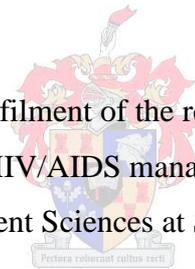


**FACTORS AFFECTING HIV COUNSELLING AND TESTING (HCT) IN THE  
PROVISION OF PREVENTION OF MOTHER TO CHILD TRANSMISSION  
(PMTCT) SERVICES AMONG PREGNANT WOMEN IN KABWE, CENTRAL  
PROVINCE OF ZAMBIA**

by  
Cecilia Chitambala

Assignment presented in fulfilment of the requirements for the degree  
of Master of Philosophy (HIV/AIDS management) in the Faculty of  
Economic and Management Sciences at Stellenbosch University



Supervisor: Prof. Geoffrey Setswe

March 2013

## **Declaration**

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own original work, that I'm the owner of the copy right thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

March 2013

Copyright © 2013 Stellenbosch University

All rights reserved

## **Abstract**

This research study looked at the factors that affect HCT in provision of PMTCT services. It explored the socio cultural and personal factors that affect HCT. It also established the knowledge level about HIV/AIDS and PMTCT among pregnant women in Kabwe.

The transmission of HIV from mother to child contributes largely to HIV prevalence among children. Efforts to reduce this mode of transmission include increasing number of women who know their HIV status and increasing the number of HIV positive women who when pregnant take instructions and act on them to protect their children from the possibility of infection (Bartlett et al. 2004). Individuals can only know their HIV status once they are tested for HIV. However, there are socio cultural and personal factors among other factors that affect the access of HCT.

The aim of this study was to identify socio cultural and personal factors that affect HIV counseling and testing in provision of PMTCT services among pregnant women in Kabwe, in order to make recommendations for the development of an intervention program to help improve uptake of HIV counseling and testing for PMTCT services.

Both quantitative and qualitative methodologies were used to conduct this study. Focus Group Discussions were conducted with groups of pregnant women that have never been tested for HIV before and Key Informant Interviews with health care workers (midwives or nurses) to ask them about factors affecting HCT in provision of PMTCT services among pregnant women were used. A retrospective statistical report review was also used to ascertain the accessibility rate for the HIV counseling and testing for PMTCT services. In this light, statistical report review was used to collect the number of pregnant women attending ANC and number of pregnant women receiving HIV testing.

The findings of this study revealed that the pregnant women had excellent knowledge about HIV/AIDS and the uptake of HCT was as good as 91% among pregnant women. The research also revealed domestic violence, accusation of promiscuity by partner, abandonment by partner, and stigma & discrimination as socio factors that affect HCT in provision of PMTCT. Religion, fear disbelief of test results was revealed as personal factors affecting

HCT in provision of PMTCT. The research revealed decision making, tradition medicines, and practices as cultural factors affecting HCT in provision of PMTCT.

The conclusion was made that fear of abandonment by partner, fear of being accused of being promiscuous by partner, and fear of domestic violence were the main factors why some pregnant women did not accept to take an HIV test during their pregnancies. It is also concluded that most men make decisions for their families. Women in homes have no powers to make decisions, so if the husband refuses her to take a test, the wife just has to comply. It is also concluded that a person's ability to access health related services is shaped by socio cultural and personal factors among others factors. These findings fit well with the Anderson behavioral model which describes the individual factors as having three elements that relate to the individual's ability to access and utilize health care services.

## Opsomming

Hierdie navorsingstudie het gekyk na die faktore wat 'n invloed HCT in die voorsiening van VMTKO dienste. Dit ondersoek die sosio-kulturele en persoonlike faktore wat HCT. Dit het ook die kennis oor MIV / VIGS en VMNKO onder swanger vroue in Kabwe. Die oordrag van MIV van moeder na kind dra grootliks by tot die voorkoms van MIV onder kinders (Bartlett et al. 2004). Pogings om hierdie wyse van oordrag te verminder sluit in toenemende aantal vroue wat hul MIV-status ken en die verhoging van die aantal MIV-positiewe vroue wat toe swanger neem instruksies en reageer op hulle om hul kinders te beskerm teen die moontlikheid van infeksie. Individue kan slegs weet wat hul MIV-status wanneer hulle getoets word vir MIV. Egter, is daar sosiaal-kulturele en persoonlike faktore onder ander faktore wees wat die toegang van HCT.

Die doel van hierdie studie was om sosiaal-kulturele en persoonlike faktore wat die MIV-berading en toetsing in die voorsiening van VMTKO dienste onder swanger vroue in Kabwe te identifiseer, ten einde aanbevelings te maak vir die ontwikkeling van 'n intervensie program te help opname van MIV-berading en toetsing vir VMNKO dienste te verbeter.

