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**FACTORS CONTRIBUTING TO LOW UTILISATION OF VOLUNTARY  
COUNSELLING AND TESTING AMONG ADULTS 18 YEARS AND  
ABOVE IN NAKONDE DISTRICT**

**BY**

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## TABLE OF CONTENT

<b>Content</b>	<b>Page No</b>
Acknowledgement.....	ii
Table of content.....	iii
List of tables, graphs.....	vii
List of figures.....	viii
List of abbreviations.....	ix
Declaration.....	xi
Statement.....	xii
Dedication.....	xiii
Abstract.....	xiv

### CHAPTER 1

<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>1.1 Background Information.....</b>	<b>1</b>
<b>1.2 Statement of the Problem.....</b>	<b>6</b>
<b>1.3 Factors influencing low utilisation of VCT services.....</b>	<b>8</b>
<b>1.5 Justification of the study.....</b>	<b>14</b>
<b>1.6 Research objectives.....</b>	<b>14</b>
<b>1.6.1 General objective.....</b>	<b>14</b>
<b>1.6.2 Specific Objectives.....</b>	<b>15</b>

1.7	Research hypotheses.....	15
1.8	Conceptual definitions of terms.....	15
1.9	Study variables.....	16

**CHAPTER 2**

<b>2.0</b>	<b>LITERATURE REVIEW.....</b>	<b>18</b>
2.1	Introduction.....	18
2.2	Overview of voluntary HIV counselling and testing services.....	18
2.3	Knowledge of HIV/AIDS and VCT Services.....	19
2.4	Utilisation of VCT.....	22
2.5	Service related factor.....	25
2.6	Conclusion.....	27

**CHAPTER 3**

<b>3.0</b>	<b>RESEARCH METHODOLOGY.....</b>	<b>29</b>
3.1	Research design.....	29
3.2	Research setting.....	30
3.3	Study population.....	31
3.4	Sample selection.....	31
3.5	Sample size.....	32
3.6	Operational definitions.....	33
3.7	Data collection tool.....	33

3.8	Data collection technique.....	34
3.9	Pilot study.....	35
3.10	Ethical and legal issues.....	35

## **CHAPTER 4**

### **4.1 DATA ANALYSIS AND PRESENTATION OF FINDINGS**

4.1	Data analysis.....	36
4.1.1	Quantitative data.....	36
4.1.2	Qualitative data.....	36
4.2	Presentation of findings.....	37
4.2.1	Section A: Demographic data.....	37
4.2.2	Section B: Knowledge on HIV and AIDS and VCT.....	39
4.2.3	Section C: Utilisation of VCT.....	43
4.2.4	Section D: Service related factors.....	46
4.2.5	Relationships among knowledge, service related factor and utilisation.....	48
4.2.6	SectionE: Respondents' suggestions on ways of improving utilisation of VCT services.....	49

## **CHAPTER FIVE**

### **5.0 DISCUSSION OF FINDINGS AND IMPLICATIONS FOR THE HEALTH CARE SYSTEM**

5.1 Characteristics of the sample.....	50
5.2 Discussion of each variable.....	52
5.3 Implications to the health care system.....	62
5.4 Conclusion.....	64
5.5 Recommendations.....	66
5.6 Dissemination of findings.....	67
5.7 Limitations of the study.....	67
References.....	68

## **APPENDICES**

Appendices I: Questionnaire.....	73
Appendices II: Informed consent.....	78
Appendices III: Permission for pilot study.....	79
Appendices IV: Permission to undertake study.....	80
Appendices V: Work plan.....	81
Appendices VI: Gantt chart.....	82
Appendices VII: Budget and justification.....	83

## **LIST OF TABLES**

Table 1: The Trend of VCT Utilisation at Mwenzo RHC.....	7
Table 2: variables and cut off points .....	17
Table 4.1: Socio-demographic characteristics of the sample .....	38
Table 4.2: Distribution of Study Variables.....	39
Table 4.3: Definition of HIV .....	40
Table 4.4: Respondents knowledge on modes of transmission of HIV and where to go for VCT.....	40
Table 4.5: Respondents knowledge of when VCT is important.....	41
Table 4.6: Respondents knowledge of who should go for VCT.....	42
Table 4.7: Respondents level of Utilisation of VCT in relation to age.....	44
Table 4.8: Respondents level of Utilisation of VCT in relation to sex.....	44
Table 4.9: Respondents level of Utilisation of VCT in relation to marital status.....	45
Table 4.10: Respondents level of Utilisation of VCT in relation to denomination.....	45
Table 4.11: Respondents level of Utilisation of VCT in relation to education.....	46
Table 4.12: Distribution of Service Related Factors.....	47
TABLE 4.13: Respondents' Suggestions on ways of improving utilisation of VCT services.....	49

## **LIST OF FIGURES**

Figure1: Diagram of Problem Analysis on Utilisation of VCT Services.....	13
Figure 4.1: Respondents level of knowledge about HIV/AIDS and VCT.....	42
Figure 4.2: Respondents' responses on whether or not they have had HIV test done before....	43
Figure 4.3: Respondents level of service related factors.....	48

## **LIST OF ABBREVIATION**

<b>AIDS</b>	<b>Acquired Immune Deficiency Syndrome</b>
<b>ART</b>	<b>Anti-Retro Viral Therapy</b>
<b>DHS</b>	<b>Demographic Health Survey</b>
<b>DMO</b>	<b>District Medical Officer</b>
<b>FHI</b>	<b>Family Health International</b>
<b>HBM</b>	<b>Health Belief Model</b>
<b>HIV</b>	<b>Human Immunodeficiency Virus</b>
<b>HP</b>	<b>Health posts</b>
<b>ICRH</b>	<b>International Centre for Reproductive Health</b>
<b>IEC</b>	<b>Information, Education and Communication</b>
<b>KCMC</b>	<b>Kilimanjaro Christian Medical College</b>
<b>NAC</b>	<b>National AIDS Council</b>
<b>NGO</b>	<b>Non-Governmental Organisations</b>
<b>PLWHA</b>	<b>People living with HIV/AIDS</b>
<b>PMTCT</b>	<b>Prevention of Mother to Child Transmission</b>
<b>RHC</b>	<b>Rural Health Centre</b>
<b>SADC</b>	<b>Southern African Developing Countries</b>
<b>STI</b>	<b>Sexually Transmitted Infections</b>

<b>UNAIDS</b>	<b>United Nations Program on AIDS</b>
<b>UNGASS</b>	<b>United Nations General Assembly Special Session</b>
<b>UTH</b>	<b>University Teaching Hospital</b>
<b>VCT</b>	<b>Voluntary HIV Counselling and testing</b>
<b>WHO</b>	<b>World Health Organisations</b>
<b>ZCC</b>	<b>Zambia Counselling Council</b>
<b>ZPCT</b>	<b>Zambia Prevention Care and Testing</b>
<b>ZRA</b>	<b>Zambia Revenue Authority</b>

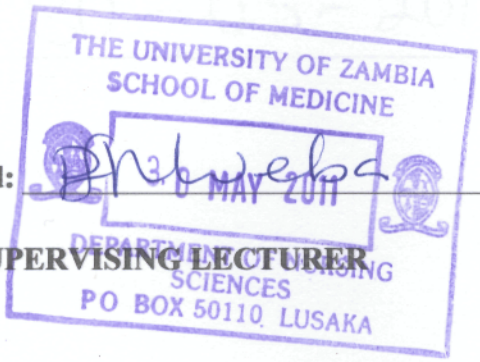
**DECLARATION**

I hereby declare that the exception of the assistance acknowledged, the work presented in this study for Bachelor of Science in Nursing Degree is the result of my own studies. This work has not been presented either wholly or in part for any other degree and is not being currently submitted for any other degree.

Signed:  Date: 30-05-2011

**CANDIDATE**


Approved:  Date: 30-05-2011



**SUPERVISING LECTURER**

**STATEMENT**

I Mponda Magil hereby certify that this study is in all entirely, the result of my own independent investigation. The various sources to which I am indebted are clearly and gratefully acknowledged in the text and in the references.

**Signed:**  \_\_\_\_\_

**Date:** 30 - 05 - 2011

## **DEDICATION**

This study is dedicated to my three sons; Mabo, Kasabwe and Katepwe who have been missing my fatherly tender care. I love you my boys.

My love Cecilia for loving me always even in difficulty times, you are special. Thank you for all your encouragements.

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## **ABSTRACT**

Voluntary Counselling and Testing has become a widely advocated HIV/AIDS preventive measure worldwide. Few adult individuals utilise the VCT services, therefore, intensification of IEC on the importance and benefits of knowing their HIV status is a cardinal strategy that will help behaviour change. Therefore, the study sought to determine factors contributing to low utilisation of VCT services among male and female adults 18 years and above of Mwenzo Rural Health Center.

The findings of this descriptive cross sectional study revealed that all respondents were knowledgeable about HIV/AIDS and VCT services being offered at the health centre, Two thirds (60%) of the respondents stated that they had never had an HIV test done before. All the respondents reported that they attended VCT services. All the respondents reported that they received poor VCT services. Over a quarter of the respondents (26%) suggested that all persons seeking health care must be routinely tested for HIV. Almost a quarter (30%) said that all HIV and AIDS Counsellors must uphold confidentiality while 17.1% of the respondents suggested that some more VCT centres should be opened in each village. Only 14.3% suggested that community health workers, traditional birth attendants, and NHCs should be trained as counsellors so that they can be conducting HIV tests in their villages.

But there is need to strengthen the existing VCT services through continuous sensitisation of all adults by health workers in collaboration with community based volunteers if we have to yield good response from male and female adults in reducing the HIV/AIDS infection and promotion of behaviour change.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 BACKGROUND INFORMATION**

Globally, 33 million people were estimated to be living with HIV/AIDS by the end of 2007; 30.8 million of which are adults between 15 and 49 years which includes youths, (UNAIDS, 2008). Women accounted for 15.5 million while children were at 2 million. More than 25 million people have died of AIDS since 1981 and Africa accounts for 11.6 million orphans due to the disease, (UNAIDS, 2008).

Zambia, with an estimated population of about 12.2 million, is one of the countries hardest hit with the HIV/AIDS epidemic in the world. Although the basic knowledge about HIV/AIDS stands at 99% among the adult population (aged 15 to 49), according to the 2007 Demographic and Health Survey, the national prevalence rate reduced only slightly from 15.6% in 2001/2002 to 14.3% in 2007. The prevalence rate has also remained significantly higher in urban areas (23.1% in 2001/2002 and 19.7% in 2007) compared with rural areas (10.8% in 2001/2002 and 10.3 in 2007). In 2009, an estimated 82,681 adults were newly infected with HIV (59% women, 41% men) with 226 new adult infections occurring each day with 25 new infections occurring among children. By the year 2009 the number of Orphans and Vulnerable Children in Zambia increased significantly to 1.3 million, making it the second highest number of orphans in Africa. Zambia has one of the highest HIV prevalence rates in the world.

The HIV/AIDS epidemic has a gender bias with more women (16.1%) living with HIV/AIDS as compared to men (12.3%). However, for women above 40 years, prevalence is lower than men in the same age bracket. With an adult HIV prevalence rate of 14.3% (2007), the country was ranked seventh of the most affected countries in the world in 2008 (NAC, 2010). This HIV prevalence has attracted several mitigating factors including Voluntary Counselling and Testing (VCT).

Voluntary HIV Counselling and testing (VCT) is a confidential dialogue between a client and a care provider aimed at enabling the client to cope with stress and make personal decisions related to HIV and AIDS, (United Nations Program on AIDS (UNAIDS), 2008). The provision of Voluntary HIV Counselling and testing is an important part of any national prevention program for Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS). The goals of VCT are; to provide information on facts about HIV/AIDS, provide counselling as a routine service, provide testing for HIV and AIDS related illnesses, provide information on Sexually Transmitted Infections (STI) associated with HIV transmission, provide information on opportunistic infections associated with HIV/AIDS, provide reproductive health information, provide quality preventive and supportive care services, to promote risk reduction behaviour and to serve as an entry point to multiple intervention and care programmes (National AIDS Council (NAC), 2010).

The first VCT centre in the public service was established in 1999 at University Teaching Hospital (UTH), (NAC, 2008). Mwenzo Rural Health Centre is one of the other many health centres in Zambia which has a static VCT centre and twelve (12) mobile VCT sites but only about 10% of the population have utilised the services (Mwenzo Action Plan 2010-2012). The number of Counselling and Testing sites (both static and mobile) has increased from 450 in 2005 to 1023 by end of 2008 while PMTCT sites increased from 251 in 2005 to 885 in 2008. However, this increase in testing sites has not been accompanied by a corresponding increase in the people accessing VCT services. The target has been men and women especially of child bearing age who are future hopes of the nation. In 2007, the percentage of people aged 15 to 49 who received an HIV test in the last 12 months and knew their results was 15.4%. The 15 to 19 years age group accounted for the smallest percentage accessing the service with only 10.2% reported having tested for HIV and knowing their results. The 2007 Zambia Sexual and Behaviour Survey (ZSBS) reports fear of stigma and discrimination as one of the reasons for people not seeking to know their HIV status (NAC, 2010).

In order to encourage several individuals to benefit from VCT services, the Government and Non-Governmental Organizations (NGOs) have opened several centres. This has resulted in the number of VCT centres doubling from 500 in 2005 to 1,302 in 2010, thus surpassing the 1,100 centres target set for 2010. PMTCT centres have also increased from 885 in 2008 to 962 in 2010 (UNGASS Report, 2010). Regardless of the government and NGO's efforts to make VCT services as widely available as possible, only 1.5 million Zambians have been tested, (NAC, 2009). In fact only 15.4% of Zambians received their results the last time they were tested for HIV. The low up take of VCT cuts across age groups and gender

The solutions that have been done to improve VCT services include development of necessary guidelines, including quality assurance/quality improvement; training; establishing logistics for HIV commodity procurement; community mobilisation; promotion of couple counselling and testing , family-based counselling and testing, work place counselling and testing; development and distribution of Behaviour Change Communication (BCC)/ IEC materials (NAC, 2010).

In March 2006, the Government of the Republic of Zambia (GRZ) issued national HIV Counselling and testing guidelines calling for routine, opt-out HIV testing, and use of finger prick testing when appropriate in all clinical and community based health service settings. These guidelines encourage using rapid HIV tests, and emphasise that testing be routine,, but voluntary and based on informed consent (NAC, 2010).

To strengthen the VCT component further, in 2006, the Government of the Republic of Zambia declared June 30 a National Voluntary Counselling and Testing day to increase access to VCT services and encouraged testing across the country. The provision of VCT is an important part of any national prevention program and has become easier, cheaper and more effective as a result of the introduction of rapid HIV testing which allows individuals to be tested and have the results on the same day (NAC, 2010).

The Government of the Republic of Zambia, working with partners, came up with a roadmap to guide the national response to HIV/AIDS with a focus on preventing new infections, prolonging lives of people living with HIV, reducing the number of households made vulnerable by the AIDS epidemic and improving coordination and management of the response.

The continued high adult HIV prevalence rate of 14.3%, coupled with low numbers of people seeking to know their HIV status sends a strong message for Zambia to rethink and redirect prevention interventions. To contain the epidemic, Zambia must embark on intensive and targeted prevention interventions for both the young and adults (NAC, 2010).

A lot of efforts have been made to change people's behaviours, overcome structural barriers and accelerate medical-related interventions. It is, however, worrying that the number of new HIV infections has been increasing and is envisaged to be even higher by 2015. While general knowledge of HIV/AIDS has improved, there is noticeable reduction in the number of young people who could correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission. This is a matter of concern because young people are the window of hope to the future (NAC, 2010).

Voluntary HIV Counselling and testing is a key strategy in combating the Acquired Immune Deficiency Syndrome (AIDS) pandemic. It begins with self awareness. This implies that each individual knows his/her Human Immunodeficiency Virus (HIV) status. The international efforts to prevent and control HIV/AIDS have called upon the different health and social strategies to combat the pandemic. In Zambia many strategies have been implemented among which VCT has been promoted as an intervention for prevention of HIV transmission and as a behavioural change strategy. Despite Voluntary HIV Counselling and Testing being widely available in the country, only 15% of Zambians have tested for HIV and collected their results. It should also be noted that although Male Circumcision has been adopted as a key prevention strategy, only 13% men have been circumcised. The emphasis of the VCT strategy has been placed on the voluntary factor, suggesting that people choose to come for counselling, testing and care for HIV infection on their own volition. Voluntary HIV Counselling and testing is the cornerstone to early access to prevention as well as to care and support services, awareness to HIV and knowledge of personal risk behaviours resulting in desire to learn about one's sero status (NAC, 2010).

