FACTORS INFLUENCING RISKY SEXUAL BEHAVIOUR AMONG THE YOUTH IN KENYA

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DECLARATION

This Thesis is my original work and to the best of my knowledge has not been presented for a Degree award in any other University.

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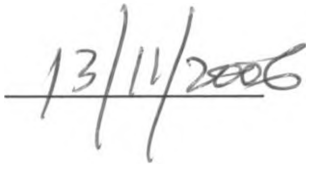

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Oct 16th 06

DEDICATION

To my parents, my wife, Monica and son Victor: Thank you for the support, steadfast belief in my capabilities and unfailing Love.

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Several people contributed to successful completion of this work through various ways. Foremost, I wish to express my sincere thanks to God for His grace and mercy and for seeing me through the completion of the project.

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ABSTRACT

Information on risky sexual behaviour has significant policy implications in designing and implementing family planning and HIV/AIDS prevention programs. The main objective of this study was to explore the factors that determine risky sexual behaviour and the possible risk to HIV infection among the youth in Kenya.

The study population consisted of 2132 sexually-active women ages (15–24) covered in the KDHS conducted in 2003.The study variables were highest level of education, work status, age, marital status, place of residence, media exposure, knowledge of HIV/AIDS prevention methods, perception of HIV risk of infection, religion, HIV/AIDS prevalence regimes and risky sexual behaviour as the response variable. In addition, 32 women were interviewed to provide further insights concerning risky sexual behaviour.

The technique for quantitative data analysis employed was Logistic Regression model. Additionally, field data gathered from focus group discussions were categorised thematically. From cross tabulation results, it was established that there were differentials in reporting of risky sexual behaviour across all characteristics of women. Factors found to be significant included; age, highest education levels, place of residence, religion, exposure to mass media, knowledge of HIV/AIDS prevention methods, marital status and HIV/AIDS prevalence regimes. Logistic regression model showed that age, marital status, education level, media exposure, knowledge of HIV/AIDS prevention methods and HIV/AIDS prevalence regimes were important determinants of risky sexual behaviour among the female youth.

The major conclusion derived from the study findings was that although levels of knowledge of HIV/AIDS prevention methods were very high among the young women, various socio-cultural, economic, demographic and psychosocial factors influenced the youth's risky sexual behaviour. These factors led the young women to engage in risky sexual behaviour that obviously might lead to HIV infection.

The main policy implication of this study include empowerment of women through education (including health and reproductive education) which will in turn lead to raising age of first marriage. Increasing access to information on sexual and reproductive health should be prioritised. The I.E.C campaigns should be formulated to suit the youth. For example, female youth reported that some condom advertisements conveyed negative messages, such as condoms are only found or used by un-married youths, promiscuous people (including prostitutes and homosexuals) or are for entertainment personalities (especially radio/T.V presenters and musicians).

Results indicated that young people value a source's level of confidentiality, knowledge and experience. In addition to mass campaigns, concerted efforts to address youth's need for information should be linked more strongly with health care providers to educate them about sexual and reproductive issues. Health educators need to be more youth friendly, innovative and culture sensitive of the local youth.

The study recommends further research on the role of education, marriage and mass media in influencing sexual behaviour including decision-making process on the desire for contraceptive use, reduction of sexual partners and health seeking behaviour for sexually transmitted infections among sexual partners. Secondly, differentials in factors influencing risky sexual behaviour among men and women in Kenya need further exploration. This is because men are reported to engage in risky sexual behaviour than women. There is also a need to link risky sexual behaviour and utilization of Voluntary Counselling and Testing Services (VCT) among young people in Kenya. Lastly, risky sexual behaviour and its influence on fertility behaviour among the youth in Kenya need further research.

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KDHS – Kenya Demographic Health Survey

NCPD – National Council for Population and Development

UNAIDS– Joint United Nations Programme on HIV/AIDS

WHO– World Health Organization

UNFPA– United Nations Population Fund for Population Activities

MOH– Ministry of Health, Kenya

NACC– National AIDS Control Council

NASCOP– National AIDS and STI Control Program

CBS – Central Bureau of Statistics

HIV – Human Immune Virus

AIDS – Acquired Immune Deficiency Syndrome

STIs – Sexually Transmitted Infections

CHAPTER ONE

INTRODUCTION AND PROBLEM STATEMENT

1.1 General Introduction

HIV/AIDS epidemic is among the greatest challenges confronting the global community. Everyday, about fifteen thousand people throughout the world become infected with HIV (UNAIDS, 2005). Sixty per cent of these are women and men aged between 15-24 years (Hulton et al., 2000). W.H.O Global Program on AIDS estimates that actual number of AIDS cases is over 4.5 million while an additional 20 million people are infected with HIV (UNAIDS/WHO, 2005).

Some countries, particularly in Sub-Saharan Africa, AIDS has already exhibited visible demographic, social and economic impacts on the entire population (Ombeta, 1998). Worldwide, Africa leads in absolute numbers and increase of HIV/AIDS infection rates. Sub-Saharan Africa with just 10 per cent of world's population is home to approximately 60 per cent of all People Living With AIDS, accounting for over 11 million HIV cases.

The average HIV/AIDS prevalence rate in the region is 7.4 per cent among the adult population aged 15-49 years. Adult and children living with HIV is over 25.4 million. The number of women aged 15-49 years living with HIV is approximately 13.3 million. The adults and children newly infected with HIV by the year 2004 was 3.1 million while adults and children deaths from AIDS in the same year was over 2.3 million (UNAIDS, 2004).

Although HIV/AIDS have now been identified in nearly all countries of the world, the prevalence or scale of infection varies widely both between and within countries. The virus reached global regions at different times and has spread faster or slower in various populations according to differing risk factors. Hence, even within one country, several epidemic patterns arise (Jackson, 2002).

The simplest national categorisation of HIV/AIDS is into low, intermediate and high prevalence epidemics. Low level is taken as adult prevalence of below 1 per cent; intermediate as below 5 per cent and high epidemic as prevalence of over 5 per cent among the adults aged 15-49 years (W.H.O/UNAIDS, 2000). Looking at the epidemic patterns beyond this categorization, focus should be on nascent, concentrated and generalised epidemics. This analysis is useful for identifying high-risk environments within a country (region) enabling strategic interventions, through understanding the environmental risk factors for different population groups.

Worldwide, more men are infected and dying than women, but in Africa (particularly Sub-Saharan Africa), this trend is reversed. An estimated 54 per cent of adults' infection by the year 2000 was women. In addition they are infected and die at a younger age than men (UNAIDS, 2002; 2005).

The epidemic in the sub-Saharan region and the Caribbean contrast to other regions/populations of the world. Bi-directional heterosexual transmission is the predominant mode, otherwise known as Pattern II countries. In developed nations, homosexuality and intravenous drug injections among the males are the main modes of transmission. These are known as the Pattern I countries. In the former, HIV/AIDS prevalence among men and women are equal, where the ratio of infected men to women is 1:1. In the latter, the prevalence is as high as 19:1 (Mann et al, 1992; Carael, 1995; Buve et al., 2001).

In Africa, the epidemic is focussed in the Southern, Central and Eastern Africa, stretching from Uganda, through Kenya, Tanzania, Rwanda, and Burundi; further down south including Malawi, Botswana, Swaziland, Zimbabwe, Lesotho, Zambia, Namibia, Mozambique and South Africa. These countries are known as the 'HIV/AIDS Belt' (Anarfi, 1994; Mann et al., 1992).

East and Southern African countries are worst hit with nearly a third of all the world's infections (W.H.O, 2004). The differences in ratio of infection between Sub-Saharan

Africa compared to the ratio in Europe and America may be attributed to the fact that a greater percentage of women in Africa are infected through heterosexual relations either by their husbands or other partners. However, there is a rapid spread of HIV infection in other parts of the world, which recently were not under any threat, for example Eastern Europe, India and China (Jackson, 2000).

Fifty per cent of all global new HIV infections occur among the youth between ages 15-24 years (UNFPA, 2003). Approximately 10 million young Africans are infected. Young women are more likely to be infected with HIV and at an earlier age than young men. In sub-Saharan Africa, women make up 57 per cent of all adults living with HIV. There are 13 women living with HIV for every 10 infected men in the region. On average, 36 young women are living with HIV for every 10 young men.

Worldwide, HIV/AIDS has been described as a disaster and never in the human history has there arisen such a widespread and fundamental threat to human development as AIDS. HIV/AIDS infection rate is spreading rapidly and now transcends the boundary of being a health sector problem. It now impacts negatively on the economy, social life and cultural aspects of a country (Njue, 2000). It threatens food security, human resource productivity and availability and may jeopardize national and regional security. It hurts individual family and household first, but its impacts reach through to the macro-economic level. This is a long-term development disaster.

To date, more attention has been paid to HIV prevention and to treatment of opportunistic infections and even to provision of Anti Retro Viral Drugs (ARVs) than to the fundamental nutritional and primary survival needs of the poor in rural or urban areas (Jackson, 2000). This is an enormous gap and needs to be addressed by concerted efforts within and beyond the appropriate sectors. In addition to adult mortality from HIV/AIDS, children, while experiencing lower infection levels than adults, remain highly vulnerable to the impacts of AIDS. For example, increased distress and poverty in the family as breadwinner(s) die; withdrawal from school; loss of opportunities for economic advancement in the future; basic human rights are threatened; girls are at an increased

risk of entering sex work at an early age and adolescents may grow up with little sense of security and future hopes (Lugalla et al., 2004).

HIV/AIDS is an important determinant of the increase in child mortality (Ikamari, 1996). Its effects are evident through increase in child mortality in most African countries. For example, in Kenya the current rate of child mortality rate is 118/1000 live births while the same rate would be 98/1000 live births in a situation without AIDS. In Lesotho, Namibia, South Africa, Swaziland and Zimbabwe, the current under-five mortality rates are 123, 78, 74, 143, and 117 respectively while if there were no AIDS, the rates would be 71, 43, 43, 73 and 75 respectively (UN, 2004;UNAIDS/UNICEF, 2005).

Life expectancy at birth by the year 2000 dropped by 4 years in Nigeria, 17 years for Kenya and 32 years in Zimbabwe from what it would have been without AIDS. By 2010, the projected loss is estimated to be 24 years for Kenya, 26years for Nigeria and 40years for Zimbabwe. The expected life expectancies for the three nations without AIDS by the year 2010 would be 65 years, 50 years and 70 years respectively (US Census Bureau, 1998 C.F Jackson, 2002).

Sub-Saharan African countries have populations characterised by a young population structure with around half of the population aged below 16 years providing a huge pool of young people moving into the sexually active age range (Jackson, 2002). Further estimates show that age structure of the populations in hard hit countries in Africa will change from a broad based pyramid (due to high birth rates) to more of a chimney shape through drop in life expectancy at birth due to HIV/AIDS by the year 2010 (US Census Bureau, 1998 C.F Jackson, 2002).

1.2 Kenya's HIV/AIDS Situation

Kenya reported its first AIDS case in 1984 (NASCOP, 2005; Njue, 2000). AIDS is caused by Human Immune Deficiency Virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other opportunistic diseases that lead to death through secondary infections.

By 1987, Kenya reported 1,299 AIDS cases. In 1990, there were 16,150 confirmed cases. In 1991, this rose to 25,702 and over 50,000 cases were confirmed in 1994. By September 1997, over 76,000 deaths were reported. There were over 1.32 million people already infected by HIV (NACC, 1997). The AIDS deaths in 1999 were over 180,000. Cumulative number of orphans by that year was 730,000 (UNAIDS, 2000). With a population of over 30 million, in year 2000, adults living with HIV/AIDS were over 2 million where 1.1 million women and 78,000 children were living with HIV/AIDS. People living with AIDS in Kenya translate to about 9.3 per cent of the total population.

Premarital sexual activity is common and starts early with many young people being sexually active in their teens. The breakdown in traditional family systems, urbanization and the influence of mass media are some of the factors contributing to increased sexual activity. The high level of sexual activity, which is often unprotected, is associated with HIV/AIDS, pregnancy and un-safe abortions, economic hardships and school dropouts. There are variations however based on residence, level of education and other socio-economic status (Muganda et al., 2003).

The prevalence rate of HIV is lower in rural areas, where about 80 per cent of the total population lives than in urban areas. However, this presents an enormous problem because the greatest burden of HIV infection is in the rural population. Urban residents have a significantly higher risk of HIV infection (10 per cent) than rural adult residents (6 per cent). Prevalence in urban women is 12 per cent compared with less than 8 per cent of rural women (NCPD et al., 2003).

1.3 Problem Statement

HIV/AIDS is described as a disaster in the current National Development Plan. It is the biggest social, economic and political disaster of our time. The epidemic will have adverse effects on the demographic composition and the economic growth due to loss of the most productive sector of the population including professionals, lost working hours, cost of caring for AIDS victims and orphaned children.

Increased sexual activity continues to persist in Kenya despite consequences associated with such relations (Hulton et al, 2000). Demographic Health Survey results show that by age 24 there is almost universal pre-marital sexual experience by young people and by age 19, 43 per cent of adolescent girls have begun child bearing (Magadi, 1996).

The consequences of early unprotected sexual activity among young Kenyans are no longer limited to millions of episodes of STDs, and hundred of thousands of un-intended pregnancies and induced abortions every year, in addition to these threats to their health, well-being and survival, Kenya's young people now have to contend with the reality of HIV/AIDS in their daily lives.

The HIV epidemic affects mainly the youth and adults in their early and middle ages. Majority of new HIV infections occur between ages 15 and 24, with AIDS symptoms emerging three to ten years later. About 75 per cent of people living with AIDS in Kenya are aged between 20 to 45 years (NACC, 1997). Rapid HIV spread among the youth highlights the risks of early and un-protected sex among this population sub-group.

Un-intended teenage pregnancies are associated with both economic and socio-cultural consequences (Ocholla-Ayayo, 1996). Pregnancy related deaths through abortions are higher among the women below 18 years; life threatening obstetric complications (pre-eclampsia, anaemia and uterine rapture during child-birth); and infants of young mothers often are of low birth weight -may cause infant/child morbidity and mortality (Bledsoe and Cohen, 1993).

Despite knowledge and awareness of HIV/AIDS being over 90 per cent and nearly universal in Kenya (NCPD et al., 2003; NASCOP, 1997; Magadi, 1996) misconceptions still abound. Many people have not dealt with this disease at a personal or community level. AIDS cases and cases of people infected with HIV have been increasing. There has been many campaigns mounted to enlighten people about HIV/AIDS, but many young people still engage in risk sexual behaviour obviously risking HIV infection (Zambuko and Mturi, 2005).

Among the purposes of the study was to test whether the increased knowledge and awareness of HIV/AIDS among the youths in Kenya has resulted in a change in youths' sexual behaviour patterns. Study results show that HIV transmission is linked to specific sexual behaviour (i.e., multiple sexual partners, commercial un-protected sex and injecting drug use) but these behaviours are influenced by political, economic, social, cultural and environmental factors- including poverty, conflicts, powerlessness and gender inequality (Voeten, 2006). Therefore, understanding the factors that increase risk perception and vulnerability to HIV is crucial for responding effectively to the epidemic.

