

**ASSESSING THE FACTORS INFLUENCING APPROPRIATE
USE OF CONDOMS IN SOUTH GEM DIVISION, SIAYA
DISTRICT**

BY:

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**A RESEARCH PROJECT REPORT SUBMITTED FOR EXAMINATION
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DECLARATION

This research report is completely my own work and compilation and is, to the best of my knowledge, a true reflection of the proposed study to assess factors influencing appropriate use of condom in South Gem division in Siaya district

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DEDICATION

All those who tirelessly work to contain the diseases of major public health concern for their
efforts towards healthier and safer living

And to

My father and mother,

Mzee Ezakiel Asadhi Osumba

And

Mama Caren Anyango Asadhi

For

Setting me forth into the life struggles

And

Lighting the ember that is still burning

And so

The struggle continues.

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LIST OF ABBREVIATIONS

AIDS	-	Acquired Immune Deficiency Syndrome
GOK	-	Government of Kenya
HIV	-	Human Immuno Deficiency Virus
KDHS	-	Kenya Demographic Health Survey
NASCOP	-	National Aids & STD Control Programme
NGO	-	Non ó Governmental organization
STD	-	Sexual Transmitted Disease
WHO	-	World Health Organization
KAIS	-	Kenya AIDS Indicator Survey
QDS	-	Questionnaire Development System
SPSS	-	Statistical Software for Social Sciences
CAPI	-	Computer Assisted Personal Interview

OPERATIONAL DEFINATION OF TERMS

Acquired immunodeficiency syndrome (AIDS): It is a clinical syndrome characterized by life threatening opportunistic infections or malignancies and /or severe depletion of CD4 cells that occurs in the final stage of HIV infection. It is caused by cumulative damage that HIV has done to the immune system.

Epidemiology: is the study of the distribution and determinants of health related states or events in a given population.

Family planning: includes a range of educational, comprehensive medical or social activities to enable people to plan the number and spacing of their children, and to select the means by which this will be achieved.

Human immunodeficiency virus (HIV): Is the Virus that causes AIDS. This virus is passed from person to person through blood, semen, vaginal fluids, and breast milk.

Incidence: the number of new cases of a disease in a defined population, within a specified period of time, expressed as a percentage among all person who are susceptible to the disease divided by time.

Male circumcision: Is the removal of some or entire foreskin (prepuce) from the penis. Medically supervised adult male circumcision is a scientifically proven method for reducing a man's risk of acquiring HIV infection through heterosexual intercourse.

Prevalence: the number of cases of a given disease (or other health conditions), in a given population, at a single point in time, expressed as a percentage of all persons in the population.

Sexually transmitted infections (STI): are infections that are transmitted through person to person sexual contact.

ABSTRACT

The twin risk of unwanted pregnancy and HIV/AIDS infection is a central concern of reproductive health programmes. Condoms are considered an effective barrier method because they can be used for the dual purpose of protecting against pregnancy and disease transmission. Despite widespread knowledge that condoms offer protection against STIs/HIV when used correctly and consistently, many people do not regularly use condoms, thus leading to new sexually transmitted infections, including HIV and AIDS. This study explored condom use behavior, specifically the extent to which demographic factors, economic factors, cultural factors and education level act as predictors of use or non-use of condoms among sexually active people.

Data was obtained from sexually active 163 males and 223 females from south Gem division, who were selected through multistage sampling techniques. Analysis of data, which was done with SPSS version 12, focused on predictors of condom use or non-use.

Although, 40% of men and one third of female (32.2%) report ever using condoms, a considerably lower proportion of male (22.5%) and female (14.6%) regularly use condoms. Age, sex, level of education and socio-cultural factors like the ability to negotiate for a safer sex all combined or singly still plays an integral role in determining appropriate condom use or disuse

Implementation of effective health education and programmers in regard to condom use as a protective measure is critical. Programs aiming to increase condom use among people need to address these factors through community-based strategies.

Policy makers will also find this data of importance when making decisions on resource allocation and manpower to integrated approach of HIV/AIDS prevention strategy.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

The condom dates back to Roman times, when animal bladders were used to prevent the spread of sexually transmitted diseases. The earliest published description is that of an Italian anatomist Gabriel Fallopio, who in 1564, recommended a linen sheath moistened with lotion to protect against syphilis (Potts, 1999). Only in the 18th century do we find condoms being used specifically to prevent pregnancy. In family planning, the condom ó the major nonpermanent male method - was promoted and used as a barrier method. In the three decades of the 1960s, 1970s and 1980s, condom use was promoted with other methods of preventing unwanted pregnancies. However, with the onset of HIV/AIDS, sexual partners who had somehow subdued the risk of unwanted pregnancy by using efficient methods of contraceptives found themselves exposed to the risk of being infected with HIV. In an attempt to intervene, policy makers and reproductive health programme managers re-focused their attention to ways of preventing HIV/AIDS, particularly on condom use, which were promoted as contraceptives and prophylactics. Despite these efforts, condom use in Kenya has remained relatively low and largely restricted to casual sexual partners. A mere 1.5 % of women and 16 % of men were currently using condoms by 1998 (KDHS, 1998).

Kenya ranks high among countries affected by the AIDS epidemic and currently it is estimated that there are about 2.0 million Kenyans infected with HIV. This figure includes about 1.9 million adults and 90,000 children (NASCOP 1999). Although HIV prevalence was very low in Kenya during the early 1980s, it has been steadily increasing since then. The Kenya AIDS Indicator Survey, 2007 estimates that HIV prevalence among adults(aged 15 ó 64 years) increased from 4.5% in 1993 to 7.1% in 2007 (KAIS 2007).

There is a marked difference in HIV prevalence between urban areas and rural areas. In urban areas, HIV prevalence is estimated to be between 17% and 18% while rural area estimates range from 12% to 13%. Paradoxically, the absolute number of HIV infected persons is actually higher in rural areas than in urban areas because over 80% of the population lives in rural areas.

An estimated 470,000 adults are infected in urban areas compared to 1.5 million in rural areas (NASCOP 1999).

Sexual transmission is the major mode of transmission of HIV in Kenya and it is often reported that sexual contact accounts for about 80% of HIV infections (Mulindi et. al, 1998). Since most HIV infections are transmitted by heterosexual contacts, people are at a risk of acquiring the infection as soon as they become sexually active. The peak ages of HIV infection in Kenya, and in most other countries in the region, is 25-29 years for women and 30-39 years for men. Women 15-19 and 20-24 years of age are five and three times more likely, respectively, to be infected than men in the same age groups (Mulindi et. al 1998, Johnston 2000, and NASCOP 1999).

Women are harder hit by the epidemic in Africa than are men. About 55% of all adults living with HIV/AIDS are women, (Delay et al. 2000). The difference in infection between men and women is most pronounced in those under 25 years of age. While the reasons for the extremely high rates in girls are not fully understood, the vulnerability of young girls certainly plays a role. Women in Kenya generally have little control over sex in their relationships, which leaves them vulnerable to infections acquired by their male counterparts (Mulindi et. al 1998). In such relationships women are clearly at a disadvantage in demanding the use of condoms to protect themselves from the risk of HIV infection. The Government of Kenya rightly observes that socialization of girls in many communities dictates submissiveness, thus creating a situation where girls cannot negotiate or reject sexual advances (GOK 1997).

In a study carried out in Nakuru, Kenya, it was apparent that most women engage in sexual risk taking behavior mainly because of perceived threats to their social and economic survival and a lack of power in sexual decision making. Culturally based gender roles, economic and social inequalities, and age disparities between partners combine to create a situation of unequal power within sexual relationships, which in turn reduce women's ability to negotiate whether intercourse will take place and whether condoms will be used or not (Bauni and Jarabi 2000).

There are signs that HIV prevention programs are having an important effect in reducing the risk of infection (NASCOP 1999). Knowledge of AIDS and the key transmission mechanisms are known by practically all Kenyans (NASCOP 1999, Bauni and Jarabi 2000, Mulindi et al 1998, Dodo and Adomako Ampofo 1998, and GOK 1997). About one-third of

men and women know at least two 3 programmatically significant means to prevent the transmission of HIV; use of condoms, avoiding multiple partners, staying faithful to one partner, and sexual abstinence. However, this high level of knowledge has not been matched by a comparable change in behavior. In a study of male university students, 54% of the students reported ever use of condoms though the use is most probably confined to promiscuous rather than steady relationships where they fear the risk of contracting sexually transmitted diseases (Kigundu et al.). In a recent consumer profile survey in Kenya, 20% of the sexually experienced respondents reported consistent condom use with regular partners while 65% reported consistent condom use with casual partners (PSI 1999). Research conducted among truck drivers and their assistants (both of whom often are sexually active with multiple sex partners) established that, although they used condoms with ladies they picked up on the way, they would still have sex with friends without a condom (Kigundu et al. 1995). In another study, the majority of women in focus groups and almost all of the men rejected the use of condoms within a marriage or a long term relationship where they have not been used before (Bauni and Jarabi 2000).

Recent studies have shown that condom use with casual partners is considerably higher than with regular partners suggesting barriers to condom use are diminishing (Agha 1997). Doodoo and Adomako Ampofo (1998) observe that married men in much of sub Saharan Africa are markedly less likely to use condoms than their unmarried counterparts. It is clear, however, that more and more people are recognizing the risk of unprotected sex and are taking steps to protect themselves and their partners. Hope (1995) thus concludes that the primary lesson from interventions so far is that the spread of the disease is slowed most effectively by programs (such as condom promotion) that change sexual behavior and arrest the spread of other sexually transmitted diseases.

Are there prospects of expanding the use of condoms to sexually active people? I have attempted to answer this question using data from South Gem division in Siaya district of Kenya. The selection of Siaya district for this study was influenced by its high HIV prevalence rate estimated at 24 % in 2007 by the National Bureau of Statistics which is more than three times the national prevalence rate which is 7.1%, and the convenience of South Gem division to the researcher.

The study has three main objectives: to ascertain condom use among married couples and those with multiple sex partners; to investigate the rollout of male circumcision in Siaya district

as HIV/AIDS preventive strategy and its influence on the use of condoms; and to explore the opportunities for, and constraints on, changing behavior, with particular emphasis on partner communication. The study was designed to interview sexually active men and women in the randomly selected villages in South Gem division.

1.1 Statement of the Problem

Sexual transmission is the major mode of transmission of HIV in Kenya and it is often reported that sexual contact accounts for about 80% of HIV infections (Mulindi et. al, 1998). Since most HIV infections are transmitted by heterosexual contacts, people are at a risk of acquiring the infection as soon as they become sexual active.

There is a wide regional variation in HIV prevalence among adults aged 15-64 years, ranging from 14.9% in Nyanza province to 0.8% in North Eastern Province. Of all the HIV infected adults aged 15 ó 64 years, over half (51.4%) live in Nyanza and Rift Valley province (KAIS 2007).