Another challenge is sexual violence among females, which remains high in Zambia. This is worrying because Gender Based Violence (GBV) prevents women from accessing counselling and testing and obtaining information on their HIV status if tested through an Ante Natal Clinic (NAC, 2010).

Prevention of HIV is currently fragmented and inadequately coordinated without sufficient intensity and coverage. More efforts, therefore, need to be made in order for prevention to register results especially that it is a cornerstone of the response and one of the most sure ways of reversing the tide of HIV/AIDS. In the area of prevention, stigma and discrimination prevents people from discussing issues related to HIV/AIDS.

The silence leads to people not knowing the facts about HIV/AIDS and it prevents people from knowing what to do in order to avoid getting infected (NAC, 2010).

The number of adults and children accessing treatment, care and support has increased. This can be attributed to an increase in the provision of these services. About 225,000 people living with HIV (PLHIV) representing 56% women and 44% men have been enrolled on Anti-Retroviral Therapy (ART) since 2009. As a result, there has been a reduction in the number of adults and children dying from AIDS related illnesses (NAC, 2010).

Anti-Retroviral Therapy stands to prolong even more lives in the country with Zambia now admitting people on ART much earlier than before in the line with the World Health Organisation (WHO) recommended criteria of CD4 350 from the previous CD4 200. All 72 districts of Zambia are providing ART due to an increase in the number of facilities providing counselling and testing, Prevention of Mother to Child Transmission (PMTCT) and ART services (NAC, 2010).

UNAIDS/WHO, (2007), support mandatory screening for HIV and other blood borne viruses of all blood that is destined for transfusion or for manufacture of blood products. Mandatory screening of donors is required prior to all procedures involving transfer of body fluids or body parts, such as artificial insemination, corneal grafts and organ transplant. UNAIDS/WHO do not support mandatory testing of individuals on public health grounds.

Voluntary testing is more likely to result in behaviour change to avoid transmitting HIV to other individuals, (WHO, 2005). Despite the four recommended WHO/UNAIDS counselling strategies, this research is limited to Voluntary Counselling and Testing (VCT).

The 2007 Zambia Demographic Healthy Survey (ZDHS) included HIV testing of over 10,000 women and men aged 15-49. Seventy-seven percent (77%) of women aged 15-49 and 72% of men 15-59 agreed to be tested for HIV. Zambia has one of the highest numbers of infected people in the region accounting for about 1.1million infections (15.2% of adult rate). Of these, women account for 560, 000, children-95, 000, deaths-56,000 and 600,000 orphans, (UNAIDS/WHO, 2008). More than one in every seven (7) adults in Zambia is living with HIV and life expectancy at birth has fallen to just 42years, (MOH, 2009).

The country has long realised the importance of adopting and using a multi-sectoral approach in all efforts aimed at mitigating the epidemic. The health sector, in particular, is involved in joint programming with other private and government sectors and there are several committees established to facilitate such co-operations at all levels. For instance, at the national level, partners involved in the response are organised using self-co-ordinating groups, theme groups, sector advisory groups, partnership forums, co-operating partner groups and the UN Joint team.

At sub-national level, partnerships are organised through the provincial AIDS Task Force (PATFs), District AIDS Task Force (DATFs) and the Community AIDS Task Force (CATFs) which are part of the Provincial Development Co-ordination Committee (PDCC), the District Development Co-ordination Committee (DDCC) and Neighbourhood Health Committee (NHCs) respectively. The role of these partnerships is to ensure effective planning and co-ordination of budgeting and implementation of the multi-sectoral response (NAC, 2010).

## **1.2 STATEMENT OF THE PROBLEM**

Despite measures put in place to encourage people to utilize VCT services, the number of people using these services has remained low as the number of HIV positive persons continues to increase. Out of 21,921 people in its catchment area 103 (0.5%) are HIV positive, with new infection rate high among young adults (Mwenzu HMIS, 2010).

The number of people testing for HIV in Mwenzo is just too low, that is, 493 people (including youths) who tested in 2010 (Mwenzo HMIS Report, 2010). Counselling is needed to help male and female adults understand what the test means, how to prevent transmission, how to change risky behaviours, and what types of services are available after getting their results.

The low utilisation of VCT services at Mwenzo Rural health Centre is demonstrated in the table 1 below from 2006 to 2010. The percentage of persons testing for HIV has reduced from 7% of population in 2006 to only 1% in 2009.

**TABLE 1: THE TREND OF VCT UTILISATION AT MWENZO RHC**

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>CATCHMENT POPULATION</b>	19,155	19,829	20,503	21,200	21,921
<b>VCT</b>	981	764	546	217	306
<b>PMTCT</b>	348	256	159	85	187
<b>Total</b>	<b>1329 (7%)</b>	<b>1020 (5%)</b>	<b>705 (3%)</b>	<b>302 (1%)</b>	<b>493 (2.2%)</b>

Source: Mwenzo RHC Action Plan 2010-2012

The table above shows that from 2006 to 2010 there has been a reduction of 2% in the access of VCT services at Mwenzo Rural Health centre hence the need to conduct a research to determine the factors contributing to the low utilisation.

In Mwenzo, the trend of high risk sexual intercourse has been attributed to its geographical location. Mwenzo catchment area is situated 18 km away from Nakonde Boma which is a business center as well as truck drivers whom young female adults go to sell sex.

Of the 21,921, only 3,849 clients have tested for HIV from 2006 to 2010. Of the 3,849, 103 tested positive, (Mwenzu HMIS, 2010). As shown from the statistics above, the magnitude of the HIV prevalence and low up take of VCT cannot be over emphasised. The attitude and utilisation of VCT among male and female adults in Mwenzu therefore, needs to be investigated. Therefore, this study will endeavour to determine factors contributing to low utilization of VCT for HIV by male and female 18 years and above in Mwenzu.

### **1.3 FACTORS INFLUENCING LOW UTILISATION OF VCT SERVICES AT MWENZO MISSION RURAL HEALTH CENTRE.**

There are several factors that could influence the utilisation of VCT services in Mwenzu Rural Health Centre among the adult population. These factors may include the following:

#### **1.3.1. SERVICE RELATED FACTORS**

##### **1.3.1.1 Distance to VCT Centres**

The distance to the VCT Centres may result in a situation where adults would fail to access and know the existence of VCT services. This may contribute to low utilisation of VCT services. However, when VCT facilities are near, it is easy to have the adults accessing the service. This can result in increased numbers of adults seeking the service.

##### **1.3.1.2 Attitude of health provider**

Poor attitude of health providers at the VCT centre may contribute to low uptake of VCT services by adults. At the VCT centres where health providers conduct themselves unprofessionally by revealing client's information, adults are not willing to be counselled and tested as confidentiality will not be guaranteed. This may consequently lead to low utilisation of VCT services.

### **1.3.1.3 Availability of the VCT Centres**

Following the vision of the ministry of health of taking health services as close as to the door steps of people. Therefore, availability of Voluntary Counselling and Testing Centres in all communities of the republic of Zambia may attract people to visit the centres and use the services while nonavailability of the VCT centre may contribute to non utilisation of the VCT services.

### **1.3.1.4 Long waiting hours**

The time spent at the health facility may either encourage or discourage individuals from seeking VCT services. For example, the longer the length of time spent before being attended to may discourage individuals, while efficient services may well be accepted. Long waiting hours may be attributed to shortage of counsellors where there is only one person attending to so many clients.

### **1.3.1.5 Lack of confidentiality**

This is where the potential clients are not willing to opt for the VCT service because the service providers divulge confidential information entrusted to them to others. This may consequently lead to fewer or no adults seeking VCT services. The maintenance of privacy by service providers during counselling may also encourage or discourage clients to use the available services.

### **1.3.1.6 Information, Education and Communication (IEC)**

Information, Education and Communication (IEC) is key to knowledge that positively affects behaviour of an individual. Inadequate sensitisation of the people about services available may contribute to low utilisation of the services.

### **1.3.1.7 Staff shortage**

Due to staff shortage, a few available counsellors are over burdened with increased workload that compromises the delivery of quality health care. The counsellor may hurry in giving information, education and communication in order to clear the line. Further, engaging lay persons in order to fill up the gap and the services offered may not be appealing to adults seeking VCT services. A small number of trained counsellors may make people seeking the VCT services to line up for the service thereby creating congestion. This is time consuming to many people and this may lower utilisation of VCT services.

## **1.3.2 CLIENT RELATED FACTORS**

### **1.3.2.1 Educational level**

The educational level of an individual has a bearing on VCT acceptance. People with any formal of education are likely to utilise VCT services than individuals without any formal of education whom it is difficult to understand the importance of knowing their HIV status.

### **1.3.2.2 Age**

The age of an individual may play a role. It has been observed that young people are not likely to volunteer to be tested for HIV despite being sexually active as they think they are young to be infected. Old people may also fail to utilise VCT services as they think that there is no need for them to know their HIV status as well as feeling uncomfortable to be counselled by counsellors who are younger than them. Some of the potential clients may be too young to perceive the benefits for going for VCT while the older people may be aware of the benefits but are afraid of testing positive and the stigma that may ensue.

### **1.3.3.3 Lack of knowledge**

Adults who have adequate knowledge on HIV/AIDS and VCT are more likely to access VCT services than those with inadequate knowledge because they understand the importance and benefits of counselling and testing. Seemingly, family members or guardians who have sufficient knowledge on VCT are more likely to yield a positive influence on many adults than those with inadequate knowledge.

### **1.3.2.3 Peer pressure**

Many people have problems making independent decisions to go for VCT. Hence, their decisions are so very much influenced by their friends, for they feel comfortable talking about sexual matters with their friends and often seek their peer's acceptance for VCT. This may mean that if their friends do not test, then they will not also test. However, if their peers decide to go for VCT, they will too. The role played by the peer educator can influence behaviour change concerning VCT. If the peer educator values the benefits of VCT, the impact would yield positive results on the individual adult.

## **1.3.3 SOCIO-ECONOMIC AND CULTURAL FACTORS**

### **1.3.3.1 Marital Status**

Majority of the married clients may go for VCT because they worry more about HIV status and families; therefore they would love to know their HIV status so that they plan for their families if they are found positive or be careful if found negative. Some spouses fear to go for VCT because they are afraid of their partner reaction, where the partner may mistrust them.

### **1.3.3.2 Stigma**

HIV/AIDS is associated with shame and blame because of the fact that the major mode of transmission is heavily associated with sex and bad behaviour on the part of the individual affected. Therefore, this is one of the biggest challenges in that most of the adults shun going for VCT for fear of being rejected by relatives or friends and looked down upon as people who are promiscuous.

#### **1.3.3.4 Lack of sex education**

Considering that HIV/AIDS or sex itself is rarely tackled in most homes or communities, many adults often seek HIV/AIDS or sex information from somewhere. Depending on the type of information provided, it may affect adults' acceptance of VCT services positively or negatively.

#### **1.3.3.5 Economic status of individuals**

Economic status may influence an individual's health seeking behaviour including VCT services. People of low economic status are less likely to go for VCT because they cannot afford to pay for transport to and from the VCT centres while well to do people are more likely to go for VCT services and take measures to improve their health status if found with HIV for they are capable to pay transport costs to and from.

#### **1.3.3.6 Fear of the results**

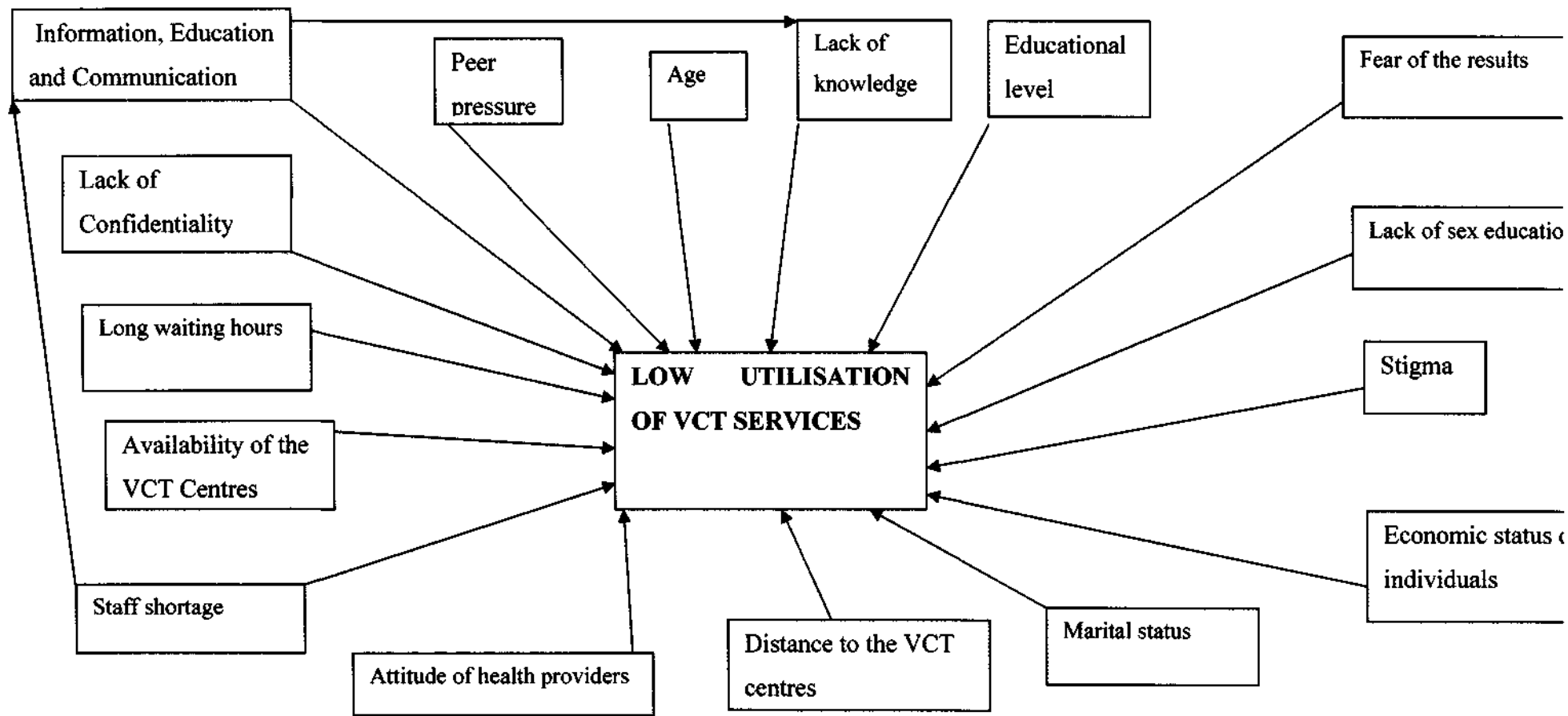
Perception of the consequences of those living with HIV and the fear of the outcome of the tests may influence many adults acceptability of VCT services. There is a tendency of stigmatising people who are HIV positive. With this experience, adults are likely to shun the VCT services for fear of what it would be if they tested positive.

**FIGURE1: DIAGRAM OF PROBLEM ANALYSIS ON UTILISATION OF VCT SERVICES**

**SERVICE FACTORS**

**CLIENT FACTORS**

**SOCIO-ECONOMIC AND CULTURAL FACTORS**



## **1.5 JUSTIFICATION OF THE STUDY**

The provision of VCT is therefore, an important part of any national HIV prevention program and has become easier, cheaper and more effective as a result of the introduction of rapid HIV testing which allows individuals to be tested and find out the results on the same day.

This study seeks to determine the factors contributing to low utilisation of VCT services at Mwenzo Rural Health Centre despite above mentioned government's and cooperating partner's effort in providing preventive measures to curb HIV/AIDS.

The possible findings obtained in this study would include long distance to the VCT centres, lack of confidentiality from some counsellors, shortage of HIV counsellors, fears of knowing the status, stigma and discrimination. It will also show gaps in perception of VCT as a sole preventive measure against HIV transmission and an entry point for treatment and care.

