2002). The low effect of knowledge of HIV/AIDS on sexual behaviour was acknowledged in the focus group discussions. To them, people had heard about the HIV/AIDS messages but were still engaging in premarital sex. Participants attributed the situation to low risk perception, the belief that HIV/AIDS is a spiritual disease, the long incubation period of the disease, and the absence or the low reported cases of infected people in their communities.

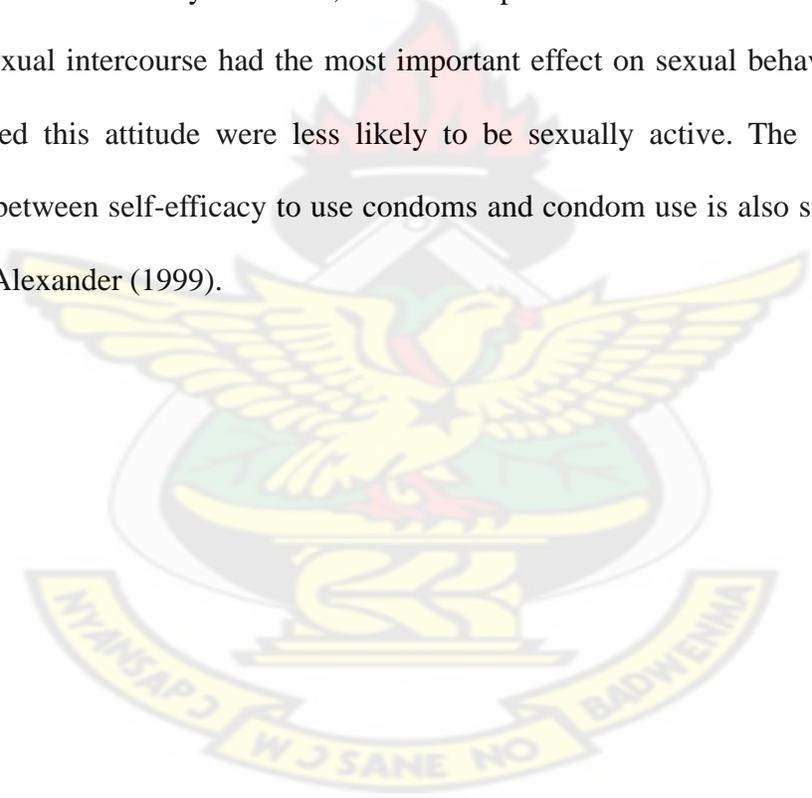
Self-perceived risk, on the other hand, was associated with a reduction in sexual behaviour. That is, people who perceived themselves to be at a higher risk of contracting HIV/AIDS were more likely to abstain from sex and to have fewer sexual partners. This validates the well-received relationship between self-perceived risk and sexual behaviour. It also validates the hypothesis on the relationship between self-perceived risk and sexual behaviour in this research. Furthermore, the result is similar to the findings by USAID (2003), African Youth Alliance (2006a), and Adih and Alexander (1999). It however contradicts the results of Akwara, Madise and Hinde (2003), who found a positive association between perceived risk of HIV/AIDS and sexual behaviour.

The research also observed that those who strongly rejected the notion that dying from HIV/AIDS is the same as dying from any other disease tended to be more sexually active, while those who accepted it were less so. Thus the predicted influence of the notion of “All die be die” (Awusabo-Asare et al., 1999) on sexual behaviour could not be corroborated. However, the result is an improvement over that of Awusabo-Asare et al who merely reported the prevalence of such perceptions without relating them to actual sexual behaviour.

The research has also established that some of the attitudes about premarital sex can significantly influence sexual behaviour, although not all such attitudes are important predictors. In this research, no significant relationship was found between the attitude that abstinence from premarital sex will make a person sick or odd and sexual behaviour. It was however found that respondents who disagreed that abstinence from premarital sex would lead to problems of sexual intercourse during marriage were less sexually active. This finding leads to the justification of the hypothesis on attitudes towards premarital

sex and sexual behaviour. It is also similar to the finding by Mohammadi (2006) who discovered that respondents with more permissive attitudes towards sex were more likely than others to have engaged in sex among 15-18 year-olds in Iran. Moreover, it has improved upon the position held by Asuzu (1994), Awusabo-Asare (1999), Hutton, Cullen and Khalokho (2000), Meekers and Calves, (1997), and Anarfi and Antwi (1995), by providing concrete evidence about the theorised relationship between attitudes towards premarital sex and sexual behaviour.

Of all the self-efficacy measures, that of self-perceived confidence to abstain from premarital sexual intercourse had the most important effect on sexual behaviour: people who expressed this attitude were less likely to be sexually active. The result of the relationship between self-efficacy to use condoms and condom use is also similar to that of Adih and Alexander (1999).



CHAPTER EIGHT

8.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

8.1 SUMMARY OF FINDINGS

A review of the literature reveals a gap in the examination of the empirical relationship between knowledge of HIV/AIDS and attitudes on one hand and sexual behaviour on the other. There is also a gap in the methodological approach. This research sought to fill this gap by providing evidence on how knowledge and attitudes towards HIV/AIDS and premarital affect the sexual behaviour of unmarried 15-24 year-olds in the Ejura-Sekyedumase District, as a way of tackling the problem of HIV/AIDS in the study area. In doing this, a random sample of 450 unmarried people aged 15-24 years drawn from one urban and nine rural communities was used. For quantitative analysis, measurement criteria and codes were employed to determine differences in knowledge and attitudes obtained through questionnaire. This was supplemented by qualitative data from in-depth interviews and focus group discussions.

