

**DETERMINANTS OF SOCIO- CULTURAL RISK FACTORS IN HIV
INFECTIONS AMONG THE MUSLIM COMMUNITY IN KENYA**

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*Determinants of
socio-cultural risk*

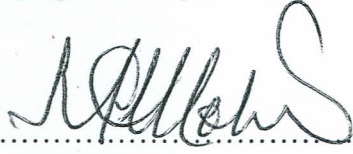


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DECLARATION

I, Mohamed Karama do hereby declare that this thesis is my original work and has not been presented for a degree in any other University.

Signed.....  Date..... 4th MAY 2009

This Thesis has been submitted after examination with our approval as University supervisors

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DEDICATION

This work is dedicated to the many people who have been afflicted by HIV and AIDS and to those who are genuinely struggling hard to find solutions to the ravages of the scourge.

I am most grateful to the Director, KEMRI, Dr. Peter Kixson, for his kind invitation to participate in the workshop on HIV and AIDS in Kisumu, Kenya, and for the travel allowed during the course of the workshop. I am also grateful to the staff of KEMRI for their warm and friendly reception and for the excellent facilities provided during the workshop.

I am most grateful to Mr. Robert P. O'Connell, Director of the National AIDS Reference Centre, for his kind invitation to participate in the workshop. I am also grateful to the staff of the National AIDS Reference Centre for their warm and friendly reception and for the excellent facilities provided during the workshop.

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OPERATIONAL DEFINITIONS

MATATU Short distance public transport common in most areas of Kenya. These could be a minibus or bigger buses. In other remote parts they could be pick up vehicles.

MAJENGO Slum dwellings or settlements created by the colonial government for settlement of Muslims for purpose of common worship place. These are usually also provided with a common graveyard.

SUNNAH The sayings or deeds of the Prophet Mohamed which are regarded as a source of guidance for Muslims after the Quran.

TALAQ The dissolution of marriage in accordance with Islamic law. Only allowed when other efforts have failed

DUKSI These are small family schools for the teaching of the Quran. They are common among the nomadic tribes of the Northern Kenya. They are also mobile

MADRASSA This is a school for Islamic lessons it bigger and more permanent than the duksi

MOSQUE A prayer hall with a regular Imam and congregation.

SAW A religious obligation to wish Peace and blessing of God upon the Prophet Mohamed at mention of his name.

RISK PRACTICE Any action or behaviour that is likely to enhance or increase the chance of getting exposed to and getting infected with HIV.

PERCEIVED PREVALENCE These are what the community identified as HIV and AIDS according to the knowledge available to them at the time of interview.

CUPPING A traditional method of removing what was believed to be unclean blood. The process involves the making some cuttings on the part of the body that has pain and then using a cup glass or more traditional a horn to create suction which will force out the blood from the body.

BLOOD RELATION Intimate friends without blood relation could mix their blood normally from finger tips to create a non biological blood relation.

TRANSPORT INDUSTRY All types of transport business including the public and cargo transport.

OFF PEAK SEASON In Kenya the tourism industry picks up from August to December and going down thereafter. This low season is commonly referred to as off peak.

BORDER LIFESTYLE Many border centers are very busy throughout the day and night. Travellers between countries exchange visits at border points. Some of the activities synergize risk taking behaviour. These include commercial sex drug abuse alcohol. It was therefore considered that there was higher risk of HIV infection for persons living in such areas.

WAQF These are properties that are donated by individuals at death or by families for the benefit of the community.

ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
CPHR	Centre for Public Health Research
CSW	Commercial Sex Worker
<i>E.Coli</i>	<i>Escherichia coli</i>
FGB	Female Genital Burns
FGM	Female Genital Mutilation
FGD	Focus Group Discussion
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use
IEC	Information Education Communication
IPV	Intimate Partner Violence.
KAPB	Knowledge Attitude Practices and Behaviour
KEMRI	Kenya Medical Research Institute
MOH	Ministry of Health
MSM	Men having Sex with Men
MTCT	Mother To Child Transmission
NAMNA	National Muslim Network for AIDS control
NASCOP	National AIDS/STD Control Programme
NDHS	National Demographic and Health Survey
NGO	Non Governmental Organisation
NUKEM	National Union of Kenya Muslim
PEP	Post Exposure Prophylaxis
PLWHA	People Living with HIV and AIDS
PMCT	Prevention of Mother to Child Transmission
SAW	Swala Llahu Alaihi Wasallam (with regard to Prophet Muhammad) Peace and blessings of Allah be upon him
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
SUPKEM	Supreme Council of Kenya Muslims
TBA	Traditional Birth Attendant
UNAIDS	Joint United Nations programme on HIV and AIDS.
VCT	Voluntary Counselling and Testing
WSW	Women having Sex with Women
WORKS	Womens Option for Risk reduction through Knowledge of Self

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ABSTRACT

HIV and AIDS continue to devastate many areas of the world. Africa and especially Sub Saharan Africa remains the epicenter for the pandemic. In Kenya despite declining prevalence, the incidence remain high. This is as a result of among others risk taking behaviours and resistance to change. Muslims form 25 to 30% of the population of Kenya and despite the low prevalence among them, little is known about their socio-cultural risk factors in relation to HIV infection. The aim of this study was therefore to determine the knowledge and perception of the Muslim on HIV and AIDS, to identify risk practices among them. This was a cross sectional study where both qualitative and quantitative data collection methods were used countrywide and during two national Muslim leaders consultative workshops and other workshops at the district levels. Focus group discussions, in-depth interviews with key informants and administration of a questionnaires for quantitative data on knowledge and attitude was undertaken. Data analysis included running frequencies for percentages and the use of chi-square to determine the difference in risk perceptions between males and females. There are about 2300 mosques 4800 madrassas (Muslim schools), 99 secular schools, 20 Muslim managed health facilities and about 1000 community organizations. There is an extensive Islamic teaching that can be useful in addressing HIV related problems. Knowledge levels measured as percentages of the community who got the right answers ranged between 38% to 97% with women being less informed but the difference is not significant ($p < 0.06$). Knowledge levels were superficial with less details on prevention and management of HIV. National average for perceived prevalence was 2.6% with Northern Kenya being lowest at less than 1% and Nyanza being highest at average of 5.5% an indicator of recognition of HIV as problem for all Kenyans. Risk priorities varied between regions with the coast identifying tourism related risk and the Northern region identifying cultural practices including polygamy divorce and female circumcision as a possible risk practices. In Northern Kenya and the Coast, divorce rates and polygamous marriages were estimated to range between 15 and 30% and 10 to 30% respectively. The transport industry especially long distance truck drivers a preference for Muslim businessmen, taxis, and other public transport are of general concern countrywide. There was significant difference in the perception of risk between men and women ($p < 0.001$). There is need for more coordinated involvement of Muslims and the mainstreaming of HIV control and prevention within the physical and social infrastructure and the Islamic teachings. More research should be undertaken to better understand the implications of the risk practices in the spread of HIV in the Muslim community in Kenya. The results of this study helped in the development of a Muslim policy on HIV in Kenya.

CHAPTER 1: INTRODUCTION.

1.1 The Human Immunodeficiency Virus.

The Human Immunodeficiency Virus (HIV) infection causes progressive destruction of part of the immune system **Gilks *et al*, (2003)**. There is much controversy as to the historical origin of this virus with Western scientist associating it to a resident of Leopoldville (now Kinshasa) in 1959, **Hooper *et al*, (1999)**. HIV is classified as a lentivirus in the Retroviridae group which means it is a virus that produces pathological changes slowly. The damage caused by HIV is brought about by active viral replication which causes cell death. The main target cells for infections by HIV are those that have on their surface a cell surface molecule called CD 4 usually T lymphocytes **Weber, (2001)**.

Viral load vary also from person to person. They peak with initial infection, fall to a plateau for several years and then rise as symptomatic disease develops. The viral load are useful for monitoring therapeutic response to ART **Mellors *et al*, (1999)** Initially host immune response manage to keep the virus in check despite high replication rate but eventually the viral replication takes over depleting and exhausting the infected individuals CD4 T lymphocyte population **Weber, (2001)**. HIV/AIDS remains a leading public health concern as it devastates almost all parts of the world. The number of people living with HIV continue to rise despite the fact that effective preventive strategies exists **UNAIDS (2004)**.

HIV prevalence in different countries vary, however **Velayati *et al*, (2007)** observed that former British colonies showed higher prevalence than the French colonies where Malawi reported 14.2%, Zambia 16.5%, South Africa 21.5%, Zimbabwe 24.6%, Lesotho 28.9%, Botswana 37.3% and Swaziland at 38.8% compared to french colonies with prevalence between

1.9 and 4.8%. The percentage of Muslims negatively correlates with HIV where higher number of Muslim the lower the prevalence. **Talbot, (2007)** It was reported by **Nyindo, (2005)** that the main risk factors for HIV-1 infection and AIDS in Sub Saharan Africa were found to include poverty, famine, low status of women in society, corruption, naive risk taking perception, resistance to sexual behavior change, high prevalence of sexually transmitted infections (STIs), internal conflicts and refugee status, antiquated beliefs, lack of recreational facilities, ignorance of individual's HIV status, child and adult prostitution, uncertainty of safety of blood intended for transfusion, widow inheritance, circumcision, illiteracy and female genital cutting and polygamy. This observation of the risk factors is very similar to the situation in Kenya. In 2003 an estimated 4.8 million people became newly infected with HIV (**UNAIDS, 2004**). There are two variants of HIV which are type 1 and type 2. Each type is further subdivided into groups and subtypes or clades and there is a rapid evolution of HIV subtypes with new mutations **Gilks et al, (2003)**. The new infections recorded in 2003 are more than any other one year before. Today some 40 million people are living with HIV which killed about 3 million people in 2003 and over 20 million since the first cases of AIDS were identified in 1981. **UNAIDS, (2004)**.

1.2 Acquired Immune Deficiency Syndrome (AIDS).

After infection with Human Immunodeficiency virus and with time a characteristic relatively specific group of infections and malignancies develop which make up the Acquired Immunodeficiency Syndrome **Weber, (2003)**. The rate of decline of CD4 cells varies considerably from person to person. The immunodeficiency permits infections commonly known as opportunistic infections. Twenty five years into the epidemic, the global response to AIDS must be transformed from an episodic crisis management to a more strategic well thought-out long term response. Despite the reported declines in several countries the

consistent leadership necessary to slow, stop and reverse this epidemic is not yet evident.

UNAIDS, (2006). From the results of the national health and demographic survey HIV prevalence in women aged 15-49 is nearly 9% while for men 15-54 years it is under 5% indicating the vulnerability of women to infection especially the younger age groups. This heterogeneity in prevalence was also visible when viewed from religious bases where among the Roman Catholics 8.9% women and 4.9% men, Protestants 9.2% women and 4.5% men, Muslims 2.7% women and 3.1% men while those without religion 11.1% women and 5.5 % men were reported as HIV positive. **Republic of Kenya, NDHS, (2003),**

Among the vulnerable groups identified for intervention in the National strategic plan **Republic of Kenya, NASP (2005)** included discordant couples, commercial sex workers, orphans and vulnerable children migrant workers uniformed services survivors of rape and sexual violence, injection drug users and men who have sex with men. Typically, HIV gets its first foothold among vulnerable groups in urban areas and spreads to the rural areas as the epidemic becomes generalised. It is facilitated by good communications that allow regular contact between urban and rural populations **UNAIDS, (2006).**

In the early stages of the HIV epidemic Muslims felt it was not their problem as they associated it with promiscuity. **Franceska, (2002)** , observed that only about 1990 the presence of HIV in Islamic countries cast light on the fact that sexual behavior do not always conform to religious norms.

1.3 Statement of the Problem.

The Muslim physical and social infrastructure in form of mosques madrassas and community based organizations respectively and useful teachings have not been adequately involved in the fight against the HIV epidemic. It is difficult to evaluate this resource and

utilize the opportunity it provides as a contribution to the national efforts in addressing HIV and AIDS. Based on religious belief, Muslim perception and level knowledge of HIV as well as the extent of the epidemic as perceived by them, a crucial component for strategic intervention is not known. There was lack of a coordinating mechanism for the Muslim Communal response in HIV and AIDS control and prevention.

1.4 Rationale For the study.

HIV/AIDS is a relatively new disease with a highly complex social impact and perception. It transcresses far beyond the national health care boundaries with many governments and international institutions calling for multisectoral approach as well as involvement of the different Faiths. It was stressed **Velayati *et al*, (2007)** , that the role of religious organisations in addressing HIV be appreciated. This was done by better understanding the level of knowledge and attitudes as well as their perception and capacity. The existence of national policy and strategic plan to address the epidemic has been instrumental in the success of the fight against this scourge. However, total ownership of the problem and the response depends on the perceptions and capacity of the different societies and communities in Kenya. No study has been carried out at National level to determine the Muslim specific risk practices perception and capacity to participate in the fight against HIV and AIDS before. This study has provided an opportunity for an evidence based strategic intervention in the effort to coordinate the Muslim response as part of the national strategic plan.

Muslim form between 25 to 30% of the population of Kenya, which is one of the large faith, based group. Understanding their perception of HIV and identifying practices among them that are likely to increase the risk of HIV infection will provide a guide for the development of an

effective intervention strategy and will therefore contribute to the National efforts and success in the fight against HIV and AIDS.

Developing a Muslim policy on HIV in harmony with the National policy will supplement the National policy rather than contradict it and will enhance ownership of the HIV problem and coordination and will provide an opportunity to engage the Islamic teachings and to use the Muslim physical and social infrastructure which are better placed than any other forum to address Muslim risk practices. There is need to sustain the low prevalence of HIV infection among Muslim despite the increasing risk of infection in consonant with the National priority of reducing new infections.

1.5 Research Questions

- i. What is the capacity of the Muslim network of mosques, madrassas and Muslim managed community based organizations as well as Islamic teachings to play a role in the fight against HIV and AIDS?
- ii. What is the level of knowledge and the attitudes, practices and behavior of Muslims with regard to HIV and AIDS?
- iii. What is the extent of the problem of HIV and AIDS as perceived by Muslims in Kenya?
- iv. What are the behaviors and practices among Muslims that are likely to enhance the risk for HIV infection?
- v. What are the Muslim perceptions of these risks?
- vi. How can the Muslim response to HIV and AIDS be coordinated and be more effective in support of the National strategy.

1.6 NULL HYPOTHESIS

There are no practices specific to the Muslims that are a risk for HIV transmission among them which are based on their geographical position, culture and traditions. There are no permissible practices according to Islamic law which are likely enhance the transmission of HIV infection among the Muslims. Risk perception between men and women in the Muslim society is the same.

1.7 Objectives of the Study.

1.7.1 General Objectives.

To determine factors which enhance transmission of HIV and AIDS among Muslims with the aim of developing evidence based strategic intervention in Kenya using the Islamic principles and institutional framework.

1.7.2 Specific Objectives.

- i) To determine the physical and social Muslim infrastructure and capacity within the Islamic institutional framework to undertake the HIV and AIDS control programme.
- ii) To determine the knowledge and attitudes of the Muslim community in relation to HIV and AIDS.
- iii) To determine the perceived prevalence of HIV among Muslims in Kenya.
- iv) To identify practices among Muslims which are a risk factor for the transmission of HIV.
- v) Develop a Muslim Policy on HIV and AIDS management and control in harmony with the National AIDS control programme.

1.8 Observed Outputs

Findings of this study ensured a better understanding of the Muslim infrastructure and teachings that facilitated evidence based strategic interventions of HIV and AIDS based on their perception and understanding of the epidemic in Kenya. Dissemination of study findings have and continue to be undertaken at different levels.

1.9 Study Limitations

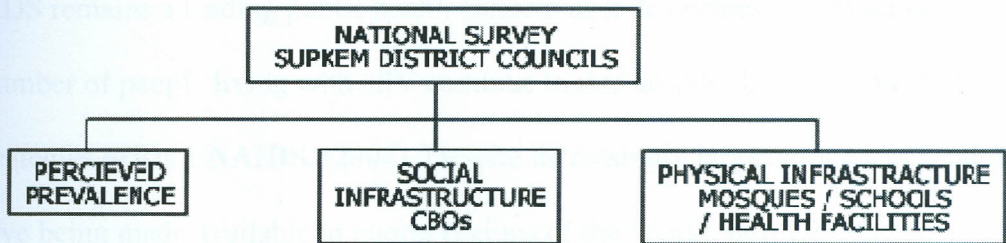
As a result of limited resources supervision of the national situation analysis was not well effected and the coverage of the households was linked to the mosques and the surrounding house holds. As much as this was the best way to identify Muslim households especially in the minority areas, it however excluded Muslim households living a distance away from mosques. Perceived prevalence as reported was based on cases, which had clinical manifestation, and therefore only AIDS cases were reported. It was also possible that not all cases reported were HIV related cases. This research was funded by National AIDS Control Council for the situation analysis with the objective of sensitizing Muslims on HIV and ACTION AID for the two national consultative meetings as well as the district inputs. The need to consider the donor objectives also created time constraint in data collection limiting our quantitative data to summarized data on the scale of risk. Knowledge attitude practices and behavior were conducted at national level and at Mwachinga village of Kwale district.

Conceptual Framework

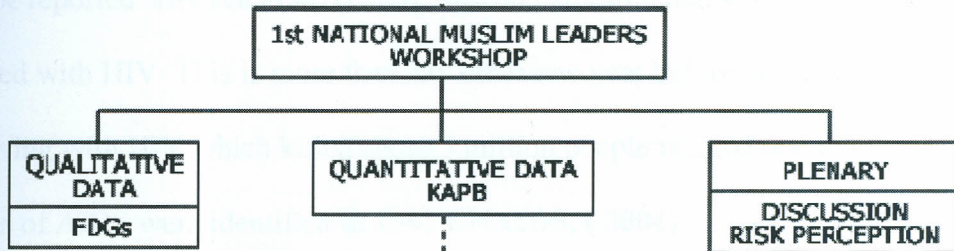
This study was conducted in 3 phases where different data collection methods were used. Phase one was the situation analysis which included physical and social infrastructure and perceived prevalence which was collected at the household level. This information was used in phase 2 as an entry point for the first National Consultative Conference where knowledge levels were assessed and risk practices identified after participants were adequately sensitized on HIV infection, management, control and prevention. The second consultative conference involved more technical persons whom I involved in consolidating thematic areas of concern raised in first meeting and drafting the Muslim policy. Phase 3 is the data collection at district level and inputs which captured the regional risk practices.

Determinants of Social Cultural Risk Factors in HIV infection and AIDS among Muslims in Kenya. Conceptual Framework

PHASE 1



PHASE 2



PHASE 3

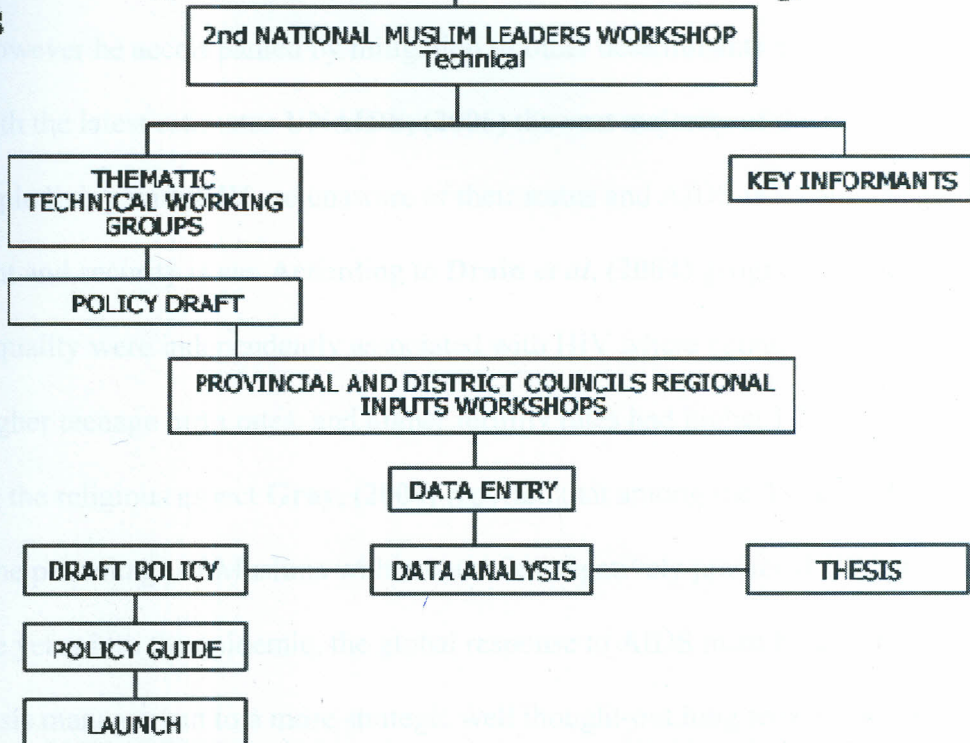


Figure 1 Conceptual Framework.

CHAPTER TWO :

2.0 : LITERATURE REVIEW

2.1 Global Overview of the Epidemiology of HIV infections and AIDS

HIV/AIDS remains a leading public health concern as it devastates almost all parts of the world. The number of people living with HIV continue to rise despite the fact that effective preventive strategies exists **UNAIDS, (2004)**. Despite increasingly large amounts of funding for health initiative being made available to poorer regions of the World, new HIV infection continue to be reported **Hoosen et al, (2005)**. In 2003 an estimated 4.8 million people became newly infected with HIV. This is more than any other one year before. Today some 40 million people are living with HIV which killed about 3 million people in 2003 and over 20 million since the first cases of AIDS were identified in 1981 **UNAIDS, (2004)**.

Strengthening the health systems is a vital component in addressing the global epidemic, this must however be accompanied by mitigation of other determinants as well **Hoosen et al, (2005)**. With the latest estimates **UNAIDS, (2006)** the vast majority of the more than 35 million people living with HIV are unaware of their status and AIDS is among the greatest development and security issue. According to **Drain et al, (2004)** geography, religion, and income inequality were independently associated with HIV where countries with earlier ages at first sex, higher teenage birth rates, and higher fertility rates had higher HIV seroprevalence. Confirming the religious aspect **Gray, (2004)** reported that among the 38 sub-Saharan African countries, the percentage of Muslims within countries negatively predicted HIV prevalence. Twenty five years into the epidemic, the global response to AIDS must be transformed from an episodic crisis management to a more strategic well thought-out long term response. Despite the reported declines in several countries the consistent leadership necessary to slow, stop and

reverse this epidemic is not yet evident **UNAIDS, (2006)**. In Poland **Rosinska, (2006)**, reported the first cases were diagnosed in mid 1989 and the outbreak in injecting drug users was observed in 1989 with an annual rate of 15.5 per one million population. Mother to child transmitted AIDS increased between 1999 from 0.46 to 0.91 in under 15 years in 2004.

In Asia, some 8.3 million people were living with HIV including 1.1 million who became newly infected in the past year. AIDS claimed some 520,000 lives in 2005 **UNAIDS, (2006)**.

The number of people living with HIV in Eastern Europe and Central Asia reached an estimated 1.6 million while 62,000 adults and children died of AIDS-related illnesses, and 270,000 were newly infected in 2005. Around 75% of the reported infections between 2000 and 2004 were in people younger than 30 years (in Western Europe, the corresponding figure was 33%) **UNAIDS, (2004)**. It was estimated that HIV prevalence in United States of America in 2000 was between 850- 950,000 with 20,000 death every year and about 40,000 new HIV infections each year **Dennis, (2003)**.

The AIDS epidemic claimed an estimated 24,000 lives in the Caribbean in 2005, making it the leading cause of death among adults aged 15-44 years. A total of 300,000 people are currently living with HIV in the region, including 30,000 people who became infected in 2005 **UNAIDS, (2005)**. In describing the risks facing Muslims with regard to HIV **Hasnain, (2005)** observes that the usual response from the policy makers in Muslim countries, for protection against HIV infection, is a major focus on propagating abstention from illicit drug and sexual practices while harm reduction, a pragmatic approach for HIV prevention, is underutilized. The social stigma attached to HIV/AIDS that exists in all societies, is much more pronounced in Muslim cultures. This stigma prevents those at risk from coming forward for appropriate counseling, testing, and treatment, as it involves disclosure of risky practices.

In many countries vast populations in rural areas are not well covered by surveillance because of social and political prejudice. Rural people in poor countries tend to be especially disadvantaged in terms of social services, and millions Worldwide have no access to HIV prevention, health care or support (**UNAIDS, 2005**).

The number of people living with HIV in Latin America has risen to an estimated 1.8 million. In 2005, approximately 66,000 people died of AIDS, and 200,000 were newly infected. Among young people 15–24 years of age, an estimated 0.4% of women and 0.6% men were living with HIV in 2005. In North America, Western and Central Europe prevalence rose to 1.9 million in 2005, with approximately 65,000 people having acquired HIV in the past year. Wide availability of antiretroviral therapy has helped keep AIDS deaths comparatively low, at about 30,000 in 2005 **UNAIDS, (2006)**.

The advance of AIDS in the Middle East and North Africa has continued with latest estimates showing that 67,000 people became infected with HIV in 2005. **UNAIDS, (2006)**. Approximately 510,000 people are living with HIV in the region. There is an increase in the spread of HIV in this region **Gaczak et al, (2007)**. An estimated 58,000 adults and children died of AIDS-related illnesses in 2005 **UNAIDS, (2006)**. In Morocco for example National adult prevalence was less than 1 % **Elharti et al, (2002)**. Observing army recruits in Ethiopia it was reported that rural recruits of the Muslim religion were less likely to be HIV infected than recruits of the Orthodox Christian religion **Abebe et al, (2003)**.

Sub-Saharan Africa has just over 10% of the World's population, but is home to more than 60% of all people living with HIV—25.8 million. In 2005, an estimated 3.2 million people in the region became newly infected, while 2.4 million adults and children died of AIDS **UNAIDS, (2005)**. It was reported by **Nyindo, (2005)** that the main risk factors for HIV-1

infection and AIDS disease in Sub Saharan Africa were found to include poverty, famine, low status of women in society, corruption, naive risk taking perception, resistance to sexual behavior change, high prevalence of sexually transmitted infections (STI), internal conflicts and refugee status, antiquated beliefs, lack of recreational facilities, ignorance of individual's HIV status, child and adult prostitution, uncertainty of safety of blood intended for transfusion, widow inheritance, circumcision, illiteracy and female genital cutting and polygamy. Female illiteracy levels, gender illiteracy differences and income inequality within countries significantly positively correlated with HIV **Talbot, (2007)**

2.2 HIV and AIDS in Kenya

According to **UNAIDS, (2006)** Kenya with a population of 34,256,000 is estimated to have 1.3 million people living with the virus, 1.2 million being adults above 15 years and 150,000 being children up to 14 years that gives an adult prevalence of 6.1%. It is also estimated that there are 1.1 million AIDS related orphans. According to the local estimates **Republic of Kenya KAIS , (2007)**, the number of people living with HIV in Kenya is 1.4 million with 1million which is 70% of all infections in rural and 400,000 in urban areas.

From the results of the national health demographic survey **Republic of Kenya NHDS, (2003)**, HIV prevalence in women age 15-49 is nearly 9% while for men 15-54, it is under 5% indicating the vulnerability of women to infection especially the younger age groups. This heterogeneity in prevalence was also visible when viewed from religious bases where among the Roman Catholics the cases were 8.9% women and 4.9% men; Protestants 9.2% women and 4.5% men ; Muslims 2.7% women and 3.1% men while those without religion 11.1% women and 5.5% men were reported as HIV positive. Latest results **Republic of Kenya, KAIS, (2007)** indicate that the prevalence in Kenya varies from 15.3 % in Nyanza the highest to 1% in North Eastern province which is the lowest. The national average is 7.4%. Among the

vulnerable groups identified for intervention in the National strategic plan **Republic of Kenya AIDS in Kenya, NHASP II (2005)** included discordant couples, commercial sex workers, orphans and vulnerable children migrant workers uniformed services survivors of rape and sexual violence, injection drug users and men who have sex with men. North Eastern province has less than 1%. It is the only province in the country where the epidemic is low level (**Republic of Kenya KAIS, 2007**). There is need to sustain the low prevalence among Muslims.

2.2.1. Islam and HIV and AIDS

Religious beliefs play a major role in the lives of the followers **Velayati, et al (2007)** including their perceptions on different processes of life such as health and sickness. In Senegal **Gilbert, (2008)** observed that the involvement of Muslim leaders in the prevention and control has contributed to the low prevalence in that country having the lowest prevalence in sub Saharan Africa. In addressing HIV transmission among Muslims in the United States of America, Islamic doctrine is described in relation to three main risk factors for acquiring HIV which includes sexual activity, drug use and mother to child transmission **Ghalib et al, (2002)** . In appreciating the role of religion **Todd et al, (2007) and Velayati et al, (2007)** suggested that it was vital to appraise the weight of powerful religious and cultural factors in HIV prevention. Muslim leaders encourage compassion for the infected as demanded by Islam **Oorjitham, (1999)** Unlike in Sub Saharan Africa where heterosexual mode of transmission of HIV is the commonest, an increasing number of countries in the Middle East, North Africa and Asia including those with Muslim majority are at risk of HIV infection by the increasing number of Injecting Drug Users (IDUs) **Gaczak et al, (2007)**. In assessing risk taking behavior **Hasnain, (2005)** reported that among Muslim youth, those with stronger religiosity and using IDUs were

more likely to share injections. Looking at knowledge levels in Ghana, Muslim religious affiliation was reported to have significant effect on knowledge of HIV and AIDS **Takyi , (2003)**.

2.3 Risk Factors associated with HIV infections and AIDS.

Certain practices and behaviour are known to carry a higher risk of HIV and other infections. Many of these practices are related to daily individual work, cultural or religious as well as a result of social forces or environment.

2.3.1 Sexual contact and HIV infection

HIV can be transmitted from person to person through sexual intercourse, blood or blood products including contamination during intravenous drug use and vertically from mother to infant **Gilks, (2003)**. Among migrants for example, higher levels of loneliness were strongly associated with frequency of sexual risk behaviour **Muoz-laboy et al, (2009)**.

2.3.2 Mother to child transmission

In the absence of any intervention, the risk of mother-to-child-transmission (MTCT) of HIV is around 15-30%, if the mother does not breastfeed the child. But it can rise to as high as 30-45% with prolonged breastfeeding. **UNAIDS, (2006)**. It was observed **Kwiek et al, (2005)** that during vaginal deliveries placental micro-transfusion are a risk factor for HIV 1 mother to child transmission. In overcoming the possibility of HIV transmission through vaginal delivery **Read et al, (2005)** reported that cesarean section before labor and before ruptured membranes ("elective cesarean section", or ECS) has been introduced as an intervention. **Rutenberg, (2005)** reported that in the Dominican Republic, India and Thailand, where HIV prevalence is low and sterilization rates are high, HIV-positive women are offered sterilization, which most women accept. The risk of transmission can be reduced by up to 50% with the administration

of a short course of antiretroviral drugs although **Eshleman *et al*, (2005)** reported that there was resistance to single dose Nevirapine and **Leroy *et al*, (2005)** and **Shetty, (2005)** observed higher efficacy with combined treatment. However, the issue of infant feeding can raise painful dilemmas for the HIV-positive mother, especially in cultures where breastfeeding is expected of her. It is important also for mothers to adhere to the prescribed regimen of treatment

Stringers *et al*, (2005). **Doherty *et al*, (2005)** observed that HIV positive mothers receive inadequate counseling in deciding their children's feeding programme. In the worst affected countries of sub-Saharan Africa, HIV infection rates of 10-30% are common among pregnant women and only small minority of such women presently have access to preventive measures for the protection of their babies. However, at the United Nations Special Session on HIV/AIDS in 2001, governments from 189 countries committed themselves to halving the rate of MTCT by 2010 **UNAIDS, (2006)**. In an effort to make routine prevention of mother to child transmission, **Welty *et al*, (2005)** and **Chopra *et al*, (2005)** observed that persistent training and programme support contributed to rapid up scaling and high uptake of prevention of mother to child transmission and counseling rates.

2.3.3 Drug Abuse and HIV infection

Drug and substance abuse are known to compromise judgment and especially in relation to risky behavior such as sex, choice and number of partners as well as protection against infection **Kalichman *et al*, (2005)**. In comparing drug abuse between Muslim and Christian pedagogic academy **Durmisevi *et al*, (2005)** observed that alcohol and narcotics were not observed in the Muslim students. **Mbulaitye, (2000)** have demonstrated an association between a history of alcohol consumption and being HIV sero-positive while sexual abuse was also associated to drug abuse **Bartholomew *et al*, (2005)** and injection drug use is believed to fuel HIV and AIDS epidemic **Kerr, (2005)**.

The Women's Options for Risk Reduction through Knowledge of Self (WORKS) was found to be useful in preventing HIV transmission **Brown, (2005)**. The emergence of crack cocaine injection requires urgent attention, as this drug use is associated with elevated rates of high risk behaviors **Buchanan et al, (2005)** while **O'Connell et al, (2005)**, noted that requiring help injecting has been associated with syringe sharing among injection drug users (IDUs). This increases the risk of HIV infection. Findings from a large number of laboratory-based studies indicate that drug abuse may exacerbate HIV disease progression **Kapodia et al, (2005)**. According to **Kozal et al, (2005)** a small proportion of injection drug users (IDUs) receiving clinical care engage in injection risk behavior and carry resistant HIV, which they are likely to transmit to others. In relation to women in Virgin Island **Suratt et al, (2005)** reported that crack use was overwhelmingly reported by females when compared to males (84.7% vs. 48.8%). Women also reported a significantly higher number of sexual partners in the past month.

2.3.4 Circumcision and its effect on HIV transmission.

In trying to explain the low HIV prevalence in Morocco < 1% **Elharti et al, (2002)**, suggests that circumcision and reduced risk behaviours of Muslims may be the reason.

Female genital mutilation is associated with immediate adverse consequences, which include violent pain, hemorrhage, and lesions to neighboring organs, urine retention, acute infections, tetanus, and septicemia. Long-term consequences include scarring, cysts and abscesses of the vulva, pelvic infection, sterility, dysmenorrhea, difficulty in urinating, marital and delivery complications, psychological problems, and an increased risk of contracting HIV **Sanankoua et al, (1996), and Brady, (1992)**. Reporting on more effect of FGM **Retzlaff, (1999)** reported that the most extreme form of FGM is called infibulations, which involves removal of all outside genitalia and near closure of the vagina opening. Infibulated women often must be cut

to allow intercourse and childbirth, and are sometimes re-infibulated after delivery, often after each child. The association between FGC and primary infertility is highly relevant for preventive work against this ancient practice **Almroth et al, (2005)**. It has been postulated that FGM may also play a significant role in facilitating the transmission of HIV infection through numerous mechanisms **Rich, (2001)**.

As a result of many migrants to United kingdom **Wallis, (2005)** reported that FGC is illegal in the UK and has been a cause of recurrent urinary tract infection, painful sexual intercourse and menstruation, and difficulties with childbirth among the migrants.