Siaya district in Nyanza province is one of the hard hit districts in Kenya with HIV prevalence rate of 24% (Kenya National Bureau of Statistics 2007). Poverty is a major contributing factor to the spread of HIV/AIDS among women and it is estimated that 65% of the people in Siaya district live below the poverty line. 40% of the total population of Siaya district is people living with HIV/AIDS (ACE Siaya Mapping Survey 2006).

South Gem division which was selected for this study is one of the largest administrative divisions in Siaya district with a population of approximately 54,438 (census 1999)

1.2 Purpose of the Study

The purpose of this study was to assess the factors which affect the use of condom and to assess their impact in the spread of HIV/AIDS in South Gem division, Siaya district.

1.3 Objectives of the Study

1. To find out the effects of demographic factors on the use of condom in South Gem division, Siaya district.
2. To determine the effects of economic factors on the use of condom in South Gem division, Siaya district.
3. To investigate how the level of education influence appropriate and consistent utilization of condom in South Gem division, Siaya district.
4. To establish the effects of socio- cultural factors on the use of condom in South Gem division, Siaya district.

1.4 Research Questions

Research findings and existing literature indicate the seriousness of the risk of contracting STI's through unprotected sexual intercourse. Courage to initiate condom use in sexual intercourse has been fingered as likely obstacles to effective use of condoms in sexual relationships in Kenya. Considering sexually active males and females as a high risk group, it becomes pertinent to examine the various factors likely to hinder or encourage condom use for prevention of STI's and HIV. To this end, this study addresses the following questions:

1. In what ways do demographic factors affect appropriate and consistent use of condoms in South Gem division, Siaya district?
2. How does economic factors affect appropriate and consistent condom use in South Gem division, Siaya district?
3. How has the knowledge level influenced appropriate and consistent condom use in South Gem division, Siaya district?
4. To what extend has Socio cultural factors affected condom use in preventing the transmission of HIV in South Gem division, Siaya district?

1.5 Significance of the Study

Overall, this study tried to find out the various factors that affect the use of condom; the influence of socio- demographic factors on the use of condom, effect of socio ó cultural factors on the use of condom, impact of economic factors on the use of condom. This knowledge is very critical and useful in implementation of effective health education and programmes in regard to the use of these protective measures.

Policy makers will also find it of importance when making decisions on this issue. These policies will include for example: The need to utilize a range of information, communication and education that stresses on the importance of the use of condoms as an integral part of HIV/AIDS prevention programmes, the need to allocate resources and man power to enhance knowledge on the importance of using condoms among people with different cultural values, people of different economic status, people of different age groups sex as a strategy to effectively fight the spread of HIV/AIDS and the need for an integrated approach to reproductive health care that makes it a priority within the country's development policies.

1.6 Limitations of the Study

Some limitations were identified in relation to the study. The results reported in this report are based on self-reported information, which is subject to reporting errors and bias. The type of data collection methods used in this case (personal interviews) may have contributed to such errors. For example, several studies have demonstrated that surveys conducted using personal interviews, computer assisted self-interviews (CASI) and audio computer assisted self-interview (audio-CASI) yield different estimates of levels of sensitive behaviors, although, which of these data collection approaches is most accurate remains to be determined (Turner et al, 1998). Nevertheless, there is also evidence that self-reported sexual behavior data, though subject to reporting bias, can provide useful data that may help to design targeted intervention, as demonstrated by the often substantial and significant associations between reported risk and HIV infection studies from various African settings (Dera et al, 1994). Another limitation is related to measuring condom use, which is the dependent variable in the study. Some studies (Weir et al, 1998) have identified several problems associated with measuring self-reported condom use, including self-report bias, participation bias, test-retest reliability problems, social desirability

responses, and memory error. Moreover, premarital sex and condom use is a sensitive topic that many adolescents are reluctant to talk about. It is likely therefore that these limitations may also have contributed to the bias in reported condom behavior.

1.7 Delimitation of the Study

The proposed study intended to assess the various factors which affect the use of condom in the study area and did not look into other health issues or intervention programs in the study area. Though the study intends to collect data from only the sampled population, the finding of the study will be treated to be a true reflection of the entire Siaya district.

1.8 Assumptions of the Study

The researcher assumed that the sampled population gave information required and adequately represented the people of South Gem division. This was ensured by creating a good rapport with the study participants. It also assumes that the study results obtained in South Gem division are similar to those obtained in any other area of study. For this reason appropriate estimation of the sample size was done to ensure representativeness of the sample to the population in South Gem division. The research findings provide important information that can advise intervention programmes which will positively change the attitude of the community towards condom use.

1.9 Conceptual Framework

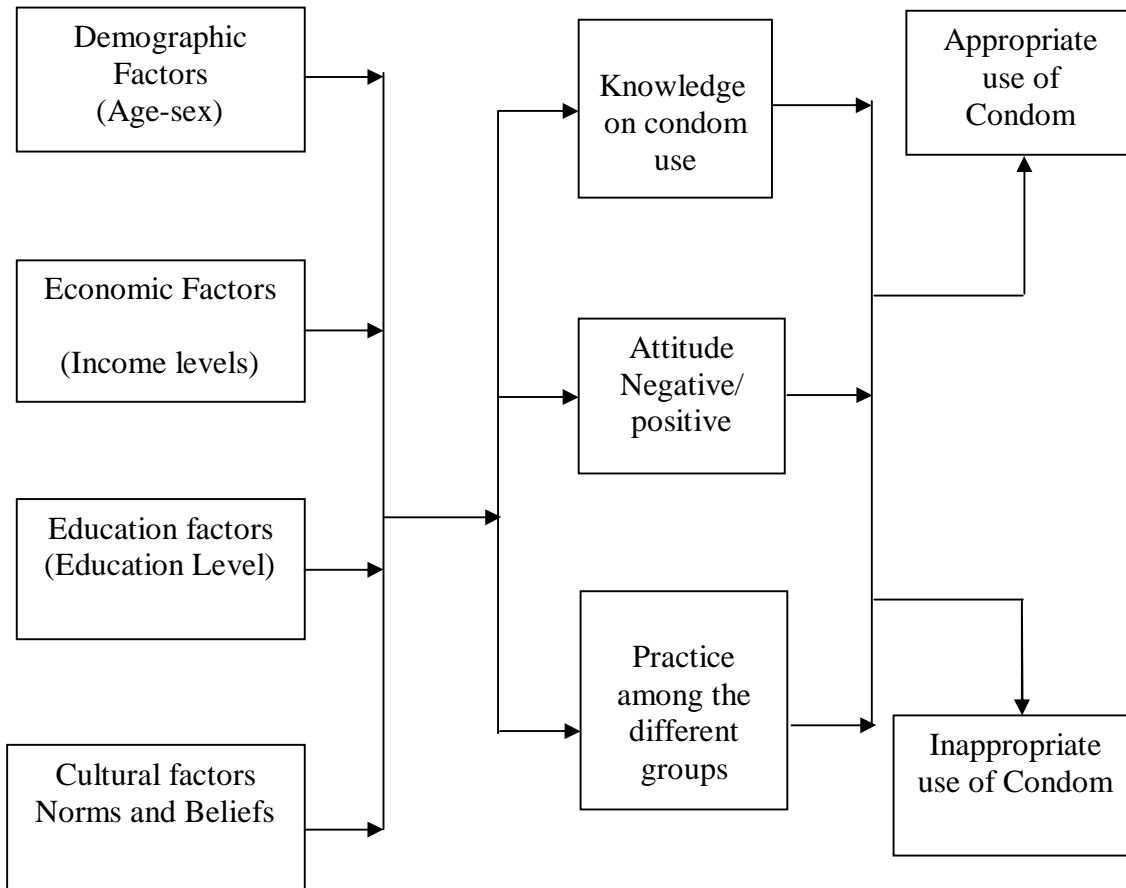


Figure 1: Conceptual Framework

Source: Andreasen, 1995

Socio-cultural factors, demographic factors and economic factors are very vital in the fight against HIV/AIDs .They blend together to allow for knowledge, behavior change and continuous practice that will lead to sustainable consistent and appropriate use of condoms. But in case of poor blend disuse or misuse follows. This is reflected in the figure 1 above (Andreasen, 1995)

1.10 Organization of the Study

The study is organized into five chapters.

Chapter one comprise of background information of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance, limitations, delimitations and organization of the study.

Chapter two deals with literature review related to the study under the following sub headings: Influence of demographic factors on the use of condoms, influence of education on the use of condom, influence of economic factors on the use of condom and influence of cultural factors on the use of condom.

Chapter three describes the research methodology which in detail look at the research design, target population, sampling techniques and sample size, research instruments. Under this it also looked into the validity and reliability of the research instrument. Data collection procedure and data analysis techniques are also contained in this chapter.

Chapter four covers data analysis and interpretation of findings. It consist of questionnaire return rates, data report data analysis and findings for each objectives outlined in chapter one.

Chapter five covers summary, conclusions and recommendations. This will be based on the study results. It also covers suggestions for further research. This is informed by key findings that illicit questions which require further studies to answer those questions.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature reviewed for this study focused on demographic factors, economical factors, cultural factors and educational factors which affect appropriate and consistent condoms use and their impact on the prevalence of HIV/AIDS across different social groups.

2.1 Influence of demographic Factors on the Use of Condoms

Women are harder hit by the epidemic in Africa than are men. About 55% of all adults living with HIV/AIDS are women, (Delay et al. 2000). The difference in infection between men and women is most pronounced in those under 25 years of age. While the reasons for the extremely high rates in girls are not fully understood, the vulnerability of young girls certainly plays a role.

Women in Kenya generally have little control over sex in their relationships, which leaves them vulnerable to infections acquired by their male counterparts (Mulindi et. al 1998). In such relationships women are clearly at a disadvantage in demanding the use of condoms to protect themselves from the risk of HIV infection. The Government of Kenya rightly observes that socialization of girls in many communities dictates submissiveness, thus creating a situation where girls cannot negotiate or reject sexual advances (GOK 1997).

In a study carried out in Nakuru, Kenya, it was apparent that most women engage in sexual risk taking behavior mainly because of perceived threats to their social and economic survival and a lack of power in sexual decision making. Culturally based gender roles, economic and social inequalities, and age disparities between partners combine to create a situation of unequal power within sexual relationships, which in turn reduce women's ability to negotiate whether intercourse will take place and whether condoms will be used or not (Bauni and Jarabi 2000).

