HIV DRIVERS IN NGERENGERE AND TAWA WARDS IN MOROGORO DISTRICT: A COMPARATIVE STUDY.

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Master of Arts in Health Policy and Management Dissertation
Muhimbili University of Health and Allied Sciences
OCTOBER, 2010

HIV DRIVERS IN NGERENGERE AND TAWA WARDS IN MOROGORO DISTRICT: A COMPARATIVE STUDY.

By

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A dissertation Submitted in partial Fulfillment of the Requirements for the Degree of Master of Arts in Health Policy and Management of Muhimbili University of Health and Allied Sciences.

Muhimbili University of Health and Allied Sciences

OCTOBER, 2010

CERTIFICATION

The undersigned certify that he has read and hereby recommend for acceptance dissertation entitled *HIV Drivers in Ngerengere and Tawa wards in Morogoro District: a comparative study*, in fulfillment of the requirement for the degree of Master of Arts in Health Policy and Management of Muhimbili University of Health and Allied Sciences.

Prof. A.D. Kiwara
(Supervisor)

Date: 20/10/2010

DECLARATION AND COPYRIGHT

I, **Samwel Maduhu Subi**, declare that this **dissertation** is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature..... Date.....20/10/2010

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ACKNOWLEDGEMENTS

I would like to thank the creator of this world for allowing this dissertation work to be done.
My special thanks also should go to NOMA for the sponsorship provided which enabled me to pursue this Master of Arts in Health policy and Management.
I would like to convey my gratitude to number of people for their contribution in completion of this dissertation work.
I would like to express my gratitude to my supervisors, Prof A.D Kiwara of Muhimbili University of Health and Allied Sciences and Dr Ingvild Fossgard Sandoy of Bergen University for their assistance and support during proposal development and dissertation work.
May I also take this opportunity to thank the District Executive Director of Morogoro District Mr Aden Alionae Munisi, Ward Executive officers of Ngerengere (Mr. Athuman Chamsinga), Tawa (Ms. Rosemary Saidi) and Kiroka (Mr. Kirion John), for allowing this study to be conducted in their areas.
I thank all informants and participants who accepted to sacrifice their time for participating in this study.
I would like to thank the District executive Director of Morogoro District Council for offering me a two years leave that enabled my attendance to the degree course. Special thanks should go to all staff of the Health department whom in one way or another facilitated my studies, particularly Dr Debora Kabudi, acting District medical officer, and Mr Philbert Mgwasa, District Transport Officer for their continuous support throughout my studies.
I do really appreciate Dr Mughwira A. Mwangu for his good coordination of the Master of Arts in Health Policy and Management program, and for all those who contributed in one way or another to the completion of dissertation work.
Finally, I sincerely thank my wife Ms Frida Bernad Millanzi, my daughters Malongo and Nkamba for spiritual, moral and material support throughout this program.

DEDICATION

This dissertation is dedicated to my Parents, Mr Eliakim Maduhu Subi and late Ms Malongo Khamis Mpigahodi for laying good foundation for my education. To my beloved wife, Frida Bernad Millanzi and my daughters, Malongo and Nkamba , I love you all.

ABSTRACT

Background

Tanzania is one of the sub-Saharan African countries that has been affected by the HIV/AIDS epidemic. However, there is a diverse pattern of trends in HIV prevalence for different geographical areas in the country. This study explored and compared factors underlying this differential in Ngerengere and Tawa wards.

Objectives

To explore and compare HIV drivers between Ngerengere and Tawa wards in Morogoro District, specifically by comparing the level of HIV knowledge, condom availability, community attitudes towards condom use, and existing cultural practices exposing community to HIV infection between these wards.

Methods

Qualitative research methods using Focus group discussion and in-depth interview methods were used for data generation. 70 FGD participants and 21 key informants were recruited purposively. Participants consisted of male and female aged 15-49 years residing in Ngerengere and Tawa wards and key Informants were 21 Health workers working in Ngerengere and Tawa health centres. Interview guide with semi-structured open ended questions were used to explore and compare HIV drivers in Ngerengere and Tawa wards.

Results

Most of the FGD Participants in Ngerengere and Tawa wards possess comprehensive HIV knowledge. Low HIV knowledge was found in remote villages in Tawa ward. Condoms were available in shops and health facility in Ngerengere throughout the year while in Tawa throughout in health facility but not in shops. Several of the respondents indicated negative attitudes towards condom use in both wards. Cultural practices contributing to the transmission of HIV existed in both wards mentioned by all focus group discussions were; polygamy, alcohol consumption, multiple sexual partners, and male circumcision using non-sterile instruments. Those mentioned by key informants were multiple sexual partners, heavy alcohol consumption and polygamous marriages.

Conclusion

There was no difference in level of HIV knowledge among the wards. However, in remote areas in Tawa, the knowledge level was found to be low. Condoms available meet the needs of the people throughout the year in Ngerengere, but not in Tawa. Availability of condoms in Tawa was affected by poor roads and unreliable shops selling condoms. HIV drivers associated with high HIV prevalence in Ngerengere ward were engagement in cultural practices contributing to the transmission of HIV, negative attitudes towards condom use, good roads, presence of military camps and higher mobility.

Recommendations

This study clearly indicates that, HIV drivers associated with high HIV prevalence in Ngerengere ward were engagement in cultural practices contributing to the transmission of HIV and community negative attitudes towards condoms use. Sustained health education to community on risk cultural practices and information addressing misconceptions of condom is needed. Also health education to community on the safety and effectiveness of condom use in preventing HIV transmission from infected to unaffected persons is required.

TABLE OF CONTENTS

DECLARATION AND COPYRIGHT iv
ACKNOWLEDGEMENTS v
DEDICATION vi
ABSTRACT vii
TABLE OF CONTENTS ix
LIST OF TABLES xii
LIST OF FIGURES xiii
LIST OF ABBREVIATIONS xiv
CHAPTER ONE 1
1.0 BACKGROUND INFORMATION 1
1.1 SITUATION OF HIV/AIDS 1
1.1.1 HIV PREVALENCE AMONG REGIONS 2
1.1.2 NATIONAL RESPONSE TO HIV EPIDEMIC 4
1.1.3 HIV INTERVENTIONS 4
1.2 STATEMENT OF PROBLEM 5
1.3 SIGNIFICANCE OF THE STUDY 5
1.4 RESEARCH QUESTIONS 6
1.5 BROAD OBJECTIVE 6
1.6 SPECIFIC OBJECTIVES 6
CHAPTER TWO 7
2.0 LITERATURE REVIEW 7
2.1 HIV KNOWLEDGE 7
2.2 CONDOM AVAILABILITY AND USE 8
2.3 RISK CULTURAL PRACTICES 10
CHAPTER THREE 12
3.0 METHODOLOGY 12
3.1 Study design 12
3.2 Study area 12

3.3 Study population 13
3.4 Sampling procedure 13
3.5 Research instrument 13
3.6 Data collection methods 13
3.7 Data processing and analysis 14
3.8 Recruitment and training of research assistants 14
3.9 Pilot test study 14
3.10 Ethical clearance 14
3.11 Preventing information bias 15
CHAPTER FOUR 16
4.0 RESULTS 16
4.1 Sample characteristics. 16
4.3 Availability of condom 19
4.4 Community attitude towards condom us. 21
4.5 Cultural practices exposing people to HIV infection. 22
CHAPTER FIVE 25
5.0 DISCUSSION 25
5.1 INTRODUCTION 25
5.2 HIV/AIDS knowledge 25
5.3 Availability of condom. 26
5.4 Community attitudes towards condom use. 27
5.5 Cultural practices exposing people to HIV infection 28
CHAPTER SIX 31
6.0 CONCLUSION 31
6.1 RECOMMENDATIONS 31
6.2 Future research 31
REFERENCES 32
APPENDIX 1 37
Guide with Questions for Focus Group Discussion and In-Depth Interview 37
APPENDIX 2 38