The findings of the study will be used to develop educational materials and behaviour change strategies towards VCT utilisation. The information from this study will also be used to make recommendations to Nakonde District Health Management Team so that appropriate measures can be taken to improve utilisation of VCT thereby reduce the incidence and ultimately the prevalence of HIV infection.

## **1.6 RESEARCH OBJECTIVES**

Objectives are statements of intentions which outline what one wants to achieve, (Basavanthappa, 2007).

### **1.6.1 General objective**

To identify factors contributing to low utilisation of VCT Services at Mwenzo Rural Health Centre among male and female 18 years and above.

## **1.6.2 Specific Objectives**

The specific objectives for this study are:

1.6.2.1 To determine knowledge of HIV, AIDS and VCT among adults aged 18 years and above.

1.6.2.2 To determine service related factors among adults aged 18 years and above

1.6.2.3 To determine the utilisation of VCT services among adults aged 18 years and above

## **1.7 RESEARCH HYPOTHESES**

1.7.1 Respondents with a high level of knowledge of HIV/AIDS and VCT are more likely to utilize VCT services

1.7.2 Respondents with positive service related factors are more likely to utilize VCT services

## **1.8 CONCEPTUAL DEFINITION OF TERMS**

**1.8.1 Utilisation:** This is to make use of VCT services being offered at a health facility (Wikipedia, 2011).

**1.8.2 Knowledge:** This is general awareness or possession of information, facts, ideas, truths, or principles about HIV/AIDS and VCT services (Wikipedia, 2011).

**1.8.3 Service related factors:** are issues associated to a health facility that may or may not attract individuals to access VCT services (Wikipedia, 2011).

**1.8.4 Voluntary Testing:** is a willing procedure conducted to detect HIV/AIDS antibodies in the blood of an individual which is designed to capture true positive and true negative results (ZCC, 2009).

**1.8.5 Voluntary Counselling:** is a willing therapeutic relationship between a service provider and client designed to help the client reach his/her goals through well informed decisions (ZCC, 2009).

**1.8.6 Confidentiality:** This means to be kept secret, not to be made known to others, the information given to the counsellor (Hornby, 2005).

## **1.9 STUDY VARIABLES**

A variable is a characteristic of a person, object or phenomenon that can take on different values (Polit and Hungler, 2007). Variables to be included in this study are derived from the problem analysis diagram and from the research objectives.

### **1.9.1 Dependent Variable**

The dependent variable is the variable that is as a result of the effect of the action of independent variable and cannot exist by itself, (Burns and Groves, 2005). This is the variable used to describe or measure a problem under study. The dependent variable for this study is:

- Utilization

### **1.9.2 Independent Variable**

This is the variable that is believed to cause or influence the dependent variable, in experimental research, the manipulated variable, (Burns and Groves, 2005). In this study, the independent variables are:

- Knowledge of HIV/AIDS
- Knowledge of VCT
- Service related factors

**TABLE 2: VARIABLES AND CUT OFF POINTS**

<b>VARIABLE</b>	<b>CUT OFF POINTS</b>	<b>INDICATOR</b>	<b>QUESTION NUMBERS</b>
<b>DEPENDENT VARIABLE</b>			
Utilization	Not utilized service before	If one scores 0	11
	Utilized service before	If one scores 1	
<b>INDEPENDENT VARIABLES</b>			
Knowledge of HIV/AIDS and VCT	Inadequate	If one scores 1-4	6-10
	Adequate	If one scores 5-9	
Service Related factors	poor	If one scores 0-1	12-14
	Good	If one scores 2-3	

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

Literature review is a broad, comprehensive in-depth, systematic and critical review of published, unpublished print materials, audiovisual materials and personal communication. It also involves examining the strength and weakness of the appropriate publications, (Basavanthappa, 2007).

Literature review helps the researcher identify what is known and not known about the research topic so as to avoid duplication of work. Literature review also describes methods of inquiry used in other studies including their success and shortcomings to aid in the choice of the most appropriate method for the study, (Family Health International (FHI), 2005).

Literature review for this study focussed on published, non published studies and books as sources of literature. To review literature on factors contributing to low utilisation of VCT service at Mwenzo Rural Health Centre, the researcher considered the variable utilization of VCT services as studied globally, regionally and nationally.

#### **2.2 OVERVIEW OF VOLUNTARY HIV COUNSELLING AND TESTING SERVICES**

The Human Immunodeficiency Virus (HIV) continues to spread around the world, moving into communities previously little troubled by the pandemic and increasing in areas where AIDS is already the leading cause of death in adults. The major concentration of HIV infections is in the developing world, mostly in countries least able to afford care for infected people. The HIV/AIDS pandemic has become a health and developmental crises throughout much of sub-Saharan Africa, including Zambia. VCT is a key intervention for early access to prevention as well as to care and support services. There is need for Voluntary Counselling and Testing as infection rates continue to rise.

Estimates by joint United Nations programmes on HIV/AIDS (UNAIDS) and the World Health Organisation (WHO) indicate that the global infection toll to date is 33.2 million of which 2.1 million are dead. It has also been estimated that 1 in 200 of all adults are already infected. The virus continues to spread in about 1 new infection every 15 seconds (WHO, 2009).

A 2007 report jointly commissioned by the World Health Organization, The Joint United Nations Programme on HIV/AIDS, and United Nations Children's Fund indicates that in high prevalence countries, just 12% of men and 10% of women know their HIV status and globally an estimated 80% of people living with HIV are unaware of their status. Even in low prevalence settings like the United States, approximately one quarter of HIV-infected individuals do not know their serostatus.

Southern African Developing Countries (SADC), have implemented VCT programmes. The Southern African HIV/AIDS Action (SA) of March 2008 reported that Botswana is the first country to implement wide spread ARV drug programmes. Botswana has about 100,000 people eligible for ARV therapy but just fewer than 5,000 were put on treatment. Reasons for this discrepancy are not advanced. In Zambia, 3,258 people were reported to be living with AIDS despite the MoH launching an aggressive and vigorous campaign to make people aware about HIV/AIDS (SA, 2010).

### **2.3 KNOWLEDGE OF HIV/AIDS AND VCT SERVICES**

The changing face of the HIV/AIDS epidemic has resulted in new opportunities to increase access to voluntary HIV counselling and testing (VCT), especially during the past 7 years (2001–2007). As access to HIV treatment becomes more widely available in sub-Saharan Africa, the need for enhanced access to VCT would become even greater. When given the opportunity, many more adults in sub-Saharan African would accept VCT, and many clearly express the desire to learn their HIV sero-status. However, in most parts of Sub-Saharan Africa, fewer than one in 10 people know their HIV status.

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Stigma, fear of receiving an HIV-positive status, lack of confidentiality, long distances to VCT sites, and long delays in returning HIV test results limit people's access to traditional VCT systems (Matovu and Makumbi, 2007).

In another study done in Uganda stated that although knowledge about HIV transmission was high, only 47.2% of respondents had been tested for HIV. Married people were less likely to have been tested than unmarried people. The most common reasons for testing included risky lifestyle, signs and symptoms related to HIV, sex partners' risky lifestyles, and a sex partner's death. The most common barriers to testing were fear of results, belief that it was not necessary, and lack of time. VCT use was low. The majority of adults 18 years and above in many developing countries are illiterate, which contributes to them not to understanding health related problems. A pilot study investigated factors related to uptake and acceptability of VCT for HIV among adults in Kigali, Rwanda, found that individuals who had skilled and well paid jobs were about four times more likely to accept HIV testing, than were those unemployed (Kowalczyk, et al. 2009). In Namibia, information, education and communication messages for VCT/PMTCT designed in Windhoek are largely in English and are not suitable for many Namibians, who often cannot easily read or understand English or for whom messages may not be culturally appropriate. As a result, leaflets, posters and billboards in English may turn to be quite ineffective. Few interventions have addressed the cultural and psychosocial determinants that are related to people's sexual risk taking and risk reducing behaviors (Ministry Of Health and Social Services (MOHSS), 2007)

There is adequate information on the HIV prevalence and on those who have tested for HIV, but there is scanty literature pertaining to focus which contribute to the low utilization of VCT services. However, there has been some study to determine the attitude of women in child bearing age towards voluntary HIV testing in Lusaka (NAC, 2010). Results were not advanced.

HIV among adults is mainly transmitted through heterosexual contact between an HIV positive partner and an HIV-negative partner. Zambia's HIV-prevention programme has sought to reduce sexual transmission of the virus by programmatically promoting three behaviour change models—sexual abstinence, mutually faithful monogamy among uninfected couples, and condom use for people not practicing abstinence.

In the 2007 ZDHS, men and women were asked if it is possible to reduce the risk of acquiring HIV through consistently using condoms, limiting sexual intercourse to one uninfected partner who has no other sex partners, and abstaining from sexual intercourse.

The 2007 ZDHS respondents were asked whether they had heard of HIV or AIDS. Those who reported having heard of HIV or AIDS were asked a number of questions about whether and how the virus that causes AIDS can be avoided. It was found that the percentage of women and men aged 18-49 who have heard of AIDS, by background characteristics. The results indicate that a general knowledge of AIDS among men and women is universal (99 percent). The results also show that knowledge of AIDS is high among all sub-groups of men and women by background characteristics.

There is considerable variation in knowledge levels by province; for example, 86 percent of women in Western province recognize that using condoms is a way to reduce the risk of contracting HIV, compared with 66 percent of women in Northern. Women and men with higher education are more likely than those with less education to be aware of the various methods (ZDHS, 2007). Respondents in urban areas are more likely than those in rural areas to have comprehensive knowledge. Among women, the level of comprehensive knowledge is highest in Lusaka (43 percent), while among males it is highest in Copperbelt (53 percent). The proportion with comprehensive knowledge about HIV and AIDS rises with level of education and wealth quintile among both women and men.

The ZDHS 2007 reports that, 9% of men and 14% of women had never been tested. Another 69% of women and 64% of men want to be tested but have not done so. The NAC (2010) also reports that testing is more common in urban areas (14% of women and 17% of men) than in rural areas (6% of women and 12% of men). VCT is also more common among the better educated.

UNAIDS, 2006 reported that education has a bearing on HIV/AIDS in that people with education knowledge are more eager to learn about HIV/AIDS and more clarification from health providers.

To improve courage, the NAC policy calls on government to make VCT services available to all people in the country. The NAC intervention strategic plan 2006-2010 indicates that VCT centres that are accessible and affordable should be established in all districts. The new goal is that at least 25% of adults sexually active Zambians know their HIV status by 2010. Literature review has shown that where VCT services have been fully utilized, there has been a reduction in HIV transmission in that those who have been found negative take preventive measures while those found to be positive have an opportunity for further counselling, where they require knowledge on available medical care and support. They also make decisions concerning their lives (UNAIDS, 2009).

## **2.4 UTILISATION OF VCT**

A study done by Nguyen Hai Thuong entitled “determinants related to the utilisation of VCT services in Vietnam in 2008 found that utilisation of VCT services depends on the health seeking behaviour of the consumer’s side which consists of the socio-demographics, risky behaviour and source of information about VCT services”. The findings revealed that more than half (53.4%) of the respondents who came to utilise VCT services were married as compared to 15.06% single clients and 13.58% divorced or widowed. From this, it may show responsibilities of persons who are taking care of family and that married clients worry more for their health status and that of their families. The study also revealed that there was no significant relationship between age and utilisation of VCT services.

The study further revealed that there was no significant relationship between sex variable and utilisation of VCT services neither was there any significant relationship between education level and VCT utilisation.

In a study entitled “HIV infected women and their families”, carried out in the United Kingdom by Sheer et al, (2007) the following factors were also shown to affect VCT uptake; staff training (professional skill and empathy) and supervision, societal factors like stigma, minimal male involvement, partner violence and rejection of HIV positive women. Helplessness, denial, high educational level, ignorance about sexual transmission of HIV, condom use, quality of information and its mode of presentation were identified societal factors.

Some developed countries have expressed concern about low utilisation of VCT services. In Japan it was estimated that out of 14,000 were HIV positive yet only 6,528 were reported to have undergone HIV testing. Bangladesh’s HIV epidemic is classified as low level with only 13,000 living with HIV/AIDS. The first case was identified in 2001 (UNAIDS, 2009).

A study done by Getachew Wondimagegn conducted on 636 people entitled “factors associated with VCT utilisation in Guraghe Zone in Ethiopia in 2004”, found that the main reason for VCT utilisation among cases was pre-marital 160 (75.5%) and individuals with educational status of secondary and above were more likely to utilise VCT than illiterate groups. Individuals in this educational level might have had better information and awareness about HIV/AIDS and VCT, and more likely to utilise VCT.

The main reasons for non-use among controls were partner and self-trust (23.1%), no information about it (17.8%), other social reasons (13.7%) and lack of nearby services (13.0%). Whereas other reasons for not utilising VCT by the control group (66.7%) included; no nearby service, do not know where to get it, do not believe it will help, afraid of the result and fear of stigma.

A study entitled Evaluation of uptake and attitude to Voluntary HIV Counselling and Testing among health care professional students in Kilimanjaro region, Tanzania by (Ministry of Health and Social Welfare-Tanzania, Health Sector HIV and AIDS Strategic Plan, 2007 – 2012. 2007), in Tanzania. This study aimed to assess the acceptability of VCT and its actual uptake among health care professional students at KCM (Kilimanjaro Christian Medical) College of Tumaini University and Allied Health Schools.

This was cross-sectional study. A structured questionnaire was used among health care professional students aged 19 – 25 years who were enrolled in degrees, diplomas and certificates courses Kilimanjaro Christian Medical College and all other Allied Health Schools. The findings were that a total of 309 students were recruited, among these 197 (63.8%) were females. All respondents were aware of the benefits of VCT. Less than half 107 (34.6%) of students have had VCT done previously whereas 59 (19.1%) of the students had negative attitude for health care professional to attend VCT.

It was therefore; found that awareness of VCT services and willingness to test is high among students; however its uptake is low. It was further proposed that in order to promote these services, a comprehensive training module on VCT needs to be included in their training curricula. In particular, more emphasis should focus on the benefit of VCT to help the students to internalise the risk of HIV so that they can take preventive measures.

A cross sectional survey was used in Bushenyi district, Uganda to estimate the proportion of pregnant women who undertake VCT found that thirty-eight (17%) of 219 people interviewed had ever undergone HIV testing. The factors influencing VCT for HIV were the consequences of a test result, influence of a sexual partner, the cost of VCT, physical accessibility of VCT, awareness and risk of HIV infection (Nuwaha, et al. 2009). In a pilot study of same-day VCT in six urban antenatal clinics in Lusaka, Zambia, 84% of pregnant women requested testing and a quarter of those women tested positive (Preble, et al.2010). In Namibia, a very low uptake of VCT (< 10%) was recorded during the pilot PMTCT program and this was attributed primarily due to the lack of trained counselors in Namibia. This figure however gives an indication of low uptake of VCT in PMTCT by pregnant women in the country (Nuwaha, et al. 2009).

## **2.5 SERVICE RELATED FACTORS**

VCT has generally not been seen as a priority in HIV care and prevention programs. In many parts of the world, and particularly in developing countries, Voluntary Counseling and Testing (VCT) is not widely available especially in all communities of Sub-Saharan countries (MOHSS, 2007). In many district, rapid tests have been incorporated into the national HIV testing system to meet the demands of new advances in prevention and care program (MOHSS, 2007) despite the uptake still remains low. Several key factors may contribute to the poor and inconsistent utilization of VCT services such as lack of transport, low income, unemployment, low educational level and long distances to testing centers (MOH, 2010).

In a four-year study to examine the introduction of VCT services within maternal and child health programs in Kenya and Zambia, about two-thirds of more than 22,000 women who sought antenatal care as new clients received pretest counseling, but less than one-third went on to have an HIV test. Reasons for disapproving VCT uptake at ANC/PMTCT sites throughout Africa may include logistic barriers (e.g. results are unavailable the same day or tests are expensive) and fears that test results will not remain confidential. Even when women are tested, a substantial number do not return for their results (Cartoux, 2006).