Beide kwantitatiewe en kwalitatiewe metodes is gebruik om hierdie studie uit te voer. Fokusgroeppesprekings is gevoer met groepe van swanger vroue wat nog nooit vir MIV getoets is voor en onderhoude met sleutelinformante met gesondheidsorgwerkers (Vroedvroue of verpleegsters) is gebruik om hulle te vra oor die faktore wat HCT in voorsiening van PMTCT dienste onder swanger vroue. 'N Retrospektiewe statistiese verslag review is ook gebruik om die toeganklikheid koers vir die MIV-berading en om vas te stel toetsing vir VMNKO dienste. In hierdie lig, is statistiese verslag hersiening gebruik word om die aantal swanger vroue wat die ANC en die aantal swanger vroue MIV-toetsing in te samel.

Die bevindinge van hierdie studie het aan die lig gebring dat die swanger vroue het uitstekende kennis oor MIV / VIGS en die update van HCT was so goed as 91% onder swanger vroue. Die navorsing het ook aan die lig gebring huishoudelike geweld, beskuldiging van losbandigheid deur vennoot, verlating deur vennoot, en stigma diskriminasie as sosio faktore wat 'n invloed HCT in die bepaling van die PMTCT. Godsdiens, vrees ongelooftoetsresultate is geopenbaar as persoonlike faktore wat HCT in die voorsiening van PMTCT. Die navorsing het aan die lig gebring besluitneming, tradisie medisyne, en praktyke as kulturele faktore wat HCT in die voorsiening van PMTCT.

Die gevolgtrekking is gemaak dat vrees vir verlating deur vennoot, vrees daarvan beskuldig dat hy van promisku deur vennoot, en die vrees van huishoudelike geweld was die belangrikste faktore waarom sommige swanger vroue nie aanvaar het nie 'n MIV-toets te neem tydens hul swangerskappe. Dit is ook die gevolgtrekking gekom dat die meeste mense besluite neem vir hul families. Vroue in huise het geen magte om besluite te neem, so as die man weier om vir haar 'n toets te neem, die vrou net om daaraan te voldoen. Dit is ook die gevolgtrekking gekom dat 'n persoon se vermoë om gesondheid verwante dienste om toegang te verkry tot gevorm word deur die sosiaal-kulturele en persoonlike faktore onder andere faktore. Hierdie bevindings pas goed met die Anderson gedrags-model wat die individuele faktore beskryf met drie elemente wat betrekking het op die individu se vermoë om toegang te verkry tot en gebruik van gesondheidsorgdienste.

## **Acknowledgements**

Prof. Geoffrey Setswe, Supervisor, Monash University, South Africa

Mr. George Chigali, program manager, Zambia Prevention Care and Treatment Project II, Kabwe, Zambia

Mr. Stuart Mwalo, Senior M&E officer, Zambia Prevention Care and Treatment project II, Lusaka, Zambia

Ms. Bridget Chatora, Technical Advisor-Laboratory services, Zambia Prevention Care and treatment Project II, Lusaka, Zambia

Dr. Thierry Malebe, Senior Advisor- CT/PMTCT, Zambia Prevention Care and Treatment project II, Lusaka, Zambia

**Table of Contents**

**DECLARATION..... 1**

**ABSTRACT..... ERROR! BOOKMARK NOT DEFINED.**

**ACKNOWLEDGEMENTS ..... 7**

**ACRONYMS ..... 12**

**CHAPTER ONE: INTRODUCTION ..... 14**

    1.1. Introduction ..... 14

    1.2. Significance of the study ..... 16

    1.3. Research problem..... 17

    1.4. Research question..... 17

    1.5. Aim..... 17

    1.6. Objectives..... 17

**CHAPTER TWO: LITERATURE REVIEW..... 18**

    2.1. Introduction ..... 18

    2.2. Prevention of mother to child transmission of HIV ..... 18

    2.3. Factors influencing HCT attendance..... 21

    2.4. Factors influencing HCT attendance in PMTCT ..... 24

    2.5. Application of the Andersen behavioral model for this study ..... 26

        2.5.1. Conceptual framework..... 26

    2.6. Summary ..... 27

**CHAPTER THREE: RESEARCH DESIGN AND METHODS..... 28**

    3.1. Introduction ..... 28

    3.2. Research design and methods ..... 28

        3.2.1. Data collection tools ..... 31

        3.2.2. Qualitative study design..... 28

            3.2.2.1 FGD and KII..... **Error! Bookmark not defined.**

3.2.2.2.	Qualitative data collection methods .....	29
3.2.3.	Quantitative study design.....	31
3.2.3.1.	Data collection for the retrospective review.....	32
3.2.3.2.	What information was collected from the retrospective review? .....	32
3.3.	Data analysis .....	33
3.3.1.	Qualitative data analysis .....	33
3.3.2.	Quantitative data analysis .....	36
3.4.	Validity and reliability .....	36
3.5.	Data management.....	38
3.6.	Ethical considerations .....	38
3.7.	Limitations of the study.....	39
3.8.	Summary .....	40
<b>CHAPTER FOUR: RESULTS AND FINDINGS.....</b>		<b>41</b>
4.1.	Introduction .....	41
4.2.	Uptake of HIV counseling and testing .....	41
4.3.	Knowledge about PMTCT services among pregnant women.....	43
4.4.	Social factors .....	45
4.4.1.	Stigma and discrimination .....	45
4.4.2.	Domestic violence.....	47
4.4.3.	Accusation of promiscuity by partner.....	48
4.4.4.	Abandonment by partner.....	48
4.4.5.	Religion.....	49
4.4.6.	Fear .....	49
4.4.7.	Service delivery .....	50
4.4.8.	Cost.....	51