Discussion Guide for FGD and In-Depth Interview (Swahili Version)..... 38
APPENDIX 3..... 39
Information Leaflet and Informed Consent Form..... 39
APPENDIX 4..... 42
Information Leaflet and Informed Consent Form (Swahili version)..... 42
APPENDIX 6..... 45
Letter, Approval of Ethical Clearance..... 45
APPENDIX 7..... 46
Letter, Request for Permission Morogoro District Executive Director..... 46
APPENDIX 8..... 47
Permission Letter,Morogoro District Executive Director..... 47

LIST OF TABLES

Table 1: Age and sex of the FGD participants

LIST OF FIGURES

Figure 1: HIV prevalence by age
Figure 2: HIV prevalence among Regions
Figure 3: Key Informants interviewed by cadre
Figure 4: Key Informants interviewed by Sex

LIST OF ABBREVIATIONS

ADO	Assistant Dental Officer
AIDS	Acquired Immunodeficiency Syndrome
ALT	Assistant Laboratory Technician
AMO	Assistant Medical Officer
CBHW	Community Based Health Worker
CCHP	Comprehensive Council Health Plan
CO	Clinical Officer
DED	District Executive Director
FGD	Focus group discussion
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HO	Health Officer
MA	Medical Attendant
MUHAS	Muhimbili University of Health and Allied Science
NACP	National AIDS Control Programme
NM	Nurse Midwife
NMSF	National Multi-sectoral Strategic Framework
NO	Nurse Officer
NOMA	Norad's programme for master studies
STI	Sexually Transmitted Infections
TACAIDS	Tanzania Commission for AIDS
UNAIDS	Joint United Nations Programme on AIDS
VCT	Voluntary Counseling and Testing
VEO	Village Executive Officer
WEO	Ward Executive Officer
WHO	World Health Organization

CHAPTER ONE

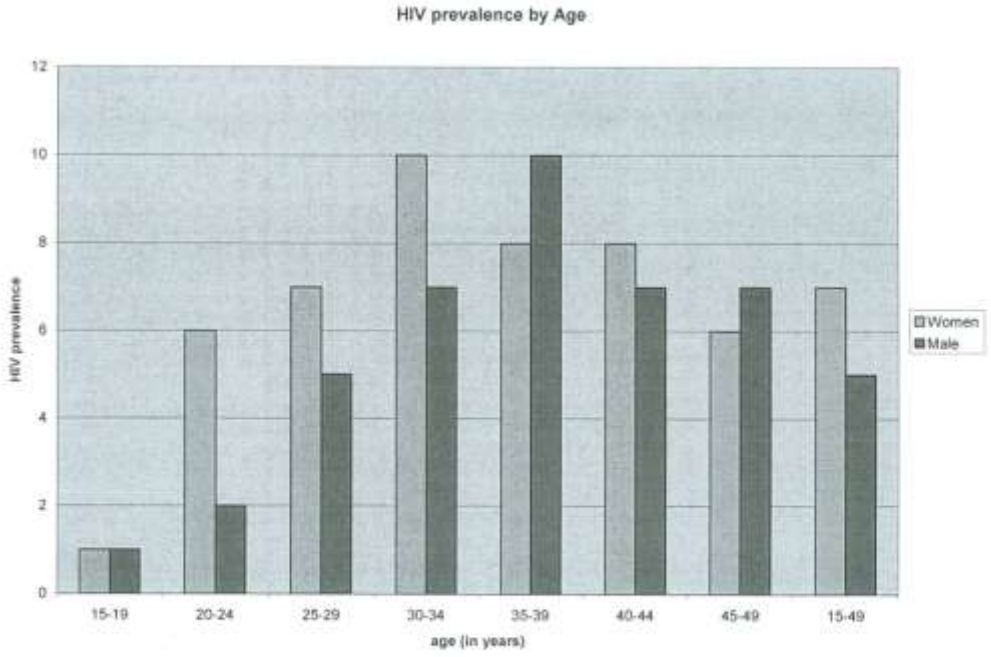
1.0 BACKGROUND INFORMATION

1.1 SITUATION OF HIV/AIDS

Sub-Saharan Africa is more heavily affected by HIV/ AIDS than any other region of the world. An estimated 22.4 million people are living with HIV in the region - around two thirds of the global total. In 2008 around 1.4 million people died from AIDS in sub-Saharan Africa and 1.9 million people became infected with HIV (UNAIDS, 2009).

Tanzania is one of the sub-Saharan African countries that has been affected by the HIV/AIDS pandemic. HIV/AIDS cases were first reported in 1983, since then, the epidemic has spread to all Districts of Tanzania. The major route of transmission in this country is heterosexual which accounts for 81.6 % of all cases (NACP, 2007)

The situation of HIV prevalence by age in Tanzania is as shown in the figure 1 ;



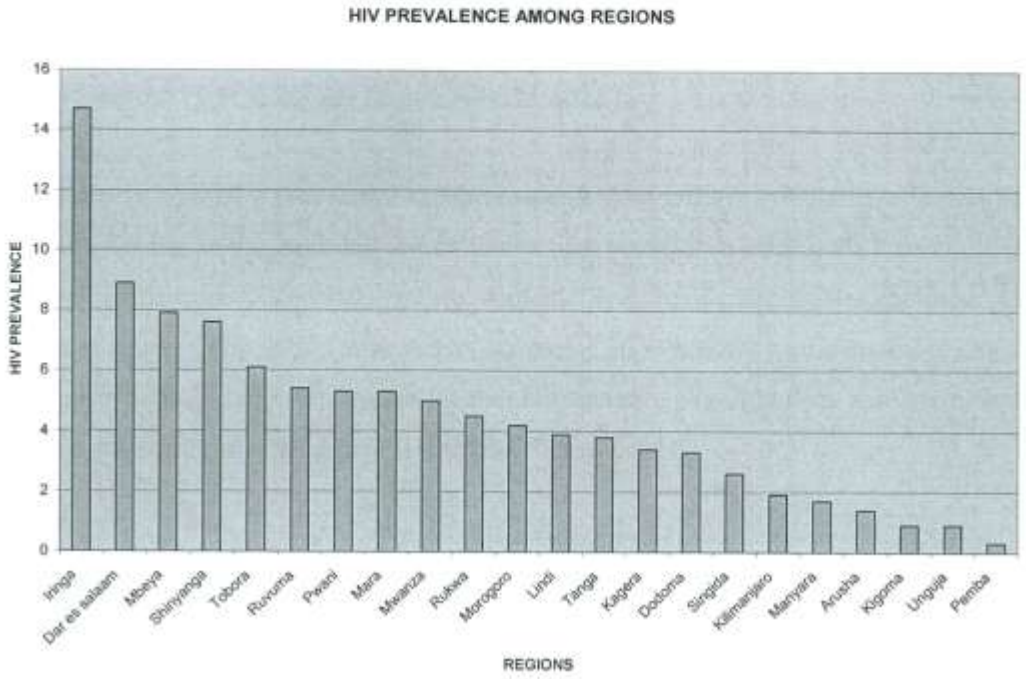
Source: THMIS 2007-08

Six percent of the population age 15-49 in Tanzania is HIV/AIDS positive. HIV prevalence is higher among women than men (7 percent and 5 percent, respectively). The 2007-08 THMIS further found that HIV prevalence in the urban areas is almost double that in the rural areas. Among women, HIV prevalence is 11 percent compared with 5 percent in rural areas. For men, the corresponding prevalence is 6 percent and 4 percent, respectively

At the end of 2007 ,the estimated number of people living with HIV infection in Mainland Tanzania was 2,636,785, of whom 527,357 were estimated AIDS cases and 123,147(5%) were enrolled in the HIV care programme (NACP, 2008). The prevalence of HIV infection among blood donors in 2004 and 2005 was 7.9 %. The overall HIV prevalence using data from VCT in health facility based sites was 26.9 % (NACP, 2005).