A few problems occurred in the course of gathering data for the research. In a few cases, there were interruptions from other household members during interviews of respondents. For example, parents would call respondents to undertake household chores for them. Some never returned and had to be replaced, while those who returned only did so after considerable delays, leading to breaks and loss of continuity in the discussion process. Such interruptions happened in one out of every ten interviews.

There were also long delays in getting to the rural research sites particularly Dijau, Kyenkyenkura, Aberewano and Bissiw, due to transportation problems and the bad

nature of the roads. In many cases by the time the research team finally got to the communities a good number of potential respondents would have already left for their farms. On their return, some of them felt tired and refused to participate. They could not therefore be included in the sampling.

Although respondents were assured of the strict confidentiality of their responses, there were 50 cases where people felt uneasy about disclosing information on their sexual behaviour. In 20 of these cases, it was realised that the respondents were giving contradictory information, and so the interviews had to be stopped in order not to dilute the findings.

Another challenge encountered was that many respondents, particularly those in the rural areas found it difficult giving accurate data on their ages, monthly incomes as well as their parents' education and monthly incomes. Their number was 30 in all. The problem of the monthly incomes was solved by estimating the value of quantity of crops cultivated in the preceding year and dividing the results by twelve months. That of the age and education was solved by enquiring from other household members particularly the parents themselves.

Finally, there were communication problems for 20 respondents who could neither speak Twi nor English, the two languages in which the interviews were conducted. For these, interpreters had to be found to ensure smooth interviewing. Their responses therefore depended on how well each understood the other during the discussions. However, in spite of these challenges, the research was an overwhelming success, and was able to achieve its objectives within reasonable time.

The study found that 47.3% of the 450 unmarried people aged 15-24 had engaged in premarital sexual intercourse. In all, 52.7% had never had sexual intercourse, 22.9% had had sex with only one person, while 24.4% had had two or more sexual partners. The mean age at first sexual intercourse was 17.5 years while the median age at first sexual intercourse was 18 years. The proportion that had had sex increased with age. It was also significantly higher among respondents living in urban areas, Akans, Christians, those with secondary education and above, among the employed, among those earning between GH¢50 and GH¢99.9, among those living with their parents, and among those whose parents had JHS/Middle school education.

The electronic media (radio and television) were the most important sources of information about HIV/AIDS among the sample, while the role of parents/family members and health workers was rather low. All the respondents indicated they had heard about HIV/AIDS, signifying a 100% awareness level. They also identified sexual intercourse as the main route of HIV/AIDS transmission. Alongside correct knowledge, there also existed a lot of misconceptions about the disease. For example, nearly half (48.4%) believed that HIV/AIDS could be spread by mosquito bites, while 34% thought that the disease could be spread by spiritual means. The results of the focus group discussions confirmed the quantitative data.

In all, the majority of respondents (52.2%) had moderate knowledge about HIV/AIDS. Around one-third (33.6%) had good knowledge while 14.2% had low knowledge about HIV/AIDS. There was positive association between education and knowledge of HIV/AIDS. Other respondents who had better knowledge, according to the chi square test were, those living in the urban area, Akans, Christians, those earning

between GH¢50 and GH¢99.9, those staying alone, those whose parents had monthly salaries of between GH¢50 and GH¢99.9, and those whose parents had secondary education and above.

The relationship between place of residence and knowledge of HIV/AIDS clearly justified the first hypothesis for the research. However, the association between knowledge of HIV/AIDS and sexual behaviour was not significant, occurring at the .058 probability. This led to a refutation of the hypothesis on the two variables.

One curious finding made was the fact that respondents in the rural areas perceived a higher level of HIV/AIDS prevalence than those in the urban area, in spite of the fact that a lower proportion of rural respondents compared to those in the urban areas said they had seen or knew a person who had HIV/AIDS.

The attitude variables that bore significant relationships with sexual behaviour were: self-perceived risk of getting HIV/AIDS, dying from AIDS compared to dying from other diseases, attitudes toward premarital sex (as measured by responses to the statement: remaining a virgin until marriage will cause problems of sexual intercourse later in marriage), self-perceived confidence to abstain from sexual intercourse until marriage, self-perceived confidence to stay with only one partner in one's lifetime, and self-perceived confidence to refuse sex for money.

With regard to self-perceived risk, more than 42% saw themselves as having no chance of being infected with HIV/AIDS. Only about 7% saw their chances of being infected as high. However, high self-perceived risk resulted in a reduction in sexual activity. Respondents who perceived themselves as having a high chance of being infected were more likely to abstain from sexual intercourse and less likely to have had

two or more partners compared to those who saw themselves as having a small chance. The effect was significant at the .000 probability. This validated the hypothesis on the relationship between self-perceived risk and sexual behaviour in this research.

The research also found that some attitudes towards premarital sex significantly influence sexual behaviour. People who disagreed that abstinence from premarital sexual intercourse could make one face problems of sexual intercourse in marriage were significantly less likely to have begun sexual activity; and less likely to have had multiple sexual partners. This was significant at the .007 chi square probability. The hypothesis that positive attitudes towards premarital sex leads to less sexual activity was consequently justified.