4.5. Personal factors .....	51
4.5.1. Religion.....	51
4.5.2. Fear .....	52
4.5.3. Disbelief of test results.....	53
4.5.4. Other reasons .....	53
4.6. Cultural factors.....	54
4.6.1. Decision making .....	54
4.6.2. Tradition medicines .....	55
4.6.3. Practices .....	56
4.7. Summary .....	56
<b>CHAPTER FIVE: DISCUSSION.....</b>	<b>57</b>
5.1. Knowledge of HIV/AIDS .....	57
5.2. HCT uptake .....	58
5.3. Fear, abandonment, domestic violence and stigma & discrimination.....	58
5.4. Decision making and male involvement .....	60
5.5. Service delivery.....	61
5.6. Distrust of test results and distrust in confidentiality in the health systems .....	62
5.7. Summary .....	62
<b>CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>63</b>
6.1. Conclusion.....	63
6.2. Recommendations .....	64
<b>REFERENCES.....</b>	<b>67</b>
<b>APPENDICES.....</b>	<b>77</b>
APPENDIX A: FOCUS GROUP DISCUSSION GUIDE .....	77
Appendix B: Sample Key Informant Interview Guide (for health workers).....	81

Appendix C: Records Review Form .....82

## Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
ARV	Antiretroviral
CDC	Centre for Disease Control
CD4	Cluster of differentiation 4CT
CT	Counseling and Testing
FGD	Focus Group Discussion
FHI	Family Health International
GRZ	Government of the Republic of Zambia
HCT	HIV Counseling and Testing
HIA2	Health Information Aggregation form 2
HIV	Human Immunodeficiency Virus
KIIs	Key Informant Interviews
KMH	Kabwe Mine Hospital
MOH	Ministry of Health
MTCT	Mother to Child Transmission of HIV
NASCOP	National AIDS & STI Control Programme
UNAIDS	United Nations AIDS Programme
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children's Fund
USA	United States of America

USAID	United States Aid for International Development
HCT	Voluntary counseling and testing
WHO	World Health Organization
ZPCT	Zambia Prevention, Care and Treatment project

## **Chapter One: Introduction**

### **1.1.Introduction**

The percentage of pregnant women receiving HIV Counseling and Testing (HCT) for Prevention of Mother to Child Transmission of HIV (PMTCT) services during their antenatal visit is approximately 98% despite increased efforts in PMTCT provision. Preventing mother to child transmission might seem simple, yet it's not. First and foremost, majority of women in low and middle income countries have never been tested for HIV, and so they do not know their HIV status. For PMTCT programmes to be effective, they must first provide counseling and testing for HIV to determine which pregnant women need interventions. Even when a health facility offers counseling and testing for HIV to every pregnant woman, the reality is that not all of them accept to take a test. Others, having been tested, fail to return to collect their results. Thus is the beginning of a series of steps that leads to the ideal outcome of reducing the risk of HIV transmission as far as possible (UNAIDS 2011).

The entry point into PMTCT programme for every pregnant woman and her partner is the knowledge of their HIV sero - status. Accepting one's HIV sero - status is a critical first step in preventing mother to child transmission of HIV. HIV counseling and testing provides an entry point to PMTCT services for pregnant women. Therefore, every pregnant woman who previously tested HIV negative before conceiving or whose HIV sero - status is unknown is supposed to be counseled and tested for HIV as part of PMTCT services when attending antenatal services. However, facts on the grounds are that not every woman in question receives HIV counseling and testing for PMTCT services.

In Zambia HIV counseling and testing is part of the routine ANC services, and results and post-test counseling are provided on the same day of testing. Every pregnant woman attending ANC, who previously tested HIV negative before conceiving or whose HIV sero - status is unknown, is tested for HIV. However, the test is not done if the woman chooses to opt out. The test is also not done on pregnant women who have valid documentation of already being HIV positive and or/ those already on ART. All ANC clients must be encouraged to test for HIV as a couple and disclose their status to partners (National Protocol Guidelines-PMTCT 2010).

The current effort by the Ministry of Health (MOH) to integrate HIV counseling and testing into antenatal care through PMTCT programme in all health facilities in Zambia is a positive

move targeted at identifying pregnant women that are HIV positive and providing adequate strides that will prevent, reduce or eliminate HIV infection of the infants. During counseling, information about HIV and AIDS, mode of transmission; effective interventions that protect the infant is provided by the health care providers to the pregnant women (CDC 2001).