Voluntary screening programs for HIV may be either confidential or anonymous: the process for each is unique (Stanhope, 2008). A qualitative study investigating VCT uptake by male and female adults using focus group discussion in South West Uganda revealed that some male and female adults were anxious about taking up VCT, due to the fear for confidentiality and fear that VCT staff might refuse to assist them when they happen to be sick if their status were known (Pool, et al. 2009). It is alleged that in some health facilities nurses disclose the HIV status of their clients in the public without informed consent and this lack of confidentiality prompts clients to fear for their privacy and shun away from testing (Stanhope, 2008). In addition, patients are said not to accept being counseled by counselors who are younger than themselves, which increases the pressure on the availability of counseling services (Pool, et al. 2009).

A study entitled “Voluntary Counseling and Testing Services: Breaking Resistance to Access and Utilization among adults” carried out in Rakai district of Uganda by Sebudde and Nangendo the following factors were also shown to affect VCT uptake; quality of services determines how much the adults will access and utilize the VCT services. In this study they found that although the majority of the health workers are trained, they are few compared to the demand. This is especially the case in outreach centers where the adults said that their morale was lowered from the long waiting, “on reaching there, one has to wait for so long, no drink available so people lose morale” (FGD female adult Kasensero). The adults said that they found the quality of counseling to be good, with confidentiality assured when filling in forms with the counselor.

The counselors were described as friendly to the patients but the constraints mentioned included lack of peer educators, long waiting hours to access the services, giving varying results as reported by a female adult: “Some hospitals give results which are varying, for example the first test is negative and the second is positive. The health workers do not tell you the truth about the results” (FGD female adult Kasensero). Also, lack of privacy, and the environment in which the service offered being unfriendly because all patients (young and old) are mixed up. As a result the young adults tend to shy away from the services. Another constraint mentioned was the lack of facilities particularly in areas where the young adults are transient as shared by a female participant: “some young adults are very mobile: today in Uganda and two weeks reside in Tanzania. So it would be better if they give us a day in a month when they can test us. They could tell us two weeks before the actual day of testing in order to organize ourselves” (FGD Female Youth Kasensero).

Another constraint towards quality services described was the time taken to release results. The government health facilities take a short time to release results after testing but in some Non-Governmental projects it was revealed that it takes 2 – 3 weeks. In other Non-Governmental facilities there was no clear information on how the adults are accessing VCT services despite the indication that the services are being provided.

The service providers, however, re-reported that, there are sometimes delay in supply of reagents, medicine which interrupts the services both with government and NGOs.

Several key factors may contribute to the low and inconsistent utilization of VCT services such as stigma and fear for HIV positive individuals to disclose their status to health workers. On the other hand, the quality of care (good or bad) received from a health facility during previous encounter can have an associated effect on the future utilization of the facility. On the other hand some service providers have negative attitudes which tend to demotivated would be clients. It is also observed that due to uncertainties and organizational constraints some service providers lack motivation with implications on provision of quality services (Cartoux, 2006).

## **2.6 CONCLUSION**

From the studies above, it is clear that people appreciate services rendered in a friendly manner and familiar setting. Unless VCT is strictly confidential, may people (especially women) run the risk-as do adults- of being stigmatised, suffering violence, and being disowned by family members or partners (Banda, 2009).

Going by literature review, people are able to make right decisions about VCT if they are empowered with knowledge. What prevents most people from seeking VCT is lack of knowledge. It is therefore important to privilege the people with knowledge on VCT because it offers benefits to those who test positive or negative. VCT alleviates anxiety, increases client's perception of their vulnerability to HIV, promotes behaviour change, facilitates early referral for care and support – including access to ARV therapy – and assists in reducing stigma in the community. In all this, people can be used as agents of change and targets of VCT so as to change generation to come. We can also say that people in different age groups have different perception of HIV and the benefits of VCT services. It can therefore be concluded that age has a bearing on people's attitude toward VCT.

Voluntary HIV counselling and testing (VCT) has strongly been promoted as essential in reaching universal access to HIV prevention, care, support and treatment, and the services have been scaled up in many low- and middle-income countries. However, access and uptake is still considered to be very low, and where VCT is readily available demands have often been surprisingly low. The striking gap between what people say they would like to do and what they actually do when services are offered is indicating that the way the services are provided has a low acceptability in the population. It has also been shown that in many settings uptake of VCT has been positively correlated with factors such as male gender, higher educational attainment, and urban residence. Such differences in use of HIV testing and counselling might be indicative of inequalities in access. However, reasons for differential use are poorly understood. Numerous studies have concluded that there are serious barriers to use which are related to the way services are offered, particularly indicated by the disappointingly low acceptability of facility-based testing (Mutale et al, 2010).

To achieve utilisation of VCT services by people, there is need to strengthen the education and mobilisation of the people through the help of people that are well knowledgeable in the field such as health workers. The researcher therefore seeks to determine factors contributing to low utilisation of VCT services at Mwenzo Rural Health Centre.

## **CHAPTER 3**

### **3.0 RESEARCH METHODOLOGY**

Research methodology is the entire strategy for the study, from identification of the problem to final plans for data collection, (Burns and Gloves, 2008). It therefore refers to means of gathering data that are common to all sciences including nursing. This chapter discusses the methodology that the researcher used for the study (research design) or the instruments that the researcher used to gather data, definition of study subjects, sample size, study setting and ethical consideration. Therefore, this chapter helped researcher develop a study plan and interventions into the research. The purpose of this study was to determine factors contributing to low utilisation of Voluntary HIV counselling and testing at Mwenzo Rural Health Centre.

### **3.1 RESEARCH DESIGN**

A research design is a blueprint for conducting the study that maximizes control over factors that could interfere with the validity of the findings, (Burns and Gloves, 2008). It guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goals, (Burns and Gloves, 2008).

A descriptive study design with both qualitative and quantitative dimensions was used in this study. A descriptive study is a broad class of non experimental studies. Its purpose is to observe, describe and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for the hypothesis generation or theory development. The study described the relationship between knowledge of HIV, AIDS AND VCT, Service related factors, and utilisation of Voluntary HIV counselling and testing.

## 3.2 RESEARCH SETTING

Research setting refers to a place where the research will be done, (Basavanthappa, 2007). The study was conducted at Mwenzo Rural Health Centre of Nakonde District in the Northern Province of Zambia. Nakonde District is one of the 12 Districts in Northern Province of Zambia. It is in the North Eastern part of Northern Province it lies between  $32^{\circ}10'$  and  $33^{\circ}02'$  East of the Greenwich Meridian, and  $9^{\circ}49'$  South of the Equator, covering an area of 5515.3 Kilometres. It is one of the newly created districts of Northern Province. The District shares international boundaries with Tanzania in the north and Malawi in the East. Furthermore, the District shares district's boundaries with Mbala in the North West, Mungwi in the West, Chinsali in the South West and Isoka in the South West it is approximately 1500 Kilometres from Zambia's Capital City, Lusaka. The District has seven (7) Rural Health Centres (RHC), two (2) health posts (HP) and one (1) Urban Clinic. The rural health centres are; Mwenzo, Waitwika, Chilolwa, Chozi, Ntatumbila, Shem and Chanka, the health posts are Mayembe and Mukalizi and the urban clinic is Nakonde Urban Clinic

Historically, Mwenzo Mission is the oldest health facility in the district which has been in existence since 1900 during the early times of missionaries such as Dr.Chesolom. It has the second largest catchment population of about 22,666 people, Namwanga being dominated tribe of the area. It is located west of Nakonde Boma, 18km away from Nakonde off Nakonde-Mbala road and is about 1500 km from Lusaka. It is accessible by both road and rail. There are six (6) basic schools namely Mwenzo, Tenga, Chitamba, Ilola, Musanza and Movu and one (1) secondary school namely Mwenzo Girls Secondary School. Mwenzo Mission Rural Health Centre has a VCT centre and a total of 12 mobile VCT sites. Mwenzo Rural Health Centre was chosen for the study because it was convenient and accessible.

### **3.3 STUDY POPULATION**

Study population refers to the total category of persons or objects that meets the criteria for study established by the researcher, (Basavanhappa, 2007). The research study population included male and female adults aged 18 years and above in Mwenzo Rural Health Centre Catchment Area.

#### **3.3.1 Target Population**

The target population is the entire population in which the researcher is interested in and to which he/she would like to generalise the results of the result (Polit and Hungler, 2007). The study target population were male and female adults aged 18 years and above.

#### **3.3.2 Accessible population**

The accessible population is the population of people available for a particular study, often a random subset of the target population (Polit and Hungler, 2007). The study accessible population were male and female adults aged 18 years and above- receiving health care at Out Patients Department (OPD) of Mwenzo Rural Health Centre in Nakonde.

### **3.4 SAMPLE SELECTION**

Sampling selection is a process of selecting a number of individuals from the delineated target population in such a way that individuals in a sample represent as nearly as possible the characteristics of the entire target population (Polit and Beck, 2008). Rural health centre selection was a non-probability sampling. The Rural health centre was conveniently selected because it was the workplace for the interviewer who, therefore, is familiar with the environment.

### **3.7 OPERATIONAL DEFINITIONS**

**3.7.1. Utilisation:** The process of using VCT services in terms of getting tested for HIV/AIDS and receiving results.

**3.7.2 Knowledge:** is the information possessed by respondents on HIV/AIDS and voluntary counselling and testing.

**3.7.3 Service related factors:** are factors that will make people access VCT services such as good reception and attitude of staff and short waiting time before being attended to at the VCT centre.

**3.7.4 Voluntary testing:** this is a test given to the willing candidate. Voluntary testing refers to the male and female adults who decide on his or her own to be tested for HIV.

**3.7.5 Voluntary Counselling:** is a mutual interaction between HIV Counsellor and a willing male or female adult.

**3.7.6 Confidentiality:** it is treating information that the counselee entrusts in a counsellor in secrecy.

### **3.8 DATA COLLECTION TOOL**

A data collection tool is an instrument used in the process of selecting subjects and gathering data from subjects (Burns and Gloves, 2008). A structured interview schedule was used to collect data from subjects. A structured interview schedule refers to a situation whereby questions asked by the interviewer are designed by the researcher before the initiation of data collection, and the order of questions is specified (Burns and Gloves, 2008).

The reason for using this type of data collection tool was that, some respondents had limited time to answer questions while others could not read and write English. Subjects who were unable to read and understand English were assisted by the researcher to read and interpret in local language (Namwanga).

The structured interview schedule was a questionnaire that was read to the respondents. The tool consisted of four sections. Section A had questions from 1-5, section B from 6-10, section C had only question 11 and section D from 12-14. The variables covered were low utilisation of VCT, knowledge on HIV/AIDS, knowledge on VCT and Service related factors.

### **3.9 DATA COLLECTION TECHNIQUE**

Data collection technique is a process of gathering information needed to address a research problem (Polit and Hungler, 2007). Prior to conducting the study, permission was obtained from the District Medical Officer (DMO, Nakonde) and the rural health center in-charge (Mwanzo).

The researcher introduced oneself to the respondents and greeted each respondent so as to make the respondent comfortable and at ease. The researcher then explained the purpose for the interview. The respondents were assured of anonymity and confidentiality. Consent was obtained before proceeding to ask the respondent questions. Thereafter, structured questions were administered. The researcher was filling in the responses on behalf of the respondents as the responses were being given. In case of clarification, the researcher was repeating questions so that the respondent could understand clearly. A chance was given to the respondent to ask questions to clarify their concerns. Finally, after the interview the researcher thanked the respondent for their time and finally left. Then the answered questionnaires were put in a bag. At the end of the session all the answered and the unanswered questionnaires were kept under a locked cupboard.

### **3.10 PILOT STUDY**

Pilot study is a smaller version of a proposed study conducted to refine the methodology (Burns and Gloves, 2008). It is developed much like the proposed study, using similar subjects, the same setting, the same treatment, and the same data collection and analysis techniques. The main objective of a pilot study was to develop and refine a research treatment, a data collection tool or data collection process (Burns and Gloves, 2008). The researcher conducted a pilot study to determine and measure the sequencing of questions and the clarity as well as appropriateness of the language used in constructing the interview schedule. The pilot study was conducted at Waitwika Rural Health Centre which has similar characteristics as the actual population in which the actual study was done, that was Mwenzo Rural Health Centre. Respondents were accessed at Mwenzo Rural Health Centre Out-Patient Department and a systematic random sampling was used and selection was after every eleventh client seen by the clinical officer. The sample size was 10% of the actual study sample. The sample size was five (5) and respondents were not part of the actual study.

### **3.11 ETHICAL AND LEGAL ISSUES**

Ethics consideration means that the subjects' rights and the rights of others in the research setting are protected, (Burns and Gloves, 2008). Ethical issues of this study were ensured by getting permission from Nakonde District Health Management Team and from all participants in the study. Permission was sought from University of Zambia Research Ethics Committee through my supervisor as well and verbal consent was obtained from each respondent before conducting the interview and administering the questionnaires. The participants were kept nameless instead codes were used to uphold the principle of anonymity and their personal information were kept confidential. Then after permission was sought from individual respondents who chose to take part in the study, all the completed interview schedules were kept secured so that no unauthorised persons could gain access to it.

## **CHAPTER 4**

### **4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS**

#### **4.1 DATA ANALYSIS**

Data analysis is defined as the systematic organization, providing structure to and eliciting meaning from research data. It involves synthesis of research data and testing of research hypothesis using collected data (Polit and Beck, 2008). Data analysis is conducted to reduce, organise, and give meaning to the data (Polit and Beck, 2008). Both quantitative and qualitative data were collected and the analysis for each type is described below.

##### **4.1.1 QUANTITATIVE DATA**

Quantitative data is “data that is collected in a quantified (numerical) form” (Polit and Beck, 2008). Analysis of quantitative data involves manipulation of numeric data through statistical procedures for the purpose of describing phenomena or assessing the magnitude and reliability of relationships among them. Quantitative data were coded and entered manually using a data master sheet and a scientific calculator. The mean as an appropriate measure of central tendency for approximately normally distributed population was used to calculate mean for age, total knowledge, utilisation and service related factors. Standard deviation is another test that the researcher used for understanding dispersion within a distribution and in interpreting the relationship of a particular score to the distribution. The chi-square was used to test whether the variables being examined are independent or related.

##### **4.1.2 QUALITATIVE DATA**

Qualitative data is data that is categorical, verbal or narrative pieces of data information (Polit, D, 2006). Qualitative data which was derived from open ended questions were analysed using content analysis. Content analysis is designed to classify the words in a text into a few categories chosen because of their theoretical importance (Polit and Beck, 2008). Each response was transcribed, read and read to get the concept from the responses and then coded.

Coding is the process of transforming qualitative data into numerical symbols that can be computerized (Burns and Grove 2009). The concepts were derived from the characteristics of the responses, and then developed into themes that were used to categorise the content into meaningful responses. The responses were then entered on a spreadsheet and analysed using the data master sheet.

## **4.2 PRESENTATION OF FINDINGS**

Presentation of findings involves display of the results of the data collected (Polit and Beck, 2006). The findings of the study are presented in frequency tables, figures, pie charts, graphs and cross tabulations to give a vivid picture of the findings. This facilitates a better understanding of the research findings. Eight (8) Frequency tables, three (3) figures and five (5) cross tabulations were used to present the findings. The frequency tables are suitable because they summarize the findings in a meaningful manner for easy understanding. Cross tabulation on the other hand is helpful in showing relationships between variables. These helped the researcher to draw meaningful inferences. The findings of this study have been presented in six sections; section A: demographic data, section B: knowledge of HIV/AIDS and VCT, section C: utilisation of VCT, section D: service related factors, and section E: suggestions on how to improve utilisation of VCT services.

### **4.2.1 SECTION A: DEMOGRAPHIC DATA**

Demographic data comprised of five questions which included the age, sex, marital status, religious, and education. Demographic data is presented in one table.

**Table 4.1: Socio-demographic characteristics of the sample (n) = 50**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age (years)</b>		
19-29	19	38
30-39	7	14
40-49	16	32
50 and above	8	16
<b>Total</b>	<b>50</b>	<b>100</b>
<b>Sex</b>		
Male	23	46
Female	27	54
<b>Total</b>	<b>50</b>	<b>100</b>
<b>Marital status</b>		
Single	1	2
Married	42	84
Divorced	5	10
Separated	2	4
<b>Total</b>	<b>50</b>	<b>100</b>
<b>Educational level</b>		
None	2	4
Grade 1-7	29	58
Grade 8-9	14	28
Grade 10-12	3	6
College/ University	2	4
<b>Total</b>	<b>50</b>	<b>100</b>
<b>Religious denomination</b>		
Catholic	3	6
UCZ	15	30
SDA	4	8
Jehovah's Witness	3	6
Africa National Church	10	20
Methodist Church	10	20
Baptist Church	2	4
Pentecost Holiness	3	6
<b>Total</b>	<b>50</b>	<b>100</b>

Age ranged from 19 to 65 with a mean of 37 (Standard Deviation 13.4). More than a third 19 (38%) of the respondents were aged 19-29 years. More than half of the respondents 27 (54%) were female. Majority of respondents 42 (84%) were married. About two thirds of the respondents 29 (58%) attained primary education. A third of the respondents 15 (30%) were United Church of Zambia.

