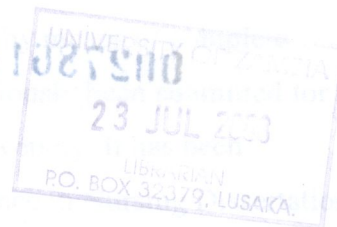


**HIV AND AIDS RISK AWARENESS AND SEXUAL BEHAVIOR AMONG
YOUNG WOMEN (15-24 YEARS) IN MUFULIRA URBAN**

**BY
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*THESIS
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**A Dissertation submitted to the University of Zambia in Partial fulfillment of the
requirements for the Degree of Master of Science in Nursing**

**THE UNIVERSITY OF ZAMBIA
LUSAKA**

DECEMBER 2008



DECLARATION

I Sebean Mayimbo, declare that this Dissertation represents my own work and that all the sources I have quoted have been indicated and acknowledged by means of complete references. I further declare that this Dissertation has not previously been submitted for a Degree, Diploma or other qualifications at this or another University. It has been prepared in accordance with the guidelines for Master of Science in Nursing Dissertations of the University of Zambia.

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Signed.....*Phugoma*.....

Supervisor



CERTIFICATE OF APPROVAL

The University of Zambia approves this Dissertation on HIV and AIDS risk awareness and sexual behavior among young women in Mufulira urban district in partial fulfillment for the requirements for the award of Degree of Master of Science in Nursing.

Examiner’s Signature.....Date.....

Examiner’s Signature.....Date.....

Examiner’s Signature.....Date.....

ABSTRACT

The aim of the study was to determine HIV and AIDS risk awareness and sexual behavior among young women aged 15-24 years and factors that influence risky sexual behavior in Mufulira urban.

The theoretical framework for this study is based on the Health Belief Model and the AIDS Risk Reduction Models. The Health Belief Model helps to understand human behavior in preventing the risk of HIV and AIDS where as the AIDS Risk Reduction Model provides a framework for explaining and predicting the behavior change efforts of individuals specifically in relationship to the sexual transmission of HIV and AIDS.

A cross sectional study was conducted in a highly densely populated compound in Mufulira urban. The community was randomly selected using the rotary technique. Systematic sampling method was used to come up with individual respondents and a sample size of 70 women was selected. Data were collected using a structured interview schedule and a focus group discussion guide. Individuals for the focus group discussions were homogeneously selected by using purposive sampling method. Two focus group discussions were held, one involving the age group 15-19 years and the other one involving the age group 20-24 years.

Epi-info version 6 and SPSS 12.0.1 for Windows software computer packages were used to analyze the data. Chi-Square was used to measure association between the dependent variable (HIV and AIDS Risk Awareness and Sexual Behavior) and the independent variables (knowledge of HIV and AIDS, economic status, level of education and cultural belief). The cut off point for statistical significance was set at 5%. A full report of the focus group discussions was written using participants' own words. Key statements, ideas and attitudes expressed for each topic of discussion were listed down. Data was coded, responses from different subgroups were compared and a summary was written in the narrative form. The most useful quotations that emerged from the discussion were selected to illustrate the main ideas.

The study findings revealed high levels of HIV and AIDS knowledge (81%) and AIDS risk awareness (90%) among young women. Only 51.4% practiced safer sex.

In this study, the most significant factors found to be associated with HIV and AIDS risk awareness and sexual behavior were level of education, level of knowledge and marital status.

A significant association was found between level of education and level of knowledge of HIV and AIDS, 71.8% of the respondents who had primary education or those who had never been to school (58%) were (OR = 0.42; 95% CI: 0.19, 0.93) (P value 0.043) less likely to have low or medium level of knowledge of HIV and AIDS. There was a significant association between level of knowledge and risk awareness. Significantly, more respondents with high knowledge (96.5%) were aware of the risk of HIV and AIDS than those with low or medium level of knowledge (61.5%) (P value = 0.001). Respondents who had low or medium level of knowledge were 53% (OR = 0.47; 95% CI: 0.23, 0.94) (P value = 0.050) less likely to practice safer sex. Furthermore, there was a significant association between marital status and sexual behavior as respondents who were single were 92% (OR = 1.92; 95% CI: 1.17, 3.15) (P value 0.016) less likely to practice safer sex.

The results showed that factors such as age, level of education, and economic status were not significantly associated with HIV and AIDS risk awareness and sexual behavior.

DEDICATION

I dedicate this study to God the Almighty, who has seen me this far.

To my late father, Mr J.D. Mayimbo who has always been a source of inspiration and encouraged me to work hard in order to succeed in life.

To my mother, Mrs S. Mayimbo, who has always been supportive and took care of my two nieces in my absence.

My two nieces, Sebean and Enid, who tolerated my absence from home.

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This research would not have been possible without the support of many people.

I wish to express my gratitude to my sponsor, Ministry of Health for enabling me to undertake the studies for Master of Science in Nursing at the University of Zambia.

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My utmost gratitude to my supervisor Mrs C. Ngoma and other members of faculty in the Department of Post Basic Nursing and Community Medicine.

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TABLE OF CONTENTS

CONTENT	PAGE
Title Page-----	i
Declaration-----	ii
Certificate of approval-----	iii
Abstract-----	iv
Dedication-----	vi
Acknowledgement-----	vii
Table of Contents-----	viii
Appendices-----	xii
List of Tables-----	xiii
List of Figures-----	xiv
List of Abbreviations-----	xv

CHAPTER 1

1.0 INTRODUCTION

1.1	Background Information-----	1
1.2	Statement of the Problem-----	4
1.3	Theoretical Framework-----	8
	1.3.1 The Health Belief Model-----	8
	1.3.2 The AIDS Risk Reduction Model-----	12
1.4	Factors influencing HIV/AIDS risk	
	awareness and sexual behavior-----	15
	1.4.1 Socio-cultural and economic factors-----	15
	1.4.2 Service related factors-----	19
	1.4.3 Disease related factors-----	21

1.5	Research Questions-----	24
1.6	Research Objectives-----	24
1.6.1	General Objective-----	24
1.6.2	Specific Objectives-----	24
1.7	Justification for the study-----	24
1.8	Hypothesis-----	25
1.9	Definition of terms-----	26
1.10	Variables, cut off points and indicators-----	27

CHAPTER 2

2.0 LITERATURE REVIEW

2.1	Introduction-----	28
2.2	Global perspective-----	28
2.3	Regional perspective-----	33
2.4	Local perspective-----	36
2.5	The Health Belief Model-----	41
2.6	The AIDS Risk Reduction Model-----	44
2.7	Conclusion-----	45

CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1	Introduction-----	47
3.2	Study Design-----	47
3.3	Research Setting-----	48
3.4	Study population-----	48
3.5	Sample selection-----	49
3.5.1	Inclusion criteria-----	50
3.5.2	Exclusion criteria-----	50

3.6	Sample size-----	50
3.7	Data collection tools-----	51
3.7.1	Structured Interview Schedule-----	51
3.7.2	Focus Group Discussion-----	52
3.7.3	Validity-----	53
3.7.4	Reliability-----	54
3.8	Data collection technique-----	54
3.9	Pre-Test-----	55
3.10	Ethical considerations-----	56

CHAPTER 4

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1	Introduction-----	57
4.2	Data processing and analysis-----	57
4.2.1	Quantitative data-----	57
4.2.2	Qualitative data-----	58
4.3	Data Presentation-----	58
4.3.1	Quantitative data-----	58
4.3.2	Qualitative data-----	59
4.4	Focus Group Discussion-----	80
4.4.1	Demographic characteristics of the participants-----	80
4.4.2	HIV and AIDS knowledge-----	80
4.4.3	HIV and AIDS risk awareness-----	84
4.4.4	Sexual Behavior-----	85
4.4.5	Suggestions for improvement-----	86

CHAPTER 5

5.0 DISCUSSION OF FINDINGS

5.1	Introduction-----	87
5.2	Socio - Demographic characteristics of the sample-----	87
5.3	Knowledge of HIV and AIDS-----	89
5.4	Sexual behavior-----	93
5.5	Limitations of the study-----	98
5.6	Implications to Nursing-----	99
5.6.1	Nursing Education-----	99
5.6.2	Nursing Administration-----	99
5.6.3	Nursing Research-----	99
5.7	Conclusion and recommendations-----	100
5.7.1	Conclusion-----	100
5.7.1.1	Conclusion according to stated research objectives-----	100
5.7.1.2	Conclusion according to the Health Belief Model's Major Tenets-----	101
5.7.1.3	Conclusion according to the AIDS Risk Reduction Model	101
5.7.2	Recommendations-----	102
5.7.2.1	Recommendations for improving HIV and AIDS risk awareness and sexual behavior among young women---	102
5.7.2.2	Recommendations for further research-----	102

REFERENCES ----- 103

APPENDICES

Appendix I Informed consent----- 110

Appendix II Budget----- 113

Appendix III Gannt Chart----- 116

Appendix IV Structured Interview Schedule----- 117

Appendix V Focus Group Discussion Guide----- 126

Appendix VI Marking key for study variables----- 128

Appendix VII Letters----- 133

LIST OF TABLES

Table 1: Composition of clients who tested positive by sex and age group in Mufulira district from 2005-2007----- 7

Table 2: Socio-Demographic data----- 60

Table 3: Meaning of AIDS----- 63

Table 4: Causes of HIV----- 63

Table 5: Transmission of HIV and AIDS----- 63

Table 6: Ways of avoiding HIV and AIDS----- 64

Table 7: HIV transmission from mother to child----- 64

Table 8: STIs increase risk of HIV----- 65

Table 9: Known cultural beliefs----- 66

Table 10: Age at first sexual experience----- 67

Table 11: Condom use----- 68

Table 12: Regular sexual partners----- 69

Table 13: Necessity of condoms----- 73

Table 14: Women who propose condom use----- 74

Table 15: Overall sexual behavior----- 75

Table 16: Overall risk awareness----- 75

Table 17: Associations of demographic characteristics and risk awareness- 76

Table 18: Associations of level of knowledge and sexual behavior with risk awareness----- 77

Table 19: Associations of demographic characteristics and level of knowledge with sexual behavior----- 78

Table 20: Associations between demographic data and level of knowledge----- 79

LIST OF FIGURES

Figure 1:	Health Belief Model-----	11
Figure 2:	Conceptual Framework of young women's risk awareness and sexual behavior-----	23
Figure 3:	Source of information on HIV and AIDS-----	62
Figure 4:	Known common sexually transmitted infections-----	65
Figure 5:	Level of knowledge of HIV-----	66
Figure 6:	Ever had sex before-----	67
Figure 7:	Age at first marriage-----	69
Figure 8:	Use of a condom with a regular sexual partner-----	70
Figure 9:	Ever been forced to have sex-----	71
Figure 10:	Unprotected sex carries a risk of HIV and AIDS-----	72
Figure 11:	Young women at risk of HIV and AIDS-----	73
Figure 12:	Discussing sex matters/protection with sex partner-----	75

LIST OF ABBREVIATIONS

AIDS	-	Acquired Immune Deficiency Syndrome
ARRM	-	AIDS Risk Reduction Model
ANC	-	Antenatal Clinic
CDC	-	Centre for Disease Control
CI	-	Confidence interval
CSO	-	Central Statistics Office
DHMT	-	District Health Management Team
EPI-INFO	-	Epidemiological Information System
FDG	-	Focus Group Discussion
HBM	-	Health Belief Model
HMIS	-	Health Management Information System
HIV	-	Human Immuno-deficiency Virus
IEC	-	Information Education and Communication
IDUs	-	Injection Drug Users
IMF	-	International Monetary Fund
MoH	-	Ministry of Health
NAC	-	National Aids Council
OR	-	odds ratio
PMTCT	-	Prevention of Mother-to-Child Transmission
SAFAIDS	-	Southern Africa HIV/AIDS Information Dissemination Service
SAP	-	Structural Adjustment Programme
SPSS	-	Statistical Package for Social Sciences

STIs	-	Sexually Transmitted Infections
TB	-	Tuberculosis
UN	-	United Nations
UNAIDS	-	Joint United Nations Program on HIV/AIDS
UNDP	-	United Nations Development Program
UNFPA	-	United Nations Population Fund
UNGASS	-	United Nations General Assembly Special Session
UNICEF	-	United Nation's Children's Fund
USAID	-	United States Agency for International Development
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization
YRBS	-	Youth Risk Behavioral Survey
ZDHS	-	Zambia Demographic and Health Survey
ZMK	-	Zambian Kwacha
ZSBS	-	Zambia Sexual Behavioral Survey

CHAPTER 1

1.0 INTRODUCTION

1.1 BACKGROUND INFORMATION

Risk is defined as the probability that a person may acquire HIV infection (UNAIDS, 1998). According to Bankole et al (2004), behavioral, physiological and social cultural factors make young people more vulnerable than adults to HIV infection. He states that adolescence is a time when young people naturally explore and take risks in many aspects of their lives including sexual relationships. Those who have sex may change partners frequently, have more than one partner in the same time period or engage in unprotected sex. All of these behaviors increase young people's risk of contracting HIV. In addition, young people who are HIV-positive probably became infected quite recently and are therefore likely to be highly infectious; as a result, they pose a very high risk to their sexual partners.

Women and girls are particularly vulnerable to HIV infection. Young women aged 15-24 are three to four times more likely to become infected than young men and rates of infection in women are rising in every region and most countries (UNAIDS, 2007). In response to the emergence of adolescence as a time of increased HIV risk, researchers have investigated various avenues for AIDS-risk reduction in this population. One of the most frequently utilized strategy involves increasing adolescents' knowledge about HIV and AIDS (Diclemente, 1992).

Women's social, economic, and physiological vulnerability to HIV is well understood, but the policies and actions that might best protect them have not been well implemented (UNAIDS, 2005). These include universal education for girls; reducing violence against women; and ensuring that women have equal access to property, income, and employment.

According to Bankole et al (2004) adolescents in many countries in the region face rural underdevelopment, widespread poverty, poor educational opportunities and limited access to radio, television and newspapers (possible sources of information about HIV and AIDS). In addition, they confront traditional social values that prescribe strict gender roles for males and females and that condone men's sexual promiscuity while placing a high value on female fidelity. Bankole and his associates also state that leaders, government officials and health professionals fail to recognize or acknowledge that unmarried adolescents have sex or choose not to address their sexual and reproductive health needs.

Surveys of HIV-related behavior and knowledge among young people conducted in 60 countries revealed that the vast majority of young women could not accurately say how HIV is transmitted (UNICEF, 2005). In countries with generalized HIV epidemics such as Cameroon, Central African Republic, Equatorial Guinea, Lesotho, Sierra Leone, more than 80% of young women aged 15-24 do not have sufficient information about HIV and AIDS (UNICEF, 2005).

The future of the HIV epidemic lies in the hands of young people. The behaviors they adopt now and those they maintain throughout their sexual lives will determine the course of the epidemic for decades to come. Where they have been able to access appropriate knowledge, skills and means, young people have shown a remarkable propensity to adopt safer behavior even more so than their elders. Countries that have worked with young people to reduce the risk in sexual and drug-taking behavior have often been rewarded by dramatically lowered levels of HIV infection. In Uganda, for example, young people are increasingly abstaining from sex in the face of HIV. In 1995, over half of men and 46% of women aged 15-19 said they had never had sex, a rise of over 75% since 1989 for both sexes (UNAIDS, 1997). Furthermore, HIV rates among pregnant teenagers in Uganda have dropped dramatically in several urban centers in some cases falling to less than 5% from over 20% at the start of the decade. In addition, in West Europe new infections dropped by nearly 40% between 1995 and

1997 due to postponement of first intercourse and consistently high rate of condom use among young people from the beginning of their sex lives.

An HIV and AIDS awareness survey among youth in West China revealed that only 73.3 percent of the youth have a proper understanding of HIV and AIDS, almost 23 percent lower than their peers in the rest of the country (People's Daily Online, 2007). Many young people in the West know the HIV virus can be contracted through unprotected sex and blood transmission. However, more than 20 percent wrongly believe the disease could also be spread by sharing a room with AIDS patients (People's Daily Online, 2007).

In Zambia, women are disproportionately affected by the HIV and AIDS epidemic. For example, the 2007 Zambia Demographic and Health Survey (ZDHS) reports that the adult HIV prevalence is at 14 percent, (CSO, 2008). This estimate represents a decrease from the prevalence of 16 percent observed in the 2001-2002 ZDHS. Sixteen percent of women are HIV positive, in comparison to 12 percent of the men. Among respondents tested, the proportion that are HIV positive tends to rise with age from 5 percent among those aged 15-19 to 24 percent in the 35-39 age group, before falling slightly among those in their 40s.

The decrease in HIV prevalence might be due to the HIV prevention strategies put across by government such as massive education campaigns, voluntary counseling and testing and efforts to prevent mother to child transmission of HIV. The other factor could be due to increased mortality of HIV and AIDS cases.

To mitigate the impact of HIV and AIDS, the Ministry of Health (MoH) and the National Aids Council (NAC) have undertaken the following measures:

- Behavior change communication where information and skills are shared and disseminated to the public to encourage them to adopt good sexual behavior.

- Condom promotion and availability so as to reduce the rate of HIV infection.
 - Voluntary Counseling and Testing (VCT) which has benefits to clients such as behavior change and prevention of HIV transmission.
 - Controlling other Sexually Transmitted Infections (STIs) which greatly increase the probability of HIV transmission in an unprotected sexual contact.
 - Preventing Mother-to-Child Transmission (PMTCT) through strategies such as comprehensive maternal and child health services and VCT.
- (National HIV/AIDS/STI/TB Council, 2004).

1.2 STATEMENT OF THE PROBLEM

HIV and AIDS is a major Public Health concern world wide including Zambia. For instance almost 12 million young people (aged 15-24) and 3 million children live with HIV or AIDS (UNICEF, 2005). The majority of new infections are among the young. About 6,000 young people and almost 2,000 children become HIV-positive everyday (UNICEF, 2005). In other regions, HIV is concentrated in high risk groups which often include significant numbers of young people. Yet youth represent a window of opportunity for reversing HIV rates especially when effective prevention programs can reach them before they engage in risky sexual behavior (USAID, 2004).

Young people make an important part of most at risk populations, including sex workers and their clients, men who have sex with men and injecting drug users. In addition, in generalized epidemics, 40% of all new HIV infections occur among young people aged 15-24, with girls and young women disproportionately affected- making them another top priority for HIV prevention (UNAIDS, 2007).

The Zambia Demographic and Health Survey found that women are 1.4 times more likely to be HIV infected than men (CSO, 2003). HIV infection rates among young

women ages 15-19 and 20-24 are 3.5 to 4 times higher than those for men in the same age groups (CSO, 2003).

According to the Antenatal Clinic Sentinel Surveillance Report of 1994-2004 (MoH, 2005), HIV prevalence is stated to have remained relatively stable over the past decade, though the current level of stable HIV prevalence observed reflects a 50% life-time risk of dying of AIDS for Zambian youth, in the absence of treatment. The survey also reveals that in women 15-19 years of age, overall HIV prevalence has remained fairly stable since 1994, but in some rural sites younger women appear to be at higher risk in the most recent years. This could be attributed to the fact that HIV prevalence is higher in non-educated women than in those who are educated (UNAIDS, 2004). Rural women are less likely to be educated than urban women. The rural majority is poor and poverty creates an environment that promotes risky behaviors (Michelo, 2007). Most of the young women do not have the facts on HIV and AIDS prevention. In Sub-Saharan Africa half the teenage girls surveyed did not realize that a healthy looking person could be HIV positive (UNICEF, 2005). This makes the rural uneducated young women to be prone to HIV infection. They also tend to marry at an early age as most of them drop out of school and tend to have sexual relationships with older men who are more likely to be infected with HIV (Centers for Disease Control and Prevention, 2006).

According to the above statistics, it is evident that if HIV is not curbed in the above age group, serious consequences are likely to follow as this is a productive age group bearing children who are likely to be infected. Chances of HIV transmission from mother to child are at 30% (UNAIDS, 2007). Infection will go on and if these children reach the productive age group, they are likely to bear children who are infected thus the cycle still repeats itself.

The 2005 Zambia Sexual Behavior Survey found that 40.5% females and 46.1% males aged 15-24 could correctly identify ways of preventing the sexual transmission of HIV and were able to reject major misconceptions about HIV transmission (CSO, 2006).

The survey revealed that the median age at first sex was 18.5 years for both males and females and that 13% of young women and 24% of men aged 15-24 who have had sex with a non-marital, non-cohabitating sexual partner in the last months, 38% of the young men and 26.1% of the females reported to have used a condom the last time they had sex.

The above statistics show that females still lag behind on knowledge about HIV in comparison to males which is a cause for concern. Less females use condoms during intercourse thus making them more vulnerable to HIV and AIDS in comparison to men.

According to the District Quarterly Report (2008), Mufulira district has been recording an increase in the number of HIV infected women starting from 15 years between 2005-2007 in comparison to their male counterparts in the same age group (20% to 35% in females aged 15-24 in comparison to 5% to 14% in males tested in the same age group). The infection rate is also high in women in the 25-34 age group (42%-99% of those tested).

The trend shows a reduction in HIV prevalence in the year 2007. However the number of clients who were tested in 2006 was larger than those in 2005 or 2007. This could have affected the results. Women may also have better chances of testing for HIV and AIDS in comparison to the males due to attendance of Antenatal Clinics when they are pregnant where they are usually tested for HIV.

Table 1 showing composition of clients who tested positive by sex and age group in Mufulira District from 2005-2007.

YEAR	AGE GROUP (YEARS)	QUARTER 1		QUARTER 2		QUARTER 3		QUARTER 4	
		M	F	M	F	M	F	M	F
2005	15-24	No rep ort	No repo rt	7 (10 %)	24 (20 %)	4 (5 %)	30 (21 %)	3 (6 %)	20 (23%)
	25-30	No rep ort	No repo rt	17 (24 %)	46 (38 %)	33 (39 %)	68 (48 %)	13 (27 %)	32 (48%)
2006	15-24	8 (10 %)	44 (25 %)	9 (8 %)	69 (30 %)	8 (7 %)	64 (28 %)	14 (13 %)	65 (25%)
	25-30	27 (32 %)	77 (44 %)	44 (38 %)	80 (35 %)	27 (24 %)	83 (36 %)	39 (35 %)	99 (42%)
2007	15-24	13 (12 %)	83 (35 %)	12 (14 %)	66 (34 %)	3 (5 %)	43 (29 %)	0 (0 %)	6 (33%)
	25-30	41 (39 %)	78 (34 %)	38 (43 %)	65 (34 %)	21 (34 %)	53 (35 %)	2 (67 %)	8 (4%)

Source: Zambia VCT Service Mufulira District Quarterly Report (2008).

There is also a possibility that by 2015 probably more females would have died from HIV and AIDS by that time thus showing reduction in total percentages where as the incidence continues to rise. No matter what policy direction is followed, the death toll will continue to rise over the next 20 years (UNAIDS, 2005).

Intervention strategies such as sex and HIV and AIDS education to the young people are necessary to reduce the incidence of HIV as the females are more vulnerable in comparison to the males. Therefore the investigator wished to conduct a study among young women so as to assess their level of knowledge in relation to HIV and determine whether knowledge levels influence sexual behavior.

1.3 THEORETICAL FRAMEWORK

1.3.1 THE HEALTH BELIEF MODEL

In this study, the Health Belief Model was applied to help to understand human behavior in preventing the risk of HIV and AIDS.