This study was conducted at Kabwe Mine Hospital, a small mine referral and delivery centre in the mining town of Kabwe, in the Central province of Zambia. This hospital is a referral centre for several clinics in the mining town and handles an average of 45 pregnancies per month. Kabwe district is the provincial headquarters of Central Province. It is one of the six districts in central province. The district is located about 138 km from the capital city Lusaka, with an area of 1,577km<sup>2</sup> surrounded by bigger districts including Kapiri-Mposhi and Chibombo. It is a transit town a lot of traffic from people passing through the great north road to the Copperbelt from Lusaka and vice versa. The inter link from the district health office to the various health centres is by all-weather roads. The communication system is by radio and cell phones to all health centres.

Kabwe was once Southern Africa's leading lead and zinc mining town. Lead and zinc mining started in 1904 until 1994 when the mines were shut down. It was the major employer for Kabwe residents. The closure of Zambia-China Mulungushi Textiles and the mines have rendered a lot of residents unemployed. The progressive industries currently offering employment include Kabwe Industrial Fabrics Company (KIFCO), Zambia Railways consortium, Dunavant, small scale mining at the old mine and the civil service. A small percentage of the population are employed as farm labourers in the few commercial farms and others are in private business.

High poverty levels due to unemployment have forced people into various income raising ventures including risky sexual behaviours, alcohol brewing, small scale entrepreneurship and even scavenging of the mine remains in order to source scrap metals for resale. Sanitation and safe water remain a problem as the unplanned settlements continue to grow with most residents being unable to pay for rentals in formal houses. This poses a challenge to the control of epidemics such as cholera, dysentery and other communicable diseases (FHI 2009). Kabwe has 26 government health facilities, 16 are supported by Zambian Prevention, Care and Treatment (ZPCT II) HIV/AIDS programs (FHI 2009).

## **1.2. Significance of the study**

Increasing uptake of pregnant women that are HIV positive into PMTCT service through HIV counseling and testing to reduce HIV transmission from mother to child using recommendations to improve service delivery motivates this study. Counseling and testing is the gateway to PMTCT services for women that test HIV positive. Therefore, Providing PMTCT services to these women will help reduce transmission of HIV from these women to their babies, thereby reducing HIV/AIDS related morbidity and mortality for the women and their babies. Through HIV counseling and testing, PMTCT Programmes identify large numbers of HIV-infected women and provide the ideal opportunity to engage women, their partners, and their children in long term care. This study will enhance efforts to identify HIV-infected women during pregnancy in order to make important inroads in the prevention of pediatric HIV. With countless lives of women, children, and families at stake, addressing issues surrounding prevention of HIV in pediatrics and developing reproducible models for using PMTCT programs as a gateway to HIV prevention, care and treatment services may represent one of the most significant interventions to improve the lives of HIV-infected individuals around the globe.

PMTCT programmes are effective at preventing MTCT of HIV and therefore save lives for infants born from HIV infected mothers. Many mothers miss opportunities in the provision of PMTCT services as the pregnant woman goes through the various levels of PMTCT interventions in the ANC setup including HIV counseling and testing. Therefore, intervention programs to help improve uptake of women receiving HIV counseling and testing for PMTCT services at their ANC visits can be developed once the factors causing some women not to receive HIV counseling and testing for PMTCT services are established. In addition, enrolling HIV infected pregnant women into PMTCT Programmes will help improve the quality of lives for these women and HIV infections to the infants would be immensely reduced. This in turn will also contribute towards the United Nations millennium development goal number 4 that entails reduction of child mortality.

When tested HIV positive, the pregnant women will benefit because they will be put on treatment (when need be) that will not only reduce the transmission of HIV to their babies, but also improve their health. In addition, the babies will also benefit as most of them will be born HIV free resulting from the PMTCT services that their mothers receive once the test HIV positive. HIV counseling and testing will also motivate women to stay HIV negative if

tested negative. At a global level, this will help to have a nation free of HIV/AIDS especially for the pediatrics.

### **1.3.Research problem**

According to PMTCT guidelines in Zambia, all pregnant women should access HIV counseling and testing for PMTCT services, but the reality is that not all pregnant women access this service. Despite community mobilization and availability of free PMTCT services provided by the MOH, not all pregnant women access HIV counseling and testing in PMTCT provision. It has been observed that majority of pregnant women do not even go to health facilities to seek for these services.

### **1.4.Research question**

What socio cultural and personal factors affect HIV counseling and testing in provision of PMTCT services among pregnant women?

### **1.5.Aim**

To identify socio cultural and personal factors that affects HIV counseling and testing in provision of PMTCT services among pregnant women in Kabwe, in order to make recommendations for the development of an intervention program to help improve uptake of HIV counseling and testing for PMTCT services.