Although HIV/AIDS prevalence rates have decreased, the epidemic poses serious threats to the country's youth. Females remain at higher risk of contracting HIV/AIDS during adolescence than the males. This is because of social and cultural factors leading many young women to early initiation of sexual activity (Nyamongo et al., 2005). These factors gravely undermine their health and healthcare seeking behaviour (Neema et al., 2004). The youth could therefore be fuelling the HIV/AIDS and concomitantly, HIV/AIDS could be altering meanings attached to their sexual activities (Preston-White, 1999).

HIV/AIDS is a major concern because of relatively high prevalence rates reported among adult populations and significantly higher rates among younger ages (NASCOP, 2005). The overall prevalence is approximately 7 per cent. HIV prevalence in women ages 15-19 years is approximately 3 per cent; while for men in the same age group is 0.4 per cent. The prevalence rate among women and men aged 20-24 is 9 per cent and 2.4 per cent respectively (NCPD et al., 2003).

1.4 Research Question

The socio-economic, socio-cultural, demographic and psychosocial (knowledge) factors were tested to address the question on: What are the factors influencing risk sexual behaviour among the youths in Kenya?

1.5 Objectives

1.5.1 General objective

The general objective of the study was to establish the factors that determine risky sexual behaviour and the possible risk of HIV infection among the youths in Kenya.

1.5.2 Specific objectives

Specifically, the study aims:

- To identify demographic factors that may influence risky sexual behaviour among the youth in Kenya.
- To identify psychosocial factors that may influence risky sexual behaviour among the youth in Kenya.
- To determine socio-economic factors that may influence risky sexual behaviour among the youth in Kenya.
- To determine socio-cultural factors that may influence risky sexual behaviour among the youth in Kenya.

1.6 Justication of The Study

Approximately 7 per cent of Kenyan adult population is HIV infected. HIV/AIDS prevalence in women age 15-49 years is 8.7 per cent while for men in the same age group is 4.6 per cent. This female–to-male ratio of 1.9:1 is higher than that found in other population based studies in Africa (NASCOP, 2005)

Kenya's youthful population continues to grow with serious demographic and socio-economic implications. The reproductive health problem of the youth is caused by early initiation of sexual activities, condom efficacy, misinformation about HIV/AIDS transmission, having multiple sexual partners, lack of information and motivation needed to make responsible sexual behaviours and contraceptive use decisions (Owuor, 2000).

Increase in HIV prevalence and other sexually transmitted infections has created multifaceted public health crisis affecting youth and the ability of their families and communities to cope with the devastating social, cultural, economic and health

consequences (WHO/UNAIDS, 2002). In order to address this problem effectively, the dynamics and determinants of individual behaviour, primarily sexual behaviour, must be understood within specific cultural contexts as purported by this study.

Although many existing studies of youth's sexual and reproductive health have shown results based on cross-national survey data, the evidence base for quantitative coupled with qualitative studies is much less developed. Surveys and qualitative research have proceeded along two separate tracks in the past, hampering our understanding of sexual behaviour. Major questions remain about changes in the determinants of the spread of the pandemic and behavioural responses to it.

Incorporating insights from qualitative research can enrich quantitative data of sexual behaviour. These can suggest more suitable categories for referring to sex and sexual interactions; provide a more nuance grasp of knowledge, attitudes, stigma, and lead to a better understanding of the complicated process of risk perception, disclosure, and behavioural change (Afenyandu and Goparaju, 2003; Horizons, 2001; Coast, 2003).

Past studies have sidelined specific intricate socio-cultural symbolic meanings, perceptions and practices that might have contributed in risky sexual behaviour in Kenya in favour of demographic, economic and disease etiological reasons. Until recently, the 1980s cultural studies related to HIV/AIDS have been taken for granted and little has been done in terms of inclusion of socio-economic, demographic, psychosocial risk factors and socio-cultural configurations in the society. Additionally, various studies done in the past did not specifically target the young people.

This study aims to fill above identified gaps and thereafter, document the influence of these factors on risky sexual behaviour in facilitating the spread of HIV/AIDS among the young people in Kenya. The study will also generate and avail information for academic, research purposes and also for policy implications.

1.7 Scope and Limitation

AIDS prevention and control is a very crucial issue, however, it is problematic because its social aspect centres on sex, a form of social behaviour with a biological drive. Sexual behaviour is almost universally a private affair and people are not generally inclined to talk about sexuality or tell outsiders about their sexual behaviour and experiences.

The study limits its scope to the analysis of the youth's risky sexual behaviour brought about by different factors, impacts of HIV/AIDS on risk perception in selected HIV/AIDS prevalence regimes focussing on sexually active female youth ages 15-24 years. The group was considered because it is among the most severely affected age categories manifesting the highest HIV/AIDS prevalence in Kenya. The study covered all the eight provinces (regions) in Kenya that were represented in the 2003 KDHS. Given that the KDHS data was meant for other specific purposes outside this study, the study was faced by a number of limitations.

The limitations of this study were mainly focussed on the data used. Data on HIV prevalence rate was based on the number of individuals who agreed to be tested during the survey. The individuals who agreed to be tested varied in each province. If the number who agreed to be tested were small, the uncertainty associated with the estimates would obviously be high.

Misreporting cases may occur of risky sexual behaviours due to social bias. Worldwide, males are associated with over reporting of risky sexual behaviour while women under-report risky sexual behaviour, the number of sexual partners, and contraceptive use. This reduces the quality of demographic data collected. Moreover, the reliability of behaviour reporting calculated from retrospective sexual behaviour histories depend much upon the completeness with which the sexual behaviours were reported. Also given the KDHS purpose of focus, the depth information for this study was limited.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

The recent emergence of HIV pathogen and its association with AIDS has generated renewed interest in the prevention and control of STIs in general. While the virus presents many unique challenges to health programmers and providers, it also reveals many of the old issues of inequality, power and stigmatisation that have long frustrated attempts to develop an effective public health response to STIs (Njue, 2000).

The origin and spread of AIDS is usually social, economic and cultural interactions, which at present require sophisticated socio-economic and cultural research coupled with behavioural research. It may reveal behaviour patterns and social interactions networks that are more complex (Ocholla-Ayayo, 1997). The nature of sexual relationships and the context within which they are formed are central to the spread and prevalence of HIV/AIDS. The probability that a person becomes infected with HIV during a sexual contact is the product of the probability that a susceptible individual has sexual intercourse with an infected individual, and the probability that the infection is transmitted during the intercourse (Njue, 2000).

Young people are affected by biological, psychological as well as socio-economic and socio-cultural factors. Biological and psychological changes create new powerful emotions and conflicts in the individual, but how the young person integrates all those feelings, is determined by forces outside of the individual- the environment (Koome, 2001). Biological forces influencing the youth are, in all likelihood, universal and so variations in youth's sexual activity and behaviours between different groups can be explained more meaningfully through an analysis of the socio-economic, cultural, demographic and psychosocial environments of the youth.

2.2 Theoretical Background

Several behavioural change theories are commonly used in HIV/AIDS prevention programs and research, including the Health Belief Model (Becker, 1980; Rosenstock et al., 1989), Social Learning Theory (Bandura, 1977), the Reasoned Action Model (Azjen and Fishbein, 1980), and the Biosocial model of adolescent sexual behaviour (Smith, 1989).

Specification of a theoretical framework that incorporates all the relevant factors that affect youth's reproductive health and sexuality is a pre-requisite in any study that attempts to investigate factors that determine risky sexual behaviour. A theoretical framework acts like a guide in the investigation of factors affecting sexual behaviour because it identifies the causal linkages between different factors that affect sexual behaviour.

The social (cognitive) learning theory emphasizes the importance of observing and modelling the behaviours, attitudes, and emotional reactions of others. Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action (Bandura, 1992).

The theory explains human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural, and environmental influences. The theory encompasses attention, memory and motivation. It spans both cognitive and behavioural frameworks. Differential social reinforcement involves rewards of socially appropriate behaviour and non-reward of alternative responses. Human functioning is explicable in terms of 'triadic reciprocal causation' in which behaviour, environmental and personal determinants in the form of cognitive, affective and biological factors, all operate as interactive determinants of each other (Bandura, 1992).

The theory of reasoned action says that a person's behaviour is determined by attitude towards the outcome of that behaviour and by the opinions of the person's social environment. Ajzen and Fishbein (1980) propose that a person's behaviour is determined by his intention to perform the behaviour and that this intention is, in turn, a function of his attitude toward the behaviour and his subjective norm.

Smith (1989) has built on the work of Udry et al (1979, 1985 and 1986) to produce biosocial model of adolescent sexual behaviour. The biosocial model delineates biological and psychological influences and their interactions. The theory limits emphasis on prediction of various aspects of sexual behaviour, such as age at first sex, frequency of sexual activity, number of sexual partners and contraceptive practice.

While psychosexual theories of behaviour take account of biological influences in a general way only, the biosocial model considers specific, potentially measurable biological aspects of adolescence and uses these to predict sexual behaviour. He postulates a range of social processes, which encourage/discourage sexual involvement, modify the form in which sexual behaviour is expressed and define appropriate sexual partners.

Sources of social influence act together to affect the adolescent's attitude towards sexual involvement and behavioural norms, as well as providing (or not) opportunities for sexual interaction. Peers and potential sexual partners of sexually mature youth may encourage sexual involvement. Praise, popularity and self-esteem may accrue from engaging in risky sexual activities. On the other hand, parents may be wary of sexual potential of early maturing teenagers and may offer many sanctions against sex. All this will be mediated by the young person's sexual desires and the attitudes and values developed prior to puberty.

The framework offered for explaining risky sexual behaviour is the Health Belief Model (HBM). It has been adopted since it organizes the explanations commonly suggested for

youth's risky sexual behaviour in a more logical fashion. The framework has been used extensively (Akwara et al., 2003; Nzioka, 1996).

The model attempts to explain and predict health behaviours focusing on the attitudes and beliefs of individuals. The model has the following core assumptions and statements. It is based on the understanding that a person will take a health related action (that is, use a condom) if that person, first, feels a negative health condition (that is, HIV) can be avoided; Secondly, the person has a positive expectation that by taking a recommended action, a negative health condition will be avoided (that is, using condoms will be effective at preventing HIV infection) and lastly, the person believes that he can successfully take a recommended health action (he can use condoms comfortably and confidently).

The model is spelled out in terms of four constructs representing the perceived threat and net benefits; perceived susceptibility, perceived severity and perceived barriers. It also includes cues to action. That is, events, either bodily (for example physical symptoms of a health condition) or environmental factors (for example media publicity) that motivate people to take action. (Cues to action, an aspect of HBM have not been systematically studied in Kenya). This study aims to generate new knowledge about the barriers that have continuously hindered a change from risky sexual behaviour to safe sex among youth in Kenya.

2.3 Demographic Factors

In Kenya heterosexual relations comprises of 75 per cent of all HIV transmissions, peri-natal and blood transfusion accounts for only 25 per cent (Ombeta, 1998). The peak ages for AIDS cases are 20-29 years for females and 30-39 for males. This is the most economically productive group of the population and the deaths accruing from AIDS consist an important economic burden ((Njue, 2000; NASCOP, 2005).

This is the age when investments in education are just beginning to pay off. The deaths also have important consequences for children since most people in these age groups are

raising children. The worst impact is an increase in the number of orphans. Both sexes become infected in similar numbers but women tend to become infected at a younger age than men, reflecting the biological and social vulnerability of younger women. The higher female to male seropositive ratios in Kenya in ages 15-49 could mainly be because of the differential rates of transmission or susceptibility to infection.

Risky sexual behaviour is associated with age (Carael, 1995). Increase in single youth's numbers accompanied by a decrease in the average age of sexual debut and rising levels of pre-marital sex could also explain the risky behaviour among the youth (Brown and Xenos, 1994 C.F Njue, 2000). Data show that the mean age for first sexual intercourse in Kenya is at 13 and 14 for girls and boys respectively and by age 19 years, 92.8 per cent of teenagers have initiated sex (Magadi, 1996).

Adolescence is a transitory stage of development whereby the individual acquires adult characteristics and roles including reproductive roles. A study among Kenyan adolescents found that an increase of one year was associated with 45 per cent and 21 per cent rise in sexual activity among females and males respectively (Kiragu, 1991).

In addition to high levels of sexual activity among the youth, transitory sexual relationships and insufficient rates of condom use, they harbour misinformation about HIV/AIDS transmission, further increasing their risk of infection (Buve et al., 2001). Results from 2003 KDHS reveal that 56 per cent of males and 32 per cent of females aged 15-24 reported engaging in sexual activity during the past year. Despite high levels of sexual activity, condom use among the Kenyan young people remains low among the youth.

A study in 2001 found that only 10 per cent of respondents aged 15-19 years and 6 per cent of the respondents aged 20-24 years reported using a condom during their last sexual act (Waithaka and Bessinger, 2001). HIV disproportionately affects young women in Kenya. A study in Kisumu revealed that HIV prevalence among sexually active 15-19

year olds was 6 times greater among women than among men. Among 20-24 year olds, prevalence was 3 times higher among women than among men (Glynn et al, 2001).

Young women's physiological susceptibility and sexual relationships with older partners contribute to their increased risk of infection (MAP Network, 2002; UNAIDS, 2002). In difficult economic conditions, young people engage in relationships with older sexual partners who provide money or gifts in exchange for sex (UNICEF/UNAIDS, 2005).

Rising age of marriage has led to an overall decline in adolescent fertility in Kenya; however, the proportion of births occurring before marriage is increasing. DHS data indicate that the fraction of women who had a premarital birth before age 20 has risen from about 20 per cent for older cohorts of women to approximately 30 per cent for those aged 20-24 in 1998 (NCPD et al, 1998).

Results indicate that age at marriage is rising more rapidly than youth childbearing is declining. Although about 25 per cent of women aged 20-24 in 1998 were married by age 18, compared with 42 per cent of those aged 35-39, 46 per cent of the women aged 20-24 gave birth by age 20, compared with 58 per cent of 35-39 year olds. More than a half of teenage childbearing in Kenya now results from a premarital conception (Singh, 2001). Although sexual activity before marriage is increasing among women, contraceptive use behaviour remains sporadic among never married girls who are sexually active.

Less than 20 per cent of single women who are sexually active aged 15-19 years reported using modern method of contraceptives (NCPD et al., 2003). Girls who marry earlier differ from sexually active unmarried girls. On average, married girls are older, less educated and more likely to live in rural areas. Pregnancy intentions and likelihood of having engaged in transactional sexual activity within the last year differs between the two groups.

Married adolescents often face considerable pressure to become pregnant shortly after they wed, while in contrast, single girls are more likely to accept gifts or money in

exchange for sex, although some married girls do so as well (Clark, 2004). Recent data results from 31 countries show that, on average across these countries, more than 80 per cent of girls aged 15-19 years who report being sexually active are married (Bruce and Clark, 2003).

The relationship between marriages, particularly the decision to marry at a younger age, and several key HIV risk factors has remained largely un-investigated due to the widespread perception that marriage is relatively "safe" and that aggregate correlation between the median age at marriage and HIV prevalence are positive at the country level of analysis (Clark, 2004).

Marriage, as a fundamental social and cultural institution and as the most common milieu for bearing and rearing children, profoundly shapes sexual behaviours and practices (Carael, 1995). Although age at first marriage has been increasing, a substantial proportion of adolescent girls marry during their teens. The age at first marriage will determine sexual risky behaviour.

2.4 Socio-Economic Factors

Parents have profound influence on their children. As the primary socializing agents, they influence their children's sexual attitudes, beliefs and behaviours in a variety of ways. With regard to youth's sexual behaviour, parents influence adolescents' sexual behaviour in four different ways.