In 2003, over half of all new HIV infections occurred in individuals under the age of 25 (CDC, 2003). Historically, college students have not been perceived as at risk for HIV infection based on previous studies performed over 15 years ago (Hightow et al., 2005). While substantial

progress has been made in preventing, diagnosing, and treating certain STDs in recent years, CDC estimates that 19 million new infections occur each year, almost half of them among young people ages 15 to 24. In addition to the physical and psychological consequences of STDs, these diseases also exact a tremendous economic toll. Direct medical costs associated with STDs in the United States are estimated at up to \$14.1 billion annually (CDC, 2006). Condom use, as shown in previous research, is a widely advocated method for prevention of STD transmission (Anderson, Wilson, Doll, Jones, & Barker, 1999). Condom use by young adults could significantly inhibit the spread of HIV and other STDs. Condom use based on age has been consistently found to be higher among younger adults compared to older adults. However, research on the finding of the 1997 Behavioral Risk Factor Surveillance System (BRFSS) showed that the younger age groups had the highest prevalence of HIV high-risk factors and perceived themselves at high to medium risk for HIV compared to older age groups (Holtzman, Bland, Lansky, & Mack, 2001). The same study found that as age increased, the prevalence of condom use decreased. The 1998 Youth Risk Behavior Surveillance survey found that males in grade 9 were significantly more likely than male students in grade 12 to report condom use. This translates into younger students using condoms at higher rates, which is consistent with other research studies (Grunbaum et al., 1999).

Partner age has also been shown to affect condom use. The older the partner and the older the participant, the lower the relative frequency of condom use. Our results also indicate that many younger African-American females are in relationships with older males. Risky behavior may increase for young women engaging in intimate relations with older partners, because they may lack effective sexual negotiation skills or possess insufficient power or both within the sexual relationship (Bralock & Koniak-Griffin, 2007).

Recent condom use, although of great significance, is not the only predictor of future condom use. Adolescents who use condoms at their sexual debut used condoms later on in older adolescents at substantially higher rates than did adolescents who did not use condoms at their debut, even after seven years. Related to the increased condom use, those who used condoms at their sexual debut were less likely to test positive for Chlamydia or gonorrhea (Shafii, Stovel, & Holmes, 2007).

The decision-making process matures for young adults as they age (Thompson, Kyle, Swan, Thomas, & Vrungos, 2002) and can also be affected by the level of educational attainment

(Fisher, Misovich, Kimble, Fisher, & Malloy, 1996). Fisher et al. acknowledged that those who had some college education were more likely to be motivated toward healthy sexual behaviors (1996). Understanding the decision-making process over the span of young adulthood could provide evidence for earlier interventions that encourage development of positive decision-making. Studies suggest that adolescents and young adults may not be capable of competent decision-making due to perceptions of invulnerability to consequences (Rolison & Scherman, 2003) and perceptions of normality (Martens et al., 2006). Older adolescents (i.e. college students) tend to judge themselves as being at less-than-average risk and as having control over negative events. The perception of risk, benefit, and consequence was important in the decision-making process for this population. Rolison & Scherman defined risk perception as "an individual's assessment of the probability of loss associated with a given action (or inaction)" (2003). College students perceived an inverse correlation between perceived risks and actual risk-taking, and a positive correlation between perceived benefits and actual risk-taking (Lavery, Siegel, Cousins, & Rubovits, 1993). Parson, Halkitis, Bimbi & Borowski asserted that this population was more likely to have experienced the benefits of risk behaviors such as unprotected sex personally, and not the costs. Following that belief, college students engaged in risk taking behaviors and primarily based the decision to do so on past experienced benefits.

Rates of condom use have consistently been found to be lower in females in comparison to males. The 1997 BRFSS found that men were more likely than women (29.1% vs.22.8%) to report having used a condom at last intercourse. BRFSS surveys the adult population, but the same trends existed in the adolescent or school-aged population surveyed in the Youth Risk Behavior Surveillance survey (YRBS). In the 1998 YRBS, male students (54.6%) were significantly more likely than female students (36.1%) to report condom use at the time of last intercourse.

The decision making model for first-time condom use by adolescents with a new sexual partner is often a series of choices that is heavily influenced by the partner. In this model, the woman must desire to use condoms, then initiate discussions with her partner about condom use, and then actually use condoms. The last step may be the most difficult for the female, as the male partner is responsible for the actual use of the condom, which differentiates this decision process from that to use oral contraceptives.

In addition to partner influence and relationships, perception is essential to the decision-making process. Studies suggested that sex and safer sex decision making is different than other cognitive abilities. The process can be complex and cannot be easily explained by a single model. Several factors that influenced abstinence and contraceptive decision making processes included a) level of cognitive development, b) sexual knowledge, c) social and parental influences, d) perceptions of benefits of condom use, and e) gender difference (Chambers & Lynn, 2003).

The 2008-09 KDHS showed that men age 15-49 are nine times more likely than women to have had two or more sexual partners in the 12 months before the survey (9 percent and 1 percent). The 2008-09 data further show that men are twice as likely as women to have had intercourse in the past 12 months with a person who was neither their spouse nor who lived with them (25 percent and 13 percent). Among respondents who ever had sexual intercourse, the mean number of lifetime sexual partners is considerably higher among men (6.3%) than among women (2.1%).

The 2008-09 KDHS also assessed condom use among women and men with multiple partners or higher-risk sex in the 12 months preceding the survey. Among respondents who had two or more sexual partners in the 12 months before the survey, 32 percent of women and 37 percent of men reported using a condom during last sexual intercourse. The survey further reveals that among respondents who had sexual intercourse in the 12 months before the survey with a person who was neither their husband/wife nor who lived with them, 35 percent of women and 62 percent of men reported using a condom at the last sexual intercourse with that person. (2008-09 KDHS)

The data show that place of residence is related to higher risk sexual behaviour. Women and men in urban areas are more likely than those in rural areas to have had sex in the previous

12 months with two or more sexual partners; to have had sex with a non-marital or non-cohabiting partner, and to have had more lifetime sexual partners. (2008-09 KDHS)

Women in Coast province and men in Coast and Nyanza provinces are more likely to have had sexual intercourse with at least two sexual partners in the 12 months before the survey than women and men in other provinces. The level of education is correlated with use of condoms among women and men who had sexual intercourse in the last 12 months with a person who was neither their husband/wife nor who lived with them; use of condoms generally increases with the level of education. Men with no education and those who are in the lowest wealth quintile are more likely than other men to report having multiple sexual partners in the 12 months before the survey and less likely to report using a condom with such partners. The greater proportion of men in these groups who have multiple partners may reflect their higher prevalence of polygyny.

(2008-09 KDHS)

2.2 Socio Economic Factor Influencing the Use of Condoms

Condom use, and ironically the incidence of HIV and other STDs, tends to be higher among those who are younger, African-American, lower-income and from metropolitan areas (Anderson, Wilson, Doll, Jones, & Barker, 1999; Patel, Gutnik, Yoskowitz, O'Sullivan, & Kaufman, 2006). Socioeconomic inequalities promote exposure risk for females especially. Women who have few economic options (i.e. low income, unemployed) are far more vulnerable to engaging in transactional sex to pay for food, education-related costs, and other necessities. They are also vulnerable to coercive or forced sex and often have issues with condom negotiation (Bralock & Koniak-Griffin, 2007).

Education and annual income have served as an appropriate proxy for socioeconomic status. Educational attainment correlates to the ability to qualify for higher paying employment and annual income serves to assess the ability to afford and access services. These proxies have been associated with condom use due to the previously mentioned power and negotiation issues

(Chatterjee, Hosain, & Williams, 2006). It would seem probable that those who have attained higher levels of education would be more likely to have higher rates of condom use. However, adolescents and young adults tend to engage in unprotected sex despite substantial knowledge regarding the negative consequences associated with their behaviors (Parsons, Halkitis, Bimbi, & Borkowski, 2000). The study by Chatterjee, Hosain, and Williams found that compared to those who had less than a high school education, participants who had completed high school were more likely to consistently use condoms (2006). On the other hand, those who had attained more than a high school diploma were 52% less likely to use condoms consistently. Those who had an annual income over \$20,000 were more likely to use condoms consistently (Chatterjee, Hosain, & Williams, 2006). Therefore, educational level may not be positively associated with condom use but annual income is positively correlated. This may not necessarily mean that education past high school causes less condom use, but it may signal that something transpires after high school either culturally or psychologically that discourages condom use for young adults.

The demographic factors highlighted in this literature review became the concentration of this research study. Focusing on age, race/ethnicity, gender, and socioeconomic status to examine the dynamics for condom use offers the opportunity to start from the basic, often inflexible, traits of an individual and make inferences about their behavior pattern from that point.

2.3 Influence of Education Level on the Use of Condom

The level of education is correlated with use of condoms among women and men who had sexual intercourse in the last 12 months with a person who was neither their husband/wife nor who lived with them; use of condoms generally increases with the level of education. Men with no education and those who are in the lowest wealth quintile are more likely than other men to report having multiple sexual partners in the 12 months before the survey and less likely to report using a condom with such partners. The greater proportion of men in these groups who have multiple partners may reflect their higher prevalence of polygyny.

(2008-09 KDHS)

Women who have few economic options (i.e. low income, unemployed) are far more vulnerable to engaging in transactional sex to pay for food, education-related costs, and other

necessities. They are also vulnerable to coercive or forced sex and often have issues with condom negotiation (Bralock & Koniak-Griffin, 2007).

Education and annual income have served as an appropriate proxy for socioeconomic status. Educational attainment correlates to the ability to qualify for higher paying employment and annual income serves to assess the ability to afford and access services. These proxies have been associated with condom use due to the previously mentioned power and negotiation issues (Chatterjee, Hosain, & Williams, 2006). It would seem probable that those who have attained higher levels of education would be more likely to have higher rates of condom use. However, adolescents and young adults tend to engage in unprotected sex despite substantial knowledge regarding the negative consequences associated with their behaviors (Parsons, Halkitis, Bimbi, & Borkowski, 2000). The study by Chatterjee, Hosain, and Williams found that compared to those who had less than a high school education, participants who had completed high school were more likely to consistently use condoms (2006). On the other hand, those who had attained more than a high school diploma were 52% less likely to use condoms consistently. Those who had an annual income over \$20,000 were more likely to use condoms consistently (Chatterjee, Hosain, & Williams, 2006). Therefore, educational level may not be positively associated with condom use but annual income is positively correlated. This may not necessarily mean that education past high school causes less condom use, but it may signal that something transpires after high school either culturally or psychologically that discourages condom use for young adults.