The higher the perceived self-efficacy to abstain from premarital sex, the higher the probability of actually abstaining and to have had fewer number of sexual partners. Moreover, those who believed they could stay with only one sexual partner in their lifetime were more likely to have had only one partner, compared to those who said they could not. Also, greater perceived ability to refuse sex for money was associated with lesser likelihood of ever engaging in sex, and having lesser number of sexual partners.

Very strong negative attitudes towards condoms prevailed. More than 40% of the sample agreed that using condoms during sexual intercourse indicated promiscuity or mistrust of one's sexual partner. Respondents with less education, the unemployed as well as those with very low monthly incomes were more likely to hold such attitudes. More than 30% also believed that condoms were not effective in preventing HIV/AIDS. Respondents living in urban areas were more likely to hold such attitudes. Surprisingly, higher education seemed to be associated with believing that condoms are not effective in

preventing HIV/AIDS. Greater negative attitudes towards condoms were associated with less use of condoms, and vice versa. Self-perceived confidence to insist on condom use was also significantly associated with greater use during last sexual intercourse.

8.2 CONCLUSION

The research sought to address the problem of HIV/AIDS in the Ejura-Sekyedumase District by focusing on the effects of knowledge and attitudes on sexual behaviour. The HIV/AIDS statistics for the district show a rising trend, a situation described as alarming by health professionals and HIV/AIDS activists. At the Ejura Government Hospital, a total of 47 people tested positive for HIV/AIDS in 2004, 63 in 2005, and 104 in 2006. The Kasei Hospital (a private medical facility in the district) also recorded a total of 27 HIV/AIDS cases in HIV/AIDS 2002, 56 in 2003, 74 in 2004, 83 in 2005 and 97 in 2006. Records from the Regional AIDS Control Programme in Kumasi also showed that between 1999 and 2005, a cumulative total of 112 AIDS cases were reported in the district. Health professionals further argued that the actual situation could be much higher, since not all cases are captured in official records.

In spite of the reality of the pandemic in the district, it was revealed in preliminary investigations that many people have serious misconceptions and negative attitudes about the disease. Some deny its existence, while others attribute it to factors such as curses, witchcraft and mosquitoes. All these have implications for sexual behaviour and the risk of HIV/AIDS. Discussions with parents, opinion leaders and some of the youths themselves confirmed that premarital sex is on the ascendancy in the district, and that in

spite of all the messages on HIV/AIDS, people are still adamant about changing their ways.

The geographical area is characterized by poverty, low infrastructural development including roads and health facilities, unemployment, low school attendance and high illiteracy rates, multi-ethnicity, trading, commercial sex activities, and rampant population movements. There are also issues of peer pressure and the gradual infiltration of urbanisation and modernisation, leading to liberal attitudes towards premarital sex.

All these situations called for an exploration of the prevailing knowledge and attitudes towards HIV/AIDS, and their effects on sexual behaviour, in order to design appropriate intervention measures to address the problem of HIV/AIDS in the district. The research focused on people aged 15-24 years in view of their strategic position in HIV/AIDS prevention in Ghana and worldwide.

The objectives of the research were therefore to measure the knowledge of the target group on HIV/AIDS, to find out their attitudes towards the disease, to find out the effects of knowledge and attitudes on sexual behaviour, and to come out with policy recommendations on HIV/AIDS prevention in the district based on the findings.

Four hypotheses were set for the research. Out of this, three were justified while one was not. In the first place, knowledge of HIV/AIDS was found to be significantly higher in the urban area compared to the rural, at the chi square probability of .000. High self-perceived risk to contract HIV/AIDS was also found influence sexual behaviour. In other words, people who perceived their chances of contracting HIV/AIDS to be high were less likely to have engaged in premarital sex, compared to those who saw their chances of being infected as low. This was also significant at the .000 probability. In the

same way, those who rejected the statement that abstinence from premarital sex would make a person face problems later in marriage were less likely to have engaged in premarital sex, justifying the hypotheses that positive attitudes towards premarital sex results in less sexual activity. This was significant at the .007 probability.

The hypothesised relationship between knowledge of HIV/AIDS and sexual behaviour could however not be justified, since the effect was not significant ($p=.058$). The results imply that knowledge of HIV/AIDS and sexual behaviour are not related. The reason could be that people may know about HIV/AIDS alright but are unable or unwilling to act on what they know. It could also be due to probably the way knowledge of HIV/AIDS was measured, which was based mainly on a person's ability to mention the causes and prevention of the disease, and did not take into account knowledge of its effects. The links between the two would perhaps have been more visible if the former had been based on a person's knowledge of the effects of the disease on one's life.

Overall, the research has made significant contributions to knowledge in the literature. It has provided empirical evidence to support and enrich the debate on the links between knowledge of HIV/AIDS and attitudes on one hand, and sexual behaviour on the other.

Another contribution of the research is that it has provided a conceptual framework for organising studies on the empirical relationships between knowledge, attitudes and sexual behaviour, by modifying the Health Belief Model to make it suitable for research in Sub-Saharan Africa. The model argues that for behavioural change to occur a person must have a perception of personal susceptibility or risk to HIV/AIDS, see the problem of HIV/AIDS to be severe, and must weigh the benefits against the perceived costs and

perceived barriers to change. Finally, there must be a variety of cues that provide the trigger for action to occur.