First, their attitudes towards youth's sexuality may impact on attitudes; secondly, marital and reproductive characteristics of parents as well as apparent behaviour to the opposite sex may provide and support role models for youths; thirdly religious environment of the home may affect their attitude to sex and lastly, parents' educational and work experience may present opportunities for sexual experience when the parents are away from home (Moore and Rosenthal, 1993).

Youth's living arrangements have an effect on sexual behaviour. Girls in single parent or no parent households may miss school due to huge domestic responsibilities affecting their behaviour (Mensch et al, 1998). Fostered girls are usually subjected to un-paid labour. Congestion in housing characteristic of low social class has a direct effect on youth's sexual behaviour. It may lead to sexual coercion. Family instability encourages youths to seek sexual relationships to compensate for the lack of parental love and attention. The relationships lower self-esteem and efficacy to refuse unwanted sex, acquisition and use of contraceptives.

Current youth's schooling status influences motivation to avoid pregnancy through contraceptive use compared with those who are not attending school. Pregnancy acts as a barrier to attainment of educational goals. Moreover, peer group norms among such youth are likely to be supportive of contraceptive use hence have more knowledge of contraceptive technology and use compared with those not attending school (Koome, 2001).

Education affects youth's behaviour by changing norms concerning sex and sexual relations. Youth look at their sexuality as a process of getting to know themselves. Sexual experience is construed as one part of that process. The actual act of intercourse does not seem to be viewed as an act of rebellion anymore, but rather as a normal part of life that comes either before or with marriage depending on one's beliefs (Harrison et al, 2001). Education offers the youth the opportunity to loosen parental control hence it may be associated with pre-marital sex among young people. (Hulton et al, 2000). On the other hand, education increases one's knowledge of means of controlling fertility and sexually transmitted infections including HIV/AIDS.

A study in Brazil, found that educational attainment was negatively associated with adolescent pregnancy. Education goals and high academic achievements are related to lower rates of premarital sex for both boys and girls (Rao-Gupta, 2000). The association is mediated by a number of factors including high achieving student is likely to come

from a well to do family, to place high value on achievement, to be more goal oriented and be able to plan for the future (Moore and Rosenthal, 1993).

Education is the main mechanism through which Western ideas; norms and beliefs replace traditional ones in developing countries. In Sub-Saharan Africa, the existence of traditional and modern ideas and practices side by side create confusion and conflict (Gage, 1998). Rapid urbanisation, westernisation and widespread availability of information through global news media, the World Wide Web and Internet coupled with education present a state of transition among the youth. It adds problems, as they are themselves in a state of transition as they strive for adult status (Muganda et al., 2003). This results to emergence of youth cultures (Moore and Rosenthal, 1993). Youth culture therefore may be responsible for the increase in risky sexual behaviour. It may also explain the differences between risk sexual behaviour among the youth in rural and urban areas in developing countries (Koome, 2001).

Today youth are exposed to a wide range of sexual behaviour on TV, movies, and video and on the Internet. Of importance is the facts that the sexual acts in the mass media are explicit (and usually take place between unmarried partners) hence, youths know what sex is and how it is enacted at increasingly earlier ages (Moore and Rosenthal, 1993). The eroticism on its own may increase the youth's desire to experiment with sexual behaviour.

The models presented in most films do not encourage the female youth to be assertive. They are passive victims; they do not get out of their problems through their own effort but by attracting the man with their looks or sex (Moore and Rosenthal, 1993). Mass media rarely portray planning for sex or its consequences while contraception is totally ignored. Most media messages are overwhelmingly exploitative, provocative, permissive and unsafe (Peggy et al., 1989 C.F Koome, 2001).

The place of residence may influence sexual behaviour including mass media access, socio-economic endowment of parents and parental supervision. Urban residence is

associated with higher levels of exposure to mass media (NCPD et al., 2003) which may encourage initiation of sexual activity, but their effects may be cancelled out by housing constraints and consequent lack of privacy in urban areas (Kiragu, 1991).

Urban areas are associated with higher socio-economic endowment, which is associated with contraceptive use. Additionally, since urban residence is associated with low Total Fertility Rate (TFR) in Kenya, young people in urban areas are more likely to use or to be inclined to use contraceptives in future. The female youth are also more likely than their rural counterparts to have higher rates of sexual activities because they may date working class men who presumably have their own dwelling units, however, they may facilitate contraceptive use (Kiragu, 1991).

Unemployed youth have abundant free time resulting in idleness and lack of reliable income generating activities; the young females may result to commercial sex. Alcohol and sexual activity are linked in both commercial and social spheres. Alcoholic brewing and trade (a major cash income for many women, particularly in urban slum areas) is closely intertwined with commercial sexual activity (Tuju, 1996).

Type of occupation also affects individual risky behaviour and HIV/AIDS transmission. For example numerous studies have shown that persons in the transport industry (particularly long distance truck drivers and their assistants, bus drivers and touts), entertainment industry and other attendant personnel engage in casual sex. Many of them are away from their regular partners for long periods (Ocholla-Ayayo, 1997).

2.5 Socio-Cultural Factors

Cultural norms, mores and expectations differ by ethnic grouping. Ethnicity in analysis of variations in reproductive behaviour is considered a powerful explanatory variable. In Brazil and Guatemala, virginity is highly valued while among the Masai of Tanzania a virgin bride is an embarrassment to the family (Radhakrisha et al., 1997).

The norms held by a group are important determinants of group members' behaviours. The normative social influence processes within a group, work to either increase or decrease risky sexual behaviour. Under these circumstances, members of an individual social network provide support for or against HIV/AIDS preventive behaviour (Fisher et al., 1992). When group norms are pro-prevention, members are apt to be exposed to informational social influence supporting HIV preventive behaviour and vice versa.

Culture determines when sexual activity and reproduction should start and who should marry (Omwanda, 1996; Ocholla-Ayayo, 1996). Cultural norms determine gender roles, power relations, decision-making and normative sexual behaviour (Gage and Bledsoe, 1994 C.F Luke, 2003). Where marriage is a norm, girls are married off soon after puberty. Young brides are unlikely to use contraceptives due to pressure to prove fecundity (Mensch et al., 1998).

Where parents and relatives choose girls' husbands, their self-effectiveness in making decisions on reproduction is further diminished. This increases their vulnerability to negative consequences of un-protected sex. In many cultures, sex is viewed in terms of men's needs and women are supposed to be passive and submissive during the sexual encounter, hence it is only the man who can bring up the issue of safe sex (Koome, 2001).

In a study in Ndola, Zambia and Kisumu Kenya, infection rate among sexually active females aged 15-19 years was 2-8 times higher than it is among their male counterparts (Glynn et al., 2001). In contrast with adolescent boys, who are rarely married, girls are commonly married early in developing countries. In many places, 40 to 60 per cent of girls are married before the age of 20 years. Consequently, sexual activities among adolescent girls occur most frequently within marriage set-ups (Laga et al., 2001).

Youth's sexual and reproductive behaviour is changing, however, in ways that potentially undermine the physical health social and economic well-being of the young people. In the past, the onset of sexual relations and child bearing prior to a formal union was not

uncommon (Barbara et al., 2001). The environment in which youth are currently growing up places a greater premium on the acquisition of skills. Therefore, consequences of early sex and pregnancy may be more severe than they were in the past.

The consequences are more problematic for girls, who are especially vulnerable to sexually transmitted infections including HIV/AIDS and also they shoulder all the burden of premarital childbearing (Barbara et al., 2001). Most of the burden and cost of child rearing is shouldered by teenagers. Until recently, marriage and childbearing during the adolescent years were not only regarded as normative for girls in Sub-Saharan Africa, but also were considered desirable (Bledsoe and Cohen, 1993).

Societal pressure, for the girl to prove her fecundity, may suppress contraception-motivation for newly married girls. They are likely to be low educated and come from low socio-economic backgrounds. This may translate to lower levels of safe sex and contraceptive knowledge. It may also be explained by the lack of finance to procure the contraceptives. Early marriage increases coital frequency, decreases condom use and virtually eliminates girls' ability to abstain. The husbands of married adolescent girls are about three times likely to be HIV positive than are boyfriends of single girls (Clark, 2004).

Although married adolescents are less likely than single girls to have multiple partners, this protective behaviour may be outweighed by their greater exposure via unprotected sex with partners who have higher rates of infection. In countries where HIV is predominantly transmitted via heterosexual intercourse, these differences in sexual practices associated with marriage may substantially affect the likelihood of acquiring HIV infection by either increasing or decreasing certain HIV risk factors.

Analysis of demographic and health survey data in sub-Saharan Africa, indicate that married youth are less likely to use contraceptives than unmarried youth. Contraceptive use is more to space births than to delay entry into motherhood. On the other hand, unmarried sexually active youths are more likely to be attending school and they may be

highly motivated to delay child bearing to attain educational goals (Omwanda, 1996). Higher educational attainment relative to the married is likely to ensure that they have more knowledge on reproductive behaviour and contraceptive use.

In a study on relationship between older men and younger women and its implications for sexually transmitted infections including HIV/AIDS in Kenya, it was found that even though age asymmetries between marital partners are the traditional norm, modern patterns of sexual mixing between older men and younger women may account for differences in HIV/AIDS and sexually transmitted infections prevalence rates (Longfield et al., 2004).

Gender norms and expectations bring about clear power asymmetry in young girls' relationships with their male partners. A study in Uganda found that girls perceived themselves as having no power to negotiate safe sex or to refuse unwanted sex. They also felt at risk of rape and blamed themselves when it occurred because they were not allowing a man to have sex, which is natural (Hulton et al., 2000).

Proving a man's virility may encourage unsafe sex because it does not encourage taking responsibilities for one's actions. Majority of male youth's respondents in the above study considered abstinence neither normal nor possible; they also made it clear that pregnancy is primarily the responsibility of women (Hulton et al., 2000). In a study of 10,000 schoolgirls in Kenya, a third of them who had ever had sex, 40 per cent were forced or cheated to have sex (Mensch et al., 1998). This may be explained by the motivating desire of males to assert power over women.

Doubts, myths and misconceptions affect continued condom use or non-use. For example, some adolescents thought condoms were laced with HIV and had holes rendering them ineffective. Condoms are also associated with un-cleanliness, illicit sex, infidelity and immorality in some communities (Hulton et al., 2000). Insistence or admission to use a condom may be interpreted as admission by either partner of existence of a sexually transmitted infection, suspicion that the girl is a commercial sex worker or

is involved in other sexual relationships with other men (Ankrah and Attika, 1997; Bandura, 1992).

Religion may explain risky sexual behaviour where religions propagate values of self-restraint and regardless of denomination; religiosity among the youth may less likely lead to minimal early sexual initiation. Beside religious values, the youth is likely to form a peer network with other religious youth; hence the peer group works to reinforce the values. Strict religious proscription may explain the great variations in the rate of unmarried adolescent pregnancies in Asia and Africa.

Major religious denominations in Kenya teach against pre-marital sex and some are against contraceptive use. For example, the Catholic Church-its leaders are on record for burning condoms in public (Mulindi, 2000). It may translate into late age at first sex debut but low level of contraceptive use among sexually active youth thereby exposing them to risky behaviour.

Adolescents exhibit unique behaviour characterised by risk taking tendencies. For example, due to lack of knowledge, adolescents have an obvious bias in their perception of risk, which stems from cognitive distortions of reality and a sense of invulnerability (Kiragu and Zabin, 1995). Some adolescents have been found to be unrealistically optimistic about their situations, such as gay young men who practice risky sex thinking they are less at risk than others and religious individuals who believe that their faith protects them (Lagarde et al., 2000; Holmes and Pace, 2002; Gold and Aucote, 2003).

2.6 Psychosocial Factors

Knowledge of AIDS has increased remarkably over the years and is almost universal in most Sub-Saharan African countries. However the association between such knowledge and sexual behaviour is rather ambiguous. Some researchers have found significant associations between HIV/AIDS levels of awareness and the number of sexual partners and self-perceived risk (Fapohunda and Rutenberg, 1999; Idele, 2002). However, others did not find significant association between the two. For example, using the World

Health Organization/Global Programme on AIDS (WHO/GPA) data, Cleland (1995) did not find significant association between knowledge, perceived risk and sexual behaviour.

Perception of HIV risk is not static but varies with context and over time. Individuals may perceive different levels of risk at different stages in their lives and with different sexual partners, even where their actual level of risk remains constant. Some studies have shown that the perception of risk of HIV may be high when a new sexual relationship is formed, but the perception of risk diminishes as the relationship progresses (Fapohunda and Rutenburg, 1999; Nzioka, 2001).

Several studies of condom use among African adolescents suggest that young people's perception of risk is associated with higher levels of condom use. For example, a study conducted in rural Ghana, found that young men who perceived themselves to be at high risk for HIV infection were more likely than others to have used condoms at their last sexual intercourse (Estrin, 1999; Akande, 1994 C.F Meekers and Klein, 2002). Likewise, among University students in Zimbabwe and Nigeria, condom users were found to be more likely than non-users to have accurate assessment of their risk of acquiring HIV/AIDS.

Adolescents' perception of the extent to which their social environment supports their actions can also empower them to engage in protective behaviour. In Ghana, young men who felt that they had strong social support for condom use were more likely than others to have used condoms. In Zimbabwe and Nigeria, university students who used condoms were more likely than non-users to believe that their peers support preventive behaviour (Estrin, 1999; Akande, 1994 C.F Meekers and Klein, 2002).

Qualitative research also shows that South-African young people believe that prohibitive social norms and attitudes projected by adults are a deterrent to adolescents' use of condoms (MacPhail and Campbell, 2001). Self efficacy-the belief that one can design and execute a specific behaviour is also associated with higher levels of safe sexual behaviour (that is, increased condom use) For example, a survey in Sierra Leone found that low

levels of anxiety about sexual negotiation was associated with higher levels of condom use.

These studies discuss the large number of factors that may influence condom use leading to safe sexual behaviour and shows that these factors may vary across societies and over time. Research findings from both the United States of America and Zambia show, furthermore, that sexual behaviour and condom use may have multiple antecedents and that each have a small impact, rather than a few antecedents with a large impact (Magnani et al, 2002a). This suggests that no simple solution is available for preventing reproductive health problems among adolescents.

Exposure to AIDS information through mass media may lead to high levels of awareness, which can in turn influence self-assessed risk of HIV and behaviour. It has been argued that people's assessment of risk may depend upon how much they trust the accuracy of the information. Others note that neither increased exposure to the media and greater belief in the accuracy of the media (as a source of information about AIDS) nor knowledge of the facts about HIV/AIDS transmission affected peoples' perception of risk of HIV infection (Prohaska et al., 1990).

The general awareness of AIDS is no longer important in AIDS prevention but accurate knowledge of how HIV is transmitted is important (UNAIDS, 2000b). For instance when people believe that mosquitoes transmit the HIV virus or sharing utensils, bathrooms etc with people will lead to transmission of HIV, they may see the use of condoms as futile. Some researchers report that asymptomatic transmission of HIV is not common in local concepts of disease (Hogsborg and Aaby, 1992).

The belief that AIDS is a disease for 'high-risk' groups influences people's perceptions and behaviour. For a long time in Kenya, AIDS was associated with homosexuals, drug users, prostitutes, truck drivers and tourists. As a result, some people discounted their own risk because they did not identify with these high-risk groups (Lagarde et al, 2000).