#### 4.2.2 SECTION B: KNOWLEDGE ON HIV AND AIDS AND VCT

There were five questions in this section which included definition of HIV, mode of HIV transmission, where to go for VCT, when VCT is important, and who should go for VCT. Mode of HIV transmission and where to go for VCT and the responses are presented on one table. Cross tabulations between demographic data and level of knowledge were not done due to lack of variability in knowledge.

**Table 4.1: Distribution of Study Variables (N=50)**

Variable	Mean	Standard Deviation	Range
Knowledge	7	0.67	1 - 9
Utilisation of VCT	0.4	0.06	0 - 3
Service related factors	1.2	0.51	0 - 3

Knowledge levels ranged from 0 to 9 (Mean =7; SD=0.67). Utilisation of VCT ranged from 0 to 3 (Mean =0.4; SD =0.39). Service related factors ranged from 0 to 3 (Mean =1.2; SD =1.15).

**Table 4.2: Definition of HIV (n) = 50**

Definition of HIV	Frequency	Percentage
Virus that causes AIDS	36	72
Virus that cause wasting	14	28
An organism that cause TB	0	0
I don't know	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

About three quarters 36 (72%) of the respondents stated that the HIV is a virus that causes AIDS.

**Table 4.3: Respondents knowledge on modes of transmission of HIV and where to go for VCT (n = 95)**

Variable	Frequency	Percentage
<b>*Mode of HIV transmission</b>		
Unprotected sexual intercourse with infected person	50	100
Blood transfusion with contaminated blood	12	24
Insect bite	0	0
Mother to child transmission	33	66
<b>Total</b>	<b>95</b>	<b>190</b>
<b>* where can one go for VCT</b>		
Hospital	45	90
Health centre	50	100
<b>Total</b>	<b>95</b>	<b>190</b>

\*Total does not add to 50 due to multiple responses

More than half (53%) of the respondents stated that the commonest mode of transmission for HIV is unprotected sexual intercourse with an infected person while only 22% knew that blood transfusion with contaminated blood is a mode of HIV transmission. Over two thirds of the respondents (66%) stated that HIV can be transmitted from mother to child. All the respondents knew that HIV cannot be transmitted through mosquito bites. All 50 (53%) of the respondents knew that the commonest place where VCT services are offered is the health centre.

**Table 4.4: Respondents knowledge of when VCT is important (n) = 50**

<b>Situations when VCT is important</b>	<b>Frequency</b>	<b>Percentage</b>
When one is sick	29	58
Anytime	21	42
When one wants to go abroad	0	0
Pre-marriage	0	0
Other specify	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

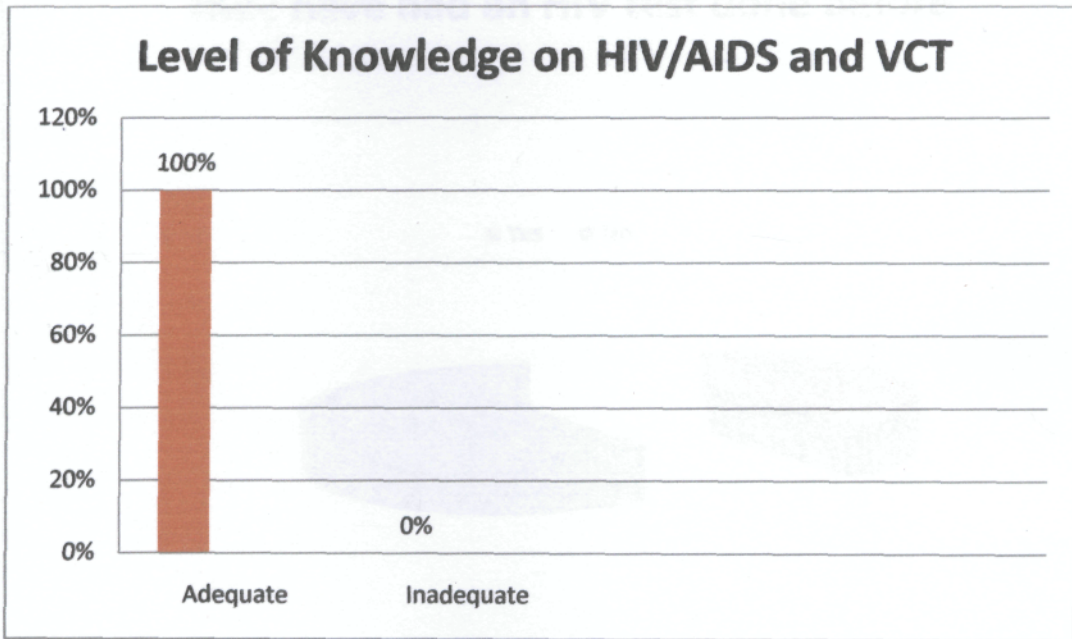
More than half 29 (58%) of the respondents stated that VCT should be done when one is sick while 21 (42%) stated that VCT should be done anytime.

**Table 4.5: Respondents knowledge of who should go for VCT (n) = 50**

People who should go for VCT	Frequency	Percentage
Everyone	45	90
Truck drivers	0	0
Young people	1	2
Sex workers	4	8
<b>Total</b>	<b>50</b>	<b>100</b>

Majority of the respondents 45 (90%) stated that everyone should go for VCT.

**Figure 4.1: Respondents level of knowledge about HIV/AIDS and VCT (n) =50**

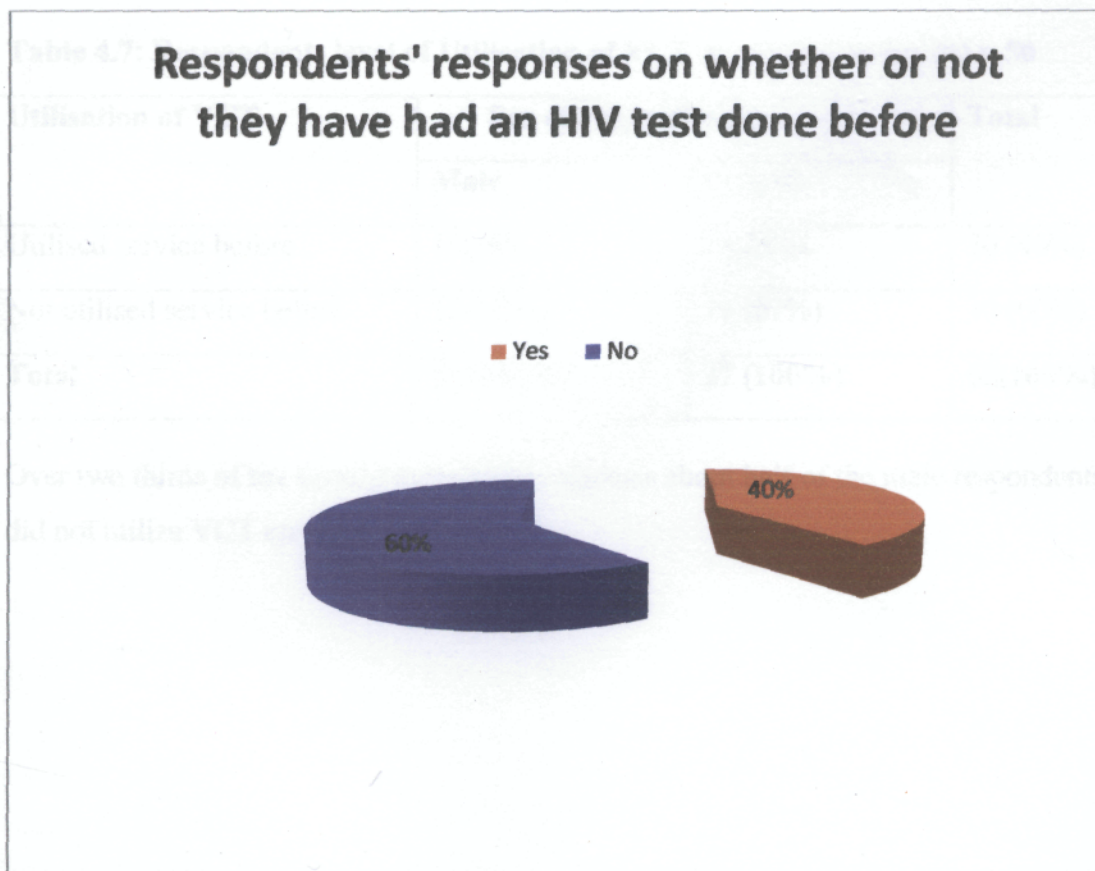


All 50 (100%) of the respondents had adequate knowledge on HIV/AIDS and VCT.

### 4.2.3 SECTION C: UTILISATION OF VCT

There was one question in this section which asked respondents to state whether or not they had undergone HIV test. The results are presented on one pie chart for respondents who utilised and those who did not utilise while the other pyramid chart shows the level of utilisation of VCT services. The cross tabulations were done to show associations/relationships between demographic and study variable. This helped in scrutinizing and cross checking the quantitative research data.

**Figure 4.2: Respondents' responses on whether or not they have had HIV test done before (n) = 50**



Two thirds 30 (60%) of the respondents stated that they had never had HIV test done.

**Table 4.6: Respondents level of Utilisation of VCT in relation to age (n) = 50**

Utilisation of VCT	Age of respondents in years				Total
	19 - 29	30 - 39	40 - 49	50 and above	
Utilised service before	7 (37%)	2 (29%)	6 (37%)	5 (63%)	20 (40%)
Not utilised service before	12 (63%)	5 (71%)	10 (63%)	3 (37%)	30 (60%)
<b>Total</b>	<b>19 (100%)</b>	<b>7 (100%)</b>	<b>16 (100%)</b>	<b>8 (100%)</b>	<b>50 (100%)</b>

Two thirds of those 50 years and above (63%) had utilized VCT services while two thirds in the age group 19-29 years (63%) had not utilized VCT services

**Table 4.7: Respondents level of Utilisation of VCT in relation to sex (n) = 50**

Utilisation of VCT	Sex of respondents		Total
	Male	Female	
Utilised service before	11(48%)	9 (33%)	20 (40%)
Not utilised service before	12 (52%)	18 (67%)	30 (60%)
<b>Total</b>	<b>23 (100%)</b>	<b>27 (100%)</b>	<b>50(100%)</b>

Over two thirds of the female respondents whereas about half of the male respondents (52%) did not utilize VCT services

**Table 4.8:****Respondents level of Utilisation of VCT in relation to marital status (n) = 50**

Utilisation of VCT	Respondents marital status				TOTAL
	Single	Married	Divorced	Separated	
Utilised service before	1 (100%)	17 (40%)	1 (20%)	1 (50%)	20 (40%)
Not utilised service before	0	25 (60%)	4 (80%)	1 (50%)	30 (60%)
<b>Total</b>	<b>1 (100%)</b>	<b>42 (100%)</b>	<b>5 (100%)</b>	<b>2 (100%)</b>	<b>50 (100%)</b>

All single respondents had utilised VCT services while two thirds of the married respondents (60%) and majority of those divorced (80%) had not yet utilized VCT services.

**Table 4.9: Respondents level of Utilisation of VCT in relation to denomination (n) = 50**

Utilisation of VCT	Respondents denomination								TOTAL
	RCC	Jehovah's witness	UCZ	SDA	Africa NC	Metho dist	Baptist	Pentecost Holiness	
Utilised service before	2 (67%)	2 (67%)	6 (40%)	1 (25%)	4 (40%)	4 (40%)	1 (50%)	0	20 (40%)
Not utilised service before	1 (33%)	1 (33%)	9 (60%)	3 (75%)	6 (60%)	6 (60%)	1 (50%)	3 (100%)	30 (60%)
<b>Total</b>	<b>3 (100%)</b>	<b>3 (100%)</b>	<b>15 (100%)</b>	<b>4 (100%)</b>	<b>10 (100%)</b>	<b>10 (100%)</b>	<b>2 (100%)</b>	<b>3 (100%)</b>	<b>50 (100%)</b>

All respondents from the Pentecostal Holiness denomination 3 (100%) and three quarters Seventh day Adventist 3 (75%) had not utilized VCT services while two thirds (67%) of the Jehovah's Witness and Roman Catholics had utilized VCT services

**Table 4.10: Respondents level of Utilisation of VCT in relation to education (n) = 50**

Utilisation of VCT	Respondents educational level					TOTAL
	None	Grade 1- 7	Grade 8-9	Grade 10-12	College/University	
Utilised	0	11 (38%)	6 (43%)	1 (33%)	2 (100%)	20 (40%)
Not utilised	2 (100%)	18 (62%)	8 (57%)	2 (67%)	0	30 (60%)
<b>Total</b>	<b>2 (100%)</b>	<b>29 (100%)</b>	<b>14 (100%)</b>	<b>3 (100%)</b>	<b>2 (100%)</b>	<b>50(100%)</b>

All respondents who had never been to school 2 (100%) did not utilize VCT services whereas all respondents who had reached college/University level had utilized VCT services.

#### **4.2.4 SECTION D: SERVICE RELATED FACTORS**

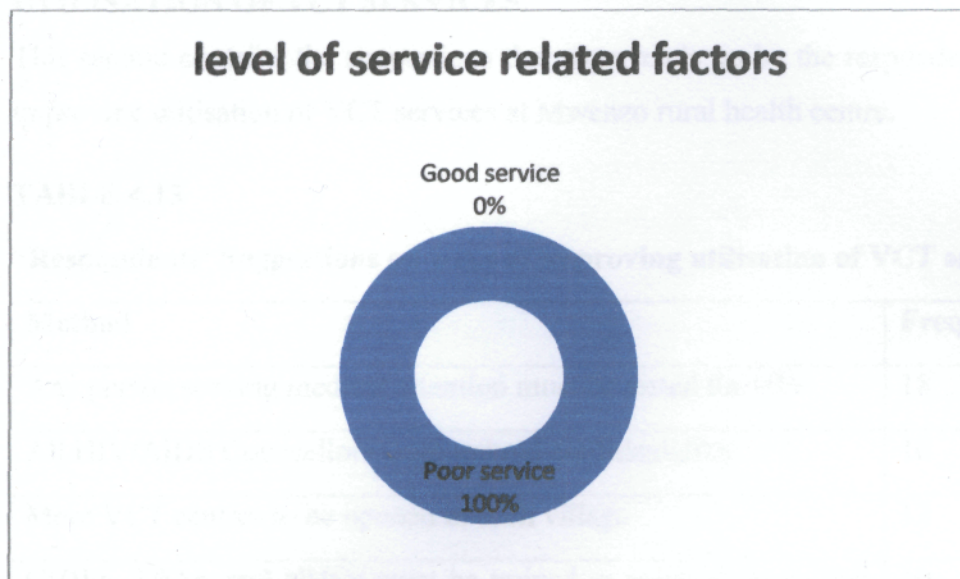
There are three questions that only those twenty respondents who had utilized VCT services answered in this section which included staff reception of clients at the VCT centre; time spent at VCT centre before being attended to, and staff attitude towards VCT clients. The findings from these questions are presented in one table and level of service related factors is also presented on one table. Cross tabulation tables are not done due to lack of variability in service related factors.

**Table 4.11: Distribution of Service Related Factors (n) = 20**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Staff reception of clients at the VCT centre</b>		
Poor	2	10
Good	18	90
<b>TOTAL</b>	<b>20</b>	<b>100</b>
<b>Time spent at VCT centre before being attended to</b>		
0 – 30 minutes	2	10
31 – 60 minutes	15	75
61 – 120 minutes	3	15
<b>TOTAL</b>	<b>20</b>	<b>100</b>
<b>Staff attitude towards VCT clients</b>		
Poor	10	50
Good	7	35
Very Good	3	15
<b>TOTAL</b>	<b>20</b>	<b>100</b>

Almost all 48 (96%) of the respondents who had visited a VCT centre stated that they received good reception from staff .Three quarters 15 (75%) of the respondents who attended VCT services spent 31 - 60 minutes before being attended to, while 20 (40%) of the respondents who had visited a VCT centre stated that the attitude of staff towards VCT clients was poor.

