

PREVENTION OF HIV AND AIDS IN THE KENYAN  
MILITARY:THE EFFECTS OT VOLUNTARY  
COUNSELING AND TESTING AS A STRATEGY IN  
BEHAVOIOR CHANGE

BY

LTCOL MOHAMED YUSSUF ELMI  
(MPHE, PhD)

# Background information

HIV and AIDS is the biggest challenge to mankind in the 21<sup>st</sup> century comparable to Bubonic plague of the middle Ages(Museveni,2004).

AIDS is currently the leading cause of death in the military, accounting for more than half in –service and post service mortality in some countries. In Uganda 7.5% of soldiers who died within one year of discharge were suffering from AIDS. such attrition causes loss of continuity at command level and within the ranks, increased recruitment and training costs of replacement, and general reduction in preparedness, internal stability and external security. In this sense HIV and AIDS can easily serve as a domestic and regional destabilizer and potential war starter(Roger,1996)

# Global situation

- The global HIV and AIDS epidemic killed 3 million people. The total number of people living with HIV and AIDS rose to the highest estimated levels of 39.4 million people in 2004 with new infection of 2 million in 2004 only. Mother to child transmission is the most significant source of HIV infection in children below the age of 5 years. An estimated 5.1 children are infected worldwide. 10% of all reported AIDS cases in children occur in the <5 years mostly attributed to MTCT (UNAIDS, 2004).
- The military throughout the world are the most susceptible population to HIV and AIDS and other sexually transmitted diseases. This is due demographic factors where their population is mostly youthful and sexual active (World Bank, 2005)

# African situation

Sub-Saharan Africa remains by far the most worst affected region , with 25.4 million people living with HIV and AIDS at the end of 2004, compared to 24.1 million in 2002. About 64% of all the living with HIV are in sub – Sahara Africa and 76% of these are women.

Approximately 133000 births are exposed to the risk if MTCT per year and out of these 53000 infants are infected annually (UNAIDS, 2004)

Many African militaries are experiencing diminished readiness problem due to high mortality and morbidity among their personnel(DEHAPP,2005)

# Kenyan situation

The Government of Kenya declared HIV and AIDS a national disaster in 1999 due to its devastating effects. HIV and AIDS was brought to light in 1984 and it is estimated that by 2000 about 1.5 million Kenyans had died of HIV and AIDS related diseases and approximately 2.2 million people were infected with HIV virus (ROK,2000)The daily death were fluctuation between 500 and 200 people with approximately 2000new infection annually.

The cumulative number of death was estimated to have reached 2.6 million people by the end of 2005(ROK-MOH,2005

# What is In the military environment that raises the risk of HIV infection?

The World Bank reports that countries with large numbers of soldiers tend to have greater prevalence of HIV. This is linked to rates of sexually transmitted infections among the military personnel that are two to five times higher than those of the civilian population. The military is not merely the most vulnerable to HIV infection but they are most likely to spread the infection to their spouses and the general civilian population. In the military facilities are far from towns, the soldiers have limited opportunities or choice for sexual partners forcing many men from the same company sharing sexual partners (Greig, 2001)

- The risk-taking ethos of the military is purposefully inculcated by the armed forces in training and the willingness to accept risk is highly important in combat but off the battle field may increase the soldiers willingness to engage in needless risk behaviour like unprotected sex and purchase sex. (UNAIDS, 1998)
- The practice of posting personnel far from their accustomed community or their families for long period of time is probably the most single leading contributor to high HIV infection in the military as a result, the local sex industries grow in response to from the military bases and units demand (Rodger, 1996)

# Impact of HIV in the military

“ The impact of AIDS is no less destructive than war itself, and by some measures , far worse” Kofi Annan UN secretary General (2001).

Many countries are concerned that the armed forces readiness can be compromised by HIV. Commanders from countries with high prevalence worry about being able to field a full contingent for deployment on relatively short notice as the infection affects rising numbers of personnel. preparedness is also affected as the skill and experience of highly trained individual are lost due to opportunistic infection .In addition infected military personnel may transmit to wider community between husband and wife and to infant if a pregnant mother is infected to(UNAIDS,1998).

General Jacques Abgrall (1998), the deputy director of the Scientific and Technical Action in the Central Directorate of French Army health services says: Our study of the epidemiological data on HIV infection in French military personnel has shown us that tours of duty overseas multiply the risk of infection by a factor of 5. In spite of our prevention efforts, some individuals remained impervious to the usual preventive messages, although there has been a significant downturn in new infections in recent years. Nevertheless, the number of new (HIV) seropositive cases and of sexually transmitted diseases as a whole remains higher overseas than in mainland France, which means that the preventive message targeted to overseas staff must be more insistent and more repetitive.

# Prevention and control

The government of Kenya first responded to HIV/AIDS epidemic in 1985 when it launched the first of two medium term plans. In the 1990's, funding, coordination, and public recognition increased. The Parliament's 1997 sessional paper on AIDS in Kenya stressed the advocacy and policy development. Subsequent public debates increased awareness and governmental commitment at the highest levels following the 1999 presidential declaration of AIDS as a natural disaster and resulted in the establishment of the National AIDS Control Council (NACC) (ROK, 2000)

In June 2001, the United Nations General Assembly special session on HIV/AIDS unanimously adopted the declaration of commitment on HIV/AIDS, which aimed at having in place national strategies to address and respond to the spread of HIV globally by 2003.

One of these objectives focuses specifically on national uniformed services and was prompted not only by the special nature of the profession which exposes defence personnel to risky behaviour leading to high incidence of sexual transmitted infections, but also by their prominent role as guarantors of national security without which the society is threatened (UNAIDS, 2002).

# CONT.

The response of the Kenyan military to HIV/AIDS infection reflects to a great extent the history of HIV/AIDS prevention and control in Kenya. HIV/AIDS programmes were initially started to help in increasing awareness and knowledge. Knowledge, Attitude and Practice (KAP) survey conducted in 1996 in the Kenyan military indicated 90% knowledge on HIV/AIDS modes of transmission and risky behaviour. However, the increased rates of sexually transmitted diseases and low condom use and acceptability in the military indicated that risky behaviour persisted (ROK 1996). This situation was exacerbated by the fact that over 75% of the Kenyan soldiers are married and periodically separated from their families thus increasing the pool of intermittently single males (ROK, 1996).