1.1.1 HIV PREVALENCE AMONG REGIONS

The Tanzania HIV and Malaria indicator survey carried out in 2007/08 indicated a variation in HIV prevalence among regions as shown in the figure 2;



Source: THMIS 2007-08

Iringa, Dar es salaam, and Mbeya have the highest HIV prevalence and regions with low HIV prevalence are Kigoma, Manyara, Pemba, and Unguja. The highest prevalence is associated with the presence of good road networks which facilitate transportation by long distance truck drivers, who are one of the high risk populations in terms of HIV transmission. Mobility associated with good road networks and transportation has been linked to the rapid spread of HIV in Southern and Eastern Africa (Tanser F et al, 2000 & Buver A et al 2002).Iringa, Mbeya, Dar es Salaam, Pwani, and Tanga have transportation networks linking to several Eastern and Southern African countries. Iringa and Mbeya are situated close to the border with Zambia and Malawi, and both these two countries have high HIV prevalence. When combined with multiple partners and low condom use, travelling may facilitate transmission of HIV.

Mbeya, Iringa, and Dar es Salaam are the regions with the highest levels of socioeconomic wellbeing and they have the highest prevalence. Studies done in Mwanza indicated that HIV

prevalence increases with increasing social and economic activities in an area due to mobility and involvement in high risk and multiple sexual networks with greater amount of disposable income(Boerma JT et al 2002& Bloom SS et al,2002).

The relatively high HIV prevalence in Mwanza and Shinyanga is associated with mining activities. Studies in these mining areas found a high prevalence among the communities surrounding the mines, especially among women. The mining communities comprise greater percent of migrant population attracted by economic opportunities available there. The study found many women receive payment for sex. Furthermore paying for sex and having multiple partners was common among men (Desmond N et al 2005).

1.1.2 NATIONAL RESPONSE TO HIV EPIDEMIC

In response to the epidemic, the Government of Tanzania formed a National HIV/AIDS Control Programme (NACP) in 1984 under the Ministry of Health and Social Welfare. The NACP developed strategies to prevent, control and mitigate the impact of the HIV/AIDS epidemic, through health education, decentralization, multi-sectoral response and community participation. In 2001 the government established Tanzania Commission for AIDS (TACAIDS) which was given the role of providing leadership and coordination of multi-sectoral HIV/AIDS responses (NMSF 2008- 2012).

1.1.3 HIV INTERVENTIONS

Currently, HIV interventions in place in the country are; Voluntary Counselling and testing for HIV, care and treatment, quality control of blood transfusion system, sexually transmitted infection diagnosis and treatment, condom use promotion, prevention of mother-to-child-transmission, treatment of opportunistic infections, information and education promoting abstinence and faithfulness, protective routines among health workers, post-exposure

prophylaxis for health workers and community and home-based care (NMSF 2008-2012).Despite of implementing various HIV interventions for more than 26 years, the epidemic has established itself in both rural and urban communities, the prevalence has now stabilized at 6% (THMIS 2007/08).

1.2 STATEMENT OF PROBLEM

HIV/AIDS has contributed significantly to an increase in morbidity and mortality. In 2008 for instance; the overall prevalence of HIV among patients coming for VCT in Morogoro Region was 4.2% (THMIS 2007/08) and in Morogoro District 3.4% (2008). However the prevalence among VCT clients varies considerably across wards ranging from 1% to 12 %. Clients in Ngerengere ward had the highest prevalence in the District 11% in 2008 whereas clients in Tawa ward had relatively low prevalence of 1.5 % (Morogoro CCHP 2008/09).

VCT users are not directly representative of the general population as they are more likely to have practiced high risk sex or to have been exposed to HIV risk in some other way than the average man and woman. Without population based data we can not rule out that the characteristics and risk profiles of VCT users may vary across wards. However, it is likely that the great differences in HIV prevalence between VCT users in Ngerengere and Tawa wards indicate differences in the HIV prevalence in the general population in these two wards. Based on the suspicion that there are big differences in the HIV epidemic in these wards, this study intends to explore and compare factors driving HIV spread in Ngerengere and Tawa wards in Morogoro District.

1.3 SIGNIFICANCE OF THE STUDY

Curbing the HIV epidemic has been a global challenge for decades. An increase in HIV and AIDS prevalence, over the last decade has further aggravated the health status by eroding the HDI and future prospects of Tanzanians. It has undermined the foundations for development and attainment of the Millennium Development Goals and national targets. Exploration of the drivers of the HIV prevalence levels in areas with contrasting HIV epidemics could shed light on factors that should be addressed by intervention measures. Understanding the risk factors in Ngerengere

and Tawa wards is therefore important for policy development and population specific intervention development which will play a major role in attaining Millennium developments goals and National Strategy for Growth and Reduction of Poverty.

1.4 RESEARCH QUESTIONS

1.4.1 What is the level of HIV/AIDS knowledge in the study areas?

1.4.2 Are condoms available throughout the year in study areas?

1.4.3 What is the attitude towards condom use in the study areas?

1.4.4 What are the existing cultural practices exposing people to HIV infection in the two wards?

1.5 BROAD OBJECTIVE

To explore and compare drivers of the HIV epidemic in Ngerengere and Tawa wards in Morogoro District.

1.6 SPECIFIC OBJECTIVES

1.6.1 To assess the difference in HIV/AIDS knowledge between Ngerengere and Tawa wards.

1.6.2 To compare condom availability in Ngerengere and Tawa wards.

1.6.3 To compare attitudes towards condom use in Ngerengere and Tawa wards.

1.6.4 To compare existing cultural practices predisposing people to HIV infection in Ngerengere and Tawa wards.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 HIV KNOWLEDGE

Comprehensive community HIV knowledge is vital in addressing HIV spreads, on other hand poor HIV/AIDS knowledge makes communities vulnerable to HIV infection (Mmbaga EJ et al, 2007).

According to Tanzania HIV and Malaria indicator survey, carried out in 2007/08 among young people 39% of women and 42% of men possess comprehensive knowledge of HIV and AIDS, and knowledge increases with age and level of education. Ninety eight per cent of women and 99% of men have heard about AIDS, and 85% of women and 89% of men aged 15-49 are aware that abstaining from sexual intercourse is an effective prevention method (THMIS, 2008).

A study conducted in Ethiopia with 14,524 individuals, comprising female sex workers, defence forces, police force, pastoralists, truck drivers, intercity bus drivers, road construction workers and factory workers reported that, the percentage with knowledge of the three preventive methods were 57 %, three preventive methods were; Abstinence, Be faithful and Condom use: misconceptions 75 %, and comprehensive knowledge 18.5% (kassie GM et al, 2008). Low comprehensive HIV knowledge indicated in this study make them vulnerable to HIV infection.