2.4 Cultural Factors on the Use of Condom

Condom is widely believed to be one of the most effective means of preventing STDS and HIV/AIDS. However, there are many different ways in which the society and people perceive the use of condom. They include the following reasons:- There is this perception that people who use condoms are those with multiple partners and those who visit sex workers; Condom is associated with treatment of sexually transmitted diseases, this has contributed to the negative image on the usage of condom; Another factor is the issue of gender in all heterosexual encounters, matched. Significantly by the idea of mutual trust and hence non-use of condoms in close relationships. Also fertility is another factor militating against the use of condom. The case of women seeking to become pregnant and single women in long-term relationships feels

pressure to get pregnant. Another factor is the difficulty and the inability of most women to negotiate safe sex and their dependence on providing sex in return for basic economic benefits and personal protection. Furthermore, there is this belief and perception that condom reduces sexual pleasure and used only when men visit sex workers or if the date time they are going to have sex, which is more likely with married people. Also, the perception that only sex workers carry and use condom. The cultural expectation of what constitutes good or appropriate sex across societies in Nigeria do not include the use of condom; in this regard, youngsters particularly the female folks do not want to be seen with condoms so that they will not be term spoilt. However, there are a number of ways they perceive the use of condom, none of which appear to be lack of knowledge; instead, there appears to be a strong social pressure not to carry and not to use condom even in the face of risk of HIV message.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter briefly describes the methods that were used .It looks at the study design, the study area, study population; the sampling procedures and the sample size .It also describes the instruments which will be used in data collection and the collection procedures

3.1 Research Design

The research design used in the study was correlational research method. This design is concerned with discovering and or measuring the degree of relationship between two or more variables (Irvin 1971:189). It was conducted for the purpose of making predictions, this design helped the researcher measure the relationship between age, sex, education level, occupation, circumcision and number of sexual partners as the independent variables and the use of condom as the dependent variable.

Participants who took part in this study were males and females who live in south Gem division aged between 13 and 70 years, speak Luo, English or Kiswahili and gave informed consent to voluntarily participate in the study.

3.2 Population of the Study

The proposed study to determine factors affecting the use of condom was conducted in South Gem division. South Gem is one of the 7 administrative divisions that make up the former Siaya districts. It is further sub divided into 18 sub locations with 58 villages. The division covers an area of approximately 193.3 km² with a total population of 54,438 people (1999 census).

A randomly selected sample of 394 sexually active male and female respondents (defined in this study as males and females aged 13 years and above from this division were interviewed through questionnaires.

3.3 Sampling Techniques and Sample Size Determination

The total number of number of people leaving in South Gem division is approximately 54,438 (census 1999), this was our target population. Therefore the sample size was calculated using Yamane's formula (1967)

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size, and e is the level of precision. When this formula is applied to the above sample, $N = 54438$, $e = 0.05$. Hence in this study n (sample size) was calculated as follows:

$$n = \frac{54438}{1 + 54438(0.05)^2} = 394$$

South Gem division is divided into 58 villages. A simple systematic sampling method was used to sample 15 villages. All the 58 villages in South Gem division were serialized and listed, the systematic random sampling method had a sampling procedure with a random start, and then every 4th village was sampled from the list until the sample was achieved.

The 15 villages which were randomly sampled have a total 1658 compounds (KEMRI/CDC HDSS, 2010). With the assumption that each compound has an average of 4 eligible respondents, a total of 145 compounds was sampled to enable us attain our sample size from a representative sample of compounds in our sampled villages. This was done by the use of analytical software known as STATA (version 10). Below is the procedure that was used to obtain our sampled compounds:

Clear

Set obs 1658

Gen id = _n

Sample 145, count

List

Table 1: Sampled Compounds per village

No.	Village Name	Total No. of Compounds	Total No of Sampled Compounds	Sampling Interval per Village
1	Kanyameno A	127	12	10
2	Kanyameno B	119	9	13
3	Kanyabonyo	142	18	8
4	Kasiwa	119	10	11
5	Gogwa	87	8	10
6	Rakuom	70	7	10
7	Kotoo- Bondo	111	12	12
8	Orombe	67	5	13
9	Kanyilaji	113	9	12
10	Kamsao	148	16	9
11	Wangoji	117	12	10
12	Kadibuor B	66	6	11
13	Apuoyo	149	14	10
14	Kadibuoro A	124	12	10
15	Rakuom	99	8	12
TOTAL		1658	145	11

Every n th compound was identified where n is the sample interval and the sample size was the total number of sampled compounds per village. Based on the difference in the total number of compounds in the sampled villages, the value of n was as shown in the table above. Below is a calculation showing the average sampling interval.

$$\text{Sample Interval} = \frac{\text{Total number of compounds in a village}}{\text{Total number of sampled compounds}} = 1658/145 = 11$$

3.4 Research Instrument

A structured questionnaire consisting of closed-ended questions inbuilt in the net book using software called Questionnaire Design System (QDS). Data was collected electronically with a series of in built internal consistency and range checks to help identify illogical responses and to verify that responses adhere to skip patterns in the questionnaire.

The questionnaires contain 27 items on sexual experience, condom knowledge, use and attitude, knowledge of HIV status and risk perception.

3.4.1 Instrument Validity

Mugenda (1999) defines validity as the accuracy and meaningful of inferences, which are based on the research result. It defines the degree to which results obtained from the analysis of data represent the phenomenon under study.

To enhance the validity, the researcher had the instrument appraised by the supervisor and the comments made were strictly adhered to.

To further establish the validity of the instrument, a pre-test (pilot study) was conducted in 2 villages. The purpose of the pre test was to assess the clarity of the instrument items so that those found to be inappropriate for measuring the variables were modified to improve their quality and appropriateness or be discarded. According to Mulusa 1988, about 10 cases which represent the target population in all major respect cases can be used in a pre test. Thus the choice of 20 participants for the pilot study was appropriate. The pre test was conducted in Karemo division to ensure that those participants who took part during piloting were not interviewed again in the actual data collection exercise

3.4.2 Instrument Reliability

Mugenda (2003) defines reliability as a measure of the degree to which instrument yields consistent results or data after repeated trials. Reliability of research instrument refers to the consistency of the instrument items.

An instrument is reliable when it can measure a variable accurately and consistently and obtain the same results under the same conditions over a period of time.

This study adopted test retest method technique. Pilot testing was done to determine the stability and internal consistency of the research instrument. During this time, comprehension of each and every question was assessed and re structuring done to questions which are not clear to the respondent to enhance comprehension.

3.5 Data Collection Procedures

The study used a questionnaire in built in the net book to collect data from 386 participants. Five community interviewers were trained on the interviewing skills and helped in the collection of data. All the respondents who took part in this study were consented by reading to them the consent form which consisted of all the procedures involved in the study. After understanding the procedures of the study and voluntarily accept to take part in the study, they had to sign the consent form before the start of the interview.

3.7 Data Analysis Techniques

After data collection, it was exported to SPSS vs12 for extensive editing and cleaning. Data was analyzed using SPSS vs12 by generating frequencies and graphical presentations such as bar graphs, pie charts and line graphs for combinations of outcomes.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter is a presentation of data analysis and interpretation of findings to establish the various factors affecting the use of condoms in South Gem division.

The research study used correlational research method concerned with measuring the degree of relationship between two or more variables. The data was collected using computer aided personal interviews (CAPI).

4.2 Response rate

Overall, participation rate in the study to assess factors affecting appropriate utilization of condom in South Gem division was high. I calculated participation rate as the number of individuals consenting to be interviewed divide by the number of sampled individuals in the study area.

4.3 Data Report

Data processing included a number of steps to prepare data collected in the field for analysis. The initial steps included exporting data to the warehouse for editing. The data was then exported to SPSS vs12 for further editing and cleaning. The data was summarized and tabulated using percentages and graphical presentation as bar graph and pie charts. The graphs and descriptive tables are discussed in response to the research questions and objectives in the study as outlined in chapter one.

All results presented in this report are based on weighted data to account for the survey sampling design and participation rates. The weights are used to correct for unequal probability of selection, to produce results that are representative of the larger population from which the sample was drawn and to adjust for the survey non response.

4.4 Effects of Demographic Factors on the Use of Condom in South Gem division

The researcher studied the influence of demographic factors such as age, sex and marital status on the use of condom.

4.4.1 Influence of Sex and Age on the use of Condoms

The average age of the sample population collected from South Gem division region was 32.77 with a 95% confidence that the real average will fall between 31.19 and 34.35. The youngest person who was interviewed was 13 years old and the oldest person interviewed was 70 years old. The exact middle point of the sample population with 50% falling below and 50% above was 28 years. 42.2% (n = 163) of those who were interviewed were male and 57.8% (n = 223) were females.

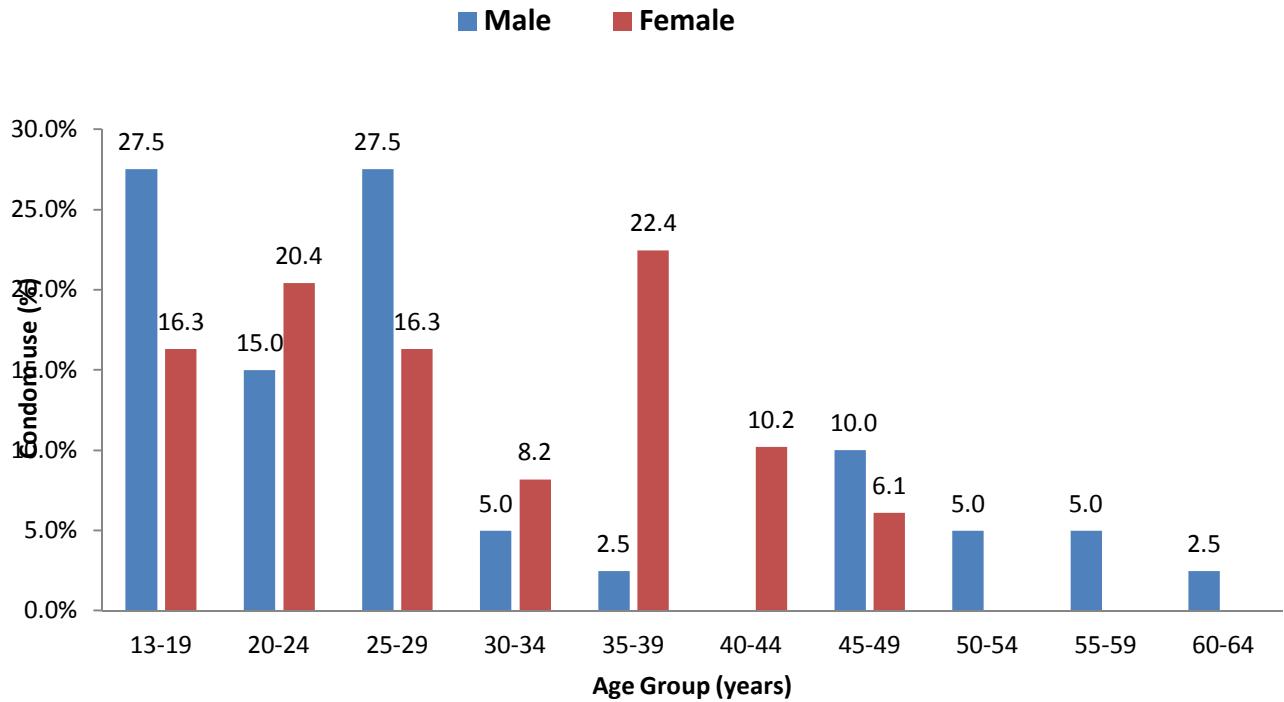
Out of all the women interviewed, only 19.4% (n = 49) reported to have used condom the last time they had sexual intercourse and a paltry 15.9% (n = 40) for men as shown in table 2