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals (Family Health International Behavior Change and a Guide for Health Promotion Practice, 2003). The HBM was developed in the 1950s as part of an effort by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programs (e.g., a free and conveniently located tuberculosis screening project). Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviors, including sexual risk behaviors and the transmission of HIV and AIDS. The key variables of the HBM are as follows (Rosenstock, Strecher and Becker, 1994 as in Family Health International Behavior Change and a Guide for Health Promotion Practice, 2003):

- **Perceived Threat:** Consists of two parts: perceived susceptibility and perceived severity of a health condition.
- **Perceived Susceptibility:** One's subjective perception of the risk of contracting a health condition.
- **Perceived Severity:** Feelings concerning the seriousness of contracting an illness or of leaving it untreated (including evaluations of both medical and clinical consequences and possible social consequences).
- **Perceived Benefits:** The believed effectiveness of strategies designed to reduce the threat of illness.
- **Perceived Barriers:** The potential negative consequences that may result from taking particular health actions, including physical, psychological, and financial demands.
- **Cues to Action:** Events, either bodily (e.g., physical symptoms of a health condition) or environmental (e.g., media publicity) that motivate people to take action.
- **Other Variables:** Diverse demographic, sociopsychological, and structural variables that affect an individual's perceptions and thus indirectly influence health-related behaviour.
- **Self-Efficacy:** The belief in being able to successfully execute the behaviour required to produce the desired outcomes (this concept was introduced by Bandura in 1977).

For example, if we consider the application of this model to the prevention of Human Immunodeficiency Virus (HIV) infection, in order to adopt behaviors that minimize the risk of infection, individuals need to:

- Believe that they are at risk of HIV infection;
- Believe that the consequences of infection are serious;
- Receive supportive cues for action which may trigger a response (such as targeted media publicity);

- Believe that risk minimization practices (such as safe sex or abstinence) will greatly reduce the risk of infection;
- Believe that the benefits of action to reduce risk will outweigh potential costs and barriers, such as reduced enjoyment, and negative reactions of partner and/or community; and
- Believe in their ability to take effective action, such as following and maintaining safe-sex practice (Nutbeam and Harris, 2004).

The Health Belief Model has the following advantages:

- It is useful in health protecting or disease preventing behavior.
- It is useful in organizing information about clients' view of their state of health and what factors would influence them to change their behavior.
- It can be used to determine their perceptions, risk of the disease, knowledge of the disease and their views of what might be the advantage and disadvantages of being immunized (Basavanthappa, 2007).

Finally, the central tenets of the health belief model are that individuals will not adopt health behaviors designed to prevent specific diseases unless they believe they are susceptible to the disease or disorder in question, they believe it is serious, they accept that the recommended preventive actions will be effective and that the benefits accruing from their actions will outweigh any costs or disadvantages that they believe will be incurred as a result. However, the HBM is undoubtedly weak in relation to precise examination of social influences and also emotional aspects of human behavior (Tones and Tilford, 2001).

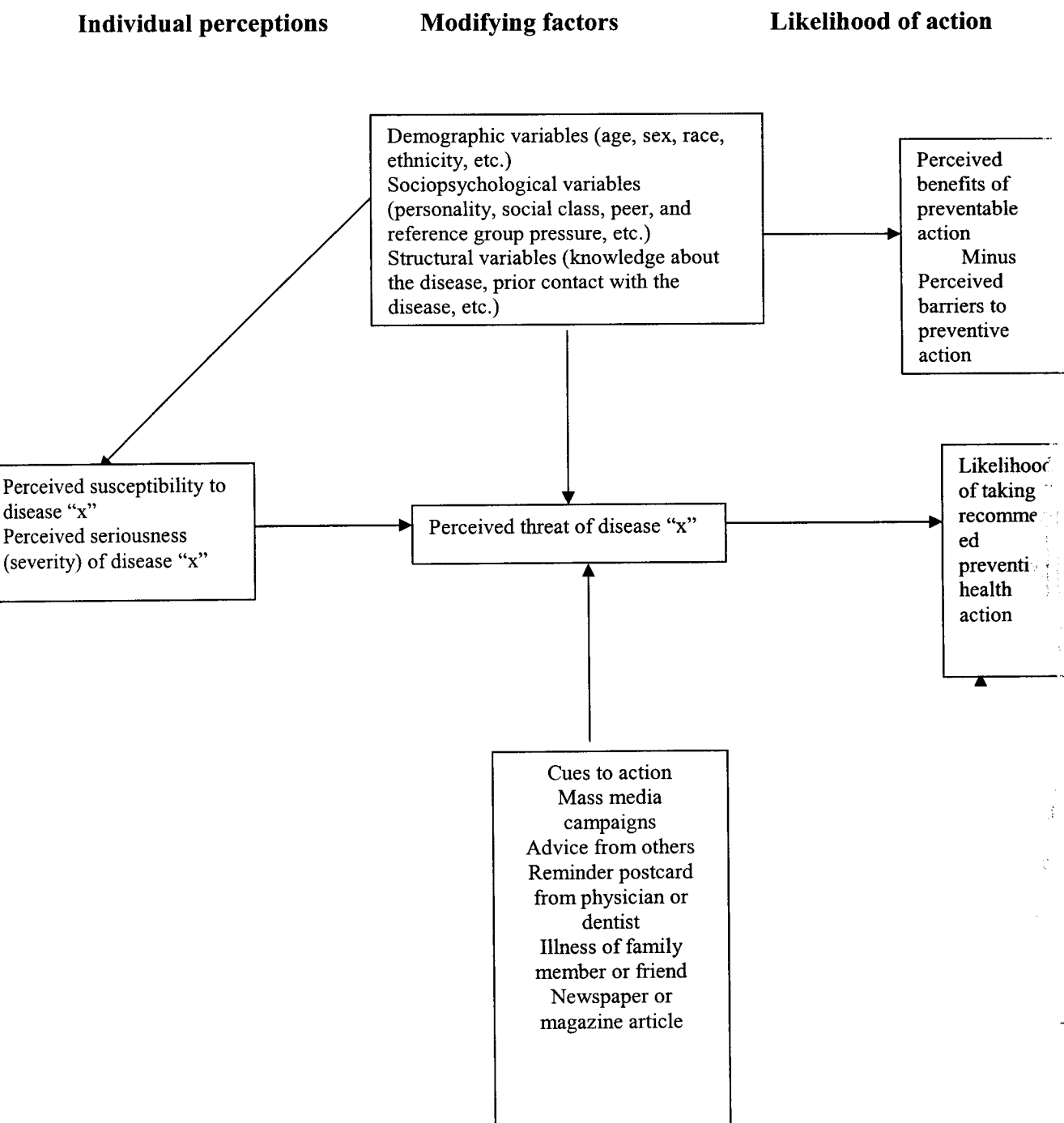


Figure 1: Health - Belief Model (From Becker. M. (1974) as in Basavanthappa, 2007).

1.3.2 THE AIDS RISK REDUCTION MODEL

The AIDS risk reduction model (ARRM) is one of the several “stages of change” models developed by Catania in 1990. The model provides a framework for explaining and predicting the behavior change efforts of individuals specifically in relationship to the sexual transmission of HIV and AIDS and incorporates several variables from other behavior change theories such as the Health belief Model, “efficacy” theory, emotional influences and interpersonal processes (Communication Initiative Network, 2003). The model proposes that the further an intervention helps clients to progress on the stage continuum, the more likely they are to exhibit change.

The model states that for the context of HIV perception, individuals must pass through three stages which are described below (HIV/AIDS Prevention and Education Services, 2008):

1. Recognition and labeling of one’s behavior as high risk.

One must label their actions as risky for contracting HIV. Here three elements are necessary:

- Knowledge about how HIV is transmitted and prevented.
- Perceiving themselves as susceptible for HIV and
- Believing that HIV is undesirable.

2. Commitment to enact low-risk behavior

This stage involves making a commitment to reduce high-risk sexual contacts and to increase low-risk activities. The stage has costs and benefits to the individual such as:

- Enjoyment – for example one has to ask themselves if the changes they have to undergo will affect their enjoyment of sex.

- Response efficacy-this involves effectiveness to change. For example one has to ask themselves if the changes they will make will successfully reduce their risk to HIV infection.
- Self efficacy- knowledge of the healthy utility and enjoyability of a sexual practice, as well as social factors such as group norms and social support are believed to influence an individual's cost and benefit and self-efficacy belief.

3. Taking Action

This stage is broken down into three phases:

- Information seeking.
- Obtaining remedies.
- Enacting solutions.

Depending on the individual, phases may occur concurrently or other phases may be skipped. In this stage, an individual has to consider social networks and problem-solving choices which include self help, informal and formal help. Prior experiences with problems and solutions; level of self esteem; resource requirements of acquiring help; ability to communicate verbally with the sexual partner and sexual partner's beliefs and behaviors are important considerations to take note of.

In addition to the stages and influences listed above, Catania identified other internal and external factors that may motivate individual movement across stages. For example, aversive emotional states (such as high levels of distress over HIV and AIDS or alcohol and drug use that blunt emotional states) may facilitate or hinder the labeling of one's behaviors. External motivators such as public education campaigns, an image of a person dying from AIDS or informal support groups, may also cause people to examine and potentially change their sexual activities (Communication Initiative Network, 2003).

This model was applied in this study as it is helpful in the education campaigns to help individuals realize that they are at risk of contracting HIV. This can further help them to reduce high-risk sexual contacts such as having multiple sexual partners and lack of use of condoms. Education campaigns would therefore lead to increased awareness of the risk of HIV and AIDS and positive sexual behavior in young women.

Limitations of the AIDS Risk Reduction Model

Amaro (1990) identified the following limitations of the ARRM:

- It is based on an individualistic conceptualization of behavior and fails to consider the cultural and social context of sexuality. This limits its usefulness in understanding sexual risk behaviors.
- It is based on the assumption that sexual behaviors and encounters are controlled. However sexual behavior is often impulsive and motivated physiologically and under certain circumstances (and more often for women), sexual encounters are imposed and not voluntary.
- Third, gender roles and cultural values and norms influence, if not define, the behavior of men and women and the interpersonal relationships in which sexual behavior occurs. For women, this often means that sexual behavior occurs in the context of unequal power and in a context that socializes women to be passive sexually and in other ways.

Despite the above limitations, the AIDS risk reduction model is appropriate for this study.

1.4 FACTORS INFLUENCING HIV AND AIDS RISK AWARENESS AND SEXUAL BEHAVIOR

The factors that influence HIV and AIDS risk awareness and sexual behavior can be classified into three broad categories:

Socio-cultural and economic factors, service related factors and disease related factors. These factors are discussed below:

1.4.1 SOCIO-CULTURAL AND ECONOMIC FACTORS

- **Socio-economic status**

The slow down in economic activities especially in Mufulira that followed the mass retrenchments of workers in the mining industry led to a lot of economic difficulties for many families (Mufulira District HIV/AIDS Task Force (2006-2011). According to the Report on the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS, underdevelopment, economic insecurity and poverty make women to be vulnerable to HIV infection (United Nations General Assembly Special Session, 2001).

The government of the Republic of Zambia has implemented the Structural Adjustment Program (SAP) which aims at redressing the serious economic difficulties the country is facing (National gender Policy, 2002). Some of the programs under SAP include reduction in the size of the civil service, cuts in public sector expenditure coupled with strict fiscal and monetary policies and privatization of public companies. However, the implementation of SAP has had negative impacts on both women and men. This means that poverty levels in the country increased thus predisposing young women to unprotected sex due to desperation.

- **Environment**

The environment in which young people live influences their behaviors. According to USAID, close relationships with parents and other adults, school attendance and supportive community norms are associated with positive youth behaviors (USAID, 2004). The article also states that young people, who experience family instability, practice other risky behaviors, and have negative peer role models are more likely to engage in early and unsafe sex.

- **Cultural beliefs**

Some cultural mores exacerbate the spread of HIV. The Zambia Counselling Council reports that a woman is taught never to refuse sexual intercourse with her husband even when he is known to be engaging in extramarital sexual relationships or is suspected to be suffering from HIV infection or has a sexually transmitted infection (Zambia Counselling Council, 2003). Furthermore, it is stated that polygamy and dry sex are commonly practiced in Zambia, and that when a spouse dies, the surviving partner is subjected to ritual cleansing by sexual intercourse or in case of women, given as inheritance to the surviving relative of the deceased (CSO/MoH, 2002). Moreover, when a woman gives birth post-partum abstinence is encouraged for a period of one month to twelve months or more and during this period the man may be permitted to look for other women for sexual gratification. Female genital mutilation practiced in some parts of the world can spread the virus through the use of unsterilized equipment (UNICEF, 2005).

Studies conducted in Zimbabwe on the cultural and social factors influencing the spread of HIV infection suggest that social and cultural factors are most likely to be responsible for the age and sex differentials in HIV infection in Zimbabwe (Zhuwau, 2002). Women's subordinate position to men makes it difficult to protect themselves against HIV (National HIV/AIDS/STI/TB Council, 2004).

- **Level of education**

The level of education can have a positive or negative impact on HIV and AIDS. On average, girls who are better educated are less likely to be infected with HIV, more likely to have smaller, healthier families (James-Traore et al, 2002). Women make up almost two-thirds of the world's 876 million illiterate people (SAFAIDS, 2003). SAFAIDS continues to state that worldwide, there are 90 young women in secondary school for every 100 young men whereas in other countries, there are only 60 young women in secondary school for every 100 young men. The above statistics show that women are more likely to suffer from negative effects of the HIV and AIDS epidemic as in many communities women have a key role in ensuring economic security for their families. However, unequal gender relations and unequal access to economic resources have made women poorer than men. There is evidence from all regions globally that the major driving force behind sex work, whether commercial or occasional, is economic hardship (SAFAIDS, 2003). Sex work is likely to put women at more risk of HIV infection, for example, because most clients don't want to use condoms (SAFAIDS, 2003).

- **Sex**

Young women are at risk for sexually transmitted HIV due to lack of recognition of their partner's risk factors, inequality in relationships and having sex with older men who are more likely to be infected with HIV (Centers for Disease Control and Prevention, 2006). In addition, tearing and bleeding during intercourse for example from rough sex increases the risk of HIV (Centers for Disease Control and Prevention, 2006). Overall infection of a woman by a man is biologically more likely than infection of a man by a woman as women have a larger surface area than men. If men generally have sexual partners than women, then more women will be exposed to HIV by infected men than vice versa.

- **Religion**

Religion has an influence on the risk awareness of HIV and AIDS. Religious leaders have shown that they can influence belief systems to ensure that HIV and AIDS are seen in a more positive light (UNAIDS, 2005). This can be done through education of church members on the importance of fidelity which can reduce the chances of HIV infections.

- **Alcohol/drug abuse**

Young people are prone to peer pressure and indulgence in vices such as drug and alcohol abuse. Many studies report that alcohol or drug use is a precursor to risk behavior (UNAIDS, 1999). A study done in the Kyrgyz Republic found that incidence of alcohol and drug abuse among adolescents, particularly boys, has increased significantly. The study also revealed that, drugs were cheap and easily accessible, whereas health care was expensive and inaccessible. The environment therefore can lead to risk-taking behavior and unsafe sex thus spreading HIV (UNFPA, 2005).

- **Stigma**

The impact of HIV and AIDS related stigma in the community is high. Remy Chukwunyere in his article “Prevent HIV and AIDS among Young Adults” reports that young girls in Nigeria are not given in marriage when they are HIV positive. Instead they are told to drop out of schools, and are allowed to die as a way of punishing them for their promiscuity (Chukwunyere, 2007).

1.4.2 SERVICE RELATED FACTORS

- **Accessibility of services- distance to health centre**

Long distance and poor road network are some of the barriers to effective access to health facilities especially by women (National Gender Policy, 2000). The National Gender policy states that women as custodians of health, and care-takers in the family are more disadvantaged when health facilities are distances away from home, as they have to make several visits to the health facilities taking children and their sick relatives. Young women may not have accessibility to youth friendly services where they need to be treated for sexually transmitted infections. If left untreated, sexually transmitted infections increase the risk of acquiring HIV during intercourse.

- **Reception by health personnel**

According to the National Guidelines on Management and care of patients with HIV and AIDS (National AIDS Council, 2004), HIV and AIDS patients need a safe and supportive environment which includes the attitude of care givers at all levels, who should respect the patient's wishes and should be non-judgmental. The guidelines also state that lack of trained personnel and resources pose as a challenge for palliative care of HIV and AIDS patients. This means that if health care givers have a good attitude, women will be encouraged to go to the health facility and also when levels of care are good as they will not need to wait for too long without being attended to.

- **IEC**

Information, Education and Communication (IEC) on sex and health education is helpful as it encourages responsibility (UNAIDS, 1997). Knowledgeable young people tend to postpone intercourse, or if they do decide to have sex, use condoms. They need to be taught life skills, such as sound decision making, communication and negotiation. They need to be taught the concepts of risky behavior such as unprotected sex and the

use of alcohol and drugs, the possible consequences of such behavior and how to avoid them. A negative attitude towards HIV prevention may be adopted if there is inadequate IEC (UNAIDS, 1997).

- **Quality of services**

Quality of the services, according to UNAIDS (2007), can act as a barrier to essential HIV prevention messages. Quality of services offered includes observing confidentiality by the health care providers. One of the reasons why more people do not use voluntary counselling and testing (VCT) services is lack of confidentiality, stigma and discrimination that follows the disclosure of one's status (National HIV/AIDS/STI/TB Council, 2004).

- **Long waiting hours**

Long waiting hours can discourage youths from attending VCT services. This may result due to inadequate staffing thus leading to limited access to voluntary counselling and testing services for HIV (National Gender Policy, 2000).

- **Inadequate counselling**

Research has shown that a large proportion of young people are not concerned about becoming infected with HIV (Centers for Disease Control and Prevention, 2006). This might be due to inadequate counselling. Adolescents need accurate, age-appropriate information about HIV infection and AIDS including how to talk with their parents' or other trusted adults about HIV and AIDS, how to reduce or eliminate risk factors, where to get tested for HIV, how to use a condom correctly. Information should also include the concept that abstinence is the only 100% effective way to avoid infection.

1.4.3 DISEASE RELATED FACTORS

- **Long latency period**

Initially, an HIV infected person is asymptomatic or displays very few symptoms (Smeltzer and Bare, 2004). This may make the young women not to take the risk of HIV seriously and they may continue behaving negatively towards HIV prevention strategies. Most HIV infected persons may live for many years without experiencing any disease effects of HIV and so they may ignore the advice given by the health care providers.

- **Early sex initiation**

The Centre for Disease Control (CDC's) Youth Risk Behavioral Survey (YRBS), reports that many young people begin having sexual intercourse at an early age for example 47% of high school students have had sexual intercourse, and 7.4% of them reported first sexual intercourse before age 13 (Centers for Disease Control and Prevention, 2006). HIV and AIDS education needs to take place at correspondingly young ages, before young people engage in sexual behaviors that put them at risk for HIV infection.

A study on the sexual practices of Filipino adolescents revealed that there was an increase in premarital sex among youth aged 15-24. It also showed that adolescents were engaged in various types of sexual activities. The study predicted that in the year 2002, 23 percent of youth have engaged in premarital sex compared to the 18 percent premarital sex prevalence found in 1994 (UNFPA, 2005).

- **Lack of use of condoms**

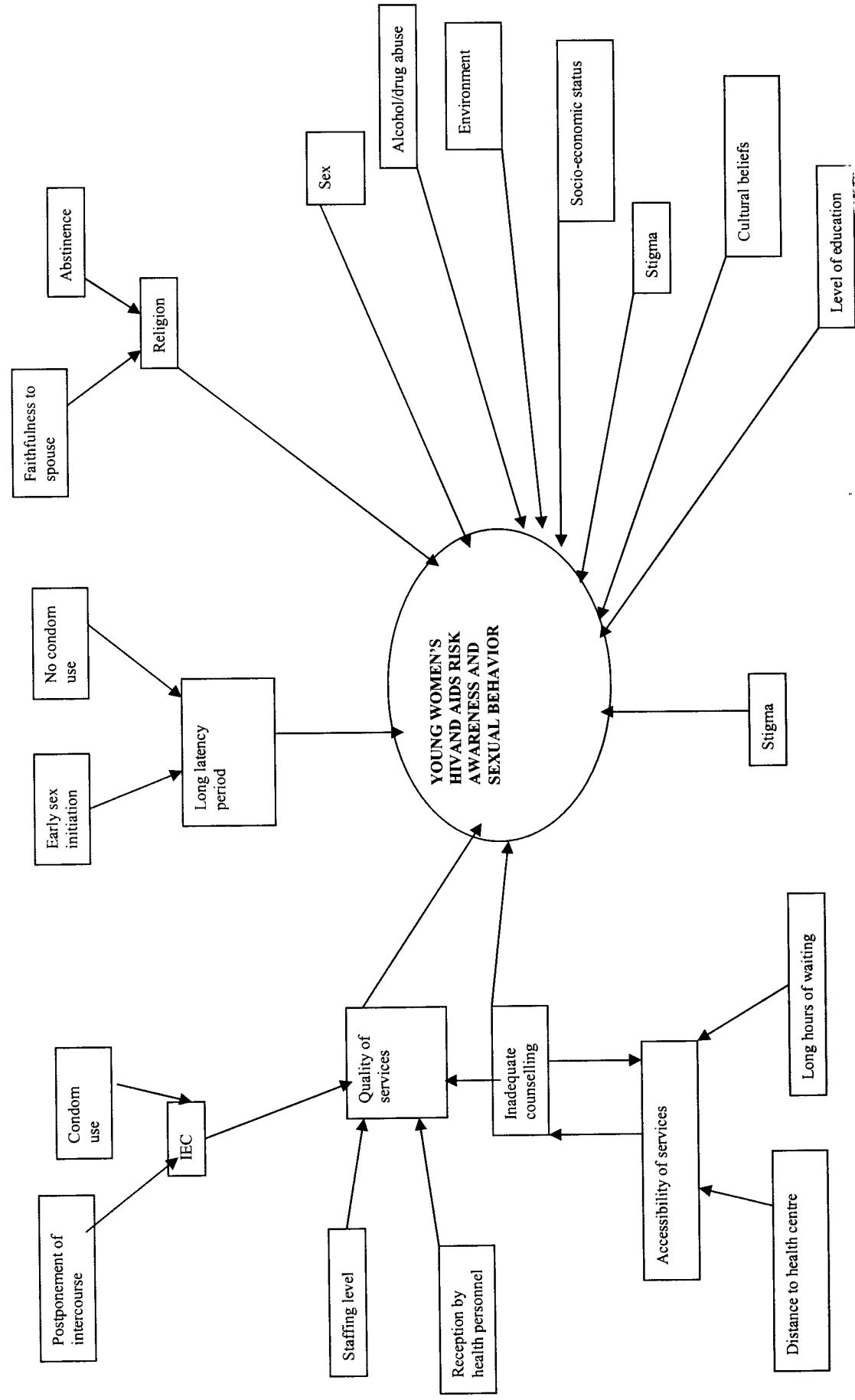
Despite massive campaigns on condom use, youths sometimes do not use them consistently. A study done by the Population Services International Research Division

in Cameroon revealed that despite the high percentage of youth that tried condoms, most youths did not use them consistently. Among youth reporting regular partners, few (20% of males and 14% of females) indicated that they always use condoms with their regular partner (Meekers, Klein and Foyet, 2001). This shows that young people are at risk of contracting HIV and AIDS.