This practice is common in the Northern districts of Kenya and part of the coast province. It is also common in some non-Muslim tribes such as Maasais, Kisii and Merus. Although male circumcision in high prevalence areas has been suggested as preventive of HIV **Klavs et al, (2008)** feels that in Slovenia where HIV infection is concentrated in MSM group, this intervention will not be an effective intervention.

2.3.5 Breastfeeding

Mothers with HIV-1, although generally healthy, have substantial morbidity as a result of common infections **Walson, (2007)**. It is important to avoid transmitting infection through physical means. **Musiime, (2007)** recommends review of prevention of transmission of HIV during breast feeding especially in discordant couples even by a mother who tested HIV negative antenatally. An acute HIV infection in a breastfed infant whose mother had tested negative was reported **Nicholson et al, (2007)**. Exclusive breastfeeding on the other hand was recommended in the initial stages of infancy as discontinuation was strongest indicator of illness **Shapiro, et al (2007)**.

2.3.6 Gender based violence and human rights

There is need to strengthen the capacity of police and health care systems to provide prompt services to victims of rape and sexual violence and to provide post exposure prophylaxis **Republic Of Kenya NHASP (2005/6-2009/2010)**

HIV hits hardest where human rights are least protected **Republic Of Kenya National HIV/AIDS strategic plan 2005/6-2009/2010**). It is necessary to safeguard human rights as an

essential component in mitigating the impact of AIDS and will improve the quality of life.

Women are more likely than men to experience discrimination, violence, abandonment or ostracism when their HIV status becomes known. (**Mamans S, et al 2008**)

2.4 Most at Risk/ Vulnerable Groups

The following are some of the documented vulnerable groups. It should be known that the vulnerability varies between countries and between social cultural practices.

2.4.1 Migrants and mobile workers.

People on the move are often vulnerable to HIV infection. Factors influencing that vulnerability include gender, age, economic status, whether migration is forced or voluntary, living circumstances, the stage of the migration process, the attitudes of the host community, and the availability of services. It is estimated that there are 175 million migrants who live permanently or for extended periods in foreign countries. **UNAIDS, (2006)**. In highlighting the risk involved in mobile persons **Saggurti et al, (2009)** reported that men with occupational mobility had more sexual partners.

Migrants are either within the country, between neighbouring countries or to distant countries in search of better living. They are all exposed to the risk of infection with HIV and other sexual related infections. Many Africans migrate to Europe, United States of America and

other parts of the world as a result of poverty, conflicts, wars and political turmoil. In the assessment of the knowledge on disease transmission of African migrants to USA **Rosenthal et al, (2003)** observed that generally, Christian background respondents had higher knowledge than those of Muslim background. Citing the Nigerian migrants to other west African cities, **Sunmola, (2005)** reported that most migrants are separated from their families for at least 9 months of the year, returning to Niger in May or June to help with Niger's only planting season. Upon completion of the millet harvest, the men return to Abidjan in search of additional work. In India men living in cities with wives living in rural homes were reported to have had the highest risky sexual behaviour **Saggurti et al, (2009)**.

Moroccan Muslim migrant youth despite the limited knowledge on AIDS and STDs were protected by the influence from family, religion and tradition. **Hendricks et al, (2002)**. Some of the effort for the care of migrants undertaken by CARE included training and supervision of volunteer peer educators, involving the male migrants, their wives, the prostitutes they encounter along the 2500 km migration route, and the Muslim religious leaders who preach weekly in mosques **Sunmolla, (2004)**.

2.4.2 Military activities and peace keeping operations

Like any other country armed forces are involved in different military activities within and outside the country. In both situations they are vulnerable to HIV infection especially due to their life styles including separation from family and spouse. The **UNAIDS, (2006)** reported that interaction between uniformed services, vulnerable populations and humanitarian workers creates an environment that can fuel the rapid transmission of STIs, including HIV while personnel sent on peacekeeping missions often have the financial resources to purchase sex. As a result, sex industries grow around military bases in response to demand. Living conditions

are also sometimes deplorable. Even among the Muslims we have to address the issue of increasing number of widows and orphans as a result of HIV and AIDS **Major Ahmed, (2005)**.

2.4.3 Prisons and imprisonment as a risk for HIV and other infections.

Prisons offer ideal conditions for the spread of HIV. In men-only institutions, homosexual activity is common, rape culture is typical of prison life, prisoners have little autonomy in protecting themselves and they have minimal control over such factors as the overcrowding that breeds sexual and other violence and drug taking **UNAIDS, (2006)**. Other than HIV and AIDS, prisons pose other health risks as observed that tuberculosis case rates in prison systems remain higher than in the general population and that inmates with TB are less likely than non inmates to complete treatment **Mac Neil et al, (2005)**. Prisons are major drivers of the tuberculosis and HIV epidemics and novel strategies are needed to reduce the spread of blood borne diseases, particularly in intravenous drug users **Drobniewski et al, (2005)**. The problem of prisoners goes beyond the prison. After they are released to the normal population it is important to address their needs after being discharged **Kushel et al, (2005)** suggest that efforts to eradicate homelessness also must include the unmet needs of inmates who are released from prison. According to **Grinstead et al, (2005)** female partners of male inmates rates of concurrent risk were 46% prior to incarceration, 18% one month post release, and 24% three months post release. These findings demonstrate the need for prevention programs for incarcerated men and their female partners.

In studying the types of drug and intimate partner violence (IPV) in prison **Burke et al, (2005)** observed that differences emerged by drug type, categorization of IPV, and HIV status. Rates of IPV did not differ between HIV-negative and HIV-positive women, but differing rates of substance use were found to be highly significant. In US prisons and jails the 2 million persons incarcerated are disproportionately affected by hepatitis B virus (HBV), hepatitis C

virus (HCV) and HIV, with prevalence of infection two to ten times higher than in the general population **Weinbaum *et al*, (2005)**.

2.4.4 Women and vulnerability to HIV infection.

Women comprise about half of all people living with HIV worldwide. In sub-Saharan Africa, where the epidemic is worst, they make up 57% of people living with HIV, and three quarters of young people infected on the continent are young women aged 15-24. In unprotected heterosexual intercourse, a female is about twice as likely as a male to contract HIV from an infected partner. Furthermore, in addition to their higher biological vulnerability, girls and women are made particularly vulnerable to HIV by conditions of gender inequality **UNAIDS, (2006)**. Women experience violence which exposes them to the risk of HIV infection. In the **Republic of Kenya NHDS, (2003)** it was reported that half of the women in Kenya have experienced violence since they were 15 years and one in four have experienced violence in the last 12 months. The leading perpetrators of violence against women are husbands 57.8%, mothers 23.8%, father 14.5% and brother 8.2%. In a study on Indian women **G0 VF *et al*, (2003)** reported that community gender norms tacitly sanction domestic violence that interferes with adopting HIV-preventive behaviors and that given the choice between the immediate threat of violence and the relatively hypothetical specter of HIV, women often resign themselves to sexual demands and indiscretions that may increase their risk of HIV acquisition.

2.4.5 Orphans

In addition to the 5 million children who have been infected with the HIV virus, some 15 million children under age of 18 have lost one or both parents to AIDS. The vast majority—more than 12 million—are in sub-Saharan Africa. **UNAIDS, (2006)**. Opposing institutionalization of orphans in Brazil **Doring *et al*, (2005)** suggests the need to reduce the

stigma of HIV infection in children and racial discrimination which is common in institutionalized orphans. The vulnerability of these children represents part of a vicious cycle: their circumstances put them at high risk for exploitation and abuse, and therefore expose them to HIV, and lack of access to health care, education and social support perpetuates the conditions of poverty **UNAIDS, (2006)**. Working with children **UNICEF, (2005)** estimates that there are 1500 new HIV infections everyday among children under the age of 15 and that there are 15 million children who have lost one or both parents to HIV and AIDS. Opposing institutionalization of orphans in Brazil **Doring et al, (2005)** suggests the need to reduce the stigma of HIV infection in children and racial discrimination which is common in institutionalized orphans. Despite advances in HIV treatment and access to antiretroviral drugs, the number of AIDS orphans is projected to exceed 25 million by the end of the decade, and the need for programmes that address this crisis will only increase **UNAIDS, (2006)**.

2.4.6 Sex workers and their clients

The majority of HIV infections worldwide are sexually transmitted. An environment in which people have multiple sex partners is especially conducive to the spread of the virus, and in many places the epidemic gained its first foothold among sex workers and their clients before it spread in the population more generally. **Wechsberg et al, (2005)** suggested that there is critical need for targeted, comprehensive interventions that address substance abuse, sexual risk, and violence as interrelated phenomena among women especially the CSW.

According to **UNAIDS, (2006)**, the risk of infection is highest where sex workers are most powerless and therefore unable to negotiate or insist on the use of condoms by their clients, or to resist violent and coercive sex. At the same time HIV prevalence is higher in women and young women are particularly vulnerable **Republic of Kenya NHDS, (2003)**.

2.4.7 Transport industry and the risk of HIV and AIDS infection.

The transport industry has been associated with the spread of HIV especially the long distance truck drivers. **Sunmola, (2005)** acknowledges that the long distance truck drivers were a major group that transmits HIV and also underscored the need for an intensified prevention education campaign. Persons living within truck stands were observed to be significant predictors of practicing high risk behavior. **Alam et al, (2007)**.

Studying people in the trucking industry in Bangladesh, **Gibney et al, (2003)** observed that drug abuse was not an important risk factor but sexual risk behavior was prevalent with multiple sexual partners and premarital and extramarital sex was common. In Kenya this practice has also been instrumental in the spread of HIV. Understanding the importance of long distance truck stands **Alam et al, (2007)** recommends the inclusion of workers in such stands in the STIs and HIV intervention programmes.

2.5 Stigma in relation to HIV

The social stigma attached to HIV and AIDS that exists in all societies is much more pronounced in Muslim cultures. This stigma prevents those at risk from coming forward for appropriate counseling, testing, and treatment, as it involves disclosure of risky practices. HIV and AIDS has been associated with immoral conduct and promiscuity. In Oman koro a psychiatric disorder for the first time has been associated with phobia for AIDS **Chand, (1998)** increasing the stigmatization of AIDS. In avoiding discrimination against gay and homosexuals, **Brooks et al, (2005)** reported that one of the strategy is to address social biases present in a community that can hinder, and even prohibit, utilization of effective HIV prevention programs. Children and young people bore a heavy burden in terms of stigma,

family disruption and loss **Cree et al, (2006)** and few parents disclose their status to their children **Ostrom et al, (2006)**.

Addressing institutional stigma in six Asian countries **Reidpath et al, (2005)** observed very limited data are available on the effects of institutionalized HIV-related stigma and discrimination. Stigma also was recognized as a barrier in drug adherence in community based directly observed treatment **Karama, et al (2005)**. In India it was a barrier for ART **Kumarasamy et al, (2005)**. For fear of being stigmatized also influenced wanting to know ones HIV status which is of vital importance in prevention of infection **Mwamburi et al, (2005)**. Adequate ART and improved accessibility will cure stigma pertaining to drug uptake and adherence **Blackstock et al, (2005)**.

CHAPTER THREE

3.1 MATERIALS AND METHODS.

3.1 The Study Area

This study was conducted in 68 districts in all provinces and 7 districts of Nairobi province through the Supreme council of Kenya Muslim and the Imam councils. The council has a national executive committee with a chairman, a secretary general and a treasurer with vices for all the posts except vice chairmen where all provincial representatives are vice chairmen in their respective areas. Each district has a chairman a secretary and a treasurer as well as committee members equal to the number of affiliated organizations in the district who form the district executive. In all districts of Kenya, there are scattered Muslim populations but the higher concentration is in North- Eastern, Eastern, Coast provinces and the Upper Eastern province. Outside these areas, Muslim populations are centered in urban centers in all areas where majority of them live in the slums or low-income areas commonly known as majengos. These areas are also known for some risky practices such prostitution and sale of cheap alcohol or khat. Other than khat, which is a predominant Muslim occupation in both consumption and trade, largely others conduct the other practices. Attempt was made also to reach the most interior and rural communities in the different parts of the country such as the nomads of the Northern Kenya and the Islands of Lamu.

Some of the risk areas are the towns and markets at the border entry points. There are many different of trades conducted along the borders. There are many social activities in these areas such as commercial sex which could contribute to HIV transmission. Majority of the

entry points along borders are inhabited by Muslims. These include the Northern frontier districts and the coastal areas as well as parts of western Kenya bordering Uganda.

Figure 3.1 is the Map of Kenya showing the provincial boundaries and districts. While the districts have been extensively sub divided in Kenya, they have remained in the eight provinces. These are Nairobi, Central, Eastern, North Eastern Coast Rift Valley Nyanza and Western provinces. Currently there are more than 200 districts.

The following were the number of households visited in each province for the estimate of the perceived prevalence of HIV and AIDS.

Central 2299, North Eastern 8441, Nairobi 5681, Coast 16,818, Rift valley 8375, Nyanza 4182, Eastern 9459 and Western province 4302. Butere Mumias district with the highest Muslim population outside the Coast and Northern Provinces had 2100 households visited.



1- Nairobi	2- Central	3- Eastern	4- North Eastern	5- Coast	6- Rift Valley	7- Nyanza	8- Western
9- Nairobi	10- Central	11- Eastern	12- North Eastern	13- Coast	14- Rift Valley	15- Nyanza	16- Western
17- Nairobi	18- Central	19- Eastern	20- North Eastern	21- Coast	22- Rift Valley	23- Nyanza	24- Western
25- Nairobi	26- Central	27- Eastern	28- North Eastern	29- Coast	30- Rift Valley	31- Nyanza	32- Western

Figure 3.1 Map of Kenya- Indicating the Provinces



— Provincial boundary — District boundary

- | | | | | | | | |
|-----------------|--------------|-----------------|----------------|--------------|--------------------|----------------|--------------|
| 1 - Mt. Elgon | 7 - Busia | 13 - Nyamira | 19 - Nyandarua | 25 - Mbeere | 31 - Nithi | 37 - Nyando | 43 - Tharaka |
| 2 - Marakwet | 8 - Siaya | 14 - Kisii | 20 - Murang'a | 26 - Malindi | 32 - Machakos | 38 - Rachuonyo | 44 - Maragua |
| 3 - Trans Nzoia | 9 - Vihiga | 15 - Homa Bay | 21 - Kiambu | 27 - Bungoma | 33 - Nyambene | 39 - Suba | 45 - Tharaka |
| 4 - Uasin Gishu | 10 - Kisumu | 16 - Migori | 22 - Thika | 28 - Meru | 34 - Bondo | 40 - Gucha | |
| 5 - Nandi | 11 - Kericho | 17 - Kuria | 23 - Kirinyaga | 29 - Baringo | 35 - Teso | 41 - Keiyo | |
| 6 - Kakamega | 12 - Bomet | 18 - Trans Mara | 24 - Embu | 30 - Nyeri | 36 - Butere Mumisa | 42 - Buret | |

3.2 The Study Population

According to the Supreme Council of Kenya Muslims, It is estimated that Muslims in Kenya form between 25 and 30% of the total population. Majority of the Muslims live in the North Eastern province with about 1.5 million Muslims of Somali origin and an estimated 250 thousand refugees from the neighbouring countries. This community is predominantly Muslim but with a very strong clan identity and cultural base. This is followed by Coast Province where about 60 – 65% of the population is Muslims. Urban centers such as Mombasa, Malindi and Lamu have more dense population than their rural areas. The other areas with high Muslim population are the Upper districts of the Eastern province including Moyale, Marsabit and Isiolo districts where the majority of the Boran community lives. This community is strong in culture and shares some common traditional practices with Somalis such as Female genital mutilation. The other larger Muslim population is in Nairobi and all other urban centers such as Kisumu, Nakuru, and Eldoret. Muslims are also found in many of the majengos in the other less urbanized areas of the country. Pockets of the Muslims are also found in most remote districts of the country as a result of heavy migration of Muslims due to worsening economic situation in their own areas such as the Northern districts and the Coast. In these urban areas the Muslims are mixed tribes and are less culturally influenced. Other areas with historically large Muslim population include Mumias in Western Kenya and Kendu Bay in Karachuonyo district.

Muslims are also to be found at less busy centers but frontier and entry points at borders. They include the entry points in western side such as Busia, Malaba and along the Tanzania border of Namanga and Lungalunga as well as the northern border where Mandera, Moyale Lokichogio and Liboi are main border entry points. All these districts and population formed

the study area and population. As the study involved identification of risk practices among Muslims, the population were looked at from religious, geographical and ethnic backgrounds. In addition I looked at factors affecting women and children in the society.

3.2.1 Sample size for Knowledge and Attitudes questionnaire.

For this part of the study Two groups were involved. One was the national participants to the first consultative conference and the second was the Mwachinga village in Kwale.

The formula previously used by Fishers et al.(1998) was adopted.

$$N = \frac{Z^2 \times p(1-p)}{d^2} \times D$$

d^2

Where $Z = 1.96$ (95% confidence)

Based on reports on level of awareness on HIV being over 90%, in Kenya an assumption that 80% of the people are aware about HIV was adopted and therefore $p = 0.80$

$$1-p = 1-0.80 = 0.2$$

$d =$ precision of 0.05

$D =$ design effect (which was 2 where we had a national and a district sample)

$$\frac{(1.96 \times 1.96) \times (0.8 \times 0.2)}{0.05 \times 0.05} = 245.8$$

$$0.05 \times 0.05$$

This was rounded up to 250.

3.3 The Inclusion and Exclusion Criteria

All Muslim citizens of Kenya and resident in the country during the period of study and were willing to participate were involved in the perceived prevalence study. Any Muslim who was not a citizen of Kenya and non Muslim residing in Muslim villages were excluded. Those Muslims who for some reason were not willing to participate were also left out but it was very

rare. For the National Consultative conference, the SUPKEM national, provincial and district officials as well as other leaders and professionals were included. For Focus Group Discussions, only persons with practical experience and knowledge of the subject under discussion were involved.

3.4 Ethical Considerations

This study did not have any invasive or other procedures such as collection of blood samples, which would infringe on the ethical consideration but did interfere with the community's privacy and also sought confidential information on families. The community was well informed in advance and option to choose to participate or otherwise was provided. The study was publicized through different communication channels including the Imams of all mosques, the madrassa children were also asked to inform their parents and the Iqra (Islamic radio) station. In remote areas the chiefs and village elders were involved in giving information to their community. During the house-to-house visit especially when trying to get the perceived prevalence of HIV in the community the field team explained the objective of the project fully and sought the consent of the head of the household before collecting any information. Confidentiality was assured to all participants at all levels.

3.5 Study Design

This was a cross-sectional survey covering 68 districts in the 7 provinces of Kenya and 7 districts in Nairobi province. I applied both qualitative and quantitative data collection methods. For the prevalence estimate in urban areas and rural areas purposive samples of communities living and praying near mosques were interviewed. Both physical and social infrastructure (where physical infrastructure included mosques madrassas or Muslim schools and Muslim managed health facilities) and the social infrastructure which included Muslim based social and welfare organizations were documented. This was done by counting of all physical structure and confirming and counting the existing active social and welfare organizations.

3.6 Recruitment and Training of Field workers

The District and Provincial Councils of Supreme Council of Kenya Muslim were involved. Each district has a chairman, secretary and a treasurer as well as committee members who are representatives of all the affiliated organizations in the district who form the district council. At the provincial level there was a provincial representative who supervised the operations at the district level and was also the link between the head Office and the district. Each district executive committee was briefed on the project activities, the objectives and their role was defined to them. Each district recruited data collectors in their district according to the Muslim population in their area. Districts with the smallest population had minimum of 4 data collectors while the urban districts such as Mombasa and Nairobi had about 40 data collectors each. Efforts were made to ensure that the data collectors had at least completed secondary education and had been involved in other projects before. Ladies with similar qualification were also recruited. Due to distances to be covered and security concerns most districts had more men than women. Training was conducted by the principal investigator in all the districts in the coast province, the North Eastern province and the upper Eastern province covering Moyale, Marsabit and Isiolo where there is a sizeable Muslim population. In the other provinces, training was done combining two or three districts depending on the number to be trained which was based on estimated population. In addition to the recruited data collectors, Imams and madrassa teachers in the areas were also involved to provide support.

The National AIDS Control Council funded this project and one of the objectives was to sensitize the Muslim on HIV and AIDS and therefore the training addressed a broad aspect of HIV and AIDS. In addition to the training on HIV the field workers were also trained on communication skills, data collection methods and the data collection tools. The other field assistants were also trained on data entry and data management.

3.7 Data Collection and Research Instruments.

3.7.1 National situation analysis.

The situation analysis was intended to estimate the perceived prevalence of HIV and AIDS among Muslims as a sensitization process and the documentation of physical and social infrastructure in all districts. All areas were zoned in relation to mosques. In each zone, there was a supervisor and some teams of field assistants. The trained field assistants were grouped into teams of two or three and were allotted some areas to work in under the supervisor. Teams were allocated other areas after completing their first area. The provincial and the district Councils were requested to provide supervisory support.

For the Knowledge and Attitude questionnaire the two groups interviewed were the about 260 participants from all over the country who attended the consultative conference at Reef Hotel in Mombasa. The same questionnaire was also administered in Kwale, where there was an on going research but with mixed population of both Muslims and non Muslims. The questionnaire was therefore administered in the general population but picking persons who were sexually active within the age group 15 to 49. During the consultative meeting the questionnaire was administered to all participants present irrespective of age. At this level the following data was collected:

- a) All Muslim physical infrastructure including mosques and madrassas as well as any health facility managed by Muslim organization.
- b) The KAPB questionnaire for the national and Kwale district.
- c) All social infrastructure such as welfare and social organizations.
- d) Perceived prevalence of HIV and AIDS in the community through house-to-house visit.

Perceived prevalence of HIV and AIDS in each district in the last two years was calculated as the percentage of the addition of the known HIV positive at home, those in hospital and those

known to have died of AIDS related illnesses. This is divided by the number of people visited. As indicated earlier the prevalence was based on the community perception. As the purpose of this component of the survey was partly to sensitize the Muslim on the existence of HIV and AIDS as well as to assess their acceptance of the scourge among them and the challenges of stigma, there was general acceptance that the disease is also affecting them and that Muslim are dying of AIDS as well.

3.7.2 First National Muslim leader's consultative workshop.

Other data was collected through two Muslim national leaders consultative workshops held at the Reef Hotel Mombasa. The 250 participants of the first meeting were leaders from the 75 districts and representatives of major Muslim organizations in the country including medical doctors, religious leaders and other Muslim professionals such as educationists and teachers as well as several Kadhis including the Chief Kadhi of Kenya. The second workshop with 130 participants was composed of medical professionals, educationist, specialist in gender and women affairs and leaders of Muslim organizations dealing with different aspects of HIV and AIDS management and control. Both meetings were opened by different ministers from the region.

During the five-day workshop the activities that were conducted included: sensitization of the participants on HIV and AIDS, identification of risk factors for transmission of HIV and AIDS among Muslims, focus group discussions on the identified risk, collection of Quantitative data on the degree of risk as perceived by male and female participants, In-depth interview with key informants

The first meeting aimed at sensitizing the Muslims on HIV and AIDS, to identify the risk factors that are likely to enhance the spread of HIV among them and to determine the Muslim perception of HIV and AIDS according to Islamic literature. During this forum knowledge

attitude practices and behaviour of Muslims was determined through a self administered questionnaire as well as identifying the gaps in the Muslim response to HIV and AIDS and recommended an intervention strategy which will form a policy guideline. The second meeting was more technical addressing issues which were raised in the first meeting in thematic working groups and working with relevant expertise from the participants, laid out a policy frame within the Islamic teachings. At these meetings which lasted six days each, both qualitative and quantitative data collection methods were applied. The first two days were used to sensitize the Muslims on: HIV and AIDS - addressing the myths, Epidemiology with specific focus on Muslim areas, Modes of transmission, the different disease progression patterns and Management of HIV and AIDS and Prevention. The results of the situation analysis, which was undertaken countrywide, was shared with the community including the data on infrastructure and perceived prevalence as presentation between sessions. The remaining days of the workshop were used for group discussions and plenary sessions where each group presented their reports with inputs from the other groups.

3.7.3 Types of data collected during these sessions.

Both qualitative and quantitative data collection methods were used in these sessions. The questionnaire on the Knowledge Attitude Practice and Behaviour (KAPB) was also administered during these sessions. This questionnaire was divided into several sections the first being the perception on health followed by behaviour and sources of information on sexuality. The second part dealt with knowledge of HIV and knowing someone infected with HIV. The assessment of the level of stigma and the level of exposure to risk, VCT attendance and non attendance and reasons as well as PMCT questions were also included. The risk factors among Muslims that are likely to contribute to HIV and AIDS infection were identified

in a plenary session where all possible risk practices and factors were listed. This listing was done after the sensitization and training so that the participation was from an informed position. At this level, the inventory of risk factors and practices was a national one.

Quantitatively, the extent of seriousness of the identified risk factors and practices as perceived by the individual using the scale of 1-5 was undertaken. The scale of 1 was where the identified risk was not a problem at all while the scale of 5 was that the problem is a very serious one. The purpose of this scaling was to determine the variation in the risk assessment especially between regions as well as between men and women with the aim of addressing gender and regional inequalities.

3.7.4 Focus group discussions (FGDs)

Several moderators to document different Focus Group Discussions were trained. The moderators were professionals with experience in similar activities. A guide for such discussions in form of objectives to be met through specific questions was prepared. This provided a clear guide on what was expected of each group. The moderators were also advised to pick any additional input from the participants, which were deemed relevant. The groups were selected from the participants on regional, religious, cultural as well as good understanding and experience on the subject and their position in the society they represented. The groups were made up of between 8 and 10 and at most 12 people and were given a minimum of one hour and a maximum of two hours. In order to make maximum use of the opportunity about six discussion groups were conducted per day. An effort was made to balance for age and gender. Tape and video recording was done of the discussions but most often written notes were used. All teams were observed to ensure that all the participants contributed to the discussion, any excessive dominance by any individual was neutralized by

using probing techniques where the non contributors were provoked to participate. All views were respected and encouraged. At the end of each day all the notes were collected and to ensure that the information was clear and well understood. Any clarifications necessary was done immediately through consultation with group members and moderators.

3.7.5 The 2nd consultative meeting

The second consultative meeting was more technical and addressed more policy issues and ways of implementing such policy. It also included the development of the Muslim HIV/AIDS network. Discussions were made with key informants who were there and to confirm some of the risk factors earlier discussed in the first meeting. The participants to this meeting were leaders and Muslim professionals involved in different aspects of HIV and AIDS control.

3.7.6 Key informants. (KIs)

In addition to focus group discussions, in depth interviews were conducted with key informants. The key informants were decided upon, the risk factors identified, and the necessary clarification required on each subject. Key informants were therefore relevant and authoritative persons on the factors identified in the risk inventory. The following were the key informants interviewed.

a) The Kadhi – two Kadhis were interviewed and the subjects covered were marriage polygamy and divorce as well as inheritance issues. **b) Transport industry manager** – a Muslim manager of a transport company was interviewed. The issues discussed included the duration of field trips, the mode of payments of drivers and their assistants and the extent of the HIV and AIDS problem as they see it. **c) Imams** – two imams were interviewed. I assessed their capacity to address HIV and AIDS, their willingness to play their role and likely

constraints in their participation. **d) Madrassa Teachers** - 2 teachers one from Mombasa and another from North Eastern. The subject was to assess their capacity and the possibility of teaching HIV and AIDS in Muslim education system. **e) Traditional birth attendants** – 2 of them were interviewed. These were the persons who conduct female circumcision and deliveries. The interview included how the procedure of circumcision is conducted and whether they relate any health implications to circumcision and the safety precaution in delivery especially in relation to HIV infection.

3.7.7 District inputs on risk factors and policy guidelines

After the two consultative meetings a draft policy for Muslims HIV and AIDS in Kenya was developed. Through funding from the regional offices of ACTION AID district seminars were undertaken in all districts. In the districts the national inventory of risk factors were confirmed and any additional specific risks that were relevant for the particular districts were documented. In central, Nyanza, Rift Valley and western provinces, districts were combined where two or three districts were put together during the policy inputs workshops. The objectives of the district seminars were to sensitize the Muslim leadership on HIV and AIDS and to ensure ownership of the policy through participation and to take on board any inputs from the districts on risk practices that were relevant to their local situation. Specific seminars were also undertaken to address Female Genital Mutilation in Moyale and Marsabit districts. A seminar was also held for Muslim leaders in the armed forces where detailed focus group discussion was held to list the risk factors among them.

In Kwale the cohort under study by the Nagasaki University was used to administer a knowledge and attitude questionnaire in Mwachinga a mixed rural community of both Muslims and others.

*Indicate the figures
List of Publication*

The district inputs required the sitting with community leaders both men and women Plate 4.5 shows one such sitting in mandera.

3.8 Data management.

This study had both qualitative and quantitative data. The perceived prevalence and infrastructure were received at the Supreme council offices in the districts and after checking by the local supervisors they were sent to Nairobi where the data was entered using SPSS software. After data cleaning and verification the data was analyzed by the investigator. Analysis of the data involved running frequencies by districts on the number of physical infrastructure and the perceived prevalence of HIV and AIDS in the last two years. All qualitative data was recorded and verified during the Focus group discussion undertaken at the national consultative meeting were summarized and documented. Risk perception survey by male and female participants was also entered as summarized data. CALSTAT a software in EPI INFO was used to determine the level of significance of the difference between male and female perceptions of the risk factor using the described 5 scale. Pearson's chi-square was used to determine the level of significance in the difference between males and females. For the in-depth interviews the conversation was recorded and written down and it is presented in a summarized format. During the district inputs several estimated rates was collected including estimated divorce and polygamy rates as well as drug use . The rates collected were calculated as percentages and are given in table forms. Amount of money spent on miraa was collected and projected from the local surveys that had been carried out by Muslim youth in their areas.

CHAPTER FOUR

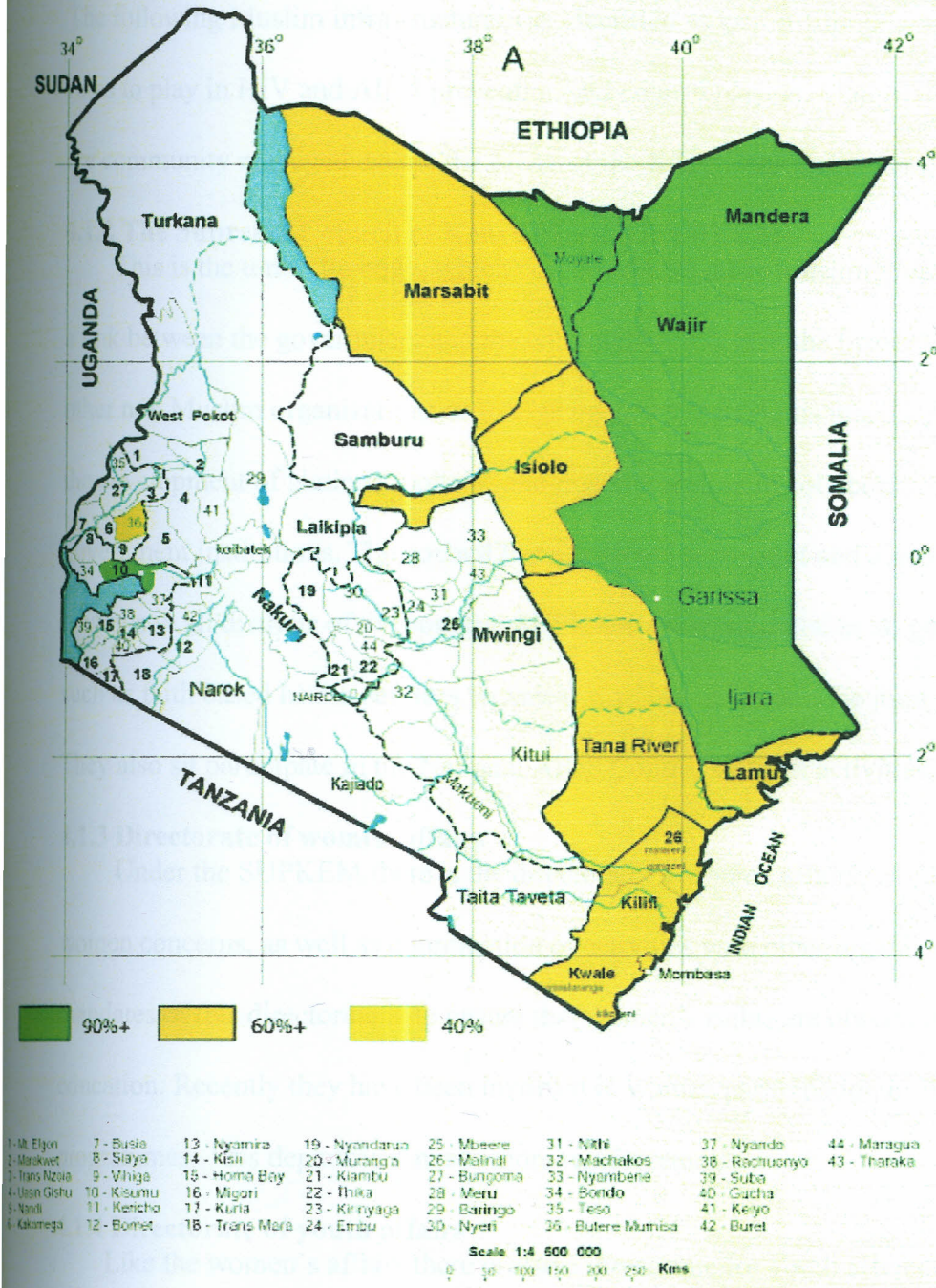
4.0: RESULTS

Distribution of Muslim population in Kenya.

Figure 4.1 is the map of Kenya showing the distribution of the Muslim population which also indicates where the physical and social infrastructure is situated. More than 90% of people living in the North Eastern province and Moyale district are Muslims. In the Coast province in general it is estimated that about 60% are Muslim with Taita district having the least Muslim population. The Rift valley also has most Muslims in the urban centers such as Nakuru, Eldoret and Kitale. Other districts have only pockets of Muslims in small centers. In Western the largest population is in Butere Mumias district where more than 100,000 were Muslims. In Western and Nyanza many homes had both Muslims and Christians in the same home. In Marsabit and Isiolo about 60% were Muslim while many followed traditional religions. In central and eastern provinces pockets of Muslim populations are in the towns especially in the majengos as majority of them are poor and without land. These areas were also observed to be centers for sale of cheap brew and commercial sex workers hideouts. There are many Muslims of Boran origin working in the farms and as security guards in Central province especially Thika and Nyeri districts. They live in the slums and there was high incidence of HIV and AIDS among them.

CHAPTER IV : RESULTS

Figure 4.1 Map of Kenya- Distribution of Muslim population



All other areas have populations of less than 10%.

4.1 The Muslim Infrastructure In Kenya.

The Muslim national institutional infrastructure.

The following Muslim infrastructure was identified as key institutions which can have different roles to play in HIV and AIDS prevention and control players. Majority of these institutions are community managed except the office of the Kadhi which runs under the judiciary.