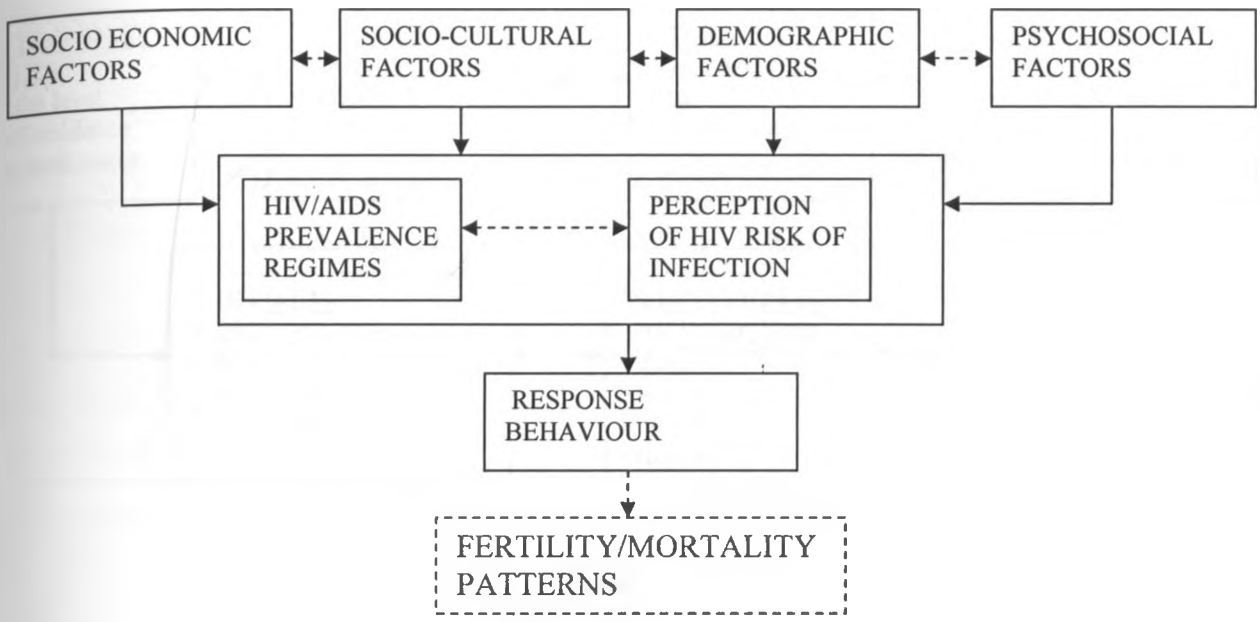
The way an illness is viewed might influence the perception of HIV. Some see AIDS as punishment for immoral behaviour. Therefore, those who consider their lifestyle as being morally 'upright' may perceive their chance of being infected by HIV to be low (Konde-Lule, 1993; Nzioka, 2001). A consequence of this belief is that AIDS sufferers are stigmatised in the society (Anarfi, 1993).

The knowledge of contraception, reproduction and attitudes about HIV is a powerful contributor to sexual behaviour. Many adolescents do not know the risks of sexual activities. In a study in Kenya, many of the youths said that one couldn't get pregnant if she had sex only once. They also indicated a lack of knowledge that menstruation indicated a woman's potential to become pregnant and one can avoid pregnancy by such measures as washing their genitals after sex, having sex while standing and jumping up and down after sexual intercourse. Many of the respondents also did not know how to effectively use contraceptives (Kiragu and Zabin, 1995).

The ways in which information about health is filtered through local structures and incorporated into existing systems of understanding (especially of HIV) is very important in our understanding of sexual behaviour and perception to HIV/AIDS risk. HIV tests are not simply ways to obtain information, but also tests of love and loyalty of a partner. They may elicit emotional judgement about relationships that are sometimes too painful to face. Disclosure too, is not a yes-no event, but rather proceeds in steps, with concealment, hints, retraction for fear of rejection, and finally admission (Obermeyer, 2005; Klitzman and Bayer, 2003).

2.7 Conceptual Framework

Fig. 1: Conceptual framework for the study of risky sexual behaviour among the youth in Kenya



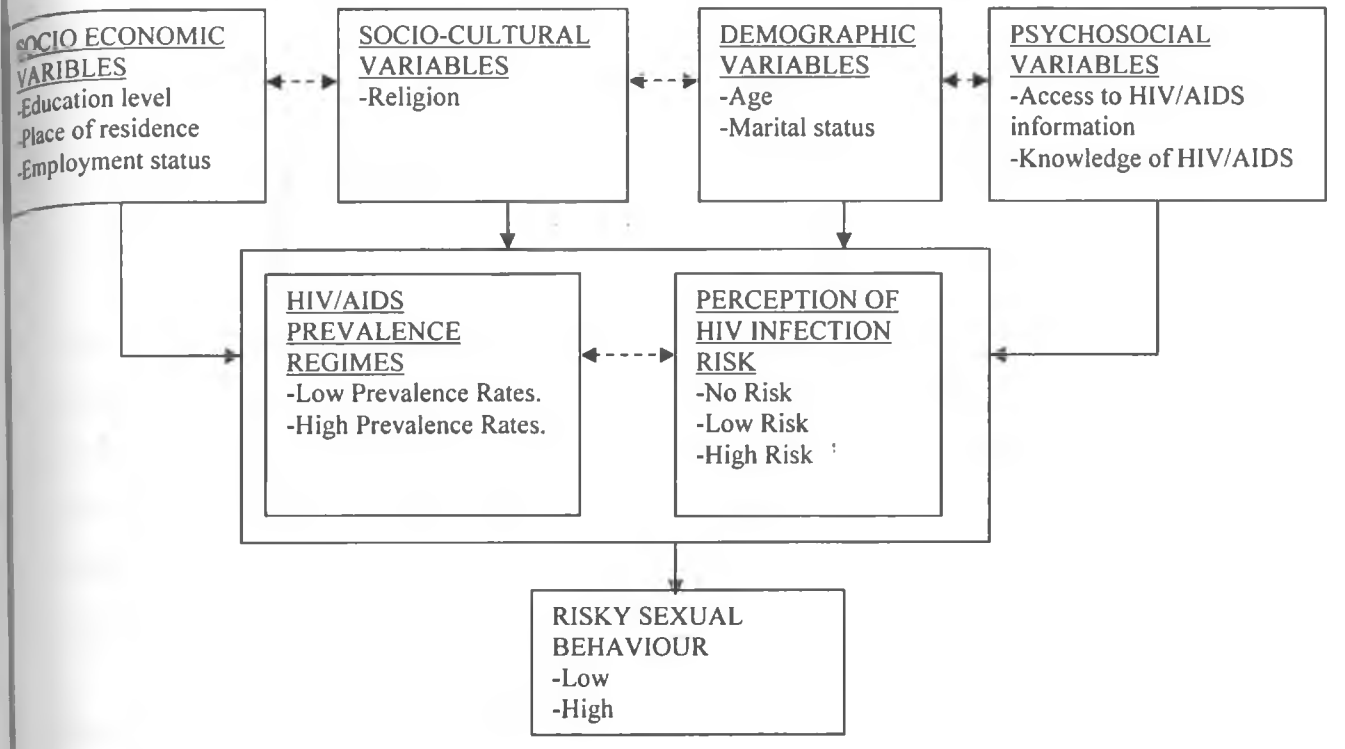
(Source: Adopted and modified from Gregson et al., 1997)

2.7.1 Conceptual Hypotheses

1. Demographic characteristics of a youth are likely to influence risky sexual behaviour.
2. Socio-economic factors existing in the environment of the youth are likely to affect risky sexual behaviour.
3. Socio-cultural factors are likely to affect risky sexual behaviour of a youth.
4. Psychosocial factors are likely to influence the youth risky sexual behaviour.

2.8 Operational Framework

Fig 2: Operational Framework for the study of risky sexual behaviour among youth in Kenya



(Source: Adopted and modified from Gregson et al., 1997)

(Key: Solid lines represent associations examined in this study while dotted lines indicate possible associations but are not measured in this study.)

2.8.1 Operational Hypotheses

1. Low perception of risk of HIV infection is likely to lead to high risky sexual behaviour.
2. The lower the age of a youth the higher the like hood to indulge in high-risk sexual behaviour.
3. The higher the education level of a youth the less likelihood to indulge in high risky sexual behaviour.
4. Religion that a youth ascribes to is likely to affect risky sexual behaviour.
5. Youth living in urban areas are more likely to engage in high risky sexual behaviour.

6. Currently married youth are less likely to indulge in high risky sexual behaviour.
7. Unemployed youth are more likely to engage in high risky sexual behaviour.
8. Youth who have high exposure levels to HIV/AIDS information are less likely than those who do not to indulge in high risky sexual behaviour.
9. High Knowledge of HIV/AIDS prevention by the youth is likely to lead to low risky sexual behaviour.
10. Youth who live in high HIV/AIDS prevalence regimes are less likely to indulge in high risky sexual behaviour.

2.8.2 Definition of Key Concepts

Risky Sexual Behaviour: This refers to a score derived from information on whether or not the youth reported any risky sexual behaviour/experience in the last 12 months before the survey. (i.e. if the last sexual partner was a casual/non-regular, failure to use condoms consistently during last sex with casual/non regular partner and reporting of a Sexually Transmitted Infection).

Perception of Risk: This refers to thoughts of a youth of whether her chances of getting AIDS were small, moderate, great or if she had no risk/did not know the risk at all.

Socio-economic factors: These refer to the youth's level of education, place of residence and employment status.

Socio-cultural factors: These refer to the youth's religion affiliation, i.e. if the youth's religion was Roman Catholic, Protestant/Other Christians, Muslim or no religion/other.

Demographic factors: These refer to the youth's age, sex, and marital status.

Psychosocial factors: These refer to the youth's access to HIV/AIDS information (or exposure to media) and knowledge, attitudes and practices that might predispose indulgence/or not to indulge in risky sexual behaviour.

Youth: The World Health Organization defines youth as the age between 15-24 years; Centre for Disease Control defines youth as age 13-19 while the American Academy of Paediatrics and Society for Adolescent Medicine define it as the age between 13-31 years. For this study, youth is taken as age between 15-24 years.

HIV/AIDS: HIV refers to a virus that attacks the human immune system rendering it highly susceptible to attacks from other diseases' pathogen-causing agents. AIDS is an acronym that stands for Acquired Immune Deficiency Syndrome.

Table 2.1 Summary of Variables and Their Measurements

Variable Name	Measurement	Type of Variable
Risky sexual behaviour	1 = Low 2= High	Dependent
Marital Status	1=Never married (RC) 2=Currently married 3=Formally married	Independent
Place of Residence	1=Urban 2=Rural (RC)	Independent
Respondent's Age	1=15-19 years (RC) 2=20-24 years	Independent
Education	1=No/ pre school (RC) 2=Primary 3=Secondary+	Independent
Media Exposure	1=Never exposed (RC) 2=Low Exposure 3=Medium Exposure 4=High Exposure	Independent
Knowledge of HIV/AIDS prevention	1=Low (RC) 2=High	Independent
Religion	1=Roman Catholic (RC) 2=Protestant/Other Christians 3=Muslim 4=No religion/other	Independent
Work Status	1=Not working (RC) 2=Working	Independent
Perception of HIV Risk	1=No Risk (RC) 2= Low Risk (RC) 3=High Risk	Independent
HIV/AIDS Regimes	1=Low Rates (RC) 2= High Rates	Independent

Key: RC = Reference Category.

CHAPTER THREE

DATA AND METHODOLOGY

3.1 Introduction

In this chapter, we examine the sources of data that were used in this analysis. In addition, we discuss data quality and the various methods that were used for data organization and analysis. These included cross tabulation, bi-variate analysis and logistic regression methods.

3.2 Sources of Data

The main source of data used in this study was drawn from the Kenya Demographic Health Survey (KDHS, 2003) with a national representative sample size of 8,195 individuals in the reproductive ages. The survey differed from previous surveys as it also gathered information on domestic violence, HIV testing of adults, malaria and use of treated mosquito nets.

The survey utilized three questionnaires, which are the women's questionnaire that targeted women aged 15-49 years; the men's questionnaire, which targeted men aged 15-54 years and never touched on children ever born to a woman, domestic violence, reproductive history, maternal and child health, and maternal mortality, and the household questionnaire which was useful in identification of eligible women. Information concerning female youth aged 15-24 years was separated for the study from the women's questionnaire.

The second source of data that was utilized in this study was qualitative data. The data was collected through focus group discussions targeting 32 female youth who were in and out of school but within the age bracket of 15-24.The sampled youth were drawn from the two cities in Kenya that is Nairobi and Kisumu. Primary data were important in this study because they showed the direction of any changes in perception of risk of HIV infection and risky sexual behaviour for the sample youth. The results were then compared with those from the 2003 KDHS based on the analysis done.

3.3 Data Quality

KDHS 2003 design was intended to provide high quality- scientifically tested data. Sample surveys usually suffer from two types of errors. These errors are sampling and non-sampling errors. Non- sampling errors are mistakes made when carrying out field data collections. For example failure to locate and interview the target individuals, errors in the way the questions are asked, misunderstanding of the question on the part of respondent and data entry errors. Numerous attempts were made to control non-sampling errors but generally they are impossible to avoid and difficulty to evaluate statistically.

The data used may be affected by reverse causality, for example, perception of HIV risk and sexual behaviour. For instance high perception of HIV risk of infection could lead either to a change to low risk sexual behaviour, or to fatalism and no change in sexual behaviour. Similarly, high-risk sexual practices may lead individuals to perceive their risk of HIV infection to be high. Endogeneity may also bias the results (Greene, 2000; Maddala, 1983, C.F Akwara et al 2003). For example, having accurate knowledge about STIs including HIV transmission may lead to consistent use of condoms during risky sexual encounters, which could in turn lead to lower perception of HIV risk of infection.

The measure of risky sexual behaviour in the last 12 months used in this study had some limitations. The actual risk of exposure to HIV for an individual depends on a combination of factors. These include an individual's number and type of lifetime sexual partners, a partner's past or current sexual behaviour, consistency of condom use with each partner, and indirectly the level of HIV/AIDS prevalence in the population. Individuals reporting more than one sexual partner may not necessarily have had an elevated risk if they used condoms consistently.

Alternatively, an individual not reporting risky sexual behaviour may be at high risk because of a partner whose behaviour is risky, as might be the case for many young Kenyan women. Additionally, young women who did not report risky sexual behaviour

in the last 12 months may have had risky sexual encounters prior to the last 12-month period.

Finally, perception of HIV risk is not static but varies with context and over time. Individuals may perceive different levels of risk at different stages in their lives and with different sexual partners, even where their actual level of risk remains constant. Some studies have shown that the perception of risk of HIV may be high when a new sexual relationship is formed, but that the perception of risk diminishes as the relationship progresses (Fapohunda and Rutenberg, 1999; Nzioka, 2001).

Despite these limitations, this study was important because it examined the current prevalence of risky sexual behaviour among the young women who were sexually active. The sub-group of the Kenyan population has a significant implication for new HIV infection rates. Additionally, the group has implications for HIV prevention strategies. On the other hand, during collection of primary data the study utilised the World Health Organization questionnaire format on reproductive-health for adolescents/youths. The questionnaire was pre-tested before its administration to the target population. This reduced errors and improved the quality of the data collected.