### **1.6.Objectives**

The objectives of this study were to:

1. Determine pregnant women's knowledge levels about PMTCT services.
2. Identify and explore personal factors that influence pregnant women's access to HIV counseling and testing for PMTCT services.
3. Identify and explore social factors that influence pregnant women's access to HIV counseling and testing for PMTCT services
4. Identify and explore cultural factors that influence pregnant women's access to HIV counseling and testing for PMTCT services

## **Chapter two: Literature review**

### **2.1. Introduction**

This section of the report reviews literature on social, cultural and personal factors that affects HIV counseling and testing in provision of PMTCT services among pregnant women.

### **2.2. Prevention of mother to child transmission of HIV**

Mother to child transmission is when an HIV infected woman passes the virus to her baby. This can occur during pregnancy, labour, delivery or breastfeeding. The transmission of HIV from mother to child contributes largely to HIV prevalence among children (Bartlett et al. 2004). Efforts to reduce this mode of transmission include increasing number of women who know their HIV status and increasing the number of HIV positive women who when pregnant take instructions and act on them to protect their children from the possibility of infection (Bartlett et al. 2004). Individuals can only know their HIV status once they are tested for HIV.

Effective interventions for prevention of mother to child transmission of HIV (PMTCT) were discovered in the 1990s, yet mother to child transmission (MTCT) remain the most significant route of HIV infection among children (WHO 2009). Even though effective interventions to reduce vertical transmission of HIV are now available and remarkable progress has been made in scaling up PMTCT services, there are still some factors that hinder pregnant women from accessing the services in Zambia.

The PMTCT service is a comprehensive health service intervention that targets to limit the forms of HIV transmission from mother to child. In contrast to the life-long provision of antiretroviral treatment for children, PMTCT intervention is limited to women's pregnancy and breast-feeding period. The PMTCT interventions that are offered include HIV testing of pregnant women, providing antiretroviral prophylaxis to pregnant women during pregnancy, at onset of labour and during breast feeding. Furthermore, prophylaxis is also given to the baby within 72 hours after birth and during breast feeding period. Use of obstetric practices including caesarean delivery and safe feeding practices are also used as part of PMTCT interventions. It is important to note that this study will focus mainly on accessing HIV

counseling and testing as part of the PMTCT intervention for pregnant women attending antenatal services.

The objectives included in PMTCT strategic vision 2010-2015 illustrate WHO's assurance to the United Nations General Assembly Special Session (UNGASS) goals on PMTCT and strengthening support for PMTCT within the framework of the Millennium Development Goals (WHO 2010). United Nations General Assembly Special Session (UNGASS 2001) declared a commitment on HIV prevention among infants and young children. It committed to reduce the proportion of infants infected with HIV to 20% by 2005, and by 50% by the year 2010, by ensuring that 80% of pregnant women access PMTCT services.

Pregnant women can only benefit from PMTCT services once they are counseled, tested for HIV and given results for them to know their HIV status. It is from this process that pregnant women that test HIV positive are enrolled into PMTCT care in order to prevent HIV transmission to a baby that the pregnant woman is carrying. In 2011, UNAIDS produced 'the global plan towards the elimination of new infections among children by 2015 and keeping their mothers alive' (UNAIDS 2011).

Preventing HIV infection among prospective parents through PMTCT and making HIV testing and other prevention interventions available in services related to sexual health such as antenatal and postpartum care and focusing on preventing HIV in women of child-bearing age is one of the broader UNAIDS strategies for preventing HIV among children. The UNAIDS strategy by 2015 provides for elimination of vertical transmission of HIV, and reduction of AIDS related maternal mortality by half. The strategy is a roadmap for the joint programme with solid goals marking landmarks on the path to achieving UNAIDS vision of no new HIV infections, no discrimination and no AIDS-related deaths (UNAIDS 2011).

UNAIDS (2011) produced "the global plan towards the elimination of new infections among children and keeping their mothers alive". The plan recognizes the need to consider different ways of preventing mother to child transmission of HIV, and to integrate HIV interventions into other family planning, maternal health and child health services. HIV testing and other preventions available in services related to sexual health and child health services for pregnant women is among the broader strategies for preventing HIV among children. Other strategies are preventing the transmission of HIV from HIV positive mothers to their children during pregnancy, labour, delivery and breast feeding, and integrating HIV care, treatment

and support for pregnant women found to be HIV positive and their families (WHO, UNAIDS & UNICEF 2011).

In many developing countries, particularly Sub-Saharan Africa, antenatal care clinics are among the most frequently utilized services of the public sector health system (UNICEF 2005). PMTCT service is less expensive and can result in massive reductions in HIV transmission if accessed and effectively utilized. As such, it is arguably the most critical HIV intervention for children.