- **Stigma**

HIV is highly stigmatized in the community. The presence of social stigma leads people to feel a need for secrecy and denial, and hinders individuals from seeking counselling and testing (CSO, 2006). Stigma associated with HIV and AIDS and discrimination against people living with HIV and AIDS leads to social ostracism and alienation and to a deterioration of civil, economic and political rights (National HIV/AIDS/STI/TB Council, 2004). People living with HIV often avoid learning about or admitting to being infected with HIV because of the stigma attached to the disease and fear of discrimination

FIGURE 2: CONCEPTUAL FRAMEWORK OF YOUNG WOMEN'S HIV AND AIDS RISK AWARENESS AND SEXUAL BEHAVIOR



1.5 RESEARCH QUESTIONS

- How does knowledge of HIV and AIDS among young women affect sexual initiation, and eventually practice of risky sexual behavior?
- Does knowledge influence sexual behavior among young women?

1.6 RESEARCH OBJECTIVES

1.6.1 GENERAL OBJECTIVE

To determine HIV and AIDS awareness and risk sexual behavior among young women and factors that influence risky sexual behavior.

1.6.2 SPECIFIC OBJECTIVES

- To assess young women's level of knowledge about HIV and AIDS.
- To determine whether the young women are aware of or engage in risky sexual behavior.
- To assess if level of education can influence sexual behavior.
- To identify socio-cultural factors which could have an effect on sexual behavior.

1.7 JUSTIFICATION FOR THE STUDY

AIDS has killed more than 25 million people since it was first recognized in 1981, making it one of the most destructive epidemics in recorded history (UNAIDS, 2005). In 2005, 17.5 million women were living with HIV out of which thirteen and a half million of those women live in Sub-Saharan Africa (UNAIDS, 2005). Although both sexes have higher HIV prevalence rates in urban areas, girls and women aged 15-24 years are four times more likely to be infected than men in Zambia (UNAIDS, 2006).

CSO, 2008 states that the Copperbelt province of Zambia is one of the regions with HIV prevalence levels above the national average (17 percent). In Mufulira district, no surveys on HIV and AIDS risk awareness and sexual behavior have been done, but the district records HIV prevalence rates of as high as 35% of those tested in the 15-24 years female age group per quarter (District Quarterly Report, 2008).

In Zambia, most of the existing studies on HIV and AIDS focus on knowledge of HIV and AIDS and sexual behavior in both sexes but very few on perceived risks especially among women in the 15-24 year age group. For example Mbozi's study (2003) on the Impact of Negative Cultural Practices on the Spread of HIV and AIDS mainly focused on assessment of knowledge on HIV and AIDS. Another study conducted by Macwan'gi et al (1994) on knowledge and perceived risk of HIV and AIDS was not limited to the 15-24 year age group. Since this study was focused on young women, it helped to bring out realities on their knowledge and perception of risky behavior and offered a gateway to intervention strategies in this age group.

It is hoped that information obtained from the study will be used by health care providers, policy makers and non-governmental organizations to identify strategies that will mitigate the impact of HIV and AIDS especially among young women.

1.8 HYPOTHESIS

There is an association between HIV and AIDS risk awareness and sexual behavior and the following factors:

- Knowledge on HIV and AIDS.
- Level of education.
- Socio-cultural factors.

1.9 DEFINITION OF TERMS

Risk awareness: being conscious of the fact that one can contract HIV and AIDS.

HIV and AIDS: HIV is the virus that causes AIDS; it destroys the biological ability of the human defence system, which helps to fight the opportunistic infections such as pneumonia. It is an acronym for Human Immuno-deficiency Virus. AIDS is a syndrome of opportunistic diseases which follow the HIV infection. It is an acronym for Acquired Immune Deficiency Syndrome.

Young women: a female aged between 15 to 24 years. This includes adolescents and young adults whether married or single.

Adolescence: the time in a person's life when he or she develops from a child into an adult (15-19).

Sexual behavior: sexual conduct. This can be good or bad.

Belief: a strong feeling that something exists or is true.

Culture: the customs and beliefs, art, way of life and social organizations of a particular country or group.

Poverty: the state of being poor.

Stigma: feelings of disapproval that people have about particular illnesses or ways of behaving.

1.10 VARIABLES, CUT OFF POINTS AND INDICATORS

VARIABLES	CUT OFF POINTS	INDICATORS
INDEPENDENT VARIABLES		
Knowledge of HIV/AIDS	High	Scores of 23-33 on knowledge question
	Medium	Scores of 12-22 on knowledge questions
	Low	Scores of 0-11 on knowledge questions
Economic Status	High	Monthly income above K1, 500,000
	Medium	Monthly income between K500,000-K1,500,000
	Low	Monthly income below K500,000
Level of education	High	College and University
	Moderate	Secondary School
	Low	Primary and none
Cultural belief	Positive	Cultural beliefs discouraging spread of HIV/AIDS
	Negative	Cultural beliefs encouraging spread of HIV/AIDS
DEPENDENT VARIABLE		
HIV and AIDs Risk Awareness and Sexual Behavior	Safer sexual behavior	Abstaining or using condoms, testing for HIV. Being faithful to one faithful partner.
	Risky sexual behavior	Having many sexual partners, casual sex, not using condoms.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

The literature reviewed focused on HIV and AIDS risk awareness and sexual behavior among young women. Sources of reviewed literature included books, articles, policy papers, professional journals and dissertations both published and unpublished.

Several authors have written on many aspects of HIV and AIDS risk awareness and sexual behavior among young women. Some of these studies were done in the West and so the findings cannot be generalized to African countries as the sexual behavior might be slightly different. However, the studies can still be used and can give a rough idea about risk awareness and sexual behavior. The review was aimed at establishing what is already known about the topic and to identify gaps in the existing literature. In this chapter, literature review is arranged globally, regionally and nationally.

2.2 GLOBAL PERSPECTIVE

Emerging evidence from the United States and developing countries indicates that a number of factors influence adolescent sexual and risk-taking behaviors (Traore et al, 2002). These factors can increase risk, offer more protection for youth, or sometimes function in both ways. The factors fall into the following categories:

- Individual characteristics of young people, including knowledge, attitudes, beliefs, values, motivations and experiences.
- Peers and sexual partners with whom they interact.
- Families and adults in the community.
- Institutions such as schools, workplaces, and religious organizations that support youth.

- Communities through which social expectations about gender norms, sexual behavior, marriage and child bearing are transmitted.

According to UNICEF, UNAIDS and WHO (2002), new studies from across the globe have established that the vast majority of young people have no idea how HIV and AIDS is transmitted or how to protect themselves from the disease. The same studies revealed that in countries with generalized HIV epidemics such as Cameroon, more than 80% of young women aged 15 to 24 do not have sufficient knowledge about HIV. Khan et al, 2004 (as in UNAIDS, 2004) reports that social norms impose a dangerous ignorance on girls and young women, who often are expected to know little about sex and sexuality and that lack of knowledge magnifies their risk of HIV infection. Khan and his colleagues further state that in Moldova, Ukraine and Uzbekistan more than 80% of young women lacked knowledge on the three HIV prevention methods (abstinence, being faithful to one partner and usage of condoms) when surveyed.

The United Nations (UN) report of 2002 states that data from 39 African, Asian and Latin American countries indicates that the level of awareness of AIDS is generally high. The same report revealed that at least 90 percent of the female and male population had heard of AIDS. However, despite the increase in awareness in some countries, countries such as Bangladesh and Nepal still exhibit low levels of awareness where less than one in three ever-married women have heard of AIDS. The UN report further states that awareness of AIDS is higher among men than women and that awareness grows with the incidence of HIV and AIDS. Lack of HIV and AIDS awareness makes women more vulnerable to HIV infection in comparison to their male counterparts.

With regards to behavioral change, the United Nations survey revealed that most of the respondents reported using a condom and having only one sexual partner as the two safe behaviors most often mentioned by respondents who knew about the sexual transmission of HIV (UN, 2002). The survey further states that a large majority of men, ranging from 60 to 90 percent reported that they had changed their behavior to avoid

AIDS. This is contrary to only half of the countries which have a majority of females who made behavioral change.

In another development, UNAIDS (2003), reports that young women in Latin America (15-24 years) and the Caribbean tend to exhibit substantially higher knowledge level of HIV and AIDS than their counterparts in other regions. It also states that nearly two-thirds of young women in Cambodia understand that condom use reduces the risk of transmission, where as less than one in quarter of young women in Indonesia do. On the other hand, young women in Cuba are twice as likely as young women in Haiti to recognize the protective effect of condoms. Another report by UNAIDS (2000), states that generally, the proportion of young women reporting accurate knowledge of prevention methods is higher in countries heavily affected by HIV and AIDS, with the exception of Haiti, where knowledge levels are strikingly low. In addition, knowledge levels also tend to be higher in urban than in rural areas. The report further states that young women are generally likely to recognize monogamy as a more effective prevention method than condom use.

In Kyrgystan, Central Asia, United Nations Population Fund conducted a study to assess the level of knowledge of 13-18 years old youth on HIV and AIDS. The findings revealed that 70% of the youth gave wrong or incorrect answers and only 30% were aware that HIV and AIDS can be transmitted by a healthy looking person. Another study conducted by Laguna on effects of Home - and School -Leaving on Filipino Adolescent's Sexual Initiation revealed that there is an almost universal awareness of AIDS among young people ages 15-24. Ninety five percent said they had heard of AIDS whereas two-thirds knew of sexually transmitted infections and more than half (57%) mentioned AIDS as a sexually transmitted disease. The study also found that while the majority knew that AIDS can be contracted from a healthy-looking person and even from one sexual contact, 35 percent agreed that the disease is a punishment from God for people who have intercourse outside of marriage. Twenty eight (28) per cent said that AIDS is curable. Furthermore, seventy three percent believed that only

those with multiple partners are at risk of infection. Such misconceptions about HIV can lead to higher risk of HIV infection.

A survey conducted in West China in 2007 by China's Juvenile Research Center and the National Research Center for Science and Technology for Development revealed that only 73.3 percent of the youth had a proper understanding of HIV and AIDS, almost 23 percent lower than their peers in the rest of the country and they knew that the HIV virus can be contracted through unprotected sex and blood transmission. However, more than 20 percent wrongly believed the disease could also be spread by sharing a room with AIDS patients. The survey also showed that young people in West China seem to know more about HIV and AIDS than adults, and the average level of HIV and AIDS awareness in West China is at 58.1 percent.

A report from population-based studies worldwide stated that young women and girls are at greater risk of rape and sexual coercion because they are perceived to be more likely to be free from infection, or because of the erroneous but widespread belief in some regions that sex with a virgin can cleanse a man of infection (SAFAIDS 2003). The report also stated that AIDS orphans, often forced to fend for themselves are easy prey for sexual abuse and violence. The socio-economic problems associated poverty, including lack of access to high-quality health care, can directly or indirectly increase the risk for HIV infection (Diaz, Chu and Buehler, et al, 1994). Gupta (2002) says in Mumbai, India, many women felt that the economic consequences of leaving a long-term relationship they saw as risky far outweighed the health hazards of staying in the relationship (UNAIDS, 2004).

UNICEF, UNAIDS and WHO (2002) reported that the Thailand government carried out a campaign promoting '100 percent condom use' in brothels and embarked on an ambitious effort to change male attitudes towards women. The results were that young men reduced their visits to sex workers by almost half between 1991 and 1995. Their condom use increased from 60 percent to nearly 95 percent. The net result was a drop in the percentage of young men infected with HIV from 8 percent in 1992 to less than 3

percent by 1997. Results from the survey show that education campaigns can be effective in the prevention of HIV and AIDS.

Punpanich and his counterparts (2004) reported that premarital sex has become more common place among young Thais, including women, with condom use typically rare, only 20% to 30% of sexually active young people are using condoms consistently (UNDP, 2004). In the same report, Buckingham et al; (2005) reports that in a household survey in northern Thailand, less than one-third of young men said they consistently used condoms with sex workers. UNDP further documents that young Haitians' average age at first sex for men and women declined by approximately one year between 1994 and 2000 and that condom use among 15-24 year- olds had become less frequent.

In support of the view above, Gaillard et al; 2004b (UNAIDS, 2005), reported that there is evidence of behavior change that could signal greater risk of HIV transmission. For example, young Haitians are becoming sexually active at an earlier age. The reported median age at first sex was 19.8 years for men and 18.3 years for women in 1994; six years later it was 18.4 years for men and 17.5 years for women. Correspondingly, the percentage of 15-19 year-olds who say they have never had sex decreased to 66% for women and 48% for men in that age group (compared to 71% and 53%, respectively in 1994). The study also showed that condom use among young Haitians (15-24 years) has also decreased. Moreover, 28% of young Haitian women (15-24 years) in 2003 said they had used a condom the last time they had sex, as did 37% of men of the same age. The declines in HIV prevalence appear to be more pronounced among women older than 24 years of age. It might be that older Haitians have been taking greater precautions to avoid HIV infection.

In Brazil in 2004, the Ministerio da Saude do Brasil, (2005) reported that more young people are having sex at earlier ages and with more partners (WHO/UNAIDS, 2006). The report says that at least one in three (36%) Brazilians aged 15-24 said they were sexually active before their 15th birthday, and one in five said they had had sex with more than 10 partners so far in their lives. Another study done by UNFPA in

Kyrgyzstan, in Central Asia revealed that the mean age at which young people had their first sexual experience was 14.5 years. The study also revealed that for most young people, the first sexual contact was not planned and was sometimes accompanied by the effect of alcohol and drugs. Among those who were sexually active, only 60 percent used condoms (UNFPA, 2005). The above results show that young people are more likely to be at risk of HIV infection than any other age group.

Kirby (2002) reports that access to AIDS information alone is no guarantee of behavior change, but education does have an impact. He gives an analysis of 250 North American programs which found that among sexually active young people, AIDS education programs were effective in decreasing the number of sexual partners and increasing condom use (UNAIDS, 2004). Kumar and his counterparts in 2006, in a report on the global aids epidemic reports that HIV prevalence for 15-24 year old pregnant women in Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu, combined, declined from 1.7% in 2000 to 1.1% in 2004. The later two states were among the earliest in India to respond to the AIDS epidemic, and the current trends reflect their sustained HIV prevention efforts over the past several years (UNDP, 2004). In Brazil, widespread information campaigns and prevention services have yielded positive results. In 1999, half of the young men having sex for the first time used a condom, compared to fewer than 5 percent in 1986, and condom sales increased (UNICEF, UNAIDS and WHO, 2002).

2.3 REGIONAL PERSPECTIVE

UNAIDS (2005) reported that in various surveys conducted in 2000-2004 in much of Sub-Saharan Africa, knowledge about HIV transmission routes is still low. In 24 Sub-Saharan countries (including Cameroon, Côte d'Ivoire, Kenya, Nigeria, Senegal and Uganda), two thirds or more of young women (aged 15-24 years) lacked comprehensive knowledge of HIV transmission. Furthermore, data from 35 of the 48 countries in Sub-Saharan Africa show that, on average, young men were 20% more likely to have correct knowledge of HIV than young women. On the other hand, it is

stated that in Sub-Saharan Africa, 84% of young women (15-24 years) in Malawi understand that a healthy-looking person can have HIV, compared to 22% in Niger, while in Swaziland young women are nearly three times more likely than their counterparts in the Central African Republic to realize that HIV cannot be transmitted through mosquito bites or the sharing of food (UNAIDS, 2003).

Lesotho also recorded low knowledge on HIV and AIDS where only 26% of women and 18% of men aged 15-24 years demonstrated comprehensive knowledge of AIDS when surveyed in 2004 by that country's Ministry of Health and Social Welfare (UNDP, 2004). WHO (2005b) in the 2006 report on the global AIDS epidemic update reports that a survey in Somalia in 2004 indicated that knowledge of HIV transmission is very poor, and condom use uncommon, for example 17 out of 20 men and 19 out of 20 women aged 15-24 years had never used a condom (UNDP, 2004).

According to Bankole and his co-authors (2004), adolescents' perception of risk is not always consistent with HIV prevalence in their country. He gives an example of Cameroon, Kenya and Zambia where only about half of young women and men who have heard of HIV and AIDS think they are at risk, even though prevalence is high in all the three countries. On the other hand, in Mozambique, another country with high prevalence, about seven in ten adolescent women and men who have heard of HIV and AIDS believe they are at risk (Bankole et al; 2004). When risk awareness is low, there is an increased likelihood of HIV prevalence.

Despite the advocacy of condom use to prevent HIV this might not be practiced by young people. This is evidenced by a study done in 2002 by Marindo and his colleagues on Condom use and Abstinence among unmarried young people in Zimbabwe aged 14-20 years which revealed that sexual abstinence was supported as the most desirable approach for reducing HIV risk. Condom use was unpopular among the surveyed, partly because of their perceptions of how church leaders, their traditional culture, and their parents view the method (Marindo, Pearson and Casterline, 2003). UNAIDS regional survey reports indicate that young men are more likely than young

women to report use of a condom with non-regular sexual partners. This could be partly due to the fact that young women are unable to discuss condom use for fear of insulting or angering their partners or being labeled as promiscuous. Data also suggests that condom use is higher in urban than in rural areas and that safer sexual practices among young people aged 15-24 vary considerably between countries for example in Sub-Saharan Africa, condom use is highest in Botswana (88% for men and 75% for women) and the lowest in Chad (2% for both men and women). UNAIDS further reports that young men in Zimbabwe are more than twice as likely to use condoms than are young men in Mali, and young women in Uganda are more than three and a half times more likely to use condoms than their counterparts in the Democratic Republic of the Congo (UNAIDS, 2003).

In Kenya, young men are more than twice more likely to have had riskier sex in the past year than are young men in Rwanda (UNAIDS, 2003). While only 7% of young women in Ethiopia report higher –risk sex in the last 12 months, more than one-half of young women in Côte d'Ivoire report such behavior. In Sub-Saharan African countries, between 15% and 20% of young men and women report having had sexual intercourse before the age of 15, with young women reporting earlier median age of first sex than males. Here too, age of initiation of sexual activity varies significantly between countries- from 16 to 22.1 for men, and from 16.3 to 20.8 for women (UNAIDS, 2003).

Meekers and his colleagues (2001) conducted a survey on patterns of risky behavior and condom use among youths aged 15-24 in Yaoundé and Douala, Cameroon. The study revealed that female and male youth reported sexual initiation by age 15. Twenty six (26%) of females who did not attend secondary school reported becoming sexually active by age 15, compared to only 15% of those who did attend secondary education. The same study indicates that 11% of females and 20% of males reported having two or more regular partners in the previous year with a higher percentage of males using condoms (78%) than females (77%). However, their use is not consistent. UNAIDS (2004) in the 2006 global aids epidemic reveals that in a survey which was conducted in Madagascar in 2003-2004 only about one in 10 young men and one in 20 young

women (aged 15-24 years) said that they had used a condom the last time they had sex. UNICEF also reported that education level is significant in preventing HIV and AIDS for example in Rwanda in 2001, it was revealed that young women with Secondary or higher education were five times as likely to know the main HIV transmission routes than were young women with no formal education (UNAIDS/WHO,2005).

In a multicentre study, in Kisumu Kenya, Glynn and his counterparts (2001) report found that among sexually active girls aged 15-19 years HIV-infection levels were 10% higher for married than for sexually active unmarried girls. In the same report Kelly and his colleagues in 2003 also reports that among HIV-infected women aged 15-19 years, 88% of the girls were married. This is because young women, particularly teenagers, often marry men significantly older than they are, and these men are more likely to have had other partners and therefore are more likely to have been exposed to HIV (UNAIDS,2004).

Gregson (2006) in a study conducted in Zimbabwe, in the eastern province of Manicaland, revealed that HIV prevalence in young women (15-24 years) in the general population fell by half-from 16% in 1998 to 8% in 2003. The same study showed more women and men were delaying their sexual debut and were avoiding casual sex liaisons. It was also found that nationally, there was a substantial increase in condom use since the early 1990s. Such behavioral change is likely to be associated with a combination of AIDS awareness, relatively extensive health infrastructure and a growing fear of AIDS mortality (UNDP, 2004).

2.4 LOCAL PERSPECTIVE

According to the HIV and AIDS National Strategic Framework (2001-2003), children and youths' vulnerability to HIV infection is related to unclear perceptions about risky behavior, insufficient knowledge and incorrect information about sex, sexuality and sexual health. This is evidenced by the prevalence of HIV amongst boys and girls aged 15-24 years, which is 8% and 17% respectively (UNDP, 2005). However, the Zambia

Sexual Behavior Survey (ZSBS, 2005) reports that more than nine out of ten young people aged 15-24 said they had heard of HIV and AIDS, and overall percentages are almost the same among males (95.6%) and females (96.7%) in 2005. Whereas most young people have reported awareness of HIV and AIDS for so many years, the data indicate an increase since 1998 in knowledge that AIDS can be avoided (ZSBS, 2005). By 2005, almost all young adult males (95.7%) and nine out of ten young adult females (90.9%) reported knowing that AIDS can be avoided. Young people aged 15 to 24 years also correctly identified ways of preventing sexual transmission of HIV and rejected major misconceptions about HIV transmission, with men scoring higher at 51.2 percent while women of the same age group scored 45.2 percent (ZSBS, 2005).

Mbozi (2003) in his study on Impact of Negative Cultural Practices on the Spread of HIV and AIDS conducted in Lusaka (Garden, Kaunda Square, Libala, Emmasdale and Kabulonga), he found that 92.2 percent of the respondents indicated having heard of HIV and AIDS and only about 7.8% had not. Fifty three (53%) of the respondents thought that HIV and AIDS was not a new disease in Zambia and 9.1 percent said that the disease was curable. This shows that awareness of the existence of HIV and AIDS is extremely high since more than 68.2% and 85.6% of the respondents knew of at least one person who was afflicted with HIV and AIDS while almost 92% of the same sample knew at least one person who had died of the disease.

In another study conducted by Macwan'gi and others (1994) in Kaoma rural and Ndola urban, it was revealed that most of the respondents had revealed high level of HIV and AIDS knowledge. Almost all women (93%) in the sample had heard about AIDS. Seventy two percent (72%) of the women said HIV infection is transmitted by having sex with an infected person, share contaminated needles (37%) and receive infected blood (28%). Only 8% indicated that they did not know how HIV infection is transmitted. Furthermore, most of the women in the study were able to report a correct sign or symptom of AIDS. And almost all women (96%) knew that AIDS cannot be cured.

The study further revealed that 95% of the women interviewed perceived themselves at risk of HIV infection. The major reason reported for perceived risk among women was “unfaithful spouse or partner” (70%). However, women in this study did not mention use of condoms as a reason for not being at risk of HIV infection. On condom use, only 21% of the respondents reported ever use of condoms. The main reason reported for ever using condoms is prevention of pregnancy (73%). The proportions of women who ever used condoms for purposes of preventing STIs and HIV infection were 38% and 22% respectively. A very high proportion (76%) reported that condoms are easily available in their communities. However, despite easy availability only 17% indicated that condoms were affordable.

The ZSBS showed that in 1998, less than three-fourths of all young males (71.7%) aged 15-24 recognized consistent condom use as a way to reduce the chances of HIV infection. By 2005, this percentage increased to 83.2%. Only 57% young females aged 15-24 reported consistent condom use as a way to reduce the chances of HIV infection in 1998. By 2005, this percentage was 81.6% and the knowledge gap between the male and female youth has almost closed up. However almost all young people (94.8% of males and 93.4% of females 15-24) know about abstaining from sex as a preventive measure.