Among the modifications to the original model were the introduction of knowledge in the model, making room for the role of external factors beyond knowledge and attitudes, as well as organizing the attitude variables to stand on their own so that their independent effects could be determined. This, it is expected, will pave way for other researchers to begin to apply similar cognitive models in studies of sexual behaviour in Sub-Saharan Africa.

Finally, the research has justified and argued for a combination of qualitative and quantitative methodologies in studying knowledge, attitudes and sexual behaviour. It has proven that quantitative measurements of variables such as knowledge and attitudes are both possible and desirable, in order to determine their actual effects on sexual behaviour. On the other hand, there is the need to add a qualitative touch to studying sexual behaviour, in order to unearth the broad dimensions of the issue in the sense that qualitative data has the unique value of complementing, validating and providing a richer understanding of quantitative findings. In effect, a combination of quantitative and qualitative methods is justified on the grounds that they complement each other's strengths and weaknesses.

Some areas for further research are proposed. In the first place, research is needed on the influence of knowledge of HIV/AIDS on attitudes, as well as the influence of knowledge of HIV/AIDS on condom use. Studies on the effects of radio and television programming on HIV/AIDS prevention should also be considered.

Research to unearth attitudes to the following should also be considered: attitudes towards sex education, attitudes towards people living with HIV/AIDS, attitudes towards traditional or herbal treatment for AIDS, and attitudes towards voluntary counselling and testing for HIV/AIDS (VCT). Not only should that be, but their effects on sexual behaviour should also be assessed.

Finally, the role of cultural and traditional practices, taboos and belief systems in HIV/AIDS prevention should also be explored. Some of the issues to be highlighted include female genital mutilation, male circumcision, and belief in witchcraft and other supernatural forces in the prevention and treatment of HIV/AIDS.

8.3 RECOMMENDATIONS

The findings of the research show that a combination of strategies would need to be put in place in order to reduce the threat of HIV/AIDS among young people in the study area. The following policy recommendations are therefore suggested as a way of addressing the problem of HIV/AIDS in the study area.

8.3.1 Formal education to defuse false perceptions and beliefs

In this research, education positively influenced knowledge and almost all the attitude variables. The role of formal education in deepening knowledge about the disease and dispelling wrong notions and negative attitudes is thus established. In view of this, it is suggested that access to education in the study area be improved and expanded. The District Assembly and the Ghana Education Service must ensure the full implementation of the government's policy of compulsory free education at the basic level, and all

bottlenecks that militate against effective school participation addressed. The Capitation Grant and the School Feeding Programme, which have been linked to massive increases in school enrollment at the basic level, must be fully supported and enhanced through effective monitoring and evaluation to achieve their desired results in the district. It is also suggested that the School Feeding Programme, which currently covers only pupils at the primary level, should be extended to the junior high school level too, in order to encourage attendance. It could be done on a pilot basis using the district as a test case, and gradually extended to other areas, based on the results.

Education must be made particularly accessible to the girl-child, who suffers disproportionately from lower school attendance. Schools in the district must be well resourced, in terms of textbooks and other learning materials, with improvement in infrastructure and personnel, in order to make them attractive. Since a greater proportion of the population are in the rural areas where educational facilities are relatively deprived, the improvement in educational facilities in the rural schools would ensure that as many young people as possible can go to school. The District Assembly must ensure the passage of bye-laws to dissuade children from leaving the classroom to engage in trading activities, and they must be rigorously enforced.

To ensure maximum results, there is the need to ensure the effective integration of the subject of HIV/AIDS into all aspects of the school curricula. The National AIDS Control Programme must monitor and ensure that the messages taught are appropriate and relevant. School-based sex education should reach young people before they become sexually active, possibly in the lower primary levels, as this will also benefit those who would later drop out. It should however be age-appropriate, intensifying at the upper

primary and early junior high school levels, and also should be mandatory. Teachers to handle these courses also need appropriate teaching materials and additional training. The content of the syllabuses will have to be developed by the Ghana Education Service in collaboration with teachers' and parents' organizations and with the participation of students' representatives. This will ensure better acceptability across the broad spectrum of stakeholders.

The Ghana Education Service should also encourage the establishment of AIDS clubs and Virgins clubs in schools. Additionally, the schools must complement AIDS education with the use of resource personnel from outside institutions such as the Ghana Health Service and the Ghana AIDS Commission.

8.3.2 Education and communication on HIV/AIDS

There is the need to streamline education on HIV/AIDS in terms of target groups, content and expected outcomes. HIV/AIDS education in both the classroom and outside must tackle misconceptions such as the belief in witchcraft and mosquitoes as causes of the disease. It must also be comprehensive, roping in non-sexual routes of transmission particularly mother-to-child transmission and blood transfusion, since knowledge on these is low. Education must emphasise on those living in rural areas, those with low education, those who stay with their parents, those in very low and very high monthly income categories (compared to those in the middle income group), since they have comparatively lower knowledge. Positive attitudes towards premarital sex must also be pursued, since it has an influence on sexual behaviour, with target groups being those in rural areas, the lowly educated, the employed, and low income earners.