- The military is an agency with several intrinsic characteristics that can be used to carry out HIV/AIDS prevention and control operations effectively and efficiently. These characteristics include the following:
- Discipline – The military has a strong and unified command hierarchy.
- 2. The ability to take swift action – The military has been trained in rapid situational analysis, assessment, and response.
- 3. Basic organizational infrastructure – There exists a strong fundamental medical organization in the military.
- 4. Organizational readiness – The military preparedness to deal with disease outbreaks forms the basis for coping with HIV /AIDS prevention and control (UNAIDS, 2008).

# Voluntary counseling and testing

- Voluntary counselling and testing is a HIV-prevention intervention that the client initiates. It gives clients an opportunity to explore their HIV risks and to learn their HIV status in complete confidence (ROK, 2003).
- It constitutes a very important component of effective response to HIV/AIDS epidemic. The Government of Kenya is fully committed to encouraging the provision of VCT services throughout the country so that individuals who want to know their HIV status have access to these services (ROK, 2001). VCT services can help clients make informed decisions about marriage, pregnancy, and sexual relationships. Overall, VCT services can help decrease the fear, anxiety, stigma and sense of helplessness associated with AIDS (MOH, 2001).

## Theories and models in behaviour change in HIV and AIDS prevention

Communication is central to prevention strategies aimed at influencing individual and social behavior. Since there are many variations in the contexts that determine behavior, it is evident that communication approaches to HIV/AIDS prevention and care need to be re-evaluated.

This is especially important when behavior models are imported or adapted to regions of the world that bear the main burden of the pandemic: Asia, Africa, Latin America, and the Caribbean. Most theories underlying the models and frameworks used in HIV/AIDS prevention were derived from psychology and communication. Further, many of these formulations have been borrowed from family planning and population programs, which have successfully advanced the understanding and use of information, education and communication (IEC) (UNAIDS, 1999).

# Successful HIV and AIDS prevention and control programme

An experience of Royal Thai Army

During the early stages of the epidemic in Thailand, the government recognized the potential threat that HIV/AIDS could pose to national security and its implications on uniformed services, and has acted on it by engaging its armed forces in a country-wide national program to educate its soldiers on HIV/AIDS. The swift and committed action taken by the Thailand authorities and the Royal Thai Army has assured that Thailand is now internationally recognized as a country successful in tackling the HIV epidemic (Kristoffersson, 2000).

The factors that have contributed to the success of the RTA's operations include the following:

1. Strong organizational infrastructure and management.
2. Relevant strategies and measures.
3. Determination for long-term commitment.
4. Total mobilization of resources and multisectoral coordination in the expected long term fight against HIV/AIDS.(UNAIDS ,2000)

# Statement of the problem

HIV/AIDS scourge is a huge economical, political, and social problem. The military populations throughout the world are not only the most vulnerable to HIV and AIDS infection, but are also transmitting the infection to the civil population. This is largely due to the fact that most of the military populations are mostly youthful, sexually active, highly mobile and economically empowered males. The fact that 75% of the Kenyan soldiers are married and periodically separated from their families, together with abundant consumption of alcohol, has increased the risk of HIV infection among the military community. In the absence of medical cure and vaccines for HIV/AIDS, interventions that target behavior change top the priority list. Voluntary testing and counseling is among the top global and national strategic tools designed to bring the desired behavior change that will reduce the risk of acquiring or transmitting HIV or any other sexually transmitted disease.

# RESEARCH QUESTIONS

- What are levels of utilization of voluntary counseling and testing sites in the armed forces?
- What are the social-economic factors that promote sexual behavior that contributes to effective prevention and control of HIV and AIDS in the military?
- What are the factors that promote risky sexual behavior and encourage transmission of HIV and AIDS in the military?
- What are the indicators of effective interventions of behavior change in voluntary testing and counseling?
- What can be done to enhance the existing intervention to promote prevention and control of HIV and AIDS in the military?

# JUSTIFICATION

There is a clear indication that the military population is highly vulnerable to HIV infection. Previous research indicates high knowledge awareness rate of 90%, which has not provided sufficient stimulus for behavior change. Voluntary counseling is a national strategic intervention to reduce HIV transmission and mitigate the effects of the pandemic. One of the cardinal principles of voluntary counseling intervention is behavior change. This research will provide opportunities to evaluate the effects of voluntary counseling in terms of behavior change and prevention and control of HIV/AIDS in the armed forces.

``At the moment, education and communication are the weapons we have against HIV/AIDS`` Dr.Jonathan Mann (2001) former executive director WHO

# Hypothesis

Voluntary counseling is a strategic intervention that promotes safe sexual behavior change and enhances HIV/AIDS prevention and control strategies in the military.

## OBJECTIVES

This study assesses the effects of voluntary counseling and testing as a strategic tool for behavior change in the Kenyan military.

### Specific objectives

- (a) To determine the socio-demographic profiles of the study subjects.
- (b) To determine the levels and trends of HIV infection in the military.
- (c) To determine the effect of voluntary counseling and testing in terms of utilization and acceptability.
- (d) To identify the factors that promote positive sexual behavior and reduce the risk of infection and transmission of HIV/AIDS.
- (e) To establish the factors that promote positive risk perception, health seeking behavior, and indicators of sexual behavior change in the military HIV/AIDS intervention program.
- (f) To identify appropriate strategies and policies those that augment sexual behavior change in the military and accelerate prevention and control of HIV/AIDS.

# STUDY AREA

The study was conducted in Nairobi, Nakuru, Gilgil, Eldoret, Mombasa, Isiolo, and Nanyuki towns where VCT and PMCT sites are located within military barracks in these towns (Appendix I). These sites were selected to provide a wide geographical coverage as much as possible taking into account the various HIV ethnic and regional prevalence disparities. Kenya is situated in the eastern part of the African continent. The country lies between 5 degrees North and 5 degrees South latitude and between 24 and 31 degrees East longitude. It is almost bisected by the equator. Tanzania borders it to the South, Uganda to the West, Ethiopia and Sudan to the North, and Somalia to the South East.

The country is divided into 8 provinces and 72 districts. It has a total area of 582,646 square kilometers of which 571,466 square kilometers form the land area. Approximately 80% of the land area of the country is arid or semi arid and only 20 percent is arable. The country falls into two regions: lowlands and highlands. Rainfall and temperatures are influenced by altitude and proximity to lakes or the ocean. The country has 42 ethnic groups, which are distributed throughout the country and a total population 32.2 million people (KDHS, 2003).