Table 2: Result of the descriptive analysis of the use of condom at last sexual intercourse by gender

Variable		Used condom at Last Intercourse	
		Yes % (n)	No % (n)
Gender	Male	15.9 (40)	23.8 (60)
	Female	19.4 (49)	40.9 (103)
Total		35.3 (89)	64.7 (163)

Source: Field data

Figure 2: Condom use among men and women by five – years age group, South Gem division

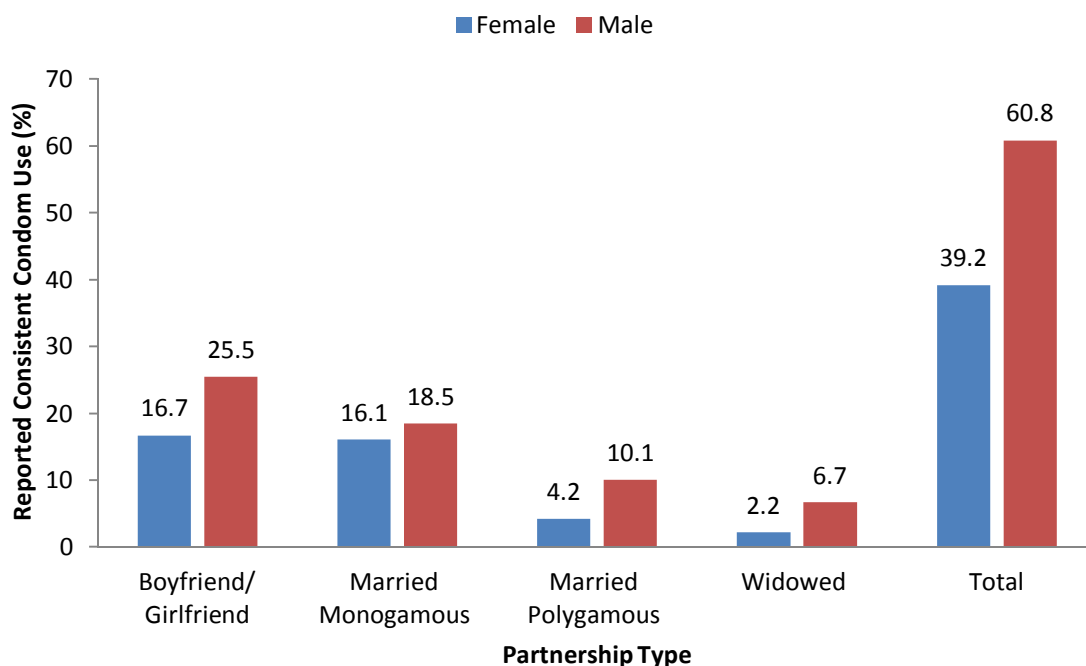


Source: Field data

Condom use was significantly greater among men than women in the 13-19 and 25-29 years age group. Condom use among women was highest among those 35-39 years of age, compared to 30-34 and 35-39 years among men. Starting with 45-49 age group, condom use estimates declined monotonically among women, though this pattern was not observed among men

4.4.2 Condom Use by Relationship Status

Figure 3: Partnership in which respondents aged 13 – 69 years reported consistent condom use, by partnership type



Source: Field data

Overall, consistent condom use was significantly higher among partnerships reported by men compared to those reported by women. Within partnerships, consistent condom use was lowest in widowed partnerships, with only 2.2% of women and 6.7% of men reporting this behavior in the year of the survey. Consistent condom use was higher, but still relatively low, with boyfriends (25.5%), girlfriends (16.7%).

4.5 Influence of Economic Factors on the Use of Condoms

Majority of those who were interviewed were from the lower social class with 37.3% (n = 144) saying that farming is their major source of income while 15% (n = 58) mentioned business as their major source of income. Only an insignificant 1.3% (n = 5) of the respondents were employed.

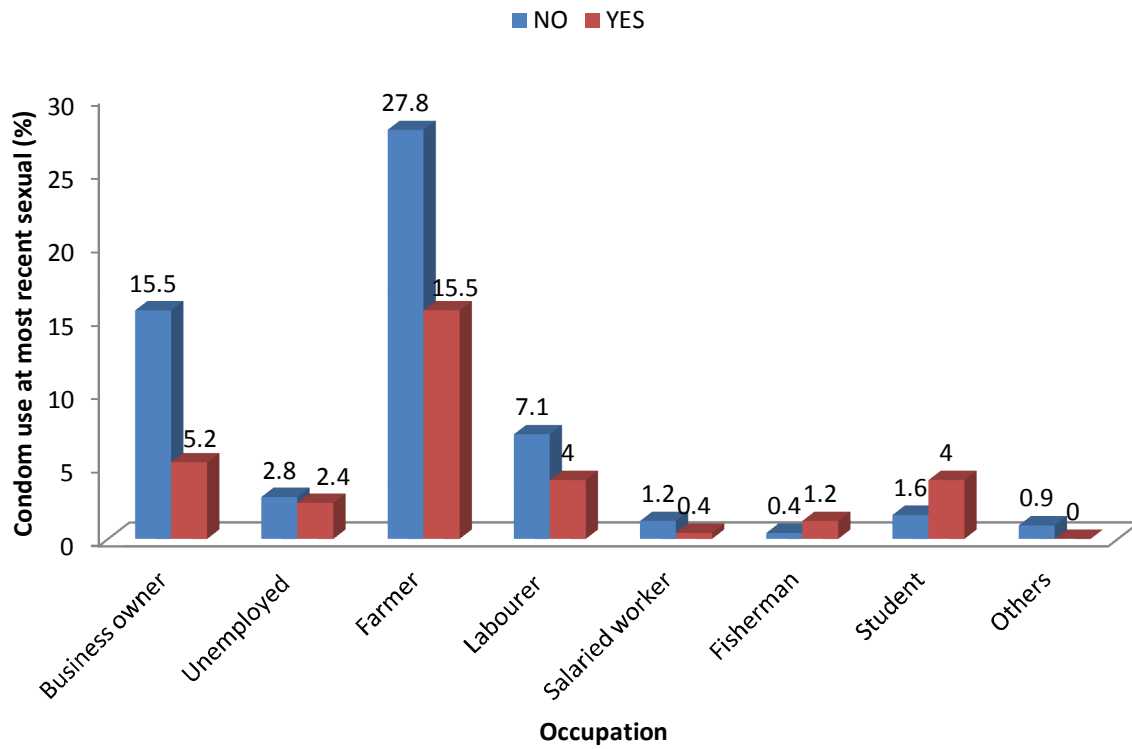
Table 3: Consistent condom use among males and females by occupation, South Gem division

		Consistent Condom use	
Variable		Males % (n)	Females % (n)
Occupation	Business owner	0 (0)	12.1 (4)
	Unemployed	3 (1)	0 (0)
	Farmer	12.1 (4)	21.3 (7)
	Labourer	24.3 (8)	3 (1)
	Salaried worker	3 (1)	0 (0)
	Fisherman	6.1 (2)	0 (0)
	Student	12.1 (4)	3 (1)
	Total	60.6 (20)	39.4 (13)

Source: Field data

Consistent condom use was significantly low among the unemployed females compared to males. Male laborers and students reported significantly high consistent condom use compared to females in the same occupation. Consistent condom use was also reported high among fishermen

Figure 4: Condom use at most recent Sexual Intercourse by Occupation



Source: Field data

In general the reported use of condom at last sexual intercourse is significantly low across different occupation. The use condom at last sexual intercourse was significantly low for farmers and business owner. Fishermen and students reported high use of condom at last sexual intercourse compared to other respondents in other occupation

4.6 The Influence of Education Level on the Use of Condoms

The study population was moderately literate given that only about 8.2 % (n = 32) of the respondents had never attended school. The proportion of females who had never attended school was nine times that of males, at 90.6% (n = 29) and 9.4 % (n = 3) respectively. Majority (56.2%) of the respondents interviewed in this study had incomplete primary education with females taking the huge share (61.3%) of the population with incomplete education.

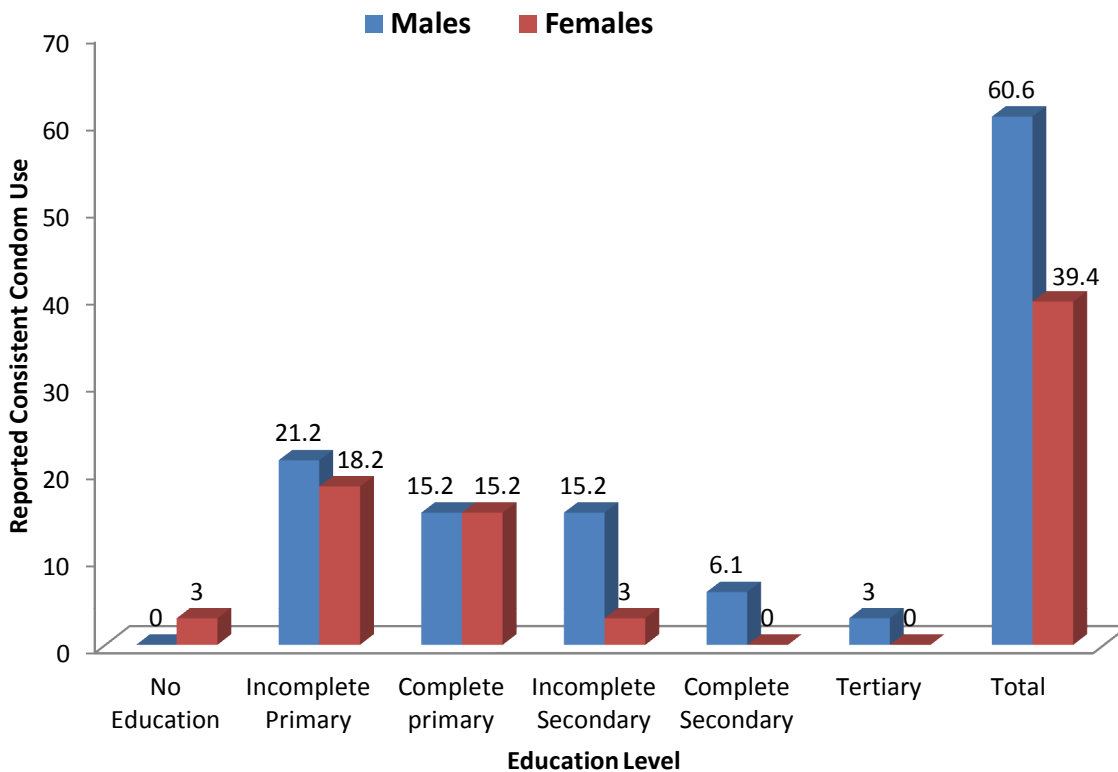
Table 4: Use of condoms across different educational levels, South Gem division

Variable	Used Condom at last Sexual Intercourse	
	Males % (n)	Females % (n)
Education Level		
No Education	0 (0)	2.2 (2)
Incomplete Primary	14.6 (13)	27 (24)
Complete primary	12.4 (11)	19.1 (17)
Incomplete Secondary	13.5 (12)	5.6 (5)
Complete Secondary	3.4 (3)	1.1 (1)
Tertiary	1.1 (1)	0 (0)
Total	44.9 (40)	55.1 (49)

Source: Field data

The use of condom was significantly low among those who have no education. There was a marked increase in the use of condom as the level of education increases with all those who have tertiary education reporting to have used condom at last sexual intercourse.