The National HIV/AIDS/STI/TB Council (2004) reported that women are disproportionately affected by the HIV and AIDS epidemic. This is evidenced by the Zambia Demographic and Health Survey, 2007 which revealed that women are more likely to be infected than men (16 % and 12%) respectively. This imbalanced sex ratio may occur in part because women are more biologically prone to infection than men during unprotected sexual intercourse. Older men having sexual relations with younger women may also contribute to higher rates of HIV infection. The National HIV/AIDS/STI/TB council states that inequality and power imbalances between women/girls and men/boys in the Zambian society heighten the vulnerability of females to infection for example in sexual relations, women are usually taught not to refuse sex to their husbands, regardless of whether the husband has other partners or is unwilling

to use condoms. Moreover, because of their low social and economic status, women and girls have more limited access to HIV and AIDS related information, prevention, treatment, care, support, commodities and services than men and boys.

The National HIV/AIDS/STI/TB council (2004), also reports that sexual violence is the worst manifestation of gender power imbalances that expose women/girls to HIV infection. A study on HIV prevention among adolescents in Lusaka, Zambia by Fieldman et al (1997) revealed that peer-led interventions are effective in reducing the risk for HIV infection among adolescents. The study showed that most of the male and female adolescents are sexually active, and very few routinely use condoms.

UNAIDS (2004) found that women and girls often lack the power to abstain from sex or to insist on condom use even when they suspect that the man has other sexual partners and might be infected with HIV. In a study done in Zambia, for example, only 11% of women believed they had the right to ask their husbands to use a condom even if he had proven himself to be unfaithful and was HIV positive (UNAIDS 2004). This affects women negatively as they can be easily infected by their husbands.

In evidence based surveys in selected communities in Zambia conducted in 1994, 1998, 2002 and 2004 by Michelo and his colleagues (2006) in Kapiri Mposhi and Chelstone results showed that HIV prevalence declined in all age groups especially in young people aged 15-24 years. In this age group, prevalence declined by 59.2% ($P<0.001$) among rural females, by 44.6% ($P<0.001$) in rural males, by 47 % ($P<0.001$) in urban females and by 57.3 % ($P=0.001$) among urban males. It was further observed that these HIV prevalence declines concentrated in groups with higher education. In 2003, young people with higher education had lower odds of infection than in 1995 in both urban and rural groups (Michelo et al, 2007). Furthermore, urban young people who attended school for 11 years or more reported increased use of condoms during the last casual sex over the period. Similarly, young people with higher education less often reported any casual sexual partners in the last twelve months than groups with lower education.

The study further reveals that Antenatal Clinic (ANC) based data derived prevalence in Chelstone only declined by 20% in age groups 15-24 years age and was stable overall. In sharp contrast, population-based HIV prevalence declined by 44% ($P<0.001$) and by 27 % ($P<0.001$) in age group 15-24 and 15-49 years respectively among women only. These declines were concentrated among higher educated women ($P<0.001$).

The observed declines among young people were consistent with behavior change. The observed parallel between HIV prevalence declines and behavior change is a positive sign indicating that prevention programs in Zambia are bearing fruit. The concentration of the declines in young people with higher education suggests that the declines are due to behavior change rather than increased mortality. Therefore, the power of educational attainment in reducing the HIV incidence by modifying people's behavior should not be under-estimated. In addition, the stable risk among groups with less education might also indicate limitations in reaching some groups in the past (Michelo et al, 2007).

The National HIV/AIDS/STI/TB (2004) council reports that even though behavior is changing, too much risky behavior persists. For example, the 2001/2002 ZDHS reported that more than 17% of sexually active males in the 15-24 year-old age group paid for sex over the previous 12 months before the survey, but only two of five of these young men were using condoms. Even when aware of the HIV and AIDS epidemic, many people, especially youth, do not believe they are personally at risk. They also tend to be skeptical about the effectiveness of condoms, and they have only a vague understanding of the relationship between STIs and HIV transmission.

The National AIDS council (2008) reported that age at first sexual debut among young people 15 to 24 years old has continued to show a steady increase, from an average of 16 years (1998) to 17 years (2003). This implies that young people are delaying sexual activity thereby reducing early risky sexual behavior. Additionally, the percentage of young people reporting having sex with a non-regular partner has decreased to 18.6. However, only 43.5 percent of young people demonstrate comprehensive knowledge of

HIV and AIDS and only 26.1 percent of young women aged 15 to 24 years old reported using a condom the last time they had sex with a non-regular partner (MOH/National Aids Council, 2008).

The National HIV/AIDS/STI/TB council further revealed that sexual violence is the worst manifestation of gender power imbalances that expose women/girls to HIV infection. According to ZDHS 2001-2002, 15% of women ages 15-19 have been forced by a man to have sexual intercourse at some time in their lives. Nearly 8% of women ages 15-19 have been forced to have sexual intercourse over the previous 12 months before the survey. Besides sexual coercion, women are often subject to beatings and other physical violence. ZDHS 2001/2002 reported that one of four married women experienced physical mistreatment in the previous year.

The Antenatal Clinic Sentinel Surveillance Report of 1994-2004 revealed that there is a sharp increase in the mean HIV prevalence for urban sites from the age group 15-19 (14.6%) to 25-29 (32.0%), a steady decrease to age group 35-39 (28.4%) and then a sharp decrease thereafter (15.1%). Rural sites showed a sharp increase from age groups 15-19 (8.7%) to age group 25-29 (15.5%), then a decrease in the 40-44 age groups (7.5%). When age difference was examined among young women between the ages of 15-19 and 20-24 years, it was observed that women whose partners were older than them by ten or more years were significantly more likely to be HIV infected compared to other women in the same age group.

2.5 THE HEALTH BELIEF MODEL

Some studies have been done using the HBM by different authors in different parts of the world. These cut across from one cultural aspect to another and may not be representative of the global picture in applying this model. Some of these are discussed below:

Volk and Koopman, 2001 examined specific cultural beliefs and knowledge about HIV and tested components of the Health Belief Model in relation to condom use in Kisumu, Kenya. They conducted interviews with 223 participants at six governmental and private clinics. The study revealed that although 75% of the study participants had engaged in intercourse during the preceding month, fewer than 20% had used a condom. For men and women, perceived barriers was the only component of the Health Belief Model significantly associated with condom use, with greater perceived barriers being associated with lower frequency of condom use ($p < .05$). Additionally, individuals with more education and HIV and AIDS knowledge were less likely to endorse stigmatizing beliefs toward HIV and AIDS ($p < .001$), whereas people who believe that HIV originated in the United States were more likely to endorse these stigmatizing beliefs ($p < .002$). Nearly everyone (97%) reported that AIDS is the disease that scares them most, suggesting that educational efforts have successfully communicated the severity of HIV and AIDS.

The above results of the study show that despite people knowing the severity of the disease, condom usage was still low. Factors such as lack of negotiating skills for condom usage might have taken priority especially that women lack these skills. Future intervention efforts should be recommended on addressing stigmatizing beliefs and providing education to overcome barriers to condom use.

The utility of a modified health belief model for predicting the intention to use condoms was tested in a study among gay and bisexual men in the Netherlands by Janz and Becker (1984). The model explained a reasonable amount of variance. It was found that younger men's decision to have safe sex was guided by factors other than those that influenced older men. Among younger men, the intention to use a condom was positively related to the relative number of persons with AIDS in their social environment (cues to action) and to the perceived benefits of HIV preventive behavior. Among older men, this behavioral intention was much more determined by their perceptions of the prevalence of HIV and by their perception of their vulnerability to HIV infection. These findings are important because they may partly explain the recent

increase in AIDS- risk behavior among young gay and bisexual men (Bakker et al, 2008).

The above mentioned study shows that it is necessary to have different intervention strategies for different age groups among gay and bisexual men. Education on the risk of contracting HIV and AIDS regardless of their age needs to be intensified as both groups are at high risk of contracting HIV and AIDS.

A study was done by Iriyama et al (2005) entitled AIDS health beliefs and intention for sexual abstinence among male adolescent students in Kathmandu, Nepal. The study was school based and intended to examine whether two subscales of the Health Belief Model (HBM), perceived severity and perceived susceptibility, are associated with abstinence intention for HIV and AIDS prevention among 183 Nepalese male adolescent students aged 14-19 years. The results revealed that over half of the students (53%) strongly agreed with abstinence intention. Students with higher levels of perceived severity strongly agreed with abstinence intention (crude odds ratio 1.86, 95% confidence interval (CI) 1.02-3.38; adjusted odds ratio 1.94, 95% CI 1.05-3.58) but those with higher levels of perceived susceptibility did not. Moreover, age-stratified analysis showed that a high level of perceived susceptibility tended to decrease strong abstinence intention among students aged 16-19 years.

The above study showed that perceived severity enhanced abstinence intention. This shows that there might be need of strong emphasis on this subscale of the Health Belief Model in the educational strategies as it might be of help in increasing HIV and AIDS and lead to safer sexual behavior.

Another study was conducted by Lin and his colleagues (2005) in the United States of America on Taiwanese immigrant students entitled “The Health Belief Model, Sexual Behaviors and HIV Risk among Taiwanese Immigrants”. Demographics, HBM constructs, and acculturation were examined as predictors of sexual behavior over the previous year. Analyses indicated that participants who reported a higher number of sexual partners and more frequent sexual intercourse tended to be more educated and

more likely to be non heterosexual. The HBM constructs, as a set, reliably predicted participants' sexual behaviors. Self-efficacy was the strongest predictor within the HBM. Furthermore, acculturation moderated the predictive power of the HBM with respect to intercourse frequency. The main limitation of the study was that the measure of HBM, which was not designed to target Asian immigrants, was psychometrically poor. The results of the study above suggest that self-efficacy is a target for behavioral change, acculturation may need to be incorporated into the HBM, and more culturally sensitive measures need to be developed (Simon et al, 2005).

The above findings tally with Tones and Tilford's (2001) view which states that the HBM is weak in relation to precise examination of social influences and also the emotional aspects of human behavior.

2.6 AIDS RISK REDUCTION MODEL

A study was done by Kowalewski and his colleagues (2006) entitled the AIDS Risk Reduction Model: Examining intentions to use condoms among injection drug users in Los Angeles. The study was intended to examine psychosocial factors involved in adopting safer sex practices in a sample of Los Angeles injection drug users who reported having more than one sex partner the year preceding the interview. The first two stages of the model were tested using a measure of perceived risk of HIV infection (Stage 1), and intentions to use condoms in the year prior to the interview and those who reported using condoms always during vaginal or anal sex in the next year (stage 2). Differences in the predictive value of the ARRM between Intravenous Drug Users (IDUs) who reported using condoms in the year prior to the interview and those who reported not using them were examined. Leverage points in the model-factors which appear to have a major influence on the intentions to use condoms and which may be amenable to change through educational or other types of intervention were identified.

The results revealed that for both condom users and non-users, susceptibility to AIDS predicted perceived infection risk (Stage 1). For condom users, knowledge about AIDS also predicted perceived risk. For both groups, self-efficacy, peer norms concerning

condom use, and the perceived pleasure of using condoms predicted intentions to use condoms (Stage 2). The findings did not support either direct or indirect relationships between the Stage 1 and Stage 2 outcome variables for either group. These results reveal that the ARRM is relevant in behavioral change as the results in the study showed prediction of the perceived infection risk. Knowledge about AIDS also predicted perceived risk thus the significance of external motivators such as public campaigns in helping to reduce risky sexual behavior.

Chandra et al., (1998) in his article entitled “Development and Evaluation of a Module for HIV and AIDS Related Risk Reduction model for the population in Bangalore. In the same article, Stall (1987) suggested that various approaches for prevention of HIV will work best, if they are designed with an understanding of the conditions under which individuals decline to comply with risk reduction guidelines like the use of drug and alcohol during sexual contact. He further states that mere information about HIV and AIDS is not sufficient to bring any considerable change by the model.

The above findings tally with Catania’s views of the model that identified other internal and external factors that may motivate individual movement across stages. For example, he says that aversive emotional states such as high levels of distress over HIV and AIDS or alcohol and drug use that blunt emotional states may facilitate or hinder the labeling of one’s behaviors.

2.7 CONCLUSION

From the reviewed literature, it is evident that the level of awareness of HIV and AIDS is generally high among young women in the 15-24 year age group. Despite increased levels of awareness risky sexual behavior is still being practiced which leads to increase in HIV prevalence in most of the countries. Some studies have been done on the above subject in Zambia and have revealed increased vulnerability of HIV and AIDS in this age group. However, none of these studies has been done in Mufulira district. It is for this reason that the investigator would like to conduct this study in Mufulira. The Health Belief and AIDS Risk Reduction Models are useful conceptual frameworks in

this study despite their limitations. It was for this reason that the researcher applied these models in this study.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research methodology comprising the study design, study setting, study population, sample selection, data collection instruments, data collection techniques, ethical consideration, pre-testing, dissemination and utilization of results and limitation of the study.

3.2 STUDY DESIGN

A research design is a plan, structure, and strategy of investigations of answering the research question, it is the overall plan or blue print the researchers select to carry out their study (Basavanthappa, 2007). This study adopted a descriptive cross-sectional study design. It is descriptive in nature because it sets out to discover new meaning when little is known about a phenomenon of interest (Dempsey and Dempsey, 2000). The study involved collection and presentation of data about HIV and AIDS risk awareness and sexual behavior among young women in a systematic manner. In addition, it describes what exists about the phenomena and also gives a clear picture of the situation.

This study is cross-sectional because it involved the collection of data at one point in time (Polit et al, 2001). The phenomena under study were captured during one data collection period. Cross-sectional designs are appropriate for describing the status of phenomena or relationships among phenomena at a fixed point.

3.3 RESEARCH SETTING

Research setting is the physical location and conditions in which data collection takes place (Polit and Hungler, 1996). The study was done in Mufulira district. Mufulira district is situated on the northern part of the Copperbelt province of Zambia. According to Central Statistics Office (2004), Mufulira has a population of 143,930 which is 9% of the Copperbelt province population. The district has a total of 21 health centers and 3 hospitals. The HIV prevalence for Mufulira currently stands at 19.9%, representing 27,793 people infected with the HIV virus (CSO, 2003). These statistics represent only the reported cases as captured by the Health Management Information System (HMIS).

Available data on HIV and AIDS situation indicates that HIV and AIDS is on the increase. The national statistics available from the 2001-2002 ZDHS report indicate that for Mufulira, 9,927 males representing 46% are infected with HIV. The infection rate is substantially higher among women (11,440), representing 54%. It is for this reason that the investigator chose Mufulira as a study site with the view of evaluating HIV and AIDS risk awareness among young women.

3.4 STUDY POPULATION

The target population is the total group of individual people or things meeting the designated criteria of interest to the researcher (Basavanthappa, 2007). In this study, the study population comprised females aged 15-24 years residing in the urban areas of Mufulira district. The female population in the district is 71, 404 (CSO, 2004) and those aged 15-24 years were projected to be at 15,978 (CSO, 2003).

3.5 SAMPLE SELECTION

Sample selection is the process of selecting a portion of population to represent the entire population (Polit et al, 2001). In order to obtain a representative sample of the population selected for the study, the sample was obtained from the target population.

First and foremost, the community was randomly selected by obtaining a sampling frame of the residential areas of Mufulira and then one (1) residential area was selected using the rotary technique. All residential areas of Mufulira were assigned a number and these numbers were written on small pieces of paper. All the papers were put in a box, after which the box was shaken vigorously to ensure random selection. One (1) paper was taken out of the box and the numbers recorded. The residential area belonging to one of these numbers, which is Kawama West Compound, constituted the sample. The township is in the urban, is serviced by one (1) clinic and is divided in seven (7) residential sections. Ten (10) respondents were drawn from each section.

Individual respondents were obtained from each household by systematic sampling. Systematic sampling is a probability sampling method which involves the selection of every Kth person on a patient list (Polit et al, 2001). First, the size of the population was divided by the size of the desired sample to obtain the sampling interval width. The sampling interval is the standard distance between the selected elements. This is obtained by dividing the population by the sample size. The first case was selected randomly, using a table of random numbers. This sampling method was used as it is identical to random sampling and the results are obtained in a more convenient and efficient manner (Polit et al, 2001).

Individuals for the focus group were homogenously selected by purposive sampling method. There were two focus groups, one involving the age group 15-19 and the other one involving the age group 20-24 years.

3.5.1 Inclusion criteria

Only women in the 15-24 year age group residing in the sampled compound, Mufulira district were eligible for the study.

3.5.2 Exclusion criteria

- Women who were not in the 15-24 year age group.
- Women in the above age group who did not consent.
- All men.

3.6 SAMPLE SIZE

The sample for quantitative data was calculated using Epi info version 6 statcalc command for descriptive study.

Population size	= 15,978
Expected frequency	= 96%
Worst acceptable	= 91%
Confidence Interval	= 95%
n	= 59

To allow non-response the sample size was adjusted as follows:

$59/0.90 = 66.$

A sample of 70 respondents was dealt with. This was done with the help of the Bio-Stastician.

Seven (7) participants in each age group (15-19 and 20-24 years) were interviewed in each focus group.

3.7 DATA COLLECTION TOOLS

Data were collected over a period of two weeks beginning 2nd week to 3rd week of September. Two types of data collection tools were employed in this study and these are structured interview schedule and focus group discussion guide.

3.7.1 Structured Interview Schedule (Appendix IV)

A structured interview is a formal instrument, used in structured self report studies, that specifies the wording of all questions to be asked of respondents (Polit et al, 2001). The interview schedule contained open and closed ended questions. It had three sections; section A contained demographic information, section B knowledge items and section C sexual behavior. The respondents were interviewed by the researcher with the help of a Community Health Worker who was residing in the same residential area and acted as a guide. Respondents were asked to respond to the same questions in the same order, and were given the same set of options for their responses. Open-ended questions were asked to allow participants to respond to questions in their own words. The interviewer was writing down responses verbatim.

The advantages of closed ended questions are that they are easier to administer, efficient as respondents can manage to complete more closed-ended questions than open-ended ones within a short period of time. They are also easier to analyze. However the researcher is likely to overlook some important responses; they can also be superficial as they may not reflect required details of an issue and respondents may object to choosing from alternatives that do not reflect their opinions precisely.

Open-ended questions allow obtaining richer and fuller information if the respondents are verbally expressive and co-operative. The disadvantage of open-ended questions is that respondents may be unwilling to compose lengthy written responses and they are difficult to analyze (Polit et al. 2001).

The disadvantages of the instrument were overcome by ensuring that the interview schedule only had adequate and relevant number of questions. More closed than open-ended questions were asked to avoid making the interview schedule very lengthy and time consuming.

3.7.2 Focus Group Discussion

Focus group discussion is a method that allows the researcher to examine the points of views of a number of individuals in a group as they share their opinion/concerns about a topic (Dempsey and Dempsy, 2000). The focus group discussion consisted of 6-12 persons guided by a facilitator. Prior to focus group discussions the respondents' background information (including demographic characteristics, education level, marital status and sexual experiences) were obtained with those with a similar background in relation to sexual behavior. Participants were invited two days in advance and the general purpose of the focus group discussion was explained. Two focus group discussions were conducted, one involving the age group 15-19 and the other one involving the age group 20-24 years.

The facilitator introduced herself and introduced the recorder. Thereafter the participants were also asked to introduce themselves. The participants were put at ease, the purpose of the FGD, the kind of information needed, and how the information will be used was explained. The facilitator encouraged participation by trying to avoid a question and answer session, clarifications were encouraged instead. When dealing with a dominant participant the principal investigator avoided eye contact to discourage the person from speaking. When dealing with a reluctant participant, using the person's name, requesting their opinion, or making more frequent eye contact were done to

encourage her participation. The interviewer (researcher) led the discussion according to the set of questions where as the Community Health Worker acted as a recorder. The advantages of a group format are that it is efficient and can generate a lot of dialogue, but some people are uncomfortable expressing their views or describing their experiences in front of a group (Polit et al, 2001). The discussion was recorded on the audiotape.

3.7.3 Validity

To ensure the quality of a data collection tool, it is important to establish its validity. Validity is defined as determination of whether a measurement instrument actually measures what is purported to measure (Basavanthappa, 2007).

The validity of the instrument used in this study was maintained by ensuring that all aspects of variables pertaining to young women's HIV and AIDS risk awareness and sexual behavior were included in the interview schedule for the respondents and the in-depth interview schedule. An extensive literature review was conducted before designing the tools. To measure the validity of the data collection tools, experts in HIV and AIDS such as officers from the National Aids Council and the Central Statistics Office checked the questions in the interview schedule and the focus group discussion. Pre-testing of the instruments was done to determine whether they bring out the desired information, and this was so. The use of open-ended questions allowed spontaneous responses, which are more valid than answers suggested in closed ended questions. The questions were clearly constructed to avoid ambiguity.

Sources of internal validity such as selection biases were avoided by ensuring that proper sampling methods were used and avoiding preferences in selecting research samples. Data were interpreted according to the findings of the research study, and presented as aggregate results.



Respondents were placed in a comfortable position so that they are ready to participate by obtaining a written consent from them for the interview to be done. Noise and interruptions were minimized by using a private room. Behavioral characteristics such as non-verbal cues, facial and verbal expressions which can influence the respondents' opinions and responses were avoided. The same questions were asked to each respondent in the same sequence.

3.7.4 Reliability

Reliability is the stability of the measuring instrument over time (Dempsey and Dempsy, 2000). Reliability of the interview schedule was measured by pre-testing it. During the pre-test, respondents were asked if there were any questions they did not understand. This was going to allow room for alteration of the interview schedule if necessary. Highly structured interviews, with the same format and sequence of words and questions for each respondent were done. There was extended use of closed questions. Open-ended questions in the interview schedule provided an opportunity to clients to add their own ideas thereby bringing out issues not thought of when designing the interview schedule.

3.8 DATA COLLECTION TECHNIQUE (Appendix VI)

This is a procedure of collection of data information needed to address a research problem (Polit and Hungler, 1999). The investigator used an interview schedule and a focus group discussion as data collection procedures. The investigator used multiple data sources to achieve triangulation.

Data collection was done by the researcher. The purpose of the study was explained to the participants and permission was sought from them to allow the researcher to conduct the interview or focus group discussion.

The interview was conducted in privacy and confidentiality was maintained at all times by ensuring that only one person was interviewed at a time in an enclosed room. Names were not written on the interview schedule; instead numbers were allocated to all participants.

About 10 respondents were interviewed each day. The interview took approximately 30-40 minutes. The interviews were conducted at the most convenient time of the respondents where they were not distracted from what they were doing.

For the focus group discussion (FGD) the researcher used a focus guide. The researcher engaged one (1) assistant, the Community Health Worker to help with recording and time keeping while the researcher was asking questions. Each individual was given a chance to express her views freely to ensure maximum participation. Each FGD took about 45 minutes. Anonymity and confidentiality was maintained.

3.9 PRE-TEST

Pre-test is the trial administration of a newly developed instrument to identify flaws or assess time requirements (Polit et al, 2001). Pre-testing of the data collection tools was done using young women aged 15-24 years in Kamuchanga compound. This is one of the compounds in Mufulira district. This compound was purposely chosen because it is representative of the socio-economic background of most of the people in Mufulira District. Seven (7) respondents were selected for the pre-test, which is 10% of the sample. The respondents were selected using systematic sampling of houses in one of the residential sections of Kamuchanga Township. The pre-test was done in order to:

- Test the validity and reliability of the data collection instrument in order to detect and solve unforeseen problems.
- Detect any errors in the questionnaire for the main study.
- Assess the duration of each interview schedule.
- Assess the appropriateness and clarity of questions.