The problem of self-perceived risk must be addressed by emphasising the fact that everyone who is sexually active is at risk to the disease, and not only prostitutes. Self-perceived risk must target those in the 15-19 age group, urban residents as well as Christians. The devastating effects of the disease on the individual, family, community and the nation as a whole must be laid bare. Messages must also stress the fact that in spite of the low prevalence rates of the disease in Ghana, people can still get infected because reported official statistics may not capture all actual cases and because it is not possible to determine whether a person has the virus or not by mere physical appearance. It is also necessary to encourage people to undergo voluntary counselling and testing for HIV/AIDS in order to know their own HIV/AIDS status so as to take proper care of themselves.

The result of the relationship between knowledge and sexual behaviour shows that it may not be enough to simply provide information about HIV/AIDS. Knowledge alone in itself may not necessarily lead to behavioural change. HIV/AIDS education should therefore not consist only of teaching 'facts' about the disease. The challenge is to empower people to be able to translate their knowledge into practice. This means that in addition to knowledge, young people also need other practical life skills in safe sex negotiation, assertiveness, attitudes of self-worth and self-confidence, and positive attitudes towards sexual abstinence. HIV/AIDS education should also involve the participation of the learners, using active techniques such as role-play, quizzes, games, and drama, all in an effort to empower learners to be able to put their knowledge into practice.

Finally, knowledge must be linked with training to develop marketable skills and employable opportunities. Other issues include how to deal with peer pressure and norms that encourage risky behaviour, the building of positive relationships with parents, teachers and other adults in the community, exposing young people to positive values, roles and expectations, as well as a strong moral and ethical education.

8.3.3 Policy on access of information and resources

The power of radio and television must be fully utilised, in view of their role as the predominant sources of HIV/AIDS information. Electricity expansion particularly into the rural areas should be a top priority as it would enhance access to these media and hence regular interaction with HIV/AIDS messages. The District Assembly should also encourage the establishment of at least one FM radio station in the district as is found in many surrounding districts. Through this medium HIV/AIDS messages can be effectively delivered to the doorstep of the people and also reduce barriers to open discussion of sexual and HIV/AIDS issues. The planning of such programmes should also involve all stakeholders including community leaders and youth leaders at all stages to ensure that what is said will be understood, accepted and disseminated in an effective format.

The District Assembly should also encourage the participation of community-based organisations in HIV/AIDS education to ensure that messages reach the rural hinterlands where the problems of inadequate knowledge are more acute. Their involvement is also extremely important since their local knowledge and skills put them in a unique position to identify problems and to assess what needs to be done at the community level. Also, they have the capacity to reach communities that government agencies and larger NGOs

have no access to. HIV/AIDS activists could take advantage of market days, as well as funerals and other socio-religious occasions to embark upon campaigns in order to reach a wider audience at a time.

In view of the low level of sexual health information flow between parents and young people as revealed in the survey, parents and other family members must be duly supported to make them comfortable and adequately informed to openly discuss sexual and HIV/AIDS issues with their children. Such communication should begin early so that it can evolve comfortably as the child matures. Cultural barriers that stand in the way of open discussion of sexual matters in the home must be identified and addressed.

Finally, the study has shown that friends and peers serve as a major source of information about HIV/AIDS. In this regard, there is the need for properly trained peer educators who would provide HIV/AIDS information, build skills, provide counselling, or even act as source of condoms. The peer educators could utilise the use of drama, poetry, music and the electronic media to attract and reach a wider public.

A successful peer education programme will itself require resources and support from the community and commitment from both adults and young people. There should also be a form of incentive package to keep them well motivated. Alongside this, there should be the formation and support for HIV/AIDS clubs and Virgin clubs in schools and in the communities.

8.3.4 HIV/AIDS education in health settings

The study showed that hospitals and health personnel as a source of information on HIV/AIDS was comparatively low. Much should be done to improve this situation since

health professionals can serve as an avenue for credible and authentic information on health issues. Medical officers in the district need to be encouraged and resourced to interact more effectively with people on HIV/AIDS and reproductive health issues. The District Health Management Team (DHMT) should also organise regular outreach programmes on HIV/AIDS in surrounding communities and villages.

To be able to do this effectively, the knowledge of the health personnel themselves must be regularly updated through regular refresher courses to keep them updated on current developments in the HIV/AIDS front. Their communication skills should also be improved. They should also be properly motivated in terms of adequate bonuses and logistics. These programmes must be properly co-ordinated through effective linkages between district, sub-district and community health institutions. Youth-friendly health services should also be provided to enable the youth address their sexual health and HIV/AIDS concerns.

8.3.5 Accessibility to condoms

The Ghana AIDS Commission and the Ghana Social Marketing Fund must ensure that unmarried but sexually active young persons are encouraged and motivated to use condoms, by providing easy access to quality condoms. Those to be targeted include females, the urban residents, and lowly educated people. Young people's complaints about the effectiveness and safety of condoms as well as other fears should not be so easily dismissed but must be addressed. To ensure safety, durability and comfort, condoms must be manufactured to the highest international standards. Condoms should also be available in different sizes in order to reduce problems of slippage, discomfort

and breakage. What is also urgently needed is proper and sustained education on the correct and consistent use of condoms.

Moreover, equal emphasis should be given to the female condom as much as to the male condom. The female condom should especially be promoted as it offers effective female-controlled preventive tool against HIV/AIDS. Also, a woman may be able to use it even if her partner refuses to use the male condom (Avert, 2006).