A study conducted on Knowledge, Attitude and Practices on HIV/AIDS, its Transmission and Prevention among Primary School Pupils in Rural Kisarawe in rural areas of Kisarawe district in Coast region involving 334 pupils (48.8% males and 51.2% females) from five primary schools. It was found that; majority of pupils had high knowledge on HIV/AIDS and its transmission (76%). Males were more knowledgeable than females on prevention (69.9% vs. 61.4%) (Kigombola A1 et al, 2007).

A cross-sectional survey carried in Benin from June to July 2002 comprising 251 individuals, it indicated a high awareness of AIDS (99, 9%), and its perceived risk (97% of participants

considered AIDS as a deadly disease) among participants. Females were more aware than males of the modes of transmission of HIV infection (87 % of females versus 50% reported knowing at least 2 modes of transmission). There was a difference in preventive measures for HIV/AIDS by gender: Females reported mainly fidelity and abstinence whilst males primarily reported condom use. In addition, 84% of females whereas 52% of males reported being able to identify an HIV-infected person (Hounton et al, 2005).

2.2 CONDOM AVAILABILITY AND USE

Consistent condom use can reduce the risk of contracting HIV virus during sexual intercourse. More than 150 million condoms were available and 776,000 condoms were distributed in Tanzania in 2006, however, there is uneven distribution of condom between rural and urban communities (NMSF 2008-2012), Poor condom supply in rural area is risk factor for HIV transmission (Mmbaga EJ et al, 2007).

A Cross-sectional qualitative study on Disco funerals, a risk situation for HIV infection among male and female adolescents aged 15 to 20 which was carried out in Kisumu, Kenya reported that, many youth do not have any condoms or they may be uncomfortable using them. Others believed that very young boys and girls would not have STIs, so no form of protection is needed. One boy reported contracting an STD during a disco funeral when he had unprotected sex with a girl he barely knew (Njue C et al, 2009).

A study on Condom access in South African Schools indicated that, attitudes towards condoms in schools at the community level vary widely. Cultural and moral concerns remain strong among both parents and students, including the preservation of such traditional values as abstinence until marriage. Many parents and some students, but few school staff, felt that condom availability would promote sexual activity and undermine traditional values (Han J et al, 2009).

In South Africa, condoms are provided free of charge by the government and are available to young and adults through a number of venues, including public clinics and youth centers, eighty

seven percent of South African youths report that it would be very easy to obtain condoms if the need arose (Pettiffor AE et al,2004).

A study done from December 2003 to May 2004 within the rural areas of Manyara and Singida found that, the majority of sexually active group, (88 %) had never used condoms. The most common reasons for not using condom were values based on traditions and religion, and about 31% reported access difficulties associated with cost and availability (Malima KIY et al, 2007).

A cross –sectional study of 350 out of school youth aged 15-24 year in Nigeria reported that 56.5 % used no protection and 29.0% used condom, the reason for not using condom among non users was it reduces sexual enjoyment (Adebiyi AO et al, 2009).

A cross sectional survey done in rural Benin on barriers to condom use involving two hundred fifty one individuals, it indicated a relatively low perceived efficacy of condom as a protective measure, only 37% of the interviewees perceived condom as an effective mean in protecting from getting HIV infection (Hounton et al, 2005).

A study of condom use among sexually experienced secondary school male students which was conducted in Nairobi, Kenya it indicated that, perception of personal susceptibility to HIV was quite low. Only one participant in ten perceived the risk of acquiring HIV infection from one unprotected sexual encounter as greater than 50%, although about six in ten students perceived HIV as a problem in Nairobi. Furthermore, the perceived effectiveness of using condoms to prevent HIV was also relatively low. Only 39.7% of these sexually experienced students agreed that condoms can help prevent HIV, compared to 77.9% who agreed they can help prevent pregnancy. Relatively few participants agreed that condoms are difficult to use, are expensive to use, or are embarrassing to talk about. However, one-third of students felt that buying condoms is embarrassing and almost half agreed that condoms often break (Yotebieng M et al, 2009).
The study population consisted of a cohort of 2214 men and women, age 18 to 50 and older recruited in 2003 for HIV education intervention which was conducted among uniformed Service Personnel in Nigeria. Of the 2214, 13.32% were women and 86.63% were men. It was found

that, The participants reporting having sex for money or food were 36% less likely to intend to use condom, Participants reporting one to four times of alcohol consumption during the last six weeks were 41% less likely to use condom, Participants reporting one to four times use of marijuana during the last six weeks compared to non-users of marijuana were 52% less likely to intend to use condom. These results demonstrate that the likelihood of intending to use condom decreases with the increase in the frequency of alcohol and marijuana use (Essien E J et al, 2006).

2.3 RISK CULTURAL PRACTICES.

Cultural practices like widow inheritance, polygamy, alcohol consumption, transactional sex, and local male circumcision using non-sterile instruments influence HIV spread.

A study done in Moshi, Tanzania on HIV among pregnant women: the role of sexual behavior, male partner characteristics and sexually transmitted infections found that, the prevalence of HIV was 6.9%. The risk for HIV was greater among women whose male partner; had other sexual partners, traveled frequently, or consumed alcohol daily. Other independent predictors of HIV indicated by that study were; age, number of sex partners, recent migration, and presence of bacterial vaginosis, genital ulcer, active syphilis and herpes simplex virus type 2 (Msuya SE et al, 2006).

A study on the trends in marriage and time spent single in sub-Saharan Africa: a comparative analysis of six population-based cohort studies and nine Demographic and Health Surveys revealed that, for men, the proportion in polygamous marriages tended to increase steadily with age. In Karonga, 13% of women aged 30–39 years were in polygamous marriages, which was 45% of all married women in this age group.

The proportion of men in monogamous marriages remained at around 80% for Kisesa after the age of 29 years compared with approximately 70%, 65%, 60% and <50% in Karonga, Rakai, Masaka and Umkhanyakude, respectively. For women the levels of monogamy were lower with the highest proportion of monogamously married women in Manicaland at around 70% for those

aged 25–39 years, decreasing to around 60% for women aged 40–54 years. In Umkhanyakude the proportion of individuals in monogamous marriages was very low (approximately 30% in those aged 35–59 years). A similar pattern was seen in Karonga, Rakai and Masaka, with around 40% of all women in monogamous marriages after the age of 35 years (Marston M et al,2009) . Women in polygamous marriages in a study in Uganda were found to have higher risks of acquiring HIV than those in monogamous (Brahmbhatt H. et al, 2002).

A population based study on alcohol and high risk sexual behavior conducted using a sample of 1,268 adults from five districts in Botswana found that 40% of men and over 25% of women had drinking problems and the study established that there is strong association between heavy alcohol consumption and sexual risk behaviour like unprotected sexual intercourse with a non monogamous partner, having multiple partner, and paying for or exchanging sex for money or other resources (Weiser SD et al, 2006).

Circumcision can be risky if it is performed in non-sterile conditions. It can lead to infection, bleeding and permanent injury, or HIV infection from non-sterilized instruments and possible death if appropriate treatment is not provided. The risk of HIV transmission may be increased by certain cultural practices such as group circumcision of boys using non-sterile knives. Traditional healers and Circumcisers have a vital role in these practices at the village level. African countries with more than 80 % of males circumcised such as Cameroon, Gabon, and Ghana, have a lower prevalence of HIV infection (less than 10 %) whereby Countries with less than 20 % of male circumcised such as Zimbabwe, Botswana and Zambia (for the early 1990s). The latter experience a high prevalence of HIV infection (greater than 19 %) (Halperin DT et al, 1999).