4.1.2 The Supreme Council of Kenya Muslim (SUPKEM)

This is the umbrella body, which coordinates all other Muslim organizations and provides a link between the government and the community. It is also the link between Muslim and other non Muslim organizations or foreign agencies. Among its mandates are participation in the development of National policies and implementation in collaboration with other government institutions. The council has a National secretariat and a network of district councils in all districts of the country. SUPKEM are represented in all government institutions such as faith based health services technical working group and the joint ministerial boards. They also sit participate in the National AIDS Control Council activities.

4.1.3 Directorate of women affairs

Under the SUPKEM there is the directorate of women affairs, which addresses Muslim women concerns, as well as coordination of activities with other organizations. Among the mandates of this directorate is to ensure that women's rights are observed including women's education. Recently they have been involved in women participation in HIV and AIDS control programmes. This department needs more reinforcement.

4.1.4 Directorate of youth affairs

Like the women's affairs there is also a directorate for youth affairs. This department is more active and is involved in adolescent issues as well as civic education and HIV and AIDS

4.1.4 Directorate of youth affairs

Like the women's affairs there is also a directorate for youth affairs. This department is more active and is involved in adolescent issues as well as civic education and HIV and AIDS awareness. They are also involved in other national programmes related to youth including human rights and in also providing support for economic development of the youth. They are also involved in the ongoing civic education.

4.1.5 The Majlis Ulama

This is a new institution among the Muslim organizations formed after the felt need for a body that will address spiritual needs of the community. The Majlis is a congregation of Muslim scholars with all regional and ethnic representations. It guides on technical and spiritual matters and ensures that Muslim activities and lifestyle are in accordance with the faith teachings. This institution is mandated to guide on what interventions aimed at reducing HIV transmission are acceptable to Islam and Muslims.

4.1.6 The Imam Council

In all mosques in the country there is an Imam who is the spiritual leader of the mosque leading the five daily prayers and conducting other Islamic functions such as weddings and funeral prayers. The Imams have direct link with the people and have the capacity to influence change through their sermons and guidance. They also have the capacity for spiritual counseling for persons with different problems including HIV and AIDS. The Imam council, which operates under the SUPKEM, is the national body where all Imams are members.

4.1.7 The National Union of Kenya Muslim (NUKEM)

This is a Muslim welfare body that was more involved in providing support for Muslim intending to travel to Mecca for pilgrimage. Locally it also acted as a support institution addressing different disasters such as famine, floods and disease outbreaks etc.

4.1.8 The Kadhi.

There are about 17 Kadhis in the country with some of the Kadhis covering several districts especially in areas with small Muslim populations. Kadhis are government employees under the department of judiciary. Their mandates include conducting of marriages, dissolution of marriages when necessary and guiding inheritance of properties in accordance to Islamic Sharia (law). Under the Kadhis there are assistant Kadhis who also conduct marriages on behalf of the kadhi. They are important component of the HIV prevention programme as the implementation of premarital testing for HIV would only be successful if the Kadhis and their assistants ensure it is enforced.

4.1.9 Other Physical and social infrastructure

There was need to define a mosque as there were many different praying places that were noted during the data collection. As a result of migration of Muslim to areas without Muslim populations they established small praying halls either in shops or in houses where the few Muslims in that neighborhood met for daily prayers. Also for the sake of different travelers there were well-established praying facilities in hotels and other eating-places. Also the small madrassas commonly known DUKSIS could be important for early prevention of HIV education to the younger age groups of between 5 years to 10 years of age.

4.1.10: Family Resource Centre

There is rapid change of lifestyle with increased education levels attained by many Muslims. It was found necessary to form a body that will be able to address family concerns in urban settings and still be within the teachings of Islam. Many boys and girls are unable to find partners for marriage on their own. As a function of this center matching partners are identified encouraged and supported for marriage. This center also provides guidance and counseling to ensure sustainability of relations. It also addresses marriage conflicts as well as reconciliation.

If facilitated it can play a role in HIV education and prevention

4.1.11: National Muslim Network for AIDS control (NAMNA)

This body was proposed during the Muslim consultative meeting on HIV and AIDS. It was felt that our response to the AIDS pandemic has been slow fragmented, uncoordinated and at times efforts are replicated. This organ was mandated with the responsibility of driving, guiding and coordination of the control programme.

The social infrastructure included only active Muslim organizations. There were many registered organizations, which were not active at the time of data collection and were excluded.

Table 4.1.1 shows the Muslim infrastructures in the Coast where it was noted that there are about 1225 mosques 4191 madrassas 40 secular schools which are managed by Muslim organization. They are all distributed in the seven districts of the Coast province although the district structure have been changing. There are 4 hospitals in Mombasa which are managed by Muslim organizations and about 380 community based organizations.

Table 4.1.1 Muslim Physical and social infrastructure in the Coast province of Kenya

District	No. of Mosques	No. of Madrasas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Mombasa	390	3000	15	3-	-	200+
Kilifi	250	300+	5	-	-	15
Kwale	211	370+	5	-	-	100+
Taita	9	10	-	-	-	5
Malindi	200	350	6	1-	-	38
Tana River	77	31	2	-	-	10
Lamu	88	130	7			12
Total	1225	4191	40	4		380

Table 4.1.2 shows the Muslim infrastructures in the North eastern province where it was noted that there are about 318 mosques 86 madrassas and many Duksis , 17 secular schools which are managed by Muslim organization. There are no Muslim managed hospitals although people get health services from government managed health facilities. There are 144 community based organizations.

Table 4.1.2. Muslim physical and social Infrastructure North Eastern Province of Kenya

District	No. of Mosques	No. of Madrasas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Mandera	87	16	4	-	1+1	53
Wajir	93	17	3	-	1+3 outreach	40
Garissa	102	30	5	-	5	40
Ijara	36	23	5	-	-	11
Total	318	86	17		11	144

Most of the orphanages in Coast province and North eastern province are outreach where services and support are taken to the child. Among Muslims it is encouraged to keep the orphaned children with they're nearest relatives rather than keeping them in institutions. Some of the institutions marked as orphanages are organizations supporting orphans.

It is sometimes also not easy to identify orphans, as they are very quickly absorbed into other families either relatives or even sometimes distant people.

Table 4.1.3 shows the Muslim infrastructure in Eastern Province. There are 178 mosques 62 madrassas , 17 secular schools managed by muslim organizations. There are 2 orphanages and 30 community based organizations.

Table 4.1.3 Muslim Physical and social infrastructure in Eastern province

District	No. of Mosques	No. of Madrassa	No. of schools	No. of hospitals	Orphanage	Social organizations for Youth and Women
Embu	5	4	-			7
Isiolo	56	7	-1	1	4	8
Kitui	7	9	1			5
Makueni	16	16	-	1-	1	- -
Machakos	4	7	1	-	1	2
Marsabit	35	4	2 (1 nursery)		2	
Meru	5	3	1	-	1	2
Moyale	40	6 Madrassa 50 Duqsis				
Mwingi	4	4	-	-	-	4
Meru N.						2
Mbeere	1	-	-	-	-	-
Nyambene	5	2	-	-	-	-
Total	178	62	5	2	9	30

The hospitals indicated include the hospital managed by Al-falah center under Islamic Foundation in Isiolo and the second one is at the Mtito Andei on Mombasa road. The second hospital was constructed to meet the needs as a result of many highway accidents on the Nairobi Mombasa road. There were 24 Muslim organizations in the province, 5 of them being women organizations.

Table 4.1.4 Muslim Physical and social infrastructure in central province

District	No. of Mosques	No. of Madrassas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Muranga	2	2	1	-	-	5
Thika	5	4	-	-1 Ama	-	6
Kiambu	4	4	-	-	-	3
Nyeri	16	12		1		6
Nyandarua	3	2	-	-	-	2
Kirinyaga	5	2	1	-	-	4
Maragua	5	5	1	-	-	10
Total	40	31	3	2		36

Central province is one of the areas in the country where historically there were less Muslims and that only pockets would be found in the middle income and slum areas of the province.

Table 4.1.4 shows that it was documented that there were 40 mosques 31 madrassas 3 schools and 2 health facilities. There are also 36 Muslim community based organizations most of which are already actively involved in different aspects of HIV and AIDS prevention.

Table 4.1.5. shows the infrastructure in western province. The number of mosques in the province were 212, with 142 madrassas, 22 secular schools 3 health facilities and 64 community based organizations. Butere Mumias has one of the high Muslim population outside the predominantly Muslim regions of Coast and Northern Kenya.

Table 4.1.5 Muslim Physical and social infrastructure in Western province

District	No. of Mosques	No. of Madrassas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Butere-mumias	43	27	5 Pri. 3 Sec.	1	-	
Lugari	23	21	1 Pri.	-	-	13
Bungoma	40	20	2 Pri. 1 Sec	1	-	20
Vihiga	18	15	3 Pri.	-	-	2
Mt.Elgon	4	2	-	-	-	5
Teso	9	7	1	1 clinic	-	
Kakamega	56	30	3 Pri		1 -	14
Busia	19	20	3	-	-	10
TOTAL	212	142	22	1+2disp	1	64

In Nyanza and Western provinces there is a much higher religious tolerance where in the same family and living in the same house some were Muslims and others were Christians. At times this made research on Muslims alone difficult. In such cases we used diplomatic means to explain the objective and purpose of the research and explained the target population.

Table 4.1.6 shows that Nyanza has 64 mosques, 65 madrassas, 4 secular schools, 1 health facility and 22 organisations. Several of the organizations are fully involved with HIV and AIDS activities as support groups that give care and support while others are involved in advocacy.

Table 4.1.6 Muslim Physical and social infrastructure in Nyanza province

District	No. of Mosques	No. of Madrassas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Gucha	4	2	-	-	-	4
Homa Bay	8	8	-	-	-	26
Kisii	3	3	-	-	-	7
Kisumu	18	22	4	1	1	30
Kuria	3	3	-	-	-	4
Migori	10	13	-	-	1	8
Nyamira	2	2	-	-	-	4
Rachuonyo	9	5	-	-	-	10
Siaya	7	3	-	-	-	7
Suba	7	-	-	-	-	8
Bondo	7	-	-	-	-	10
Nyando	6	4	-	-	-	4
TOTAL	64	65	4	1	2	122

Table 4.1.7 Shows that there are 108 mosques with 92 madrassas and 5 secular schools managed by muslim organization and two dispensaries, 1 orphanage and 73 community based organizations. This is one of the province with much scattered population making it the largest province in the country. It is the province with more diversity than others..

Table 4.1.7 Muslim Infrastructure Rift valley Province of Kenya

District	No. of Mosques	No. of Madrassas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Baringo	4	6	-			3
Bomet	4	4	-	-		8
Keiyo	3	1	-			4
Kajiado	10	8	2 nursery	-		8
Kericho	5	4	-			5
Koibatek	3	2	-			1
Laikipia	4	4	-			5
Marakwet	3	2	-		1	11
Nakuru	24	25	-	2 disp	-	3
Nandi	5	5	-		-	2
Narok	5	5	1nursery		-	1
Samburu	15	10				2
Transmara	4	2	-			6
Turkana	6	3	-			2
Uasingishu	12	5	1		-	5
West Pokot	5	5	1 nursery		-	5
Kitale	12	1				5
Buret	1	-	-		-	1
TOTAL	108	92	5	2disp	1	73

Table 4.1.8 indicates that there are 61 mosques, 102 madrassas, 3 secular school 6 health facilities, 5 orphanages and 170 organisations in the Nairobi district which is composed of the 8 districts indicated. In Nairobi it was observed that most Muslims were staying in villages and estates where other Muslims would also be found. This was based on the need to have their children attend the madrassa and the family to be able to identify with a particular mosque for their prayer. In this way they were assured of their children getting an islamic education and the family could get other social support when need arises. Such social support included necessary community support during weddings and funerals among others.

Table 4.1.8 Muslim Infrastructure Nairobi Province

District	No. of Mosques	No. of Madrassas	No. of schools	No. of hospitals	Orphanages	Social organizations for Youth and Women
Kibera	7	38	1	1	5	100
Eastleigh	18	32	1	3		32
Langata	5	3				5
Pumwani	7	4		1		6
Embakasi	15	13	1			12
Dagoreti	5	7		1		11
westlands	4	5				4
TOTAL	61	102	3	6	5	170

4.2 Results on Knowledge and Attitudes interviews.

4.2.1 National participants.

At the National level there were 260 respondents who participated in the first National consultative conference. On their current status of health most participants (85% of the males and 76% of the females) indicated that their health was very good or fairly good. However among those who reported poor health there were more women than men, 23% and 15% respectively. On the question regarding health as a matter of self responsibility, the Muslim participants believed that whatever responsibility we take for our health the ultimate health is God given. This influenced the answer that 36.% of the males and 13 % of females felt that good health is a matter of luck. Both males and females who strongly agreed and just agreed that good health is the most important thing in their life were 75 % males and 77% females respectively. A few disagreed that health was the most important thing in their lives: 19. % of males and 16 % females respectively. There was a high level of disapproval of premarital sex at 91.95% and 91.8% for males and females respectively.

It was observed that friends and relatives were the main source of information on sexuality for 70% and 60% males and females respectively. Knowledge of HIV and AIDS was quite high at 98% for males and 94% for females who knew about HIV and AIDS. A question was asked about whether people infected with HIV and AIDS look healthy 83% males and 88% females answered correctly while only 54.% of males and a lesser 49% females correctly answered whether the HIV antibodies test was useful for diagnosis after a week of infection. 88 and 76% males and females answered correctly the question on whether mosquitoes and other insects transmitted HIV. Many people have been relating insects to the transmission of HIV. Does sharing needles and kissing transmit HIV was also asked and 88% males, 79% of females and only 54.% and 49% females, respectively answered correctly on the needles and kissing. Persons who confirmed knowing someone infected with HIV were fewer at 64.36% and 60% for males and females respectively. On the question whether sexually transmitted infections were an added risk for HIV transmission, 54% and 58% males and females respectively answered positively. About 92% of males and 93% of females agreed that HIV is transmitted through sexual contact. Questions on prevention of mother to child transmission included whether pregnant mothers can transmit the infection to their unborn baby and whether breast feeding could transmit HIV. 89.% and 86.0% of males and females answered correctly on mother to child transmission while only 53 and 35% males and females respectively were able to answer correctly on breastfeeding.

Assessing the level of stigma only 32% males and 22% of females and 35% and 37%, accepted unconditionally to live in the same house and to work in the same work place with a person infected with HIV respectively. This reflects high level of stigmatization.

Asked on the image in their mind when they hear of HIV, 29%, 27% and 19% of males and 27%, 35% and 13% of women indicated that the images they get when they hear of HIV and AIDS is that of death, punishment and fear respectively.

As expected among the majority of Muslims the experience of paying or receiving money for sex was very low at 2% for males and 1% for females. This was not directly translated as commercial sex. Polygamy is acceptable in Islam it was therefore not considered as extramarital sex. These were also found to be very few where 2.% males and 2. % females reported extramarital sex in the past respectively. Condom use in the last sexual intercourse was very low also. There has been much criticism on the government condom policy. Only 7% of male and 6.% of female reported using condoms in the last sexual inter course.

As the aim was to involve sexually active persons a question was asked on the number of sexual partners one has had over the time. As expected that Muslims marry more than one wife the number of sexual partners were 57% males and 65% females have had only one partner, 25% and 24% had had 2 partners while 6% and 2.% males and female partners had 3sexual partners respectively. Finally the questions were asked on HIV testing and VCT. Only 11.49% males and 14% females had gone to VCT for HIV testing. Among those who had visited the reasons for visiting were marriage requirement 15% males and 25% females. 10% males and 8.% females who had gone had suspicious symptoms and 75% males and 50% women just needed to know their status for prevention purposes. Reasons for not attending VCT were given as that only people who are not sure of themselves (promiscuous) attend VCT 14.% males and 12.% females gave this as a reason. On fear that people will suspect that you are sexually immoral 20% of both males and females gave this as a reason. VCT is not for Muslims 11 % and 12% males and females respectively, it is best not to know your status was

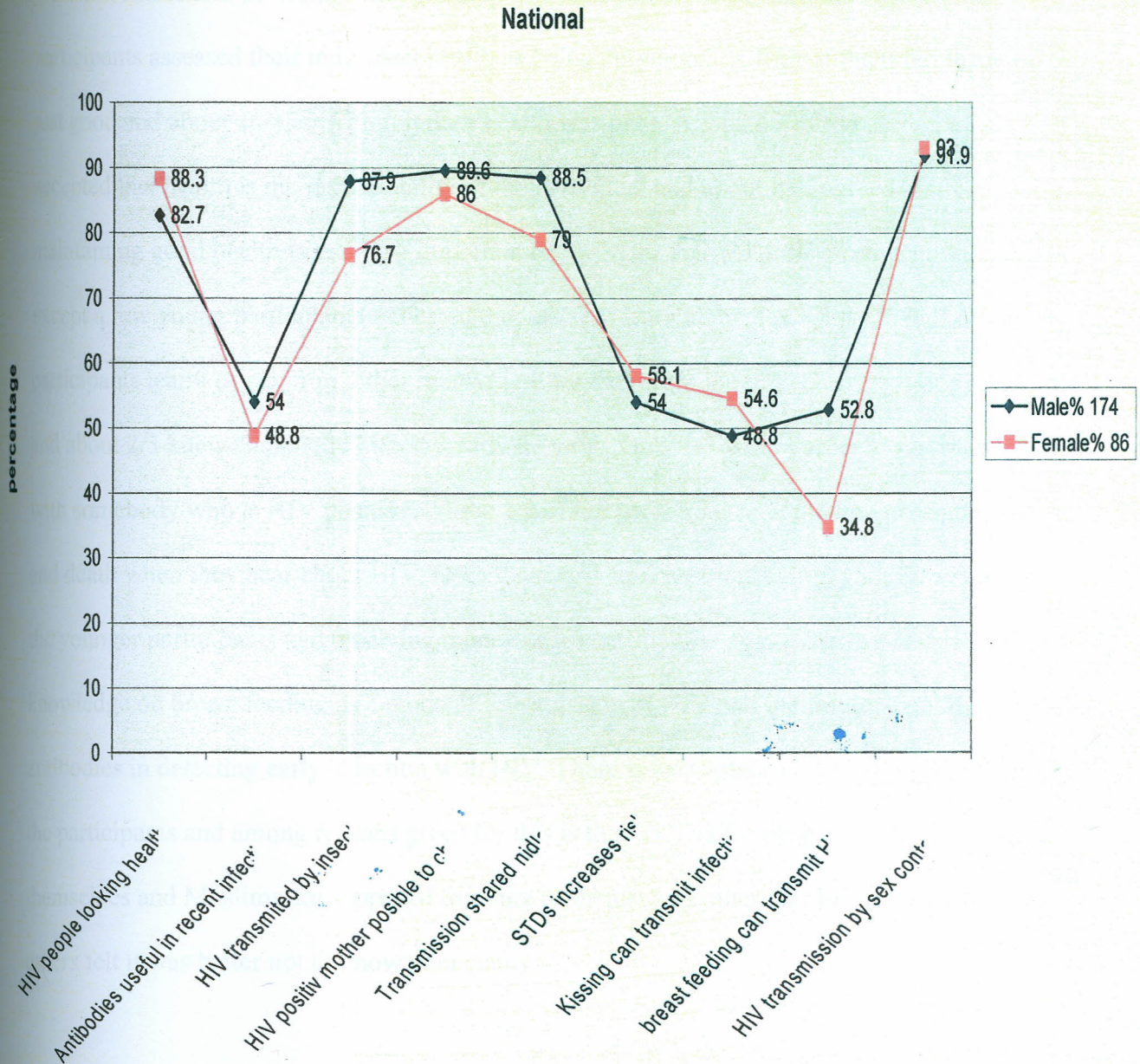
given as a reason by 21% and 24% for females respectively. One of the reasons given by most women was that they had to get permission from their spouse 31% females and only 1% of males gave permission from spouse as a reason. 32% of the men had no answer at all for not going to VCT.

Figure 4.2.1 indicates knowledge levels in Kenyan Muslim population and compares the knowledge levels between males and females. Knowledge levels are almost the same except that women are less informed in areas of whether breastfeeding can transmit infection to the child and the importance of antibodies in detecting early infections. Only 31.8 % and 52.8% of female and males respectively knew the right answer with regard to breast feeding as a mode of HIV transmission. Equally small proportions of participants knew the importance of antibodies in HIV testing.



Figure 4.2.1 indicates knowledge levels in Kenyan general population. There is low knowledge of HIV. Only 31.8 % and 52.8% of female and males respectively knew the right answer with regard to breast feeding as a mode of HIV transmission. Equally, small proportions know the importance of antibodies in HIV testing.

Figure 4.2.1 Results on National KAPB indicating gender difference



This figure indicates knowledge levels in Kenyan general population. There is lack in indepth understanding of HIV. Only 31.8 % and 52.8% of female and males respectively knew the right answer with regard to breast feeding as a mode of HIV transmission. Equally small proportions of participants knew the importance of antibodies in HIV testing.

Table 4.2.1a Results of the Knowledge and attitudes interview at the national meeting. There were 174 males and 86 women who participated in this interview. More than half of the participants assessed their individual health as being very good. A fifth of them felt their was just good and about another fifth felt their health was poor. About 2/3 of the participants accepted that health is the responsibility of the individual and about half agreed that maintaining good health is the most important thing. More than 90% disapprove premarital sex except a few young participants indicated they need to learn about sex. Close to half of the participants learnt of sex from other relatives rather than from parents. Over 95% knew of HIV and about 2/3 knew somebody infected with the virus. Only 1/3 would accept to lieve and work with somebody who is HIV positive. About 1/3 of the participants get the image of punishment and death when they hear about HIV. Only 2 persons had experience of paying for sex among the younger participants and receiving money or tokens for sex. There was low levels of knowledge on breast feeding as a mode of transmission of HIV and the importance of antibodies in detecting early infection with HIV. There is low uptake of VCT services among the participants and among reasons given for this is that VCT is for people who are not sure of themselves and Muslims are supposed to e sure of themselves other fear being seen while others felt it was better not to know your status.

Table 4.2.1a Results of the National KAPB Part 1

	Male% n = 174	Fem % n = 86
What is your current health status		
very good	64.9	58.1
Fairly good	20.1	18.6
Poor	15.0	23.2
Perception of health		
Good health is mostly a matter of self responsibility	60.3	67.4
Good health is mostly a matter of luck	36.2	13.2
Cannot choose	2.2	2.8
Maintaining good health is the most important thing in your life		
Strongly agree	50.0	58.1
Agree	24.7	18.6
Disagree	12.0	12.8
Strongly disagree	7.4	3.4
Cannot choose	5.7	6.9
Premarital sex in general do you:		
Approve	3.4	2.3
Disapprove	91.9	91.8
Have mixed feeling	4.5	5.8
In which ways did you learn about sex and sexuality		
Parents	6.3	10.4
Siblings	8.0	6.9
Other relatives	41.3	39.5
Friends	28.7	20.9
Lessons at school	8.6	10.4
Television	2.2	5.8
Radio	2.8	4.6
Magazine	1.7	1.1
Do you know HIV		
Yes	98.2	94.1
Do you know anyone infected with HIV (Yes)	64.3	60.4
Would you accept living in the same house as a person infected with HIV		
Not acceptable	34.4	44.1
Accept unwillingly	33.3	33.7
Accept unconditionally	32.1	23.2
Would you accept working in the same workplace as a person infected with HIV		
Not acceptable	28.1	38.3
Accept unwillingly	36.2	24.4
Accept unconditionally	35.6	37.2
When you hear the word AIDS which image do you have		
Punishment	26.4	34.9
Death	28.7	26.7
Fear	18.9	12.8
Fever	9.2	10.4
Discomfort	10.3	11.6
No negative image	2.8	2.3
Nothing in particular	3.4	1.1
Have you had experience in paying or getting paid for sex	1.7	1.1
Do you have experience in extramarital sex	2.2	2.3
Did you use a condom when you last had sexual intercourse	7.4	6.9

Table 4.2.1b Results of the National KAPB Part 2

	Males %	Fem %	
Do you think people infected with HIV look healthy	yes	82.7	88.3
Is HIV antibodies test useful for confirming diagnosis after a week infection		54.0	48.8
Is HIV transmitted by mosquitoes or other biting insects		87.9	76.7
Does needle sharing have a risk of transmitting HIV		88.5	79.0
Do HIV infected pregnant women have a risk of transmitting to their children?		89.6	86.0
Does STD increase the risk of transmitting HIV		54.0	58.1
Is HIV transmitted by kissing		48.8	54.6
Is HIV transmitted through breastfeeding		52.8	34.8
Is HIV transmitted through sexual contact		91.9	93.0
How many sexual partners have you had all your life?			
1	56.9	65.1	
2	25.3	24.4	
3	5.7	2.3	
4	1.1	1.1	
5	1.1	1.1	
6 to 10	1.1	1.1	
> 10		1.1	
No answer	6.2	3.5	
Have you visited a VCT center for testing? YES	11.5	13.9	
If yes why			
Marriage requirement	OUT OF 20	15.0	25.0
I had symptoms that were suspicious of HIV/AIDS		10.0	8.3
Just to get to know my status for prevention.		75.0	50.0
No answer			16.6
If no why	OUT OF 154 / 74		
VCT are for people who are not sure of themselves sexually		14.3	12.1
Going to VCT people will think you have had immoral sex		20.1	20.2
VCT is not for Muslims.		19.7	12.1
It is best not to know your status		20.8	24.3
Have to get permission		0.6	27.0
No answer		24.5	-

4.2.2 Results on Knowledge and Attitudes (Kwale district)

There were 250 respondents, 116 being males and 134 being females aged between 19 to 49 years and who were sexually active. On their current status of health most participants (74 % of the males and 78 % of the females) indicated that their health was very good or fairly good. The other 26 % of males and 24 % of females reported being in poor health. On the question regarding health as a matter of self responsibility, 88.% males and a higher 91.4% females agreed while only 7.% of males and 8% of females felt good health was a matter of luck and very few were unable to choose from the provided options. With a very high proportion of acceptance both males and females strongly agreed, and just agreed that good health is the most important thing in their life, 98. % males and 97.% females respectively. Disapproval of premarital sex was only 41.%for males and 63.% for females.

It was observed that friends and the media were the main source of information on sexuality where 43.% and 50.% males and females, respectively indicated that friends were the main source while TV radio and magazines provided for 28% and 21% of males and females respectively as source of information on HIV. Knowledge of HIV and AIDS was quite high at 94% for males and 97% for females. On whether people infected with HIV and AIDS look healthy only 57% and 60 %and females respectively were able to give the correct answer, while only 48 % of males and 50% females correctly answered whether the HIV antibodies test was useful for diagnosis after a week of infection. In Kwale, 67% and 53% of males and females respectively answered correctly the question on whether mosquitoes and other insects transmitted HIV. Participants were asked on whether sharing of needles and kissing could transmit HIV, 94.0% males and 89.7 % of females answered correctly on the first question and 67.9% and 37.9 % of males and females respectively answered correctly on kissing respectively. Knowing someone infected with HIV was however much lower at 53.0 % and

56.0% for males and females respectively. Sexually transmitted infections as an added risk for HIV transmission was asked and 76.1% and 81.9% males and females answered positively.

There was higher proportion of correct answer with regard to HIV being transmitted through sexual contact. 96.6% males and 97.0% females agreed. Questions on prevention of mother to child transmission included whether pregnant HIV positive mothers can transmit the infection to their unborn baby and whether breast feeding could transmit HIV. 67.9% and 33.0% of males and females and 72.4% and 79 % males and females respectively were able to answer correctly the first and second question respectively.

Assessing the level of stigma only 14.2% males and a mere 6.0 % of females accepted unconditionally living in the same house with an HIV infected person while 26.1 % and 15.5% of males and females would accept unconditionally to working in the same work place with a person infected with HIV respectively.

When asked on the image they get when they hear of HIV and AIDS 50.4% of males and 51.2 % of females had the image of death and punishment, 31.7% of male and 32.5% of females imagined fear while 7.2% and 11.4% of males and females respectively felt of a scaring fever.

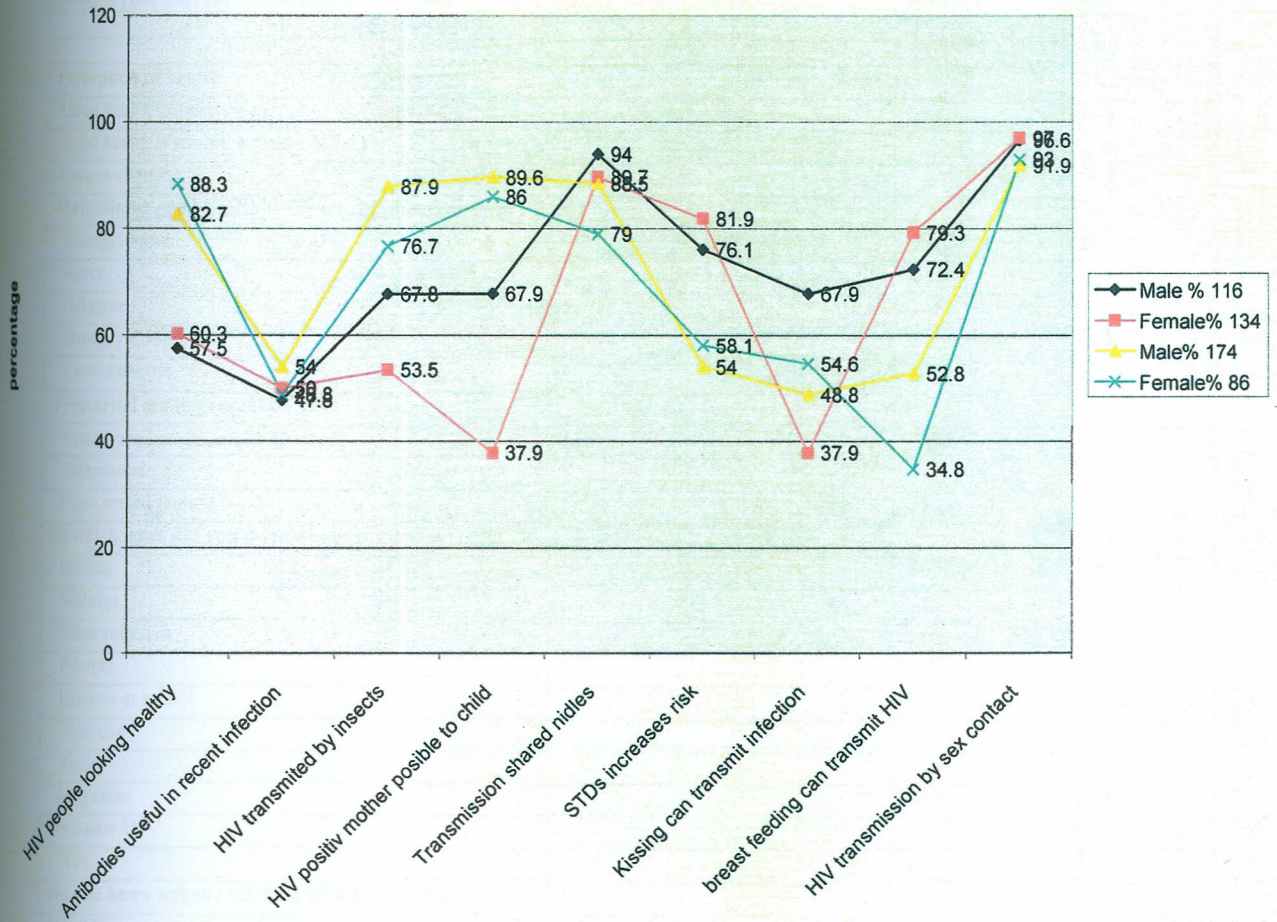
Paying or receiving money for sex was a question that was not well understood. Many of those who responded considered any favors given in a sexual relation as a kind of payment. 58.6 % of males and 73.4% of women indicated they have had experience in receiving tokens or favors of some kind for sex. This does not imply prostitution in the real sense of the word. 66.2% males and 62.5 females reported extramarital sex sometimes in their life, respectively. Respondents considered their lifelong relationships including those before marriage. There was

a high condom use during the last sexual intercourse, 76.9% and 51.6 % for males and females respectively.

Question was asked on the number of sexual partners one has had over the time. 29.5% males and 56.0% females had had only one partner, 26.9 % and 33.3% had had 2 partners while 5.1% and 4.0% males and female partners had 3 sexual partners.

Finally, questions were asked on HIV testing and VCT. Only 18.9% males and 17.5% females had gone to VCT for HIV testing. Among those who had visited VCT, the reasons for visiting were marriage requirement as responded to by 4.5% males and 8.3% females. 27.2% males and 25.0% females had gone to VCT because they had suspicious symptoms and 50.0% males and 37.5% women visited VCT to know their status for prevention purposes. Reasons for not attending VCT for testing were given as that only people who are not sure of themselves, attend VCT as responded to by 19.1% males and 19.4% females gave as reason. Other reasons given for not attending VCT was the fear that people will suspect that you are sexually immoral. This answer was given by 22.3% and 15.9% male and females respectively. Some 11.7% and 13.2% males and females respectively also answered that VCT is not for Muslims and that it is better not to know your status was given as a reason by 17.0% males and 24.7% of females respectively. Getting permission from spouse was a reason given for not attending VCT by 17.6% females and only 1.0% of males gave permission as a reason for not going for testing while 28.7% of the men and 8.8% had no answer at all or not going to VCT. The results presented here are also shown on table 4.2.2a and 4.2.2b.

Figure 4.2.2.2 Results of Knowledge survey comparing National and Kwale district.



Comparing the national level to Kwale on knowledge there appears to be similarities in that depth of knowledge is lacking in both groups. Like in Kwale the percentages of people who got the right answers on the issue of importance of antibodies in HIV testing the possibility of HIV positive mother infecting her child and breastfeeding as way of HIV transmission was very low.