**Figure 4.3: Respondents level of service related factors (n) = 20**



All 20 (100%) of the respondents who had attended VCT services stated that they received poor VCT services from the staff.

#### **4.2.5 RELATIONSHIP AMONG KNOWLEDGE, SERVICE RELATED FACTORS AND UTILIZATION**

Cross tabulations amongst respondent's Knowledge of HIV/AIDS, Utilization of VCT services and the Service Related Factors were not done due to lack of variability.

#### 4.2.6 SECTION E: RESPONDENTS' SUGGESTIONS ON WAYS OF IMPROVING UTILISATION OF VCT SERVICES.

This section contains the suggestions that were made up by the respondents on the ways of improving utilisation of VCT services at Mwenzo rural health centre.

**TABLE 4.13**

**\*Respondents' Suggestions on ways of improving utilisation of VCT services (N=54)**

Method	Frequency	Percentage
Any person seeking medical attention must be tested for HIV	18	25.7
All HIV/AIDS Counsellors must uphold confidentiality	16	22.9
More VCT centres to be opened in each village	12	17.1
CHWs, TBAs, and NHCs must be trained as counsellors so that they can be conducting HIV tests in their villages.	10	14.3
Intensify regular mobile VCT services village by village	8	11.4
Intensify IEC on the importance of VCT in all outreach posts	6	8.6
<b>Total</b>	<b>70</b>	<b>100</b>

\* Total does not add to 50 due to multiple suggestions or responses

Over a quarter of the respondents 18 (25.7%) suggested the need for any person seeking medical attention must be tested for HIV. Almost a quarter of the respondents 16 (22.9%) said that all HIV/AIDS Counsellors must uphold confidentiality. About 12 (17.1%) of the respondents suggested to have more VCT centres opened in each village while 10(14.3%) suggested that CHWs, TBAs, and NHCs must be trained as counsellors so that they can be conducting HIV tests in their villages.

## **CHAPTER 5**

### **5.0 DISCUSSION OF FINDINGS AND IMPLICATIONS FOR THE HEALTH CARE SYSTEM**

The discussion of the study is based on analysis of data collected from a sample of 50 respondents using a self administered questionnaire. The study was aimed at determining factors contributing to low utilization of VCT services among male and female adults (18 years and above) in Mwenzo catchment area in Nakonde. The discussion is presented under the following headings:

#### **5.1 CHARACTERISTICS OF THE SAMPLE**

The demographic characteristics which were relevant to the study included age, sex, marital status, religious denomination and educational level. These were essential for interpretation of the findings. The age of respondents ranged from 19– 50years and above (Table 4.1). The age range 19-29 years had the highest number of respondents 19 (38%). The age group is a clear indication that the majority of respondents were still in the reproductive age group of 15 to 49 years. This finding is in agreement with 2007 ZDHS where the current age-specific fertility rate is 15-49 years.

The sample included both males and females adults from 18 years and above. More than half of the respondents 27 (54%) were female and 23 (46) were males (Table 4.1). This could be attributed to the fact that females are most often the ones that seek medical aid to themselves as well as bringing their children for various activities at the health facility hence subjected to a lot of information about the importance of VCT than males. This is in agreement with the report of 2007 Zambia Demographic Health Survey that the percentage of adult women who had received the HIV test and knew their results was 18.5% than men who were at 11.7%.

Majority of respondents 42 (84%) were married while 1(2%) were single (Table 4.1). The high number of married respondents could be attributed to the fact that government through the ministry of health has put up strategies of promoting couple counselling and testing as well as providing male involvement programmes and action groups to influence male participation in reproductive health services. This is supported by a similar study done by Nguyen Hai Thuong entitled 'determinants related to the utilization of VCT services in Vietnam in 2006 also revealed that most (85.34%) of the respondents who were married, were older than 18 years whereas 52.3% of the clients who were single were younger than 18.

The study showed that more than half of the respondents 29 (58%) attained primary education, 14 (28%) attained grade 8-9, 3 (6%) attained grade 10-12, 2 (4%) never attained any education and 2 (4%) attained either college or university, (Table 4.1). From the sample, most of the respondents had acquired primary education. The 2007 Zambia Demographic Health Survey reported that literacy level in Zambia for adults is at 71% for men and 59% for women. Therefore, poor literacy levels have adverse implications on service delivery as it presents difficulties in communicating HIV/AIDS related messages and programmes.

A third of the respondents 15 (30%) were United Church of Zambia, 10 (20%) were Methodist and Africa National Church. This was the case probably because the United Church of Zambia is one of the earliest churches in Nakonde district and has the largest membership. This finding is similar to the one in ZSBS (2009) where in a comparison of HIV prevalence by religion showed that HIV prevalence was high among protestants (18%), followed by Catholics (15%) and other religions. The church is another place where at which a lot of adults can be captured, thus services such as VCT when offered at the church would yield a positive result (Kelly, 2006).

## **5.2. DISCUSSION OF EACH VARIABLE**

### **5.2.1 KNOWLEDGE OF HIV/AIDS AND VCT**

Knowledge may influence one's action. Hence having knowledge on HIV will influence one's ability to go for VCT and consequently utilization of VCT. Figure 4.1 showed that all the 50 (100%) respondents had adequate knowledge of HIV/AIDS and VCT. The finding is similar to the 2007 ZDHS where the results indicated that a general knowledge of HIV/AIDS and VCT among adult men and women is universal (99 percent) and the results also showed that knowledge of HIV/AIDS is high among all sub-groups of men and women by background characteristics. On the contrary in the research done in Kasenyi Fishing Community of Uganda on Factors Influencing Utilization of Voluntary Counselling and Testing Service it was reported that the majority of the respondents (n 575, 60%) said they had not heard or read any messages about HIV/AIDS and VCT services, whereas 47 (38.6%) had, and 5 (1.4%) could not recall. Respondents who had heard a message about VCT were asked what messages they had heard; these included a call to go for VCT, the need for testing early and knowing ones' HIV status, and the need to get more up-to-date information on HIV prevention, care, and treatment.

The respondents were asked to define HIV. Slightly below three quarters 36 (72%) of the respondents stated that the HIV is a virus that causes AIDS (Table 4.2). The finding is similar to the 2007 ZDHS where it was reported that both male and female adults residing in both rural and urban areas of Zambia knew that HIV is a virus that causes AIDS. On the contrary in a research done in Indonesia on Voluntary Counselling and Testing Uptake and HIV Prevalence among Tuberculosis Patients reported that only 54% knew that HIV causes AIDS, 36% stated that it is a virus that cause wasting while 10% stated that it is caused by An organism that cause TB. This could be attributed to widely sensitisation of the information on HIV through the media, drama groups, health educations conducted by health workers during child health outreach activities (UNAIDS, 2006). It is therefore, very important that every one learns about HIV because one is either affected or infected and through knowledge, one is able to make choices some of which would reduce the spread of HIV infection (Muganda-Onyanda et al, 2006).

All 50 (100%) of the respondents stated that the commonest mode of transmission for HIV was unprotected sexual intercourse with infected person. The knowledge base on HIV transmission was consistent with findings from the recent Uganda sero-behavioural survey, where 98% of respondents were able to mention that unprotected sexual intercourse is the commonest mode of HIV transmission (MoH & ORC Macro, 2009). Contrary to the previous study of the sexual behaviour of 338 in South Korea where it was found that only 74% had knowledge on the commonest mode of HIV transmission (Korea Centres for Disease Control and Prevention, 2007).

Over two thirds of the respondents 33 (66%), stated that HIV can be transmitted from the mother to child. The finding is similar to the 2007 ZDHS where the results indicated shows that 85 percent of women and 75 percent of men recognize that HIV can be transmitted through mother to child transmission. Although knowledge about mother-to-child transmission has increased, knowledge about how this risk can be reduced is still limited; 68 percent of women and 56 percent of men know that the risk of MTCT can be reduced by taking special drugs.

Only 12 (24%) mentioned that HIV can be transmitted through blood transfusion (Table 4.3). My findings are consistent with those of Sieverding et al, in a study HIV Prevention Education and Testing among Adults: Is there a Correlation? which indicated 20% of respondents saying that HIV can be transmitted through blood transfusion.

This study revealed that sexual intercourse was the commonest known mode of transmission for HIV and AIDS. This is in line with the only available HIV incidence study in Zambia which shows that HIV among adults is mainly transmitted through heterosexual contact between HIV positive partner and an HIV-negative partner (ZDHS, 2007).

Zambia's HIV-prevention programme has sought to reduce sexual transmission of the virus by programmatically promoting three behaviour change models—sexual abstinence, mutually faithful monogamy among uninfected couples, and condom use for people not practicing abstinence. In the 2007 ZDHS, men and women were asked if it is possible to reduce the risk of acquiring HIV through consistently using condoms, limiting sexual intercourse to one uninfected partner who has no other sex partners, and abstaining from sexual intercourse. In another study done in Uganda stated that although knowledge about HIV transmission was high, only 47.2% of respondents had been tested for HIV. Married people were less likely to have been tested than unmarried people. The most common reasons for testing included risky lifestyle, signs and symptoms related to HIV, sex partners' risky lifestyles, and a sex partner's death. The most common barriers to testing were fear of results, belief that it was not necessary, and lack of time. VCT use was low.

All 50 (100%) of the respondents knew that the commonest place where VCT services are offered is the health centre and 40 (90%) of the respondent mentioned hospital (Table 4.3). The finding is similar to the 2009 ZSBS which indicated knowledge of a place to go for an HIV test among adults has increased steadily over the survey period 2000-2009, from 63% in 2000 to 90% in 2009, a 27 percentage point increase. The largest increase in knowledge was among adolescents aged 15-19. However, the percentage of adolescents who said they knew of a place to go for an HIV was lower than that of young adults aged 20-24 (87% versus 94%, respectively). According to this study nearly all the respondents knew where to go for VCT services. However, knowing a place to go for VCT does not mean that one knows their HIV status. It is therefore paramount that all adults know the activities done at VCT places in order for them to understand and appreciate the importance and availability of VCT services (Muganda-Onyanda et al, 2006).

The study results shows that more than half 29 (58%) of the respondents stated that VCT should be done when one is sick while 21 (42%) stated that it should be done anytime (Table 4.4). The finding is consistent to the 2009 ZSBS which reported that 61% of male and female adults indicated that VCT should be done when one is sick and that 39% stated that it should be done any time. To the contrary of this finding, in the study entitled “Factors Influencing Utilization of Voluntary Counselling and Testing Service in Kasenyi Fishing Community in Uganda” reported that 98% of respondents knew that VCT should be done anytime. Awareness of when VCT is important encourages adults to access VCT services, prevent spread of infection and initiation of care early enough. VCT is aimed at helping people to cope with stress and make personal decisions related to HIV/AIDS (CSO, 2007).

Majority of the respondents 45 (90%) stated that everyone should go for VCT, 4 (8%) stated that only sex workers should go for VCT and 1 (2%) stated that young people should go for VCT, (Table4.5). The finding is similar to the study entitled “Characteristics of Individuals Seeking Voluntary Counselling and Testing for HIV Infection in South Korea” where all (100%) of the respondents stated that everyone should go for VCT. On the other hand this was contrary to the study done in Botswana by MacDonald entitled “Perceptions of couple HIV counselling and testing in Botswana: A stakeholder analysis” where 68% of the respondents stated that only sex workers should go for VCT, 21% stated that everyone should go for VCT and 11 % stated that only young people seeking to marry should go for VCT. These findings indicate that bigger percentage of respondents knew who should go for VCT. However, everyone is eligible to go for VCT. This is consistent with the views of FHI (2005) in their manual for providers of VCT services in which they observed that “everyone may be tested routinely for HIV as part of other tests unless a client expressly chooses not to be tested, which some refer to as choosing to “opt out.”

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## **5.2.2 UTILIZATION OF VCT FOR HIV AMONG ADULTS 18 YEARS AND ABOVE**

The results under this section were elicited from the question asked with regards to the utilization of VCT services. Two thirds 30 (60%) of the respondents stated that they had never had an HIV test done while one third 20 (40%) stated that they had HIV test done before, (figure 4.2). The finding is similar to the study entitled “Factors Influencing Utilization of Voluntary Counseling and Testing Service in Kasenyi Fishing Community in Uganda” which revealed that despite high levels of knowledge about HIV/AIDS; only 60 (47.2%) respondents had ever tested for HIV. This is contrary to the 2007 ZDHS results where a larger proportion of adults (78 percent) had never been tested for HIV. In this study, utilization of VCT by adults was with the view of knowing one’s HIV status which is conducive in helping individuals make specific decisions to reduce the risk of contracting and transmitting HIV by adopting safer sex practices. For those who are HIV positive, knowledge of their status allows them to take actions to protect their sexual partners, to access treatment, and to avoid re-infecting themselves (ZDHS, 2007).

Almost three quarters of the respondents 5 (71%) who had not utilized VCT services were aged 30-39 years while two thirds 12 (63%) aged 19-29 and 10 (63%) aged 40- 49 had also not utilised VCT services (Table 4.6). The findings agrees with a study conducted in the Uganda HIV/AIDS Behavioural Survey, where 70 % of the respondents who had utilized VCT services were aged 30-39 and 63.8% were aged 19-29 (MoH & ORC Macro, 2006). On the contrary the 2007 ZDHS report stated that overall, 67% of adults aged 19-29 tested for HIV, and 29 % of those aged 30-39 tested for HIV. This study shows that many adults are not willing to go for VCT. A 2007 report jointly commissioned by the World Health Organization, The Joint United Nations Programme on HIV/AIDS, and United Nations Children's Fund indicates that in high prevalence countries, just 12% of men and 10% of women know their HIV status and globally an estimated 80% of people living with HIV are unaware of their status. Even in low prevalence settings like the United States, approximately one quarter of HIV-infected individuals do not know their serostatus.

It is also reported that in most parts of Sub-Saharan Africa, fewer than one in 10 people know their HIV status. Stigma, fear of receiving an HIV-positive status, lack of confidentiality, long distances to VCT sites, and long delays in returning HIV test results limit people's access to traditional VCT systems (Matovu and Makumbi, 2007). We can therefore conclude that people in different age groups have different perception of HIV and the benefits of VCT services.

Over two thirds 18 (67%) of the female respondents did not utilize VCT services while less than half 11 (48%) of the male respondents indicated having utilized VCT services (Table 4.7). This finding is similar to Painter (2009) entitled Voluntary Counselling and Testing for Couples: A High-Leverage Intervention for HIV/AIDS Prevention in Sub-Saharan Africa, where the percent of females who were counselled for HIV testing and received the results was 76%, with a much higher percentage in urban (86%) than in rural (58%) areas while males who utilized VCT services were 24%. On the contrary in the study done by Nguyen Hai Thuong's findings in the study entitled 'determinants related to the utilization of VCT services in Vietnam in 2006, which revealed that female respondents (12.33%) who had not done VCT were marginally more than male respondents (11.33%) and attributed these findings to the fact that female clients had more psychological pressures than males clients. Quantitative analysis of data from 46 VCT sites revealed that despite increased vulnerability to HIV infection and higher rates of seropositivity amongst women, they are not attending VCT sites in Kenya as often as their male counterparts. However, we can conclude that there was no significant relationship between one's sex and utilization of VCT for HIV.

All respondents who were single 1 (100%) and half of those who were separated 1(50%) while less than half of those who are married 17 (40%) and those who are divorced 1 (20%) had utilised VCT services (Table 4.8). This finding is similar to the study "Factors Influencing Utilization of Voluntary Counselling and Testing Service in Kasenyi Fishing Community in Uganda" which revealed that being single was more often associated with getting tested for HIV.

This is contrary to the findings of Nguyen Hai Thuong, (2006) revealed that more than half (53.4%) of subjects who came to utilize VCT service were married as compared to 15.06% single clients and 13.58% divorced or widowed.