3.4 Methods of Data Analysis

Due to various methods used in data collection, different methods of analysis are taken into account, to describe and summarize the phenomenon under study.

3.4.1 Quantitative Data Analysis

(a) Bivariate Analysis

Descriptive analysis at a population level allows the comparison of distribution of suspected factors (unlinked to sexual behaviour data). The statistical measures used here to interpret the association and test the levels of correlation between variables under study include:

Frequency distributions were used to show the distribution of the youth by the selected background variables and their values. Cross tabulations were also used at the bivariate level of analysis to establish relationships and also differentials between risky sexual behaviour and the selected variables. It was useful in the initial examination of the nature of relationship between or among the variables, and to determine if there was an association between dependent variable and independent variable. However, it gives the percentage distribution of various variables but it does not tell us anything about the relationship between the two variables. In order to do this, a Chi-square analysis was done.

The Chi-Square Test criterion, based on an underlying normal distribution of data was used to test the goodness of the fit. It is a general test, testing whether or not frequencies, which have been empirically obtained, differ significantly from those, which would be expected under a certain set of theoretical assumptions. It determines the level of association between the variables under study for all cross tabulations and isolates the significant independent variables. The test will be used to test the significance of associations between risky sexual behaviour and each independent variable without giving the direct effect of relationships. The calculated Chi- Square Test is designated by:

$$X^2 = \frac{(O_1 - E_1)^2}{E_1} \quad \ldots\ldots (1).$$

Where the expected frequencies are calculated by regarding the one-way marginal totals as fixed and designated by:

$$E_1 = \frac{(R_{ii} \times C_{ii})}{N} \ldots\ldots (2)$$

Where R_{ii} and C_{ii} stand for totals in the i_{th} row and i_{th} column respectively and N represents the sample size.

It is necessary to state the assumptions, which include the null hypothesis stated in the form of a relationship or no relationship in the variables being tested. H_o is the null hypothesis, while H_1 is alternative hypothesis. A significant level and degree of freedom is set and obtained as follows:

$$df = (row - 1)(column - 1) \ldots\ldots (3)$$

Using the calculated Chi-square, the test is then computed. If the calculated Chi-square is greater than the table value, then we reject the null hypothesis, and if it is less than the one on the table, then we accept the null hypothesis. When the null hypothesis is rejected, it means that something non-random is happening and we conclude that there is a relationship between the variables under test. If the null hypothesis is accepted, then there is no conclusive evidence of a relationship between variables. On the SPSS program, if the observed sign level of test is less than 0.05 or 0.01, the hypothesis that the two variables are independent is rejected and we conclude that there is a relationship between the variables in the sense that they are dependent. However, in a true generalization, bivariate analysis is not adequate in that there are likely to be many factors that influence any individual situation like sexual behaviour.

(b) Logistic Regression

The socio-demographic and psychosocial factors in which this study was based are multi-variable in themselves, having a complex relationship amongst them and to the given sexual behaviour situation in the study area. This calls for the use of a multiple regression model that incorporates all the independent variables, which affect the dependent variable. In view of the fact that the nature of the dependent variable was dichotomous, (one that either takes the value of one or zero), logistic regression was deemed to be the appropriate model. Besides, the nature of the independent variables under study, which are categorical, aggregate or continuous, calls for the application of this model.

In addition, from a mathematical point of view, the logistic model is an extremely flexible and easily used function. It lends itself to a biological meaningful interpretation (permits multivariate analysis of risk perception for estimating the probability of sexual behaviour occurring or not). The regression technique was taken as an improved method of testing the postulated hypotheses and also to measure intensity of the relationships between the dependent and the regressor variables. The logistic model also applies maximum likelihood estimation after transforming the dependent variable into a logit variable (the natural log of the odds of the dependent variable occurring or not.)

According to Kleinbaum, 1994 in Njue, 2000, the principle of the logistic regression method is based on linear regression- aimed at relating a variable (Y) to one or several independent variables (X_J), postulated as:

$$Y = B_0 + B_1X_1 + B_2X_2 + ...B_PX_P + U.....(4)$$

Where Y represents the dependent variable, Xj are the independent variables of interest, B_1 and B_2 are the regression coefficients, U is the error term (the residual). For the dichotomous case, if the logit for a given independent variable is B_1, then a unit increase in the independent variable is associated with B_1 unit increase in the log odds of the dependent variable.

Multiple logistic regression model deals with the logistic model of more than one independent variable that is, multivariate case. Y (takes the value of 1 for the reference modality and the value of 0 for other modalities); $Xj(j = 1,2,3...n)$ where n is the independent (or explanatory) variables; P, the probability that the event $Y = 1$ takes place, therefore, $\{P = Prob(Y = 1) and 1 - P = \Pr ob(Y = 0)\}$. The logit of multiple regression model is shown in the linear form:

$$Logit(P) = \frac{Log(P)}{(1-P)} = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + ...B_nX_n.....(5)$$

Where, $X_1, X_2 .... X_n$ represents the different independent variables of interest in the model. B_1 Represent the change in the log odds that would result from a one-unit change in a variable when the other variables are fixed. The logit is converted into a statement about odds ratio of the dependent rather than log odds by using the exponential function (raising the natural log to the B_1 Power) The odds ratio has been used to compare the relative importance of the independent variables and the ratio of relative importance of the independent variables in terms of effect on the dependent variable.

3.4.2 Qualitative Data Analysis

Field data gathered through Focus Group Discussions (FGDs) was categorized based on the groups under study. To analyse the data obtained, appropriate data management was carried out and this involved making notes from the tape recordings, reviewing the tapes (that is transcription, translation, and data reduction). All the notes, reports, and additional questions that occurred during the discussions were further studied, summarized and grouped into themes. Linked to this, direct quotes were used extensively in order to make young people speak for themselves and with each other.

Materials from focus group discussions helped unveil areas of agreement/dissent about health issues, gender relations, preventive behaviour like abstinence and condom use, perception of risk of sexually transmitted infections including HIV/AIDS, and what they thought about sources of sexual and reproductive health information and services.

To ensure that researcher's subjective biases did not determine the conclusions drawn, the supervisor of the study read the summary text. This enabled the study to gain more insights into youths' views on their position in society and other issues confronting them, with regard to sexual behaviour and HIV/AIDS, and especially to assess how socio-demographic and psychosocial factors come into play in influencing adolescent risk sexual behaviour and in contributing to the rise in the incidence of the epidemic.

Emerging patterns and consensus, or lack thereof, within the FGDs was assessed and the information tallied or not tallied with the study hypotheses. Results were linked to research question and objectives to prove or disprove study hypotheses and hence to understand better the mechanisms of sexual behaviour and in extension the spread of HIV. The data was used to triangulate with the data from KDHS 2003 and hence reinforce the quantitative data in order to shed more light on the preliminary findings.

CHAPTER FOUR

DESCRIPTION OF CHARACTERISTICS OF STUDY POPULATION

4.1 Introduction

This chapter presents descriptions of the characteristics of the study population. The analysis and interpretations was based on the sample of 2132 women aged 15-24 years based on the 2003 Kenya Demographic Health Survey who reported to be sexually active in the last twelve months before the survey. Risk sexual behaviour refers to a score derived from information on whether or not the youth reported any risky sexual behaviour/experience in the last 12 months before the survey, (that is, if the last sexual intercourse was with a casual/non-regular partner, failure to use condoms consistently during last sex with casual/non regular partner and reporting of any STD).

4.2 Basic Characteristics of the Study Population

Table 4.1 provides the summary of statistics of the women by background characteristics twelve months before the survey. Majority of the young women had at least primary education while a quarter had secondary and above education. Of the study population, a quarter of them were Roman Catholic while the majority were Protestant/other Christians. On the other hand, approximately a tenth of them were Muslim and youths classified as with no religion or other. Additionally, majority of the youths were living in rural areas comprising of approximately 65 per cent, while approximately three quarters had at least attained primary level of education.

Table 4.1: Percentage distribution of the study population by background characteristics

Characteristic	Percentage	Number (n)
Risky Sexual Behaviour		
Low	36.9	787
High	63.1	1345
Age group		
15-19	35.1	749
20-24	64.9	1383
Marital status		
Never married	35.5	757
Currently married	57.2	1220
Formerly married	7.3	155
Place of residence		
Urban	35.1	749
Rural	64.9	1383
Education Level		
No/pre school	10.9	233
Primary	63.6	1356
Secondary +	25.5	543
Work Status		
Not working	50.8	1083
Working	49.2	1049
Religion		
Roman Catholic	25.5	544
Protestant/Other Christians	60.9	1299
Muslim	11.0	235
No religion /Other	2.5	54
Media Exposure		
Never Exposed	12.5	267
Low Exposure	32.5	692
Medium Exposure	30.8	656
High Exposure	24.5	517
Knowledge of HIV/AIDS Prevention		
Low	15.6	332
High	84.4	1800
HIV/AIDS prevalence Regimes		
Low	54.7	1167
High	45.3	965
Perception of HIV risk		
No risk	32.8	700
Small risk	42.0	895
Moderate/great risk	25.2	537

Of the total study population, majority were currently not working while slightly less than half of the youth were working. On the other hand, 35.5 per cent of them were never married, while 57.2 per cent were currently married. This indicates incidence of early entry into family formation. Only 7.3 per cent were formerly married. 12.5 per cent of the youth had never been exposed to any form of media. Majority (84.4 per cent) of the respondents' knowledge of HIV/AIDS prevention methods was high. This was in sharp contrast to only 15.6 per cent of the respondents whose knowledge of HIV/AIDS prevention was low.

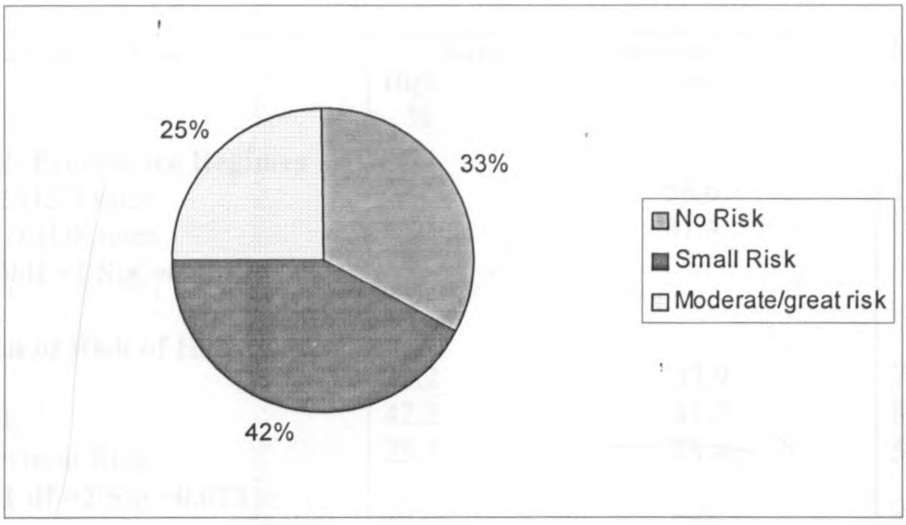
Approximately 45 per cent of the youth were living in the high HIV/AIDS prevalence regime. In terms of risk perception, 32.8 per cent of the youth perceived their risk of HIV infection as low while 42 per cent and 25.2 per cent reported their chances of HIV infection as small and moderate/great respectively.

4.3 Bivariate Analysis

During the survey women respondents were asked to provide the reasons for their perception of risk of HIV infection. The questions were: Why do you think you have no/small chance of getting HIV/AIDS? And why do you think you have moderate/great chance of getting HIV/AIDS? Figure 3 presents results of the answers that the women provided.

Most women in the age group 15-24 years who perceived their risk of HIV infection to be moderate or great gave their reason that they suspected that their spouse/partner had other sexual partners. This consisted of approximately 14.4 per cent of the study population.

Fig 3: Percentages of women perceiving different levels of risk of contracting HIV, KDHS 2003



About 5 percent of the female population reported that they perceived their risk to be moderate or great due to non-use of condoms. The other percentage represents those women who perceived their risk to be moderate/great through homosexual contact/blood transfusion/injections and other reasons.

Additionally, among the women who perceived their risk of HIV infection to be none/small most of them gave their reasons that they had only one sexual partner. This consisted of 51.8 per cent while 14.2 per cent said that they did not have sex. The proportion of the youth whose chances of infection was none/small due to use of condoms was dismally low representing only 3.7 per cent.

The general objective of the study was to establish the factors that determine risky sexual behaviour and the possible risk of HIV infection among the youth in Kenya. Table 4.2 presents results of relationship between risky sexual behaviour, perception of risk of HIV infection and HIV/AIDS Prevalence Regimes.

Table 4.2: Percent distribution of Risky sexual Behaviour by HIV Perceived risk of infection and HIV/AIDS prevalence regimes

Background Characteristic	Risky Sexual Behaviour		Number
	High %	Low %	
HIV/AIDS Prevalence Regimes			
Low HIV/AIDS rates	52.5	58.6	1167
High HIV/AIDS rates	47.5	41.4	965
X^2 =7.423 df =1 Sig.=0.006			
Perception of Risk of HIV			
No Risk	32.2	33.9	700
Small Risk	42.2	41.7	895
Moderate/Great Risk	25.7	24.4	537
X^2 = 0.791 df =2 Sig.=0.673			
Total	1345	787	2132

HIV/AIDS prevalence regimes influenced risky sexual behaviour among the women where 52.5 per cent and 58.6 per cent of the women living in low HIV/AIDS prevalence regime reported high and low risky sexual behaviour respectively. On the other hand, 47.5 per cent and 41.4 per cent of the women living in high HIV/AIDS prevalence regime reported high and low risky sexual behaviour respectively.

Additionally, results indicate that women who perceived their chance of HIV infection to be none but reported high risky sexual behaviour represented 32.2 per cent. On the other hand, 42.2 per cent and 25.7 per cent reported their perception of risk of HIV infection as small and moderate/great risk respectively. The women who perceived their risk of HIV infection to be none but reported low risky sexual behaviour were 33.9 per cent while 41.7 per cent and 24.4 per cent of the women reported their risk to be small and moderate/great risk but reported low risky sexual behaviour respectively. The relationship between perception of risk of HIV infection and risky sexual behaviour was found to be insignificant.

Table 4.3 provides results between youth's risky sexual behaviour and various independent variables. This analysis was to ascertain whether there was an association between the dependent variable (risky sexual behaviour) and the independent variables, (youth's age, marital status, place of residence, region of residence, work status, highest education attainment,' media exposure, knowledge of HIV/AIDS prevention methods, perception of risk of HIV infection and HIV/AIDS prevalence rates existing in their region of residence).

At the Bivariate level, risky sexual behaviour was highly associated with age, marital status, place of residence, education level, religion, media exposure levels, knowledge of HIV/AIDS prevention methods and HIV/AIDS prevalence regimes whereas work status and perception of HIV risk of infection were insignificant. Results indicate that risky sexual behaviour increases with the woman's age. 70 per cent of the women in the age group 20-24 years were found to report high risky sexual behaviour compared to 29.1 per cent of the women in the younger age group.

From literature risky sexual behaviour is associated with age (Carael et al., 1995). A study in 2001 found that only 10 per cent of respondents aged 15-19 years and 6 per cent of the respondents aged 20-24 years reported using a condom during their last sexual act (Waithaka and Bessinger, 2001).