Table 4.2.2.1a. Results of knowledge Attitudes and practices in HIV and AIDS in Kwale

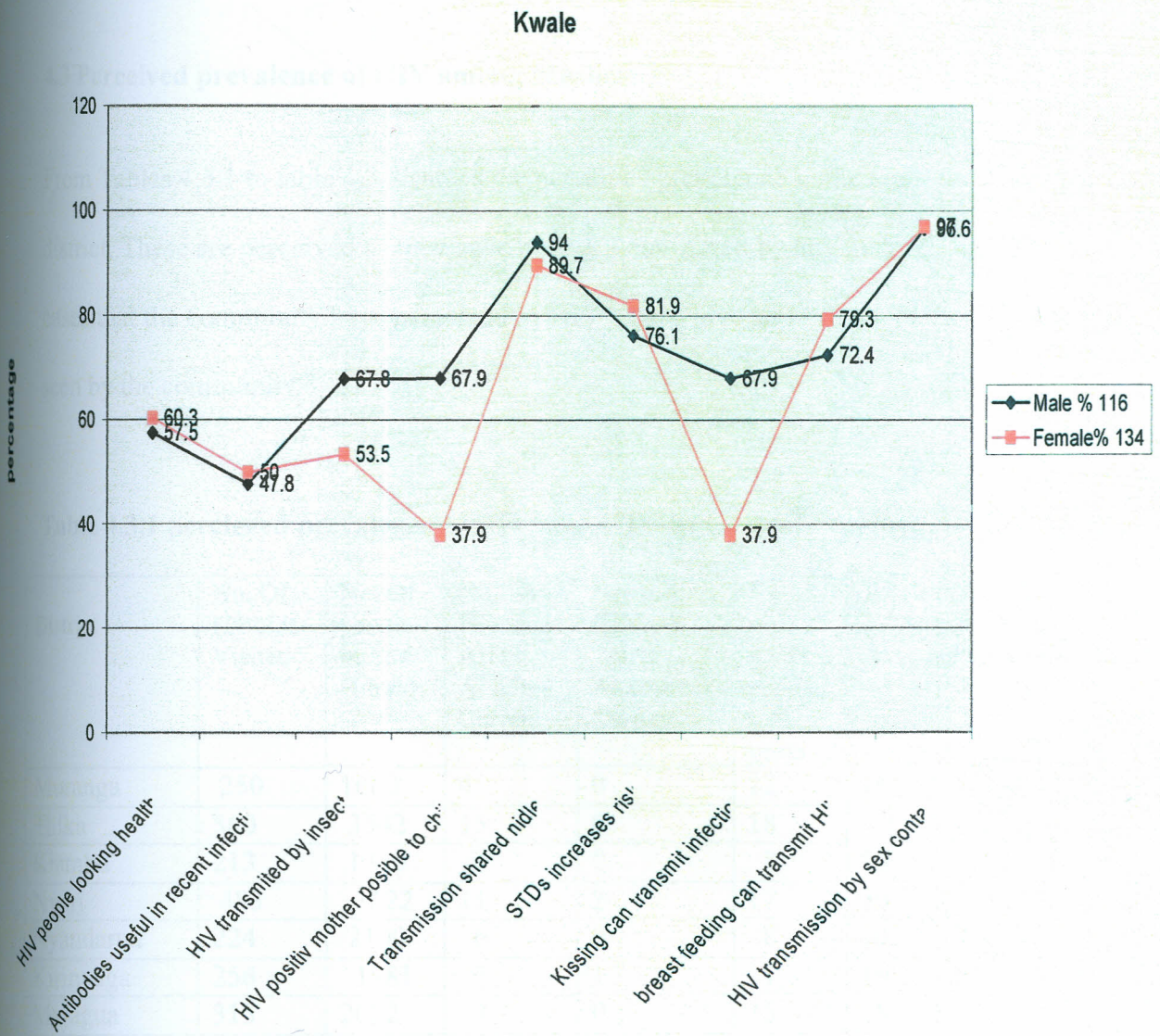
	Males n=116 %	Female n= 134 %
What is your current health status		
very good	60.2	59.6
Fairly good	13.7	18.3
Poor	26.1	24.8
Perception of health		
Good health is mostly a matter of self responsibility	88.1	91.4
Good health is mostly a matter of luck	7.5	7.8
Cannot choose	4.5	0.9
Maintaining good health is the most important thing in your life		
Strongly agree	56.0	29.3
Agree	42.5	68.1
Disagree	0	0.9
Strongly disagree	0.8	0
Cannot choose	0.8	1.7
Premarital sex in general do you:		
Approve	47.0	32.8
Disapprove	41.8	63.8
Have mixed feeling	11.2	3.5
In which ways did you learn about sex and sexuality		
Parents	4.1	4.0
Siblings	2.3	0.7
Other relatives	5.2	7.3
Friends	43.4	50.1
Lessons at school	17.3	16.0
Television	12.7	8.7
Radio	2.3	2.7
Magazine	12.7	10.0
Do know HIV		
Yes	98.4	97.4
Do you know anyone infected with HIV (Yes)	53.0	56.0
Would you accept living in the same house as a person infected with HIV		
Not acceptable	53.7	62.9
Accept unwillingly	32.1	30.2
Accept unconditionally	14.2	6.0
Would you accept working in the same workplace as a person infected with HIV		
Not acceptable	50.0	49.1
Accept unwillingly	23.9	34.5
Accept unconditionally	26.1	15.5
When you hear the word AIDS which image do you have		
Death and Punishment	50.4	51.2
Fear	31.7	32.5
Fever	7.2	11.4
Discomfort	8.6	2.4
No negative image	1.4	0.8
Nothing in particular	0.7	0.8
Have you had experience in paying or getting paid for sex	58.6	73.4
Do you have experience in extramarital sex	66.2	62.5
Did you use a condom when you last had sexual intercourse	76.9	51.6

Table 4.2.2b Results of the Kwale KAPB Part 2

	Males 116 %	Female 134 %
Do you think people infected with HIV look healthy	57.5	60.3
Is HIV antibodies test useful for confirming diagnosis after a week infection	47.8	50.0
Is HIV transmitted by mosquitoes or other biting insects	67.8	53.5
Does needle sharing have a risk of transmitting HIV	92.5	87.1
Do HIV infected pregnant women have a risk of transmitting to their children	94.0	89.7
Does STD increase the risk of transmitting HIV	76.1	81.9
Is HIV transmitted by kissing	67.9	37.9
Is HIV transmitted through breastfeeding	72.4	79.3
Is HIV transmitted through sexual contact	96.6	97.0
How many sexual partners have you had all your life.		
1	29.5	56.0
2	26.9	33.3
3	5.1	4.0
4	5.1	2.7
5	7.7	2.7
6 to 10	12.8	0
> 10	19.2	4.0
No answer	50	39
Have you visited a VCT center for testing. YES	18.9	17.5
If yes why		
Marriage requirement	4.5	8.3
I had symptoms that were suspicious of HIV/AIDS	27.2	25.0
Just to get to know my status for prevention.	50.0	37.5
No answer	18.1	29.1
If No why. OUT OF 94 / 113		
VCT are for people who are not sure of themselves sexually	19.1	19.4
Going to VCT people will think you have had immoral sex	22.3	15.9
VCT is not for Muslims.	11.7	13.2
It is best not to know your status.	17.0	24.7
Have to get permission	1.0	17.6
No answer	28.7	8.8

Tables 4.2.2 a and b are a continuation of the responses on the assessment of knowledge levels among the community in Kwale. The percentages given are those of the correct answer and in some cases the distribution of different answers also expressed as percentages.

Figure 4.2.2 Results of Knowledge survey in Kwale indicating male female differences in correct answer



This figure indicates the level of correct answers provided as a proportion of the total expressed as percentages. While the proportion of right answers is high in most questions, the level of knowledge among women with regard to the possibility of a HIV positive mother transmitting infection to her child and kissing as a mode of transmission for HIV was low.

the percentages of people who got the right answers on the issue of importance of antibodies in HIV testing the possibility of HIV positive mother infecting her child and breastfeeding as way of HIV transmission was very low.

4.3 Perceived prevalence of HIV among Muslims

From Tables 4.3.1 to table 4.3.8 shows the perceived prevalence in the eight provinces per district. These are perceived as they have not been confirmed by any methods and they are cases that the community have perceived as HIV. They give an estimate of the prevalence as seen by the community

Table 4.3.1 perceived prevalence of HIV and AIDS in Central Province

District	No. Of H/holds Visited	No. Of people in H/hold	No. With HIV and AIDS At home Current	No. With HIV and AIDS At hospital Current	No died of AIDS in last two years	Total	% Perceived Prevalence
Muranga	250	1600	4	0	12	16	1
Thika	560	3542	15	0	18	33	1.0
Kiambu	213	1750	5	0	8	13	0.7
Nyeri	483	3622	11	2	17	30	0.8
Nyandarua	224	2100	6	0	8	14	0.6
Kirinyaga	256	1981	7	1	11	19	0.9
Maragua	313	2032	3	0	15	18	0.9

There was reported high prevalence of AIDS cases in the farms in Nyeri and Thika districts where some of the Muslims live. Kiandutu slum in Thika is one such area.

Table 4.3.2. Perceived prevalence of HIV and AIDS in North Eastern Province

District	No. of H/holds Visited	No. Of people in H/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At hospital	No died of HIV and AIDS	Total	% Perceived Prevalence
Mandera	2400	16320	23	2	29	54	0.3
Wajir	1932	13221	17	4	26	47	0.3
Garissa	3100	25110	38	8	42	88	0.3
Ijara	1009	8173	13	2	17	32	0.4

North Eastern provinces had the lowest perceived prevalence in the national survey with most areas reporting less than 0.4%. It was also observed that there was a high level of stigmatization and denial in most Muslim areas and much more so in North Eastern province.

Table 4.3.3 Perceived prevalence of HIV and AIDS in Nairobi Province

District	No. of H/holds Visited	No. Of people in H/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At Hospital	No died of HIV and AIDS(2years)	Total	% Perceived Prevalence
Kibera	1861	17211	103	35	178	316	1.8
Eastleigh	1326	16344	45	55	76	176	1.1
Langata	533	6011	23	8	43	74	1.2
Pumwani	443	3691	26	11	31	68	1.8
Embakasi	1011	9701	22	2	33	57	0.6
Dagoretti	339	2872	16	1	14	31	1.1
Westlands	178	1005	4	0	6	10	1.0

In Nairobi the division was done according to areas with Muslim population distribution.

Kibera had the highest population followed by Eastleigh and Embakasi. There was similar stigmatization and denial among Muslims in Kibera, Eastleigh and Embakasi as reported in the

Northern districts. Kibera is part of Langata but was separated as a separate entity due to the high Muslim population.

Table 4.3.4 Perceived prevalence of HIV and AIDS in Coast Province

District	No. Of H/holds Visited	No. Of people in H/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At hospital	No died of HIV and AIDS	Total	% Perceived Prevalence
Mombasa	4981	26000	450	99	110	659	2.5
Kilifi	2400	19272	211	67	121	399	2.1
Kwale	2311	16870	231	11	149	391	2.3
Taita	1011	9760	98	6	133	237	2.4
Malindi	2213	15934	187	5	156	348	2.1
Tana River	1561	9834	121	2	96	219	2.2
Lamu	2341	14651	78	6	115	199	1.3

The range in the Coast province was between 1.3% in Lamu and 2.5% in urban Mombasa.

Data was more difficult to collect in this area as people were busy and did not have time for questioning. This necessitated several revisits to the house hold to find the convenient time for the household. As an urban area people of non Muslim background felt left out.

Stigma against HIV was very high and therefore many people were not willing to divulge information on the status of their relatives. It took much more convincing in this area and the the North Eastern province than any other area.

Table 4.3.5 Perceived prevalence of HIV and AIDS in Rift valley Province

District	No. of H/holds Visited	No. of people in h/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At hospital	No died of HIV and AIDS	Total	% Perceived Prevalence
Baringo	132	730	21	0	12	33	4.5
Bomet	148	654	17	1	8	26	3.9
Keiyo	139	709	4	0	5	9	1.2
Kajiado	320	1920	33	4	29	66	3.4
Kericho	368	2502	26	3	31	60	2.3
Koibatek	167	589	11	2	22	35	5.9
Laikipia	420	3676	41	5	27	73	1.9
Marakwet	138	695	9	1	11	21	3.0
Nakuru	3100	26660	340	3	137	480	1.8
Nandi	127	630	15	3	11	29	4.6
Narok	360	2412	23	5	18	46	1.9
Samburu	113	570	8	0	4	12	2.1
Transmara	67	331	6	1	4	11	3.3
Turkana	138	621	11	2	3	16	2.5
Uasingishu	2119	14321	108	3	49	46	1.1
West Pokot	137	756	12	2	23	37	4.8
Kitale	425	2847	29	5	36	70	2.4
Buret	95	438	9	3	12	24	5.4

The Muslim population in Rift Valley is centered in the urban centers and scattered pockets in the rural parts. The high prevalence in this province could be as result of small numbers of persons visited in some districts. Many Muslims of Somali origin have now settled in this province including in Turkana and and other parts of the North Rift.

Table 4.3.6 Perceived prevalence Of HIV and AIDS in Nyanza Province

District	No. Of Households Visited	No. Of people in H/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At hospital	No died of HIV and AIDS	Total	% Perceived Prevalence
Gucha	187	568	15	2	16	33	5.8
Homa Bay	432	3300	96	4	101	201	6.0
Kisii	110	431	9	0	14	23	5.3
Kisumu	2300	16100	301	8	412	721	4.4
Kuria	79	258	5	0	6	11	4.2
Migori	214	985	17	3	16	36	3.6
Nyamira	57	213	7	0	5	12	5.6
Rachuonyo	329	2609	62	5	96	163	6.2
Siaya	112	617	15	3	17	35	5.6
Suba	218	899	28	5	26	59	6.5
Bondo	73	450	11	2	13	26	5.7
Nyando	71	293	8	3	12	23	7.8

In Nyanza Province the highest numbers of deaths were reported in Kisumu (412) which also has a high Muslim population followed by Homabay and Rachuonyo with 101 and 96 deaths respectively. The perceived prevalence ranged between 3.6 and 7.8%. This province has a high prevalence as reported through the National health demographic survey (**Republic of Kenya NHDS, 2003**).

Table 4.3.7 Perceived prevalence of HIV and AIDS in Eastern Province

District	No. Of Households Visited	No. Of people in h/hold	No. With HIV and AIDS At home	No. With HIV and AIDS At hospital	No died AIDS 2years	Total	% Perceived Prevalence
Embu	430	3600	28	5	48	81	2.3
Isiolo	2800	22100	341	8	267	616	2.8
Kitui	391	2800	40	2	54	96	3.4
Makueni	213	1300	28	6	34	68	5.2
Machakos	356	1800	36	3	47	86	4.7
Marsabit	1600	6890	128	6	156	290	4.2
Meru	328	1623	32	4	48	84	5.1
Moyale	2961	19300	215	6	320	541	2.8
Mwingi	132	750	11	3	30	44	5.8
Meru N.	116	420	8	4	12	24	5.7
Mbeere	76	295	8	1	10	19	6.4
Nyambene	56	311	9	0	11	20	6.4

In this province the prevalence ranged between 2.25% in Embu and 6.43 % in Nyambene. The highest number of deaths that could be recalled and associated to HIV and AIDS were in Moyale where 320 deaths were reported in the last 2 years. Like other provinces in the districts with low Muslim population the prevalence was high.

Table 4.3.8: Perceived prevalence of HIV and AIDS in Western Province.

District	No. of Households visited	No. of people in h/hold	No. with HIV and AIDS At home	No. with HIV and AIDS At hospital	No died of HIV And AIDS	Total	% Perceived Prevalence
Butere-mumias	2100	19800	132	6	178	316	1.6
Lugari	420	2011	36	3	79	118	5.8
Bungoma	668	3121	87	5	91	183	5.8
Vihiga	321	1614	41	3	60	104	6.4
Mt.Elgon	133	879	22	2	36	60	6.8
Teso	218	1211	31	5	40	76	6.2
Kakamega	1100	5200	109	6	127	242	4.6
Busia	342	1800	37	4	78	119	6.6

The Western province was the province outside Coast, Eastern and North Eastern with high Muslim population. The prevalence ranged from 1.59 % in Butere Mumias to 6.8 % in Mt Elgon districts. In Mt Elgon district only 133 households were visited with a population of 879 while 2100 household with 19800 population. In Kakamega 1100 households were visited with a population of 5200 people. Number of people who had died of HIV and AIDS in the last 2 years was highest in Mumias with 178 followed by Kakamega with 127 deaths.

4.4.1 Work related risks

International migration was considered as a work related risk where local Muslims migrate to Europe Asia or America in search of jobs and better living. Local migration is mainly rural urban migration within the country. Due to poor economic situation in the Coast and the collapse of livestock industry in Eastern and North Eastern many young persons are migrating to other parts of the country and are getting exposed to the risk of getting HIV.

The overcrowding and the poor hygiene standard and the known sexual behaviour in the prisons are also a risk not only for HIV transmission but other diseases as well. Poor management of these institutions contributes to the vulnerability of inmates to HIV infection.

Female prisons: Although less risky than the male prisons they are also exposed to similar situation of crowding and poor sanitation. It is common also to have women having sex with other women and without using any protective device could easily transmit infection to their partners. Separated spouse: Many jobs in the Middle East are poorly paid and do not allow a person to be accompanied by the spouse. Locally some men migrate from rural to urban areas in search of jobs or other economic ventures and hardly go back home to their families. In Nairobi many Muslims from Eastern province have taken up security jobs as night guards in industries and other premises. These are poorly paid jobs and the men may not be able to meet the cost of travelling back home regularly. It is easier for him to send money home every month and this is a recipe for sexual misconduct both ways especially for the man. This was also identified as a risk for HIV transmission.

Most of our forces are involved in long term peace keeping mission in Africa and other parts of the world. Locally also some of our forces are stationed in remote rural areas where security is a problem where many get involved in sexual promiscuity as they become targets of

commercial sex workers. Being involved in working with armed forces were also identified as a risk for HIV transmission.

4.4.2 Transport related risks

This includes all modes of transport such the long distance trucks where drivers and their assistants are known to have multiple partners. Public transport such buses and matatus are known also to target school girls and give them free lifts for sexual favours. In North Eastern, Taxis are very popular as the bicycle rides are popular in Western and Nyanza. It was reported that taxis are used to promote commercial sex trade in areas where the trade is highly stigmatized. For that reason participants identified this area as also a possible risk for HIV infection in the Muslim community.

4.4.3 Stigma and HIV and AIDS

It was reported that because HIV and AIDS was associated with immorality, Muslims stigmatised anyone who got infected. This resulted in the self stigmatisation by those infected. The other types of stigma are the stigma by others and stigma of the affected. In the Coast there was also stigma of the dead where some relatives own the dead and are against the use of rubber gloves in the cleaning of their dead. All these factors contribute to the increased transmission of HIV and AIDS among Muslims.

4.4.4 Youth related issues as a risk

There is increasing trends of homosexuality among youths especially those in boarding schools and in urban centers. Drug abuse is more common among youth in urban areas and compromises the individual judgement in preventive behaviour. The number of youth involved in drug abuse is on the increase. Early sex was also identified as a risk for HIV transmission as youth start sex earlier than before. More young girls are being targetted for sex by older men increasing the chance for HIV transmission.

4.4.5: Tourism associated risks

Tourism was blamed for some of the risky sexual practices especially in the coastal towns which are favorite spots for many tourists. The following are concerns raised as risks for HIV and AIDS transmission in relation to tourism: Adoption of foreign cultures, Increased commercial sex, foreign partners, child sex, lesbianism, gay practices, and the effect of off-peak seasons

4.4.6 Media influence

Different types of media have negative impact on the society which influences risky behaviour. The media include electronic where internet and pornographic pictures as well as contacts and bookings for sexual orgies. Visual media in television and video shows without limitations enhances sexual promiscuity. In addition recent music has become excessively sexual and it encourages listeners to sexual indiscipline. The print media with pornographic material which was previously restricted is becoming more available and it contributes to the transmission of HIV and AIDS through increased sexual activities.

4.4.7 Cultures specific to some regions

Among Muslims some traditional practices which are not part of the religion and are not accepted, continue to be practiced in some regions of our country. The mourning after death of relatives and the time it takes is reported to involve risky behaviour. In other regions the practice of secret husband and secret wife has also been reported.

4.4.8 General cultural practices

Under this group several practices which are likely to contribute to the transmission of HIV and AIDS either directly or indirectly were identified and the following are some of the practices: Female Genital Cutting, Female Genital Burns, *e. coli* infection in anal cleansing. All were identified as risk practices likely to enhance transmission of HIV and AIDS.

The practice of cupping considered as removal of dirty blood or blood cleansing often sharing the equipment and exposing users to possible infection of HIV or other blood related ones. me . Blood relation: where non blood relatives become related through mixing of a little blood from the two or more individuals. This is an old tradition that is now disappearing but was identified as a risk for those who still practice it. Women participation is minimum among the Muslims. This exposed the community to higher risk of HIV transmission as women are not empowered and are inadequately informed on prevention of HIV.

4.4.9: Permissible Religious practices

Some permissible practices are easily abused by Muslims themselves and are likely to contribute to the transmission of HIV in the society. These practices included marriage process among them delayed engagement, excessive wedding ceremonies and demand for pretesting prior to wedding. Polygamy is allowed in Islam. Man is allowed up to 4 wives and in the era of HIV this permissible practice can also pose a risk for HIV infection. Divorce is also allowed in Islam as a last resort when everything else has failed but the community has misused this permission and therefore it is identified as a risk for HIV infection especially because both the man and the woman who have divorced are more likely to be involved in other sexual relation evn through marriage. Wife inheritance among the community was also identified as a risk practice. Handling the sick and the dead with HIV has also been identified as a possible risk.

After listing the risk practices, these were quantified the degree of seriousness and compared between male and female participants. The degree of seriousness was based on a scale of 1- 5 where 1 was not a problem at all, 2 somewhat a problem, 3 is a problem 4 a serious problem and 5 a very serious problem. The following tables indicate the level of seriousness of the risks identified and the level of significance of the difference in gender risk perception.

Table 4.4.1 describes all the work related risks that were identified and assessed the degree of seriousness of the perceived risk by males and females. There was significant difference in the perception of the risk with regard to female prison. ($P = < 0.01$) there was also a significant difference in International migration perception of risk between men and women ($p = < 0.04$) and armed forces ($p = 0.05$).

Table 4.4.1: Work related risks

Risk	sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² -square values	P-value
		N	%	N	%	N	%	N	%	N	%			
International Migration	M	2	1.2	17	10.5	65	40.1	37	22.8	41	25.3	162		
	F	7	8.2	11	12.9	25	29.4	18	21.2	24	28.2	85	9.80	0.04
	T	9	3.6	28	11.3	90	36.4	55	22.3	65	26.3	247		
National Migration	M	10	6.2	22	13.7	36	22.4	39	24.2	54	33.5	161		
	F	5	7.1	8	11.4	12	17.1	19	27.1	26	37.1	70	1.24	0.87
	T	15	6.5	30	13.0	48	20.8	58	25.1	80	34.6	231		
Armed Forces	M	36	21.6	36	21.6	27	16.2	24	14.4	44	26.3	167		
	F	9	11.3	10	12.5	17	21.3	18	22.5	26	32.5	80	9.14	0.05
	T	45	18.2	46	18.6	44	7.8	42	7.0	70	28.3	247		
Prisons	M	18	11.0	36	22.1	38	23.3	27	16.6	44	27.0	163		
Male	F	18	21.4	12	14.3	18	21.4	11	13.1	25	29.8	84	6.51	0.16
	T	36	14.6	48	19.4	56	22.7	38	15.4	69	27.9	247		
Female	M	69	41.6	60	36.1	14	8.4	8	4.8	15	9.0	166		
Prison	F	21	25.3	20	24.1	12	14.5	12	14.5	18	21.7	83	21.55	0.001.
	T	90	36.1	80	32.1	26	10.4	20	8.0	33	13.3	249		
Separated Spouse	M	28	17.2	44	27.0	25	15.3	31	19.0	35	21.5	163		
	F	15	17.9	16	19.0	14	16.7	12	14.3	27	32.1	84	4.75	0.314
	T	43	17.4	60	24.3	39	15.8	43	17.4	62	25.1	247		

The uniformed officers were identified as vulnerable group and among them were the armed forces. This necessitated the meeting with them to understand the HIV situation among them. A meeting was organized that took place at the Lanet barracks where most of the senior officers from the army attended.

Table 4.4.2: Transport Industry related risks

Risk	Sex	No problem		Some what Problem		Proble m		Seriou s proble m		V.serio us Proble m		Tota l N	X ² squa re valu es	P valu e
		N	%	N	%	N	%	N	%	N	%			
Long dist Trucks	M	10	6.0	36	21.7	26	15.7	28	16.9	66	39.8	166		
	F	5	6.1	15	18.3	17	20.7	15	18.3	30	36.6	82	1.33	0.88
	T	15	6.0	51	20.6	43	17.3	43	17.3	96	38.7	248		
Matatus	M	12	7.4	25	15.3	20	12.3	39	23.9	67	41.1	163		
	F	2	2.3	5	5.7	30	34.5	15	17.2	35	40.2	87	22.12	0.001
	T	14	5.6	30	12.0	50	20.0	54	21.6	102	40.8	250		
Taxis	M	13	6.4	20	9.9	79	38.9	25	12.3	66	32.5	203		
	F	5	6.5	7	9.1	29	37.7	11	14.3	25	32.5	77	0.23	0.994
	T	18	6.4	27	9.6	108	38.6	36	12.9	91	32.5	280		

Table 4.4.2 looked at the risk perception in relation to the transport industry which was identified as a high risk area. These included long distance truck drivers, matatus and other public transport and taxis.

There was a significant gender difference in the perception of matatus as a risk with more men feeling that it is not much of a problem. (p= 0.001) There is agreement with the long distant trucks and taxis. However it should be noted that some areas did experience these risks.

Table 4.4.3 Stigma related risks

Risk	Sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² square value	P Value
		N	%	N	%	N	%	N	%	N	%			
Self	M	38	23.2	44	26.8	8	4.9	24	14.6	50	30.5	164		
Stigmatization	F	3	3.7	6	7.3	18	22	19	23.2	36	43.9	82	42.90	0.001
	T	41	16.7	50	20.3	26	10.6	43	17.5	86	35	246		
Stigmatization	M	18	11.1	50	30.9	19	11.7	19	11.7	56	34.6	162		
By others	F	4	4.9	6	7.3	12	14.6	20	24.4	40	48.8	82	24.12	0.001
	T	22	9.0	56	23.0	31	12.7	39	16.0	96	39.3	244		
Stigmatization	M	49	29.7	11	6.7	28	17	14	8.5	63	38.2	165		
At death	F	16	18.8	18	21.2	15	17.6	18	21.2	18	21.2	85	24.81	0.001
	T	65	26	29	11.6	43	17.2	32	12.8	81	32.4	250		
Stigmatization	M	30	20	28	18.7	40	26.7	19	12.7	33	22	150		
Of affected	F	12	14.3	12	14.3	13	15.5	22	26.2	25	29.8	84	11.49	0.022
	T	42	17.9	40	17.1	53	22.6	41	17.5	58	24.8	234		

Table 4.4.3 looked at the different forms of stigmatization as identified during the plenary sessions. There is a dichotomous situation with highly significant gender difference in risk perception with regard to all the identified aspects of stigma.

Table 4.4.4 was looking at the youth associated risks. These included homosexuality, drug abuse and early sex. It also looked at sexual relation between the youth and the older partners as a high risk for HIV transmission. Only drug abuse was significantly different between men and women in perception of risk ($p < 0.02$)

Table 4.4.4 Risks Related with Youth

Risk	sex	No problem		Somewh at Problem		Problem		Serious		V.serious Problem		Total N	X ² square value	P Value
		N	%	N	%	N	%	N	%	N	%			
Homosexuality	M	28	16.6	24	14.2	43	25.4	24	14.2	50	29.6	169		
	F	12	14.3	11	13.1	15	17.9	18	21.4	28	33.3	84	3.66	0.453
	T	40	15.8	35	13.8	58	22.9	42	16.6	78	30.8	253		
Drug abuse	M	29	17.7	22	13.4	28	17.1	32	19.5	53	32.3	164		
	F	2	2.4	6	7.2	15	18.1	17	20.5	43	51.8	83	17.5	0.002
	T	31	12.6	28	11.3	43	17.4	49	19.8	96	38.9	247		
Ealy sex	M	13	8.2	20	12.7	26	16.5	33	20.9	66	41.8	158		
	F	8	9.8	16	19.5	15	18.3	18	22	25	30.5	82	3.78	0.436
	T	21	8.8	36	15	41	17.1	51	21.3	91	37.9	240		
Age difference	M	38	21	46	25.4	24	13.3	24	13.3	49	27.1	181		
	F	12	14.3	21	25	12	14.3	19	22.6	20	23.8	84	4.75	0.314
	T	50	18.9	67	25.3	36	13.6	43	16.2	16	26	265		

Table 4.4.5 Tourism influenced risks

Risk	Sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N %	X ² square value	P value
		N	%	N	%	N	%	N	%	N	%			
Adoption	M	18	11.3	22	13.8	21	13.1	33	20.6	66	41.3	160		
Foreign Culture	F	10	12.0	11	13.3	15	18.1	16	19.3	31	37.3	83		
Commercial	T	28	11.5	33	13.6	36	14.8	49	20.2	97	39.9	243	1.20	0.878
Sex work	M	21	13.0	12	7.5	26	16.1	41	25.5	61	37.9	161		
	F	12	14.5	15	18.1	16	19.3	15	18.1	25	30.1	83	8.22	0.084
Mzungu wangu	T	33	13.5	27	11.1	42	17.2	56	23.0	86	35.2	244		
	M	47	27.6	73	42.9	40	23.5	7	4.1	3	1.8	170		
	F	3	3.6	8	9.6	16	9.3	20	24.1	36	23.4	83	119.5	0.001
Child sex	T	50	19.8	81	32	56	22.1	27	10.7	39	15.4	253		
	M	28	16.3	47	27.3	30	17.4	15	8.7	52	30.2	172		
	F	8	9.8	13	15.9	18	22	19	23.2	24	29.3	82	14.04	0.007
Lesbian	T	36	14.2	60	23.6	48	18.9	34	13.4	76	29.9	254		
	M	64	35.4	12	6.6	41	22.7	28	15.5	36	19.9	181		
	F	37	45.7	14	17.3	15	18.5	10	12.3	5	6.2	81	15.50	0.004
Gay	T	101	38.5	26	9.9	56	21.4	38	14.5	41	15.6	262		
	M	32	19.2	13	7.8	28	16.8	24	20.4	60	35.9	167		
	F	28	33.7	15	18.1	13	15.7	9	10.8	18	21.7	83	13.83	0.002
Off peak Women	T	60	24	28	11.2	41	16.4	43	17.2	78	31.2	250		
	M	80	44.0	27	14.8	32	17.6	12	6.6	31	17.0	182		
	F	14	17.1	9	11.0	19	23.2	15	18.3	25	30.5	82	25,40	0.001
	T	94	35.6	36	13.6	51	19.3	27	10.2	56	21.2	264		

Table 4.4.5 assessed tourism related risks practices that were identified especially during the district inputs in Malindi district. Most of the risks in the coast are the same except that there much more involvement in drug uptake in North coast and Mombasa than in South coast.

Among the tourism influenced risks there was no significant gender difference in risk perception with regard to adoption of foreign culture and commercial sex work. In all other identified risk there was a clear gender bias with women considering what affects men as a risk and men considering what affects women as a risk.

Table 4.4.6 Media influenced risk behavior

Risk	sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² square values	P Value
		N	%	N	%	N	%	N	%	N	%			
Electronic Media	M	24	15.2	22	13.9	22	13.9	22	13.9	68	43	158		
	F	6	7.1	7	8.3	16	19	23	27.4	32	38.1	84	10.88	0.028
	T	30	12.4	29	12	38	15.7	45	18.6	100	41.3	242		
Audio/visual	M	25	15.8	25	15.8	12	7.6	30	19.0	66	41.8	158		
	F	3	3.6	6	7.1	17	20.2	19	22.6	39	46.4	84	18.29	0.001
	T	28	11.6	31	12.8	29	12.0	49	20.2	105	43.4	242		
Audio/music	M	50	26.9	37	19.9	25	13.4	6	3.2	68	36.6	186		
	F	10	13.5	11	14.9	16	21.6	17	23	20	27	74	31.83	.0001
	T	60	23.1	48	18.5	41	15.8	23	8.8	88	33.8	260		
Print media	M	23	13.8	13	7.8	32	19.2	37	22.2	62	37.1	167		
ponographic	F	20	23.8	15	17.9	8	9.5	16	19	25	29.8	84	12.76	0.013
	T	43	17.1	28	11.2	40	15.9	53	21.1	87	34.7	251		

Table 4.4.6 shows the different forms of media which was identified as likely to enhance transmission of HIV by indiscriminate exposure to sexually active age groups of sexual materials at an early age. Media influence was blamed by all in terms of video shows in rural areas which are sex based and are not censored and no monitoring for underage children who attend. However there was significant gender difference in the degree of seriousness of the problem.

Table 4.4.7 There are different cultural practices that were different from one region to the other. These were identified during the district inputs in the different areas.

There is similar gender bias in the perception of risk with regard to the regional cultures as well with women looking at their practices as not being a risk and what the men do as a risk. There was significant difference in all the identified risks.

Table 4.4.7 Risk related to Regional cultural practices

Risk	sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² square values	P value
		N	%	N	%	N	%	N	%	N	%			
Mourning	M	73	43.5	25	14.9	20	11.9	18	10.7	32	19.0	168		
Ceremonies	F	16	21.3	15	20.0	9	12.0	15	20.0	20	26.7	75	12.45	0.014
	T	89	36.6	40	16.5	29	11.9	33	13.6	52	21.4	243		
Secret wife	M	76	39.4	78	40.4	17	8.8	9	4.7	13	6.7	193		
	F	3	3.6	5	6.0	10	11.9	20	23.8	46	54.8	84	133.96	0.001
	T	79	28.5	83	30.0	27	9.7	29	10.5	59	21.3	277		
secret	M	63	37.7	39	23.4	20	12.0	32	19.2	13	7.8	167		
husband	F	43	52.4	24	29.3	6	7.3	4	4.9	5	6.1	82	12.68	0.013
	T	106	42.6	63	25.3	26	10.4	36	14.5	18	7.2	249		

Table 4.4.8 dealt with cultural practices that were common in many areas although the particular practice is conducted differently from one region to the other.

In the common cultural related risks it is observed in addition to significant gender difference in most risks there was wide spread of the risks in all scales which was indicative of regional variation in this perception of risks. Some of the risks are common and practiced only in some region and not others.

Table 4.4.8 Common cultural related risks

Risk	Sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² squar e value	P value
		N	%	N	%	N	%	N	%	N	%			
Female	M	33	19.5	43	25.4	36	1.3	31	18.3	26	15.4	169		
Gen cut	F	5	6.0	6	7.2	17	20.5	20	24.1	35	42.2	83	33.65	0.001
	T	38	15.1	49	19.4	53	21.0	51	20.2	61	24.2	252		
Female	M	62	34.6	35	19.6	24	13.4	29	16.2	29	16.2	179		
Gen Burn	F	42	50.0	15	17.9	8	9.5	7	8.3	12	14.3	84	6.93	0.140
	T	104	39.5	50	19.0	32	12.2	36	13.7	41	15.6	263		
E.coli	M	30	18.1	46	27.7	20	12.0	20	12.0	50	30.1	166		
infection	F	3	3.6	7	8.3	9	10.7	20	23.8	45	53.6	84	31.74	0.001
	T	33	13.2	53	21.2	29	11.6	40	16.0	95	38.0	250		
Cupping	M	64	37.6	28	16.5	20	11.8	31	18.2	27	15.9	170		
	F	41	49.4	20	24.1	5	6.0	8	9.6	9	10.8	83	9.09	0.059
	T	105	41.5	48	19.0	25	9.9	39	15.4	36	14.2	253		
Blood	M	56	33.7	30	18.1	43	25.9	14	8.4	23	13.9	166		
Relation	F	40	48.2	21	25.3	9	10.8	7	8.4	6	7.2	83	12.51	0.140
	T	96	38.6	51	20.5	52	20.9	21	8.4	29	11.6	249		
Women	M	25	16.0	26	16.7	21	13.5	26	16.7	58	37.2	156		
Participation	F	3	3.7	5	6.1	9	11.0	20	24.4	45	54.9	82	17.41	0.002
	T	28	11.8	31	13.0	30	12.6	46	19.3	103	43.3	238		

There is again significant difference between men and women in the perception of risk in all except female genital burn ($p < 0.140$) and blood relation with similar p values.