Like in other resource settings, the Ministry of Health (MOH) in Zambia is challenged to make affordable and satisfactory PMTCT interventions accessible and available. With an HIV prevalence of 14.3% (Republic of Zambia Ministry of Health 2008), the MOH estimates over one million people are HIV positive in Zambia. Roughly 500,000 children are born yearly in Zambia and 40,000 acquire the infection vertically each year if no intervention is offered. However report by the ministry of health indicates that with about 500,000 babies born annually in Zambia, around 88,000 HIV positive pregnant women give birth to an average 28,000 HIV positive children every year if there are no interventions (Republic of Zambia Ministry of Health, 2008). Vertical transmission of HIV remains the main source of pediatric HIV infection in Africa with transmission rates as high as 25%-45% without intervention (Torpey et al, 2010). Nearly 40% of HIV-infected mothers in Zambia will transmit the virus to their babies if no intervention is available (Centre for Infectious Disease Research in Zambia 2007).

De Cock et al (2000) also urges that without treatment, around 15-30 percent of babies born to HIV-infected women will become infected with HIV during pregnancy and delivery, and a further 5-20 percent will become infected with HIV through breast feeding. In 2010, around 390,000 children under 15 years of age became infected with HIV, mainly through mother-to-child transmission (UNAIDS 2011). About 90 percent of children living with HIV reside in sub-Saharan Africa where, in the context of a high child mortality rate due to AIDS accounts for 8 percent of all under-five deaths in the region (UNICEF, cited in Peltzer et al 2011) and Zambia is one of the sub-Saharan African countries.

UNAIDS and WHO (2008) indicates that 90 percent of the world's 2.3 million children living with HIV get infected through vertical transmission. The report states that the infection is acquired during pregnancy, delivery and or/ breastfeeding. De Cock et al (2000) urges that

without intervention, 25-45 percent of births from HIV positive mothers in developing countries compared with 15-25 percent in industrialized countries are infected. Although the coverage of PMTCT interventions has been steadily increasing over the last 3 years (WHO 2008); most available data focus on number of pregnant women provided with prophylactic antiretroviral (ARV) drugs, little is known about the factors that hinder and /or enable pregnant women in accessing PMTCT services at antenatal clinics during antenatal visits.

### **2.3. Factors influencing HCT attendance**

A study conducted by Moyo (2009), to investigate factors influencing HCT attendance by women in the Glen View high density suburb in Harare, Zimbabwe showed that the HCT usage was low and that factors such as fear of the consequences of testing positive for HIV, stigma & discrimination, violence and rejection by male partners are responsible for the low HCT uptake. The findings in this study suggested that if the vulnerability of women is not addressed, then increased HCT uptake and better reproduction health outcomes for men are also unlikely. The study highlighted male reactions to a positive HIV test by their female sexual partners as a major deterrent against utilizing the HCT. Women that felt vulnerable were more likely to avoid testing. In this regard, traditional gender norms related to help seeking and health seeking may guide HIV testing acceptance.

A study done in Namibia by Shangula (2006) showed that men are the chief decision makers in matters such as who to marry and whether the man will have more than one sexual partner. It is this excessive power imbalance that makes it difficult for women to protect themselves from getting infected with HIV. For example culture requires that a woman should not insist on the use of a condom even if her husband is having more than one sexual partner. Thus is because her husband is the one that make decisions.

Another study conducted in East Gojam Zone in Ethiopia by Belachew and Abebe (2011) reveals that women traditionally are under the influence of their men and there is power imbalance between men and women. The study shows that this power imbalance could have great implication to acceptance of HIV testing and PMTCT program. This study also reveals that most decisions are made by men and that most men could not attend ANC with their spouses because there were reported being overloaded with other works. The study also reveals that pregnancy related services were considered as the task of the pregnant women only. The study also shows that men were not willing to attend ANC with their spouses

because they feared being stigmatized and discriminated if tested positive. They also feared positive test results.

A study (Women and HIV/AIDS 2012) conducted to investigate women attending an STI clinic in Pune, India reports that women were vulnerable and at great risk of HIV infections because of gender issues. Although introduction of condoms in matrimonial relationships may seem obvious, implementation was very difficult and problematic because men were the chief decision makers. In addition the study also revealed that violence against women contributes to women's vulnerability to HIV and low uptake of HCT.

Deacon, Stephaney and Prosalendis (2004, cited in Moyo 2009) argue that HIV testing and the disclosure of an HIV positive result have become female burdens that further exacerbate women's vulnerability. Women that test first in a relationship through antenatal services are often blamed and accused of bringing the disease burden into the households. As a result, women often do not disclose HIV positive results for fear of abandonment and domestic violence. Usually disclosure is assumed especially the woman is not breast feeding her baby, or is suggesting use of condoms or taking certain pills. This in turn has resulted in HIV positive women shunning these kinds of activities to avoid unintentional disclosure as these activities are usually stigmatized.

A study conducted in Uganda by Mama (2002) also confirms the findings of Deacon et al (2004, cited in Moyo 2009). The study found that women did not go for HCT because they feared violence from their husbands. The study revealed that the women feared that if their husbands found out that they were HIV positive, they would be blamed and separated or suffer domestic violence. Moyo (2009) also confirms in her study that Social conceptualization has an influence on HIV tests uptakes. Issues of stigma and discrimination prevent HCT uptake since people living with HIV/AIDS are labeled by society as being promiscuous.