Of the study population, the women who were never married and reported low risky sexual behaviour consisted of 79.8 per cent. The women who were currently married and reported low risky sexual behaviour were 9.4 per cent compared to 85.2 per cent who reported high risky sexual behaviour. Additionally, majority (10.8 per cent) of the women who were formerly married reported low risky sexual behaviour. Married youth often face considerable pressure to become pregnant shortly after they wed. This may explain the reason of low condom prevalence among the married youth. Additionally, there is widespread perception that marriage is relatively "safe" (Clark, 2004).

Table 4.3: Relationship between risky sexual behaviour by selected characteristics

Characteristic	Low (%)	High (%)	Total (n)
Age group			
15-19	45.5	29.1	749
20-24	54.5	70.9	1383
$X^2 = 58.729$ df =1 Sig.=0.000			
Marital status			
Never married	79.8	9.6	757
Currently married	9.4	85.2	1220
Formerly married	10.8	5.2	155
$X^2 = 1209.119$ df =2 Sig.=0.000			
Place of residence			
Urban	38.6	33.1	749
Rural	61.4	66.9	1383
$X^2 = 6.692$ df =1 Sig.=0.010			
Education level			
No/pre school	5.1	14.3	233
Primary	63.4	63.7	1356
Secondary+	31.5	21.9	543
$X^2 = 56.907$ df =2 Sig.=0.000			
Work status			
Not working	49.4	51.6	1083
Working	50.6	48.4	1049
$X^2 = 0.936$ df =1 Sig.=0.333			
Religion			
Roman Catholic	28.8	23.6	544
Protestant/Other Christian	64.5	58.8	1299
Muslims	5.5	14.3	235
Others	1.1	3.3	54
$X^2 = 52.575$ df =3 Sig.=0.000			
Media Exposure Levels			
Never Exposed	8.5	14.9	267
Low Exposure	25.8	36.4	692
Medium Exposure	34.6	28.6	656
High Exposure	31.1	20.2	517
$X^2 = 63.277$ df =3 Sig.=0.000			
Knowledge of HIV/AIDS Prevention			
Low	13.2	17.0	332
High	86.8	83.0	1800
$X^2 = 5.274$ df =1 Sig.=0.022			
HIV Prevalence regimes			
Low prevalence rate	58.6	52.5	1167
High prevalence rate	41.4	47.5	965
$X^2 = 7.423$ df =1 Sig.=0.006			
Perception of HIV risk			
None risk	33.9	32.2	700
Small risk	41.7	42.2	895
Moderate/great risk	24.4	25.7	537
$X^2 = 0.791$ df =2 Sig.=0.673			

Majority of the women who had either primary or secondary education reported high risky sexual behaviour. From literature review the level of education attainment is associated with risky sexual behaviour. Education affects youth's behaviour by changing norms concerning sex and sexual relations. Youth look at their sexuality as a process of getting to know themselves (Harrison et al, 2001). Education offers the youth the opportunity to loosen parental control hence it may be associated with pre-marital sex among young people (Hulton et al, 2000). On the other hand, education increases one's knowledge of means of controlling fertility and sexually transmitted infections including HIV/AIDS.

The distribution of the women by place of residence shows that majority of rural women areas reported high risky sexual behaviour. The place of residence may influence sexual behaviour through mass media access, socio-economic endowment of parents and parental supervision. Urban residence is associated with higher levels of exposure to mass media which may encourage initiation of sexual activity, but their effects may be cancelled out by housing constraints and consequent lack of privacy in urban areas (Kiragu, 1991).

Urban areas are associated with higher socio-economic endowment, which is associated with contraceptive use. The female youths are also more likely than their rural counterparts to have higher rates of sexual activities because they may date working class men who presumably have their own dwelling units (they may however facilitate contraceptive use).

Reporting of high risky sexual behaviour was also evident through religion affiliation. Religion may explain risky sexual behaviour where religions propagate values of self-restraint and regardless of denomination; religiosity among the youths may less likely lead to minimal early sexual initiation. Beside religious values, the youth is likely to form a peer network with other religious youths; hence the peer group works to reinforce the values. Strict religious proscription may explain the great variations in the rate of unmarried adolescent pregnancies in Asia and Africa.

Exposure to media information was also associated with reporting of risky sexual behaviour. Results show that majority of the women who were medium to highly exposed to media reported low risky sexual behaviour. On the other hand, majority of the young women who were never exposed to media reported high risky sexual behaviour. Exposure to AIDS information through mass media may lead to high levels of awareness, which can in turn influence sexual behaviour.

Knowledge of HIV/AIDS prevention methods also influenced reporting of risky sexual behaviour. Low level of HIV/AIDS knowledge was associated with majority of the women who reported high risky sexual behaviour. On the other hand, 86.8 per cent of the women with high levels of knowledge of HIV/AIDS prevention methods reported low risky sexual behaviour. HIV/AIDS prevalence regimes additionally influenced risky sexual behaviour. Results show that majority of the women residing in low HIV/AIDS prevalence areas reported low risky sexual behaviour. The women who reported high risky sexual behaviour in high prevalence regime consisted 47.5 per cent.

In conclusion, although there may be associations between risky sexual behaviour and youth's age, marital status, place of residence, religion, highest education attainment, media exposure, knowledge of HIV/AIDS prevention methods and HIV/AIDS prevalence rates existing in their region of residence, the associations may be spurious.

CHAPTER FIVE

FACTORS INFLUENCING RISK SEXUAL BEHAVIOUR

5.1 Introduction

In this chapter, multivariate results using logistic regression model are presented and discussed. The aim is to determine the net effect of selected independent variables which are: youth's age, marital status, place of residence, work status, religion, media exposure, knowledge of HIV/AIDS prevention and HIV/AIDS prevalence rates prevailing in different regions first on risky sexual behaviour. Logistic regression model was adopted for this particular study mainly because the response variable was dichotomous. The forward stepwise (conditional) method was applied since it enters variables in the regression model according to their levels of significance, starting with the most significant and ending with the least significant variables.

Table 5.1 provides the multivariate results of the association between risky sexual behaviour and the selected independent variables. The results from the logistic regression show that out of the nine independent variables entered in this model, six were found to have a significant effect on risky sexual behaviour. These were marital status, level of education, media exposure, HIV/AIDS prevalence regimes, age and knowledge of HIV/AIDS prevention methods. The variables that were found to be insignificant were place of residence, religion, work status and perception of HIV risk of infection.

Level of education attainment was found to have a significant effect on risky sexual behaviour among youth aged 15-24 years. Female youth with at least secondary education were 1.7 times more likely to report high risky sexual behaviour compared to youth with no education. On the other hand, youth with at primary education were 1.1 times more likely to report high risky sexual behaviour compared to youths with no education. These results were in contrast to our expectation whereby high level of education was expected to lead to low risky sexual behaviour among the youth.

Table 5.2 Multivariate relationship of Background Factors and Risky sexual behaviour

VARIABLES	B	S.E	D.F	SIG	EXP. (B)
Education Level					
No/pre school (ref)	-	-	1	-	1.000
Primary	0.170	0.320	1	0.595	1.185*
Secondary +	0.539	0.365	1	0.140	1.714*
Place of Residence					
Urban (ref)	-	-	1	-	1.000
Rural	0.028	0.151	1	0.851	1.029
Work status					
Not working (ref)	-	-	1	-	1.000
Working	-0.003	0.144	1	0.984	0.997
Religion					
Roman Catholics (ref)	-	-	3	-	1.000
Protestants/Other Christians	-0.108	0.163	1	0.508	0.898
Muslims	0.025	0.302	1	0.933	1.026
Others	0.716	0.503	1	0.154	2.046
Respondents' age group					
15-19 years (ref)	-	-	1	-	1.000
20-24 years	-0.282	0.157	1	0.073	0.754*
Marital Status					
Never married (ref)	-	-	1	-	1.000
Currently married	4.746	0.194	1	0.000	115.13***
Formerly married	1.708	0.213	1	0.000	5.518***
Media Exposure					
Never Exposed (ref)	-	-	3	-	1.000
Low Exposure	0.049	0.271	1	0.857	1.050**
Medium Exposure	0.083	0.284	1	0.771	1.086**
High Exposure	0.579	0.302	1	0.055	1.784**
Knowledge of HIV/AIDS Prevention					
Low knowledge (ref)	-	-	1	-	1.000
High knowledge	0.397	0.225	1	0.078	1.487*
Perception of Risk of HIV					
No Risk (ref)	-	-	2	-	1.000
Small Risk	0.085	0.163	1	0.602	1.088
Moderate/great	-0.230	0.188	1	0.221	0.795
HIV/AIDS prevalence Regimes					
Low Prevalence Rates (ref)	-	-	1	-	1.000
High Prevalence Rates	0.397	0.225	1	0.078	1.487*
Constant	-2.179	0.327	1	0.000	0.113

* * * P< 0.01 * * P< 0.05 * P< 0.10 — (Blank space), ref = Reference category

-2 Log like hood = 1428.308

Cox and Snell R Square = 0.476

Further from the result of our logistic regression there was a significant effect between marital status and risky sexual behaviour. Female youth who were currently married 115 times more likely to report high risky sexual behaviour compared to youth who had never been married. This contradicted our expectations where married youths were expected to be less likely to indulge in high risky sexual behaviour. Additionally, youth who were formally married were 5.5 times more likely to report high risky sexual behaviour compared to youth who had never been married.

Exposure to media was found to have a significant effect on risky sexual behaviour among the youth. Relative to female youth who had never been exposed to any form of media, women whose level of media exposure was low to were 1.05 times more likely to report high risky sexual behaviour. Additionally, results show that women who had high levels of media exposure were 1.78 times more likely than those who had never been exposed to media to report high risky sexual behaviour.

These results contradicted our expectations whereby media exposure was expected to have a reducing effect with reporting of risky sexual behaviour. From literature, scientists have identified mass media exposure, breakdown of traditional family systems and urbanization as some of the factors that contribute to increased sexual activities among the youth which are associated with risks such as sexually transmitted infections including HIV/AIDS, un-timed pregnancies, unsafe abortions, school drop-outs and economic hardships (Gage, 1998)

Additionally, HIV/AIDS prevalence regimes were found to have a significant effect on reporting of risky sexual behaviour. Relative to the female youth who were living in low HIV/AIDS prevalent regime, the women who were living in high HIV/AIDS prevalence regime were 1.3 times more likely to report high risky sexual behaviour.

Age of the youth was also a significant variable. It was found to have a significant effect on reporting of risky sexual behaviour. Relative to the females who were aged 15-19 years, the women aged 20-24 years were 0.3 times less likely to report high risky sexual

behaviour. The results confirmed our hypothesis that the lower the age of the youth the higher the likelihood to indulge in high risky sexual behaviour.

Additionally, knowledge of HIV/AIDS prevention methods was also a significant variable in reporting of risky sexual behaviour. Relative to the youth with low knowledge of HIV/AIDS prevention methods, women with high knowledge of HIV/AIDS prevention methods were 1.4 times more likely to report high risky sexual behaviour. Although this contradicted our hypothesis, other studies have shown that knowledge of HIV/AIDS prevention methods is not associated with a change from high to low risky sexual behaviour. The general awareness of HIV/AIDS is no longer important in behaviour change but accurate knowledge of how HIV is transmitted is important (UNAIDS, 2004).

In conclusion, reporting of high risky sexual behaviour was highest among young women aged 15-19 years, with secondary+ education, women who were currently married; ever exposed to any form of media, those who were living in high HIV/AIDS prevalence regime and whose knowledge of HIV/AIDS prevention methods level was high.

CHAPTER SIX

FURTHER INSIGHTS INTO RISKY SEXUAL BEHAVIOUR - FIELD DATA

6.1 Introduction

Having analysed quantitative data on risky sexual behaviour, a number of questions remained. For example, why was high risky sexual behaviour concentrated among married youth? Why was it also concentrated among women with at least secondary level of education compared to women with at least primary education? And why were women who were exposed to media more likely than women with no media exposure to report high risky sexual behaviour?

These questions require further exploration in order to gain a more holistic understanding of the mechanisms of the spread of HIV. Due to the sensitive nature of the research question, qualitative study was required. FGDs were held with 32 female youth from Nairobi and Kisumu cities. All of them were aged between 15-24 years. Out of the sample, 22 were out of school while 10 were school-going youth.

Due to the similarity or overlap of views given by the different categories of youths talked to in the field, their explanations on factors responsible for the high levels of high risky sexual behaviour (that is, non-use of condoms during sex, sexual intercourse with casual partners and the number of sexual partners) in the study areas have been summarized and categorized under four main titles: sexual activity; sources of sexual and reproductive health information; Knowledge of sexually transmitted infections; sexual risk taking, perception and prevention and, sexual health services: awareness, health seeking behaviour and communication of sexual and reproductive health problems.

6.2 Sexual Activities

From literature, free time was identified as a component that might lead the youths to sexual activity. The focus of the discussions on the activities that the youth engaged in during their free time identified various activities like games, chatting, reading, visiting boy-friends, watching movies (including pornographic movies-referred by the youths as

'Blues'), going to bars to take alcohol, sleeping and sexual activities etc. The focus on sexual activity during the discussions was centred on sexual intercourse and not other kinds of sexual activities. During the discussions, other forms of sexual expressions were mentioned occasionally for example, kissing, fondling and hugging.

The older youth in the age group 20-24 years were forthcoming in talking about the proportion of young women who were sexually active. Most youth said that the largest proportion of the youth is sexually active and the age at sexual debut is low. Most youth readily mentioned age 10-13 years as the age at first sex. This confirms results from past studies that have identified low age at first sex in Kenya. When asked about the age the youth start having sex, one female youth explained:

'*These days the children start going to 'Ohangla Nights' when they are 10 years old, in Standard four. Some men trick the girls and start a relationship with them. Children's games-'Kalungulungu' are also factors that make little children experience sex early.*' (Kisumu, FGD 2, Female, 21 years)

When the discussants were asked with whom the young people have sex with, three major sexual partners emerged. These were boyfriends, older men (who were sometimes married) and occasionally the young women mentioned occasional sexual partners (for example, sex with partners unknown to them-one night stands- these were referred to as 'pick and play or 'hit and run'). Among the youth they talked about boyfriend relationships where ages were nearly the same and there was some type of commitment in future, for example marriage. The boyfriend/girlfriend relationship brought phrases to describe them such as 'lovers'.

Having sex with older, sometimes married men was usually discussed as something that was done for monetary gains, favours or gifts. Various groups identified varied causes for transactional sexual activities (exchange of money/gifts/favours for sex). Examples included poverty/desperation and economic benefits for necessities for the young females.

Others felt that some youth were out looking for money and the behaviour seemed to be a common part of the urban social setting. It was not only due to economic desperation (for example sex in exchange for money for sanitary pads, salon visits or bus fare) it was also due to young women being pressured by parents to have sex with men for money or basic house-hold goods like sugar. This was aptly captured by one youth who said:
'*Some parents will always encourage (the female youth) because maybe you will come back with sugar...*' (Kisumu, FGD 1, Female, 17 years)

Discussions specifically about young men and older men giving young women money or gifts in exchange for sex or, less directly, in hopes of having sex in the future, were common. In various groups, the money or gifts were seen as an enticement and usually started with 'small gifts' for example bus-fare (including 'boda-boda' fare) and money for salon visits. These were used to develop the relationship. The discussants said that as the gifts keep on coming, the young females will have a harder time 'refusing relationships' i.e. having sex with the 'giver' or the benefactor. Sexual pressure also increased if the male partner bought the young woman too much alcohol. Alcohol was seen a major factor that led to reduction of women's power to refuse sex.