Women participation in HIV and AIDS activities has been wanting in Muslim communities in Kenya. This was expressed as a concern and therefore a risk for HIV transmission since their level of knowledge was low and their participation in the fight was also minimum.

Table 4.4.9 Risk related to abused Religiously permissible practices.

Risk	Sex	No problem		Somewhat Problem		Problem		Serious		V.serious Problem		Total N	X ² -square values	P Value
		N	%	N	%	N	%	N	%	N	%			
Marriage process	M	36	22.1	38	23.3	30	18.4	20	12.3	39	23.9	163		
	F	5	5.8	7	8.1	10	11.6	28	32.6	36	41.9	86	35.87	0.001
	T	4	16.5	45	18.1	40	16.1	48	19.3	75	30.1	249		
Polygamy	M	37	21.6	37	21.6	37	21.6	7	4.1	53	31.0	171		
	F	2	2.4	6	7.3	13	15.9	21	25.6	40	48.8	82	48.83	0.001
	T	39	15.4	43	17.0	50	19.8	28	11.1	93	36.8	253		
Divorce	M	25	16.8	18	12.1	29	19.5	30	20.1	47	31.5	149		
	F	3	3.7	8	9.8	10	12.2	18	22.0	43	52.4	82	15.43	0.004
	T	28	12.1	26	11.3	39	16.9	48	20.8	90	39.0	231		
Wife inheritance	M	75	46.6	30	18.6	6	3.7	23	14.3	27	16.8	161		
	F	18	22.0	19	23.2	16	19.5	16	19.5	13	15.9	82	25.07	0.001
	T	93	38.3	49	20.2	22	9.1	39	16.0	40	16.5	243		
Handling sick	M	93	55.0	36	21.3	21	12.4	7	4.1	12	7.1	169		
	F	9	10.8	14	16.9	11	13.3	20	24.1	29	34.9	83	74.63	0.001
	T	102	40.5	50	19.8	32	12.7	27	10.7	41	16.3	252		
Handling dead	M	19	11.6	43	26.2	22	13.4	21	12.8	59	36.0	164		
	F	8	9.6	10	12.0	18	21.7	19	22.9	28	33.7	83	11.22	0.024
	T	27	10.9	53	21.5	40	16.2	40	16.2	87	35.2	247		

There is an obvious dichotomy in all the risk perception with regard to the religiously permissible practices. Permissible practices include wife remarriage (inheritance) and handling of the sick and undertaking the rituals for the dead.

4.4.10 Difference in perception of the degree of problem between men and women

Pearsons chi-square test was used to determine the level of significance at 95 % confidence interval in the difference between males and female perception of the degree of risk.

The degrees of freedom was calculated as $N-1$ which in all the tables of risk perception were similar which was $(5-1=4)$. There was significant difference where the risk affected men or women more than the other. The levels of significance were as follows:

In work related risks women felt that female prison was a risk for HIV and AIDS while more men felt it was not a serious problem. This was the case also with armed forces where female felt it was a serious problem and men thought it was not a serious problem. The p values were .001 which is highly significant and .058 respectively which was just significant. In the transport industry there was agreement in the assessment of risk between men and women in long distance trucks and taxis, however there was significant difference in relation to matatus where more men felt it was a very serious problem.

In stigma related risks there was significant difference between males and females in their assessment of risk in self stigmatization where more men felt it was not a serious problem.

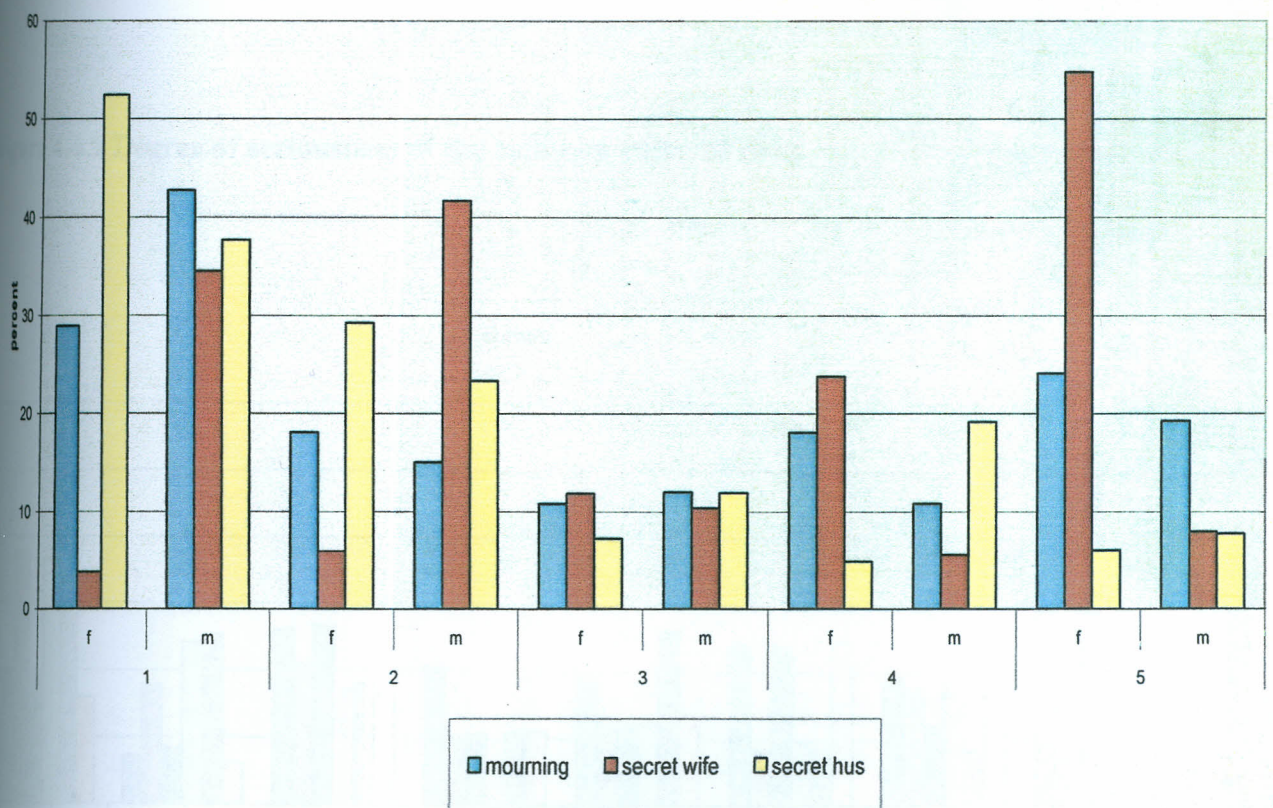
Stigmatization at death was more problem for men than for women. Stigma of the affected was more serious for women and so was stigma by others.

In youth related risks there was significant difference in the perception of risk where women seemed to consider drug abuse more serious problem than men.

In tourist influenced risk there was significant difference in the perception but there was a pattern where the risk seemed to benefit men such as when men had foreign female partners men did not consider it as a serious problem as women did. Also the off peak season more women considered it a serious problem than men.

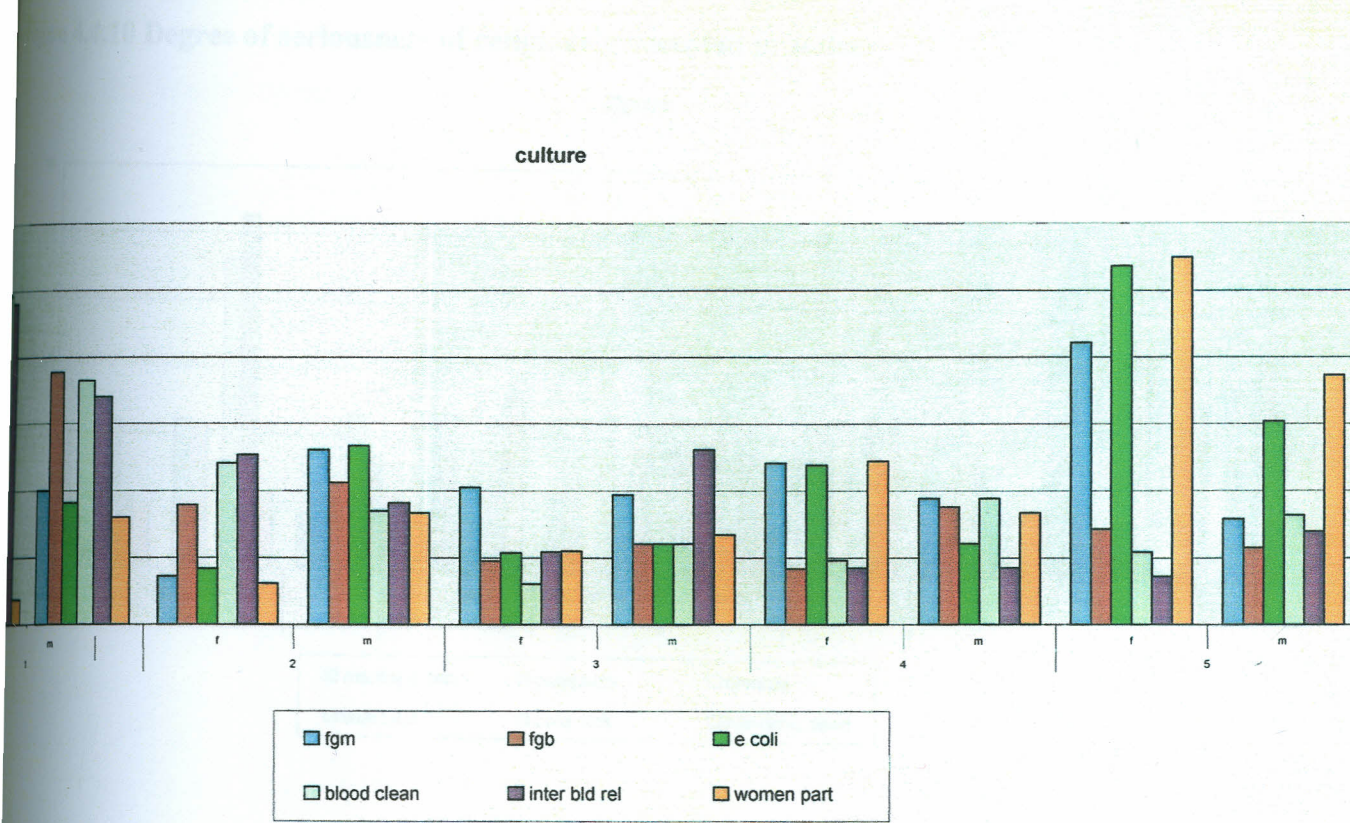
Figure 4.4.8 Degree of seriousness of the regional cultural risks

other culture



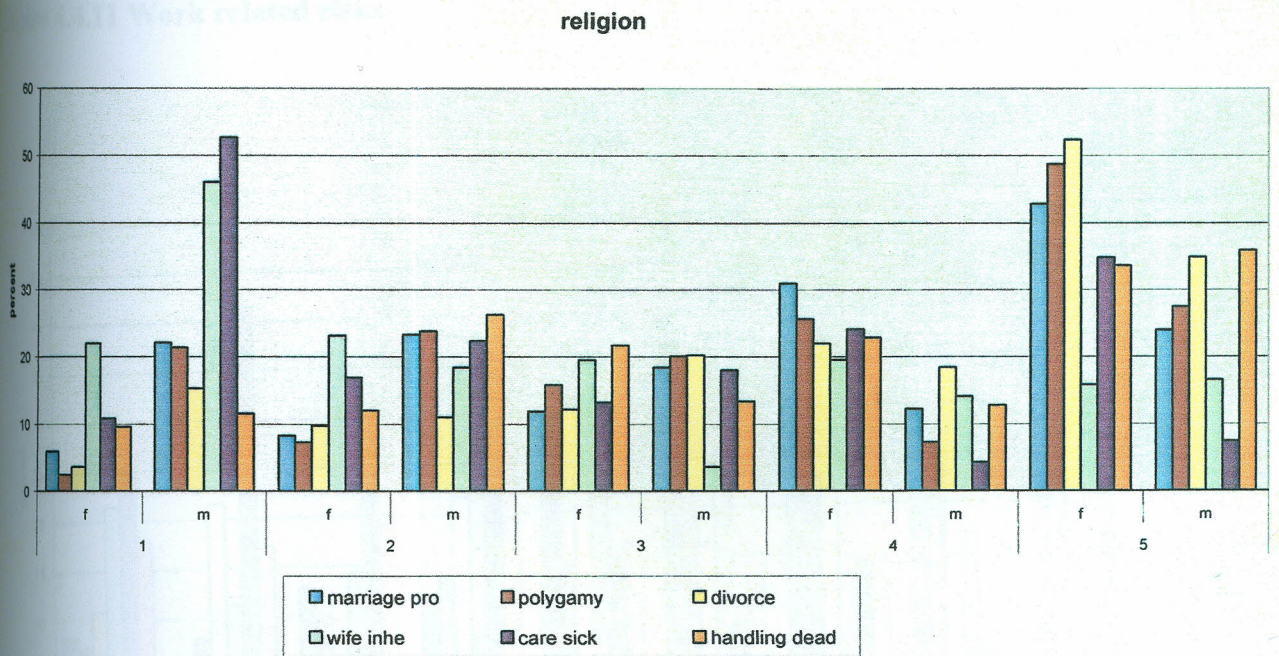
Note the peaks on both sides with women considering secret husbands as not a problem but secret wife at the other end as a very serious problem by more than 50%.

Figure 4.4.9 Degree of seriousness of the common cultural risks



Most of the risks in this chart are specific to certain region which explains the spread of the risk perception. FGM, FGB and E.coli are experienced in the Northern region and very little elsewhere.

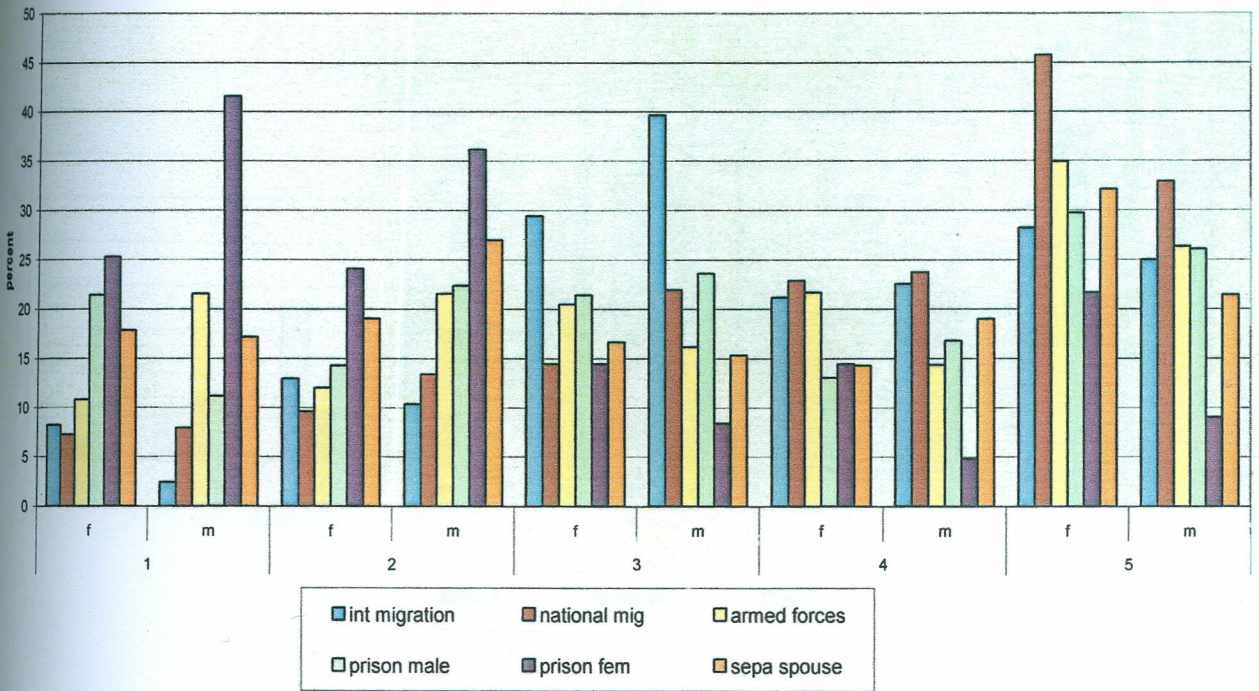
Figure 4.4.10 Degree of seriousness of religiously accepted practices



The gender bias is clearer in this chart with a male peak in number one scale and a female peak in number 5 at the other end

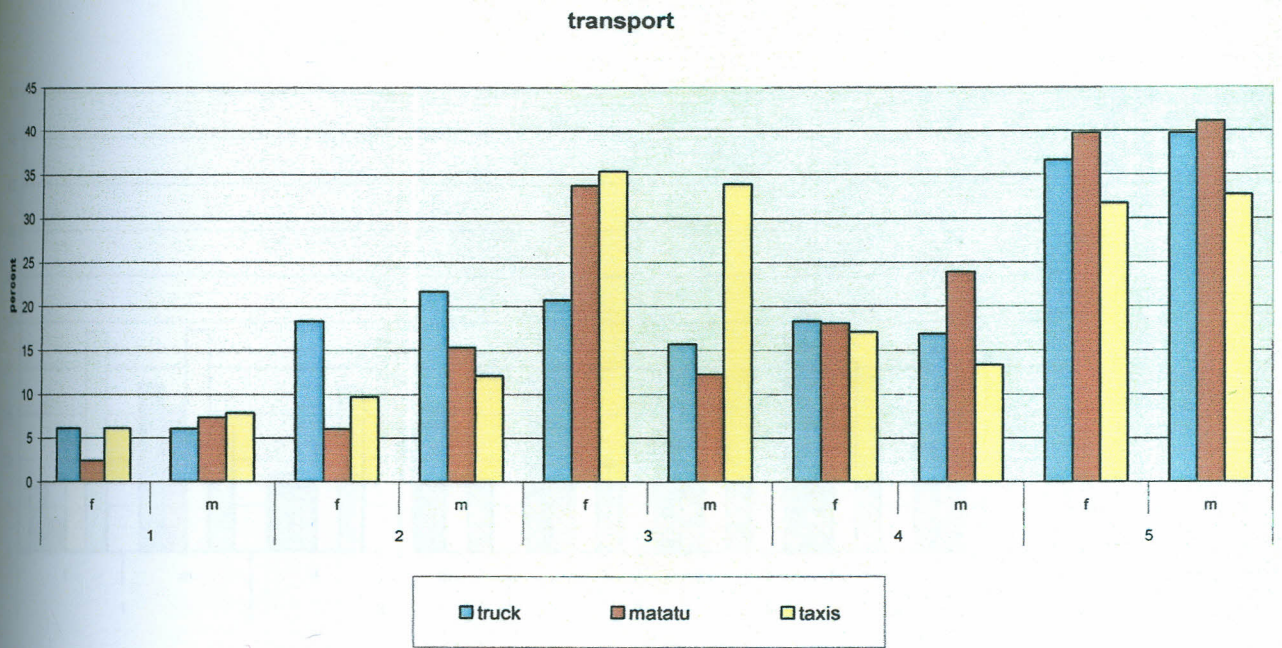
Figure 4.4.11 Work related risks

work



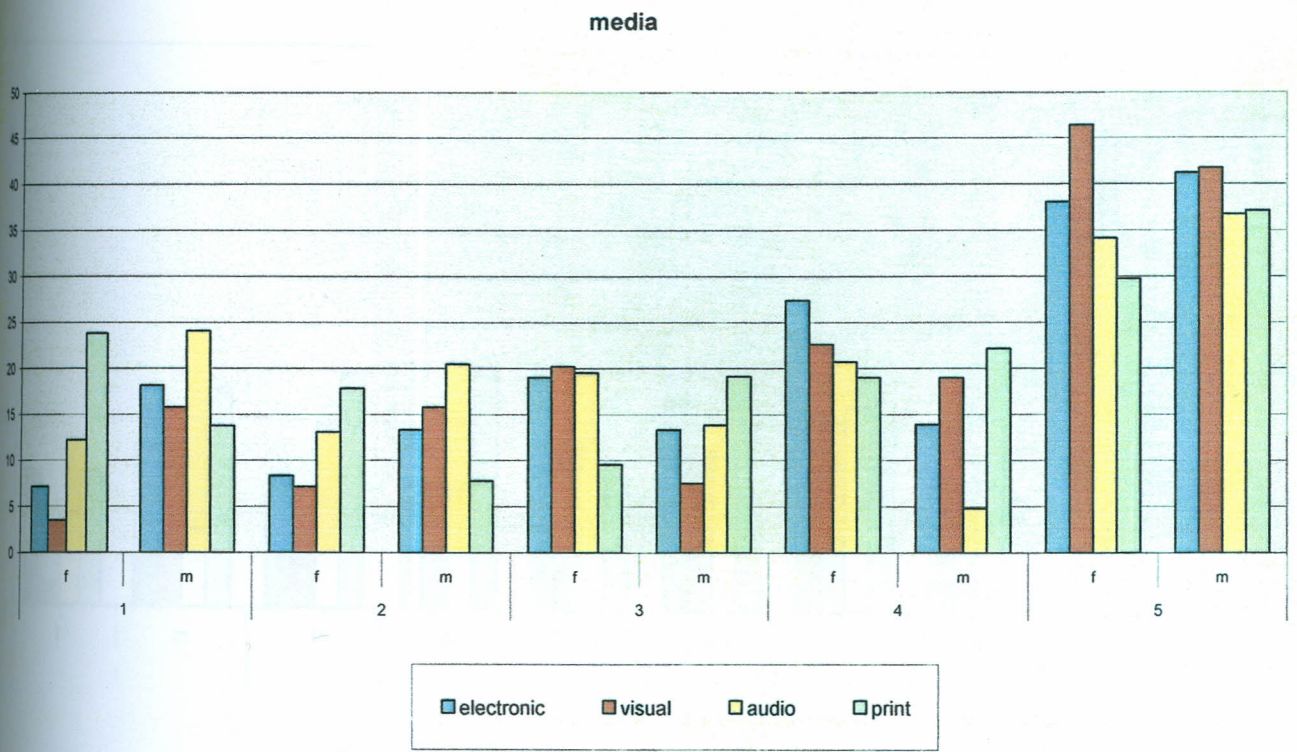
The work related risk perception chart also shows the gender difference in example female prison, there are high bars in number 1 and 2 for males and lower bars in 3 to 5 which indicates lower risk.

Figure 4.4.12 Transport industry related risks



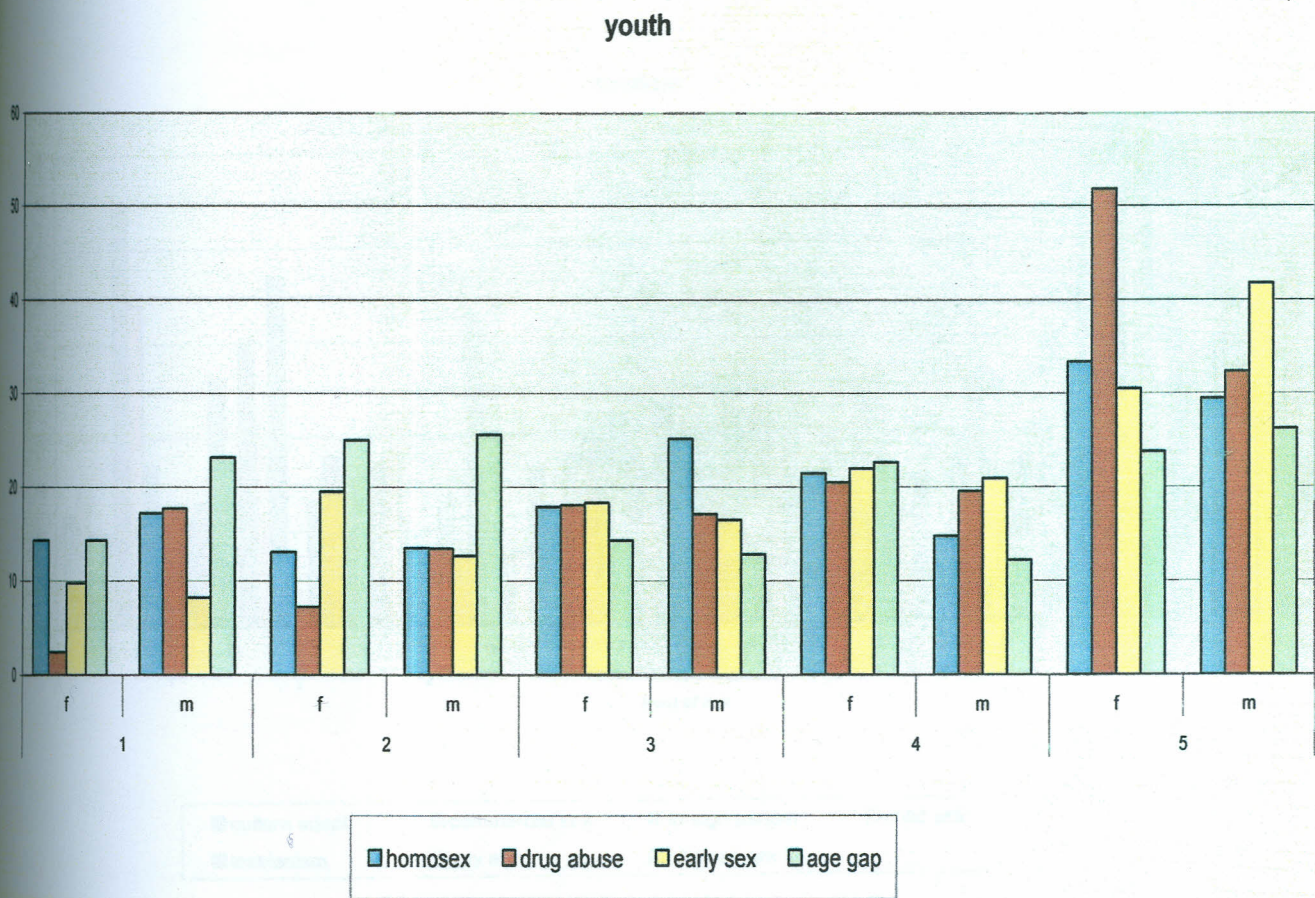
This chart on the transport industry reflects an almost perfect gender agreement pattern with little difference in risk perception.

Figure 4.4.13 Media influenced risks:



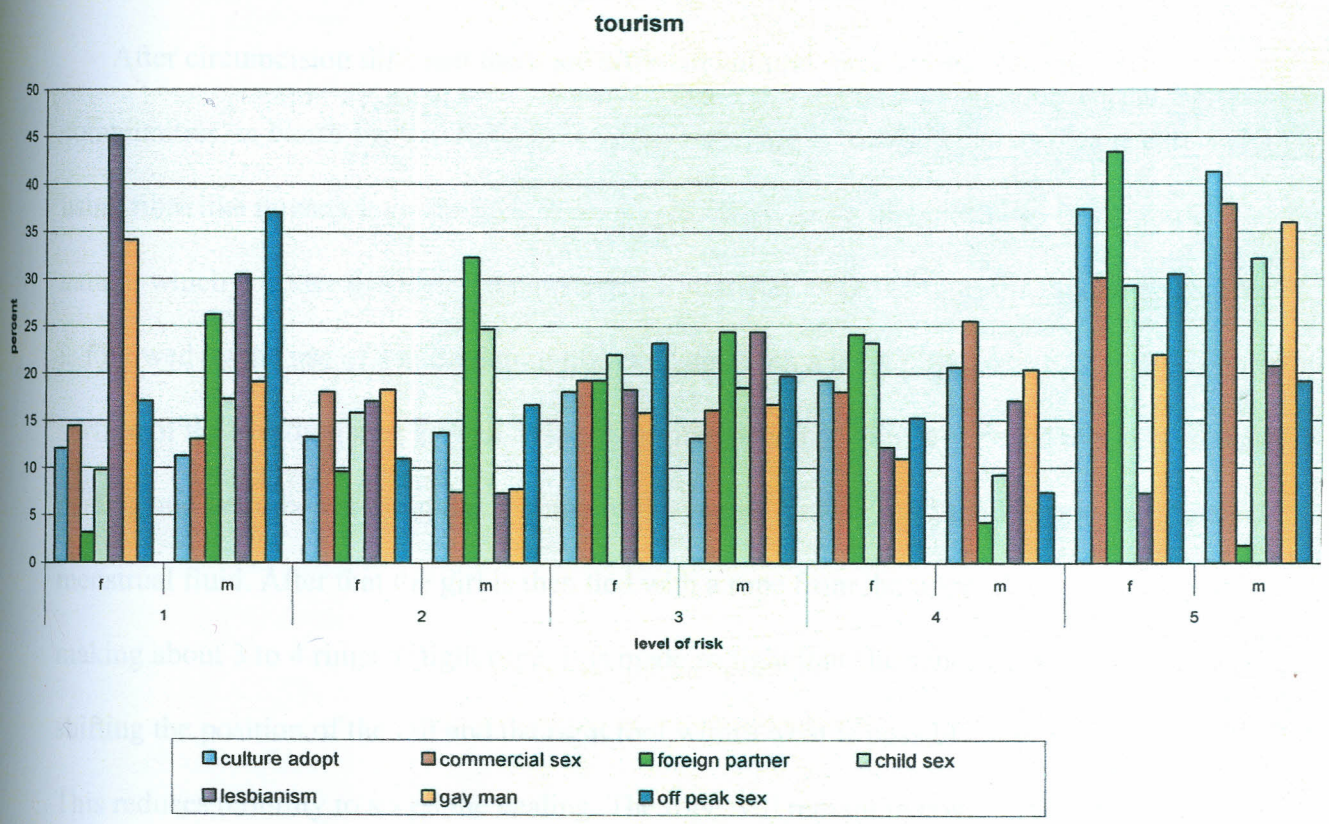
Some of the risks related to the media influence are not well known to some of the participants. These include the adverse effect of electronic media such as internet.

Figure 4.4.14 Youth related risk behavior.



In youth related risks behavior the chart reflects agreement in perception of risk except for the drug abuse bar on the very serious column for women, which were above 50% while it was only slightly above 30% for males in the same column.

Figure 4.4.15 Tourism influenced risk behavior.



4.4.11 RESULTS OF THE FOCUS GROUP DISCUSSIONS

4.4.11.1 F.G.C (Female Genital Cutting) as a risk.

This is the practice of circumcision for women. There are different types of circumcision conducted in different countries and within countries. In Kenya what is commonly referred to as FGC is the more severe type of circumcision known also as infibulations. It involves the removal of all the part of labia minora, cutting off part of the labia majora and total removal of the clitoris. The clitoris removed with the adjacent gland and the female circumciser who is able to remove this more efficiently is regarded as a better circumciser.

After circumcision different there are different cultural procedures. Among the communities in North Eastern Kenya the vaginal opening is then stitched using a needle and using fibre like threads from the giraffe skin. This thread looks like plastic so it is hard but natural which is better than synthetic material, which may cause harm to the human body. This is followed by the use of a natural gum like exudates from a local plant, which is applied on the surface of the bleeding area as well as in the vaginal opening. This is believed to speed up the healing and helps constricting the opening of the vagina leaving only small space for urine and menstrual fluid. After that the girl is then tied with a rope from the upper thigh to the knees making about 3 to 4 rings of tight rope. It is made so tight that she cannot move except by shifting the position of the left and the right foot within what is possible within the rope grip. This reduces mobility to speed the healing. The rope will remain in position for a period between 3 and 4 weeks.

During this period of healing the most difficult process is urination. Urine is allowed to ooze freely down her legs and water is splashed on her to clean the urine. For feacal discharge she is

helped to lower her body and after completion she is helped to clean as well. The girls are normally afraid to urinate as this causes pain to the fresh wound. This attempt to retain urine may also result in some complications. In this society there is a circumcision kit. It consists of a simple ordinary knife, the thread from giraffe skin, the gum container, the rope and water. Usually traditional birth attendants are also the circumcisers a practice they learn from their parents and passed over to generations. It is also common to have traditional attendants who are not circumcisers and vice versa. Female circumcisers are commonly people of advanced age. The younger ones have to practice for long as assistants.

This practice was very well accepted and tolerated. The currently known health implications of female circumcision were never associated with it. People considered as normal health burdens and problems such as pain during menstruation, urine retention, difficulty during delivery pain during intercourse, difficult childbirth and other complications with the mother and child. It is only recently with strong educational awareness that the people are able to associate the problems to circumcision. This is however a small number of the more educated people who associate the problems to FGC.

There were many versions of the historical origin with some people extending the origin to 200 years and others to 500 years. Many participants related the origin of the practice to Ethiopia or Egypt which then spread to Yemen, Sudan other North African countries, as well as West Africa, Djibouti, Somalia and Northern Kenya. The commonly attributed factor to this practice is to reduce or control the feminine sexual urge. Age involved in this practice varies between urban and rural populations. Those in the urban are said to undergo the process between 6 and 9 years while those in the rural as they have all the time they delay it to between 8 and 13 years. Parents who are against the anti circumcision campaigns ensure they go

through it earlier before the children could make much sense of the whole things. Stories are told to the young girls about the girls who underwent the process without a single cry and the presents that were given for their bravery. This way the children demand for the circumcision themselves. Women who escape the cut in their childhood and go through pregnancy and delivery would be circumcised if a traditional birth attendant who is also a circumciser after delivery notices them. If the person delivers at home with the help of T.B.A. Sometime the infibulations is done after every delivery. It is a cultural practice that is associated with morality in this decadent era. It is regarded as an adherence to moral codes of ethics. It is assumed that girls who are not circumcised are immoral, as they cannot control their sexual urge. Young ladies who have migrated to urban area and have become excessively social and with unreserved interaction with men is sometimes blamed on the lack of circumcision.

This practice is wrongly associated with Islam without limiting or identifying the type of circumcision. Majority of those who practice assume that it is wrong religiously not to do it. This had contributed to the increase and encouraged the adherence to the practice. Many of the campaigns against this practice are spearheaded by persons associated with western culture and are therefore suspected to be against Islam. Even when Muslim workers are involved they have based their strategy on health implications and of late human rights ideology. This has only helped confirm the Western countries linkage. Female and male circumcision of children is a woman's domain and therefore held with much esteem and enthusiasm. Many women sneak out with their daughters to the rural home without the fathers knowledge on the intention to circumcise during the school holidays and conduct circumcision and the father is only informed after the process is completed. Islam does not mention female

circumcision in the Quran. However the Prophet (SAW) said if you must do it then remove only a small tip.