The study results revealed that religious denominations does not influence people's intentions to utilise VCT services as seen in the Table 4.9, which indicated that all respondents who are Pentecostal Holiness 3 (100%) and three quarters Seventh day Adventist 3 (75%), two thirds of United Church of Zambia 9 (60%), Methodist 6 (60%) and Africa National church 6 (60%) while half 1 (50%) Baptist and slightly a quarter 1 (33%) Jehovah's Witness and Roman Catholic Church had not utilised VCT services. This is contrary to the fact that churches have formed associations such as CHAZ (Churches Health Association of Zambia) that help in dissemination of information and supporting hospitals on issues pertaining to HIV/AIDS (NAC, 2008).

The study findings of Table 4.10 revealed that all respondents who had never been to school 2 (100%) did not utilize VCT services whereas all respondents who had reached any formal education had utilized VCT services. This finding is similar to 2007 ZDHS report which indicated that women and men in urban areas have higher literacy rates (81 and 90 percent, respectively) and that overall utilisation of VCT services stands at 85% in urban than their rural counterparts (51 and 75 percent, respectively) with overall utilisation of VCT services being 63%. On the contrary the findings of the study entitled Assessment of the Decision Support Needs of Women from HIV Endemic Countries Regarding Voluntary HIV Testing in Canada, indicated that all the respondents with and without formal education had utilized VCT services. This shows that individuals with educational level might have had better information and awareness about HIV/AIDS and VCT, and is more likely to utilize VCT. UNAIDS, 2006 reported that education has a bearing on HIV/AIDS in that people with education knowledge are more eager to learn about HIV/AIDS and more clarification from health providers.

### **5.2.3 SERVICE RELATED FACTORS**

Majority 18 (90%) of the respondents who had visited a VCT centre stated that they received good reception from staff (Table 4.11). In a similar study done by Getachew Wondimagegn conducted on 636 people entitled 'factors associated with VCT utilization in Guraghe Zone in Ethiopia in 2006 also found that all the respondents who visited VCT centers reported to have received good reception from staff. This is contrary to a related study by Mugando-Onyando et al in Kenya (2008) which revealed that 72% of adults interviewed reported of having received poor reception at the VCT centres by the staff. Services offered must be user friendly, non-threatening, safe, easily accessible environments, counselling should be appropriate and relevant to the adults and language should be easy to understand and non-technical.

The study results showed that three quarters 15 (75%) of the respondents who attended VCT services spent 31 - 60 minutes before being attended to (Table 4.11). In a similar study done by Angotti (2009) in Malawi, and throughout other high-prevalence countries of sub-Saharan Africa, that majority (92%) of the respondents stated that they were not spending more than 40 – 60 minutes before being attended to at the VCT centre because of the introduction of rapid blood test which only take 15 minutes to read the results. It can be seen that generally, people at the VCT centre are being attended to within the shortest period of time. Waiting time therefore, may play a role in utilisation of VCT services.

The study results also showed that half 10 (50%) of the respondents who had visited a VCT centre stated that the attitude of staff towards VCT clients was poor (Table 4.11). In a similar study done by Muganda in his study in Kenya, found that two-thirds (62%) of the respondents complained of poor attitude of staff at VCT centres hence preferred Non-Governmental VCT centres. This is contrary to a 2007 ZDHS report which indicated that 90 % of women and 89 percent of men reported having observed good attitude from staff at the VCT centres This implies that generally staffs are contributing in a way to low utilisation of VCT services due to their poor attitude towards clients which may lead to many people fail to access the services.

#### **5.2.4 RELATIONSHIPS AMONG KNOWLEDGE, UTILIZATION AND SERVICE RELATED FACTORS**

The study revealed that amongst respondent's Knowledge on HIV/AIDS, Utilization of VCT services and the Service Related Factors lacked of variability. Though the study hypotheses stated that Individuals who are knowledgeable about HIV/AIDS and VCT services are likely to utilize the services than those who are not knowledgeable which confirms the findings in this study that all respondents who had never been to school 2 (100%) did not utilize VCT services whereas all respondents who had reached any formal education had utilized VCT services. This finding also confirmed the second hypothesis which states that the knowledge and utilization of VCT services are related to the education level. the finding of this study revealed that majority 18 (90%) of the respondents who had visited a VCT centre stated that they received good reception from staff and that half 10 (50%) of the respondents who had visited a VCT centre stated that the attitude of staff towards VCT clients was poor this proves true the hypothesis that; "good health care services at VCT centres encourage or discourage people from utilization of VCT services".

#### **5.2.5 RESPONDENTS' SUGGESTIONS ON WAYS OF IMPROVING UTILISATION OF VCT SERVICES AT MWENZO RURAL HEALTH CENTRE.**

The study revealed respondents suggestions on ways of improving utilisation of VCT services at Mwenzo rural health centre where over a quarter of the respondents 18 (25.7%) suggested the need for any person seeking medical attention to be tested for HIV (Table 4.13). In a similar study done by Bondo et al (2009), in the study entitled "High Rates of HIV in Adults in Soweto, South Africa: Impact on Resource Utilisation and Recommendations for HIV Testing" indicated high rates of HIV amongst adults which supports the implementation of routine testing of all clients seeking health care in South Africa especially those located in high HIV prevalence settings. This would allow optimization of care for patients found to be HIV infected and ensure timely access to antiretroviral therapy.

This is contrary to the study done by Zachariah et al entitled, “How can the Community Contribute in the fight against HIV/AIDS and Tuberculosis?

An example from Thyolo Rural District in Malawi” which reported that despite an increase in HIV prevalence; Counselling and Testing for HIV should remain on voluntary basis and not to be routine.

Almost a quarter of the respondents 16 (22.9%) said that all HIV/AIDS Counsellors must uphold confidentiality. In a similar study done by Angotti et al (2009), entitled “Increasing the acceptability of HIV Counselling and Testing with three C’s: Convenience, Confidentiality and Credibility” suggested to consider supporting alternative approaches to HIV counselling and testing that are not facility based, approaches that employ HIV counsellors who are transient and outsiders to the community, as with some models of home based testing and mobile testing campaigns. Such tactics have shown marked success in testing uptake in rural African settings, in large part because they assuage concerns of intended clients that familiar health workers would spread one’s HIV test result and not keep one’s affairs secret. This is contrary to another study done by Bell et al (2007) which indicated that for the respondents who had been tested, 59 (98.3%) liked the explanation of VCT results given by the counsellor, the information received, and the overall services, the language used in counselling (n = 57, 95%), the level of confidentiality (n = 57, 95%), and the waiting area (n = 54, 93.3%). Lack of confidentiality by service providers will always make consumers fail to access VCT services.

About 12 (17.1%) of the respondents suggested that they would want to have more VCT centres opened in each village for people not to walk long distances, (Table 4.13). In a similar study done by Painter (2009) entitled Voluntary Counselling and Testing for Couples: A High-Leverage Intervention for HIV/AIDS Prevention in Sub-Saharan Africa suggested that since the number of persons requesting VCT has steadily increased from 8% of all clients in 2006 to nearly a third currently.

Nearly 80% of these adults request HIV testing as a kind of premarital screening process, increased demand from couples, among them a national HIV/AIDS policy in Uganda that has promoted behaviour change and open discussion of AIDS-related issues since the 1980s, resulting in greater willingness by many adults wanting to be tested, there is need to open more VCT centres in all the communities of Sub-Saharan Countries. This suggests that majority of the people stay far way from walkable distances to access VCT services, which is contrary to the Ministry of Health vision which says “ to provide all Zambian with equity of access to cost effective quality health care as close to the family as possible” (MoH, 2009).

In a study entitled “Expanding Access to Voluntary HIV Counselling and Testing in Sub-Saharan Africa: Alternative Approaches for Improving Uptake” done by Matovu and Makumbi (2007) revealed that in most parts of sub-Saharan Africa, Stigma, fear of receiving an HIV-positive status, lack of confidentiality, long distances to VCT sites, limit people's access to traditional VCT systems. Alternative VCT delivery models, such as mobile VCT, routine offer of VCT and home-based VCT increase access to and uptake of VCT. We recommend that these alternative models be implemented in more settings and on a much larger scale in sub-Saharan Africa, where VCT uptake rates remain low.

### **5.3 IMPLICATIONS TO THE HEALTH CARE SYSTEM**

The human toll of HIV and AIDS is a tragic reality being experienced by families, communities and the nation at large. There is no aspect of life that has not directly or indirectly been negatively influenced by the epidemic. AIDS has become the major cause of illness and death among the middle aged Zambians, depriving households and society of a critical human resource base and thereby reversing the social and economic gains Zambia is striving to attain (NAC, 2009).

Voluntary HIV counselling and testing (VCT) has strongly been promoted as essential in reaching universal access to HIV prevention, care, support and treatment, and the services have been scaled up in many low- and middle-income countries. However, access and uptake is still considered to be very low, and where VCT is readily available demands have often been surprisingly low. The uptake of VCT services is still unacceptably low in Zambia. Only 1.5 million of our population has ever been tested for HIV despite government and non-governmental Organizations (NGOs) efforts to make VCT services as widely available as possible. The government is encouraging all Zambians to take a leading role in the utilisation of VCT services if we are to save the future generation and improve social and economic gain of the nation (NAC, 2009).

### **5.3.1 THE NURSING PRACTICE**

Some of the notable factors that the study revealed included contribute poor attitude of staff (50%) towards VCT clients, and lack of confidentiality in counsellors (22.9%). In view of these findings, the nurses should strengthen the sensitization about VCT to all the communities. Confidentiality among counsellors should be emphasized during counsellors meetings in order to create good reputation of an institution that will attract more people to access the services of VCT. Increase in disease burden will further increase the work load of the already under staffed health care providers whereby compromising the quality of care rendered.

### **5.3.2 THE NURSING ADMINISTRATION**

In this study the respondents suggested that Community Health Workers, Traditional Birth Attendants, and Neighbourhood Health Committees must be trained as counselors so that they can be conducting HIV tests in their villages (14.3%). Therefore, it is imperative that nurse administrators plan to adequately train counsellors so that they are able to conduct VCT services at their outreach posts. This will improve the utilization of the service by all the people within their communities.

### **5.3.3 THE NURSING EDUCATION**

Inclusion of the aspect of counselling for HIV in the nursing program has been done but the challenge is that most nurses who qualify after their basic nursing training do lack the counselling skills. It is therefore, very cardinal that nurse tutors should take this topic seriously when teaching student nurses so that when they qualify as nurses they are able handle every person seeking VCT services adequately. The ratio of counsellors (nurse counsellors) in relation to non counsellors is high. Those who completed school before the inclusion of HIV counselling in the nursing curriculum should be trained in order to have uniformity.

### **5.3.4 NURSING RESEARCH**

Voluntary HIV counselling and testing is important in the prevention of HIV/AIDS. However nursing practice cannot be improved without evidence based knowledge. The areas needing further research that came out from the study are; nurse's poor attitude towards their obligation to provide good quality health care and why not upholding their ethical professional conduct of keeping clients confidentiality.

## **5.4 CONCLUSION**

The study sought to determine factors contributing to low utilisation of VCT services at Mwenzo Rural Health Centre catchment area. The study was drawn as non-interventional cross-section. A structured interview schedule questionnaire was used as a tool in data collection. The study parameter was Nakonde District in the Northern Province of Zambia and the study site was Mwenzo RHC catchment area. Fifty male and female adults were selected by use of systematic (random) sampling method. The main objective of the study was to identify factors that contribute to low utilisation of VCT services at Mwenzo Rural Health Centre among male and female 18 years and above, determine knowledge of HIV/AIDS among male and female Mwenzo residents 18 years and above, determine knowledge of VCT among male and female Mwenzo residents 18 years and above, find out available VCT sites that respondent are aware of among male and female Mwenzo residents 18 years and above.

Quantitative data were coded and entered manually using a data master sheet and a scientific calculator. The cross tabulations were done to show associations/relationships between demographic and study variables. Qualitative data which was derived from open ended questions were analysed using content analysis which is designed to classify the words in a text into a few categories chosen because of their theoretical importance. The concepts were derived from the characteristics of the responses, and then developed into themes that were used to categorise the content into meaningful responses. The responses were then entered on a spreadsheet and analysed using the data master sheet.

The findings of the study revealed that 100% of the adults (18 years and above) had adequate knowledge on HIV/AIDS and VCT with regards to HIV transmission and where to go for VCT services. Despite adequate knowledge only 40% had utilised VCT services. The study revealed that some of the factors that contribute to low utilization of VCT for HIV include lack of confidentiality in counsellors 22.9%, long distance to VCT centres 17.1% and poor attitude from the staff at the VCT centres towards clients.

The study findings also revealed that adequate knowledge towards VCT for HIV does not influence its utilization as can be seen that 60% who had adequate knowledge never utilized VCT services. The study also revealed that there was a significant relationship between age and utilization of VCT service where we see adults 50 years and above (63%) utilising VCT services more than those aged 19-29 years with 37%. However, it is worth to mention that the main objective of the study has been realised in that knowledge and utilization of VCT for HIV by male and female adults have been investigated. It is therefore, very cardinal that all health care providers should take keen interest to sensitize all adults about VCT and indicate how confidentiality among counsellors will be ensured during and after VCT sessions. This will help attract more adult males and females to utilize VCT.

## **5.5 RECOMMENDATIONS**

Based on the findings of the study, the following recommendations have been made to relevant authorities:

### **5.5.1 Ministry of health**

The ministry of health should consider training all Community Based Volunteers as psychosocial counsellor and opening of more VCT centres preferably at each outreach post of each health centre so as to increase the access and uptake of VCT services. Ministry of health should improve collaborations with communities in order to improve VCT sensitization in villages to all the people so as to increase awareness of the importance of VCT. This will eventually help improve the uptake of VCT among adults.

### **5.5.2 Nakonde DHMT**

The Nakonde DHMT should intensify and improve on mobile VCT activities so that many people staying far from the health centres are reached and have access to utilise VCT services. The district HIV/AIDS Coordinator should ensure that counsellors meetings are conducted so that issues such as lack of confidentiality and lack of privacy on the part of counsellors are discussed. There should also be a joint collaboration between Nakonde DHMT with all NGOs involved in HIV/AIDS and VCT services to organize workshops on VCT to equip Community Based Volunteers and be able to participate in sensitizing the community on VCT for HIV.

### **5.5.3 The community**

Members of the community should work in collaboration with the District Health management Team in order to foster change of behaviour in relation to HIV/AIDS and VCT. The community should be involved in the fight against HIV by supporting programmes such as mobile VCT clinics, VCT sensitisation campaigns and commemoration of world AIDS Day.

## **5.6 DISSEMINATION OF FINDINGS**

Dissemination of Findings entails the measures that would be undertaken to make known to the relevant authorities and study subjects what the study has measured. A research report will be submitted to the Department of Nursing Sciences and the University of Zambia library in the School of Medicine to serve as reference to other researchers, the Ministry of Health as the findings can be used in the formulation of policies, Nakonde District Health Management Team to serve as reference when planning for measures of improving VCT utilisation. This copy would also serve as reference for other interested parties such as NGOs who are spearheading utilisation of VCT services in the district. The researcher will also be utilizing workshops and seminars organized by the hospital and DHMT to disseminate the information to other health workers.

## **5.7 LIMITATIONS OF THE STUDY**

- Due to the fact that the study could not be done on a larger scale due to limited time and financial resources, the researcher could not generalise the findings to the rest of the country.
- One health facility was used to collect data, therefore, the findings of this study could not be generalised to the entire Nakonde District.

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**APPENDIX I**  
**UNIVERSITY OF ZAMBIA**  
**SCHOOL OF MEDICINE**

**DEPARTMENT OF NURSING SCIENCES**

**STUDY TITLE: FACTORS CONTRIBUTING TO LOW UTILISATION OF VOLUNTARY HIV COUNSELLING AND TESTING SERVICES AT MWENZO RURAL HEALTH CENTRE.**

**INTERVIEW SCHEDULE FOR ADULT RESPONDENTS ATTENDING HEALTH SERVICES AT MWENZO RURAL HEALTH CENTRE OPD**

QUESTIONNAIRE NO: .....

DATE OF INTERVIEW: .....

PLACE OF INTERVIEW: .....

**INSTRUCTIONS TO THE INTERVIEWER**

1. Introduce yourself to the respondent.
2. Explain the purpose of the interview and reasons for undertaking the research and ask for permission to interview the participant as well as taking notes.
3. Participants should not be forced to be interviewed.
4. Assure confidentiality and all information should be kept confidential.
5. Do not write respondents names on the interview schedule.
6. Write/tick responses in the spaces provided.
7. Thank the respondent at the end of each interview and assume how best the data will be used.