Others qualitative studies have shown that young people have sex for economic reasons (Bohmer and Kirumira, 2000). The material goods such as food, gifts, clothing, books and toiletries that older, more established men can provide to young women were specifically mentioned as encouragements for young females to have sex with older partners. The findings from this study though show how commonplace gifts and money are among peers in exchange for sexual relations, and not just with respect to much older sexual partners as was found by Nyamongo et al, 2005.

On the part of negotiations before sex, most young women felt that it was the responsibility of both the sexual partners to initiate condom use. However, it was disturbing to hear a respondent say that most young women did not negotiate for safe sex because the partner was un-willing to use a condom:

'*It is difficult for young women to refuse relationship (having sex) with their lovers when they fail to use a condom. Most women do not have power to refuse unsafe sex or to demand condom usage especially when the boyfriend is un-willing to use it.*' (Kisumu, FGD 2, Female 22 years)

Another respondent said that most youth are carried away by the sexual act and forget the issue of condom use:

'Some are always carried away (by the sexual act). Okay lets say at first they were talking about safe sex and then they start kissing, then after that they end up in bed and that is all... no condom use.'(Nairobi, FGD 1, Female 23 years)

In some cases the sexual partner found some 'tricks' to convince the young women to have sex without condom. Some sexual partners argued that using a condom when having sex was like 'eating a sweet with a wrapping paper'. This argument was further argued for by some respondents who said that, protected sex did not 'cool down the sexual hormones'. A number of reasons were put forth as to why young women may not be able to insist on condom use during sex. One reason is that the young women's acceptance of gifts/money/favour reduced their power to discuss or negotiate safer sex. They had to give in to un-protected sex even if it was against their will or led to numerous risks including pregnancy, sexually transmitted infections and also HIV.

Overall, young women did not express disproportionately negative or positive judgments about pre-marital sex. More than three-quarters of all the discussants felt that sex between two young people who 'love' each other as not being a bad or good thing either. Young people involved in pre marital sex are treated differently: Young men are seen as 'real men' while young women are identified as 'cheap or of loose morals'.

Feelings and reactions to young people's pre marital sex by the elder members of the society were negative. Most parents were said to be against pre-marital sex but this strictness led to curiosity and the female youth urge to experiment was further heightened. Peer pressure was recognized as a contributing factor to engaging in pre

marital sex. Young women mentioned that peers could encourage a young person to engage in sex (sometimes without a condom) even though that person might not be ready to do so:

'*Another thing is, somebody might have sex because maybe another friend is doing so and want to be like her. I get involved with a man just because my friend is doing so and maybe I do not know the consequences of such relationships and maybe I am in such a relationship for the first time'*. (Kisumu, FGD 2, Female, 18 years)

Young women in all focus group discussions mentioned the severe consequences of pre marital sex and included dropping out of school due to pregnancies, being chased away from homes, economic hardships, abortions and other sexually transmitted infections including HIV/AIDS. Men were accused by most of the female youths for being 'cunning' and 'denying responsibility' for pre marital pregnancies or up-bringing the children born out of wedlock. These results compare with from our quantitative data results. For example it was found that the largest proportion of young women was sexually active and the age at sexual debut is low.

6.3 Sources of Sexual and Reproductive Health Information

Discussions from the focus group discussions identified friends and peer group members, mass media, teachers/schools and Health care providers as the major sources of sexual and reproductive health information for the young people. Peers and friends were seen as the major sources of information. However, one group brought the notion that peers and friends were not always a reliable source of sexual and reproductive health information. All the respondents mentioned mass media and (primarily radio and T.V) were reported as the chief sources of information through advertisements and shows. A variety of shows aired on local F.M radio stations and printed in the local newspapers like the 'Straight Talk Show' were mentioned as sources of reliable information.

Schools and teachers were also an important source of information for the young people. Counselling and guidance teachers regularly provide sexual and reproductive health information to the female youth who are still in school. There was also mentioning of

external health workers who were invited to the schools to provide the information. Although the youth indicated that teachers/schools were a preferred source of information, some respondents said that it was difficult to hold exhaustive talks with teachers. When probed from whom young women prefer o receive information, a female youth responded:

R1: *All other mentioned people but not from teachers.*

Moderator: Why?

R1: *With our teachers, one is shy and ashamed to ask a question in class. The teacher might go and discuss with other teachers in the office.*

(Kisumu, FGD 1, Female, 16 years)

Health care providers were also mentioned as sources of information. The women reported hospitals, health centres, dispensaries and chemists/pharmacies as sources of the information. Some women said that contact with a health care giver normally provided them with an opportunity to ask questions concerning sexual and reproductive health.

These contacts came in the form of visiting the centres when seeking treatment for other ailment not related to reproductive/ sexual health. However, the young women indicated that there are numerous barriers with health care providers. For example, nurses were described as un-friendly (or harsh), un-tidy, lack confidentiality, not patient and some lacked explanations when faced with the youths' health/reproductive health questions.

'*Nurses and particularly women health providers should be taught about confidentiality and friendly dealing with young women when they visit them.*'(Kisumu, FGD 2, Female 22 years) (Kisumu, FGD 2, female 22 years)

The young women also identified family and relatives as an important source of reproductive health information. Debate was rife about the role of the parents in providing the information. Not only were parents and other relatives a convenient source, they were also identified as reliable because they were experienced 'having gone through the same process of growing up.' The only problem was that they were unable to address

the youth's problems without being 'un-comfortable.' A group of young women highlight the difficulties in approaching parents for information:

'*The elder sisters and parents normally hide information ...they can tell a friend but they won't tell me. I can also not tell my younger sister about some things concerning sex. Let her be told by her friends.*' (Nairobi, FGD 1, Female, 19 years).

In our quantitative analysis, exposure to media was found to have a significant effect on risk sexual behaviour among the youth. The qualitative data further showed that mass media was an important source of reproductive information which most young people rely on when other sources like parents fail to provide the required information.

6.4 Knowledge of Sexually Transmitted Infections

During the discussions, all groups mentioned two sexually transmitted infections apart from HIV/AIDS. These were syphilis and gonorrhoea. Others mentioned although not by all groups included chancroid, yeast (candida), genital warts and herpes. Local terms that were used to describe sexually transmitted infections were 'Nyach' (Kisumu), 'Kuungua/kuchomeka' (Nairobi). In general the school-going women (15-19) were not fully knowledgeable about STIs through correct identification of clear symptoms compared to the other segment of young women aged 20-24 years.

Moderator: *If a youth is infected with syphilis or gonorrhoea, what signs may tell he/she is suffering from them?*

R1*: I only hear about it but sincerely I cannot tell correctly the signs. However, I heard that one might have abnormal curled hair if one has an STI.* (Kisumu, FGD 1, Female 15 Years)

Among the older youth in all the towns, symptoms for syphilis and gonorrhoea appeared to be well known.

Moderator: *What symptoms do a female youth suffering from the two STIs exhibit?*

R2: *Boils and swellings around the genitals.*

R3: *Rashes and itching.*

R4: *Pain when passing urine and stinking smell 'down there'* (meaning female genitals) (Kisumu, FGD 2, Females 18-24 years)

Additionally, there were misconceptions still held by the young women about STIs. Some women identified non-sexual disease symptoms as STI symptoms, for example, walking style. A rather disturbing finding was that physical manifestations of STIs determined some young female perceptions of the people who had sexually transmitted infections. This was aptly captured by respondents who said:

R5: *Walking style...that is difficulty when walking.*

R6: *The colour of the pupil of the eyes and the lips.*

Moderator: *What about the colour and lips, can they tell much*?

R6: *The colour of the pupil of the eye becomes yellowish while the colour of the lips in the inside become hot-red while the outer lips become black and hard as if the person has been walking in hot sun for a long time.* (Kisumu, FGD 2, Females 18-24 years)

This ultimately raises a question on sexually transmitted infections that do not have visible symptoms. It also means that if a person is infected with an STI, the person may transmit the disease without raising suspicion from his partner(s). This calls for more concerted efforts as the youths are less knowledgeable about other STIs (in addition to the two which were easily identified by the young women) compared to the discussions held about HIV/AIDS. The results of this study further confirmed what other qualitative studies un-earthed in the past that young people know about STIs but the quality and depth of that knowledge varies and sometimes is wanting.

When asked about symptoms of HIV, most of the female youth were able to tell that it has no symptoms and one cannot be able to tell whether a sexual partner is infected until he goes for an HIV test in a VCT or hospital. Although the study did not cover symptoms of AIDS, the youths could mention some of the many symptoms. For example, falling hair, weight loss, the skin blackening and becoming hard, rashes and severe diarrhoea. Weight loss was particularly mentioned as an important sign of AIDS.

However, this may be dangerous as not all infected people loss weight during the initial stages of the disease or if they are having sufficient nutrition. Weight loss may not be a visible symptom of AIDS. Knowledge of sexually transmitted infection among the female discussants compares with DHS data results whereby over 86 per cent of the female youth had high knowledge of HIV/AIDS prevention methods compared to only 13 per cent had low levels of knowledge. Qualitative data helped us identify gaps in knowledge of sexually transmitted infections among the youth.

When the female youth were asked if the presence of HIV/AIDS had changed people's lives, most of them felt that it had done so. A female respondent said:

R7: *HIV/AIDS has changed some people's lives by taking care of themselves through abstinence and condom usage.*

R8: *We hear about it through the media and how HIV/AIDS is killing people in Kenya, we must be careful.*' (Nairobi, FGD 1, Females 15-24 years)

However, some youth felt that the presence of contraceptives like condoms have led some people to take HI/AIDS 'for granted.' A female respondent said of this:

'*I doubt if HIV/AIDS has changed young people's sexual behaviour. For example, due to the availability of condoms, more females are now sexually active by thinking that they are safe and maybe they are not using them correctly. Today there are also female condoms that definitely increase young women risky sexual behaviour'*. (Kisumu FGD 1, Female 16 years)

6.4.1 Sexual Risk taking and Risk Perception

In general, the FGDs showed that young people were aware that their peers could be at risk of getting pregnant, contracting sexually transmitted infections and HIV. The general awareness of risk compares with other qualitative research findings about young people's views (Katz and Nare, 2002; Nzioka, 2001). However, some youth tend to underestimate their risks and vulnerability to HIV infection, and, as in other studies of youth, determining risk by a partner's outward physical appearance (for example avoiding a

person with 'abnormal curled hair' or a person who has 'difficulty while walking') is still commonly practiced.

Some of the youth reported that their chances of contracting HIV were high. The risk of HIV was seen as more threatening than other kinds of risks for example pregnancy and other STIs. The youths identified multiple sexual partners, non-use of condoms during sex, 'partying' till when it is too late (identified as a cause of adolescent rape), alcohol and drug taking, watching romantic (pornographic) movies as risky behaviours. The factors that were identified to increase youth chances of infection with STIs and HIV/AIDS included poverty, 'proving love' after going out with a friend for a long time (i.e. to fulfil the relationships), peer pressure and lack of responsible parents who are not providing basic necessities to their girls and failing to educate the youth about risky sexual behaviours.

6.4.2 Protective Behaviour

The discussions also sought to elicit from the youth information on young people's knowledge of ways to protect themselves from un-wanted pregnancies, sexually transmitted diseases including HIV/AIDS. In all groups, condom use and abstinence were mentioned as the main protective ways against risks of STIs and HIV. Other contraceptives like oral pills and injections were mentioned for protection against un-wanted pregnancies.

Some youth mentioned being faithful to one un-infected partner (monogamy and fidelity) as another means of protection against risks. While some youth mentioned abstinence as a sure and ideal method of avoiding all the risks identified, it was felt as nearly impossible among some of the female youth. Abstinence was viewed as more difficult for young people who were out of school and those who were not involved in any economic activities. The youth also noted that it is difficult to keep off from sex. The need to fulfil sexual feelings or desires was identified as one of the factors that might make abstinence difficult. Although sex was identified as for married couples, it was seen as something that is needed in a youth's life.

R1: *Abstinence is next to impossible, and due to the fact that we are not living in a world that our grand parents used to live in and also the effects of mass media and technology that arouse our sexual urge, we usually adventure further and get involved in sex. Therefore we might abstain for some time, but it might reach a point you cannot abstain any more.*

R2: *Abstaining cannot be possible if it is with your boyfriend or lover, but it is necessary to use condoms if it is sex with a person not well known to you.*

R3: *Sex is good and according to me, it must be done, it is the hormones that rule the body.* (Kisumu, FGD 2, Females 18-24 years)

However, some female youth expressed the possibility of pregnancy, STIs and HIV infection even with these preventive measures. The reason given why some youth doubt condoms effectiveness for protection is illustrated by these youth's observations:

R4: *Condoms might tear or come off during sex and you end up pregnant or contract a disease. Therefore we are at risk even if we use contraceptives.*

R5: *Using condoms if one is already sexually active can protect a little, as it does not mean that you can abstain all the time. The urge of having sex is always there.* (Nairobi, FGD 1, Females 18-24 years)

Due to the above shortcomings identified by the youth, they proposed various behaviour that could help a young person to remain abstinent ranging from avoiding idleness through engaging in physical activities like concentrating on school work, participating in games and avoiding peer groups.

The study also aimed at establishing who should be responsible for protection against any risk during sexual intercourse among the youth. This elicited a heated debate and disagreement between the respondents. Some of the youth felt that both partners had a responsibility to protect the other partner from risk while others felt that it is the responsibility of the male partners.

R1: *Both of us should be responsible for protection against risk of pregnancy, STIs and HIV.*

R2: *The boyfriend or husband should be responsible.*

Moderator: *Why the boyfriend or husband and not the woman*?

R2: *For the ladies it is easy to control ourselves but for men...they are just 'too loose' (meaning they must cheat on their partners). They cannot control themselves easily, but for the ladies, if it means not having sex we mean it, but for men it is difficult.* (Kisumu, FGD 1, Females 15-17 years)

However, afterwards it was felt by the groups that the responsibility of protection against risks should be for both partners if they 'love each other'. Since fidelity otherwise referred to as 'true love and faithfulness', by the respondents is non-existent, they felt that use of condoms or other protective devices including pills, injections etc was necessary. Also discussions of when to have sex and knowledge of the menstruation cycle were mentioned as other methods to protect the young women from pregnancy.

The young people's feelings about talking about contraceptives with their sexual partners also generated interesting debate. Many felt that it is wise to discuss contraceptives with their partners while some women felt that by discussing with their partners could lead to suspicions of being un-faithful. Some youth felt that discussions of contraceptives before sex was healthy. However, there was a general agreement that condom use is frowned upon by youth particularly males who were accused of intimating that protected sex was 'like eating sweets with wrapping paper' and it was 'child's play' or 'joking around during sex.'

When asked by the moderator if there is any difference when having sex while using a condom and sex without condom, the respondents had common views that there were obvious differences. Condoms were felt to 'reduce enjoyment during sex.' Condoms were only to be used for protection against risks but when the aim of sex was enjoyment, they should be discarded and this would depend on the sexual partner. A respondent said: '*If you are sure that you are on the safer-side (depending on the day of the month) and you trust your partner, then that is the time you can have sex minus condoms. But before this, you should use a condom.*'(-Kisumu, FGD 2, Female, 23 years)

6.5 Sexual Health Services: Awareness, Health Seeking Behaviour and Communication

The study focus group discussion guideline also included questions about awareness of sexual and reproductive health services, health seeking behaviour and communication. The most commonly mentioned places that young people are able to visit and seek reproductive health services concerning pregnancy, abortion, STIs including HIV or contraceptives included, hospital/clinics/health centres, barazas, schools and churches that organized youth conferences.