# MAP OF KENYA



# STUDY POPULATION

## INCLUSION CRITERIA

The military population and their dependant above the age of 15years and those willing to participate in this study.

## EXCLUSION CRITERIA

The Study population and those below the age of 15years and those unwilling to participate in the study

## ETHICLA CONSIDERATIONS

Written authority has been sought from the ethical committee and Office of the President for authority and permission to undertake the study. Informed consent has also been sought from the participants. Participation in the study has been voluntary and all participants were free to withdraw at any time without penalty and loss of privileges. Anonymity and confidentiality and privacy have been safe guarded and the researcher kept all the information obtained in strict confidence.

# STUDY DESIGN

This was a descriptive, retrospective, and prospective cross-sectional study. In a cross-sectional study, both the dependent and independent variables are measured at the same time. The study used probability as a method of sampling. Equal numbers of participants were selected from testing and counseling sites from all the regions using random selection of those willing to participate and fulfilling the inclusion criteria in the study population. The study used both qualitative and quantitative methods of data collection.

## METHODS FOR DATA COLLECTION

The instruments used in data collection included questionnaires, focus group discussion and interviews.

# SAMPLE SIZE DETERMINATION

The minimum sample size was calculated using the formula by Fisher (1998):

$$N = \frac{Z^2 P q D}{d^2}$$

P = the people who sought for PMCT and VCT services among the target population which is equal to 22%.

Z = standard normal deviate (1.96) which corresponds to the 95% confidence level.

d = Degree of accuracy desired (0.05).

$$Q = (1 - P) = 1 - 0.2 = 0.8$$

D = 1 (Design effected)

$$N = \frac{1.96^2 \times 0.2 \times 0.8 \times 1}{0.05^2} = 320$$

# DATA MANAGEMENT

After data collected were coded, summarized, and cleaned for possible errors. A database was designed in the statistical package for social sciences( SPSS) where data were encoded and entered in the computer keyed in. Both qualitative and quantitative methods of analysis were used to analyze the data. Chi-square X<sup>2</sup> was used to establish if there was a significant relationship between variables.

Data from FGDs, interviews, and observations were analyzed thematically and the summary written for the necessary explanation of the quantitative data. Retrospective record review was also done and the information was used to support the research findings.

# Results

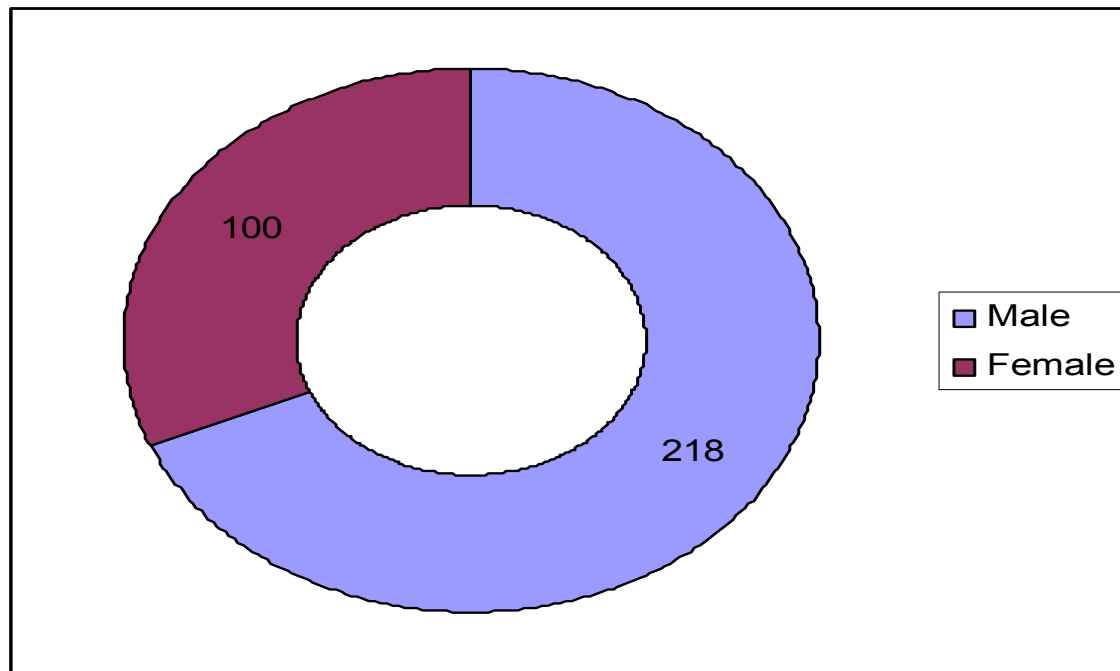
- A total 320 respondents were interviewed and 6FGD held totalling to 60 participants and review of records was done. The results are presented in qualitative relation to the specific study objectives including socio-demographic characteristic of the study population. As indicated in the table 1 below majority of the respondents (47%) were aged between 18-30 yrs, 31-40yrs (33%) and the remaining (20%) above 40 yrs and 69% of these respondents were male and 31% female.

# Socio-demographic characteristic of the study population (N)=320

| Age of respondents                     | No of respondents<br>(n) | %    |
|--|--------------------------|------|
| 18-30 years                            | 150                      | 47.2 |
| 31-40 years                            | 105                      | 33   |
| >40 Years                              | 62                       | 19.5 |
| No response                            | 1                        | 0.3  |
| Level of education                     |                          |      |
| No formal education                    | 3                        | 0.9  |
| Primary                                | 24                       | 7.5  |
| Secondary                              | 173                      | 54.4 |
| Post secondary                         | 117                      | 36.8 |
| No response                            | 1                        | 0.3  |
| Marital status                         |                          |      |
| Married monogamous                     | 135                      | 42.5 |
| Married polygamous                     | 13                       | 4.1  |
| Never married                          | 75                       | 23.6 |
| Steady partner but not living together | 37                       | 11.6 |
| Steady partner but living together     | 46                       | 14.5 |
| Widowed                                | 5                        | 1.6  |
| Separated                              | 5                        | 1.6  |
| No response                            | 2                        | 0.6  |