A study conducted by Shangula (2006) in Namibian's Tsumeb District on factors affecting HCT uptake in pregnant women revealed that 51% of the participants avoided HCT because they feared death and they thought that if they were diagnosed with HIV they would soon die. 43% of the respondents feared stigma & discrimination and rejection by the family and community if there were found to be HIV positive. Another study conducted by Meiberg et al

(2008) in Limpopo province in South Africa reveals that fear of stigmatization is an important barrier to HIV testing and has negative consequences for AIDS prevention and treatment.

Four studies conducted in England by Chinouya and O'keefe (2006, cited in Fakoya et al n.d.) report that fear of isolation and social exclusion following HIV diagnosis as being a barrier to HIV testing. Another study of patients done in England by Prost et al (2009, cited in Fakoya et al n.d.) finds lack of psychosocial support as a potential disadvantage of HIV testing in primary care.

A study conducted in Zambia by Jurgensen et al (2011) argues that the burden of knowing an HIV status and related reluctance to get tested can be understood both as label- avoidance and as strong expression of the still powerful embodied memories of suffering and death among non-curable AIDS patients over the last decades. However, hopes lies in the emerging signs of a reduction in HIV related stigma experienced by those who had been tested positive for HIV. From the beginning of the HIV/AIDS pandemic, stigma has been a component of the HIV/AIDS scenario and a number of researches have been conducted concerning the diverse aspects of the phenomenon. Some studies on associations between stigma and health in social science date as back as to the early 1880s (Jurgensen et al 2011). However, the stigma concept was fully introduced in the classical sociological works of Goffman, who defined stigma as “an attitude that is significantly discrediting” (Goffman 1963, cited in Stuenkel & Wong n.d). According to Goffman, the stigmatized person possesses an undesirable difference.

A study done by Nigatu and Woldegebriel (2011) that analysed the prevention of mother-to-child transmission (PMTCT) service utilization in Ethiopia between 2006-2010 showed that approximately one-third of mothers are receiving ANC services in either health centers which do not offer patient initiated HIV counseling and testing services for pregnant women, or at health posts without PMTCT services, or rarely in outreach sites. These pregnant women constitute a significant number of missed opportunities for HIV counseling and testing, implying the need for a substantial programmatic approach to spread efforts and make service available to these pregnant women.

#### **2.4. Factors influencing HCT attendance in PMTCT**

A study conducted by Skinner et al (2005) has shown that despite free good intentions and commitment from providers, HIV counseling and testing as part of PMTCT can be difficult for pregnant women to access. However, the research concentrated generally on socio-economic factors and neglected the cultural dimension and the individual pregnant woman herself.

A research in Russia found that low educational level and lack of accurate information about HIV/AIDS among women of child bearing age is a contributing factor for some women not accessing HIV counseling and testing for PMTCT services. The research indicated that some women remain in denial about their pregnancy and some do not appreciate the benefits of PMTCT services (Babakian 2005, cited in Karia 2008).

In a study carried out in USA among women of child bearing age, just over one half had correct knowledge of effective perinatal HIV prevention strategies. The study also noted that pregnant women who should have received the knowledge through counseling, only 65% knew of the existence of PMTCT ARV prophylaxis (Anderson et al 2004, cited in Karia 2008). A similar study conducted in Nigeria also indicated that inadequate knowledge of PMTCT services was a barrier to PMTCT use (Arulogun 2007, cited in Karia 2008).

A woman's ability to access or seek health care services is usually shaped by several factors including socio-cultural, her spouse and relatives, and religious norms. These factors may hinder a pregnant woman from accessing health care services including PMTCT (Jones 2004, cited in Karia 2008). "Gender inequalities and discrimination are taken as normal especially in African cultures. The marginalized position of women in the society which mostly makes it difficult for them to negotiate issues on reproductive health is taken lightly" (Richard et al 2003, cited in Karia 2008). In Swaziland, a pregnant woman who chooses to seek PMTCT services to ensure the safety and health of herself and that of her unborn child often faces the possibility of abandonment by her spouse and relatives (Mahdi 2008).

A study conducted by Pathfinder international in Kenya indicated that 43% of married women said that their husbands make decisions for them on health matters. The research found out that restrictive socio-cultural traditions which relate to marriage and sexuality exist. These traditions could be helping to cripple the woman's ability to seek health services and

also put her in danger of the HIV infections (Pathfinder International 2002-2005, cited in Karia 2008). Meursing (1999, cited in Mutombo 2007) observed in Zimbabwe that women's participation in HIV testing depended on approval from their spouses.

A study conducted in Nairobi, Kenya by Karia (2008) revealed that in many African communities, women are marginalized and still regarded as inferior beings. Therefore they lack autonomy to make decisions on HIV prevention. These women are usually stigmatized and discriminated, and they fear rejection and violence if they are identified as HIV infected. As a result, they will be reluctant to take advantage of the PMTCT services. Similarly, a study conducted in Kenya documented that an average of 65% of pregnant women attending antenatal care decline to take a test, citing lack of male involvement as a significant barrier for women to accept PMTCT services (NASCO 2005, cited in Karia 2008).