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study design

This was a cross sectional study which used qualitative methods for data generation. The method was adopted because it measured attitudes towards condom use and cultural practices contributing to the transmission of HIV. The study was done between March and June 2010.

3.2 Study area

The study was conducted in Ngerengere and Tawa wards in Morogoro District Council. Ngerengere ward has seven villages, namely Sinyaulime, Diguzi, Matuli, Kwaba, Lulongwe, Ngerengere and Kiwege, Tawa ward is composed of six villages, namely Tawa, Mlawilila, Logo, Uponda, Kifindike and Kitungwa (Morogoro District profile, 2008) .According to National Bureau of Statistics, Population and Housing census projection 2003-2025, the Population of Ngerengere ward is 18,830 people and that of Tawa ward is11, 547 people. The economies of these two wards depend on agriculture, mainly from Crop production. More than 90% of the adult populations in these villages earn their livelihood from Agriculture mainly at subsistence level. Ngerengere is in savannal zone with shortage of rainfall and Tawa is situated in mountainous area with heavy rainfall and fertile soil. Roads from district head quarter to Ngerengere ward and roads joining villages are good and permissible throughout the year, while roads towards Tawa ward are not good, some roads joining villages are not permissible throughout the year.

In each ward there is one health centre offering health services including HIV interventions in their service areas.

3.3 Study population

The study population consisted of males and females aged 15- 49 years residing in Ngerengere and Tawa wards and health workers working in Ngerengere and Tawa health centers in Morogoro District Council.

3.4 Sampling procedure

Selection of respondents was purposeful; village health committee members assisted in selection of participants. The criteria of selection of respondents were as follows; she/he had to be between 15- 49 years of age, a resident of Ngerengere or Tawa wards, and the individual consented to participate. In each ward four focus group discussions were conducted, these groups were young women, and young men aged 15-24 years, and adult females and adult males aged 25-49 years. A total of 70 persons participated in FGD. And in-depth interviews were conducted with 21 health workers working in Ngerengere and Tawa health centres.

3.5 Research instrument

Discussion guide and In-depth interview guide were used.

Discussion guide and In-depth interview guide consisted of unstructured open ended questions. Interview guide and consent forms were translated into Swahili language and then back into English to ensure the content and meanings of the questions were not changed.

3.6 Data collection methods

FGD interviews and key Informant interviews were used to collect in –depth qualitative information. Information collected focused on HIV knowledge, condom availability, attitudes towards condom use, and cultural practices exposing people to HIV infection. For the sake of getting rich information, eight focus groups discussions were conducted separately for adult females, adult males, young females and young males. Four FGDs were conducted in each ward. Field notes, direct quotations of the important statements and phrases were immediately recorded by the Facilitator and tape recording was done.

In-depth interviews were conducted with 21 Health workers (8 male, 13 female) who were present at work in Ngerengere and Tawa Health centres at the time of visit of the researcher.

Raw field notes were transformed into well organized set of notes immediately after each focus group discussion and in-depth interview. On top of that I had also time to listen the tape recorder, after each interview for purpose of capturing the important statements addressing the study objectives.

3.7 Data processing and analysis

Notes taking and tape recording was done during group discussions and In-depth interviews. Analysis of collected data were done manually by using content analysis after organizing data, breaking it into manageable units, synthesizing it, searching for patterns that reappeared within either a single focus group or among various group. Data was then classified and analyses based on HIV knowledge, condom availability, attitude toward condom use, and cultural practices contributing to the transmission of HIV.

3.8 Recruitment and training of research assistants

One research assistant was recruited and trained on the purpose of the study, how to establish good rapport with the respondents, data collection techniques, data collection tools, and research procedures in general. The work of facilitator in group discussion and in-depth interview was done by principal researcher and the work of recording was done by a research assistant.

3.9 Pilot test study

A pilot study was conducted in Kiroka ward because the inhabitants of this area had similar characteristics with the study areas. Two focus group discussions with males aged 25-49 years and females aged 15-24 years and three in-depth interviews with health workers working in Kiroka dispensary were conducted. The purpose was to check if the topics/questions were clear to respondents, collected intended information and were accurately translated. This pilot study helped to correct potential problems before the actual study was implemented.

3.10 Ethical clearance

Approval of the study was granted by the Directorate of Research and Publications of Muhimbili University of Health and Allied Sciences. Permission to conduct the study was obtained from the District Executive Director, Ward Executive officer, and Village Executive Officer. By using

information leaflets the potential participants were informed of the details of the proposed study. The researcher also explained the aim, expected benefits and risks of the study to participants. Participation was voluntarily and participants were free to withdraw from the study at any point. Prior to the interviews, consent was obtained from each participant by signing the informed consent form. Participants were assured that information collected was confidential.

3.11 Preventing information bias

During discussions or interviews individuals on issues related to risk factors for HIV infection, respondents who were uncomfortable may have given incorrect information. This potential was addressed by establishing good rapport and sensitive questions were asked at the end of the interview. During discussions difficult personalities such as dominant people were monitored and controlled so that they did not disrupt the group and excessively shy people were encouraged to participate.

CHAPTER FOUR

4.0 RESULTS

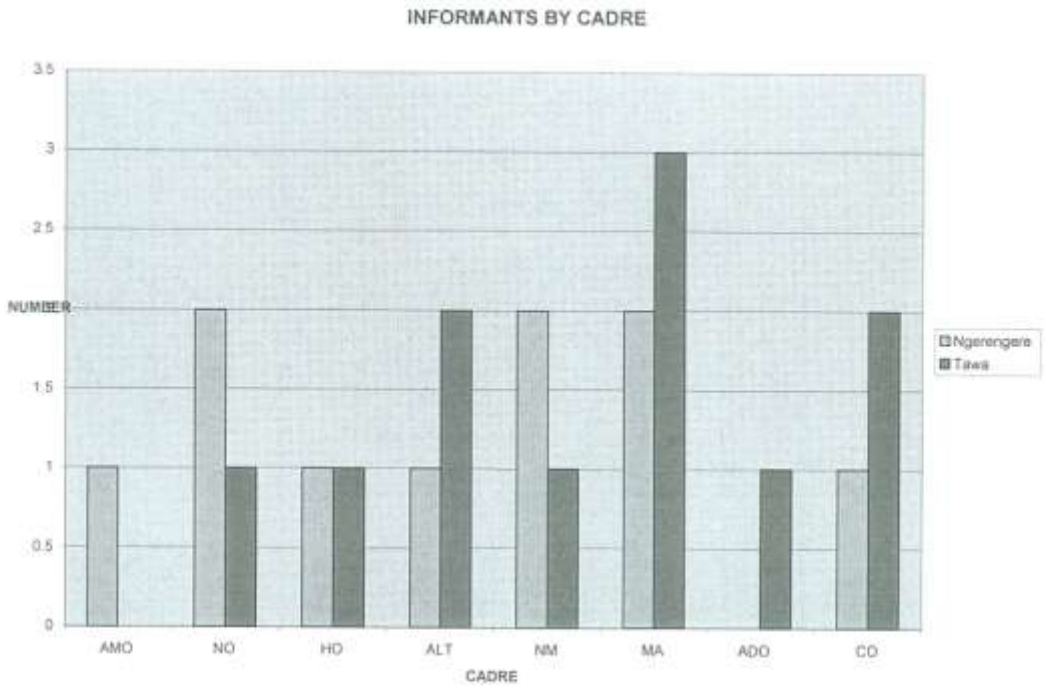
4.1 Sample characteristics.

Table1: Age and sex of the FGS participants.