Muslims have regarded this practice as a regional culture and have not given it much attention at the National level until recently after understanding the health implication and being able to associate some of the reproductive health problems to FGC. The anti FGM campaigns have been viewed suspiciously by majority of Muslims as a Western effort to derail Muslims from their traditional cultures. Although the messages on the adverse effect of FGC were accepted it was felt the messengers were not the right ones as most foreign NGOs were the leading anti FGC campaigners.

The Muslim infrastructure has not been used to address this problem. These include mosques madrassas and Muslim leaders. However there is currently more advanced Muslim efforts to sensitize and educate the masses on the harm in the extreme infibulations method of female circumcision. There is also much debate on whether we should just change the method of circumcision or abandon the idea as a whole.

Female circumcision is associated with HIV in several ways: first the equipments used are never sterilized and are most often used in mass circumcision without any cleaning in between. This is likely to increase the opportunity for transmission of infections including HIV. Most women who undergo the severe type of circumcision loose their sexual sensitivity and is a common cause of divorce. This increases the chances of having more sexual partners and therefore higher risk of HIV and AIDS. Women who have undergone this ritual have much complication during delivery and sometimes loose much blood during childbirth. Blood transfusion in the remote rural areas remains a big risk for HIV transmission.

4.4.11.2 Female Genital Burns (FGB)

What is F.G.B?

This is a traditional method of using heat to self-treat and also to cause the constriction of the vagina after childbirth or when there is foul smell. The traditional birth attendants and the female traditional healers are the ones who conduct this exercise. Some of the FGB is also done by individual person such as smoking or the use of hot liquids. Commonly married females of reproductive age and especially women who have delivered. Also women who feel their reproductive canal is too wet or if there is an abnormal unusual smell.

This exercise is done any time but most common for women who have delivered this is done just before the 40 days after delivery. Muslim women stay for 40 days after delivery when sexual contact with the husband is prohibited. As a preparation for the first sexual contact with the husband F.G.B will be conducted on the wife and may be repeated a few days before the 40 day elapse. The use of heat treatment for conditions and ailment that have not responded to other treatment is common among the Somalis as well as inhabitants of the Arabian peninsular Northern Africa. Heat treatment has been known to be practiced as long as 1000 years ago. The type of treatment commonly used include Hot metal rods are known to be used to cure some the resistant conditions. There are several types of heat treatment as follows:

- a) The use of hot water : Hot water has been used on aching muscles of the body, the back and limbs and has been used on inflamed body sites. Hot bath are also believed to cure some conditions although this is used by both men and women nevertheless it is one of the heat treatment used among Muslims. Excessive hot water has also been used in the reproductive health among women.

b) Hot oil; Heated oil mixed with other traditional medicine has also been used to cure different diseases as well as being used in massages of the body. Warm oil has been mentioned as used by women for conditioning vagina. Different herbs are used such as garlic, mustard seed or cloves.

c) Scented smoke.

Scented smoke from specially designed small electrical or charcoal burners is allowed up the reproductive canal by the lady opening herself in front of the burner and covering the burner with her cloth guiding all the smoke to underneath the cloths and into her body orifices. This is intended to introduce good smell as well as to dry the vagina.

A metal rod or a six-inch nail is the common tool used in this process. These are heated on either open flame or charcoal fire and inserted deep into the vagina. Where rods or nails are not available ordinary tablespoons are also used.

The health implication of this is not very well known and calls for more research to understand this. However among the common reported health implication is the contamination of the reproductive canal and recurrent infection. In a few extreme cases reports of the damage to the urethra and in some cases the bladder has also been reported needing sophisticated remedy. This is a common but very silent practice and its effect on health needs to be studied more carefully. Most of younger persons who live in urban areas do not practice it. However it is more common in the middle aged rural women.

4.4.11.3 Transport Industry

The transport industry includes both public and private commercial transport. Among the commercial transport are the long and short distance trucks and their drivers. In the public transport these include the buses, matatus and taxis. The long distance truck drivers have been

known since the beginning of the AIDS pandemic to be a driving force behind the spread of HIV infection. The transport industry has now been identified to include the matatus and taxis and we sought to identify the risk involved in this. The following are some of the responses from the participants of the FGD.

Many transport companies are owned and run by Muslims. These companies employ Muslim drivers and their assistants and like all other truck drivers they were exposed to the same risk. Although there many other people who are in the industry, Muslim have s preference for this among other businesses for several reasons; Muslims are selective in businesses they invest in as they have to ensure that whatever business they engage in has to be halal (legal according to Islamic teachings). Transport appears to be one such business. Also in transport they have restriction for example they may not be involved in transportation of alcohol. The second reason is that most of the transport is associated with the port of Mombassa and therefore it is easy for them to operate from Mombassa where they have strong base of garages parking and storage yards to other destinations. It is possible to undertake dual business in the transport industry. When the vehicles carry commodities from Mombassa to the hinterlands they could on return carry other farm products. It is recommended that one should invest in business that in addition to give profit to the investor it also supports the community positively in providing employment. Also the farm produce or other useful products is assumed to be supportive to the community.

The relationship between the transport industry and HIV is that recently women have come into the transport industry where women drivers are reported in one or two vehicles but predominantly this is the men's domain. Men have a tendency to get involved in risky behavior when they are in strange environments and when separated from the spouses. That is why it is

easy for men to get involved with other women in transitional stations on their journey. This also happens with salesmen and other business men and women. The other factor is the issue of regular cash flow in that drivers and their assistants have travel allowances on a regular basis when traveling and can therefore afford to buy sex. With the money they take advantage of the many commercial sex workers who wait for them at the different stations. Some of the drivers have a routine of being at a station on particular days of the week. They would then have regular commercial sex worker expecting him. Unfortunately the C.S.W would have many different partners.

Long distance trucks

Many transport companies are Muslim owned. This is because this trade is recognized as a legal and acceptable way of earning wealth. Drivers are recruited according to driving experience, physical strength and basic knowledge on vehicle mechanics.

Drivers are paid a fixed salary but with cash allowances per trip according to the number of days it takes to complete a trip. For this reason many drivers prefer the longer distances with more allowances and longer duration. In addition drivers sometimes make their own arrangement to carry private cargo for extra money especially on return when the vehicle is not engaged. Together with the driver there is also the assistants who are also similarly involved but with a lesser allowance. The assistants though without driving license but are required to assist in driving where they also learn and become drivers. Both drivers and their assistants due to regular income and long separated from spouses tend to have sexual partners along the highway at their resting points.

Taxis

This issue was mainly related to the North Eastern province. In the past there were no taxis for local running but it is now the mode of transport within the towns of Mandera, Wajir and Garissa. Negative use of this service is the luring of women into sex for the transport favor by drivers. Drivers have regular and reliable income, which appears to be the driving force for their involvement in risky sexual behaviors. Secret commercial sex workers are easily transported to different parts of the towns sometimes on standing orders between driver's commercial sex workers and their clients. For convenience the taxis have tinted windows to hide the passengers inside. This mode of transport has contributed to the increase in sexual behavioral risk.

Matatus or public transport.

Matatus are the public transport vehicles commonly 14 passenger capacity or the 40 seats mini buses. The ones that operate in towns especially in Mombassa and Nairobi are known to be notorious for seduction of schoolgirls and other women to sex. This is done systematically over a period of time where the conductors are advised not to charge certain passengers especially schoolgirls. The common words used are "SARE" which takes 3 or 4 days before the girl is finally cornered to return favor. In order to avoid problems and threats many schoolgirls accept to have sex. Drivers who are usually on standby for an hour or two take over when the driver takes the schoolgirls either in lodgings or other hideouts. It is reported that several secondary schools have only half attendance in the afternoon sessions. This way the parents don't get to know that their daughters are not in school. Once the driver is tired of the girl he picks on another. The girls who get used to the free rides they will also look for another matatu.

4.4.11.4 Armed Forces

The risk of HIV and AIDS among the forces is high. The proportion of Muslim is about 20% there is a strong religious risk in the forces every garrison has its Imams and religious teacher as well as the leader of the other faiths. The following is the result of the focus group discussion.

It is true HIV prevalence is high within the armed forces. We know many of our colleagues who have died of AIDS and we also have orphans to deal with. This is not specific for Muslims alone, everybody is affected. The causes of this situation are diverse but we believe that the awareness campaigns which are ongoing will have a positive impact. The following are some possible reasons for increased transmission among the Muslims in the forces;

a) Very often army officers have to be separated from their spouses for as long as 6 months during patrol missions. This synergizes the officers getting involved in risky behaviors in the field. They include sexual contact with CSW. In some remote areas the army officers are the only persons with a monthly regular income so they become easy sexual target for the poor communities in the villages. Some officers are not allowed to stay with their wives and families in army camps because there are no sufficient married quarters. When on duty they sometimes do not have sufficient time to visit their spouses who stay away from the camps. Some soldiers have been known to be involved in sexual assault of innocent civilians when they can no longer control their urge and sometimes under the influence of drugs. Most of the Muslim officers who come from N. Eastern and have to travel home, they are not given sufficient time off duty and it takes too long to travel home in between annual leave. Many commercial sex workers also target military camps especially at month ends when officers get their salary. Members of the Armed forces were also involved during the data collection. P 4.6.

In the international circles Kenyan Army are well known in the peace keeping and sometimes peace-enforcing mission. This type of involvement in foreign countries necessitates the officers being away from their families for long periods. They are also paid well during these missions. This exposes them more and increases the chance of getting involved in risky behavior and therefore higher chance of HIV infection.

4.4.11.5 Handling the dead.

Cultures vary greatly in relation to death and handling of the dead. Among some past African traditional cultures did not value the dead and when one was very sick there was no hope of recovery he would be taken to the bush and left to die. They would also encourage animals by burning piece of meat whose smell will bring the animals to the body. Western countries cremate the body at high temperature and the ashes are either buried or in the case of Buddhist the ashes are thrown into a holy river. With increasing population in urban areas and shortage of land cremation is slowly becoming acceptable as a method of disposal of the dead.

In relation to HIV/AIDS we need to look at handling of the dead before disposal because that is where the risk is. Among Christians there is a delay between burial and death and the handling of the dead is done by professional normally at the mortuary. In case of AIDS death this is useful in that most of the virus and bacterial will die during the long wait. Muslims on the other hand bury their dead as fast as arrangements allow. They honor the dead with careful handling and cleaning of the body and allowing the discharge of body fluids before final shrouding with the white cloth and then the burial after prayers. This process of handling exposes the Muslims to the risk of HIV infection, as the body would still be harboring the virus. The advice to use gloves is meeting resistance in some parts of the Coast where relatives believe that washing and handling the body using rubber gloves is a disgrace to the body and the relatives. Some insist on the use of traditional cloth gloves. In order to overcome this situation and the

stigmatization of the dead, the Muslim policy has recommended the use of rubber gloves at all times whether it is on AIDS death or a death as a result of an accident or any other cause. The policy has also proposed the training of all Imams and the stocking of all mosques with a burial kit including rubber gloves.

4.4.11.6 The mourning process

Mourning the dead is permissible in Islam but is limited to 3 days after death. Mourners are then required to disperse and to continue with life norms. However this is not the case in most African tradition. In Western, Nyanza and even the Coast the traditional way of mourning takes much longer sometimes forty days or more. If a Muslim husband has his wife from such traditional families' one is expected to allow his wife for that length of time so that she can participate in the mourning process. Traditionally mourning is a period of relaxation and sometimes fun. In such circumstances the environment is conducive for risky sexual behaviors as a result of excessive male female interaction.

4.4.11.7 Blood relation

This is a tradition that was common among different tribes. It is a positive human relation as it attempts to make blood relation between persons who are close friends. The process involves the mixing of blood from two people or more by making small cuts on their body commonly the finger. When it bleeds the bleeding fingers are held together so that the blood from the 2 persons can mix together. This brings them very close to each other like blood relatives as a confirmation of the close friendship. Although such practices are less common however in this era of HIV and AIDS transmission, this is regarded as a risk and should be avoided.

4.4.11.8 Blood cleaning

Many names have been given for this practice. It involves the making of small cuts on the body usually on the back or other part which is affected with pain. The cuts are about $\frac{1}{2}$ cm in

length. Then a cylindrical object such as a cup or glass is placed on the cut creating a suction the glass is pulled upwards away from the body this causes bleeding. This is regarded as unclean blood, which is removed and will allow a better flow of blood after. Traditional animal horns were used to extract the blood, which is unhygienic. The relationship of this practice with HIV and AIDS transmission is that the same knife or blade and the extraction equipment may be used on a number of persons.

4.4.11.9 The secret husband

Some cultures from Northern Kenya and other parts allowed that a wife could have a man as a friend. This friend will be sneaking with her time and again having sexual relation. If found out the man will be penalized and fined traditionally such as paying a bull or even more to the offended husband. In Central province this was a protective method where if children of the actual husband suffer from any disease or are bewitched that a child born of the other man will survive. These were among the traditional customs that have a negative implication in the changing times. In relation to HIV and AIDS, this could be a risk for HIV transmission and must be avoided. Although it is an old custom some report parts of Northern Kenya still practice it.

4.4.11.10 *Escherichia coli*

These bacteria exist in human beings. It is considered as an indicator organism reflecting fecal contamination if found in water or food. There are many species of *Escherichia coli* in people and animals. Some of the species are pathogenic while others are normal comensals. They have specific areas that they live for example in the digestive canal or other sites where they live as normal organisms. However if this organism is moved from its common site to other site it may have an infective impact. Recently many women in Northern Kenya and the coast have reported high prevalence of infection this is manifested in form of small pimple around the

reproductive canal and the genitalia. Men are also affected when they have sex with wives who have this infection. Researchers have associated this infection to *e.coli* contamination during anal cleansing with water. It is suspected that the movement of the hand from the rectum to the vagina transfers the organism and causes infection.

Relation of *e.coli* with HIV and AIDS

This infection causes small ulceration and under friction could enhance the transmission of HIV/AIDS. It has been proposed that women must be educated on improved personal hygiene. This will reduce the chances of infection. Also due to stigmatization of HIV and other sexual transmitted infection some of these issues are never discussed so few people seek health care thus silence contributes to the continuation of infection and therefore the risk for HIV and AIDS transmission remains.

4.4.11.11 International migration

This was recognized as a risk factor for HIV and AIDS for several reasons

As a result of poor economic situation and the limited opportunities for higher education, there is migration of youth especially to Europe and to America for purpose of education and job opportunity. Many Muslims from the Coast Province and from Northern districts also go to the Middle East for jobs. Unlike other well paying jobs in Europe where married persons are allowed to be accompanied by their spouse this is not the case in the Middle East.

It was reported that the level of prostitution especially in the emirates countries is on the increase. This is conducted by women from developing countries posing and receiving entry visas as business ladies and among their target clients are the migrant workers from Kenya and other African countries. In addition when the migrant workers get time off duty they go to nearby Asiatic countries for cheap commercial sex.

Plate 4.47 shows the women from central and Eastern during the district Inputs.

This type of migration also exposes the youth to difficult conditions especially in Europe and America and some are forced to undertake risky behaviors such as sex, drug abuse (some employers take advantage of their circumstance and get them involved in illegal business – such as dealing with drugs). Some of the migrants are married persons and extended separation from spouse might expose the couple to risky practices.

Islamic literature indicate that couples should not be separated for more than 4 months

Migrants are influenced to foreign sexual practices which are considered immoral.

Many single migrants come back home for marriage and the married also when they come back home they are likely to expose their wives to the risk of infection.

4.4.11.12 National migration

This is the migration within the country. As a result of poor economic situation many Muslims from Coast and North Eastern have migrated to other parts within the country. This is considered to be a risk factor for HIV and AIDS in the following ways: It is male youth who travel to seek jobs or business ventures. The mode of travel is sometimes from North Eastern or Eastern provinces by lorries, which transit through several transition markets where some risky sexual behavior are common. The new areas are also not as strict as home ground and there is therefore temptation in indulging in sex earlier than it would have been. There is dilution of the cultural norms as an immigrant would be excused for not observing the strict cultural controls such as premarital and extramarital sex. Cultural norms were believed to be protective and Promotive of moral conduct.

4.4.11.13 Separated Spouse

This factor is regarded as a risk irrespective of the cause of separation. It could be as a result of migration of a partner or illness of husband or wife or disagreement between them among other reasons. Some jobs necessitate separation of men from wives for many days e.g. security

guards who were in the early days of the epidemic regarded as a risk group. Women whose husbands are away for long periods and sometimes are not well financed are common targets of village sexual immorality. Due to low income some poorly paid men or women live their spouses in the rural homes and only travel back once a month or less frequent. This exposes both the men and women to risky extra marital sex.

4.4.11.14 Male Prisons

The rate of HIV infection is high in male prisons due to overcrowding. Other diseases such as T.B, Hepatitis and meningitis can also be transmitted through the overcrowding situation.

Homosexuality is very common between prisoners and in some cases between prisoners and staff. Risk of infection is high as a result of sharing equipment such as toothbrush, razors or scissors. There are no conjugal rights in Kenyan prisons and is currently a big debate. This also enhances risky behaviors in prisons. In 2003, out of 40,000 prisoners in the country 3,500 were Muslims and about 1800 were drug-based offenders.

4.4.11.15 Female Prison

This is not as hazardous as the male prison. There are fewer Muslim women prisoners.

There is some level of lesbianism but less frequent as homosexual among men. Women are believed to be able to abstain for longer period. Lesbianism is considered as equal to fornication or adultery in Islam because it carries same risk.

4.4.11.16 Tourism Influenced Risks

Foreign partner (Mzungu wangu)

This started with male youth men who were targeted for sex by visiting older but rich ladies.

The women visit the country every year and are reported to prefer the same man for longer relation. Some of these men are married and might have a family. It is well known that due to poverty women have to let their husbands go because they get food for a few months after.

Recently the local women have also been targeted for this practice by elderly tourist men and although it is difficult for men to allow their wives to go many are known to do it secretly.

This may not be much of a risk but some of the visiting men and women are known to demand unprotected sex for more money. All these practices enhance HIV transmission among the people exposed to this aspect of tourism influence.

Off peak

Many commercial sex workers frequent the Coastal region during the tourist peak season. This comes between August and December. They also come in big numbers when ships dock in Mombasa and sometimes military ships. They do booming business with military personnel visiting the seaport or other parts of the Coast Province. The main concern is the off peak season. These women have to survive and it is said they look for the local persons and at times they target other people's husbands. Women have many partners although they would wish to have a regular one. Many fights have been known between wives of men who become targets of the off peak commercial sex workers from other parts of the country. Young husbands are adventurous and tend to be victims more easily than older persons. Such women look for one person to pay for house and another for food. These situations are likely to enhance transmission of HIV and AIDS.

Early Sex

Many young children are lured to sex through middlemen who promise them money.

Tourists film some sex between children for sale as pornography movies. Schoolgirls are reported to be given small money like 100/- to do dirty sex (oral). A house of one of the tour operators a foreigner himself was set on fire when it was known that they were filming young persons doing sex and other types of immoral behavior.

Many school children who get involved in this type of practice have poor school performance record and followed by school drop out and then finally they also end up becoming commercial sex workers. Age at first sex is increasingly becoming lower. This exposes people to HIV earlier.

4.5.17 HIV and AIDS an Islamic perspective.

Muslim scholars have viewed HIV and AIDS like any other disease. However they have considered it as a punishment for those who have transgressed on the teachings of Allah Subhana wa Taala. Many people who are innocent of any wrong doing or immoral behavior have also been afflicted by the HIV virus and other conditions which the Muslim scholars have translated as the trials of Allah on the human society. These include innocent children born with infection or husbands or wives whose spouse have gotten them infected and those who are accidentally infected through blood, medical operation or are forcefully infected.

Islam also relies on the principle of collective responsibility. This is reflected in ayah 25 suratul Anfal. *“And fear the affliction and trial which affects not in particular those who do wrong (may affect the good and the bad) and know that Allah is severe in punishment.”* It is important not to relate HIV and AIDS only to immorality. This is a cause of high stigmatization in society.

Counseling

God is merciful to His creatures who rely on Him and who go back to Him in repentance.

Reliance on Allah and repentance should therefore be the strong base in our counseling approach.

Death

Every soul will in the end have to taste death irrespective of status or the cause of death. The most important issue is the individual link with God at the time of death. This gives much hope to the persons at the terminal stages of any patient to have mended their relation with their Lord.

Life

Life must be sanctified and protected at all cost and nobody should neglect oneself in health or illness on the basis that death is mandatory.

The rituals of cleansing of the dead should be conducted in such a way that it does not risk the transmission of pathogens to the living persons.

And do not kill yourselves. Surely Allah is most Merciful to you. 4:29

God also punishes us with the aim of getting us to return to Him.

Allah SW says, “ *Evil (disobedience to Allah) has appeared on land and sea because of what the hands of men has earned, (evil deeds), that He (Allah) may make them taste a part of that which they have done, in order that they may return (by repenting) 30:41*

Allah will compensate our sufferings

Allah SW says,

“If you are suffering hardships they too are suffering similar hardships but you hope from Allah that for which they hope not” 4: 104 “And be patient. Allah is with those who are patient” 8:46

Prevention

Allah SW says

“And do not throw yourselves into destruction by your own hands, and do good. Truly Allah loves the good doers.” 2:195

“Let those who find not the wherewithal for marriage, keep themselves chaste, until Allah gives them means.” 24:33

“Marry those among you who are single and the virtuous ones among your slaves male or female if they are in poverty Allah will give them means out of His grace for Allah is ample-giving and He knows all things” 24: 32

Wife Inheritance.

Allah SW says,

“O ye who believe, you are forbidden from inheriting women against their will.” 4:19

Against Stigmatization

Allah SW says,

“O you who believe let not some men among you laugh at others. It may be that the later are better than the former. Nor let some women laugh at others, it may be that the later are better than the former. Nor defame nor be sarcastic to each other nor call each other by (offensive) nick names. Ill seeming is a name connoting wickedness after he has believed. And those who do not desist are indeed doing wrong” 49:11

Care of orphans

Allah SW says, *“Concerning orphans say (Muhammad), the best thing to do is what is for their good.” 2:220*

Islam abhors the mistreatment of orphans. Allah (s.w.t) says:

“Embezzlement or misappropriation of the orphans wealth is forbidden and Allah (s.w.t) Has promised punishment on the day of judgment.” (Qur'an 4:2-12)

“Verily those who unjustly eat up the property of the orphans they eat up only fires in their bellies and they will be burnt in a blazing fire.” (Qur’an 4:10)

Good nutrition

Allah says *“ And eat of the good that We have bestowed upon you.”*

In addition to good moral, Islam emphasizes on dietary rules, exhorts follower to be conscious of personal hygiene and to engage themselves in remembrance of Allah for the primary purpose of ensuring their health. Allah says:

“Verily Allah loves those who repent and loves those who keep clean (from impurities of the body and soul).”

Muslims pray five times a day in small congregation in their homes or neighboring mosques while joining a larger congregation every Friday at bigger mosques. There are other annual and biennial celebrations and gatherings, which provide a forum for communal communications.

Women Rights and Empowerment

Islam has empowered women in many ways. First, it gave her a say in accepting a marriage proposal from any man. In addition to allowing women to inherit, Islam also defined their rights and obligations in marriage.

Allah most high says:

“And they have rights (over their husbands) similar to those (of their husbands) over them.” (Qur’an 2:228)

When the Holy Prophet (PBUH) was breathing his last breath he exhorted the men to treat their women well.

Polygamy and Divorce

Islam has regulated these practices to safeguard them from abuse. One is only allowed to marry more than one wife when he is able to treat his wives equitably and having the capacity to meet their needs. Allah warns us that if you feel you cannot meet the obligation of equity then marry only one.

In divorce there are several stages in the process of divorce most of which have normally not been observed by majority of those who implement divorce. These include admonition and they denying them conjugal rights followed by light beating. If all these fail then one is required to involve members of the family from both sides. Even after the divorce has been granted the wife is supposed to stay in the same house for a period of 3 months and be sustained by the husband. All these are supposed to give marriage a chance. Divorces are also given one at a time and not three at a go, which is a common practice among Muslims. 4: 34.

Female Genital Cutting

Islam forbids the pharaonic method of female genital mutilation (khitan firauniya). The Sunni method was tolerated for those clans that practice female circumcision (see hadith on Um Attiyyah).

Voluntary Testing and Counseling

Encourage visits to VCT because Islam advocates for a healthy Ummah and prefers a preventive approach.

Prevention of Mother to Child Transmission

Islam encourages breastfeeding children until they attain the age of 2 years. However, under the circumstance of HIV sero-positive mothers it is important to review the options available. If the mother is able to afford alternative (formula) milk for six months before

weaning then it is advisable to do so. If the family cannot afford alternative feeding the mother should exclusively breastfeed for six months taking precautions on physical mouth and nipple injuries.

Drug abuse

Any substance that alters the state of mind is considered to be illegal whether it is a drink or food or inhaled items. Most of the items considered as abused drugs are illegal according to Islam. Miraa or catha edulis commonly used by Muslims is known to cause much harm in health as well as social well being and is considered as haram (illegal).

Among Muslim this drug is known to be a main contributing factor to the many divorces on record (Sahih bukhari and Muslim).

Resource Mobilization

Allah most high says:

“Only those are believers who have believed in Allah and his messenger and afterward doubt not but strive with their wealth and their lives for the cause of Allah. Those! They are the truthful.” (Qur’an 49:16)

AIDS Vaccine Trials

Islam teaches that Allah the most high has created a cure for every disease and it is only a matter of time before a cure is found for HIV and AIDS. It is not against anything that will combat disease. Muslim scholars have conducted Usulul Fikh or the science of critical study of jurisprudence, which demands the following:

-Scientific and objective methodology, -Ethical considerations, -Weigh between the risk and safety of the vaccine. Once it is established that safety outweighs risk then it is acceptable.

4.4.12 INDEPTH INTERVIEWS WITH KEY INFORMANTS.

4.4.12.1 Mr Murad of the anti drugs campaign in the coast region.

Drug abuse in Mombasa is on the increase. There were about 7000 hard drug addicts in 2003

There are currently about 15,000 addicts (2005)

The police have been compromised by allowing entry of these drugs by businessmen who slowly introduce the drugs freely until some youth get addicted after that it is the parents who will pay for the drugs so that they can have peace in the home. There is an increasing number of girls getting involved in this practice. It is estimated that about a quarter of all drug users are girls or women.

Like in other areas those using injectable drugs have about 50% HIV prevalence. When get involved with drug taking one of the parental solution is to get them wed if they are not already married. This will speed the spread of HIV and AIDS in the society. Many of the Muslim youth in jail is due to drugs. Most of those in jail also get infected with HIV and other infections through homosexuality as a result of the deplorable conditions in the Kenyan prison.

It was reported that efforts are being done to prevent the youth from getting involved with drugs and those who are already addicted are being sent to rehabilitation centers. Efforts are being done to ensure that the police play their role to ensure those importing the drugs through the coastal strip are apprehended.

4.4.12.2 The Transport Industry.

Mr. Abdurahman Zein

This is a company with about 350 to 400 workers on long distance trucks.

He reported that the transport industry especially the long distance cargo trucks drivers and assistants are very much affected because many of them have multiple sexual partners along

the highways. This is especially so because they feel the women in those sites are more fun and are more respectful to them than their own spouses at home.

He reported that drivers and 2 assistants had died of AIDS like disease in the last 2 years

One of the assistants worked with the mobile maintenance crew.

He also said that it is possible that the problem of homosexuality is there but due to stigmatization no body has come open on the practice.

4.4.12.3: Traditional birth attendants

I talked to the 68 years old circumciser from Moyale

She has been working as TBA for more than 30 years. She is involved in circumcising girls and sometimes grown up women, she helps women to deliver and attend to other health problems such as excessive bleeding in women and also child health.

She learnt the practice from her aunt who was a TBA. I started by helping her prepare equipment during circumcision and later I started helping in the actual job under her supervision and finally I could do it on my own.

She reported that circumcision and delivery are issues relating to women. Most of the older circumcisers are also the TBA while the younger persons only do circumcision. This is because some people go to hospitals to deliver but non-go to hospital for circumcision.

She normally remove the upper and the lower skin as well as removing the protruding part which is the male part of a female organ she then stitches the two sides leaving only a small hole for urine and menstrual blood using traditional fibers and stick the sides using a gum tree which also enhances the healing.

According to her there are many benefits to this practice as follows:

A girl who is not circumcised will not be married in our society. Girls and women have a very high sexual urge, will have it removed and controlled by circumcision. Women who are not circumcised will have bad smell and that men always enjoy sex with a circumcised woman more than the uncircumcised one. The male part in a woman is not acceptable in our tradition and that a circumcised woman is manageable and will stick to one husband while uncircumcised ones will move with other men.

According to her some people without proper training have caused some of the girls to bleed excessively and few have died. But nobody can stop death even your own doctors who are said to be very knowledgeable. We have lived with this culture for ages it is only recently that it is said that female circumcision causes problems. When women deliver at the hospital they experience problem but this is because the medical people don't understand our situation. When women are delivered by experienced TBA there is no problem.

4.4.12.4: Interview with the Kadhi.

The Kadhi must be a graduate of a recognized University with at least a first degree in Islamic jurisprudence. Must be a person of high moral standing and must be recommended by a well-known Imam or Muslim leader.

Currently there are 17 Kadhis and the chief Kadhi. Due to the shortfall some kadhis have to cover more than one district. The office of the chief Kadhi is in Mombasa.

It should be known clearly that Kadhis are not community appointed and they do not represent the community but they are employed by the government to facilitate enforcement of some aspects of Islamic law among Muslims. These include marriages, divorce, inheritance and management of trust property or waqf.

Kadhis are assisted by marriage registrars who are Imams or teachers who are accredited to conduct marriages only. These are not government employees and they operate independently but are registered with the office of the Kadhi.

In relation to the fight against HIV and AIDS, Kadhis do not have a legal framework to enforce premarital testing for HIV. However, they can only admonish and encourage the bride and groom to pretest before marriage. Due to the stigma of HIV and AIDS, it was taken as offensive to ask if pretesting for HIV was done, especially when the family is believed to be of high morality. This is because the majority of Muslims associate HIV transmission with immoral sex. It is important to educate the community on the importance and need to pretest for HIV. The Kadhis try very much to reconcile marriage couples before dissolving marriages to reduce the rate of divorce. In polygamous marriages, emphasis is made on the need for fair and justified attention to all wives and morality.

Young men are encouraged to marry if they cannot control their sexual desires.

Some of the challenges of the Kadhis are that the work load is too much and there is no adequate facilitation for transport to cover the wide area. It is also difficult to compile proper data as many marriages are not registered although they have been conducted legally and many divorces are not reported, neither are they witnessed by families. Kadhis do ensure that only in a properly dissolved marriage can any of the partners re-marry.

Some young persons go to the Imams to be wed without parental approval and in order to prevent immorality, they are wed as independent adults. It is very difficult to reconcile such a couple when disagreements arise.

Plate 4.19 Shows the gathering of Muslim leaders from the Coast region during the regional inputs. The Principal Investigator is guiding some of the proceedings.

4.4.12.5 Interview with the Imam

The Imam is a person with a good understanding of Islamic jurisprudence and is appointed by trustees of a mosque to lead daily prayers in such Mosques. This person must be a person of high moral and well-known conduct as well as acceptable to the community. The process of recruitment is based on need. The community identifies the person and a delegation is appointed to make the offer to the Imam for his acceptance. Once the Imam accepts, the terms of reference are agreed upon and an overseer committee is established to supervise the Imam. When a person is appointed as an Imam he automatically becomes affiliated to the Imam council in his region. The Imam council gives guidance to Imams on their daily operation and coordinates the Imam activities in the region.

There is an Imam for every mosque and sometimes a leader Imam for every village or community. Among the roles of the Imams is the leading of the five daily prayers, the development and delivery of Friday sermons and those of the two Eid prayers. They also participate in other National functions in their area of operations such as participating in the district community development committees. Some of the Imams are also marriage registrars and therefore they do conduct weddings as representatives of the kadhi. In relation to HIV and AIDS, the Imam plays a key role in educating the community on HIV and AIDS modes of transmission and prevention.

Imams also provide spiritual counseling with a religious support for the affected and infected. Imams advise on moral family life when they conduct weddings and they also admonish fairness and justice for those who wish to marry more than one wife which is acceptable. The Imams are also frequently consulted in conflict resolutions in marriages and this provides an opportunity to prevent dissolution of marriage and to provide

counseling in prevention of HIV and AIDS. It is possible for Imams to demand pre-marital testing for HIV when this has been agreed in the community. Among the constraints experienced by Imams and teachers is the lack of regular income.

Due to high stigma some members of the congregation consider HIV and AIDS as a disease of immorality, and that overemphasis on it in mosque sermons is not acceptable.

4.5.1 Regional inputs from the districts.

After the National conferences, the focus group discussions and the key informant's interviews, I went to the districts with the aim of capturing any more risk factors that were specific to the regions and to confirm what has been raised at the national level. I also intended to quantify as well to determine the causes of some of the identified risk practices. This way it would be possible to enrich the policy guide with specific regional interventions as well. The following are some of the district concerns for the Northern Region.

4.5.2 Border entry points as a risk for HIV

It was reported from the Northern districts of Moyale, Mandera, and parts of Ijara as Hulugho and Liboi that border lifestyles were also a high risk for HIV transmission. This was also reported in Kwale Lunga Lunga, Taveta Namanga Malaba and Busia. The borders were associated with being risky for HIV transmission in the following ways.

In Ethiopian side of Moyale, the level of prostitution is very high as well as alcohol consumption. More than half of the premises are bars and restaurants which are associated with commercial sex work. Culturally interaction between men and women is not only accepted but also highly encouraged.

There is the “no mans land” which is an area between the two countries which belong to none. Where governments have no adequate cooperation these areas are used by criminals for illegal drug taking and at times cases of rape are also reported.

The existence of people on movement and transit such as traders between the two countries, refugees coming to Kenya as a transit country to USA, Europe and Australia enhance risk-taking behavior such as drug taking involvement and sexual activities. This also enhances the risk of HIV infection.

Due to insecurity border points have military camps, which are commonly also associated with alcohol and acceptable high level of involvement with commercial sex activities.

This is also the case in the Mandera side of the border but here the additional concern is the lack of a government which means lack of order and therefore incidences of violence forced sex was common. Many cases of rape by the military men went unreported as people feared being victimized and branded as bandits, ending up with much suffering and torture. In the western border to Uganda and Sudan the kneeling waiters and CSW are a well-known attraction to the long distance truck drivers and transit passengers. It has been reported here that there are higher commercial rates for skin-to-skin sex if the client does not need to use condoms. In Isiolo another transit town CSW are named according to their age where 9-12 are known as NIKE 15-20 COCA COLA and 25 years and above are known as MITUMBA. In 2004, Isiolo reported that in February there were 10 persons at the VCT none were positive, in March 15 visited 2 females were positive and in April 57 visited 1 male and 9 females were positive. **Medical Officer of health, Isiolo(2004).**

4.5.3. Blood safety

There is regular need for blood transfusion especially during childbirth in the northern part of Kenya. Due to lack of blood banks in those areas it is the youth who are the common donors. Only the rapid tests are available and it is likely that donors in the window period may go undetected and there is likelihood of HIV transmission through the blood transfusion in the remote areas in Northern Kenya. Medical officers confirm that they only transfuse blood when it is the only option or as last resort.