Figure 5: Consistent condom use reported by males and females across different educational level, South Gem Division



Source: Field data

The overall consistent condom use was significantly high among men across different education levels compared to females. A reduction in consistent condom use with an increase in education level was observed among females, this could be attributed to the low number of females in those education levels.

4.7 Influence of Socio cultural Factors on the Use of Condom

The socio-cultural factors investigated by the researcher were: ability to negotiate for condom use among males and females, frequency of condom use, condom use among the circumcised and those who have known their HIV status.

Table 5: Condom use among males and females by various socio – cultural factors

Variable	Males % (n)	Females % (n)
Can you ask your partner to use condom if you want		
Yes	13.5 (34)	25 (63)
No	26.2 (66)	35.3 (89)
Total	39.7 (100)	60.3 (152)
Frequency of Condom Use		
All the time	22.5 (20)	14.6 (13)
Most of the time	1.1 (1)	0 (0)
Some times	21.3 (19)	40.4 (36)
Total	44.9 (40)	55.1 (49)
Use condom if wanted		
Yes	27 (24)	31.5 (28)
No	18 (16)	23.6 (21)
Total	44.9 (40)	55.1 (49)

Source: Field data

Overall, only 38.5% (n = 97) of those who took part in the study reported to have the courage to ask the partner to use condom if they wanted. Only 13.55 (n = 34) of men reported to have the courage to ask their partner to use condom if they wanted compared to 25% (n = 63) for females.

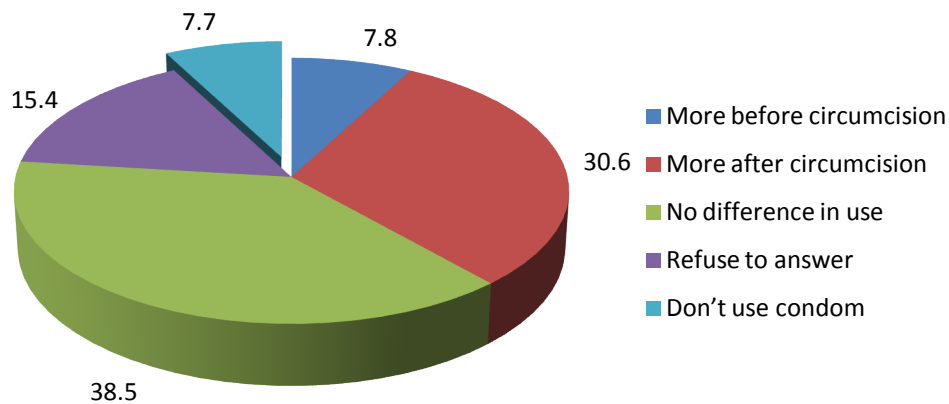
Despite reporting a relatively high condom use at last sexual intercourse, consistent condom use is still very low with only 14.6% (n = 130 of females and 22.5% (n = 20) of males reporting to

use condom all the time. Majority of females 40.4% (n = 36) females reported to use condoms only sometimes.

4.7.1 Influence of Circumcision on the Use of Condom

Assessment of the use of condom among the circumcised male was equally important since there has been a massive role out of male circumcision in south Gem as one of the HIV preventive measures.

Figure 6: Condom use after and before circumcision, South Gem division



Source: Field data

7.8% of the respondent reported there has been a reduction in the way they use condoms after circumcision while 38.5% reported that there is no difference in the way they use condoms.

4.7.2 Influence of Pregnancy on the Use of Condom

Table 6: Frequency of condom use during pregnancy, South Gem division

Variable		Count	Percentage
Condom Use when Pregnant	Less Often	29	50
	More Often	9	15.5
	No difference	20	34.5

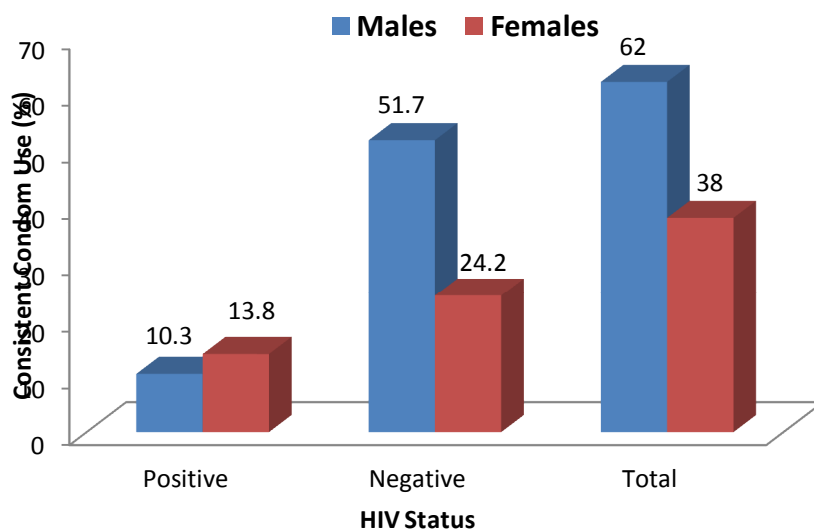
Source: Field data

Out of all the women who reported to have ever been pregnant, only 21.2% use condoms when pregnant. The use of condom reduces drastically with 50% of pregnant women reporting a reduction in the frequency of condom use during pregnancy.

4.7.3 Influence of Knowing the HIV Status on Condom Use

Overall, 98.8% of those who were interviewed reported to know their HIV status. Out of those who reported to know their status, 7.2% confirmed to be HIV positive. It has been observed that knowing once status affects their behavior and the way they use condoms.

Figure 7: Consistent Condom Use among males and females by HIV status, South Gem Division



Source: Field data

The use of condoms among females who reported to be HIV negative was significantly low compared to that of men. The use condom among the HIV positives was equally low among both males and females.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Summary

Currently, condoms are the most effective barrier method because they can be used for disease prevention in conjunction with other methods, or alone for the dual purpose of protecting against pregnancy and disease transmission. However, while knowledge of condoms is widespread in the study area, its use remains very low and largely limited to sexual encounters outside marriage. From the finding it is evidenced that: the proportion of sexually active women who would have the guards to tell their partners "No to sex without condom" was about twice the proportion of men; Even the HIV/AIDS scourge has not spurred adequate drive to raise the level of condom use. For example, according to the data collected from the sample population in South Gem division, it was established that: only 23.1% of the respondents at risk of HIV were currently using condoms leaving a high 76.9 % engaging in risky sexual relations; and that 28% of those who had never used condoms had multiple sex partners. Condoms are associated with unfaithfulness and therefore not acceptable in most stable sexual relationships. The introduction of condom use in a long-term relationship, where they have not been previously used, threatens the trust that is implied (whether it exists or not) in most of such relationships. Despite the male dominance in making decisions over a wide range of family issues, including sex, some husbands also fear asking their wives to use condoms (since they do not want to create suspicion that they have affairs outside marriage). This was revealed by this study conducted in South Gem division where 40% of the males in the sample population stated that they feel embarrassed to ask their partners to use condoms.

Condom use differs with occupation. The occupation which one falls in is significantly influenced by the education level which equally affects ones awareness and the ability to bargain

for safer or protected sex. I observed that majority of resident of South Gem division are farmers and small business owner, the use of condom in these occupations is very low with only 39% and 26.1% of farmers and small business owners reporting the use of condom respectively.

Future prospects of condom use within South Gem division are further complicated by the introduction of male circumcision as one of the protective measures. This is fully evidenced in the study population where 10% of the circumcised men report they use condoms less often after circumcision while another 10% reported to have stopped using condom after circumcision. There is also a significant reduction in condom use among pregnant females even if they change sexual partner who they don't know their HIV status. This is revealed by this study where 50% of women reported that they rarely use condoms when pregnant. To this, add the minor practical problems of condom rupture, being slippery, not pleasurable and difficulties of disposal, and the chances of married couples adopting condom use look rather bleak, at least in the context of the communities in this study.

5.1 Recommendation

Separate and culturally appropriate interventions which target males and females should focus on self-esteem, condom negotiation, personal protection, and healthy decision making. Males must be encouraged to approach the topic of condom use with their female partners in order to increase condom use frequency and make communication about condom use an empowering decision for both participants (Ferguson, Quinn, Eng, & Sandelowski, 2006; Smith, 2003). Interventions should specifically empower females to make sound decisions on condom use and to become comfortable with taking on the responsibility of condom possession within sexual relationships. The low rate of condom use among males and females is a public health issue because this may translate into increased exposure to HIV and other STDs.

Comprehensive sexual education should be gender-and age-specific. As seen in this study, the factors influencing male condom use are not the same as those which influence female

influence. Those factors need to be addressed in sexual education for each gender. Furthermore, each age group should have a separate curriculum related to healthy sexual behaviors and perceptions that would provide building blocks to the next level of the curriculum.

Although previous studies found that lack to knowledge about the availability and use of condoms was not a factor in the failure of young adults to use condoms, knowledge- and skill-based interventions should be incorporated in adolescents' learning environment earlier than college or post-high school. Usually, interventions and campaigns that discuss condom use openly and provide participants with skills about condom use are instituted after high school. Comprehensive sexual education should include information about condom use and should confer the positive aspects about condom use to adolescents as early as primary school. Abstinence-only programs instituted in public school systems have been shown to only provide short term benefits, and no lasting positive effects (Hauser, 2002) while adolescents are experiencing their sexual debut at earlier ages (McIlhaney, 2000). Regardless of when they have their sexual debut, if adolescents are not being provided with the appropriate information as to how to protect themselves against sexually transmitted diseases and unintended pregnancy, they will be at a greater risk of incurring negative outcomes.

5.2 Conclusion

Knowledge about the role of condoms in preventing unwanted pregnancy as well as STIs, including HIV/AIDS, is widespread. Yet the levels of condom use have remained low even among high-risk groups such as those with multiple sex partners. Age, sex, level of education and socio-cultural factors like the ability to negotiate for a safer sex all combined or singly still plays an integral role in determining appropriate condom use or disuse. Understanding the dynamics of condom use behavior among people requires a better understanding of the dynamics of their sexual relationships and the context within which condom use is (or is not) negotiated. It is necessary however to re-evaluate the strategies with which programs that aim to improve sexual and reproductive health of males and females are delivered. Almost all reproductive health programs implemented in Kenya and in the study area in particular have been delivered within a school based or clinic based framework with the result that adult gatekeepers in the community and a large proportion of adolescents who do not have access to these settings are

excluded from participating in these interventions. Implementing interventions via family or community frameworks may be more useful in reaching most people in disadvantaged settings.