Age (years)	Ngerengere ward		Tawa ward		Total
	Sex		Sex		
	Male	Female	Male	Female	
15-24	8	10	9	7	34
25-49	10	9	8	9	36
Total	18	19	17	16	70

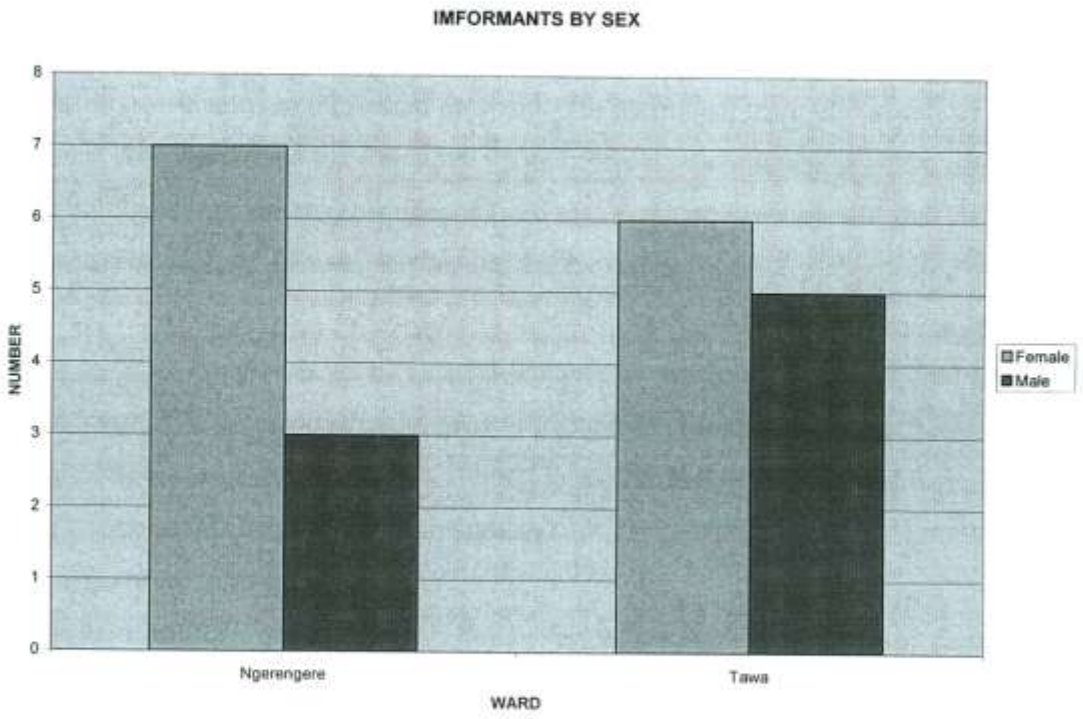
Focus group discussions involved community members residing in Ngerengere and Tawa wards. A total of 70 persons participated in the study, 37 persons from Ngerengere and 33 persons from Tawa ward. Participants aged between 15-24 years were 34 and that aged 25-49 years were 36. From Ngerengere were 18 male and 19 female while 17 male and 16 male were from Tawa ward.

FIGURE 3: KEY INFORMANTS INTERVIEWED BY CADRE



A total of 21 health workers participated in in- depth interviews of which 10 health workers were from Ngerengere health centre and 11 health workers from Tawa health centre. Figure 3 shows the composition by cadre.

Figure 4: KEY INFORMANTS BY SEX



7 female and 3 male working in Ngerengere health centre participated in in- depth interviews. Health workers working in Tawa health centre 6 female and 5 male participated. A total of 21 health workers from both ward participated. Figure 3 shows the composition by cadre.

4.2 HIV/AIDS knowledge.

In the eight focus group discussions conducted in Ngerengere and Tawa wards. Several of the participants had comprehensive HIV knowledge. HIV was explained as Human-immunodeficiency virus, transmitted by having unprotected sexual intercourse with infected person, sharing sharp instruments like syringes, needles or other sharp instruments, and use of non-sterile instruments in more than one person in traditional male circumcision. On prevention measures, they mentioned the following ways, correct and consistent condom use, to be faithful to one uninfected partner and abstinence from sex. Furthermore they said that HIV can not be transmitted by kissing infected person, and nor by eating together with infected person.

During In-depth interviews with 21 health workers working in Ngerengere and Tawa health centres about HIV knowledge in the general population, Most of the key informants stated that, majority of people know what is HIV, how it is transmitted, prevented and ways in which it can not be transmitted from one person to another.

But one nurse in Tawa pointed out;

''Grand mothers and grand fathers living in remote areas that are far away from this health facility, have no comprehensive HIV knowledge. This is revealed when they take care of HIV patients or assist deliveries at their home. No precaution is taken like glove wearing.''

The results furthermore indicate that, stigma plays a role in preventing people from making use of the knowledge they have. This was illustrated by one clinical officer in Ngerengere who said;

''When relatives of the patient come here with HIV patient, we always provide health education on how to take care of HIV patient at home, but when they go home, no precaution is taken because they consider as stigma wearing gloves while assisting HIV patient with wound.''

4.3 Availability of condom

Respondents were asked whether the available condoms in shops and in the health facilities meet the needs of people throughout the year. In the four focus group discussions conducted in Ngerengere, most of the respondents mentioned that condoms were available in shops and in the

health facility throughout the year.

One man aged 35 years in Ngerengere said;

''Condoms are available in shops and cost between Tsh. 100/= to 500/= per packet and also it is available at the health facility free of charge but we feel shy to go and collect because, when people see you collecting them, they consider your as a prostitute and we do want to be called prostitute.''

In an in- depth interviews with 10 health workers of Ngerengere, all stated that condoms availability was not a problem. And those condoms were available in shops for sale and in the health facilities free of charge that meet needs throughout the year.

One clinical officer in Ngerengere said;

''For the last two years we had not experienced condom shortage, but the problem was collection of these condoms by the community. Last year condoms were destroyed, because they expired due to low collection rate by the community.''

In the four focus groups discussions conducted in Tawa, the majority mentioned that, condoms were available in health facility throughout year, but intermittent in shops.

In in-depth interviews with Health workers working in Tawa health centre, all indicated that condoms were available throughout the year in the health facility, but in the shops the availability was affected by unreliable shops selling condoms in some villages situated in remote areas.

One nurse in Tawa said that;

''Because of geographical situation of this ward, we had two community based health workers for each village, in each month they come to health facility to collect condoms for distribution to communities, some of the CHWS they feel shy distributing condom, because they were considered by the community as prostitution promoters.''

4.4 Community attitude towards condom us.

In the eight focus group discussions conducted in Ngerengere and Tawa wards involving 70 participants. Several of the participants indicated negative attitudes towards condoms use. The reasons of not using condom mentioned by the focus group discussions comprising male in both wards were; not our culture, reduce enjoyment. Difficulties in telling your husband to use condom, was the reason mentioned by the focus group discussions comprising female aged 25-49 years in both wards. Some persons preferred their sperms to penetrate inside the vagina, and infected persons want to die with many people were reasons mentioned only by male group aged 25-49 years in Ngerengere. When condom breaks pieces of condom remain in the vagina was given only by female group aged 25-49 years in Ngerengere.

One adult man aged 40 years in Ngerengere said that;

''I can't use a condom when I have sex with a very beautiful lady, when I use condom is like having sex with myself.''

Another women aged 43 years in Ngerengere said that;

''If the condom burst, there is dangerous of some pieces of condom to remain in the vagina.''