4.5.4 Drug Abuse

Several different drugs were abused by Muslims in the different regions. In the urban areas the well-known hard drugs, which include heroine and cocaine in different formulation and given different names. It was reported that most of these hard drugs are now increasingly finding their way to the rural Muslims area. Among youth it was also reported that consumption of the high concentration alcohol commonly referred to, as KUMI-KUMI packed conveniently in satchets was on the increase especially in boarding secondary schools. This adversely affects the reasoning power and judgment and many boys have been reported to be involved in cases of rape after consumption of such alcohol. Mass rape cases in schools have also been reported in Eastern and central parts of Kenya.

Cannabis sativa or bhang has been on the increase with many people growing it in western provinces and Nyanza and transporting it to Nairobi where it finds its way to different parts of the country. Some of the beach boys in the coastal towns are known to have a cartel that operates and sale this drug to tourists.

A more common drug traditionally known to be associated with the Muslims is the Khat or miraa. The botanical name of this product is *Catha edulis*, which is said to have similar properties as amphetamine. This drug has been associated with many of the divorces and

cases of immoral sex and therefore its role in the transmission of HIV is well indicated. Many men have been known to abandon their responsibility of feeding and caring for their families when they get involved in the consumption of this plant. One of the reasons this plant is popular among Muslims is that its acceptance or rejection is quite clear in Islam and that it is illegal but majority of the consumers attempt to indicate that this plant is not forbidden. Other drugs with lesser implications in the transmission of HIV are the different formulations of tobaccos including the smoking and the sniffing types as well as chewing types. These are increasingly being consumed by both young and old Muslims.

4.5.5 Causes of divorce

There were different causes of divorce depending on the region and culture. However majority of cases of divorce were not based on religious teachings. It is obvious that many Muslims abuse this privilege. The following were some of the major causes of divorce as reported during the district inputs workshops: Lack of tolerance among couples, Tribal and clan conflicts and class issues, family interference especially female side, poverty (inadequate sustenance), changing roles of women (becoming bread winners), Infertility among women, Sex of child (especially girl child only), envy from first wife when another wife is married, disease and unfaithfulness (rare though).

4.5.6 Wife Inheritance

Wife inheritance commonly thought of as a culture of Nyanza and Western is also practiced among the Miji Kenda tribes of the coast as well in northern districts of Kenya. The traditional philosophy behind wife inheritance was really a positive caring for the wife whose husband has died and the children who were regarded as belonging to the clan or community. This practice is also acceptable in Islam subject to the acceptance of the widow otherwise she

has the liberty to reject such arrangements. This is among the practices that have been abused out of ignorance. Only widows whose husbands were rich are inherited so that she does not take the wealth out of the family. Sometimes the consent of the lady is ignored. This is totally unacceptable in Islam.

4.5.7 Polygamy

In Islam, a man can marry more than one wife and to a maximum of four wives. This is a privilege and not a command. It is very clear in the Quran that this privilege is strictly conditional. Unless one is able to treat all his wives justly then he should only marry one. There were different causes of polygamy depending on culture and religion. The following are some of the major reasons for polygamous marriage in the districts;

It is a way to ensure decency and avoid extra marital sex. It is a Sunnah (act and sayings of the Prophet) since the Prophet S.A.W had many wives. For the rich it's a good way to distribute and reflect ones wealth. In the North it is conflict resolution by marrying from an enemy clan. It is an additional labour force. One can have many children. Selection of the sex of child if first had only boys or girls. Infertility or illness in first wife. Dignified status in some society if you have many wives. Sexual dissatisfaction for different reasons.

4.5.8 Involvement of women

There had been very slow involvement of Muslim women in programs and activities outside the home. These trends are however changing with more women being involved in high positions in society and also among the women themselves. As earlier indicated there is a directorate of women affairs and youth affairs at the National level of the Supreme Council of Kenya Muslims. However these organs need to be strengthened.

4.5.9 Property Inheritance.

There had been much criticism on the lack of equality among the Muslims male and females in that daughters inherit only half of what male child inherits. This has been explained in that Islam demands that men take care of their wives and daughters irrespective of what the women own. This implies that women in the long run are more advantaged than what many assume. What the boy child inherits is expected to care for many others including sisters and mothers and what the girl child inherits is her own despite being little. She can share it but it is not mandatory on her.

4.5.9.1 Voluntary counseling and testing (results of a plenary discussion)

It was observed that Muslims do not attend to voluntary counseling and testing for the following reasons.

They believe they cannot have HIV because they have good morals.

The VCT centers are places where people of poor morals and those who are suspicious of themselves can attend. Due to stigma on HIV if you were seen going to VCT, it is automatically believed you have HIV and AIDS irrespective of the actual results.

It is best not to know your status this is based on a cultural concept:” the devil you don’t know will not harm “If you don’t know your status you can live with the problem.

In some of the VCT centers the lack of confidentiality was blamed. Individual results will be a subject of rumor mongering in the village the next day. At the VCTs, condoms are encouraged in sex irrespective of who you have sex with. This is not acceptable.

In the earlier times there was no assistance given after your results. Results are not conclusive and put you into anxiety and stress.

Table 4.4.31 Rates of Divorce and Polygamy as estimated at the districts

	Districts	No of participants	Estimated % Divorce	Estimated % Polygamy
Coast	Lamu	50	30	35
	Tana R	48	25	25
	Malindi	45	20	25
	Kilifi	45	25	20
	Mombasa	50	30	25
	Kwale	40	25	20
	Taita	40	20	15
N.Estern	Mandera	45	30	35
	Wajir	43	30	30
	Garissa	48	35	30
	Ijara	45	30	25
Upper east	Moyale	38	25	30
	Marsabit	40	25	30
	Isiolo	40	30	25
Lower east	Meru	30	15	10
	Machakos	42	15	10
Central	Nyeri	50	15	10
South .rift	Nakuru	46	20	15
North .rift	Kitale	43	15	15
West	Kakamega	38	15	15
Nyanza	kisumu	50	20	20
	Nairobi	50	20	25

This data was collected at the district inputs workshops. The figures on polygamy and divorce are estimates through consensus by the participants. In order to facilitate the estimates by participants they were asked to think of the estimates in terms of proportion of 10, these were then converted to percentages.

Table 4.4.32 Estimated Amounts spent on Miraa daily and number (weekend)

	Districts	No of participants	Est % Divorce	Estimated % Polygamy	Amount spent on miraa	Remarks
Coast	Lamu	50	30	35	350,000	
	Tana R	48	25	25	180,000	
	Malindi	45	20	25	450,000	Tourism supported
	Kilifi	45	25	20	200,000	
	Mombasa	50	30	25	2,200,000	Much more on wedding
	Kwale	40	25	20	150,000	
N.E	Taita	40	20	15	150,000	
	Mandera	45	30	35	900,000	
	Wajir	43	30	30	800,000	
	Garissa	48	35	30	1,500,000	
u.east	Ijara	45	30	25	200,000	
	Moyale	38	25	30	300,000	Source Ethiopia
	Marsabit	40	25	30	180,000	Local grown
l. east	Isiolo	40	30	25	250,000	Close to meru
	Meru	30	15	10	200,000	
	Machakos	42	15	10	250,000	
s.rift	Nyeri	50	15	10	150,000	
	Nakuru	46	20	15	350,000	Majority Muslims
n.rift	Kitale	43	15	15	180,000	
Western	Kakamega	38	15	15	100,000	
nyanza	kisumu	50	20	20	380,000	
	Nairobi	50	20	25	2,500,000	Majority Muslims

In Lamu, Malindi and Mombasa in the Coast province many Muslims were involved in different income generating activities that were related to the tourism industry. The rate of indulgence in drug abuse was on the increase. There is higher consumption of miraa during weddings as it was assumed to be acceptable in society. Many youth organizations under the Imam councils have undertaken local surveys to estimate amounts of khat consumption. This was achieved by estimating amount sold by the cess collected by the local county and municipal councils, which was based on the amounts of khat offloaded.

Although the price of khat fluctuated with different seasons and the different areas, the quantities were given monetary value at the time of the investigation. The estimates are therefore a daily consumption estimate on peak days such as weekends.

Table 4.4.33 Number of estimated Muslim hard drug addicts

	Districts	No of participants	Est % Divorce	Estimate d % Polygamy	Amount spent on miraa	Number of drug addicts 2004	Number of drug addicts 2006
Coast	Lamu	50	30	35	350,000	200	350
	Tana R	48	25	25	180,000	<100	<100
	Malindi	45	20	25	450,000	600	1100
	Kilifi	45	25	20	200,000	150	250
	Mombasa	50	30	25	2,200,000	8000	15000
	Kwale	40	25	20	150,000	200	400
	Taita	40	20	15	150,000	<100	<100
N.E	Mandera	45	30	35	900,000		
	Wajir	43	30	30	800,000		
	Garissa	48	35	30	1,500,000		
	Ijara	45	30	25	200,000		
u.east	Moyale	38	25	30	300,000		
	Marsabit	40	25	30	180,000		
	Isiolo	40	30	25	250,000		
l. east	Meru	30	15	10	200,000		
	Machakos	42	15	10	250,000		
	Nyeri	50	15	10	150,000		
S.rift	Nakuru	46	20	15	350,000		
N.rift	Kitale	43	15	15	180,000		
Western	Kakamega	38	15	15	100,000		
Nyanza	Kisumu	50	20	20	380,000		
	Nairobi	50	20	25	2,500,000	5000	8,000

Number of drug addicts among youth in the coast was known as many anti-drug activists are in operation and have their own networks. However this information was not available in some areas where the problem was not so serious.

Table 4.4.34 Estimated Prevalence of FGC, FGB and Sunnah circumcision

	Districts	No of part	Est % Divorce	Estimate d % Polygam y	% prev FGC	%FGB	Sunnah %
Coast	Lamu	50	30	35	15	30 smoke	25
	Tana R	48	25	25	40	20 FGB	<10
	Malindi	45	20	25	<10	30 smoke	25
	Kilifi	45	25	20	<10	25 smoke	25
	Mombasa	50	30	25	<10	40 smoke	30
	Kwale	40	25	20	<5	20 smoke	<10
	Taita	40	20	15	<1	<10smoke	<10
N.E	Mandera	45	30	35	>95	25 FGB	<5
	Wajir	43	30	30	>95	30 FGB	<5
	Garissa	48	35	30	<95	30 FGB	<5
	Ijara	45	30	25	>95	35FGB	<5
u.east	Moyale	38	25	30	<95	30FGB	<5
	Marsabit	40	25	30	<95	30FGB	<5
	Isiolo	40	30	25	<95	25FGB	<5
l. east	Meru	30	15	10	<5	-	-
	Machakos	42	15	10	<1	-	-
	Nyeri	50	15	10	<1	-	-
S.rift	Nakuru	46	20	15	<5	-	-
N.rift	Kitale	43	15	15	<5	-	-
Western	Kakamega	38	15	15	<5	-	-
Nyanza	Kisumu	50	20	20	<5	-	-
	Nairobi	50	20	25	<10	-	-

Divorce was determined by consensus among the participants and was discussed as a proportion for ease of perception of the participants. It was then converted to percentages for ease of presentation. Divorce ranged between 15% and 20% in western Kenya and parts of central. It increased as you moved to the Muslim concentrated areas where they were the majority. The highest rate was in Garissa where divorce rate was about 35% and it was attributed to the change in lifestyle where more women were becoming the bread winners and husbands complain of insubordination by wives. Majority of divorces in Northern Kenya were initiated by the women rather than men. In order to reduce these trends elders

decided to make it difficult for wives to initiate divorce by putting a condition that every woman who demands for divorce must pay the husband four cows, which was a standard charge for the area. Polygamy was in the range of 10% and 35% with similar trends where the rates are lower in areas with Muslim minority for example Meru, Machakos and Nyeri and increasing when you moved into the Muslim majority areas. It was highest in Lamu and Mandera with about 35%. FGC level were now decreasing with more awareness conducted by Muslims to Muslims. Behavior change with regard to FGC was slow as those involved in the interventions were not Muslims or locals persons. The Muslims were now more involved. FGB was less talked about and little is known about the extent and the effect of the practice on the society.

Table 4.5.1. Responses on Policy needs and implementation.

Issues raised	Male N=174	Female n=86
Do you think we need a Muslim policy on HIV and AIDS yes	98% (170)	95% (82)
Reasons for the need –more acceptable to Muslims yes	96 (168)	94 (81)
- It addresses Muslim concerns yes	96 (167)	93 (80)
- Condom only in marriage yes	86 (150)	75 (65)
- We are fully involved in development yes	91 (159)	84 (73)
What are likely implementation problems high stigma yes	94 (164)	91 (79)
Lack of health infrastructure yes	83 (145)	58 (50)
Lack of follow up yes	85 (149)	75 (65)

Table 4.5.1 indicates the response to the need for a Muslim policy on HIV and AIDS and the reasons for that need. 98% of men and 95% of women confirmed the need. The policy being more acceptable was an overwhelming 96% and 94% for men and women respectively.

Worthy of note is the issue on condom use in marriage only, raised some arguments that many of our youth get involved in premarital sex and that we need to review this stand. Lack of health infrastructure was not very well accepted as a reason for difficulty in implementation as we had always been used to private or Christian health facilities.

CHAPTER FIVE

: DISCUSSIONS

5.1 Muslim physical, social infrastructure and teachings.

It is estimated that the Muslim population in Kenya is between 25 and 30% of the total population. It is one of the largest groups of people bound by a common faith and order.

The population concentration is mainly in Northern Kenya and the Coast provinces. This also reflects the concentration of the Muslim physical and social infrastructure positioning in

Kenya. According to estimates **UNAIDS, (2006)** Kenyan population stands at 34 million. All other provinces have pockets of Muslim populations with more concentration in urban centers such as Nakuru, Kisumu Eldoret and Kitale. There has been a high out migration from the North as a result of drought and famine and the decline in the livestock industry. This has reduced the geographical isolation that has in the past provided protection against diseases.

From the Coast province many of the youth travel to the other urban centers of the country as well as to the Middle East. In addition the coast of Kenya is one of the tourist attractions.

Tourism has positive economic impact and a negative health implication in terms of diseases including HIV transmission. Many local people are influenced to adopt lifestyles that include

risky practices. The pockets of Muslim population in other parts of the country are known to live in the low income areas such as the majengos where the risk for HIV/AIDS infection is

also high. Young persons aged 10-24 years which forms a large portion of the Muslim

population is most at risk of becoming infected with HIV in developing countries **Hoffman et al, (2006)**.

The Muslim physical and social infrastructure is regarded as the mosques, madrassas (Muslim school learning religious education only) and Muslim managed secular schools (with

religious subject being integrated). Also included as part of the Muslim infrastructure are the Muslim or faith based organizations run or managed health and other facilities such as orphanages. All active social organizations and especially those involved in social welfare, poverty alleviation and HIV and AIDS management, control and prevention are included.

In recognizing the importance of the religious organizations **Watt et al (2009)** reported the need to involve religious organizations in HIV and AIDS prevention. In the Coast province there is a higher concentration of mosques and madrassa than most other provinces. There are 1225 mosques 4191 madrassas 40 Muslim managed schools 4 hospitals and 380 social organization. It should be understood that Islam does not encourage special homes for orphan children rather the children should be absorbed families of relatives. Orphanages are only established in special circumstances such as nomadic or Pastoralist cultures.

In North Eastern province there are 318 mosques 86 madrassas, 17 Muslim run schools and 11 orphanages and 144 social organizations. There are no Muslim run health facilities at the time of data collection but after this study sensitization a Khadija dispensary was established in one of the mosques in Mandera and one of its component services is the VCT. In Eastern province there were 178 mosques, 62 madrassas, 5 Muslim managed schools, 2 hospitals, 9 orphanages and 24 welfare organizations 5 of which are women organizations actively involved in HIV and AIDS prevention activities. Out of the 9 orphanages 6 are concentrated in the nomadic districts of Marsabit and Isiolo. The health facilities are in Isiolo and Mtito Andei in Makueni district the later intended to address road traffic accidents along Mombasa – Nairobi highway.

The Central province has less Muslim population has 40 mosques, 31 madrassas, 3 secular schools, 2 health facilities one in Thika and 1 (one) in Nyeri, with 36 Muslim organizations.

Observing high alcohol consumption and risky sexual behavior in Moshi **Mitsunaga et al**

(2008) noted that the churches were involved in raising awareness against harmful practices.

The health facilities are faced with financial constraints as a result of stoppage of Muslim donor organization in Kenya. There is a historical link to the high Muslim Population in Western province. This is associated to the relation between the tribal king Mumia and the Muslim traders in the past century, where many people especially from the present Butere Mumias district converted to Islam and influenced other districts. There are 212 mosques in the province, 142 madrassas, 22 secular schools 1 (one) hospital and 2 dispensaries, 62 social organization 20 of which are women organizations. HIV prevalence is generalized in all provinces in Kenya between 1% in north eastern and 15.3% in Nyanza **Republic of Kenya KAIS,(2007)**. These infrastructure could be used in the fight is against HIV and AIDS. On infrastructure **Hoffman et al, (2006)** observed that despite the infrastructure, there is evidence of effectiveness of programme that are facility based and use outreach to provide information and services to those at risk.

Nyanza province there are 64 mosques, 65 madrassas, 4 schools, 1 health facility, 2 orphanages and 122 social organizations 33 of which were regarded as risk practice for HIV infection were also common in Nyanza.

In Nairobi there was difficulty in understanding the constituency boundaries. It is therefore possible that some of the infrastructure were counted in the wrong constituency. There are 61 mosques, 102 madrassas, 3 schools, 6 health facilities and 5 orphanages in Kibera. There were 170 social welfare organizations. There were more HIV and AIDS activities among Muslims in Kibera. They may as a result of being more affected or being targeted for by organizations that provide support. **Auerbach et al, (2006)**, emphasizes the need for new and more effective interventions.

In Rift Valley, Nakuru had the highest number of infrastructure with 24 mosques and 25 madrassas and all the 2 health facilities in the province. There are also 15 women's groups out of the 55 social organizations in the province.

Bhattacharya, (2005) considers such infrastructure as social capital resource and emphasized their use as an approach in the development of HIV prevention programme.

It is indicated that in most countries the early civil society initiatives are the foundations on which the nation response has been built as it is the civil society which remains at fore front of prevention, care and support **UNAIDS, (2006)**.

In recent observations on comprehensive prevention **UNAIDS, (2006)** comments that the steady growth of the AIDS pandemic stems not from the deficiencies of available prevention strategies but rather from the worlds failure to use the highly effective tools at its disposal.

5.2 Discussion on Knowledge and Attitudes.

The importance of good health was well emphasized where 85% males and 76% females indicated that they were in very good or fairly good health. When asked on whether health was a matter of self-responsibility, the Islamic perception of health as is believed to be ultimately the prerogative of God Almighty influenced the 36.2% of males and 13.0% of females to think that health is matter of luck. **Jang et al, (2006)** noted that persons with more positive perception of health were less depressed.

In kwale which is one of the areas with high level of poverty, 98.5% of males and 97.4% of females agreed that health is the most important thing. In talking on introducing new intervention in HIV prevention **Schenker et al, (2007)** observed there is need to intensify knowledge and share information.

Disapproval of premarital sex was only 41.8% for males and 63.8% for females in Kwale while at the National survey; the disapproval was at 91.95% for males and 91.8% for females. This is attributable to fact that in Kwale the sample involved in the survey included who were not Muslims. In a survey conducted in Burkina Faso reported that 48.7% of secondary school students had sexual intercourse **Ouerdraogo et al, (1996)**. This implies that premarital sex has been accepted in most societies and the stress is on safer sex. Learning about sexuality is important in the prevention of HIV and AIDS. In Kwale the main source of such information was indicated as friends with 43.4% while in the National survey friends and other relatives had 28.7% and 41.37% respectively. More effort must therefore be made to improve our sources of information for improvement of communications.

Ulasi et al, (2009) reported that in Ghana, mass media and church were the highest source of information while **Ouerdrago et al, (1996)** reported media was main source of information. Assessing the knowledge of HIV and AIDS like in many other countries awareness was high at 98.2% males and 94.1% females were aware. This was comparable to similar observation in Mozambique **Font et al, (2006)**. In Kwale the awareness also was 94.8% and 97.4% for males and females respectively. However **Muturi, (2005)** talking of Kenya observed that although awareness was high, majority of the population lacked proper understanding of the message.

Comparing a similar survey **Chemtob et al, (2006)** reported a 99% accurate knowledge on mode of transmission in Israel. **Font et al, (2006)** observed that inequalities in knowledge were based on education level. In Kenya factors that influenced levels of awareness were gender education and whether it was urban or rural with the urban being more knowledgeable.

Generally the level of knowledge among Muslim is superficial with little knowledge on details that will adequately empower them to be able to prevent HIV transmission. Similar situation was observed by **Linn et al, (2007)** with regard to China.

Knowing someone with HIV has an implication on how people respond to the infection. 64.3% of males and 66.4% of females knew someone infected with HIV at the National level while in Kwale this slightly lower at 53.0% and 56.0% for males and females respectively, Awareness of someone infected with HIV was reported as a likely factor to influence one to go for HIV testing (**Norman, 2006**).

Many years into the pandemic there was still high stigmatization of HIV. In the National survey only 32.12% males and 23.2% females would accept unconditionally to stay in the same house with an infected person. This attitude increases non acceptance and also the failure to disclose ones status which in the long run increases the risk of infection to others. Only 35.6% and 37.2% of males and females respectively would accept unconditionally working in the same workplace. In Kwale it was even worst with only 14.2% and 6.0% of males and females who would accept to stay in same house while only 26.1% males and 15.5% of female would accept working in same place with an infected person. This stigma was also observed among health workers where it was reported **Infante, (2006)** that even among health workers stigma is high where 23% of health workers would not buy food from PLWHA.

There is need to address stigma as this is known to prevent people from going for HIV testing and in some cases non-adherence to ARVs. **Orne –Gliemann, (2006)** noted that KAPB were useful to monitor programme progress.

The image in people's mind when they hear AIDS has also contributed to the high stigmatization. In Kwale 50.4% of males and 51.2% of female, and 31.7 % of males and 32.5% of females said their imagination was that of death, punishment and that of fear respectively. In the National survey, which was mainly Muslim leaders, the concept of HIV influenced the response where AIDS is considered as punishment from God. 26.43% male and 34.88% of females reported that AIDS gave them the imagination of punishment 28.73% males and 26.74% females imagined death and punishment while 18.96% and 12.79% males and females respectively imagined fear. There is need to overcome the negative images people have of AIDS which increases stigmatization and adversely affect the intervention efforts

As expected among the Muslims especially at the National level where majority are of older age brackets involvement in extramarital sex is low. Only 2.2% of males and 2.3% of females reported this practice. This practice was much higher in Kwale with 66.5% and 62.5% of males and females respectively reported involvement in such practices. Persons secretly married to more than one wife responded to this question in the affirmative giving the indication of high rate of extramarital sex. Looking at contraception and sexuality among youth in Kisumu **Oindo, (2002)** reported that youth aged 15-24, 73.5% were sexually experienced. Most of these would be premarital sex.

There was also very low commercial sex that is paying or receiving money for sex at the National survey which was 1.7% and 1.1% for males and females respectively

This was however very high in the Kwale survey. The explanation to this was that there are many cohabiting relation without marriage. When the men come home during the weekend they have to pay money for the house upkeep.

Commenting on successful behavior change communication **Muturi, (2005)** suggested that this must include strategies that focus on increasing understanding of the messages given rather than general awareness. In order to sustain the low prevalence in Muslim areas there is need to strategize the intervention to include appropriate communication that will reduce risk practices in the community. In discussing condom distribution and HIV testing, it was important to note that VCT and safe sex is the cornerstone of Kenyan's fight against the HIV epidemic **Republic of Kenya, KNASP (2005/6)**. However indiscriminate distribution of condoms was strongly opposed by the different faith based organization including Muslims. According to the Muslims religious leaders, condoms can only be used within marriage for any reason as long as it does not cause harm to those who use them.

Only 7.4% and 6.9% of males and females respectively reported using condoms in the last sexual intercourse in the National survey while in Kwale it was much higher 7.9% and 51.6% respectively which is comparatively very high for Kenyan standard. (Condoms were distributed at a nearby dispensary a week prior to the survey which influenced the answers).

However, it was lower if we compare to a similar survey conducted in Israel **Chemtob, et al (2006)** reported 72 to 73% condom use for prevention of pregnancy and STIs.

Orne –Gliemann et al, (2006) reported 29.8% ever used male condoms in Zimbabwe in a similar survey. In Burkina Faso **Font et al, (2006)** observed that 72.9% of men and 91.3% of women did not use condoms in sex. One of the very low percentages of correct answer is in relation to the usefulness of antibodies testing in early infection. This question is very relevant to the Muslim community especially in the remote northern region where blood transfusion could still be a big risk. Only 54.0% and 48.8% males and females respectively gave the correct answer at the national level while in Kwale it was 47.8% and 50.0% for males and

females respectively. Needle sharing as a risk was correctly answered by 92.5% and 87.1% for Kwale 88.5% and 79.0% males and females respectively for Nairobi. According to **Medical Officer of health Kilifi, (2005)** out of 110 IDUs in Kilifi 80 of them were HIV positive as a result of needle and syringe sharing. In Israel **Chemtob et al, (2006)** reported that 97% of responded knew that re-use of needles and syringes was a mode of HIV transmission.

Knowledge that HIV positive mothers can transmit infection to their young is important for the prevention of mother to child transmission. In this survey 89.6% and 86.0% of males and females respectively correctly agreed to this fact in the National survey. This was 94% and 89.7% in Kwale for males and females respectively.

Orne Glieman et al, (2006) noted that in Zimbabwe PMCT at both community and individual levels were still insufficiently understood and applied as well.

The other questions asked were in relation to STD as a risk for HIV and kissing as a way of HIV transmission in the Kwale survey 76.1% of males and 81.9% of females and 67.9% of males and 37.9% of females correctly answered the two question respectively. **Chan, (2006)** reported that an understanding of the interplay between sexual practices, STIs and HIV may facilitate the development of effective treatment and prevention strategies.

The low understanding of kissing as a mode of transmission should be addressed more thoroughly, to avoid wrong information at the National level it was even lower, with 54.0% and 58.1% on STDs and 48.8% and 54.6% for kissing for males and females respectively.

These figures do not agree with **Muturi, (2005)** who noted that awareness on STD and HIV is high in Kenya. On breast feeding as a mode of transmission the knowledge was low among Muslims 52.8% and 34.8% respectively for males and females.

Awareness on sexual contact as the main mode of transmission is high about 90% or above, with regard to sexual partners the respondents were confused as to sexual partners instead of wives. However majority had only one 56.9% and 65.1% at the National level for males and females respectively while 25.3% males and 24.4% females had two and 5.7% and 2.3% had 3 respectively. **Chemtob et al, (2006)** observed that the number of sexual partners increased in 3 months by 1.3%. The Muslim policy on HIV and AIDS requires that when a man intends to have another wife, the husband, the first wife and the new wife must be tested. Attendance to VCT was very low among Muslims at 11.5% of males and 13.9% for women. This needs to be improved. **Norman, (2006)** reported 38% HIV testing in Jamaica in a similar survey involving similar age group 15-49. There is need to stress the importance of continuing to develop new and more effective interventions while attending to behavioral and social issues in prevention of HIV **Auerbach et al, (2006)**.

5.3 Discussions on perceived prevalence.

Perceived prevalence of HIV and AIDS was asked for as an indicator of extent of acceptance of the problem rather than estimation to the prevalence of HIV and AIDS in the Muslim community. Heads of household or any other respondent representing the head were asked what was perceived to be HIV infection as well as deaths that were attributed to AIDS. In which case what was reported were therefore cases which were symptomatic or cases that were known to be HIV through testing however these results do give an indication that

- a) Muslim acknowledges that HIV is there and it affects Muslims as well.
- b) Muslims are dying of AIDS.
- c) The need for collective response and prevention

Perceive prevalence in central

In Central Province this ranged from 0.74% in Kiambu to 1% in Muranga. It should be noted that this province has a low Muslim population. According to **Republic of Kenya KAIS, (2007)** this province has an average prevalence of 3.8%. This is one of the provinces with lower infection of HIV.

Perceived prevalence in North Eastern Province

This is the province with the highest proportion of Muslim population. It is also affected by high migration of the youth to other parts of the country. According to **Republic of Kenya NHDS, (2003)** the prevalence in this area is about between 2.5-4.5%. According to this study the prevalence ranged between 0.33 and 0.39% although this is low the risk practices in this area, which include polygamy, divorce, migration pattern, transport industry and poor reproductive health practices might increase the transmission at a high speed. The latest national survey **Republic of Kenya KAIS, (2007)** the prevalence in this province is still at 1%.

Perceived Prevalence of HIV and AIDS in Nairobi.

In Nairobi the prevalence ranged between 0.58% in Embakasi to 1.8% in Kibera. Although Kibera is part of Langata we separated due to the high population contacted and that Kibera reported a high number of deaths (178). Pumwani had also similar prevalence of 1.8% but with less number of deaths (31). It appears that the slum areas of Kibera and Pumwani had higher prevalence than the richer areas. These results disagree with **Kongnyuy, (2006)** who observed a higher prevalence among the rich in Cameroon. **Republic of Kenya KAIS, (2007)** survey recorded a higher than the national average for Nairobi at 9.0% while the national average is 7.4%.

Perceived Prevalence of HIV and AIDS in Coast province.

The coast had a prevalence range of between 1.3% in Lamu and 2.5% in Mombasa. This prevalence's are much lower than what is observed in the general population of about 14% in Mombasa **Republic of Kenya NHDS, (2003)**. The Coast Province has tourist influence with much high-risk behavior such as commercial sex, men having sex with men, foreign partners as well Muslim religious based practices of polygamy and divorce. The latest national survey **Republic of Kenya KAIS, (2007)** indicates that coast has an average of 7.4% prevalence and that polygamous person's prevalence is 11% while monogamous marriage it is 7%. Also divorced widowed or separated women recorded a prevalence of between 17% and 21%. According to **Madani et al, (2006)** reporting on Saudi Arabia out of 39,049 STIs reported between January, 1995 and December 1999, there were 37.3% nongonococcal urethritis, trichomoniasis 28.1% gonococcal urethritis 14.2% syphilis 8.7% HIV 7.5% genital warts 3.5% genital herpes 0.6% and chancroid 0.2%.

Rift Valley Province

Other than the urban centers of Nakuru, Eldoret, Kitale and Nanyuki town, Muslim population in Rift Valley is low. The prevalence ranged between 1.1% in Uasin Gishu to 5.9% in Koibatek. Despite the wide geographical coverage of this province it has an average prevalence of 7.0%. **Republic of Kenya KAIS, (2007)**

Nyanza Province

As in the National reports Nyanza Province has also a high perceived prevalence among Muslim ranging between 3.6% in Migori to 7.8% in Nyando. In this province it was observed that families were divided between the religions and both Muslim and Christians were found in the same households. In addition to Kisumu and Homa Bay, there was a high concentration of

Muslim population in Karachuonyo district (Kendu Bay). The latest still indicated the highest average prevalence in Nyanza at 15.3% **Republic of Kenya KAIS, (2007)** According to the **Republic of Kenya NHDS (2003)** districts in this province such as Suba had up to 34% prevalence. The latest reports therefore reflect marked improvement in the reduction of infection.

Perceived Prevalence of HIV and AIDS in Eastern Province

The prevalence here ranged from 2.25% in Embu to 6.4% in Nyambene. Isiolo and Moyale with high influence of risk behavior from the neighboring country reflect lower prevalence than expected of 2.48 and 2.8% respectively. It should be noted that there was sometimes high district prevalence in Meru which were associated with Majengo where some of the Muslims live. This area recorded an average of 4.7% prevalence comparatively low than many other areas. **Republic of Kenya KAIS, (2007)**

Western Province

Butere mumias with a high Muslim population in Western province had a perceived prevalence of 1.59% the lowest in the province while Mt. Elgon had the highest with 6.8%. The prevalence's in this province among Muslim are comparable to Nyanza province. The generally low prevalence in predominantly Muslim areas were comparable to countries such as South Africa with 2.56% **Kagee et al, (2005)** Morocco 1% **El harti et al, (2005)** and Indonesia with 60,000 among the total population (**UNAIDS, 2006**). This province has a low prevalence of 5.1% **Republic of Kenya KAIS, (2007)**

Also according to the **Republic of Kenya NHDS, (2003)** HIV prevalence was much lower in Muslim compared to others. It was 2.7% Muslims, 8.9% Roman Catholic, 9.2% Protestants and 11.1% for those with no religion. The mean prevalence for coast province among Muslims

was 2.1%; Nairobi 1.2%, North Eastern 0.35% Central 0.85% Rift Valley 3.11%, Nyanza 5.5%, Eastern 4.50% and Western 5.48%. This gives a national average prevalence among Muslims in Kenya as 2.8%. These results agree with the finding of the **Republic of Kenya NHDS, (2003)** of 2.7% as National Muslim prevalence.

Lee et al, (2006) comparing risky behavior observes that risky behavior among Malaysian youth is low but there is need for early intervention. There is need for intervention in the Muslim areas to sustain the low prevalence level. Describing the importance of understanding these perception **Ulasi et al, (2009)** reported such findings will guide the design of interventions against HIV.

5.4 Discussion on identified risks for HIV infection among Muslims in Kenya.

5.4.1 Migration

In this group of risks for HIV and AIDS transmission, migration was considered as a risk. This included both inter country as well as intra-country migration.

Majority of the Muslim youth from the Coast look for jobs in the Middle East, Europe and USA while those from North East have also taken advantage of the political instability in Somalia to also seek refugee status in Europe, Canada, USA and Australia. Since migration has been reported as a risk **Sommerville et al, (2006)** the need for religious institutions to confront the HIV pandemic challenges in the migrant communities they serve **Chin et al, (2005)** has been emphasized.

CARE in their HIV and AIDS programme trained and supervised peer educators including male migrants, their wives the prostitutes they encounter and the Muslim religious leaders who preach weekly in mosques. The people from the Coast working in the Middle East are away for 1-2 years. Migrants are sometimes forced by their circumstance to be involved in risky

behaviors such as drug abuse, commercial sex as well as homosexuality **Sommerville et al, (2006)**. Due to the collapse of the livestock industry in North Eastern Province, the most migrant group now in Kenya are Muslims of Somali origin. In general Muslim understanding of HIV and AIDS is lower than that of Christians. Most of the migrant communities of Somali origin are known to go back to their rural home for marriage and this could be the explanation for the increasing incidence of HIV in the geographically isolated North Eastern districts.

There is no much difference in the perception of international migration being a very serious problem between males and females. 28.2% of the female participants thought it was a serious problem while 25.3%, of the males perceived it as a serious problem. However there was a significant difference in gender perception of it being not a problem at all. Only 1.2% of males thought it not a problem at all while 8.2% of female perceived it not a problem.