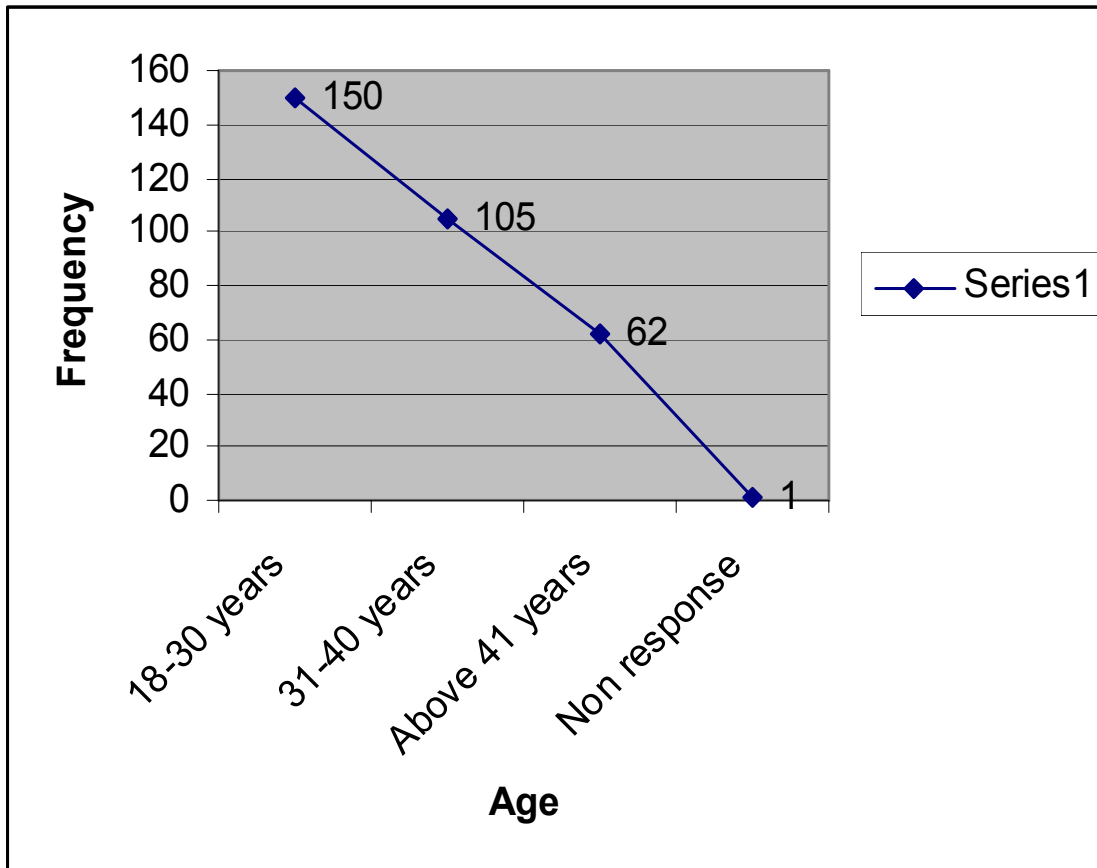
## Gender of the study population

The military is largely male dominated population as indicated below. Majority 69% of the respondents were male while one hundred 31% of them were female.



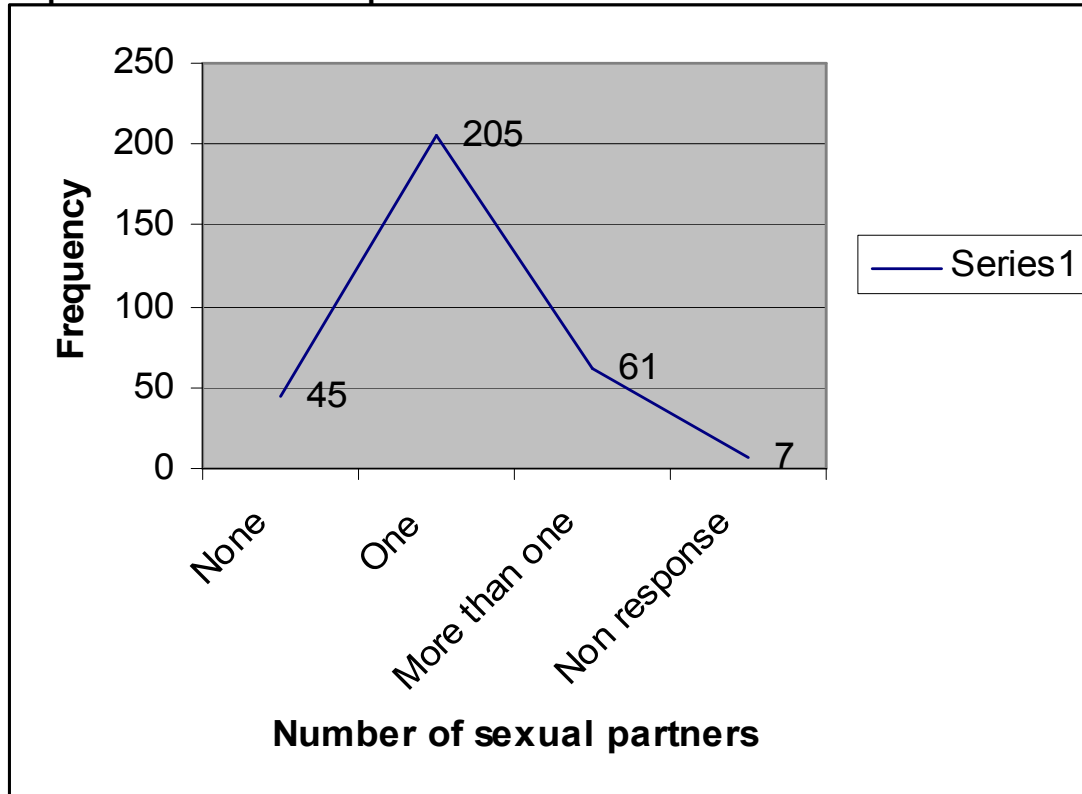
## Age of the respondents

The military population is generally youthful population as indicated below. 47.2% of the respondents were aged between 18-30 years, 33% were aged between 31-40 years while 19.5% were aged over 41 years.