Young women aged 23years in Ngerengere showed a negative attitude towards condom use by saying;

''There are viruses in the condom already put by the manufacturers. If you want to prove it, expose the condom on the sun, then you will see those viruses moving.''

One female aged 35 years in Tawa said that;

'It irritate us in the reproductive organs when we use.''

During in-depth interviews with Health workers working in Ngerengere health centre, several of them indicated that, community attitudes towards condom use was negative. This was due to religious belief and females using other family planning methods were not insisting condom use, because they concern were only to avoid unplanned pregnant and not HIV, Condom

collection in the health facility was low and unmarried women were becoming pregnant.
One nurse said that;
''Last month 20 secondary girls were brought here for medical examination, 5 of them were found pregnant. This was associated with low condom utilization.''

Another clinical officer said that;
''We are still treating people with sexually transmitted diseases.''

Majority of the Health workers of Tawa health centre also perceived the community to have negative attitudes towards condom use. This was due to religious beliefs, and not their culture to use condom.
One nurse said;
''In spite of educating people on condom use, we are still receiving secondary girls, out of school girls and unmarried women who are pregnant.''

4.5 Cultural practices exposing people to HIV infection.

In the community based focus group discussions conducted in Ngerengere and Tawa wards, the cultural practices mentioned by several participants in eight discussion groups were; polygamy, local dancing, male circumcision with non-sterile instruments, alcohol consumption, and multiple sexual partners, and cultural practices that were claimed not to exist were; widow inheritance, dry sex, and transactional sex.

Polygamous marriages occurred, for instance in Ngerengere, one man could get married to four wives and in tribes involved in livestock keeping, one man could get married up to seven wives. This man still had extra-marital sex relationship with other females.
One woman aged 45 years said;
''When a man aged 70 years gets married to a girl aged 20 years, this man can not satisfy this girl. The girl may establish extra- marital sex relationship with other young men in order to get satisfied.''

Widow inheritance did not exist, the widow was supposed to remain unmarried for four months after the death of her partner. After that period, she could get married to another man in the same village or in different village without knowing her HIV status or the HIV status of her partner.

Traditional dancing existed in Ngerengere, especially during the dry season/ harvest time. The population of Ngerengere ward consists of more than six tribes. Out of them four tribes emigrated from other regions. And when there were ceremonies many people gather together from different places like Morogoro Municipality, Dar es salaam city. This gathering is accompanied by eating food, drinking local alcohol free of charge offered by the host to any one who attended that gathering. These gatherings take place during the night, and due alcohol influence, many people seem to engage in unsafe sex.

In the focus group discussion in Tawa ward comprising female aged 25-49years.It was mentioned that; when young girls mature, ceremonies are prepared for them by inviting traditional ngoma groups, food is prepared, and local alcohol offered free of charge by the host. Many people are invited from different places and dancing take place during the night.

One woman aged 45 years in Tawa said:
''In this ceremony many people gather together from different places, after heavy alcohol consumption, is then followed by unsafe sex. You can take anyone you want due to alcohol influence, no time to negotiate safe sex and all shops selling condoms are closed during night time.''

Male circumcision was a norm in Ngerengere and Tawa wards. During the dry season young boys are taken to the bush to be circumcised by a local circumciser who uses one non-sterile knife to more than one person.

About alcohol consumption in Ngerengere, it was mentioned by the majority of the group discussion comprising female aged 25-49 years that; there were many bars selling alcohol in

each village. Many people in the ward sold alcohol as business, many young girls were employed in bars and there were many customers.

One woman aged 30 years said;

''In this ward we have two military camps, Sangasanga and Kizuka and many of soldiers take alcohol and also we have many bus and vehicle drivers sleeping here and tomorrow leave either to Morogoro Municipality or Dar es salaam city.''

During in-depth interviews with Health workers working in Ngerengere health centre, majority mentioned, multiple sexual partners, heavy alcohol consumption, and polygamy behaviour were cultural practices contributing to the transmission of HIV. While in Tawa majority of health workers mentioned the multiple sexual partners and Polygamous marriages.

CHAPTER FIVE

5.0 DISCUSSION

5.1 INTRODUCTION.

The aim of this study was to explore and compare HIV drivers between Ngerengere and Tawa wards in Morogoro District, specifically by comparing the level of HIV knowledge, condom availability, community attitudes towards condom use, and existing cultural practices exposing community to HIV infection between these wards

5.2 HIV/AIDS knowledge.

Focus group discussion and in-depth interview methods were used for data generation. The results from this study indicate that, several of the FGD participants possess knowledge of what is HIV, how is transmitted, prevented, and ways in which it can not be transmitted. This is consistent with National Household HIV Indicator Survey which was carried out in 2003-04 showed that, over 99 percent of Tanzanians aged 15-49 have heard of HIV/AIDS, awareness of the modes of HIV transmission was 90 percent of adults knowing that having only one uninfected, faithful partner can reduce the chance of getting AIDS, rejection of misconceptions related to HIV was also widespread; 4 in 5 adults know that a healthy looking person may be HIV positive and almost the same proportion know that HIV cannot be transmitted by witchcraft or by sharing food with someone who has AIDS .

The results further indicate that, the level of HIV knowledge among people living in remote villages in Tawa was found to be low, especially in villages with poor roads networks. All villages in Tawa are situated in highland/mountains and are not easily accessible by good roads. Study conducted in Kilimanjaro rural areas have found that, low level of HIV knowledge is the risk factor for HIV transmission (Mmbaga EJ et al, 2007).

Generally, there were no obvious signs of differences in HIV knowledge between the two wards, but population-based survey is needed to assess this properly. The participants of this study are

not likely to be a representative of the general population's level of HIV knowledge. This is because small sample was used and participants were purposeful selected.

5.3 Availability of condom.

Availability of condoms that meet the needs of people throughout the year in all villages is crucial in fighting HIV spread. This is because condoms are the only products currently available to protect against STIs, including HIV. When used properly every time one has sex, condoms are a proven and effective means of preventing HIV infection in women and men. However, apart from abstinence, no protective method is 100% effective, and condom use cannot guarantee absolute protection against any STI. In order to achieve the protective effect of condoms, they must be used correctly all the time. Incorrect use can lead to condom slippage or breakage, thus diminishing their protective effect.

In this study, it was found that, condoms were available throughout the year in Ngerengere and Tawa health facilities. In shops the condom cost between Tsh.100 to 500/=, and in health facilities condoms are free of charge. Other study done by Pettiffor AE et al in 2004 reported that, condoms are provided free of charge by the government and are available in public clinics and youth centres in South Africa.

Villages without health facility or far away from it and without reliable shops selling condoms, the availability of condom was not throughout the year. In Tawa, this problem was addressed by healthcare workers working in Tawa health centre by involving two community based health workers from each village to come to collect condoms in the health facility and distribute to the community. However the work of CHWs of distributing condom was discouraged by community, because it was perceived that, condoms promote sexual activity. There is a need of educating the community, the role of condom in preventing HIV spread, so that they do not discourage community based health workers from distributing the condoms. Furthermore the service of condom distribution should be expanded to involve all ten cell leaders. Using only two CBHWs is not easy to made condoms accessible to all persons all the time (day and night), in sufficient number, especially in villages situated on mountain, large in size, and without reliable

shops selling condoms.

Generally, there was difference in condom availability between wards, In Ngerengere the availability was not a problem, because all eight villages were easily accessible by good roads, and presence of reliable shops in each village selling condoms while in Tawa the availability was affected by unreliable shops and roads which were not easily permissible.