The people the youth identified as comfortable to talk to concerning sexual and reproductive health issues included doctors, counsellors, teachers, peers, parents and to a lesser extent religious leaders. While parents especially mothers were mentioned in nearly all groups to whom female youth can talk to about sexual and reproductive matters, they were also the focus of the most disagreements and debate within the groups for many of the same reasons given about parents as sources of information. Some parents were viewed as straight forward while others kept secrets from youth concerning sexual and reproductive health issues. Some youth said that shyness would prevent them from seeking information from parents while others felt that it was against culture and outright taboo to discuss such issues with their parents. Some parents would construe the youth's enquiries as 'being spoilt' or 'too knowledgeable for their age'.

Close friends/peers were mentioned as the best people to seek or to discuss such issues. Various reasons were put forth for this preference and one of them was that peers were trust worthy. One was comfortable talking or telling them their problems and they were ready to help the youth once they landed in problems like un-wanted pregnancy. However, some youth felt that peers might 'gossip' or leak information in case one was in a 'big problem' i.e. having a sexually transmitted infection or getting pregnant.

Moderator: *Whom do you discuss problems about relationships with men?*

R1: *I would rather discuss with my best friends.*

R2: My mother, you see, the father might be angry with me and beat me up if I approach him for such information or confide in him that I am in a 'big problem'.
R3*: My peers and best friends are the best people, elder sisters hide some advice from you or they might report your problem to your parents.* (Kisumu, FGD 2, Females 18-24 years)

Some groups also identified teachers as people they could approach for information and also to confide in when they were in problems. Particularly, the youth who were in school mentioned Social Ethics, Religion teachers and Peer counsellors as the best people to approach for information. But drawbacks to talking with teachers were also raised, for example, the youth feared that the teachers could 'spread rumours or tell other teachers who might report them to their parents.' Interestingly, younger (15-19 years) women but not the older age group (20-24 years) in Kisumu mentioned religious leaders and pastors as people they would confide in, but reasons for not confiding in them rose as well. They said that one might confide in religious leaders and 'get saved as well' (from a life of problems with men). The other group mentioned that the youth might confide in them only to become the 'laughing stock of the congregation' through becoming the 'point of reference during preaching' by the same religious leaders they confided in.

The information from Focus Group Discussions that support our quantitative data were perception of risk of HIV risk of infection, access to HIV/AIDS information; knowledge of HIV/AIDS prevention and HIV/AIDS prevalence influenced the young women's sexual behaviour. However, during the discussions some youth felt that it was not themselves who were at risk of HIV infection but their peers. Un-employed youth were particularly more vulnerable to indulge in high risky sexual behaviour due to a lack of economic activities to keep them busy. Age and religion also came out as strong factors that influence risky sexual behaviour among the youth although they were insignificant variables during our quantitative analysis.

High HIV/AIDS prevalence in Nyanza and Nairobi influenced youth's risky sexual behaviour as the youth confirmed that they were more aware of the negative

consequences if the virus infects them. The youth readily identified use of contraceptives, faithfulness and abstinence as some of the ways to prevent HIV infection. However, those who live in urban areas showed fatalistic lifestyles. For example, condom use was taken for granted and un-protected sexual intercourse as normal.

Media exposure was used to assess the level of information that the youth get concerning HIV/AIDS from the mass media. In addition to mass media, during the focus group discussions other sources of HIV/AIDS information were identified including family members and other relatives, health care providers, teachers/schools and friends/peers. Mass media however, emerged as a powerful tool as a source of reproductive health information.

Access to HIV/AIDS information had a great bearing on the youth's sexual behaviour. This confirmed results from quantitative data that media exposure affects risky sexual behaviour among the youth. There was however differences in that our quantitative data results had shown that exposure to media led to high risky sexual behaviour while focus group discussion results showed that exposure to mass media led to low risky sexual behaviour for example through secondary abstinence. An important pattern that emerged from the discussions is that the issue of AIDS prevention depends on accurate knowledge of how HIV is transmitted. These results therefore confirmed our hypothesis that youth who have access to HIV/AIDS information were less likely to indulge in high risky sexual behaviour.

In conclusion, the general objective of the study was to establish the factors that determine risky sexual behaviour and the possible risk of HIV infection among the youth in Kenya. Perceptions of risk of HIV risk of infection, access to HIV/AIDS information; knowledge of HIV/AIDS prevention, age, religion and HIV/AIDS prevalence emerged as strong variables that determined risky sexual behaviour among the youth who participated in the focus discussions.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter summarizes the study findings, gives the conclusions derived from the study, and finally comes up with some recommendations based on these findings, which are relevant for policy and further research. The objective of the study was to establish the factors that determine risky sexual behaviour and the possible risk of HIV infection among the youth in Kenya.

The study population consisted of 2132 sexually active women ages (15-24) covered in the KDHS conducted in 2003. Additionally, a total of 32 women were interviewed to provide further insights into risky sexual behaviour. The response variable was risky sexual behaviour and the explanatory variables that were hypothesized to bear association with risky sexual behaviour were youth's highest level of education, place of residence, media exposure, work status, age, marital status, religion, knowledge of HIV/AIDS prevention methods, perception of risk of HIV infection and HIV/AIDS prevalence regimes.

The study used logistic regression model as a technique for data analysis to estimate the probability of risky sexual behaviour, given the explanatory variables. The technique used for data organization was cross tabulations, while Chi- square test was conducted to establish if the associations were statistically significant. Frequency distribution was run to determine the characteristics of the study population, according to the study variables. Additionally, qualitative data was categorized thematically.

7.2 Summary of Findings

The frequency distribution results indicate that majority of the respondents had at least primary education level 74.5 cent and 25.5 per cent had secondary and above education level. Majority of the young women were not working (50.8 per cent) while 49.2 per cent were working. Most of the respondents were Protestants representing 60.9 per cent while

Catholics were 25.5 per cent, Muslims were 11 per cent and other youth affiliated to other religions represented 2.5 per cent of the study population.

In order to establish relationship between risky sexual behaviour and various independent variables at the bivariate level, cross tabulation and chi-square tests were done. It was established that there were differentials in risky sexual behaviour across all characteristics of women. Factors that were found to be significant included; age, marital status, highest level of education, religion media exposure, knowledge of HIV/AIDS prevention methods and HIV/AID prevalence regimes. On the other hand, work status and perception of risk of HIV risk of infection were insignificant.

Logistic regression model was used to establish the socio-economic, socio-cultural psychosocial and demographic factors determining risky sexual behaviour. Factors found to be important determinants of risky sexual behaviour were highest level of education, marital status, knowledge of HIV/AIDS prevention methods and perception of risk of HIV infection. The woman's place of residence, work status, age, media exposure and HIV/AIDS prevalence regimes were found to be insignificant in determination of youth's risky sexual behaviour.

Overall, from the focus group discussions with young women, findings show that they were well familiar with sexually transmitted infections including HIV/AIDS although the quality and depth of their knowledge varied across the age groups and some misconceptions still persist.

The sources of sexual and reproductive health information range from mass media (i.e., radio, newspapers and television), health providers, public barazas, and parents to peers. Mass media was reported as important source of information. The results further showed that young people value a source's level of knowledge, experience and confidentiality. Young people mentioned that they seek reproductive health information from a variety of sources including hospitals, public and private health centres. Key barriers that the women identified to health seeking behaviour included, fear and shyness, cost of services

and un-friendly attitude especially among public health providers. Other studies found similar barriers to youth's lack of seeking reproductive health information.

Although young people mentioned that they perceive themselves to be at high risk of getting pregnant, catching an STI including HIV, they indicated the essence of using condoms or abstaining from sex altogether. Our findings show that the young women knew the benefits of abstinence; it was however viewed as something to be done when one has already started having sex. The decision to abstain was pegged on the objective of avoiding unwanted pregnancy or an STI infection than to preserve oneself for marriage. All groups mentioned condom use as a way to protect against pregnancy, STIs and HIV. The women also gave the reasons for non-use of condoms during sex mainly due to the preference for sex without condoms because of trusting a friend, showing love, too much alcohol consumption before sex making them forget condoms while some said they just dislike condoms as they are associated with being un-faithful.

Overall, the study's findings indicate to a continued need of more efforts in STIs/HIV prevention efforts to complement other activities that address education attainment, poverty eradication and gender inequalities that may encourage young women to indulge in risky sexual behaviour that threaten their overall health.

7.3 Conclusion

The fact that high HIV/AIDS prevalence among the youth reduction became the thrust of Kenyan Population Policy as early as 1997, underlines the deliberate efforts made by the government to contain it. This is important in recognizing the important role that HIV/AIDS plays in balancing Kenya's population growth equation through increase of overall mortality levels.

The results suggest that there has been little change in the youth's sexual behaviour over the years in Kenya. 29 per cent of the female youth ages 15-19 years and 70.9 per cent of the women aged 20-24 years reported high risky sexual behaviour. This calls for further concerted efforts by all stakeholders so as to realize reduction of risky sexual behaviours

that are associated with HIV infection in order to reduce the current high levels of HIV/AIDS prevalence. This will translate to social economic growth as envisaged in the national policy for sustainable development. More attention should be focused on the relevant policy measures aimed at changing the social structures that promote high risky sexual behaviour. It is on the basis of this background that policy makers should create and strengthen conditions that encourage the youth to change their behaviour.

7.4 Recommendations for Policy

In this section, recommendations are made on the basis of the study findings. The findings of this study indicate that most respondents in rural areas reported high risky sexual behaviour than their urban counterparts. Policy measures should aim at strengthening the current Information Education and Communication (I.E.C) that enhances behavioural change. Behavioural change lowers risk of HIV infection meaning better reproductive health for the youths.

The I.E.C campaigns should be made to suit the youth. For example, during the focus group discussions female youth reported that some condom advertisements conveyed negative messages, such as condoms are only found or used by un-married youths, promiscuous people (including prostitutes and homosexuals) or are for entertainment personalities (especially radio presenters and musicians). Results from the focus group discussions indicated that young people value a source's level of confidentiality, knowledge and experience. In addition to mass campaigns, concerted efforts to address youth's need for information should be linked more strongly with health care providers to educate them about sexual and reproductive issues.

There is also a need for government and donors to improve and support programs by community based organizations and NGOs that deal more efficiently with the issue of stigma and help the youth utilize VCT centres (which are currently under-utilised) and other health services (for procurement of contraceptives).

This study also found out that currently married women had increased probabilities of high risky sexual behaviour compared to their counterparts who were not in a marital union. These results do not in any way contradict or diminish the well-established high risky behaviour associated with un-married youth where un-protected sex is prevalent. Neither do they imply that all sex within marriage is risky. Rather, the results identify married youth as a large population at risk whose needs are typically ignored by many existing HIV-prevention policies and programs. Therefore, there exists a need for specific policies and programs targeting this category.

Economic disparities, peer pressure and lack of other incentives were identified as important factors that led the young women to indulge in high risky sexual behaviour. Hence, policies that empower women through education that includes reproductive health education, access to employment opportunities and primary health care need to be strengthened. These would help in reducing exposure to un-safe sex among the young women. Educated, financially stable and healthy women are more likely to influence decisions on reproduction matters. This would remove impediments to realization of their full potential as vital members of the society, contributing to the socio-economic development of the country.

7.5 Recommendations for Further Research

In order to understand fully the subject of risky sexual behaviour and its relationship with risk of HIV infection, the following is recommended for further research:

- The role of education, marriage and mass media in influencing sexual behaviour including decision-making process on the desire for contraceptive use, reduction of sexual partners and health seeking behaviour for sexually transmitted infections among sexual partners.
- Differentials in factors influencing risky sexual behaviour among men and women in Kenya since men are reported to engage in risky sexual behaviour than women. There is also a need for linking risky sexual behaviour and utilization of Voluntary Counselling and Testing Services (VCT) and fertility behaviour among young people in Kenya.

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APPENDIX

Focus Group Discussion Guide

1. Young people your age usually engage in many activities, we would like you to tell us the kinds of activities that young people here do during their free time.

Probe: (If not mentioned) ask about sexual activities.

(i) What is the proportion of young people who are sexually active?

(ii) What age do you think young people start having sex and with who? (Types of sexual partners),

(iii) Are there any negotiations /discussion before sex takes place?

(iv) Is it acceptable for young people to have sexual relations when they are not married?

(v) What is the reactions/feelings about young people's sexual activities among parents, elders, other relations/relatives and young people themselves?

(vi) Additionally what is the extent that young people your age are pressured into sex, ability to avoid sexual pressure.

2. We would like to know about the type of reproductive and sexual information that are available to young people, your age in this community.

(i) Tell us the main sources of information concerning sexual and reproductive health issues including HIV/AIDS, STDs, Condoms, family planning and abstinence.

(ii) Is there anyone that young people do not talk to/do not like talking to about sexual and reproductive health issues?

(iii) What is the role of parents, siblings, relatives, friends, teachers, church, and leaders in providing such information?

(iv) Role of media – magazines, TV, Videos, Newspapers, Films etc.

3. We would like to know about youth's awareness to sexually transmitted infections.

(i) Are young people in this community aware about sexual transmitted diseases (infections)?

(ii) What signs or symptoms may tell young people that they or their partners have sexual transmitted infections?

(iii) Can you be able to tell a sexual partner has HIV (insist you want to know about the virus not AIDS)

(a) Some young people think that they cannot get pregnant, contract STIs and HIV, while others think they can.

i) Do young people like you think this can happen to them?

ii) We would like you tell us what youths your age consider risky behaviours.

(Probe risky sexual behaviours)

iii) What kinds of situations and factors increase young people's risk of HIV and STIs?

iv) What do young people like you see as ways of protecting yourselves from STIs and HIV [and of prevention, probe about abstinence, fewer sexual partners and condom use], risk of unplanned pregnancy?

(b) We would like you tell us what youths your age think about risk prevention.

i) Who should be responsible for protection against any risk during sexual intercourse?

ii) How do young people feel talking about contraceptives with their sexual partners?

iii) Has HIV/AIDS changed or influenced your life in any way? How?

iv) In general, has the presence of AIDS changed young people's sexual practices? If yes, which ones and how? If no, why do you think so?

4. Do young people of your age seek reproductive health services concerning pregnancy, abortion, HIV, STIs or contraceptives?

a) Awareness of services

- Can you list for us all the places young people are able to visit and all the people they are able to talk to, to find out about sex, contraceptives, STIs and HIV/AIDS?
- Is there anything that would stop young people from going or visiting health services?

b) Impression of reproductive health services

- What do you think are the most important features of a reproductive/sexual health service for young people?
- Are there differences in the needs of young men and women?

- Where do you think young peoples sexual health services should be held (i.e. location)
- Who should provide the information and advice?

5. When youths your age have questions/problems about relationships with men whom do they discuss them with?
(Probe: People that they discuss sexual and reproductive health issues with, people that they prefer to discuss sexual and reproductive health issues with i.e. parents, teachers, health workers, peers, partners religious leaders etc. What makes young people talk to or not talk with parents, teachers, and peers counsellors).

Thank you all for participating in our discussion.