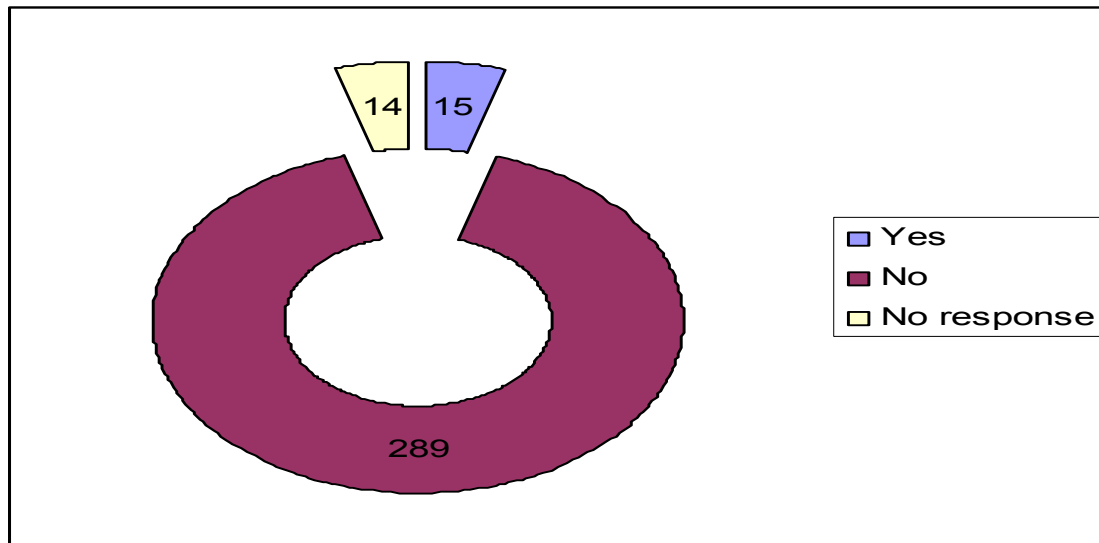
## Number of sexual partners

Despite the youthful population the military is composed of there is significant reduction in the number of sexual partners among the respondents as shown in figure. below. Where 14.2% of the respondents had no sexual partners, 64.5% had one partner and 19.2% had more than two partners in the past 6 months.



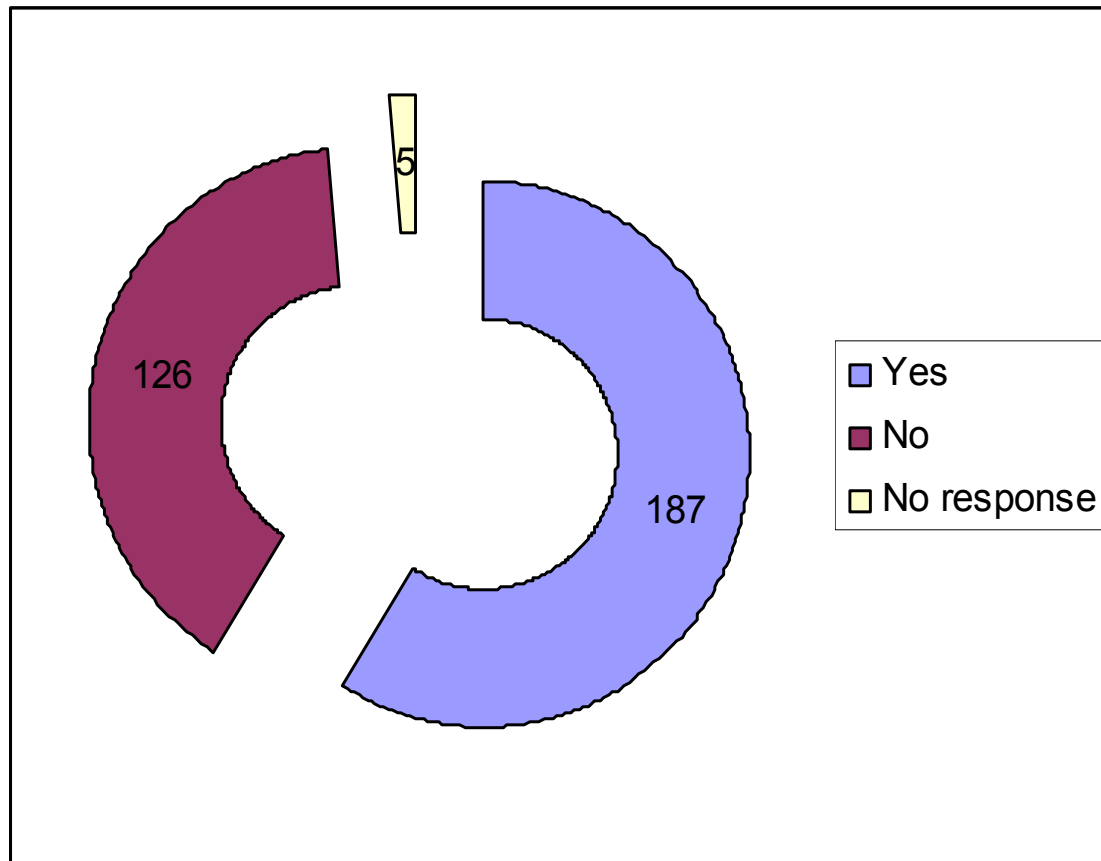
## Sexually transmitted infections among the study population

There is decrease in the sexually transmitted infections among the study population despite the youthful and male dominated population. Overwhelming majority 90.9% of the respondents had not been infected with sexually transmitted infections as show in (fig 4). In addition there is statistically significant association between the number of sexual partners and infection with sexually transmitted diseases ( $\chi^2=15.749$ ,  $df=2$ ,  $p=0.0001$ ). The findings showed that respondents with more than one partner were likely to be infected with a sexually transmitted infection.