5.4 Community attitudes towards condom use.

In this study, respondents and health workers were asked about the community's attitudes towards condom use. There was no difference in both wards; the attitudes seemed to be negative. In general, several key informants and participants stated that most of the population preferred not to use condom.

In both wards the reasons for not using condom mentioned by the majority of the respondents were; due to cultural norms, religious beliefs, and the condoms are not safe and ineffectiveness in HIV prevention. Sustained health education is needed to them so that, they can understand that we have a problem of HIV transmission, and other sexual transmitted infections in place and also condom is useful in family planning. Through sustained health education, slowly people may change behaviour and accept condom use as means of protecting their health. Other study with similar findings is the study conducted in Kisarawe district comprising 334 pupils from five primary schools. It was reported that 61.1% of interviewed pupils, regarded condoms as ineffective tool in prevention of HIV/AIDS. Reasons mentioned for condom ineffectiveness were; they may burst (45.6%), condoms are for pregnancy protection only (31.9%) and condoms have pores (Kigombola A,2007). The only different is that the participants in my study did not mention that condom had pores.

Religious leaders play a role in restriction their believers to use condom by telling them is sin against God. Using condom is contrary with God's plan of having many children as possible to cover the whole world. These leaders need to be educated about HIV and how it can be prevented, and involve them in planning, implementing, and monitoring of HIV interventions.

The findings also indicate that, most of the respondents of Tawa and Ngerengere had misconceptions about the safety and effectiveness of condom use. This can be addressed by providing sustained health education on safety and effectiveness of condoms in preventing HIV transmission from infected person to uninfected person. Ineffectiveness of condom in HIV prevention was also reported in a cross-sectional survey involving two hundred fifty one individuals aged 15 to 55 years old conducted by Hounton S.H. et al from June to July 2002 in rural Benin, he indicated a relatively low perceived efficacy of condom as a protective measure, only 37% of the interviewees perceived condom as an effective mean in protecting from getting HIV infection. A Study done among members of parliament in Malawi towards condoms, it was found that, condoms promote sexual activity and also it was perceived that it can not prevent the transmission of HIV (Muula, A.D, 2006)

The findings of this study further indicate difficulties in using condom among married partners and even if one of the partner was unfaithful. This is consistent with other study which showed that, condom use within marriage continues to be resisted among most communities in Africa (Maharaj P et al, 2004).

5.5 Cultural practices exposing people to HIV infection.

The participants in both wards mentioned the same cultural practices as having potential for HIV transmission. Interestingly FGD participants in both wards agreed when they denied the practices of widow inheritance, dry sex and transactional sex. Transactional sex in this study was defined as registered sex worker (doing his/her business legally).

The cultural practices mentioned by key Informants in Ngerengere were; multiple sexual partners, alcohol consumption, and polygamy behaviour, while key informants in Tawa mentioned multiple sexual partners and Polygamous marriages. However, although cultural practices existed in both wards, there seemed to be a difference in number of people practicing behaviours and frequent of occurrence.

Findings of this study indicate that, polygamous marriages were practiced by many people in Ngerengere as compared with Tawa, This was due to religious beliefs and two tribes acknowledge this behaviour found in Ngerengere involved in livestock keeping. In Tawa, these two tribes were not present. Population based survey is needed to be conducted to assess this behaviour of polygamous marriages in the two wards. Brahmbatt H et al, 2002 reported that, women in polygamous marriages have higher risks of acquiring HIV than in monogamous.

Although traditional night dances exist in both wards, more people gather for ceremonies in Ngerengere than in Tawa ward. In Ngerengere all villages were accessible due to good roads. This makes easy for transportation of people and goods. When there were ceremonies or economic opportunities in these villages, more people could come easily from different places. When many people gather together, anything can happen like HIV transmission, especially when some people may decide to practice unsafe sex. A recent population based survey conducted in Tanzania in 2007-08 showed that, regions with good roads networks like Iringa, Dar es salaam and Mbeya have high HIV prevalence compared to regions with poor roads like Kigoma (THMIS,2008).

The number of people having multiple partners seemed to be higher in Ngerengere than in Tawa. In Ngerengere ward, this seemed to be associated with the presence of Sangasanga and Kizuka military camps, many bus/ vehicle drivers passing through, many guest houses, many tribes emigrated to Ngerengere for economic activities. Some of the tribes could come from regions with high HIV prevalence. A study on knowledge and HIV-related sexual risk behaviors among Nigerian navy personnel, 88% of the personnel were reported to have had lifetime multiple sexual partners ranging from 1–40 with a mean of 5.1, while 32% had sexual contact with female sex worker, with 20% within the last six months of the survey (Nwokoji UA, 2004). A study done by Msuya S.E et al, 2006 in Moshi indicated that, a higher HIV prevalence was observed in women who had recently migrated into Moshi (≤2 years). Compared to women who had resided in Moshi .Mobility and internal migration seems to be an important character of the HIV epidemic in Moshi.

In Ngerengere ward more people consumed alcohol regularly as compared with Tawa. In Tawa ward more people are involved in agriculture activities because the soil is fertile and receive sufficient amount of rainfall to support crops production, and there were no military camps. Other studies also found that there is strong association between heavy alcohol consumption and sexual risk behaviours like unprotected sexual, because alcohol consumption interfere person's ability to make wise decisions (Weiser SD et al, 2006).

Male circumcision has been a tradition in many parts of Africa for hundreds of years. Boys who are circumcised usually have it done in late childhood or their early teenage years. It was noticed some years ago that those African groups in which circumcision is routinely done on all boys have fewer cases of HIV/AIDS than are found in groups where circumcision is not a tradition (Williams B. G. et al, 2006).

Male circumcision can reduce the risk of acquiring HIV through sex. However, it is not 100% effective and circumcised men can still become infected. In addition, HIV-positive men who are circumcised can infect their sexual partners. Male circumcision should not replace other known methods of prevention, but be always considered as part of a comprehensive of prevention strategy.A Randomized, controlled intervention trial of male circumcision for reduction of HIV risk study conducted in South African by Auvert B et al in 2002 indicated that male circumcision can reduce the risk of contracting HIV for men by 60 %.

Male circumcision exist in both ward, more young boys had been circumcised by local circumcisers using non-sterilize instruments in Ngerengere than in Tawa. In Ngerengere ward, there were more than three tribes practicing this norm, but in Tawa one tribe observing. If male circumcision is done using sterile instruments it reduces HIV infection as shown in the study done by Binagwaho A. et al in Rwanda in 2010 which indicated that, there is strong evidence that male circumcision reduces HIV infection and other sexually transmitted infections.

CHAPTER SIX

6.0 CONCLUSION.

From the findings of this study, the HIV drivers associated with higher HIV prevalence in Ngerengere ward were; negative attitudes towards condom use and engagement in risk cultural practices contributing to the transmission of HIV like multiple sexual partners, and alcohol consumption, these behaviours are facilitated by presence of military camps, good roads, and higher mobility.

6.1 RECOMMENDATIONS.

In order to reduce the HIV prevalence in Ngerengere ward, the following recommendations need to be implemented by the District council in collaboration with community.

1. Community negative attitudes towards condom use can be addressed by conducting a sustained health education to community on the safety and effectiveness of condom use in preventing HIV transmission from infected to unaffected persons.
2. Provide a sustained health education to community on cultural practices contributing to the transmission of HIV, so that they can be avoided.

6.2 FUTURE RESEARCH

There is a need to conduct population-based study to assess the general level of knowledge about HIV, cultural practices contributing to the transmission of HIV and attitudes towards condoms use in the general population.

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