3.10 ETHICAL CONSIDERATIONS

Ethics can be defined as a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participants (Polit et al, 2001).

Ethical clearance was obtained from the University of Zambia Research Ethics Committee. Written permission to conduct the study was obtained from the Ministry of Health, the District Health Management Team (DHMT), and the in charge of Kawama West Clinic.

The purpose and nature of the study was explained to the study participants. Those who declined to participate were reassured that no privileges were going to be taken away from them. Those who agreed to take part in the study were requested to sign a consent form. Those who participated in the study were not remunerated in any way. The respondents were in the natural setting and hence were not exposed to any physical and emotional danger or harm.

Confidentiality and anonymity were maintained to the respondents in that no names appeared on the answer sheets. Respondents were interviewed in a room where there were no other people to ensure privacy. After each interview session the investigator put all questionnaires under lock and key.

CHAPTER 4

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 INTRODUCTION

Data analysis is defined as “the systematic organization and synthesis of research data and testing of research hypothesis using those data” (Polit et al, 2001). Data were collected using a structured interview schedule and a focus group discussion guide. A total of 70 respondents were interviewed and there was a 100% response rate. Two focus group discussions were held with young women.

4.2 DATA PROCESSING AND ANALYSIS

4.2.1 QUANTITATIVE DATA

Following data collection, the structured interview schedules were sorted out and edited for internal consistence, completeness, legibility and accuracy. Closed ended questions were assigned numerical codes for easy entry and analysis using the computer. Open ended questions were analyzed by reading through the data in its entirety to identify and group answers that belong together. This process is known as categorization (Polit et al, 2001). Following categorization, the investigator assigned numerical codes (1, 2, 3, 4 and others). The codes were then entered and analyzed using Epi-info version 6 software computer package. Chi-square (Yates corrected) was used to test association between quantitative variables and the outcome (HIV and AIDS risk awareness and sexual behavior). The quantitative variables were knowledge of HIV and AIDS, economic status, level of education and socio-cultural factors. Where the Chi-squared test was not valid, Fisher’s exact two tailed probability test was used. Logistic regression was done using SPSS to calculate the odds of the outcome of variables which were significant. The cut off point for statistical significance was set at 5%, P values of 0.05 or less were considered statistically significant thereby rejecting the null hypothesis.

4.2.2 QUALITATIVE DATA

After every focus group discussion the recorder read the points to the group members to check the information for accuracy and inconsistencies, and the study participants were asked to clarify them. Data obtained were transcribed from vernacular to English. Using the participants’ own words, the key statements were listed, including the ideas and attitudes expressed for each topic were categorized. The researcher read through all the data to obtain a general sense of the information and to reflect on its overall meaning. Data were analyzed by performing content analysis. Content analysis involves an analysis of the content narrative data to identify prominent themes and patterns among the themes (Polit et al, 2001). A full report of the focus group discussion was prepared that reflected the discussion as much as possible. Answers of the two subgroups (those between 15-19 and 20-24 years) were compared.

4.3 DATA PRESENTATION

4.3.1 QUANTITATIVE DATA

The findings have been presented according to the lay out of questions and sections of the interview schedule. Some have been grouped together to give an overall picture. The findings have been presented in different forms such as tables, bar charts, pie charts and cross tabulations. The tables are suitable because they summarize the findings in meaningful ways thus giving easy understanding. The cross tabulations are helpful in showing relationships between variables. The pie charts and bar charts provide a variety of ways in which to present data which helps to avoid the monotony of narrative presentations.

The table (2) in section A represents the demographic characteristic of the respondents, the tables, pie charts and bar charts in section B represent the respondents’ knowledge of HIV and AIDS while the tables in section C represent the sexual behavior and levels

of awareness of HIV and AIDS of the respondents. The cross tabulations in section C represent the relationship between variables.

4.3.2 QUALITATIVE DATA

Data obtained from focus group discussions were summarized using a narrative. The findings were interpreted and the most useful quotations that emerged from the discussion to illustrate the main ideas were selected.

SECTION A

TABLE 2: SOCIO-DEMOGRAPHIC DATA

	FREQUENCY	PERCENTAGE
Age		
15-19	28	40
20-24	42	60
Total	70	100
Marital Status		
Single	34	48.6
Married/Separated	36	51.4
Total	70	100
Religion		
Christian	70	100
Total	70	100
Educational Level		
None/Primary (low)	39	55.7
Secondary/College(moderate/high)	31	44.3
Total	70	100
Occupation		
Housewife	29	41.4
Student	13	18.6
Formally employed	1	1.4
Self employed	7	10.0
Unemployed	20	28.6
Total	70	100
Income		
Below K500,000	55	78.6
Between K500,000-K1,500,000	15	21.4
Total	70	100

*Respondents who were on separation were categorized under those who were married.

*Respondents who had no education and those with primary education were categorized as all having low education

*Respondents with Secondary and College education were categorized to have high or moderate education.

The above categories were merged so as to have meaningful computer outputs as the sample size was small (to compare the values of two binomial samples even if they are small, the test can still be applied provided correction factor, Yates correction is applied and the expected value is not less than five in any cell (Mahajan, 1997).

Most 60% (42) of the respondents interviewed were within the age group 20-24 years while the rest 40% (28) were in the age group 15-19. Almost half of these 48.6% (34) were single and 51.4% (36) were married or separated.

All the respondents 100% (70) were Christians. More than half of these 55.7% (39) had low levels of education, while 44.3% (31) had moderate or high education.

Most 41.4% (29) of the respondents were housewives; some 28.6 % (20) were unemployed, while only a few 18.6% (13) were students. The majority of the respondents 78.6 %(55) had a household income below K500, 000 per month while the rest 21.4% (15) had an income of between K500, 000 - K1, 500,000 per month.

SECTION B

KNOWLEDGE OF HIV AND AIDS

FIGURE 3: SOURCE OF INFORMATION ON HIV AND AIDS (n = 70)

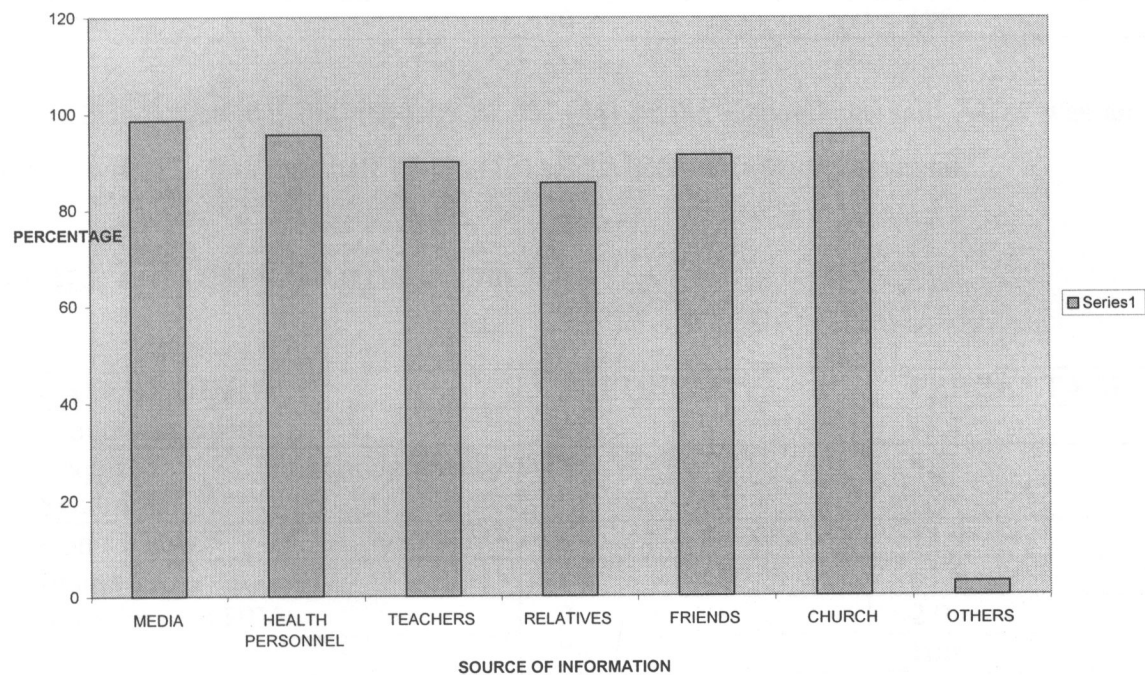


Figure 3 shows that the commonest source of information on HIV and AIDS was the media which was mentioned by 98.6% (69) of the respondents and the least common were other sources such as books and HIV and anti-aids club mentioned by 2.9% (2) of the respondents.

TABLE 3: MEANING OF AIDS (n = 70)

MEANING OF AIDS	FREQUENCY	PERCENTAGE
A microorganism	12	17.1
Acquired Immunodeficiency Syndrome	3	4.3
Illness	44	62.9
Sex with man HIV +	2	2.9
Don't Know	9	12.9
Total	70	100

Table 3 indicates that the majority 62.9% (44) of the respondents said AIDS was an illness where as less than half 17.1% (12) said AIDS was a microorganism.

TABLE 4: CAUSES OF HIV (n = 70)

CAUSES OF HIV	FREQUENCY	PERCENTAGE
A microorganism	12	17.1
Acquired Immunodeficiency Syndrome	3	4.3
Don't Know	9	12.9
Illness	44	62.9
Sex with man HIV+	2	2.9
Total	70	100

Table 4 shows that the majority 62.9% (44) of the respondents said that the cause of HIV was an illness where as 17.1% (12) said it was a microorganism.

TABLE 5: TRANSMISSION OF HIV AND AIDS (n = 70)

TRANSMISSION	FREQUENCY	PERCENTAGE
Sexual intercourse	69	98.6
Infected blood products	68	97.1
Unsafe injection practices	66	94.3
Breast milk to babies	57	81.4
Sharing contaminated razor blades and needles	66	94.3

*Multiple responses- the total does not add up to 70

Table 5 shows that the majority 98.6% (69) of the respondents indicated that sexual intercourse was the commonest route of transmission of HIV and AIDS while the least mentioned 81.4 % (57) was via breast milk.

TABLE 6: WAYS OF AVOIDING HIV AND AIDS (n = 70)

AVOIDING HIV AND AIDS	FREQUENCY	PERCENTAGE
Abstinence	65	97.0
Being faithful to one sexual partner	64	95.5
Using condoms consistently and correctly	39	58.2
Avoiding sex with minors	62	92.5
Avoiding dry sex	27	40.3
Avoiding sexual cleansing	66	98.5

*Multiple responses – the total does not add up to 70

According to table 6, most 98.5% (66) of the respondents interviewed reported that avoiding sexual cleansing was able to help avoid contracting HIV and AIDS where as the least method mentioned was avoidance of dry sex 40.3% (27).

TABLE 7: HIV TRANSMISSION FROM MOTHER TO CHILD (n = 70)

TRANSMISSION	FREQUENCY	PERCENTAGE
During pregnancy	36	55.4
During labor and delivery	46	70.8
During breastfeeding	60	92.3
All the above	28	43.1
None of the above	2	3.1
Don't Know	3	4.5

*Multiple responses total does not add up to 70

Table 7 shows that the majority 92.3% (60) of the respondents said HIV can be transmitted from mother to child during breastfeeding whereas only about half 55.4% (36) said HIV can be transmitted during pregnancy.

FIGURE 4: KNOWN COMMON SEXUALLY TRANSMITTED INFECTIONS
(n = 70)

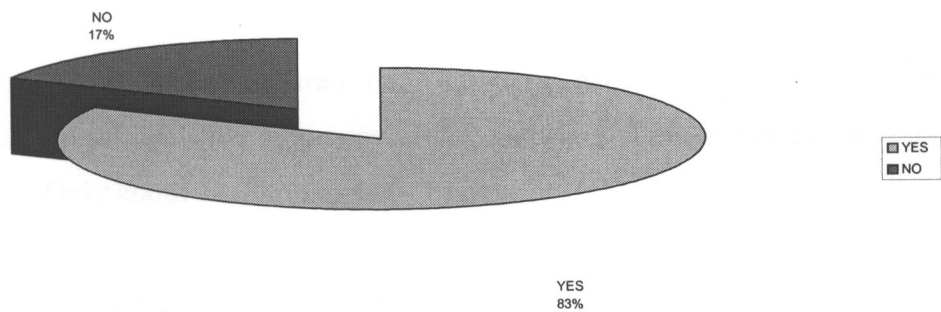


Figure 4 shows that most 82.9% (58) of the respondents knew of common sexually transmitted infections where as only 17.1% (12) did not know of any.

TABLE 8: KNOWING IF A SEXUALLY TRANSMITTED INFECTION (STI) INCREASES THE RISK OF HIV (n = 63)

STI INCREASES RISK OF HIV	FREQUENCY	PERCENTAGE
Yes	25	39.7
No	38	60.3
Total	63	100

Sixty three (63) respondents answered this question. Table 8 shows that the majority 60.3% (38) of the respondents said that the presence of a sexually transmitted infection does not increase the risk of HIV where as only less than half 39.7% (25) said it did.

TABLE 9: KNOWLEDGE OF CULTURAL BELIEFS WHICH CAN LEAD TO THE SPREAD OF HIV (n = 68)

KNOW CULTURAL BELIEFS	FREQUENCY	PERCENTAGE
Yes	10	14.7
No	58	85.3
Total	68	100

Sixty eight (68) respondents answered this question. Most 85.3% (58) of the respondents interviewed displayed ignorance of any cultural beliefs which can lead to the spread of HIV. Only about 14.7% (10) knew of any.

FIGURE 5: LEVEL OF KNOWLEDGE OF HIV (n = 70)

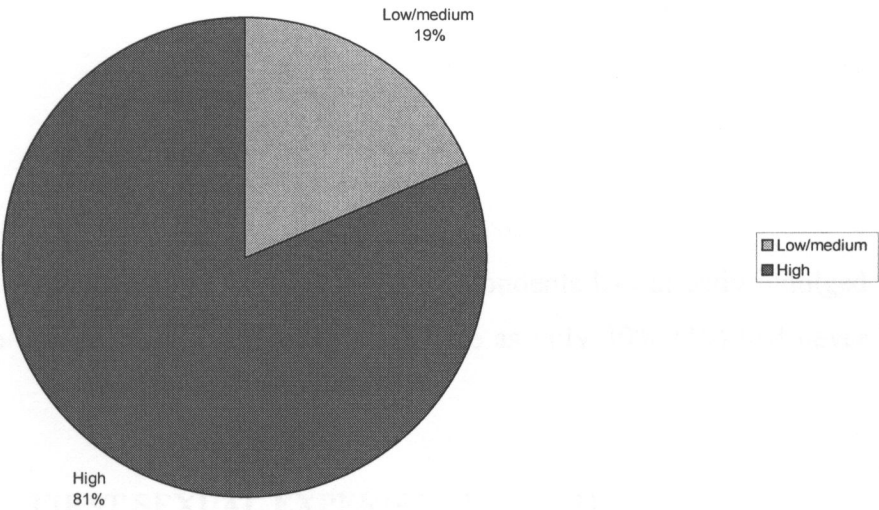


Figure 5 shows that the majority 81% (57) of the respondents had high knowledge of HIV with only 19% (13) that had low or medium levels.

SECTION C

SEXUAL BEHAVIOR

FIGURE 6: EVER HAD SEX BEFORE (n = 70)

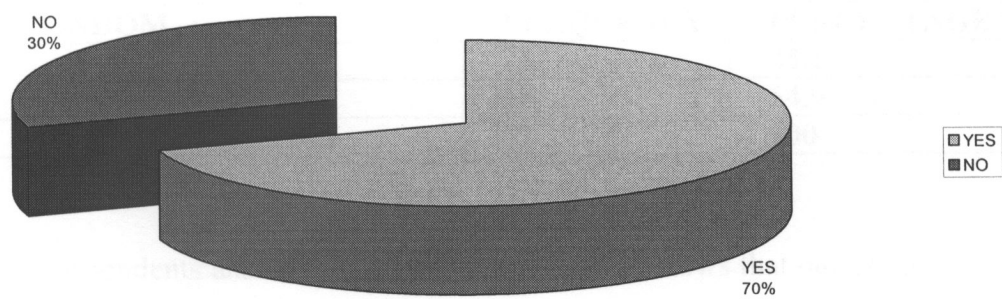


Figure 6 indicates that the majority 70% (51) of the respondents had already indulged in sexual intercourse by the time of the interview where as only 30% (19) had never had sex.

TABLE 10: AGE AT FIRST SEXUAL EXPERIENCE (n = 51)

AGE	FREQUENCY	PERCENTAGE
Less than 10 years	1	2.0
10-14 years	5	9.8
15-19 years	40	78.4
20-24 years	5	9.8
Total	51	100

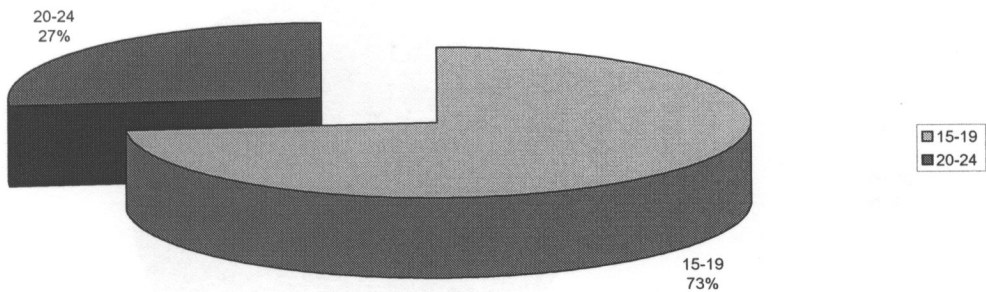
Fifty one (51) respondents answered this question as 19 of the respondents had never had sex before at the time of the interview. The table above shows that more than half 78.4% (40) of the respondents had sex for the first time when they were aged between 15-19 years, where as 9.8% (5) had sex for the first time when they were aged between 10-14 years and between 20-24 years.

TABLE 11: EVER USED A CONDOM DURING SEXUAL INTERCOURSE (n = 51)

USED A CONDOM	FREQUENCY	PERCENTAGE
Yes	23	45.1
No	28	54.9
Total	51	100

Fifty one (51) respondents answered this question. Table 11 shows that out of all those who had sexual experience, 54.9% (28) had never used a condom where as almost half 45.1% (23) had used a condom before during intercourse.

FIGURE 7: AGE AT FIRST MARRIAGE (n = 36)



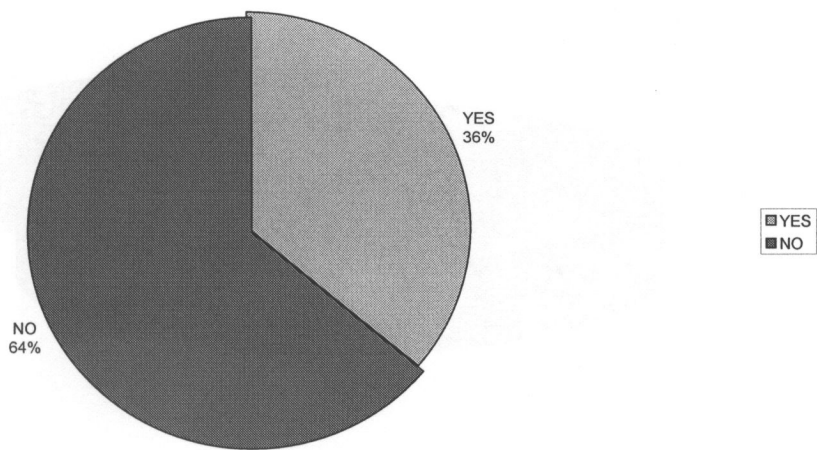
Thirty six (36) respondents answered this question. According to figure 7, the majority of the respondents who were married 73.5% (25) did so when they were aged between 15-19 years where as only 26.5% (9) got married between the ages 20-24 years.

TABLE 12: SINGLE WOMEN WITH REGULAR SEXUAL PARTNERS (n = 17)

REGULAR SEXUAL PARTNERS	FREQUENCY	PERCENTAGE
Yes	11	64.7
No	6	35.3
Total	17	100

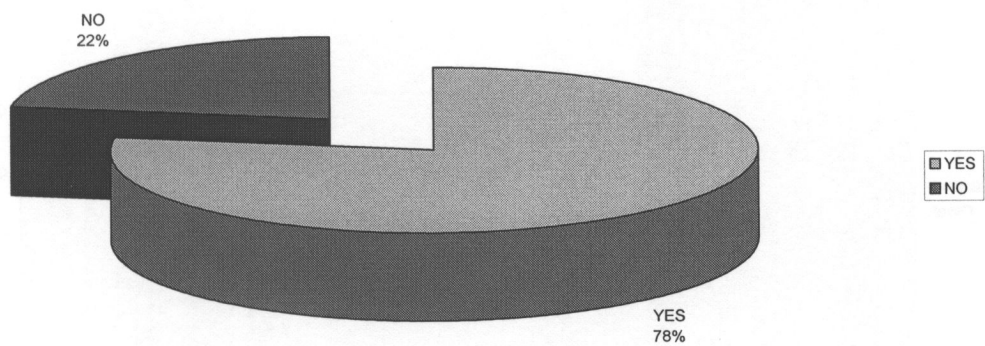
Seventeen (17) respondents answered this question. The above table shows that out of the single women, more than half 64.7% (11) had regular sexual partners whereas 35.3% (6) did not have regular sexual partners.

FIGURE 8: USE OF A CONDOM WITH A REGULAR SEXUAL PARTNER (n = 50)



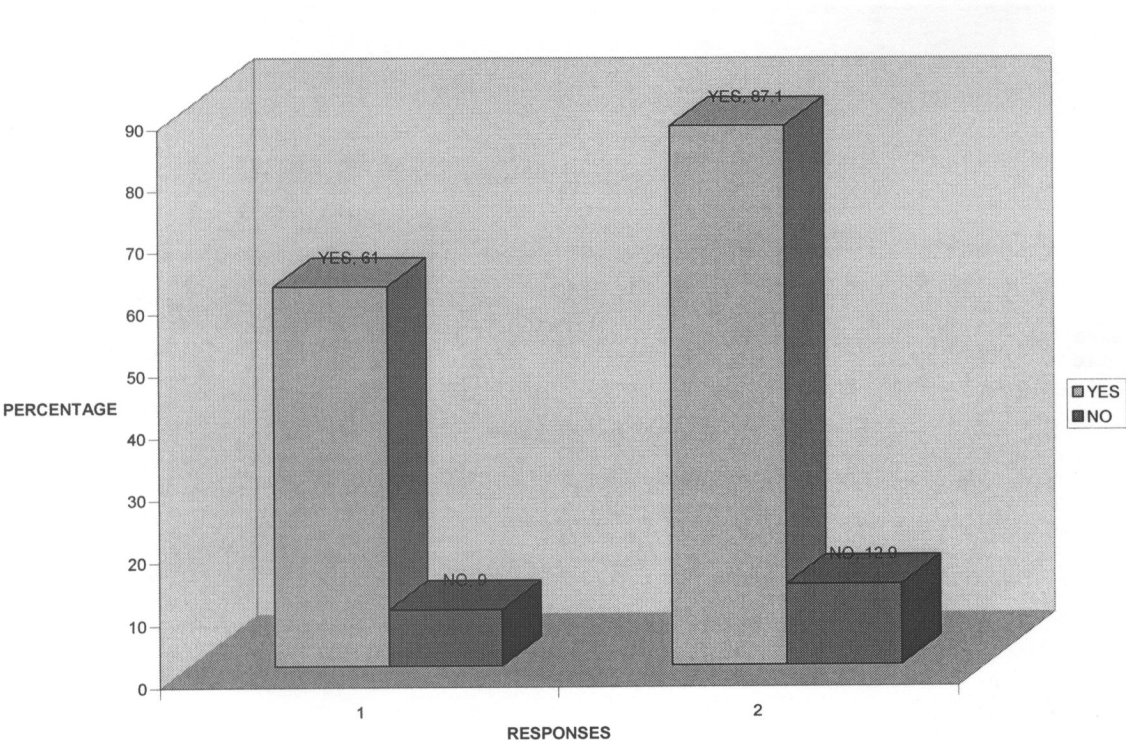
Fifty respondents answered this question. Figure 8 shows that the majority 64% (32) of the respondents did not use a condom the last time they had sex with a regular sexual partner where as only 36% (18) of them had used a condom.