5.4.2 Armed forces

Being in the armed forces was identified, as a high risk for HIV infection for several reasons among them is that members of the armed forces undertake risky sexual behavior as well as other risky practices such as substance abuse. In quantifying the armed forces as a risky through the one to 5 (1-5) scale and comparing gender perception 32.5% and 22.5% women considered it a very serious problem and serious problem respectively compare to men which was 26.3% and 14.4% respectively. Together with the other scales there was significant difference between gender on perception of level of risk $P=0.058$.

Confirming this **Ortiz et al, (2005)** conducting a survey on the Angolan armed forces observed that 37% had more than one sexual partner, may had little knowledge of STIs and HIV and there was heavy alcohol use before sex.

Volzhanin et al, (2005) reporting on HIV infection in Russian armed forces said that the levels now pose a serious threat to the national health and countries safety. In Kenya quite often the military personnel are separated from their spouses for long periods during security operations in the Northern Kenya or along the Kenya borders.

5.4.3 Male and female prisons

There are between 40,000-50,000 thousand prisoners in Kenyan jails. The conditions in these prisons are deplorable and the risk of HIV and AIDS is high due to homosexuality and in other risky behavior such as injecting drug use. This risk is more pronounced in male prison than in female prisons. According to reports **Shekh Manzil, (2004)** there were 4000 Muslim prisoners in 2003. Majority of them were imprisoned on charges of substance abuse. There was reported incidence of lesbianism in the female prison but at a much less extent.

There was a highly significant difference between male and female perception of female prison being a risk ($p = .000$). Only 9.0% and 4.8% of men thought female prison was a very serious problem and just a serious problem respectively compared to women who were 21.7% and 14.55% respectively.

There is need to reduce gender inequality and stigmatization **Yang, (2006)**. It is estimated that there are over 9 million people in prison at any given time and that condition in most prisons make them extremely high risk environments for HIV transmission **Kang et al, (2004)**. Both homosexuality and intravenous drugs are regarded as risk factors for HIV transmission **Barbera, (1996)**.

Heintz et al, (2006) admits that there is little done in relation to lesbianism although **Pinto et al, (2005)** reported 2.9% HIV infection among other infection in Brazilian women were those who have sex with other women. In the focus group discussions it was reported that lesbianism

is on the increase as men increasingly abandon their responsibility to satisfy their spouses sexually.

5.4.4 Separated Spouse as a risk for HIV infection

According to Islamic history and teachings **Umar, (635AD)** ruled that married couples where possible should not be separated for more than 4 months. There was no significant difference in the perception of separation of spouse as a risk between male and female participants. Many of the participants during the workshop believed that the system should not allow longer separation of married couple as this would increase the risk to engaging in immoral sexual practices. **Saggurti et al (2009)** observed that men who lived in the city while their wives live in the rural home were more likely to be involved in risk behaviours.

5.4.5 Suspected *e.coli* infection.

Women in North Eastern districts reported high incidence of infection estimated over 60% among those attending clinics. This suspected to be *Escheriachia coli* infection resulting from self-contamination from rectal to vaginal orifice when using water during anal cleansing. The removal of the labia majora and labia minora during infibulations a practice very common in the region could be attributed to the problem, as the main function of the labia is the protection of the vaginal orifice and inner organ.

Bacterial enteric infections have a big impact on human health **Chao et al, (2006)**. Little is known about this infection and there is need to confirm the etiology. **Vanloock et al, (2006)**.

In human **Hoshi et al, (2006)** reported that *e.coli* grew in blood culture in a 63 year old man who had presented with fever after a transrectal prostate biopsy. **Pelly et al, (2006)** also reported an outbreak of *e.coli* in a nursing home in Ireland while in Thailand out of 660 adults with diarrhea between 1980-1981 *e coli* was isolated in 5% of the cases among other infection.

It is reported that men have herpes like rash when they have sex with women who are infected. This raises suspicion among couples and is also known to result in some cases of divorce.

5.4.6 Transport Related Risks

The transport industry includes long distance trucks, short distance matatus or public transport and taxis. It was clear that there was regional variation in the perception of risk in this category. In Mombasa the public transport drivers and touts were associated with immoral risky sexual behavior especially with schoolgirls. In the Northern districts the taxis were particularly said to be a menace in enhancing commercial sex by facilitation of transportation of the women to their targets. As this practice is highly abhorred in the Muslim society the taxis provided the much needed cover.

Concerned about drivers, in Saudi Arabia **Abdel moneim et al, (2002)** observed that foreign drivers had more knowledge on HIV and AIDS than the local drivers. While **Rao, (1999)** reports that as risk of infection among truck drivers increased, a national programme was established to improve awareness diagnosis and treatment of STIs including HIV and AIDS. In India **Org, (2003)** reported that 80% of truck drivers and their assistants had sex outside their regular relationship while on travel and 8% had sex with male partners.

In Kenya and other African countries Muslims have invested in the transport industry and also employing Muslim drivers and assistants because this is an accepted income generating activity. **Lankoande et al, (1994)** reported an 18.6% prevalence of HIV among truck drivers in Burkina Faso and **Bansal et al, (1992)** noted that 88.6% of senior drivers confirmed regularly visiting prostitutes and that substance abuse was common among them including alcohol and marijuana. **Gysel et al, (2001)** Talking on Uganda reported that truck drivers stop briefly at truck stops for several reasons – eat, sleep, have sex and sell goods they are carrying. In depth

interviews with managers of this industry in Kenya indicate a continued concern for the high infection rates and death among employees. The role of mobile population in the spread of HIV has been documented in many countries **Major Ahmed, (2005)** also agrees that the Muslim military are also affected by this regular movement or mobility.

Most of the risk factor identified in this study have also been targeted as priority vulnerable groups **Republic of Kenya National HIV and AIDS strategic Plan (2005/6 -2009/10)**

5.4.7 Female Genital Burn

It was estimated that 15-25% of women practice some kind of genital burning. This is conducted after delivery in which case the aim is to reconstrict the vagina for better friction during intercourse. Vaginal burning is also conducted when an infection is suspected and commonly manifested in foul smell. This could be done anytime of the year. Re-infibulations is also sometimes done after deliveries. Different instruments are used for the burning including 6-inch iron nail, metal rod or ordinary stainless steel tablespoon. The instrument is heated in an open flame and inserted into the vagina. Liquids such as oils herbs and other medicines are also used as well as perfumed smoke from burning scents. The smoke is commonly used to dry the reproductive canal.

Little is known of the effect of these burns on health but cases of infections as well as damage to gall bladder have been reported during the discussion. **Kuczkowski, et al (2005)** reported that the most common etiologies of trauma in pregnancy include among others burn injuries and recommends that surgeon should understand the anatomical and physiological changes when handling such cases. Severe vaginal ulceration was also reported secondary to insertion of an alkaline battery **Yanoh et al, (2005)**.

Merritt *et al*, (2004) suggested the need to understand whether the injury is accidental or abuse and to provide psychological support for the victims in the management of genital injuries. Even though the prevalence of the practice is low in urban areas it is very common in rural areas and there is urgent need to conduct studies that will determine the implication of this practice on health in general and reproductive health in particular and to initiate an appropriate intervention **Karama, *et al* (2007)**. There is no significant difference between men and women on the level of seriousness of this problem. In thermal burns **Sagi, (1997)**, cautions that remedies must protect against uterine pathogens and suggests that isolated burns to the vulva are unusual as the area is anatomically well protected. In our local situation the anatomical protection is no longer there and the burn is deep and deliberate.

5.4.8 Blood Relation and Cupping

This practice was mentioned because it was common a few years ago. It is slowly disappearing. People who were not biologically related and have a very close relationship which is not sexual would cause little bleeding either by needle prick or razor cut on a finger or palm. Then the two or three or more persons who wish to establish this relation mix the blood with their own. This will bond them together in brotherly non-sexual relation.

Little is known about these practices in the younger generation. **Dement *et al*, (2004)** talks of blood and body fluid exposure only as needle stick injuries and splashes as risks for blood borne infection including HIV, HBV and HCV among health care workers. **Sonder *et al*, (2006)** with regard to Amsterdam laments that despite the widely available post exposure prophylaxis (PEP) the number of request for the service is low. The danger of the risk of blood infection transmission and the poor understanding of our rural community of other modes of transmission other than sex makes the blood relation and cupping a glaring risk for spread of

HIV. Cupping is more common than blood relation. It is practiced by older men and women who experience different body pains. In the past a small sharp knife and an animal horn were the equipment used. Small incision 3 or 4 are made usually on the back about 5-7mm in length and about one millimeter deep. The same equipments were used on different persons without sterilization. The horn is placed hard on the incised area, which creates a suction that draws blood. It was believed that by so doing unclean blood will be removed and the person will have some relief. This practice has the potential of enhancing the transmission of HIV and AIDS especially among the older generation. (**Baggaley et al, 2006**) reported that infectivity estimates for infected blood is higher than known. There is need to study the extent of this practice as well as educate the community on the danger. **Rapparini et al, (2007)** recorded that six circumstances comprised most exposure: recapping needles, performing surgical procedures or handling surgical equipment and handling trash during disposal into sharp containers.

5.4.9 Youth related risk behavior

In this group homosexuality, drug abuse, early sex and age difference between younger girls having sex with older men were identified as risks associated with the youth.

Only 2.4% of women indicated that drug abuse was not a problem at all compared to 17.7% of men **Somerville et al, (2006)** observed that migrant youth are likely to be involved in homosexuality which is a high risk for HIV infection. **Moser, (2001)** in discussing women and HIV in United States of America reported an increase in number of women dually diagnosed with HIV infection and substance abuse and that 42% of women diagnosed with AIDS has been through injecting drug needles. **Dun right, 2006, Barbera et al (1996)** have also associated homosexuality and substance abuse as high risk of HIV infection.

As indicated in this research there is an increase in the number of addicted youth as a result of the hard drugs such as cocaine from about 8000 in Mombasa in 2003 to 15000 in 2005 **Ndetei, (2004)** confirmed the link between drug abuse and HIV transmission in Kenyan youth.

Bartholow et al, (2006) Reported recent outbreaks of syphilis and gonorrhea and an increase in HIV risk behavior raised concern about resurgence of HIV in North America. Another problem in homosexuality was the stigma attached to it and that gay did not identify themselves as gay **Pathela et al, (2006)** which posed a problem among healthcare workers.

In Kenya there is an increase in all the identified risks behaviors among youth in drug abuse according to indepth interview with a key informant **Murad, (2005)** there were only 7000 drug addicted youth in 2003 and in 2006 there are over 20,000 in Coast province alone. **Stimson, (1995)** reported that with the advent of drug injection 50% of users were HIV positive as early as 1986. There is a reported increase of homosexuality in the Boarding Schools in areas where the practice was not common before. The problem of drug abuse among the youth is magnified by the availability of khat a drug with the chemical cathinone which is a cause of social evil **Damen, et al, (2004)**.

5.4.10 Divorce

Divorce is one of the abused privileges allowed in Islam. Muslims are allowed to divorce only as a last resort after all options have been exhausted. The first step towards reconciliation is the spouse admonition; this is followed by the denial of conjugal relation and followed by light physical beating. If at that level no success is seen in establishing a good stable reconciliation then mediation from family members from both sides is invited. At all times it is upon the couple to initiate action (**Quran 65:6**)

According to the Focus group discussions carried out in the districts, it was estimated that the divorce rate among married Muslims is high at between 10% in the low Muslim population area to about 30% in the North eastern and Coast provinces. This is high compared to 9 divorces in every 1000 in Muslim minority in Singapore, which was 4 times higher than Malaysia **Wikipedia, (2006)**

The French civil code permits divorce under 4 circumstances: where there is mutual consent, acceptance, separation for 2 years and due to fault by one partner, while in Japan there are four types of divorces mutual consent divorce, family court mediation divorce, family court judgment divorce and divorce through the district court **Wikipedia, (2006)**

Although divorce is blamed for enhancing the spread of HIV and AIDS, in Malawi **Smith, (2005)** reported that women used divorce to reduce their risk of infection.

In UK the main causes of divorce in 2004 were extramarital affairs 27%, family strains 18% emotional or physical abuse 17%, mid life crisis, addiction to alcohol and gambling 6% and workaholics 6% **Wikipedia, (2006)**. In Mauritania **Winter et al, (1996)** observed that factors that encouraged spread of HIV/AIDS include social acceptance of homosexuality, widespread trade migration and frequent divorce and marriage. **Bartlett, (2001)** found that in USA 43% of first marriages ended up in separation or divorce within 15 years with 1 in 3 ending with 10 years and 1 in 5 ending within 5 years. **Brining et al, (2000)** reported that it was the women who filed more than two thirds of the divorce cases in USA. In UK men engaging in extramarital sex were 75% of all cases while only 25% of women did so. In the case of family strain or interference it is the women's family in 78% of the cases while only 22% of the men's family is the cause of family strains. Workaholics were more caused by men at 70% of the cases (**Wikipedia, 2006**).

These trends have similarity with our local situation where family strains jealousy and involvement with other women have been mentioned as causes of divorce except in North Eastern and parts of Eastern province where jobless men were reported not accepting their working wives coming back home late. In explaining discordance **Bennette *et al*, (1999)** noted that divorce or separation from previous husband, younger age at first sex and higher number of sexual partners on the part of the wife were predictive of her husband being seronegative. Confirming divorce as a risk **Ryder, *et al* (1990)** reported among the risks factors in men was receipt of transfusion, a history of genital ulcer disease, urethritis, being divorced or separated were independently associated with HIV infection. In Kenya divorced, separated and widowed women have a prevalence of between 17% and 21% **Republic of Kenya KAIS, (2007)**

Polygamy

In Islam polygamy is a solution in support of widows and orphans. According to the **(Quran 4:3)** the permission for polygamy was up to 4 wives but conditional to being able to deal with all justly. In confirming the role of polygamy being a solution **Bennett, (1999)** observed that there is frequent partner change in male and female monogamy. In Kenya the HIV prevalence among monogamous marriage was 7% while among polygamous marriage it is 11% **Republic of Kenya KAIS, (2007)**

5.4.11. Tourist influenced risk practices

Tourism in Kenyan Coast has more adverse effect on cultural destruction than the economic advantage. One of the adverse effects includes the adoption of foreign cultures which is a risk for the transmission of HIV infection. There was no significant difference between genders on the perception of the risk from this source. **Nemato, *et al* (2005)** reported the risk of HIV infection for Asian women working at massage parlours in San Fransisco.

Many such massage parlors have been adopted in most urban towns in Kenya frequented by tourists. These parlors are associated with risky behaviour such as commercial sex and homosexuality. Commercial sex workers in Kenya are very familiar with the busy seasons and the off peak tourist seasons. They are also familiar with target clients such as different ship crews that visit the seaports with regard to arrival and departure dates. They therefore prepare for their trade in accordance with these schedules. Some do their trade through such parlors and others as barmaids or waiters in different premises as a catchments point. It is well known that most commercial sex workers do it as a source of income and they are at a higher risk of getting HIV and other infections **Wechsberg et al, (2005)**. There is concurrence among both males and females on the perception of risk among the participants. **Nemato et al, (2004)** reported CSW also use drugs to cope with relationship, sex work and financial hardships. Other tourist influence which are foreign cultures include gay bath houses and sex clubs which existed in San Fransisco much before AIDS and only became a concern after 1984 **Disman et al, (2003)**. In the West, due to increasing needs it was becoming necessary to have special services for gay and lesbians **Olmstead, et al (2004)**. These practices are also becoming common in our society and such needs are becoming increasingly necessary.

Off Peak as a risk

When the tourism is low and there are fewer clients, commercial sex workers face many hazards including violence, illness as well as stigma and marginalization **Hansen et al, (2002)**.

In Angolan armed forces **Ortiz, (2005)** reported that military personnel have heavy consumption of alcohol before having sex with CSW. **Hansen et al, (2002)** said that in order for CSW to overcome these problems they cultivate a relationship with clients and prioritizing

their role as mothers. It is this cultivation of relationship with local men that was identified as risk for HIV infection as they target men who have wives and family.

Due to this gender bias there is a significant difference between males and females in the perception of the off peak as a risk. Women perceive it as a very serious problem while men do not. There was also regional variation in the perception of this risk as the off peak phenomenon does not exist in Northern Kenya.

Lesbianism

According to the Focus Group Discussions with women participants the practice of lesbianism is on the increase in our urban society. Although among Muslims it is still low there is need to put an intervention in place. **Lou, et al (2006)** noted that women having sex with women (WSW) is an increasing challenge while research has been done to examine HIV and STD risk among them **Heinz, et al (2006)**. **Pinto, et al (2005)** talking about Brazilian lesbians reported that 38% had previous STD among other infection and there was 2.9% HIV prevalence. **Koh, et al, (2005)** does agree that women of all sexual orientation including lesbians, bisexuals and heterosexuals engage in behavior that put them at risk of HIV and STDs while **Marazzo, et al (2004)** reported that human papilloma virus, HIV, treponema pallidum and Trichmona vaginalis has been reported among lesbians.

Since all sexual orientation as described **Koh et al, (2005)** are at risk there is need to have special services for gay and lesbians **Olmstead, (2004)**. Education of the concerned persons will counter the assumption that sex between women does not confer risk for transmission of sexually transmitted infections.

5.4.12 Borders as a risk

In Morale there were very few Muslims who attended the VCT and most of those who used the services were from the Ethiopian side. There was doubling of Tuberculosis cases over the last few years. There were 325, 499, 644 and 794 cases of TB in 2000, 2001 2002 and 2003 respectively while more than 50% of TB was HIV related **Medical Officer of Health Moyale (2005)**.

5.4.13 Stigma of HIV and AIDS.

It was noted that stigmatization of HIV was high among Muslims as a result of the conception that HIV is a sexually transmitted infection and those who got infected was a result of immoral sexual behavior **Karama, et al (2005)**. The different type of stigmatization identified included self-stigmatization where the infected individual or the affected stigmatized oneself by isolation or exclusion from normal human interaction. There is also the stigmatization by others where when people get to know a person who is infected they stigmatize him or her through different types of discrimination, isolation and looking down upon them. In the Muslim society there is the stigma at death. Several rituals are normally conducted for the dead including body cleansing and prayers. When somebody dies of AIDS related causes there is also the discrimination and no one is willing to undertake the usual rituals. In the coastal area especially in Kwale people tended to own their dead and were opposed to any preventive measures in implementing the rituals such as the use of rubber gloves instead of the traditional cloth gloves. **Karama, et al (2006)** noted that more than 80% of people in Kwale imagined death and fear when they heard about AIDS. However due to the concept of death that it is inevitable they are somehow more prepared to accept it as it comes.

Rintamaki, et al (2006) observed that social stigma may prevent PLWHA from revealing their status as well as being barriers to treatment adherence even though **Kippax, et al (2006)** argues that rolling out treatment would reduce stigma. **Mak, et al (2006)** suggested that attributions of controllability, personal responsibility and blame were applicable in explaining stigma.

According to the results there were significant difference in the perception of the degree of risk between males and females with regard to self stigmatization where while 43.9% of women thought it was a very serious problem only 30.5% of men thought so. On the lower scale 23.2% of men thought it was not a problem at all while only 3.7% of women thought the same. **Yang, et al (2006)** called for gender inequality needs to be addressed in stigmatization reduction and this was echoed by **Sandelowski, (2004)** who reported that women experience stigma in relationship with others and that even those not infected are stigmatized. **Mak, (2006)** in comparing stigma reported the highest stigma was on HIV followed by TB and SARS respectively. There was also a significant difference in the risk perception between genders on the stigmatization by others where women perceived it as a serious problem more than men. Stigma was associated with increased levels of anxiety, loneliness depressive symptoms engaging in avoidance coping strategies **Courtney-Quick, et al (2006)** while it was also associated with unmet mental health care **Roeloffs, (2003)**.

The image one gets when they hear of HIV and AIDS is linked to the Islamic concept of HIV which is that it is perceived as punishment and associated to death and fear.

It was observed that stigma affected all aspects of prevention including VCT, adherence to ART, premarital testing and counseling. Much of this aspect of stigma was as a result of poor understanding of modes of transmission other than the sexual mode. The Coastal Muslim have a concept of hiding behind ignorance where there is as saying “**that the devil you don’t know**

will do no harm to you". These concepts encourage them to keep away from VCT centers where they can find out their status. As long as they don't know they have HIV it will do them no harm. Islam discourages stigmatization of others for whatever reason (**Quran 49:12**). There is therefore need to address all types of stigma of HIV and AIDS through proper knowledge as well as by using the strength in Islamic teachings on the subject.

Blood transfusion

According to **Medical Officer of Health Marsabit, (2005)** out of 172 normal blood donors 62 were HIV positive and about 30 % of patients were HIV positive in Marsabit. Despite efforts by the Ministry of Health **Republic of Kenya Blood transfusion, (2003)**, blood safety in the remote health facilities remains a concern.

Discussion on circumcision as a risk for HIV infection

The most convincing historical origin of the FGC that provides circumstantial evidence is that the practice originated from the time of Ramsey II the Pharaoh of Egypt during the time of Moses. After the Pharaoh was informed that a son would be born among the Israelites who will topple his rule and dominance. To prevent this from happening and to ensure he could monitor all babies that are born among the Israelites, he introduced a circumcision practice and made sexual intercourse possible but made delivery very difficult that a woman must get help to deliver a baby. In this way they were able to monitor all new borns. In the process it was observed that the practice reduced sexual aggressiveness among women and was also adopted among the Egyptians as a way to control women. It then spread to other countries in the region that were influenced by the Egyptian civilization. Circumcision is noted to infringe on human rights. **Mann et al, (2008)** observes that International guidelines on HIV and AIDS and Human

rights further recognizes the need for a supportive and enabling environment for women and other vulnerable groups.

Circumcision in the FGC form is a practice that was wrongly attributed to Islam like many other Arab cultures. It is sometimes difficult to separate aspects of culture and the specifics of religion in the persons who introduced new religions to Africa. The Arabic word for circumcision is “Khitān” and this type of circumcision is called “Khitān al firauniya” meaning the Pharaonic circumcision. This also confirms the linkage to Pharaonic historical era the FGC.

Mella, (2003), observed that one of the attributing factors to the high maternal mortality in Tanzania is the female genital mutilation.

Women involvement.

This research noted women involvement among Muslims in Kenya in HIV and AIDS is low.

(Brou, 2005) reported the importance of women involvement at all levels of interventions.

Women are more likely than men to experience discrimination and violence when their HIV status becomes known. **Maman et al, (2008)**. In emphasizing the involvement of women

Baiden et al (2005) suggested the up scaling of couple testing as way to prevent HIV and AIDS spread. The ability to address gender issues is central to the success of programmes and reducing women and men’s vulnerability to HIV and its impact **USAID, (2004)**

Among the vulnerable groups identified for intervention in the National strategic plan

Republic of Kenya NHASP, (2005) included discordant couples, commercial sex workers, orphans and vulnerable children, migrant workers, uniformed services, survivors of rape and sexual violence, injection drug users and men who have sex with men.

CHAPTER SIX

6.1 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This study identified some of the risk practices and the capacity of both Muslim physical and social infrastructure to address the epidemic. The role of FBOs as key stakeholders in the fight against the epidemic has been stressed by both government and donor agencies.

There is diversity in risk practices between regions which need to be addressed at the regional level. Men and women perceive risks for HIV differently as a result of cultural and lack of adequate and equal knowledge between men and women. The of this study was therefore to determine the perception of the Muslim to HIV and AIDS and to identify risk practices among them with the aim of developing a Muslim national policy on HIV that will coordinate their response to the HIV and AIDS scourge.

There is a good potential support if participation of the National Muslim organs will empower the massive mosques and madrassas network in the country and using the faith teaching in addressing behavior change and risk reduction.

Despite the low prevalence among Muslims there is need to have evidence based strategic plan to sustain the status. This will contribute to the current National priority of reducing the rate of new infection.

6.2 Summary

6.2 Summary

This study identified the risk practices among Muslim and through the information and knowledge gathered a policy was developed to address such risks by implementing an effective intervention through Muslim physical and social infrastructure as part of the Faith based organization contribution to the Kenya National HIV/AIDS strategic plan.

6.3 Muslim Institutional Infrastructure

There is need to mobilize and coordinate the different Muslim institutions and to empower them for a more effective participation in the fight against HIV taking into consideration the Muslim risk behavior and practices.

6.4 Physical Infrastructure of Mosques, CBOs and Health Facilities

There are about 3000 mosques in the country, 5000 madrassas or Islamic schools, 100 Muslim managed secular schools, 22 different level of health facilities and about 1000 community based organizations involved in HIV and AIDS activities in the country. The potential role of these entire infrastructure has not been fully exploited in fight against HIV and AIDS.

6.5 Knowledge and Attitudes.

The questionnaire was administered both at the National leader's workshop as well as in Kwale district. Knowledge on HIV and AIDS was high but could be improved in terms of quality.

There were low scores at both levels with regards to the usefulness of antibodies in detecting new infections. Other low score was on sexually transmitted diseases as increasing the risk of HIV infection. Lowest scores among women was the possibility of breastfeeding to transmit HIV infection, only 34.8% and 52.8 % of women and respectively agreed.

Knowledge levels are very superficial with both men and women lacking in details as to modes of transmission and prevention of HIV.

6.6 Perceived Prevalence of HIV

The Muslim perceived prevalence was in some areas agreeable to the National health and demographic survey findings. In North Eastern it was about 0.3%, in the coast among Muslim 2.5%, in Rift Valley about 5%, in Nyanza about 7%, Eastern about 4.5%, in Western 6% and Nairobi 1.8%. As these were community estimates of the extent of the HIV problem they however were an important indicator of acceptance that the problem affects them as well.

6.7 Risk practices

Grouping risk practices identified for ease of understanding. These included work related risks among them was international and local migration, male and female prisons, separation of spouses and armed forces.

The transport industry related risk practices involved drivers and touts in matatus, taxis and the long distance trucks. Many of them were involve in risky sexual behavior that exposed them and others to HIV infections.

The youth related risks included increasing homosexual practices, drug abuse especially injecting drugs and early sex.

Tourism associated risks affected the coastal areas and other urban centers in the country. They included adoption of foreign cultures, commercial sex, foreign sexual partners, child sex, lesbianism and gay practices and the effect of off peak seasons where the commercial sex workers target the local clients during the low tourist season.

Among the cultural practices identified as increasing the risk of HIV infections included female circumcision, female genital burns, *Esherichia coli* infection and fishing industry where women have to be initiated to the industry through risky sexual practices.

Different forms of stigma were also reported as increasing the chances for HIV infection.

Polygamy, increases in divorce rates, delayed marriage process, wife inheritance and handling the sick and the dead were religious practices which were identified also likely to contribute to HIV infections. In remote Northern districts blood safety during transfusion especially in expectant mothers was identified as a risk.

All the identified risk were useful in informing the policy development process.

The Muslim National Policy on HIV.

The policy based on Islamic teachings and using the Muslim infrastructure has now been launched in the different regions of the country.

6.8 CONCLUSIONS.

There is clear and highly significant difference in the perception of risk between men and women and which call for the rejection of the null hypothesis that there was no difference. This indicates the need for specific intervention strategies when addressing HIV among Muslim community in Kenya.

From this study it is noted that the potential of the Muslim physical, social infrastructure and Islamic teaching can contribute intensely in the fight against HIV and AIDS if fully exploited.

Knowledge levels are very superficial and therefore there is need to improve quality of knowledge among Muslim community especially those in remote parts of the Kenyan Northern region and the Coast province, which will help reduce stigma and will help in reducing new infections in HIV and AIDS.

Although some of the risks identified are also common in the other Kenyan community there are many risks that are specific to the Muslims and are best addressed by them and through the Islamic teachings. Specific strategic interventions are especially necessary for polygamy and

divorce which have been identified as being prone to higher infection rates in the recent KAIS 2007 survey.

6.9 Recommendation and suggestions for Future Research

Operational recommendations

Both the NACC and the SUPKEM should work out a way of involving the massive Muslim social and physical infrastructure in the fight against HIV and AIDS and to utilize the Islamic teachings where and when necessary.

Knowledge on all aspects of HIV and AIDS must be enhanced to ensure people have adequate knowledge so as to empower them to prevent new infections occurring in the community. The identified infrastructure should be fully utilized in this process as well. The Imam council and other organizations such as madrassa teachers should also be involved.

The perceived prevalence of HIV and AIDS is an indication of acceptance of the problem of HIV among the Muslim community. It will be most opportune to increase of uptake of services that are likely to contribute to prevention of HIV especially Voluntary Counseling and Testing as well as adherence to treatment and Prevention of Mother to Child Transmission.

The specific risk practices and factors that have been identified and are likely to enhance transmission of HIV among Muslim should be included for strategic interventions in the current National strategic plan.

VCT centers which are Muslim friendly should be built near mosques for quicker uptake of the service by members of the congregation.

There are clear indications from this research that the perception of risk among Muslim men and women are different and there is need to take it into consideration in planning strategic plan of intervention and communication strategy.

The Muslim policy on HIV should be supported by the Government agents as it has the support, ownership and goodwill of the Muslims, and a component of monitoring and evaluation be put in place and ensure it is regularly updated meeting the dynamism of HIV management and control.

Future Research

I highly recommend that an operational research be undertaken in identifying an appropriate approach to mainstream HIV prevention in the Muslim infrastructure both physical and social.

There should also be a study to evaluate the use of Islamic teachings in addressing HIV management control and prevention in the Muslim community.

A study should be done to identify the most suitable communication strategy that will ensure best understanding of HIV and AIDS and is acceptable to the community.

A longitudinal study to be conducted to determine the impact of the identified risk practices on the actual transmission of HIV even though some of the risks have been confirmed in the recent Kenya Aids Indicator Survey of 2007.

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APPENDIX 1

KNOWLEDGE ATTITUDES AND PRACTICE TOWARDS HIV/AIDS
QUESTIONNAIRE

Age of respondent.....

Sex.....

Occupation.....

How is your health currently?

Very good

Fairly good

Poor.

What is your perception of good health.

Good health is a matter of self responsibility

Good health is a matter of luck.

Cannot choose

Maintaining good health is the most important thing in your life

Strongly agree

Agree

Disagree

Strongly disagree

Cannot choose

Might people infected with HIV look healthy

Yes

No

Is HIV antibodies testing useful for confirming diagnosis even a week after infection

Yes

No

Is HIV transmitted by mosquitoes or other biting insects.

Yes

No

Does needle sharing have a risk of transmitting HIV

YES

NO

Do HIV infected pregnant women have a risk of transmitting HIV to their children.

YES

NO

Does STD increase the risk of transmitting HIV

YES

NO

Is HIV transmitted through kissing.

YES

NO

Is HIV transmitted through breast feeding

YES

NO

Is HIV transmitted by sexual contact

YES

NO

Regarding premarital sex in general do you

Approve

Disapprove

Have mixed feeling

In which way did you learn about sex and sexuality.

Parents

Siblings

Other relatives

Friends

Lessons at school

Television

Radio

Magazines

How many sexual partners have you had

Do you know HIV

Yes

NO

Do you know anyone infected with HIV yes

Would you accept living in the same house as a person infected with HIV.

Not acceptable

Accept unwillingly

Accept unconditionally

Would you accept working in the same workplace as a person infected with HIV.

Not acceptable

Accept unwillingly

Accept unconditionally

When you hear the word AIDS what image do you have

Death

Fear

Fever

Uncomfortable

No negative image

Nothing in particular

Do you have any experience of paying or getting money for sex

Yes

How many sexual partners have you had all your life.

None

- 2
- 3
- 4
- 5

6 to 10
>10

No answer.

Did you use a condom when you last had sexual intercourse

Have you visited a VCT center for testing.

- YES
- NO

If yes why

Marriage requirement

I had symptoms that were suspicious of HIV/AIDS

Just to get to know my status for prevention.

If no why

VCT are for people who are not sure of themselves sexually

Going to VCT people will think you have had immoral sex

VCT is not for muslims.

It is best not to know your status

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13th January, 2004

TO WHOM IT MAY CONCERN

RE: MOHAMED KARAMA

This is to confirm that the above named person is a Senior Research Officer at the Centre for Public Health Research a department of the Kenya Medical Research Institute in Nairobi. He has been granted study leave to undertake PhD degree in Public Health and to conduct his research titled "Determinants of social cultural risk factors in HIV and AIDS infection among Muslim community in Kenya". This research will be conducted under guidance from his academic supervisors from Kenyatta University.

Any assistance accorded to him will be highly appreciated.

Joseph Mutai,

Secretary,

Centre Scientific Committee

APPENDIX 3

GUIDE FOR ISLAMIC PERSPECTIVE ON HIV AND AIDS

The understanding of HIV and AIDS according to Islamic teachings and the concept of punishment.

Islamic Teachings in the following areas:

- a) General Prevention**
- b) Prevention of Mother To child transmission**
- c) Management**
- d) Voluntary testing**
- e) Care for the infected and affected**

The view of life according to Islam

Handling of the dead

Care of orphans

Nutrition as a management of illness

The Islamic view of Islam on

women's right and empowerment.

Polygamy and Divorce

Female circumcision

Resource mobilization

Drug abuse

AIDS vaccine

Concept of Death in Islam (many HIV positive Muslims believe it is their destiny to die)

The Investigator with Imams and Elders



Fig 4.5 The Investigator with Imams and elders in Mandera District

the untrusted officers were identified...
This demonstrated the meeting was...
...was concerned that such...
...the army...

Fig 4.6 The investigator with Muslims in the armed forces



The uniformed officers were identified as vulnerable group and among them were the armed forces. This necessitated the meeting with them to understand the HIV situation among them. A meeting was organized that took place at the Lanet barracks where most of the senior officers from the army attended.



Fig 4.4.7: Muslim women leaders in one of the sessions

Women participation in HIV and AIDS activities has been wanting in Muslim communities in Kenya. This was expressed as a concern and therefore a risk for HIV transmission since their level of knowledge was low and their participation in the fight was also minimum.

This chart on tourism influenced risk behavior indicates a scattered opinion with some peak in number 1 and 5. This is reflective of regional variance in the perception of risk. Tourism is only common in the coast an a few urban areas.

Fig 4.16: The Investigator introducing The Muslim policy on HIV to Kwale leaders including the Member of Parliament for Kinango.



Fig 4.17 Participants from Kwale district with the investigator



Fig 4.18 The investigator introducing the subject of polygamy and divorce for focus group discussion in Mombassa in the presence of the kadhi.



Fig 4.19 SUPKEM Provincial rep introducing the Chief kadhi during the opening



APPENDIX 5

LIST OF PUBLICATIONS AND PRESENTATIONS TO CONFERENCES

1. Knowledge Attitudes and Practice Towards HIV/AIDS in a Rural Kenyan Community.
Journal Of Biological Sciences (2006) 38, 481-490.
2. The Challenges of developing a Muslim HIV/AIDS Policy a Kenyan Experience.
This paper was presented in Mexico Global AIDS conference 20008.
3. The risk factors Associated with HIV infections among Muslims in Kenya.
This paper was presented in Mexico Global AIDS conference 20008.