8.3.6 Financial/Economic Empowerment

The qualitative study revealed that one of the factors pushing especially young women in the district into premarital sex is poverty and lack of viable employment opportunities. Similarly, parents' poor economic situations make them unable to properly look after their children. The linkages between poverty, high risk sexual behaviour and HIV/AIDS must therefore be acknowledged and dealt with. HIV/AIDS issues must be mainstreamed into all aspects of the district development plans, poverty reduction and social reform programmes in order to reduce people's vulnerabilities to the disease.

There is the need to empower parents by improving their livelihoods through, for example, access to credit facilities for both farm and non-farm economic activities. This will enable them to take proper care of their children and thus help to curb premarital sex. Similarly, the youth should be provided with needed items such as farm implements and loans to enable them enter into profitable ventures in farming and other viable areas, in order to improve their standards of living.

The vulnerable position of women must be addressed. Measures must be put in place to increase their ability to be independent and to negotiate safer sexual practices to

prevent HIV. Programmes to empower women include expansion of girls' education and employment opportunities, skills development and income generating programmes such as micro-enterprises and livelihood projects. Others include protection of women's property and inheritance rights; ensuring their access to sources of credit; and providing access to agricultural extension services to ensure the highest yield from farming.

There is also the need for gender considerations to be comprehensively integrated into all levels of HIV/AIDS programming. Moreover, the use of female-controlled HIV/AIDS prevention methods such as the female condom and microbicides must be encouraged. Other considerations include the enactment and enforcement of legislations that prohibit discriminatory cultural practices against women. Skills training, credit programmes, savings schemes and women's co-operatives must all be linked with HIV/AIDS prevention activities.

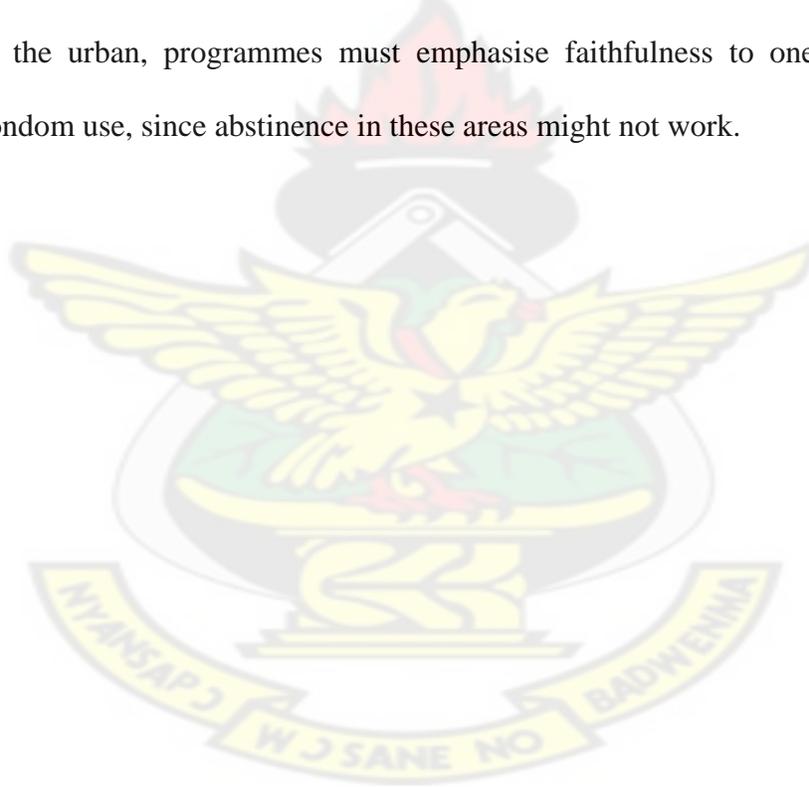
8.3.7 Policy on spatial variation in knowledge, attitudes and sexual behaviour

The research has established that there are spatial (urban-rural) variations in knowledge, attitudes and sexual behaviour in the study area. It is therefore important for programmes aimed at addressing HIV/AIDS in the study area to take this into account for maximum effect. In the first place, knowledge about HIV/AIDS was found to be higher in the urban areas compared to the rural areas. This means that measures to improve knowledge about HIV/AIDS must concentrate in the rural areas.

Moreover, measures to improve self-perceived risk of acquiring HIV/AIDS must emphasise the urban areas where this was found to be low. Other measures that must receive greater attention in the urban areas include improving attitudes towards condoms

are addressing self-confidence or ability to insist on condom use. On the other hand, measures to improve attitudes towards premarital sex must concentrate in the rural areas since these areas express more negative attitudes towards premarital sex.

Finally, sexual activity is higher in the urban areas compared to the rural areas. Urban respondents were also found to be less likely to have confidence in abstaining from sexual intercourse until marriage. In view of this, different prevention messages may be needed for people living in urban and rural areas. This means that HIV/AIDS prevention messages must stress abstinence from premarital sex for rural residents, while for those in the urban, programmes must emphasise faithfulness to one partner and consistent condom use, since abstinence in these areas might not work.