FIGURE 9: EVER BEEN FORCED TO HAVE SEX (n = 54)



Fifty four (54) percent of the respondents answered this question. Figure 9 shows that the majority 77.8% (42) of the respondents had been forced to have sex in their lifetime in comparison to 22.2% (12) who had never been forced before.

FIGURE 10: UNPROTECTED SEX CARRIES A RISK OF HIV/AIDS (n = 70)



According to figure 10 above, most 87.1% (61) of the respondents said that unprotected sex carries a risk of HIV and AIDS where as only a few 12.9% (9) said it did not.

FIGURE 11: YOUNG WOMEN AT RISK OF HIV AND AIDS (n = 70)

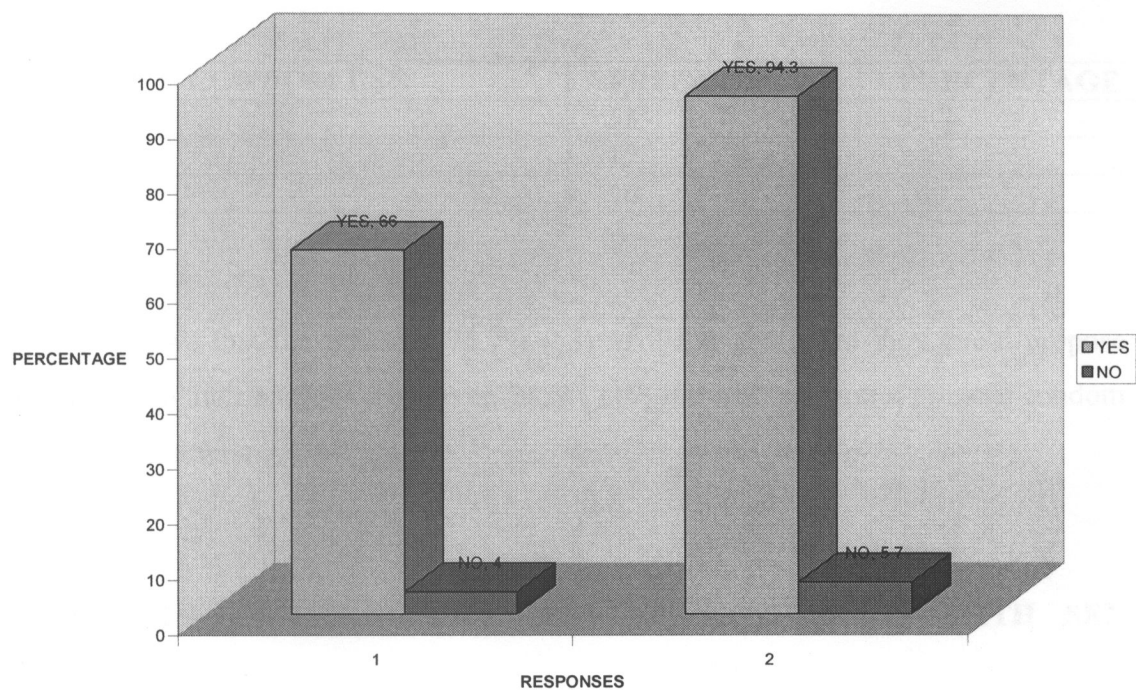


Figure 11 above shows that the majority 94.3% (66) of the respondents believed that young women were at risk of HIV and AIDS, 5.7% (4) felt that young women were not at risk.

TABLE 13: CONDOM NECESSARY IN THE PREVENTION OF HIV AND AIDS TRANSMISSION (n = 70)

CONDOM NECESSARY	FREQUENCY	PERCENTAGE
Yes	47	67.1
No	23	32.9
Total	70	100

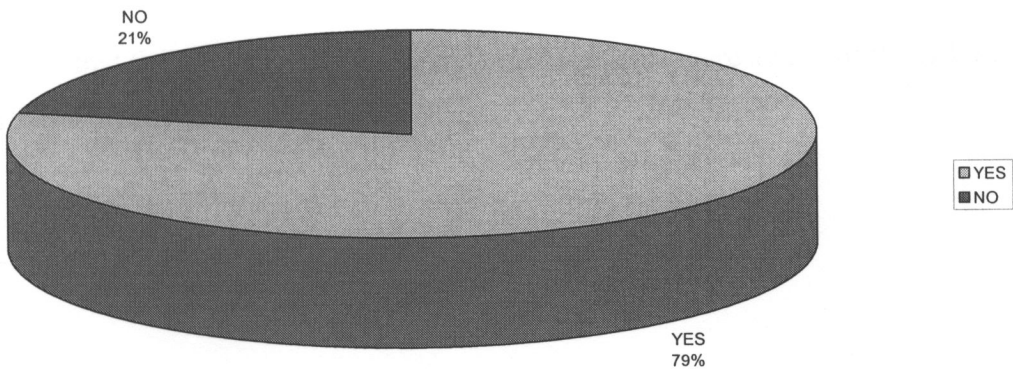
Table 13 shows that more than half 67.1% (47) of the respondents interviewed said condoms were necessary in the prevention of HIV and AIDS transmission where as less than half 32.8 % (23) said condoms were not necessary.

TABLE 14: WOMEN PROPOSE CONDOM USE TO THEIR PARTNERS (n = 70)

PROPOSE CONDOM USE	FREQUENCY	PERCENTAGE
Yes	53	75.7
No	17	24.3
Total	70	100

Table 14 shows that the majority 75.7% (53) of the women said they could propose condom use to their partners. However, 24.3% (17) felt women cannot propose condom use to their partners.

FIGURE 12: DISCUSSING SEX MATTERS/PROTECTION WITH SEX PARTNER (n = 51)



Fifty one (51) respondents answered this question. Figure 12 shows that most 80.4% (41) of the respondents discussed sex matters with their sexual partners where as only 19.6% (10) of them did not.

TABLE 15: OVERALL SEXUAL BEHAVIOR (n = 70)

SEXUAL BEHAVIOR	FREQUENCY	PERCENTAGE
Safer sex	36	51.4
Risky sex	34	48.6
Total	70	100

Table 15 shows that slightly more than half 51.4 %(36) of the respondents practiced safer sex whilst slightly less than half 48.6% (34) of the respondents practiced risky sex.

TABLE 16: OVERALL RISK AWARENESS (n = 70)

RISK AWARENESS	FREQUENCY	PERCENTAGE
Aware	63	90
Not aware	7	10
Total	70	100

Table 16 shows that the majority 90 %(63) of the respondents were aware of the risk of HIV and AIDS whereas 10 %(7) were not aware.

TABLE 17: ASSOCIATIONS BETWEEN DEMOGRAPHIC CHARACTERISTICS AND RISK AWARENESS (n = 70)

AGE	RISK AWARENESS		TOTAL	P VALUE
	AWARE	NOT AWARE		
15-19 years	26 (92.8%)	2 (7.1%)	28 (100%)	0.694
20-24 years	37 (88.1%)	5 (11.9%)	42 (100%)	
MARITAL STATUS				
Single	32 (94.1%)	2 (5.9%)	34 (100%)	0.429
Married or separated	31 (86.1%)	5 (13.9%)	36 (100%)	
LEVEL OF EDUCATION				
None or primary	33 (84.6%)	6 (15.4%)	39 (100%)	0.123
Secondary or college	30 (96.8%)	1 (3.2%)	31 (100%)	
ECONOMIC STATUS				
Below K500	48 (87.3%)	7 (12.7%)	55 (100%)	0.332
Between K500,000-K1, 500,000	15 (100%)	0 (0%)	15 (100%)	
Total	63 (90%)	7 (10%)	70 (100%)	

Table 17 shows associations between socio-demographic characteristics and respondents’ risk awareness. None of these factors was significant.

TABLE 18: ASSOCIATIONS BETWEEN LEVEL OF KNOWLEDGE AND SEXUAL BEHAVIOR WITH RISK AWARENESS (n = 70)

LEVEL OF KNOWLEDGE	RISK AWARENESS		TOTAL	P VALUE
	AWARE	NOT AWARE		
Low or medium	8 (61.5%)	5 (38.5%)	13 (100%)	0.001
High	55 (96.5%)	2 (3.5%)	57 (100%)	
SEXUAL BEHAVIOR				
Safer sex	34 (94.4%)	2 (5.6%)	13 (100%)	0.253
Risky sex	29 (85.3%)	5 (14.7%)	57 (100%)	
Total	63 (90%)	7 (10%)	70 (100%)	

Table 18 shows associations of level of knowledge and sexual behavior with the outcome of respondent’s risk awareness. Of the factors, only level of knowledge was significantly associated with the outcome of risk awareness. Significantly, more respondents with high knowledge (96.5%) were aware of the risk of HIV and AIDS than those with low or medium knowledge (61.5%) (P value = 0.001). Respondents who had low or medium knowledge were 76% (OR = 0.24; 95% CI: 0.10, 0.59) less likely to be aware of the risk of HIV and AIDS compared to respondents who had high knowledge.

TABLE 19: ASSOCIATIONS BETWEEN DEMOGRAPHIC CHARACTERISTICS AND LEVEL OF KNOWLEDGE WITH SEXUAL BEHAVIOR (n = 70)

AGE	SEXUAL BEHAVIOR		TOTAL	P VALUE
	SAFER SEX	RISKY SEX		
15-19 years	17 (60.7%)	11 (39.3%)	28 (100%)	0.305
20-24 years	19 (45.2%)	23 (54.8%)	42 (100%)	
MARITAL STATUS				
Single	23 (67.6%)	11 (32.4%)	34 (100%)	0.016
Married or Separated	13 (36.1%)	23 (63.9%)	36 (100%)	
LEVEL OF EDUCATION				
None or primary	18 (46.2%)	21 (53.8%)	39 (100%)	0.453
Secondary or college	18 (58.1%)	13 (41.9%)	31 (100%)	
ECONOMIC STATUS				
Below K500,000	28 (50.9%)	27 (49.1%)	55 (100%)	0.900
Between K500,000-K1,500,000	8 (53.3%)	7 (46.7%)	15 (100%)	
LEVEL OF KNOWLEDGE				
Low or medium	3 (23.1%)	10 (76.9%)	13 (100%)	0.050
High	33 (57.9%)	24 (42.1%)	57 (100%)	
Total	36 (51.4%)	34 (48.6%)	70 (100%)	

Table 19 shows associations between socio-demographic characteristics of the respondents and the level of knowledge of HIV and AIDS on one hand and sexual behavior on the other. Two of the factors significantly associated with sexual behavior were marital status and level of knowledge. Respondents who were single were 92% (OR= 1.92; 95% CI: 1.17, 3.15) (P value 0.050) more likely to practice safer sex than respondents who were married or separated, compared to respondents who had low or medium knowledge were 53% (OR= 0.47; 95% CI: 0.23, 0.94) less likely to practice safer sex.

**TABLE 20: ASSOCIATIONS BETWEEN DEMOGRAPHIC DATA AND
LEVEL OF KNOWLEDGE (n = 70)**

AGE	LEVEL OF KNOWLEDGE		TOTAL	P VALUE
	LOW/MEDIUM	HIGH		
15-19 years	3 (10.7%)	25 (89.3%)	28 (100%)	0.286
20-24 years	10 (23.8%)	32 (76.2%)	42 (100%)	
MARITAL STATUS				
Single	5 (14.7%)	29 (85.3%)	34 (100%)	0.616
Married or separated	8 (22.2%)	28 (77.8%)	36 (100%)	
LEVEL OF EDUCATION				
None or primary	11 (28.2%)	28 (71.8%)	39 (100%)	0.043
Secondary or college	2 (6.5%)	29 (93.5%)	31 (100%)	
ECONOMIC STATUS				
Below K500,000	11 (20.8%)	44 (80%)	55 (100%)	0.719
Between K500,000-K1, 500,000	2 (13.3%)	13 (86.7%)	15 (100%)	
TOTAL	13 (18.6%)	57 (81.4%)	70 (100%)	

Table 20 shows associations between demographic characteristics and level of knowledge. Out of these factors, only education was significantly associated with the outcome of knowledge. Respondents who had none or primary level of education were 58% (OR = 0.42; 95% CI: 0.19, 0.93) (P value = 0.043) less likely to have low or medium level of knowledge of HIV and AIDS.

4.4 FOCUS GROUP DISCUSSION

4.4.1 DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

All the participants were from Kawama, a high density compound, which is situated in Mufulira urban. They were divided into two groups which comprised of seven (7) females.

The first group had young girls aged 15-19 years who were unmarried and none of them had children. Four of these were school going, three at secondary education level, one at primary school level, while the other three were grade seven (7) drop outs. They were all Christians and their parents were not in formal employment. In the 20-24 year age group, all the women were married. Amongst them, only two had gone up to grade nine, while the rest had gone up to primary school and were all Christians and they all had children. All the participants were from a low-socio-economic status.

The three major themes identified during data analysis were:

- HIV and AIDS knowledge
- HIV and AIDS Risk Awareness
- Sexual Behavior.

4.4.2 HIV AND AIDS KNOWLEDGE

The participants were asked what HIV is and most of them said it was an illness and others said it was a microorganism. Some said it was an illness caused by a microorganism. This is evidenced by the following responses from these participants:

Participant 1 (age group 15-19) said *“HIV is an illness caused by a microorganism”*. Participant 2 said *“HIV kashishi”* (meaning it is a microorganism/virus), participant 3 said *“even me I know that it is a microorganism/virus”*. In the 20-24 year age group, the participants gave similar answers. Three of the participants said *“it is an illness caused by a microorganism/virus”*, and another three said *“it is an illness”*.

When asked how the HIV virus causes AIDS, the following were the responses:

- By promiscuity – for example one of the participants in the 15-19 year age group said “**ubulalelale**” (meaning promiscuity) “*thereafter it lays eggs*”. Another one in the 20-24 year age group said “**ukutemwa ubulalelale**” (meaning by promiscuity).
- Through sexual intercourse as one participant in the 20-24 year age group said “*if you have sex with a man whom you don’t know whether they are infected with HIV or not, you can be infected*”.
- Lack of use of condoms- one participant in the 20-24 year age group said “*by promiscuity and also if you are not using a condom you can be infected*”.
- Use of contaminated razor blades as explained by one participant in the 20-24 year age group who said “*when you use the same razor blades with others you can be infected, for example you buy a razor blade and cut yourself then another person cuts him/herself a few minutes later then one can be infected*”.
- Use of contaminated needles as a participant in the 15-19 year age group said “*if you use a contaminated needle, i.e. if you are injected with the same needle with one who is HIV positive then you can be infected*”.
- Use of contaminated knives – as one participant in the 15-19 year age group said “*you can get it through promiscuity, or by using a razor blade for cutting nails used by someone who is HIV positive even through a knife, if someone who is HIV positive was using it to cut vegetables you can be infected by HIV*”.
- Through mixing of blood of accident victims as one participant in the 20-24 year age group said “*sometimes you can be involved in an accident and if there is mixing of blood, it can lead to HIV*”.
- Through clothes as mentioned by one participant in the 20-24 year age group who said “*even through clothes HIV can be transmitted for example if one has a sore and squeezes out pus onto the clothes*”.

Most of the participants gave similar answers on how the HIV virus causes AIDS as stated by this participant “**ukutemwa ubulalelale**” (meaning by promiscuity). When

asked how HIV and AIDS are transmitted one participant in the 20-24 year age group said *"there are many ways, for example you can have a sexual partner who is HIV positive unknowingly. After that you go to another man and transmit HIV. Your partner will also go to another woman"*. Another participant in the 15-19 year age group said *"the answers to this question are similar to the previous one; just like we have explained at first the answers are not different isn't it?"* (looking at the others who all agreed and said "yes"). She then started going through the previous answers *"through promiscuity"*, *"using contaminated razor blades and knives"*. One participant in the 15-19 year age group said. *"If you kiss a man who is infected with HIV and you also have a sore in the mouth then if blood mixes then you can be infected with HIV"*.

When asked what AIDS was, the participants in the 20-24 year age group said that AIDS was the same as HIV. This is evidenced by what one participant said *"the same answers as to what HIV is apply here also"*. The participants in the 15-19 year age group were asked the same question and they all answered in chorus *"bulwele"* (meaning it is an illness). One participant in the same age group said *"it is promiscuity."* When asked as to whether HIV was an illness just like malaria, the majority agreed. However, one participant said *"it is not like malaria. At least when you have malaria you can be given treatment but AIDS is incurable"*.

With regards to how HIV and AIDS could be avoided, the participants gave the following responses:

- One participant in the 15-19 year age group said *"us girls of nowadays tatuleumfwa* (meaning we are promiscuous). *You can have a boyfriend without you knowing he is infected with HIV then he suggests that you do something with him* (meaning having sex). *That way you can be infected"*.
- Another participant in the 15-19 year age group said *"by not picking razor blades on the way for use"*.
- One participant in the 20-24 year group said *"you avoid promiscuity"*.

The other responses given were:

- Avoiding use of the same knife with someone who is infected

- Avoiding kisses
- Avoiding sex with an infected person
- Avoiding having a lot of boyfriends
- Condom use
- One participant in the 20-24 year age group stated that *“going for a blood test to test for HIV can be helpful so that you know your HIV status so that if one of you is infected then you use maximum”* (meaning condoms). Another participant in the 15-19 year age group said *“if a man wants to marry you, you can both go for a blood test (HIV test) so that you know your status because you can’t know maybe the other partner may be sick (maybe infected with HIV) or even yourself so a blood test can be helpful before you get married. Even if you don’t marry and want to have a sexual relationship, you can inform your partner your HIV status”*.
- One participant in the 20-24 year age group said *“going for a blood test is good (meaning an HIV test) because if they find you to be HIV positive then you can be put on treatment so that you are protected after they put you on RVs”* (meaning Anti-Retroviral drugs).

Cultural beliefs identified by the participants which could lead to the spread of HIV were: one participant of the age group 15-19, said *“the Shonas (of Zimbabwe) believe that if they dream of someone then that one becomes their life partner (i.e. they marry) even if that person is married. Nangu bafyashi bakwe ifyo fine kuupa”* (even if it is the parent one dreams about they will marry). Another participant in the same age group said *“some people say since I am HIV infected I don’t want to die alone so I will spread it to others so that we die in big numbers”*. Some participants said they did not know any beliefs as indicated by this respondent in the 20-24 year age group who said *“no there are no such cultural beliefs”*.

4.4.3 HIV AND AIDS RISK AWARENESS

Some participants felt they were not at risk of HIV and AIDS as reported by one participant in the 19-24 year age group *“we cannot be sick.”* Another participant said *“you cannot catch HIV and AIDS if you “take care of yourself”*. However, others said young women were at risk. One woman in the 20-24 year age group said *“**tafishibikwa kuti walwala**”* (one cannot tell, anyone can acquire HIV). Another participant in the same age group said *“you can be sick without knowing. For you to know it is better you go for an HIV test. After the test, that’s when you can know your status”*. Another participant in the 19-24 year age group said *“even us young ones we can be sick because you cannot know maybe when your parents got married they had HIV so they can transmit it to you”*.

With regards to how they could protect themselves from HIV, the women gave the following responses:

- *“**Kuisunga**”* (meaning you have to stay away from men), *“one should be afraid of HIV because you never know a man can come and say to you that you give him a bit of attention (sex) then you can end up being infected. It is only God who knows what follows next in your life”*. This was stated by one participant in the age group 15-19 years.
- *“For me I feel if you have a boyfriend it is better you go for a blood test (HIV test). You tell him that you want to know his status before you have sex with him. If he refuses you also refuse to have sex with him. If he is HIV positive you can even tell him “so you wanted to destroy my life”. It is also good to fear men even one who is fat may come and want to marry you; you never know he might have HIV. So it is important for us to have fear of the illness”* (HIV). This was reported by one participant in the age group 15-19 years.
- One participant in the 20-24 year age group said *“you can protect yourself by going for an HIV test. If you are told to do so every 3 months you do just that. Otherwise it is difficult to suggest condom use when there is no problem existing because your husband cannot agree”*.

- Another participant in the 20-24 year age group said *“I think we can protect ourselves by undergoing HIV counselling and have our blood tested to know the HIV status. If you are HIV positive, then you will be taught what to do such as taking RVs (meaning ARVs) and protection from reinfection”*.

4.4.4 SEXUAL BEHAVIOR

When asked whether they have had sexual intercourse before, all the participants in the 15-19 year age group said they had never indulged in sexual intercourse before with their boyfriends as stated by this participant, *“no I have never had sex with my boyfriend before, I refuse”*. Another one in the same age group said *“they (referring to men) propose love to me but I refuse. I want to learn and prepare for my future”*. All the participants in the 20-24 year age group said that they had indulged in sexual intercourse. The mean age at sex initiation was 18.7 years for those who had indulged in sexual intercourse. One participant said she could not remember the age. Out of all the respondents who had indulged in sexual intercourse, none of them had used a condom before. However, all the participants said that they only had one sexual partner.

When asked if they would initiate condom use with their partners, some of the women were not for the idea as indicated by this woman in the 20-24 year age group. *“It would seem as though I don’t trust him”*. Another participant in the same age group said *“he would think you suspect him of being infected with HIV.”* Another woman in the same age group said *“he can’t even agree”*. One participant in the 20-24 year age group said she could as cited *“yes, I can encourage him to use a condom”*. Another one in the 15-19 year age group said *“kumweba”* (meaning I can tell him to use a condom).

However, some participants had misconceptions about condom use as one of them in the 20-24 year age group said *“a condom is bad, I am told it rubs against you”*. Others in the 15-19 year age group said:

- *“It can burst during sexual intercourse”*

- *“If a condom bursts in the vagina you can never have a child”*
- *“I hear a condom also has a problem because it makes the vagina become bigger after sexual intercourse so I don’t think it is wise to use it”.*
- *“If you use it often your vagina gets bigger and you cannot have the normal sexual sensations during intercourse”.*

4.4.5 SUGGESTIONS FOR IMPROVEMENT

The participants felt the problem of HIV and AIDS could be minimized if people could avoid having multiple sexual partners. They also suggested that people should go for HIV tests so as to know their HIV status then if HIV positive, use condoms during sexual intercourse. Others felt that Anti-Retroviral Drugs should not be utilized because they make people infected with HIV to live longer thus spreading the disease.