5.3 Suggestion for Further Research

Further research that allows the residents of South Gem division to categorize and describe the relationship in which condom use may vary is necessary for suitable interventions to be developed.

This research study should be replicated in other areas with a larger sample size and a wider coverage area to establish the relationship between findings in different areas.

Further research should further investigate the correlates of condom use and the process of decision making that produces healthy sexual behaviors. Research should examine which educational and health promotion interventions to reduce risk-taking may be most effective with the young and adult population.

REFERENCES

- Anderson, J. E., Wilson, R., Doll, L., Jones, T. S., & Barker, P. (1999). Condom Use and Auvert B, Taljaard D, Lagard E, Sobingwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. *PLoS Med* 2005:e298. Epub 2005.
- Bailey RC, Moses S, Parker CB, Agot K, Maclean I, Krieger JN, Williams CFM, Campbell RT, Ndinya-Achola JO. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *Lancet* 2007; 369:643-56.
- Bauni E and Jarabi B. 2000. "Family planning and sexual behavior in the era of HIV/AIDS: The case of Nakuru District". *Studies in Family Planning*; 31(1): 69-80.
- Bryan, A. D., Aiken, L. S., & West, S. G. (1996). Increasing Condom Use: Evaluation of a Theory-Based Intervention to Prevent Sexually Transmitted Diseases in Young Women. *Health Psychology, 15*(5), 371-382.
- Capaldi, D. M., Stoolmiller, M., Clark, S., & Owen, L. D. (2002). Heterosexual risk behaviors in at-risk young men from early adolescence to young adulthood: prevalence, prediction, and association with STD contraction. *Developmental Psychology, 38*, 394-406.
- CDC. (1999). Condoms and their use in preventing HIV infection and other STDs
- CDC. (2006). Cases of HIV infection and AIDS in the United States, by race/ethnicity,
- CDC. (2006). Trends in reportable sexually transmitted diseases in the United States,
- CDC. (June 28, 2002). Surveillance Summaries. *Morbidity and Mortality Weekly Report*,
- Chambers, K. B., & Lynn, R. (2003). Safer Sexual Decision Making In Adolescent Women: Perspective from the Conflict Theory of Decision-Making. *Issues on Comprehensive Pediatric, 26*, 129-143.
- Chatterjee, N., Hosain, G. M., & Williams, S. (2006). Condom use with steady and casual
- Chernoff, R. A., & Davison, G. C. (2005). An Evaluation of a Brief HIV/AIDS Prevention Intervention for College Students Using Normative Feedback and Goal Setting. *AIDS Education and Prevention, 17*(2), 91-104.
- Crosby RA. Condom use as a dependent variable: measurement issues relevant to HIV prevention programs. *AIDS Educ Prev.* 1998; 10(6):548-57

- Cuffee, J. J., Hallfors, D. D., & Waller, M. W. (2007). Racial and Gender Differences in Adolescent Sexual Attitudes and Longitudinal Associations with Coital Debut. *Journal of Adolescent Health, 41*(1), 19-26.
- Dare OO, Clelland JG. Reliability and validity of survey data on sexual behaviour. *Health Transition Review (Suppl)* 1994:93-110
- De Vincenzi I. (1994) 'A longitudinal study of human immunodeficiency virus transmission by heterosexual partners', the *New England Journal of Medicine*; 331:341-346
- Delay P, Stanecki K, Achibald C, Brown T. 2000. *The status and trends of the HIV/AIDS in the world*. Preliminary report of a symposium held on 5 ó 7 July 2000 in Durban, South Africa.
- DiClemente, R. J., Crosby, R. A., Wingood, G. M., Lang, D. L., Salazar, L. F., & Broadwell, S. D. (2005). Reducing risk exposures to zero and not having multiple partners: findings that inform evidence-based practices designed to prevent STD acquisition. *International Journal of STD & AIDS, 16*, 816-818.
- Dodoo FN and Adomako Ampofo A. 1998. *AIDS-related condom use among married Kenyan men*.
- Eissen, E. J., Meshack, A. F., Peters, R. J., Ogungbade, G., & Osemene, N. I. (2005). Strategies to Prevent HIV Transmission among Heterosexual African-American Women. *International Journal for Equity in Health, 4*(4), 286-291.
- Farmer, M. A., & Meston, C. M. (2006). Predictors of Condom Use Self-Efficacy in an Ethnically Diverse University Sample. *Archives of Sexual Behavior, 35*(3), 313- 326.
- Ferguson, Y. O., Quinn, S. C., Eng, E., & Sandelowski, M. (2006). The gender ration imbalance and its relationship to risk of HIV/AIDS among African-American women at historically black colleges and universities. *AIDS Care, 18*(4), 323-331.
- Finer, L. B., & Henshaw, S. K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on Sexual and Reproductive Health, 38*(2), 90-96.
- Fisher, J. D., Misovich, S. J., Kimble, D. L., Fisher, W. A., & Malloy, T. E. (1996). Changing AIDS Risk Behavior: Effects of an Intervention Emphasizing AIDS Risk Reduction Information, Motivation, and Behavioral Skills in a College Student Population. *Health Psychology, 15*(2), 114-123.

- Fullilove, R. E., Fullilove, M., Haynes, K., & Gross, S. (1990). Black women and AIDS prevention: A view towards understanding gender rules. *The Journal of Sex Research*, 27, 47-64.
- Hope KR. 1995. The socio economic context of AIDS in Africa. *Journal of Asian and African Studies* 30;80-89.
- Mensch B, Hewett P, Erulkar A. The reporting of sensitive behaviour among adolescents: A methodological experiment in Kenya. Paper presented at the 24th General Conference of the International Union for the Scientific Study of Population, Salvador, Brazil, 18-24 August, 2001.
- Nunn AJ, Wagner HU, Okongo JM, Malamba SS, Kengeya-Kayondo JF and Mulder DW. HIV-infection in a Ugandan town on the trans-African highway: prevalence and risk factors. *International Journal of STDS and AIDS*, 1996; 7 (2):123-130.
- Quigley M, Munguti K, Grosskurth H et al. Sexual behaviour patterns and other risk factors for HIV infection in rural Tanzania: a case-control study. *AIDS*, 1997; 11:237-248
- Van de Wigert J, Padian N, Shiboshi S, Turner C. Is audio-computer-assisted self-interviewing a feasible method of surveying in Zimbabwe? *International Journal of Epidemiology* 2000; 29(5):885-890
- Weir SS, Fox LJ, Bayardo AD, Guerrero GE, Hassig SE. Measuring condom use among sex workers in the Dominican Republic. *International Journal of STD & AIDS* 1998b; 9(4):223-226(4)
- Weir SS, Roody RE, Zekeng L, Ryan KA, Wong EL. Measuring condom use: asking "do you or don't you" isn't enough. *AIDS Educ Prev*. 1998a; 10(4):293-302
- Weller SC & Davis-Beaty K (2007), 'Condom effectiveness in reducing heterosexual HIV transmission'

APPENDICES

Introduction

There are six appendices in this chapter; appendix 1 is the grant chart which describes the activities which were conducted within the specified period within the study period. Appendix 2 is the budget and appendix 3 is consent form which describes the various procedures contained in this study. Appendix 4 is the study questionnaire which contains various variables capturing the demographic factors, economic factors, education factors and socio ócultural factors affecting the use of condoms. Appendix 5 is the map of the study area outlining all the villages contained in Gem. Appendix 6 is the introductory letter which was presented to the administrative officer to allow the researcher to conduct the study in South Gem division

Appendix 1: Time frame (Gantt Chart)

The start and finish dates of the planned activities will be demonstrated using the Gantt chart.

Duration in Weeks

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Problem Identification	■													
2.Proposal Writing		■												
4.Selection and Training of Research Assistants			■											
5.Pretesting of questionnaire				■										
6. Administration of Questionnaire					■	■	■	■						
7.Data cleaning and entry									■					
8.Data analysis										■	■			
9.Research report writing And presentation												■	■	
10.Compiling of final report														■

Appendix 2: Budget

ITEM	QUANTITY	COST (Kshs.)
1. HUMAN RESOURCES		
a) Salaries (pre-testing)		
2 Principle Researcher	700 x 1 day	700.00
4 Research Assistants	400 x 1 days x 2	800.00
b) Actual Research		
2 Principle Researcher	700 x 10 days	7,000.00
4 Research Assistants	400 x 10 days x 3	12,000.00
Supervisor	1 x 20, 000	20,000.00
2. MATERIALS AND SUPPLIES		
Note books	25 x 10	250.00
Biro Pens ó 1 dozen	100	100
Folders ó 5	40 x 5	200.00
Stapler and staples	400	400.00
3. PROPOSAL		
Secretarial Typing	1000	1,000.00
Photocopy services	200	200.00
Printing an binding of proposal	2 x 500	1000.00
Printing an binding of reports	600 x 2	1,200.00
TOTAL		44,850.00
10% Contingencies		4,485.00
GRAND TOTAL		<u>49,335.00</u>

Appendix 3: Consent Form

Hello! My name is _____ and I am a student from The University of Nairobi.

We are conducting a study to assess factors which influence appropriate use of condoms in Kenya, a case of South Gem division. This study is part of my course requirement and the findings can be used to inform the government and other relevant NGOs who implementing various HIV/AIDS intervention programs.

Participant for this study are both males and females who are sexually active (between 14 years and above). The choice of who is to participate is random (by chance, like flipping a coin). Being in the study is your choice.

What will happen if I join the study?

If you accept to take part in the study, you will be asked a set of questions which might take around 30 minutes. Your participation is completely voluntary and you have the right to refuse.

What are the risks and benefits for being in the study?

This study involves asking questions about private and personal behaviors. During the survey you may feel embarrassed when answering some questions. You can refuse to answer any questions. You can stop the interview at any time.

There will be no direct benefit for taking part in this study. The data we get from the study will help know the situation in the ground, this will put us in a better position to advice other agencies who want to roll out intervention programs.

Confidentiality

What we talk about will be kept as private as possible, even among your family members. We will keep the records using numbers, not names. Your name or other things that may identify you will not appear when we discuss the results of this study.

What are my rights if I join the study?

Taking part in this study is your choice. You can choose to take part in the study or not. You may also leave the study at any time, for any reason.

Who can answer my questions about the study?

If you have any question concerning the study, you can contact Mr. Asadhi through this number 0720 655366.

STATEMENT OF CONSENT

We want to be sure that you have read this form and understood it. You should sign below only if the interviewer has explained the form to you clearly and answered all your questions. If you want to participate, please sign below.