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APPENDIX A

INTRODUCTION AND INFORMED CONSENT FORM

Hello. My name is Seth Agyemang and I am a PhD student from the Kwame Nkrumah University of Science and Technology in Kumasi. I am conducting a survey about the HIV/AIDS knowledge, attitudes and sexual behaviour of young people aged 15-24 in the Ejura-Sekyedumase District.

I would like to ask you some questions about yourself, your knowledge about HIV/AIDS, your attitudes towards certain aspects of the disease, as well as your relationship with the opposite sex. The information you give me will help me in my research in partial fulfillment for the award of my PhD degree. The interview will take between 20 and 30 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, I hope that you will participate fully since your views are important. If you want to ask anything more about the exercise, I would be ready to answer them. Please confirm your participation by indicating in the box below

1. By ticking inside this box, I agree to be interviewed by Mr. Seth Agyemang.

The purpose and terms and conditions of the survey have been explained to me and I willingly agree to participate.

2. By ticking inside this box, I give my informed consent to Mr. Seth Agyemang to interview my son/daughter/ward/other.....), with full awareness of the purpose and terms and conditions of the information given.

Signature of Interviewer_____ Date_____

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APPENDIX B

RESEARCH QUESTIONNAIRE

Name of interviewer _____
Community _____

Date _____
Time _____

SECTION 1: BACKGROUND CHARACTERISTICS OF RESPONDENT

1. Sex of respondent [1] Male [2] Female
2. Age [1] 15-19 [2] 20-24
3. Place of residence in the district [1] Urban [2] Rural
4. Ethnicity
[1] Akan
[2] Northern Ghana (specify type.....)
[3] Other (please specify.....)
5. Religion
[1] Christian
[2] Moslem
[3] Traditional/Other (please specify.....)
6. Educational status
[1] None
[2] Primary level
[3] Junior secondary
[4] Secondary and above
7. Employment status
[1] Employed
[2] Unemployed
8. Income per month, if employed
[1] Less than GH¢50
[2] GH¢50 to ¢99.9
[3] GH¢100 to GH¢200
[4] Above GH¢200
9. Living arrangements (Who do you stay with?)
[1] Alone
[2] With parents
[3] With other family member (please mention.....)

[4] Other (Please specify)

10. Highest education of head of household (the person you stay with)

- [1] None
- [2] Primary level
- [3] Junior secondary level
- [4] Secondary and above

11. Total monthly income of parents

- [1] $\text{GH}\text{¢}50$ and below
- [2] $\text{GH}\text{¢}50$ to $\text{GH}\text{¢}99.9$
- [3] $\text{GH}\text{¢}100$ and above

SECTION 2: KNOWLEDGE ABOUT HIV/AIDS

12. Have you ever heard of the HIV/AIDS disease?

- [1] Yes
- [2] No

13. Mention all the ways in which you know a person can get HIV/AIDS (**Indicate all possible responses**)

- [1]
- [2]
- [3]
- [4]
- [5]

14. Mention all the ways in which you know a person can avoid getting HIV/AIDS (**Indicate all possible responses**)

- [1]
- [2]
- [3]
- [4]
- [5]

What do you think about each of the following concerning HIV/AIDS?

15. A healthy looking person can have the AIDS virus

- [1] True
- [2] False
- [3] Don't know

16. HIV/AIDS can be spread by mosquito bites

- [1] True
- [2] False
- [3] Don't know

17. HIV/AIDS can be spread by witchcraft, juju or other supernatural means

- [1] True
- [2] False
- [3] Don't know

18. HIV/AIDS can be cured

- [1] True
- [2] False
- [3] Don't know

19. One can be infected with HIV/AIDS by eating from the same bowl with an infected person

- [1] True [2] False [3] Don't know

20. Have you ever seen anyone who has HIV/AIDS or has died from AIDS?

- [1] Yes [2] No

21. Do you personally know of someone (relative, friend, community member, etc) who has AIDS or has died of AIDS?

- [1] Yes [2] No

22. From which sources do you obtain information about HIV/AIDS? (**Indicate all applicable responses**)

- [1] School
[2] Health personnel/Hospital
[3] Friends
[4] Family members
[5] Television
[6] Radio
[7] Community meetings
[8] Other (please specify.....)

SECTION 3: ATTITUDES TOWARDS HIV/AIDS

23. What do you think are your chances of getting HIV/AIDS?

- [0] Don't know
[1] No chance
[2] Small chance
[3] High chance

24. What are the reasons for your answer above?

- [1]
[2]
[3]
[4]

25. Which people do you think stand any chance of getting HIV/AIDS?

- [1]
[2]
[3]
[4]

26. How do you perceive the prevalence of HIV/AIDS in the society?

- [0] Don't know
[1] Very low
[2] Low
[3] High

27. Some people think that they will die anyway, with or without AIDS, so it does not matter whether they die from AIDS or any other disease. How do you agree to this?

- [0] Don't know
- [1] Strongly agree
- [2] Agree
- [3] Disagree
- [4] Strongly disagree

28. If you became infected with HIV/AIDS, how serious would it be to you?

- [0] Don't know
- [1] Not serious
- [2] Serious
- [3] Very serious

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29. What are the reasons for your answer above?