The participants also felt that health personnel, volunteers like Community Health Workers and Traditional Birth Attendants should hold awareness campaigns and teach the members of the community on dangers of HIV.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 INTRODUCTION

The main objective of the study was to determine HIV and AIDS awareness and risk sexual behavior among young women and factors that influence risky sexual behavior among 15-24 year old young women in Mufulira urban. Data were collected using an interview schedule and two focus group discussions.

5.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

The socio-demographic characteristics of the study population are shown in table 2. Most (60%) of the respondents interviewed were within the age group 20-24 years and 40% were in the age group 15-19 years. The explanation for this finding could be that most of the young women aged 15-19 years could have been at school at the time of data collection as data were collected during school days and only once over the weekend. Women aged between 20-24 years were available at home as most of them were housewives and not in formal employment.

Slightly more than half (51.4%) of the respondents in the study were married or separated whilst 48.6% were single. Respondents who were on separation were also regarded as married. The explanation of the findings above could be that early marriages are likely to have occurred in this study population as most of the respondents had primary education or never been to school. The above assumption agrees with the Gender in Development Division (2006), which states that in Zambia marriages occur relatively early with 70 percent of young women getting married by the age of 20 years.

All the members of the study population were Christians. This could be due to the fact that Zambia is a Christian nation and so most of the people are Christians.

Most (55.7%) of the respondents had either primary education or never been to school where as 44.3% had attained either secondary or college education. The above finding is higher than that of the 2001-2002 Zambia Demographic and Health Survey which shows that only 41.6% of the total population of the age group 15-19 years had some primary education and 29.2% had secondary education, whereas in the age group 20-24 years, 34.4% had some primary education and 23.5% had some secondary education (CSO, 2003). The difference could be due to the fact that people are increasingly becoming aware of the importance of education now than before.

The National HIV/AIDS/STI/TB Council (2004) states that inequality and power imbalances between women and girls and men and boys in the Zambian society heighten the vulnerability of females to infection for example in sexual relations, women are usually taught not to refuse sex to their husbands, regardless of whether the husband has other partners or is unwilling to use condoms. The National HIV/AIDS/STI/TB Council further states that because of their low social and economic status, women and girls have more limited access to HIV and AIDS related information, prevention, treatment, care, support, commodities and services than men and boys. The majority (41.4%) of the respondents in this study were housewives, 28.6% were unemployed and 18.6% were students. Only 10% were self employed and 1.4% were in formal employment. This finding agrees with the 2000 census which shows that youth unemployment is still high in Zambia with 23 and 21 percent of youths aged between 15-19 and 20-24 years being unemployed (CSO, 2003). Poverty is likely to make women more vulnerable to HIV and AIDS infection.

According to the Report on the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS, underdevelopment, economic insecurity and poverty make women vulnerable to HIV infection (United Nations General Assembly Special Session, 2001). Most (78.6%) of the respondents had a household income of below

K500, 000 while the rest (21.4%) had a household income of between K500, 000 – K1, 500,000. This shows that the majority of the respondents lived in poverty. The above finding is in line with the International Monetary Fund (IMF) programs and Health Expenditures Background paper which states that Zambia remains a country with widespread poverty and weak health outcomes (Goldsbrough and Cheelo, 2007). When poverty levels in the country increase, this predisposes young women to unprotected sex due to desperation.

5.3 KNOWLEDGE OF HIV AND AIDS

The study findings show that all the respondents interviewed had heard about HIV and AIDS with the media being the commonest source of information (98.6%, figure 3). This finding supports the Zambia Demographic and Health Survey Preliminary Report (2007) which says that almost all (99%) respondents in Zambia have heard about HIV and AIDS, with the media being the commonest source of information. The Zambia Sexual Behavior Survey (2005) reported that 96.7% of the females aged 15-24 had heard about HIV and AIDS. Similarly, Macwan'gi and others (1994) conducted a study in Kaoma rural and Ndola urban and found that 93% of the women in the sample had heard about AIDS. This shows an increase in HIV and AIDS knowledge over the years. Behavior Change Communication messages are often delivered through the mass media as reported by the National HIV/AIDS/STI/TB Council (2004).

Despite all the respondents having heard about HIV and AIDS, the study revealed that some of them did not know the differences between HIV and AIDS. For example one participant in the focus group said *"HIV is an illness caused by a microorganism"* while another one said *"HIV is an illness"*. However, some participants stated that *"HIV is a virus"*. When asked what AIDS is, some participants said *"AIDS is the same as HIV"*. Even when asked how HIV causes AIDS, the participants didn't know.

Knowledge of transmission of HIV and AIDS was good as most (98.6%) of the respondents recognized sexual intercourse as the commonest route of transmission

whilst the least recognized mode of transmission was via breast milk (81.4%, Table 5). The knowledge of transmission of HIV and AIDS was higher than that of the National HIV/AIDS/STI/TB Council (2004) which reported that sexual contact accounts for 78% of the HIV transmission mechanisms. In Zambia, breast feeding is regarded as the most culturally acceptable method of infant feeding. When women do not realize the danger of transmitting the HIV and AIDS virus via breast milk they are unlikely to take precautions against transmission of HIV and AIDS through breast milk. Furthermore, the Zambia Sexual Behavior Survey (2005) showed that HIV transmission in Zambia is primarily through heterosexual contact, followed by perinatal transmission in which the mother passes the HIV virus to the child during pregnancy, during labor and delivery or through breastfeeding.

Knowledge on transmission of HIV and AIDS was good as indicated above, however further questioning in the focus group discussion revealed some gaps in knowledge as participants were unable to mention other common modes of HIV transmission such as mother to child transmission and blood transfusion. The biasness was towards heterosexual contact as one respondent said HIV was promiscuity. One participant said *"kissing someone who is infected when there is a sore in the mouth is a possible way of acquiring HIV and AIDS"*. This shows that the participants know that the HIV virus is mainly found in body fluids especially blood.

Knowledge on ways of avoiding HIV and AIDS is important as this can help in behavioral change. When asked how HIV and AIDS can be avoided, 97% of the respondents stated that HIV and AIDS can be avoided by observing abstinence and 95.5% mentioned faithfulness to one's sexual partner. Despite the existing knowledge, only 58.2% of the women said that using condoms consistently and correctly could help to avoid HIV and AIDS (table 6). In the focus group discussion, none of the participants who had had sex before ever used a condom. This is evidenced by this participant who said *"no I have never used it before."* These findings do not agree with those of Khan and his colleagues (UNAIDS, 2004) which state that in Moldova, Ukraine and Uzbekistan more than 80% of young women lacked knowledge on the

three HIV prevention methods (abstinence, being faithful to one partner and usage of condoms). Condom use is an important aspect in the prevention of HIV and AIDS transmission, for example UNICEF, UNAIDS and WHO (2002) reported that after a campaign on promoting '100 percent condom use' in brothels in Thailand, young men increased their condom use from 60 percent to nearly 95 percent. The net result was a drop in the percentage of young men infected with HIV from 8 percent in 1992 to less than 3 percent by 1997.

However, abstinence and faithfulness to one sexual partner respectively are the most important ways of preventing transmission of HIV and AIDS. This is evidenced by a study conducted by Marindo and his colleagues on condom use and abstinence among unmarried young people in Zimbabwe aged 14-20 years which revealed that condom use was unpopular among the surveyed, partly because of their perceptions of how church leaders, their traditional culture, and their parents view the method (Marindo, Pearson and Casterline, 2003). All the participants in the 15-19 year age group focus discussion said they were abstaining from sex. One participant further stated that *"I do not want to indulge in sex as I want to prepare for my future"*.

The findings revealed that 98.5% of the respondents mentioned avoiding sexual cleansing as one of the ways of avoiding HIV and AIDS, 92.5% said avoiding sex with minors where as 40% mentioned avoiding dry sex. A study conducted by Hameenda (2004) to determine the parent's knowledge and practices of cultural practices that may contribute to HIV and AIDS transmission in Monze also revealed that majority (98%) of the respondents were opposed to sexual cleansing as they feared contracting HIV especially if the deceased died of HIV infection. Knowledge on harmful cultural sexual practices is essential in order to reduce the transmission of HIV and AIDS. CSO/MoH (2002) says that harmful sexual practices such as polygamy and dry sex are commonly practiced in Zambia.

The analysis of findings indicates a high level of knowledge of common sexually transmitted infections among the respondents interviewed (figure 4). Majority

(82.9%) of the respondents knew of common sexually transmitted infections and only 17.1% did not know. However, when asked as to whether a STI increases the risk of HIV, 60.3% said it didn't and 39.7% said it did (table 7). The National AIDS Council (2004) reported that STIs facilitate transmission of HIV. This means that if people are not aware of this fact, then they are at higher risk of contracting HIV as they do not realize the dangers of HIV and AIDS because this is incurable, unlike where there is a STI as it is curable without realizing the danger of untreated STIs.

Knowledge of cultural beliefs which can contribute to the spread of HIV was low. Most (80.9%) of the respondents interviewed displayed ignorance of any cultural beliefs which can contribute to the spread of HIV. Only about 14.7% knew of some. However this finding is higher than the one in a study done by Mayimbo (2005) to determine community's knowledge and perception towards prevention of mother to child transmission of HIV in Kabwe district where 48% of the sample did not know of any cultural beliefs that could contribute to the spread of HIV and AIDS. This could have been due to the fact that the sample predominantly comprised of youths who might be more aware of the modern ways of life in comparison to their culture. This is evidenced from the focus group discussions where the participants could not mention important cultural aspects such as sexual cleansing, widow inheritance or practicing dry sex as reflected in the following statement by one participant; *"no there are no such cultural beliefs"*.

The overall level of knowledge of HIV showed that the majority (81%) of the respondents had high knowledge of HIV and AIDS with only 19% that had low or medium levels (see figure 5). This finding is contrary to the one conducted in Lesotho by the Ministry of Health and Social Welfare which recorded low knowledge on HIV and AIDS where only 26% of women and 18% of men aged 15-24 years demonstrated comprehensive knowledge of HIV and AIDS (UNDP, 2004).

The level of education can have a positive or negative impact on HIV and AIDS. On average, girls who are better educated are less likely to be infected with HIV, more

likely to have smaller healthier families (James – Traore et al, 2002). In this study, 71.8% of the respondents who had none or primary levels of education were 58% (OR = 0.42; 95% CI: 0.19, 0.93) (P value = 0.043) less likely to have low or medium level of knowledge of HIV and AIDS thereby rejecting the null hypothesis which says there is no association between HIV and AIDS risk awareness and sexual behavior and the level of education. This finding is opposed to that of a study done in Luanda in 2001, where it was revealed that young women with secondary or higher education were five times as likely to know the main transmission routes than were young women with no formal education (UNAIDS/WHO, 2004). Increase in levels of knowledge may be attributed to massive campaigns by the media and other sources.

5.4 SEXUAL BEHAVIOR

This study has revealed that the majority (70%) of the respondents had already indulged in sexual intercourse by the time of the interview. Only 30% of the respondents had never had sex before (figure 6). When asked about their age at first sexual experience (table 10), the majority of the respondents (78.4%) said that they had their first sexual experience between the ages 15-19 years, 9.8% at 10-14 years and 20-24 years and 2% at less than 10 years of age. These findings are similar to that of the Centre for Disease Control's Youth Risk behavioral Survey which reported that many young people begin having sexual intercourse at an early age, for example 47% of high school students have had sexual intercourse, and 7.4% of them reported first sexual intercourse before age 13 (Centres for Disease Control and Prevention, 2006).

Furthermore, the Ministerio da Saule do Brasil in Brazil, (2005) reported that more young people are having sex at earlier ages and with more partners (WHO/UNAIDS, 2006). The report states that at least one in three (36%) Brazilians aged 15-24 said they were sexually active before their 15th birthday, and one in five said they had had sex with more than 10 partners so far in their lives. Another study done by UNFPA in Kyrgystan, in Central Asia revealed that the mean age at which young people had their first sexual experience was 14.5 years (UNFPA, 2005). The mean age of first sexual

experience for the focus group participants was 18.7 years which is slightly higher than the one in the study above. When young people have sex at early ages as these described above, it means that they are likely to be infected with HIV even at earlier stages of their life span.

With the advent of HIV and AIDS, condoms are predominantly promoted as a preventive measure for safe sex among individuals and couples (Chiboola, 2003). In this study, the finding showed that out of those who had sex, the majority (54.9%) had never used a condom before and 45.1% had used a condom (table 11). This finding is consistent with Chanda (2007) who found that 64% of the youths who had sex before did not use a condom on last sexual encounter and 8% used a condom on last sexual encounter. Additionally, in a study by Macwan'gi and others (1994) it was found that only 21% of the respondents reported ever use of condoms. In the same study, the main reason reported for ever using condoms was prevention of pregnancy (73%). The proportions of women who ever used condoms for purposes of preventing STIs and HIV infection were 38% and 22% respectively. Condom use might not be regarded as morally and culturally right by many young people. For example, in the focus group discussion, one woman said *"I cannot use a condom as it would seem as though I do not trust my husband"*. Another one said *"my partner would think I suspected him of being infected with HIV"*. One stated that *"a condom makes the vagina bigger"* and another one said *"if it bursts in the vagina then you will never have children again"*. However, studies have shown that when condom use is low, there is likelihood of HIV and AIDS transmission (Marindo, et al, 2003; Kowalenski et al, 2006).

Early marriages could have a negative impact on the fight against HIV and AIDS. This study has revealed that the majority (73.5%) of the respondents were married between 15-19 years and 26.5% got married between the ages 20-24 years (figure 7). Legislation against early marriages is one of the policies government has adopted to strengthen the existing legal framework, and ensure the safety of mothers and the unborn babies (MOH, 2005). Early marriages put women on a disadvantage to HIV and AIDS infection because their partners are usually older than them and are likely to

be infected by HIV. This view is supported by the Antenatal Clinic Sentinel Surveillance Report of 1994-2004 which stated that young women aged 15-19 and 20-24 years had partners who were older than them by ten or more years (MoH/CBoH, 2005). These women were more likely to be HIV infected than other women in the same age group.

When condoms are used correctly and consistently, they are a highly effective means of preventing the transmission of HIV and other STIs (National HIV/AIDS/STI/TB Council, 2004). This study revealed that single women with regular sexual partners (table 12) were more than half (64.7%) and 35.3% did not have regular sexual partners. The study also shows that 64% of the women did not use condoms with their partners during the last sex and 36% did. This finding is similar to that of Chanda (2007) which revealed that the majority (64%) of the respondents who have had sex before did not use a condom on last sexual encounter and 8% of the respondents did use a condom on last sexual encounter. The Zambia Sexual Behavior Survey (2005) findings on opinions of condom use among young people revealed that 33% of the respondents agreed that condoms are for use with regular partners, 48.4% disagreed and 18.3% said they didn't know. A very large majority (59.5%) of the respondents agreed with the statement that condoms promote promiscuity. Fieldman et al, (1997) revealed that peer-led interventions are effective in reducing the risk for HIV infection among adolescents. The study also showed that most of the male and female adolescents were sexually active, and very few routinely used condoms.

Lack of use of condoms put young women at risk of HIV infection. However, young women often lack the power to abstain from sex or to insist on condom use even when they suspect that the man has other sexual partners and might be infected with HIV (UNAIDS, 2004). In a Zambian study, for example, only 11% of women believed they had the right to ask their husbands to use a condom even if he had proven himself to be unfaithful and was HIV positive (UNAIDS, 2004).

It is increasingly becoming clear that in many communities sexual coercion has an important role in exposing (mainly) women to risk of HIV infection and is extremely important in determining the ability of women to control whether precautions are taken to avoid infection (UNAIDS, 1999). In this study, the majority (77.8%) of the respondents had been forced to have sex in their life time in comparison to 22.2% who had never been forced before (figure 9). A report from population-based studies worldwide stated that young women and girls are at greater risk of rape and sexual coercion because they are perceived to be more likely to be free from infection, or because of the erroneous but widespread belief in some regions that sex with a virgin can cleanse a man of infection (SAFAIDS, 2003).

The study findings revealed that most (87.1%) of the respondents said that unprotected sex carries a risk of HIV and AIDS. Only a few (12.9%) said it did not (figure 10). When asked if condoms were necessary in the prevention of HIV and AIDS transmission 67.1 % of the respondents interviewed said they were necessary and less than half (32.8%) said condoms were not necessary (table 13). The majority (75.7%) of the women said they could propose condom use to their partners but 24.3% stated that women cannot propose condom use to their partners (table 14). Most (80.4%) of the respondents also said they discussed sex matters with sexual partners and only 19.6% stated otherwise (figure 12).

Young women are at risk of sexually transmitted HIV due to lack of recognition of their partner's risk factors, inequality in relationships and having sex with older men who are more likely to be infected with HIV (Centres for Disease Control and Prevention, 2006). In this study, the majority (94.3%) of the respondents believed that young women were at risk of HIV and AIDS and 5.7% felt women were not at risk (figure 11). This is contrary to the findings of Khan et al, 2004 (as in UNAIDS, 2004) who reported that social norms impose a dangerous ignorance on girls and young women, who often are expected to know little about sex and sexuality and that lack of knowledge magnifies their risk of HIV infection.

The study revealed that the majority (90%) of the respondents were aware of the risk of HIV and AIDS and 10% were not aware (table 16). These results are similar with that of an HIV and AIDS awareness survey where it was found that many young people knew the HIV virus could be contracted through unprotected sex and blood transmission but more than 20 percent wrongly believed the disease could also be spread by sharing a room with AIDS patients (People's Daily Online, 2007). One participant in the focus group discussion said that *"HIV can be transmitted by sharing clothes especially if pus from a sore is squeezed on to the clothes"*. The National HIV/AIDS/STI/TB Intervention Strategic Plan of 2002-2005 (2003) reports that youths aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission increased from 92% to 99%.

In this study, the findings reveal that the respondents' level of knowledge was significantly associated with the outcome of risk awareness (table 18). Significantly, more respondents with high knowledge (96.5%) were aware of the risk of HIV and AIDS than those with low or medium knowledge (61.5%) (P value = 0.001). Respondents who had low or medium knowledge were 76% (OR = 0.24; 95% CI: 0.10, 0.59) less likely to be aware of the risk of HIV and AIDS compared to respondents who had high knowledge thereby rejecting the null hypothesis which says that there is no association between HIV and AIDS risk awareness and knowledge on HIV and AIDS.

The study findings further show that there was an association between respondents' level of knowledge and their sexual behavior. Respondents who had low or medium level of knowledge were 53% (OR = 0.47; 95% CI: 0.23, 0.94) (P value = 0.050) less likely to practice safer sex thus rejecting the null hypothesis which states that there is no association between sexual behavior and knowledge on HIV and AIDS. Kirby (2002), found that access to AIDS information alone is no guarantee of behavior change, but education does have an impact. He further gives an analysis of 250 North American programs which found that among sexually active young people, AIDS

education programs were effective in decreasing the number of sexual partners and increasing condom use (UNAIDS, 2004).

The research results showed a significant association between one's marital status and their sexual behavior. Respondents who were single were 92% (OR = 1.92; 95% CI: 1.17, 3.15) (P value 0.016) less likely to practice safer sex thus rejecting the null hypothesis which states that there is no association between HIV and AIDS risk awareness and socio-cultural factors. This finding agrees with the Zambia Counselling Council (2003) which states that a woman is taught never to refuse sexual intercourse with her husband even when he is known to be engaging in extramarital sexual relationships or is suspected to be suffering from HIV infection or has a sexually transmitted infection.

Furthermore, it is stated that polygamy and dry sex are commonly practiced in Zambia, and that when a spouse dies, the surviving partner is subjected to ritual cleansing by sexual intercourse or in case of women, given as an inheritance to the surviving relative of the deceased (CSO/MoH, 2002). This shows that married women are more likely to be at risk of HIV and AIDS in comparison to unmarried women.

5.5 LIMITATIONS OF THE STUDY

The following are the limitations of this study:

- The interview schedule is a self report instrument which could have led to under reporting of sensitive information (sexual behavior) thus the findings may not be generalized.
- The research results might be limited by the fact that the sample size was relatively small (n = 70).
- The sample comprised young women from one town on the Copperbelt hence the results might not be generalisable to the rest of the young people in Zambia.

5.6 IMPLICATIONS TO NURSING

The findings of this study have the following implications:

5.6.1 Nursing Education

The study findings show that all the respondents had heard about HIV and AIDS which is a positive aspect in nursing education. However, further questioning of the respondents showed that there were deficiencies in knowledge, for example; out of the women who have had sex before; the majority (78.6%) had their first sexual experience between ages 15-19 years; less than half (40.3%) knew that avoiding dry sex could help to avoid HIV and only 39.7% knew that STIs increase the risk of HIV and AIDS. There is need therefore to conduct sex education campaigns which will also reinforce behavioral change. These campaigns should also target the men.

5.6.2 Nursing Administration

The study revealed that 54.9% of the respondents had never used a condom. Nursing administrators should ensure that there is adequate supply of condoms for free distribution. This will encourage young people to have more access to condoms as some of them cannot afford to buy. Nursing administrators should also see to it that Voluntary Counselling and Testing facilities, and Youth Friendly corners are open to the youths so that they can be attended to at the time they want.

5.6.3 Nursing Research

The review of literature in this study showed that a lot of researches on HIV and AIDS have been done. However, limited research has been conducted among the young women. Nurse researchers need to investigate more on young women's sexual practices. This will help to reduce the prevalence of HIV in the country.

5.7 CONCLUSION AND RECOMMENDATIONS

5.7.1 CONCLUSION

5.7.1.1 Conclusion according to the stated research objectives

The study was carried out to determine HIV and AIDS awareness and risk sexual behavior among young women and factors that influence risky sexual behavior.

The study revealed that young women's level of knowledge about HIV and AIDS was good as all of them had heard about HIV and AIDS. The overall level of knowledge was 81%. This shows that campaign messages on HIV and AIDS prevention are having an impact. Levels of awareness of HIV and AIDS were also high, 90% of the respondents were aware of the risk of HIV and AIDS. Despite the high levels of awareness of the risk of HIV and AIDS, young women still practiced risky sex and the majority (78.4%) had their first sexual experience between ages 15-19 years. Condom use was also low among the respondents for example out of the single women who had regular sexual partners, two thirds (64%) did not use a condom the last time they had sex. The study revealed that the level of education has no influence on sexual behavior (there was no association between the level of education and the outcome of sexual behavior as P value was 0.453). The study further revealed that women who were single were 92% more likely to practice safer sex in comparison to those who were married.

5.7.1.2 Conclusion according to the health Belief Model's major tenets

- **Perceived Susceptibility-** most young people perceived the risk of contracting HIV and AIDS. When asked if they were aware of the risk of HIV and AIDS, 90% of them said they were aware.
- **Perceived Severity-**the young women in the study believed that the consequences of HIV are serious and that HIV and AIDS had no cure.
- **Perceived Benefits-** this had a weak score among the women for example in the study, 54.9% of the respondents had never used a condom before.
- **Perceived Barriers-** Most of the women in this study were unemployed, which makes them to be at risk of contracting HIV and AIDS as they may have little or no say in their sexual life.
- **A cue to Action-** There was evidence of increased media publicity on HIV and AIDS as all of the respondents said they had heard about HIV and AIDS. The commonest source of information was the media. This would motivate the women to take positive action on prevention of HIV infection.
- **Self efficacy-** more information on HIV and AIDS prevention would enable more young people to prevent themselves from the disease.