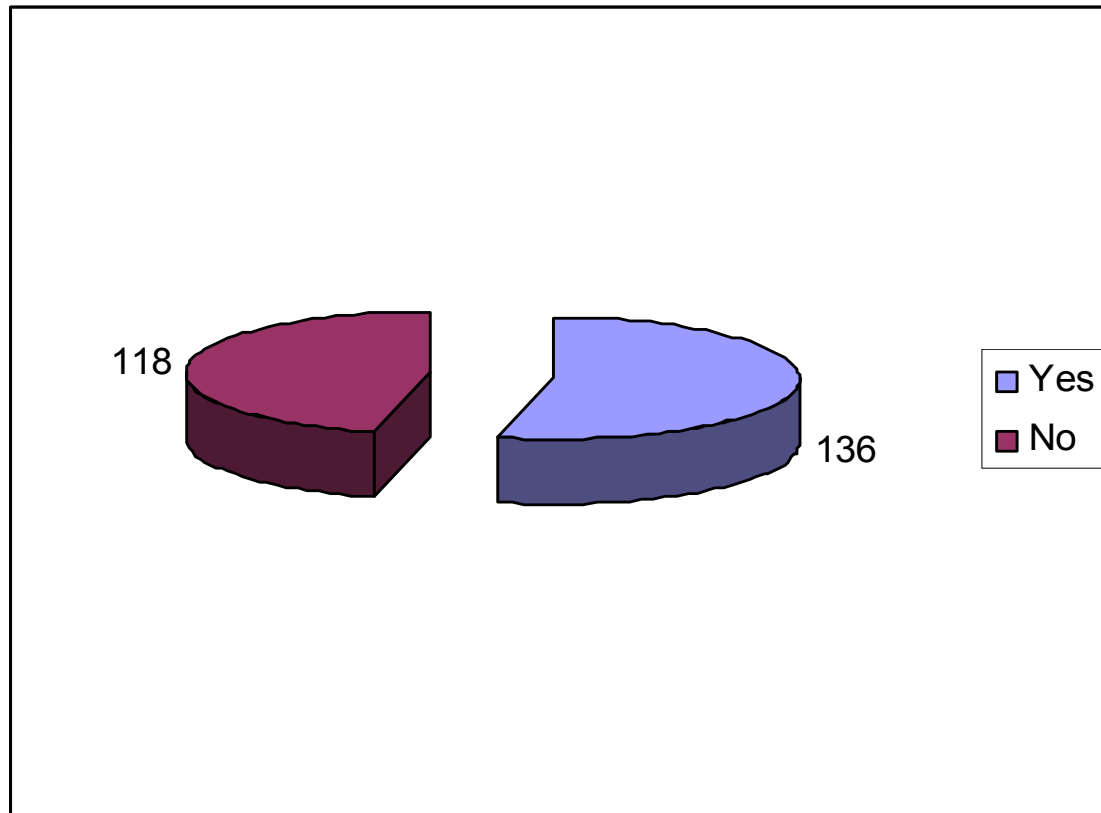
# Utilization and acceptability of voluntary counselling services

58.8% of the respondents had utilized voluntary counselling services registering a significant increase from 9% in 2003 .



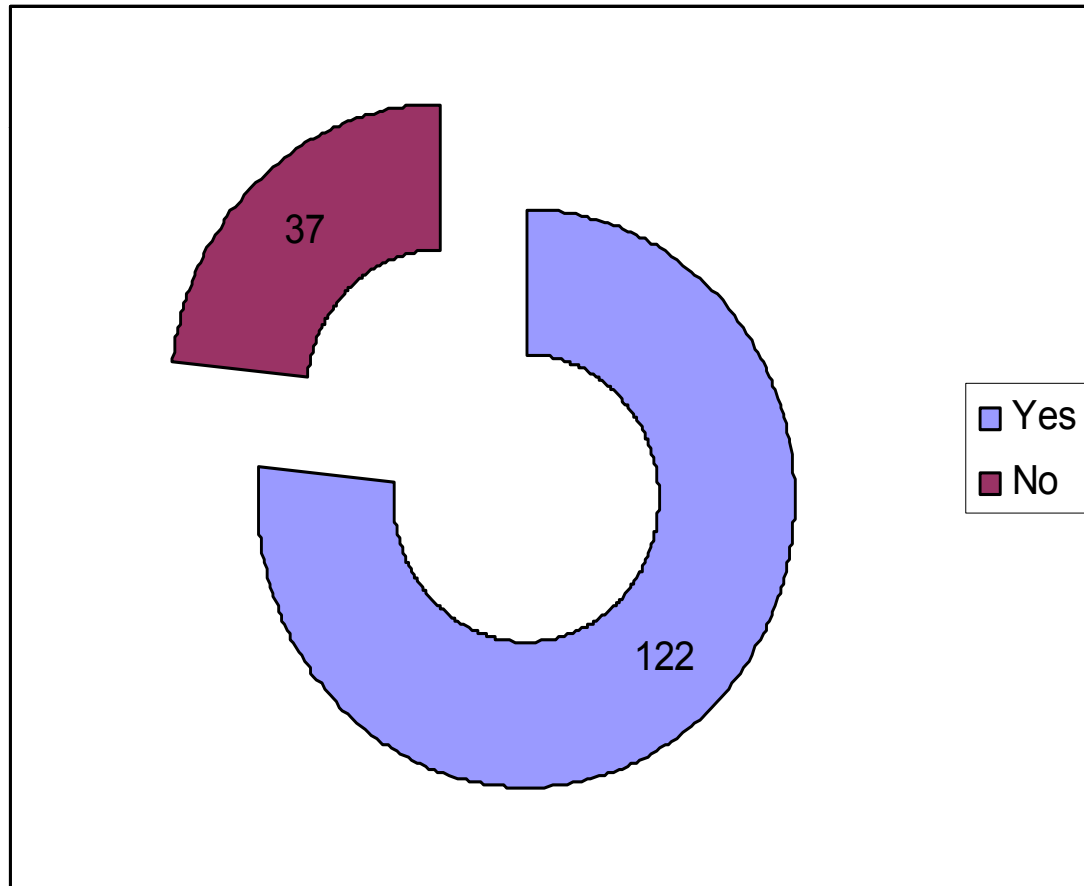
## Utilization of PMTCT services

53.5% of the respondents had utilized PMTCT services registering a significant increase from 33% in 2005