- [1]
- [2]
- [3]
- [4]

SECTION 4: ATTITUDES TOWARDS PREMARITAL SEX AND CONDOMS

30. Do you think abstinence from sex will make one sick or look stupid or odd in the society?

- [0] Don't know
- [1] Strongly agree
- [2] Agree
- [3] Disagree
- [4] Strongly disagree

31. Do you think a person who maintains virginity until marriage will encounter problems in marriage during sexual intercourse?

- [0] Don't know
- [1] Strongly agree
- [2] Agree
- [3] Disagree
- [4] Strongly disagree

32. Do you think the use of condoms suggests sexual promiscuity or mistrust of one's sexual partner?

- [0] Don't know
- [1] Strongly agree
- [2] Agree
- [3] Disagree
- [4] Strongly disagree

33. Do you think condoms are effective in preventing HIV/AIDS?

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

34. What are the reasons for your answer above?

- [1]
[2]
[3]
[4]

35. How confident are you that you can abstain from sexual intercourse until you marry?

- [0] Don't know [1] Not confident [2] Confident [3] Very confident

36. How confident are you that you can stay with only one sexual partner in your lifetime?

- [0] Don't know [1] Not confident [2] Confident [3] Very confident

37. How confident are you that you can refuse to have sex with someone if you don't want to?

- [0] Don't know [1] Not confident [2] Confident [3] Very confident

38. How confident are you that you can refuse to have sex with someone who offers you money?

- [0] Don't know [1] Not confident [2] Confident [3] Very confident

39. How confident are you that you can insist on using condom during sex even if your partner does not want to use one?

- [0] Don't know [1] Not confident [2] Confident [3] Very confident

SECTION 5: SEXUAL BEHAVIOUR

40. Have you ever had sexual intercourse?

- [1] Yes (**Continue**) [2] No (**End here**)

41. How old were you the first time you had sexual intercourse?

.....

42. Have you had sex in the past one year?

- [1] Yes [2] No

43. How many sexual partners have you had in your lifetime?

- [1] 1
[2] 2
[3] 3 or more
[4] Don't remember

44. How many sexual partners have you had in the past one year?

- [0] None

- [1] 1
- [2] 2
- [3] 3 or more
- [4] Don't remember

45. Have you ever used a condom for sexual intercourse?

- [1] Yes
- [2] No

46. Did you use a condom with your partner the last time you had sexual intercourse?

- [1] Yes
- [2] No

End. Thank you for your participation in this exercise.



APPENDIX C

FOCUS GROUP DISCUSSIONS WITH UNMARRIED PEOPLE AGED 15-24 YEARS

Community:.....

Venue:.....

Time started:.....

Time ended:.....

Attendance Register

| Name | Age | Occupation/Education |
|------|-----|----------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

1. Do you think HIV/AIDS is real? What are the reasons for your answer?
2. Do you think HIV/AIDS can be found among people in this community?
3. Do you think the prevalence level of the disease in the community is high or low?
4. Can a healthy person have HIV/AIDS? What are the reasons for your answer?
5. Can HIV/AIDS be spread by mosquito bites? What are the reasons for your answer?
6. Can HIV/AIDS be spread by juju or other supernatural power? What are the reasons for your answer?
7. Can one get HIV/AIDS by eating with an infected person from the same bowl?
8. What is your opinion about premarital sex? Do you think it is good or bad?
9. Do you think the practice of practice of premarital sex or sexual promiscuity going on the community?

10. What are some of the factors that influence people's sexual behaviour in the district?
11. What are the dimensions of sexual behaviour by the youth that put them at risk to HIV/AIDS infection?
12. Do you think the youth are moving away from premarital sex because of the fear or awareness of HIV/AIDS?
13. Do you think the youth don't know much about HIV/AIDS that is why they are engaging in sexual promiscuity?
14. Do you think the elders in the community support young people having premarital sex or they frown upon it?
15. What are some of the things people say about HIV/AIDS that make them disregard its reality and go on to engage in sexual promiscuity?
16. Some people think a young person who practices chastity or is a virgin appears odd in the society. Do people say such things in this community?
How far do you agree with it?
17. Some people think that you will fall sick or appear stupid if you reach a certain age and don't have sexual intercourse or take a boyfriend/girlfriend. How far is this attitude prevalent in this community?
18. Do you think condoms are effective in preventing HIV/AIDS?
19. What are the reasons for your answer?

Now I want you to express some of your own personal experiences.

20. Will you say that your knowledge of HIV/AIDS has influenced your sexual behaviour to some extent?
21. What specific knowledge or aspect of HIV/AIDS caused you to change your sexual behaviour?
22. In which specific ways has your knowledge of HIV/AIDS influenced your sexual behaviour?
23. What do you think should be done to protect people from HIV/AIDS?
24. What do you think should be done to address the problem of sexual immorality in the community?

7. What are some of the factors that influence people's sexual behaviour in the district?
8. What are the dimensions of sexual behaviour by the youth that put them at risk to HIV/AIDS infection?
9. As parents, health officials, and community/traditional leaders, how are you concerned about the problem of HIV/AIDS in the district?
10. How are parents and leaders in the community concerned about the sexual behaviour and lifestyles of the youth in the community?
11. What are some of the steps you have taken to address the problem of HIV/AIDS in the district, with reference to knowledge, attitudes and sexual behaviour?
12. What can be done to address the knowledge and sexual attitudes of the youth in the district?
13. What must be done to address the sexual behaviour of the youth in the district to prevent HIV/AIDS infection?