5.7.1.3 Conclusion according to the Aids Risk Reduction Model

- **Recognition and labeling of one's behavior as high risk-** the respondents had high knowledge about how HIV is transmitted and prevented. They also believed that HIV is undesirable. This helps an individual to go on to the next stage described below.
- **Commitment to enact low-risk behavior-** the women are likely to make a commitment to reduce high risk sexual contacts and to increase low-risk sexual activities after they recognize that they have high risk sexual behavior. This is only possible with continued behavioral change messages to the public.

- **Taking Action-** this includes information seeking on HIV and AIDS by the women; obtaining remedies such as condom use and enacting solutions such as ability to communicate with the sexual partner.

5.7.2 RECOMMENDATIONS

5.7.2.1 Recommendations for improving HIV and AIDS awareness and risk sexual behavior among young women

1. There is need for the Ministry of Health and other stakeholders like Ministry of Education, churches and NGOs to strengthen the Reproductive Health Programs on sex education for the youths.
2. Communication on sexual reproductive health issues within families and the communities should be strengthened.
3. Community Based Agents (CBAs) should be fully equipped with knowledge about HIV and AIDS so that they can be consulted by the community on the same issue.
4. Government needs to increase funding for HIV and AIDS programs and use door to door campaigns on HIV prevention messages so as to reach out to the young people who shun health facilities and voluntary counselling centers.

5.7.2.2 Recommendations for further research

1. There is need for the study to be duplicated in other geographical areas to enable generalization of the results.
2. Interventions that could be applied to improve young women's risky sexual behaviors need to be applied.
3. A study to identify life skills required by young people to enable them adopt a sexually responsible life needs to be conducted.
4. A similar study needs to be conducted among older men so as to identify the gaps and plan interventions in educational messages.

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APPENDICES

APPENDIX 1

INFORMED CONSENT

HIV and AIDS RISK AWARENESS AND SEXUAL BEHAVIOR AMONG YOUNG WOMEN (15-24 YEARS AGE GROUP) IN MUFULIRA URBAN.

INTRODUCTION

I, Sebean Mayimbo; a student of Master of Science in Nursing at the University of Zambia is kindly requesting for your participation in the research study mentioned above, because it is important to assess the community's level of knowledge and sexual behavior. Before you decide whether or not to participate in this study, I would like to explain to you the purpose of the study, any risks or benefits and what is expected of you. Your participation in this study is entirely voluntary. You are under no obligation to participate; you may choose to participate or not to participate. You have the freedom to withdraw at any point even during the interview. Refusal to participate in the study will not affect your care at the hospital. If you decline to participate, no privileges will be taken away from you. If you agree to participate, you will be asked to sign this consent in front of someone. Agreement to participate will not result in any immediate benefits.

PURPOSE OF THE STUDY

The study will determine the levels of knowledge on HIV and AIDS and sexual behavior. This is important as the information obtained will help the district health office in Mufulira and the Ministry of Health to take measures in controlling the spread of HIV and AIDS.

PROCEDURE

The study involves a face-to-face interview with the staff that will ask you a set of questions using a structured questionnaire. After signing the consent form, the staff will proceed to ask you the relevant questions and your responses will be recorded on the questionnaire. The interview will take about 30 minutes.

RISKS AND DISCOMFORTS

There is no risk involved in this research though part of your time will be utilized to answer some questions. Some questions may seem to be sensitive and personal. Care will be taken not to embarrass you.

BENEFITS

There is no direct benefit to you by participating in this study, but the information which will be obtained will help the policy makers to take measures to curb the spread of HIV and AIDS. No monetary favors will be given in exchange for information obtained, but education will be given on best sexual behavior.

CONFIDENTIALITY

Your research records and any information you will give will be confidential to the extent permitted by law. You will be identified by a number, and personal information will not be released without your written permission except when required by law. The Ministry of Health, the University of Zambia Research Ethics Committee or the School of Medicine may review your records again but this will be done with confidentiality.

INFORMED CONSENT FORM

The purpose of this study has been explained to me and I understand the purpose, the benefits, risks and discomforts and confidentiality of the study. I further understand that:

If I agree to take part in this study, I can withdraw at any time without having to give an explanation and that taking part in this study is purely voluntary.

I _____ (Names)
agree to take part in this study.

Signed: _____ Date: _____ (Participant)
Participant’s signature or thumb print

Signed: _____ Date: _____ (Witness)

Signed: _____ Date: _____ (Researcher)

PERSONS TO CONTACT FOR PROBLEMS OR QUESTIONS

1. Sebean Mayimbo, University of Zambia, Post Basic Nursing Department, P.O. Box 50110, Lusaka. Cell: 0977767008.
2. Mrs C. Ngoma, University of Zambia, Post Basic Nursing Department, P.O. Box 50110, Lusaka. Phone no. 0211252453.
3. The chairman, Research Ethics Committee, University of Zambia. P.O. Box 50110, Lusaka.

APPENDIX 11: BUDGET

BUDGET CATEGORY	UNIT COST (ZMK)	QUANTITY	TOTAL
1. STATIONERY			
a) Flash Disc	400,000.00	x1	400,000.00
b) Bond paper	30,000.00	x10	300,000.00
c) Pens	1,000.00	x10	10,000.00
d) Pencils	500.00	x10	5,000.00
e) Rubbers	1,000.00	x5	5,000.00
f) Note book	8,000.00	x1	8,000.00
g) Tippex	10,000.00	x1	10,000.00
h) Bag for interview schedules	150,000.00	x1	150,000.00
i) Stapler	50,000.00	x1	50,000.00
j) Staples	10,000.00	x1 Box	10,000.00
SUBTOTAL			948,000.00
2. PERSONNEL			
a) Lunch allowance			
Principal researcher	50,000.00	x1 x 40 days	2,000,000.00
Research assistant	30,000.00	x3 x 40 days	3,600,000.00
b) Transport allowance			
Principal Researcher	30,000.00	x1 x 45 days	1,350,000.00
Research Assistant	20,000.00	x3 x 40 days	2,400,000.00
SUBTOTAL			9,350,000.00
3. SERVICES			
a) Ethics committee	250,000.00	1	250,000.00
b) Data entry	500,000.00	1	500,000.00
c) Data analysis	1,000,000.00	1	1,000,000.00
d) Typing proposal	3,000.00	80 pages	240,000.00
e) Photocopying proposal	200.00	320 pages	64,000.00
f) Typing questionnaire	3,000.00	10 pages	30,000.00
g) Photocopying questionnaire	200.00	10 pages x 330	33,000.00
h) Typing report	3,000.00	100 pages	300,000.00
i) Photocopying report	200.00	400 pages	80,000.00
j) Binding	50,000.00	5 copies	250,000.00
SUBTOTAL			2,747,000.00
TOTAL			13,045,000.00
CONTINGENCY FUND 10%			1,304,000.00
GRAND TOTAL			14,349,000.00

JUSTIFICATION FOR THE BUDGET

STATIONERY

The 10 reams of bond paper will be used for the research proposal development and the final report. Paper will also be required to make extra copies of the proposal for submission to the Research Ethics Committee and the Board of Graduate Studies. In addition the interview schedule will consist of 90 pages which will need to be photocopied.

The bag for interview schedules is for the researcher to ensure that the interview schedules are kept safe.

The flash disc is for copying, storage and safe keeping of research data.

Other accessories such as pens, pencils, rubbers, stapler and staple and note books are required for the routine collection of research data.

PERSONNEL

Data collection will be conducted through out the day as such the researcher will need transport and lunch allowance. The research has been allocated 40 days to allow adequate time for administration of interview schedules and for observations.

SECRETARIAL SERVICES

Funds for typing and photocopying services and binding of the proposal and report will be needed. The charge for photocopying implies that one copy will be printed and the rest photocopied to cut down on the cost. The researcher will need five copies of the proposal to submit to Post Graduate Research Committee for dissertation and dissemination.

CONTINGENCY

Contingency fund which is 10% of the budget is required for any extra costs due to inflation and for any eventualities.

APPENDIX IV

**THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING**

STRUCTURED INTERVIEW SCHEDULE

**TOPIC: HIV and AIDS RISK AWARENESS AND SEXUAL BEHAVIOR
AMONG YOUNG WOMEN (15-24 YEAR AGE GROUP) IN MUFULIRA
URBAN.**

DATE OF INTERVIEW : _____
PLACE OF INTERVIEW : _____
NAME OF INTERVIEWER : _____
SERIAL NUMBER : _____

INSTRUCTIONS FOR THE INTERVIEWER

1. Introduce yourself to the respondent.
2. Explain the reason for the interview.
3. Do not write the name of the respondent on the interview schedule.
4. Circle the most appropriate response to the question or fill in the answer on the space provided.
5. Assure the respondent of confidentiality and anonymity.
6. Provide time for the respondent to ask questions at the end of the interview.
7. Thank the respondent at the end of each interview.

SECTION A: DEMOGRAPHIC DATA

1. Age at last birthday

1. 15-19 years

2. 20-24 years
2. Marital status

1. Single

2. Married

3. Divorced

4. Separated

5. Widowed
3. Religion

1. Christian

2. Moslem

3. Hindu

4. Buddhist

5. Others (specify)_____
4. Educational Level

1. None

2. Primary

3. Secondary

4. College

5. University

5. Occupation

1. Housewife

2. Student

3. Formally employed

4. Self employed

5. Unemployed

☐

6. Income

1. Above K1, 500,000

2. Between K500, 000- K1, 500,000

3. Below K500, 000

☐

SECTION B: KNOWLEDGE OF HIV and AIDS

7. Have you heard of HIV and AIDS?

1. Yes

2. No

☐

8. If yes, which is your source of information? (Tick all correct answers)

1. Media

2. Health personnel

3. Teachers

4. Relatives

5. Friends

6. Church

7. Others, (specify) _____

☐

9. What is the meaning of AIDS?

☐

10. What causes HIV?

11. How is HIV and AIDS transmitted? (Tick all correct answers)

1. Sexual intercourse

2. Infected blood products

3. Unsafe injection practices

4. Breast milk to babies

5. Sharing contaminated razor blades and needles
-

12. Can a healthy looking person have HIV?

1. Yes

2. No

3. Don't know
-

13. Can HIV infection be avoided?

1. Yes

2. No

3. Don't know
-

14. If yes to the above question, how can HIV infection be avoided? (Tick all correct answers)

1. Abstinence

2. Being faithful to one sexual partner

3. Using condoms consistently and correctly each time one has sex.

4. Avoid sex with minors

5. Avoiding dry sex

6. Avoiding sexual cleansing
-

15. Can HIV be transmitted from the mother to her baby?

1. Yes

☐

2. No

3. Don't know

15. If yes to the above question, how can HIV be transmitted from mother to child?
(Tick all correct answers)

1. During pregnancy

☐

2. During labor and delivery

3. During breastfeeding

4. All the above

5. None of the above

6. Don't know

17. Do you know someone living with HIV and AIDS or someone who has died of HIV and AIDS?

1. Yes

☐

2. No

3. Don't know

18. If yes to Q 17 how does a person with AIDS look like (explain).

☐

19. Is there a cure for HIV and AIDS?

1. Yes

☐

2. No

3. Don't know

20. Do you know any common sexually transmitted infections apart from HIV?

- 1. Yes ☐
- 2. No
- 3. Don't know

21. Does the presence of a sexually transmitted infection increase the risk of HIV?

- 1. Yes ☐
- 2. No
- 3. Don't know

22. If your answer to question 21 is yes, explain how this increases the risk of HIV.

☐

23. Do you know of any cultural beliefs which can lead to the spread of HIV?

- 1. Yes ☐
- 2. No
- 3. Don't know

24. If yes to Q 23 explain how these beliefs can lead to the spread of HIV.

☐

SECTION C: SEXUAL BEHAVIOR

25. Have you ever had sex?

1. Yes

☐

2. No

26. If yes to question 25, at what age did you have sex for the first time?

1. Less than 10 years

☐

2. 10 - 14 years

3. 15 - 19 years

4. 20 - 24 years

27. Have you ever used a condom during sexual intercourse?

1. Yes

☐

2. No

3. No response

28. If married, at what age did you get married?

1. 15 -19 years

☐

2. 20 -24 years

29. If single, do you have a regular sex partner?

1. Yes

☐

2. No

3. No response

30. How many casual sexual partners have you had in the past one month?

- 1. None
- 2. One
- 3. Two
- 4. Three or more

31. Did you use a condom last time you had sex with a casual partner?

- 1. Yes
- 2. No
- 3. No response

32. Do you usually use a condom with regular/casual partner?

- 1. Yes
- 2. No
- 3. No response

33. Have you ever been forced to have sex in your life? (including husband)?

- 1. Yes
- 2. No

34. Do you discuss sex matters/protection with your sex partner?

- 1. Yes
- 2. No
- 3. No response

35. Do you think that unprotected sex carries a risk of HIV and AIDS?

- 1. Yes
- 2. No
- 3. No response

36. Are young women at risk of HIV and AIDS?

- 1. Yes
- 2. No
- 3. No response

☐

37. Is a condom necessary in the prevention of HIV and AIDS transmission?

- 1. Yes
- 2. No
- 3. No response

☐

38. Can women propose condom use to their partners?

- 1. Yes
- 2. No
- 3. No response

☐

**WE HAVE COME TO THE END OF THE INTERVIEW AND I THANK YOU
FOR YOUR PARTICIPATION.**

APPENDIX V FOCUS GROUP DISCUSSION GUIDE

Number of informants _____

Composition of informants _____

Language used during interview _____

Date: _____ **Duration:** _____

Place: _____

INSTRUCTIONS

1. Welcome the participants.
2. Introduce yourself and the recorder to the group. Ask the participants to introduce themselves.
3. Get verbal consent from the group to continue with the discussion.
4. Explain the purpose of the discussion.
5. Assure the group of confidentiality.
6. Give warm up questions to set the climate.

QUESTIONS

a) HIV and AIDS Knowledge

1. What is HIV?
2. How does HIV virus cause AIDS?
3. How is HIV and AIDS transmitted?
4. What is AIDS?
5. How can HIV infection be avoided?
6. Are there any cultural beliefs that can lead to the spread of HIV? If so explain how these can lead to the spread of HIV.
7. Do you think women in your age group are at risk of HIV?

8. What can young women do to protect themselves?

b) Sexual behavior

1. Have you ever had sex before?
2. At what age did you have sex for the first time?
3. Have you ever used a condom?
4. How many sexual partners do you have?
5. Did you use a condom the last time you had sex?
6. Would you initiate condom use with your sexual partner?

c) Suggestions for improvement

1. What are some of the ways in which the problem of HIV and AIDS could be minimized.
2. Who in the community should be involved in the fight against HIV and AIDS?

**WE HAVE COME TO THE END OF THE DISCUSSION AND I THANK YOU
FOR YOUR PARTICIPATION.**

APPENDIX VI

MARKING KEY FOR THE STUDY VARIABLES

SECTION B: KNOWLEDGE OF HIV AND AIDS			
Question number	Question	Correct Answers	Maximum Score
7.	Have you heard of HIV and AIDS?	Yes	1
8.	If yes, which is your source of information?	Media, health personnel, teachers, relatives, friends, others	7
9.	What is the meaning of AIDS	A syndrome which attacks the body's immune system	1
10.	What causes HIV	The HIV virus	1
11.	How is HIV and AIDS transmitted?	Through sexual intercourse, infected blood products, unsafe injection practices, breast milk to babies, sharing contaminated razor blades and needles	5
12.	Can a healthy looking person have HIV?	Yes	1
13.	Can HIV infection be avoided?	Yes	1
14.	If yes to the above question, how can HIV	Abstinence, being faithful to one sexual	6

	infection be avoided?	partner, using condoms correctly and consistently each time one has sex, avoiding sex with minors, avoiding dry sex, avoiding sexual cleansing	
15.	Can HIV be transmitted from the mother to her baby?	Yes	1
16.	If yes to the above question, how can HIV be transmitted from mother to child?	During pregnancy, during labor and delivery, during breastfeeding, all the above	4
17.	Do you know someone living with HIV and AIDS or someone who has died of HIV and AIDS?	Yes	1
18.	If yes to Q 17, how does a person with AIDS look like (explain)	Weight loss, scanty hair, rashes on the body, pallor, weakness	1
19.	Is there a cure for HIV and AIDS?	No	1
20.	Do you know any common sexually transmitted infections apart from HIV?	Yes	1
21.	Does the presence of a	Yes	1

	sexually transmitted infection increase the risk of HIV?		
22.	If your answer to question 21 is yes, explain how this can lead to the spread of HIV?	Open sores can easily be penetrated by the HIV virus during sexual intercourse	1

KNOWLEDGE OF CULTURAL BELIEFS

23.	Do you know of any cultural beliefs which can lead to the spread of HIV?	Yes – examples, widow inheritance, polygamy, sexual cleansing	1
24.	If yes to Q 23 explain how these beliefs can lead to the spread of HIV	Widow inheritance- previous partner might have died of HIV Polygamy – there is a big possibility of unfaithfulness as women may have to wait long to have sexual relationships with their husband	1

SECTION C: (i) SEXUAL BEHAVIOR

25.	Have you ever had sex?	Yes 1, No 2, No response 0	2
26.	If yes Q 25, at what age did you have sex for the first time?	Less than 10 years 1, 10-14 years 2, 15-19 years 3, 20-24 years 4	4
27.	Have you ever used a condom during sexual intercourse?	Yes 2, No 1, No response 0	2
28.	If married, at what age did	15-19 years 1, 20-24 years	2

	you get married?	2	
29.	If single, do you have a regular sex partner?	Yes 1, No 2, No response 0	2
30.	How many casual sex partners have you had in the past one month?	None 4, One 3, Two 2, Three or more 1	4
31.	Did you use a condom last time you had sex with a casual partner?	Yes 2, No 1, No response 0	2
32.	Do you usually use a condom with regular/casual partner?	Yes 2, No 1, No response 0	2
33.	Have you ever been forced to have sex in your life? (Including husband)?	Yes 1, No 2	2
34.	Do you discuss sex matters/ protection with your sex partner?	Yes 2, No 1, No response or don't know 0	2
(ii) RISK AWARENESS			
35.	Do you think that unprotected sex carries a risk of HIV and AIDS?	Yes 2, No 1, no response or don't know 0	2
36.	Are young women at risk of HIV and AIDS?	Yes 2, No 1, No response or don't know 0	2
37.	Is a condom necessary in the prevention of HIV and AIDS transmission?	Yes 2, No 1, no response or don't know 0	2
38.	Can women propose condom use to their partners?	Yes 2, No 1, No response 0	2

KEY

1. Section B: Knowledge of HIV and AIDS

- Low knowledge of HIV and AIDS 0 -11
- Medium knowledge of HIV and AIDS 12-22
- High knowledge of HIV and AIDS 23-33

2. Section C: (i) Sexual Behavior

- Safer Sex 16 - 24
- Risky Sex 0 - 15

Section C: (ii) Risk Awareness of HIV and AIDS

- Aware of the risk of HIV and AIDS 6 - 8
- Not aware of the risk of HIV and AIDS 0 - 5

N.B On sexual behavior, women who said they have never had sex before were given the maximum score.



THE UNIVERSITY OF ZAMBIA

BIOMEDICAL RESEARCH ETHICS COMMITTEE

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Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@zamtel.zm

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

Assurance No. FWA00000338
RB00001131 of IORG0000774

26 August, 2008
Ref.: 003-07-08

Ms Sabeen Mayimbo
Department of Post Basic Nursing
School of Medicine
University of Zambia
LUSAKA

Dear Ms Mayimbo,

RE: SUBMITTED RESEARCH PROPOSAL: "HIV AND AIDS RISK AWARENESS AND SEXUAL BEHAVIOR AMONG YOUNG WOMEN (15-24 YEARS) IN MUFULIRA URBAN"

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee meeting held on 30 July, 2008 where changes were recommended. We are in receipt of your revised research proposal. The proposal is approved.

CONDITIONS:

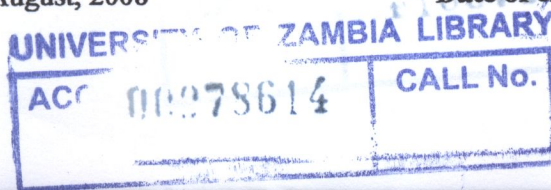
- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.

Yours sincerely,

Dr E. Munakula-Nkandu, BSc (Hons), MSc, PgD R/Ethics, PhD
CHAIRPERSON

Date of approval: 26 August, 2008

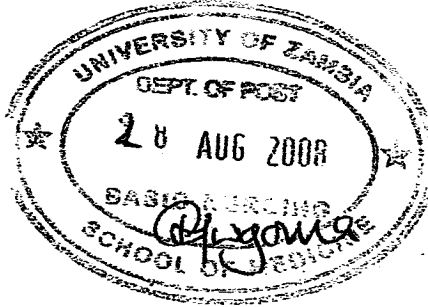
Date of expiry: 25 August, 2009



University of Zambia
School of Medicine
Department of Post Basic Nursing
Box 50110, Lusaka

August, 2008

To: The Head of Department
University of Zambia
Department of Post Basic Nursing
Box 50110
Lusaka



Permanent Secretary
Ministry of Health
Lusaka

Sir/Madam,

Subject: Application for permission to collect data on HIV/AIDS risk awareness and sexual behavior among young women in Mufulira Urban District.

I refer to the above subject matter and would wish to apply for the same. I am a Master of Science in nursing student at the above mentioned institution. In partial fulfillment of this program, I am expected to carry out a research study.

My research topic is "HIV/AIDS risk awareness and sexual behavior among young women (15-24 years) in Mufulira urban district".

The study will involve interviewing female youths aged 15-24 years residing in Kawama West compound, whether married or single. Data will be collected from September to October, 2008. Attached is a letter of approval for the study from the University of Zambia Biomedical Research Ethics Committee.

Your earliest consideration will be highly appreciated.

Yours faithfully,

A handwritten signature in cursive script, appearing to read 'Bebean Mayimbo'.

Bebean Mayimbo

2nd September 2008

Sebean Mayimbo
The University of Zambia
School of Medicine
Department of Post Basic Nursing
P.O. Box 50110
LUSAKA

92 Copy to
MPD
CCE
DATE

Dear Sebean,

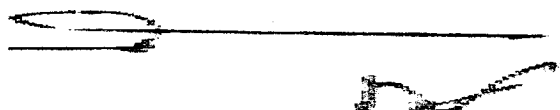
RE: AUTHORITY TO CONDUCT PRACTICAL FIELD RESEARCH IN A PUBLIC HEALTH FACILITY

I wish to inform you that following submission of your research proposal to my Ministry, our review of the same and in view of the clearance from the University of Zambia Biomedical research Ethics Committee, my Ministry has granted you authority to carry out your field research entitled "HIV/AIDS risk awareness and sexual behaviour among young women (15-24 years) in Mufulira District".

I wish to further say that we are satisfied that the study can continue as a separate study, on condition that

1. The relevant Provincial and District Directors of Health where the study is being conducted are fully appraised;
2. Progress updates are provided to MoH quarterly from the date of commencement of the study;
3. The final study report is cleared by the MoH before any publication or dissemination within or outside the country.

Sincerely yours,



Dr. Velepi C. Mtonga A/PERMANENT

SECRETARY MINISTRY OF HEALTH

CC Director - Public Health & Research, MoH Headquarters Director - Clinical Care and Diagnostic Services Information & Research Specialist, MoH Headquarters Provincial Health Director - Copperbelt Provincial Health Office District Director of Health - Mufulira DHMT

UNIVERSITY	SECRETARY
AC	No.