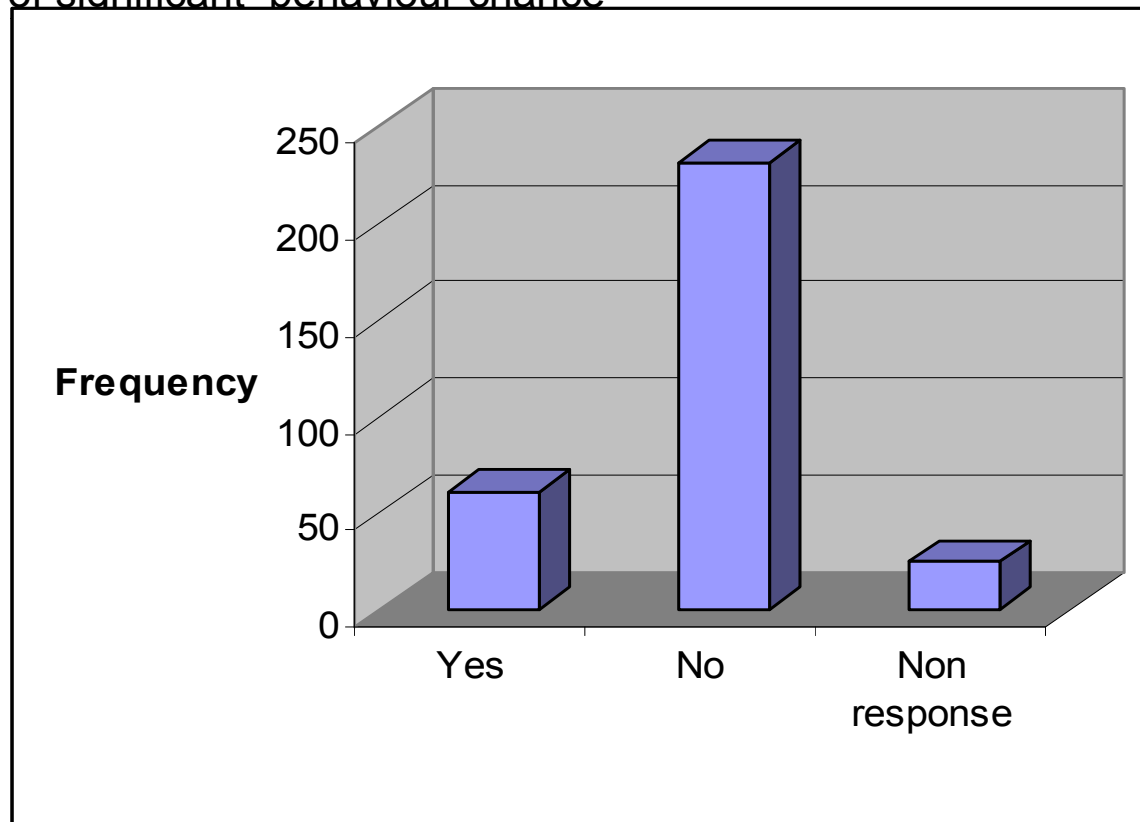
## Testing for HIV after counseling

76.7% of the respondents had been tested for HIV after counseling . An indication of increased utilization of voluntary counseling services.



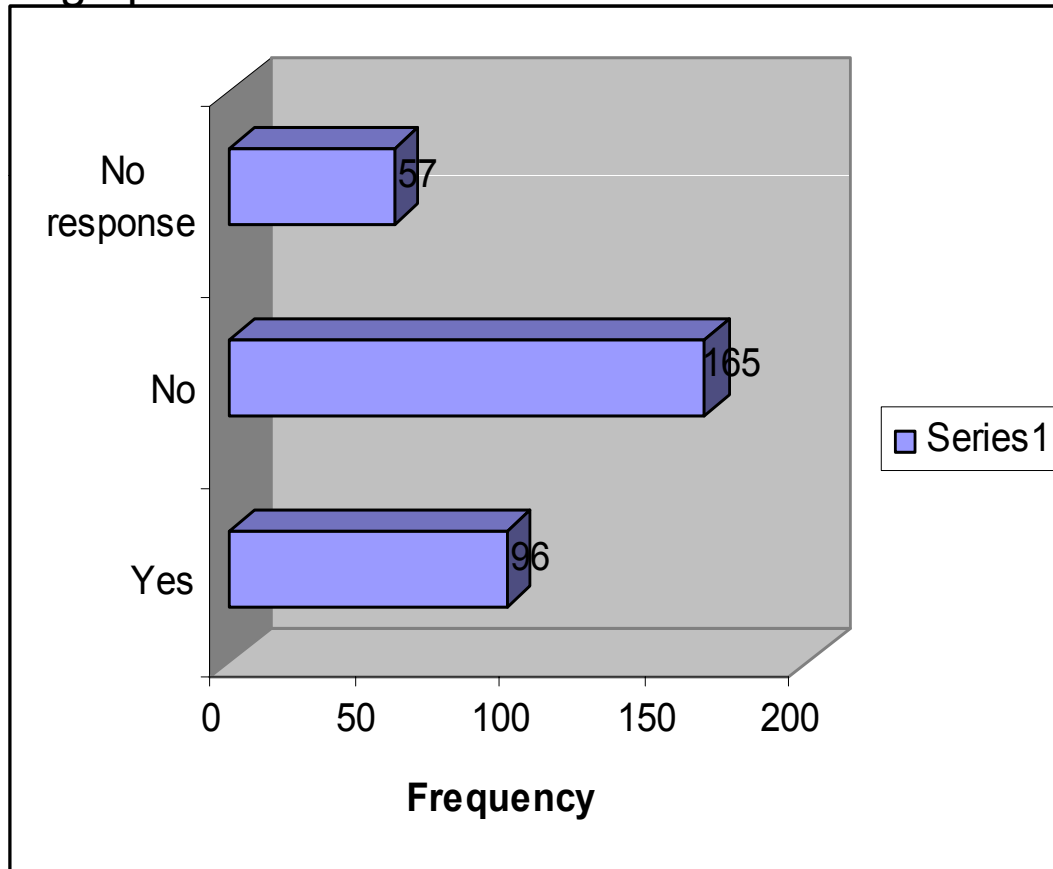
## Presence of risky sexual behavior after VCT or PMTCT counseling and knowledge of HIV status

73% of the respondents didn't engaged in risky sexual behavior after VCT or PMTCT counseling and knowing their status . There was a statistically significant relationship between engaging in risky sexual behavior after VCT or PMTCT counseling and utilization of VCT services (OR=2.049, 95% CI 1.139-3.686, p=0.017). This is an indication of significant behaviour change