**SECTION A DEMOGRAPHIC DATA**

1. How old were you on your last birth day?.....

2. Sex

a. Male ( )

b. Female ( )

3. What is your marital status?

a. Single ( )

b. Married ( )

c. Widowed ( )

d. Divorced ( )

e. Separated ( )

f. Cohabiting ( )

4. What is your denomination? .....

5. How far did you go in your education?

a. None ( )

b. Grade 1-7 ( )

c. Grade 8-9 ( )

d. Grade 10-12 ( )

e. College ( )

f. University ( )

**SECTION B: KNOWLEDGE ON HIV/AIDS, VCT**

6. What is HIV?

- a. A virus that causes AIDS ( )
- b. A virus that causes wasting ( )
- c. An organism that causes TB ( )
- d. I don't know ( )

7. How is HIV transmitted? (tick all correct answers)

- a. Through unprotected sexual intercourse with infected person ( )
- b. blood transfusion with contaminated blood ( )
- c. Through insect bite ( )
- d. Mother to child transmission ( )
- e. I don't know ( )

8. Where would someone go to get HIV Counseling and Testing?

**(Tick all correct answers)**

- a. hospital ( )
- b. Health centre ( )
- c. Others specify.....

.....

**9. When is VCT important?**

- a. When one is sick ( )
- b. Anytime ( )
- c. When one wants to go abroad ( )
- d. Pre-marriage ( )
- e. Others specify.....  
.....

**10. Who should go for VCT?**

- a. Every one ( )
- b. Truck drivers ( )
- c. Young people ( )
- d. Sex workers ( )
- e. Others specify.....

**SECTION C: UTILISATION OF VCT**

**11. Have you had an HIV test done on you before?**

- a. Yes ( )
- b. No ( )

**SECTION D: SERVICE RELATED FACTORS**

**12. How is the reception of the staff members at the VCT centre?**

- a. Bad ( )
- b. Good ( )

13. How much time do you spend at the VCT centre before being

Attended to?

- a. Less than 30 minutes ( )
- b. 30 minutes – 1 hour ( )
- c. 1 – 2 hours ( )
- d. 2 – 3 hours ( )

14. What is the attitude of health workers at your local health centre towards HIV/AIDS patients?

- a. Bad ( )
- b. Fair ( )
- c. Good ( )
- d. Very good ( )

15. Do you have any recommendations to improving VCT up-take among the people of Mwenzo

- a. Yes ( )
- b. No ( )

16. If Yes to question 28, what are your recommendations.....

.....

.....

.....

**THANK YOU VERY MUCH FOR YOUR TIME  
AND COOPERATION**

**APPENDIX II**

**INFORMED CONSENT**

Dear participant,

My name is Mponda Magil, I am a student enrolled in the Bachelor of Science in Nursing programme in the Department of Nursing sciences at the university of Zambia, school of Medicine.

I am required to undertake a research project in partial fulfillment of my degree in nursing; my study topic is: *“Factors contributing to Low Utilization of Voluntary HIV Counselling and Testing among adults who attend Health Services at Mwenzo Rural Health centre”*. The main objective of the study is to study the factors contributing to low utilisation of VCT services.

You have been randomly selected to participate in this study and I wish to inform you that participation in this study is voluntary and therefore, you are free to withdraw at any stage of the study if you so wish. You will be asked some questions about VCT, HIV and AIDS. Any information you will give me will be kept in confidence and no name will be written on the interview schedule.

You will not receive direct benefit from the study or monetary gain. The information that you give will help in developing better understanding of factors that contribute to low utilisation of VCT among adults and such information will be used by health planners and other organisations in finding ways of helping adult people to access VCT services.

I.....hereby called the participant understands the guidelines of this study and I am willing to participate in the study.

Dated this.....day of .....2010

Signature/thumb print of respondent.....

Signature of interviewer.....

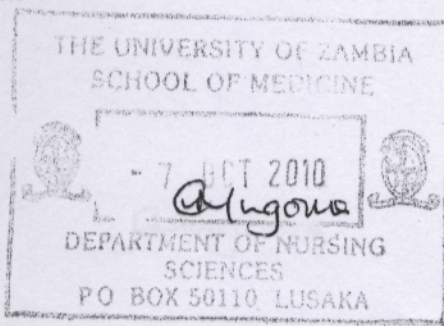
THE UNIVERSITY OF ZAMBIA  
SCHOOL OF MEDICINE

Department of Nursing Sciences  
P.O. Box 50110  
Lusaka, Zambia.  
E-mail: [mpo.ma@ymail.com](mailto:mpo.ma@ymail.com)  
Phone: 0977101032/0969101032

26<sup>th</sup> September, 2010.

The District Medical Officer  
Nakonde District Health Management Team  
P.O. Box 430019  
NAKONDE

UFS: The Head of Department  
Department of Nursing Sciences  
School of Medicine  
P.O Box 50110  
Lusaka.



Dear Sir,

**RE: REQUEST FOR PERMISSION TO CONDUCT A PILOT STUDY IN MWENZO CATCHMENT AREA**

I am a fourth (4<sup>th</sup>) year student at the University of Zambia, School of Medicine, Department of Nursing Sciences, pursuing a Bachelor of Science degree programme in nursing

As part of the course requirement I have to undertake the research study. It is in this premise that I write to seek permission to undertake the pilot study in Waitwika Rural Health Centre. The title of the study is "*Factors contributing to Low Utilization of Voluntary HIV Counselling and Testing among adults who attend Health Services at Mwenzo Rural Health centre*". I intend to do my study in the month of October, 2010.

Your assistance will be highly appreciated.

Yours Faithfully,

Mponda Magil.

**4<sup>TH</sup> YEAR B.Sc. NURSING STUDENT**

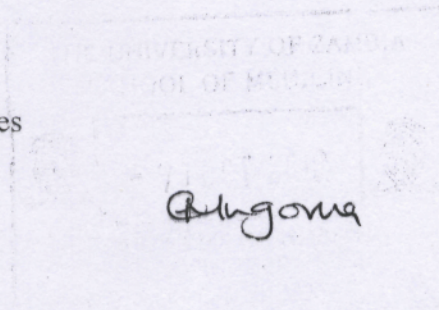
THE UNIVERSITY OF ZAMBIA  
SCHOOL OF MEDICINE

Department of Nursing Sciences  
P.O. Box 50110  
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The District Medical Officer  
Nakonde District Health Management Team  
P.O. Box 430019  
NAKONDE

UFS: The Head of Department  
Department of Nursing Sciences  
School of Medicine  
P.O Box 50110  
Lusaka.



Dear Sir,

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY IN MWENZO CATCHMENT AREA**

I am a fourth (4<sup>th</sup>)-year student at the University of Zambia, School of Medicine, Department of Nursing Sciences, pursuing a Bachelor of Science degree programme in nursing

As part of the course requirement I have to undertake the research study. It is in this premise that I write to seek permission to undertake the pilot study in Waitwika Rural Health Centre. The title of the study is "*Factors contributing to Low Utilization of Voluntary HIV Counselling and Testing among adults who attend Health Services at Mwenzo Rural Health centre*". I intend to do my study in the month of October and part of November, 2010.

Your assistance will be highly appreciated.

Yours Faithfully,

A handwritten signature in black ink, appearing to be 'Mponda Magil'. The signature is written in a cursive style.

Mponda Magil.

**4<sup>TH</sup> YEAR B.Sc. NURSING STUDENT**

Nakonde District Health Management Team

P. O. Box 430019

**NAKONDE**

15<sup>th</sup> October, 2010.

Mr. Mponda Magil

University of Zambia School of Medicine

Department of Nursing Sciences

P.O Box 50110

**LUSAKA**

Dear Mr. Mponda

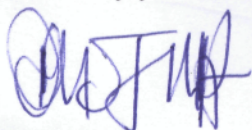
**RE: PERMISSION TO UNDERTAKE RESEARCH STUDY AT MWENZO RURAL HEALTH CENTER**

Reference is made to the above captioned subject.

On behalf of management, I wish to inform you that permission has been granted for you to conduct a research study at Mwenzo Rural Health Center between 18<sup>th</sup> October, 2010 and 26<sup>th</sup> November, 2010.

You are therefore, reminded to submit a copy of your findings at the end of the research.

Sincerely yours,



Mwape Richard

**HUMAN RESOURCE MANAGEMENT OFFICER**

**For/DISTRICT MEDICAL OFFICER**

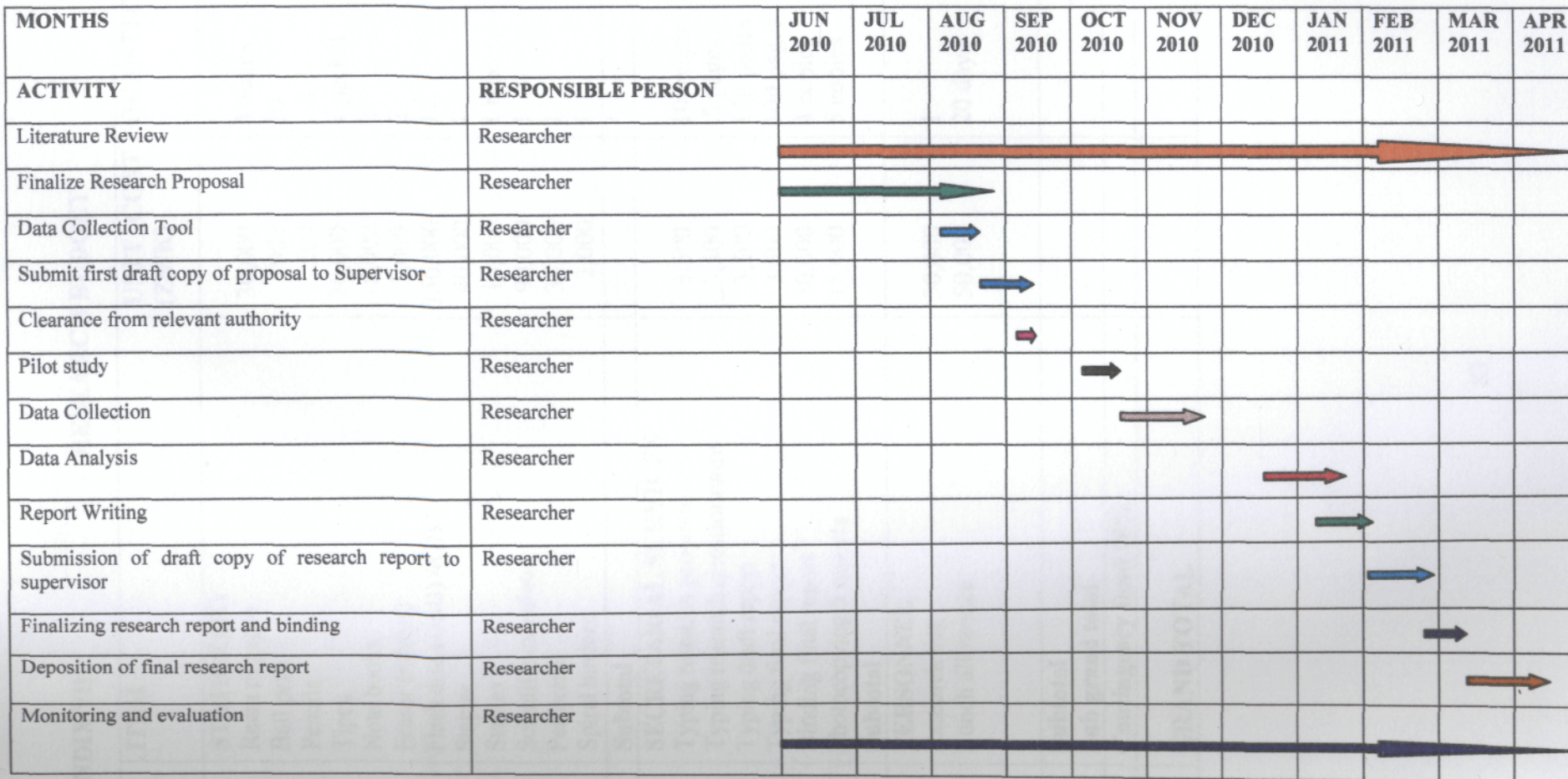


**APPENDIX V: RESEARCH WORK SCHEDULE**

<b>ACTIVITY</b>	<b>DATES</b>	<b>DURATION</b>	<b>RESPONSIBLE PERSON</b>
Literature Review	continuous		Researcher
Finalize Research Proposal	07.06.10 – 16.08.10	8 weeks	Researcher
Data Collection Tool	18.08.10 – 24.08.10	1 week	Researcher
Submit first draft copy of proposal to Supervisor	25.08.10 – 07.09.10	1 week	Researcher
Clearance from relevant authority	13.09.10 – 20.09.10	1 week	Researcher, Nursing Science Department Supervisor, Nakonde DHMT
Pilot study	11.10.10 – 18.10.10	1 week	Researcher
Data Collection	18.10.10 – 14.11.10	4 weeks	Researcher
Data Analysis	20.12.10 – 10.01.11	2 weeks	Researcher
Report Writing	11.01.11 – 31.01.11	3 weeks	Researcher
Submission of draft copy of research report to supervisor	31.01.11 – 21.02.11	3 weeks	Researcher
Finalizing research report and binding	21.02.11 – 07.03.11	2 weeks	Researcher
Deposition of final research report	16.03.11 – 06.04.11	3 weeks	Researcher
Monitoring and evaluation	continuous		Researcher

## APPENDIX VI

GANNT CHART SHOWING VARIOUS TASKS TO BE UNDERTAKEN AND THE TIME REQUIRED FOR EACH TASK TO BE PERFORMED FROM JUNE, 2010 TO APRIL, 2011.



## APPENDIX VII

## RESEARCH BUDGET

No.	ITEM	UNIT COST (ZMK)	QUANTITY	TOTAL (ZMK)
1.	<b>STATIONARY</b>			
	Ream of paper	30,000	4 reams	120,000
	Ball pens	1000	10	10,000
	Pencils	500	5	2,500
	Tipex	30,000	1 packet	30,000
	Note books	5,000	2	10,000
	Eraser (rubber)	1,000	2	2,000
	Flash disk (USB) 4GB	150,000	1	150,000
	Stapler	40,000	1	40,000
	Staples	15,000	1 box	15,000
	Scientific calculator	90,000	1	90,000
	Perforator	35,000	1	35,000
Spiral binders	2,000	1	2,000	
	<b>Subtotal</b>			<b>506,500</b>
2.	<b>SECRETARIAL SERVICES</b>			
	Typing research proposal	3,500	100pages	350,000
	Typing research questionnaire	3,500	5 pages	17,500
	Typing draft report	3,500	100 pages	350,000
	Typing final report	3,500	100 pages	350,000
	Binding final report	50,000	4 copies	200,000
	Photocopying 5 reports	15,000	5 copies	75,000
	<b>Subtotal</b>			<b>1,342,500</b>
3.	<b>PERSONNEL</b>			
	Research bag	30,000	1	30,000
	Lunch allowance	50,000	20 days	1,000,000
	<b>Subtotal</b>			<b>1,030,000</b>
	<b>Sub grand total</b>			<b>2,879,000</b>
	<b>Contingency fund 10%</b>			<b>287,900</b>
	<b>GRAND TOTAL</b>			<b>3,166,900</b>

## **BUDGET JUSTIFICATION**

### **1. STATIONARY**

Stationary will be required for typing the research proposal, drafts, typing the final research report as well as typing and printing the report. The note books will be needed for record keeping during data collection and analysis. The scientific calculator is required for data analysis. The stapler and staples are needed to put papers together and to maintain their proper arrangement.

### **2. SECRETARIAL SERVICES**

There will be need for funds to cater for the typing and photocopying services. Flash disk will be required for data storage. Money is also required for binding the research proposal and report.

### **3. PERSONNEL**

The investigator will be entitled to lunch allowance for the 20 days he will be collecting data. The research bags will be needed for keeping carrying the interview schedule safely and to ensure confidentiality.

### **4. CONTINGENCY**

Contingency is the 10% of the total amount of the budget. It is required to cater for any unforeseen expenses during the research.

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