The Interviewer has explained all the procedures of the study to me. I agree to join the study. I have had a chance to ask questions and I feel that all my questions have been answered. I know that participating in this research study is my choice. I know the information will be kept as private as possible. I have received a copy of this consent form. I agree to allow the interviewer to ask me questions.

I agree

 I don't agree

Interviewee	Name:	Signature:.....	Date
Interviewer	Name:	Signature:	Date

(For those who are unable to sign their name, a witness must verify and sign below.)

I have read and explained the consent form to the person named above and watched them make their mark.

Name of witness: _____

Signature of Interpreter/witness: _____ Date: _____

Appendix 4: Questionnaire

QUESTIONNAIRE IDENTIFIERS

0/001 Village code |_|_|_|_|_|

Village name

0/002 Compound ID |_|_|_|_|_|

0/003 House number |_|_|

0/004 Participant ID: [|_|_|_|_|_|_|_|_|_|]

0/005 Interviewer: Code [|_|_|_|]

0/006 Date interview: |_|_|/|_|_|/|_|_| (dd/mm/yy)

CHAPTER 1 : INDIVIDUAL DEMOGRAPHICS

No.	Questions and filters	Coding categories	Skip to
1/001	Sex of the respondent	í í í .í í í í í í í í í [____] a. Male b. Female	
1/002	How old are you?	Year [____]	
1/003	What is your occupation?	í í í í í í í í í í í í [____] a. Farmer b. Salaried worker(e.g. teacher, nurse) c. Casual worker	

		<ul style="list-style-type: none"> d. Self employed e. Home maker f. Student g. Unemployed h. Other (specify: _____] 	
1/004	What is your current relationship status?	<p>..... []</p> <ul style="list-style-type: none"> a. Single b. Married monogamous c. Married polygamous d. Cohabiting e. Divorced or separated f. Widowed 	
1/005	What is the highest level of education you have attained?	<p>..... []</p> <ul style="list-style-type: none"> a. None b. Primary incomplete c. Primary Complete d. Secondary incomplete e. Secondary complete f. Tertiary 	

CHAPTER 2: SEXUAL BEHAVIOR AND HIV RISK

No.	Questions and filters	Coding categories	Skip to
2/001	Have you ever had sex?	<p>.....[]</p> <p>a. Yes</p> <p>b. No</p>	
	The last time you had sex did you use condom?	<p>.....[]</p> <p>a. Yes</p> <p>b. No</p>	
2/002	Why do you use condoms? Choose all that apply	<p>a. I never use condoms.....[]</p> <p>b. For family planning.....[]</p> <p>c. To avoid HIV.....[]</p> <p>d. To avoid STDs.....[]</p> <p>e. Other (specify: _____]</p>	
2/003	How often do you use condoms when you/your partner is pregnant?	<p>.....[]</p> <p>a. More often when pregnant</p> <p>b. Less often when pregnant</p> <p>c. Me/ Partner has never been pregnant</p> <p>d. No change</p>	
2/004	If less often, why?	<p>.....[]</p> <p>a. Already pregnant, no need for preventing pregnancy</p> <p>b. Not at risk of getting HIV or passing on HIV while pregnant</p> <p>c. Other (specify:</p>	

		_____]	
2/005	Are you or your primary partner circumcised?[] a. Yes b. No c. DK	IF NO OR DK SKIP TO 2/007
2/006	Please describe your condom use before circumcision and now after circumcision[] a. We used condoms more before he got circumcised b. We use condoms more after than before circumcision c. No change in our condom use d. We used condoms after circumcision for a brief period of time then stopped e. We never use condoms f. Other (specify: _____]	
2/007	How many sexual partners do you currently have?	Number[]	

CHAPTER 3: PRIMARY SEXUAL PARTNER

Now i would like to ask you questions about your sexual partner with whom you had sex with most recently

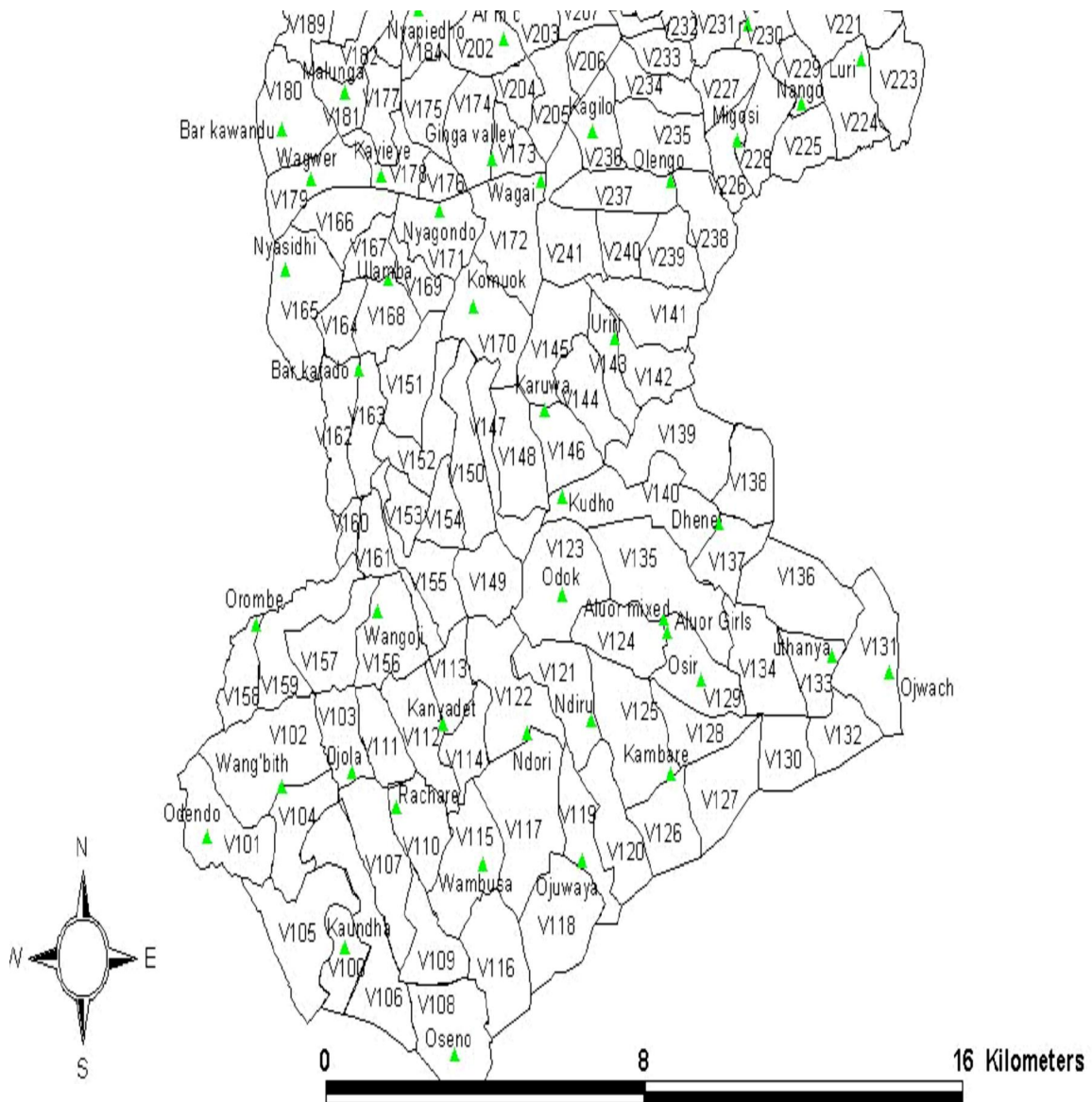
No.	Questions and filters	Coding categories	Skip to
3/001	What is your relationship to this person with whom you had sexual intercourse?	<p>.....[]</p> <ul style="list-style-type: none"> a. Spouse (husband or wife) b. Boyfriend/girlfriend c. DK d. Casual acquaintance e. Prostitute f. Others (Specify: _____) 	
3/002	Have you ever had sex with this person/partner without using a condom?	<p>.....[]</p> <ul style="list-style-type: none"> a. Y b. N c. DK 	
3/003	How often do you use a condom with this partner?	<p>.....[]</p> <ul style="list-style-type: none"> a. Never b. Always c. DK d. Sometimes 	IF a SKIP TO 3/007
3/004	Did you use a condom the last time you had sex with this person?	<p>.....[]</p> <ul style="list-style-type: none"> a. Y b. N c. DK 	
3/005	Could you ask this person to use a condom with you if you wanted	<p>.....[]</p> <ul style="list-style-type: none"> a. Y b. N 	

	to?	c. DK	
3/006	If you had sex with this person during the last 3 months , did you use condoms all of the time, most of the time, sometimes, or never?	<p>.....[]</p> <ul style="list-style-type: none"> a. All of the time b. Most of the time c. DK d. Sometimes e. Never 	
3/007	Could you ask this person to use a condom with you if you wanted to?	<p>.....[]</p> <ul style="list-style-type: none"> a. Y b. N 	
3/008	Do you know the HIV status of this partner	<p>.....[]</p> <ul style="list-style-type: none"> a. Y b. N c. DK 	
3/009	What is the HIV status of this partner?	<p>.....[]</p> <ul style="list-style-type: none"> a. Positive b. Negative c. DK 	

CHAPTER 4: HIV STATUS OF THE RESPONDENT

No.	Questions and filters	Coding categories	Skip to
4/001	Do you know your HIV status?	<p>.....[___]</p> <p>a. Y</p> <p>b. N</p> <p>c. DK</p> <p>d. Refused</p>	
4/002	Are you willing to tell me your HIV test result?	<p>.....[___]</p> <p>a. Y</p> <p>b. N</p>	
4/003	Was your most recent HIV test result?	<p>.....[___]</p> <p>a. Negative</p> <p>b. Positive</p> <p>c. Don't know</p> <p>d. Refused</p>	
4/004	Did you tell this person the results of your last HIV test?	<p>í í í í í í í í í í í í í ..[___]</p> <p>a. Y</p> <p>b. N</p> <p>c. Refused</p>	

Appendix 5: Map of the Study Area



Appendix 6: Introduction Letter

ELIJAH OTIENO ASADHI
THE UNIVERSITY OF NAIROBI
P.O. BOX
KISUMU.

10TH JULY, 2011

THE DISTRICT COMMISONER
GEM DISTRICT
P.O. BOX
GEM

Dear Sir/Madam,

RE: REQUEST TO CONDUCT A RESEARCH STUDY IN SOUTH GEM

I am a Post Graduate student in The University of Nairobi undertaking a post graduate course in Project Planning and Management. I wish to conduct a research study to Assess Factors that Affect Appropriate Utilization of Condoms in South Gem Division, Siaya district.

I kindly request your office to grant me a go ahead to conduct the study in this region and give me the necessary support I will require especially during the data collection period which will be from 20th July to 10th of August 2011.

Looking forward to receiving a positive response from you. Thank you in advance.

Yours faithfully

E. O. Asadhi