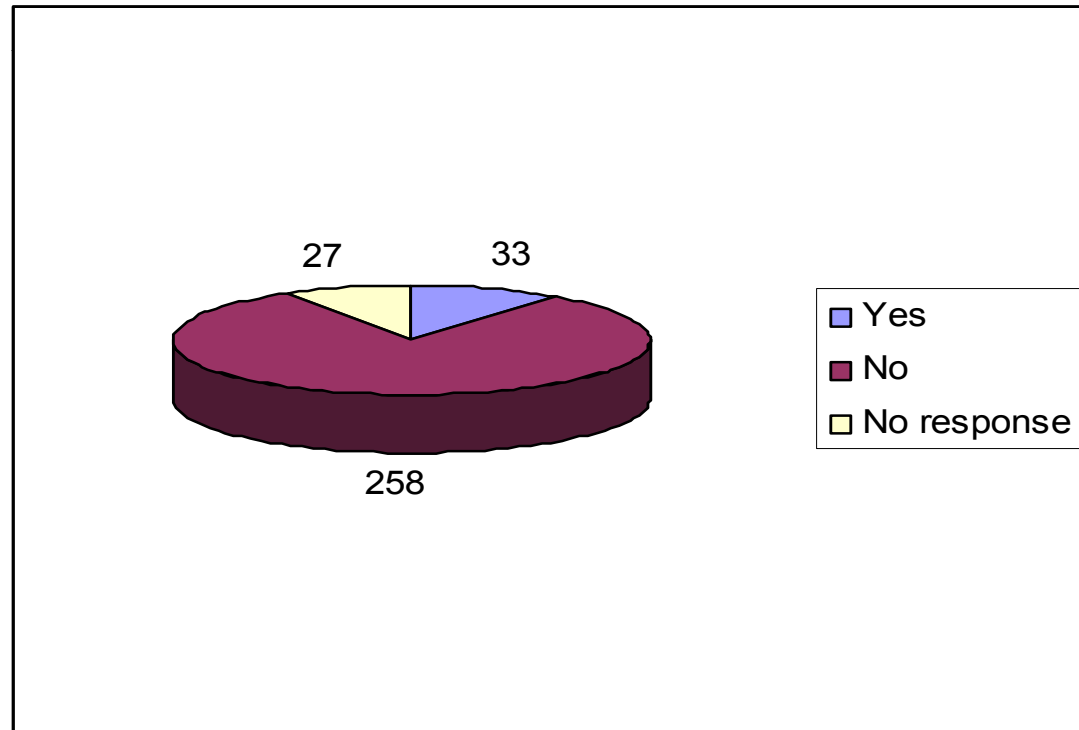
## Respondents living with spouses in the same barracks

51.9% of respondents not live with their spouses in the same barracks creating a large poll of intermittent married bachelors.



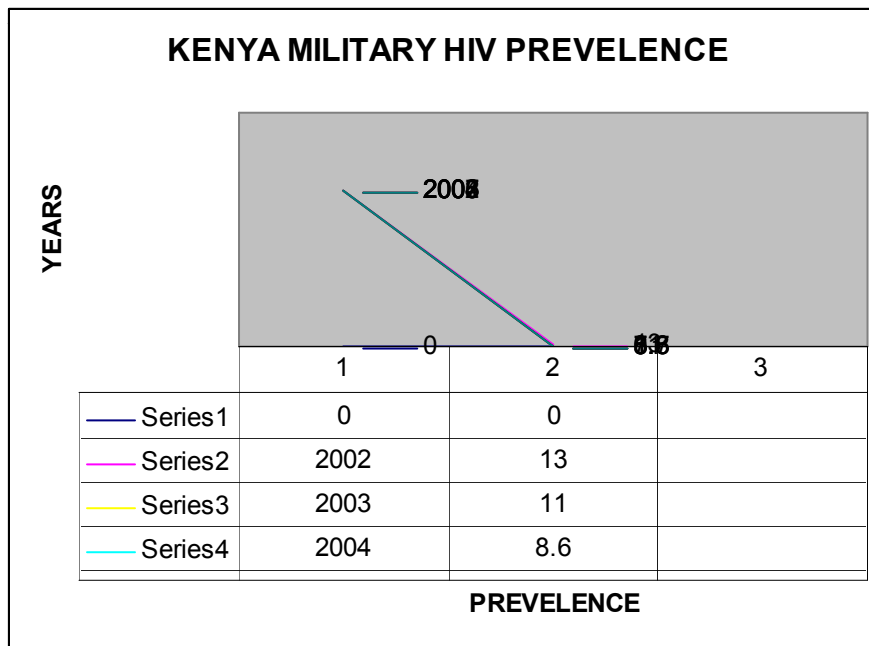
## Trading sex for money

81.1% of the respondents had never traded sex for money . This is an indication of significant before change.



## Kenyan military HIV prevalence

According to the Ministry of Defence data centre, HIV prevalence in the military has declined steadily from 13% in year 2003 to 5.3% in year 2007 .



## Recommendations

1. Develop an elaborate HIV/AIDS policy and strategies that will strengthen prevention and control of HIV in the military.
2. A strong collaboration between the military and other stake holders to increase and maximise the available resources to strengthen the fight against HIV in the military and give strong impetus to multi-sectoral interactions.
3. Behaviour surveillances should be adopted in the monitoring and evaluation of prevention and control of HIV/AIDS programs and an appropriate tool designed to track trends and risky behaviour in the military population.
4. Strengthening and decentralization of the diagnostic and management service of STI with the primary health care providers system.
5. Strengthening of the referral system and upgrading of the health providers' skills in health education and counselling.
6. Mandatory HIV testing should be abolished.
7. Strengthening of institutional policies that address and emphasis gender equity and male involvement

## **Research recommendation**

There is need to carry out further and more in-depth research in this field of study.

### **General recommendations**

There is need to enhance appropriate policies and strategies that will not only strengthen but accelerate the gains made and encourage multi-sectoral collaboration in the prevention and control of HIV/AIDS in the military with special emphasis to behaviour change.

### **Suggestions for future research work**

The military, NGOs, multilateral and bilateral donors, and other GOK agencies should focus on HIV/AIDS prevention and control mechanisms in the military through increased funding in budgetary allocation.

The military should take deliberate action to strengthen and expand the existing prevention and control programs through increased funding.

The GOK should create policies that will strengthen research collaboration between the Kenyan military and other developed militaries.

# Conclusion

- Voluntary counseling and testing has been successful as a strategic tool in behavior change in the general prevention and control of HIV and AIDS in the Kenyan military. However, the prevalence rate is still high and there is a great need to intensify and accelerate the military HIV and AIDS prevention and control program to protect both the military and the civil population from transmission and infection. This requires swift and committed action by the government, other collaborating agencies, and the military commanders as demonstrated by the Royal Thai Army which is now recognized internationally as the among the most successful military HIV/AIDS prevention and control programs.
- Major General Matshwenyego Fisher, chief of staff in the Botswana defence force, notes that AIDS in the military, as well as in the national environment, is no longer an academic issue, but a reality that has to be tackled with all vigour and effort that is commensurate with its ramification (Rodger, 1996).