A study conducted in Uganda discovered that pregnant women's reservations to seek PMTCT services are based on fear that if their HIV status is known; the maternity health care providers might decline to assist then during delivery. The study also reported that infant feeding with formula milk is a major barrier to seeking PMTCT services due to suspicion, stigma and discrimination among the communities (Eide et al 2003, cited in Karia 2008). Similarly, it is reported that in South Africa, a woman feared fetching formula milk for her infant due to stigma among her neighbours (Reproductive Health Matters 2007, cited in Karia 2008). "Not breastfeeding can result in social stigmatization, economic hardships and early return of fertility" (USAID 2001).

At least 90% of the 25.3 million people living with HIV in Sub-Saharan Africa did not know their HIV status ten years ago (WHO 2002, cited in Harries et al 2002). A study conducted in Nigeria indicated that the majority of women had good knowledge of the mode of HIV transmission. However, specific aspects of PMTCT interventions were poor (Ekanem et al 2004, cited in Shangula 2006). Another study in the same country indicated that 65% had good knowledge, 24% had fair knowledge while 11% had poor knowledge of HIV infection (Iliyasu et al 2005, cited in Shangula 2006).

A study conducted by Torpey (2010) through Zambia prevention care and treatment project in collaboration with the ministry of health in Zambia on the uptake of prevention of mother to child transmission of HIV (PMTCT) services in a resource-limited setting following the introduction of context-specific interventions, indicated that uptake of PMTCT services in resource-limited settings can be improved by utilizing innovative alternatives to mitigate the

effects of human resource shortage such as by providing technical assistance and mentorship beyond regular training courses, integrating PMTCT services into existing maternal and child health structures, addressing information gaps, mobilizing traditional and opinion leaders and building strong relationships with the government. These health system based approaches provide a sustainable improvement in the capacity and uptake of service. The study concentrated on the system based approaches in PMTCT delivery and neglected the pregnant women in the system. In addition, the study did not place emphasis on the individual/personal and social cultural factors that hinders or enables pregnant women in receiving PMTCT services.

In the last few years, HIV exposed children are increasingly accessing early infant HIV diagnosis even in developing countries like Zambia. This represents an opportunity to assess vertical transmission rates after PMTCT interventions, one of the accepted approaches to evaluate effectiveness of PMTCT in real life.

## **2.5. Application of the Andersen behavioral model for this study**

The Andersen behavioral model was developed in 1968 to study factors that influence utilization of health care services by clients. The model has three factors namely individual factors, societal factors and health services systems factors. For this study, individual and societal factors will be explored. Though the model has undergone several modifications over the years, it remains the most widely used in determining the utilization of health care services (Kroeger 1983, cited in Karia 2008).

The Andersen model has been used in many studies as a theoretical or analytical framework to determine factors that influence the use of health care services by several vulnerable populations such as those with HIV/AIDS (Hausmann-Muela 2003, cited in Karia 2008). The Andersen model describes the individual factors as having three elements that relate to the individual's ability to access and utilize health care services. These are needs factors such as the need for care, perception of illness, values and attitude towards health care services; predisposing factors such as ages, gender, formal education, religion, knowledge about a particular subject; enabling factors such as availability of services, socio-economic status, social class and social support networks.

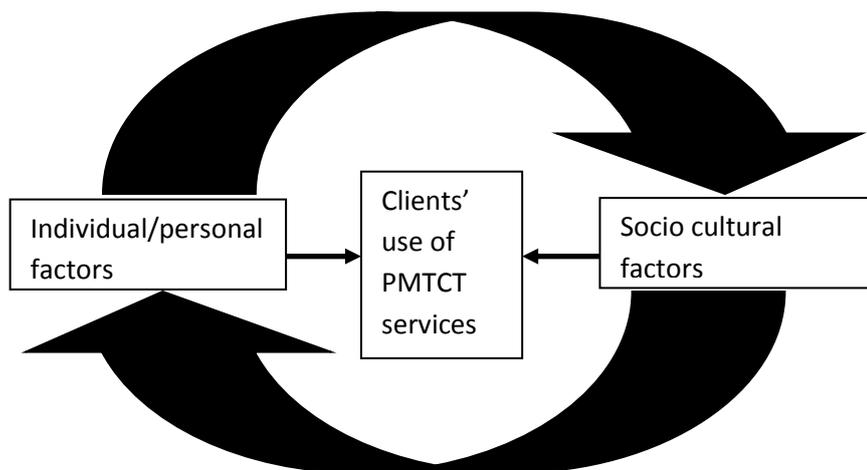
### **2.5.1. Conceptual framework**

Using the Anderson behavioral model, the conceptual framework was described under two main categories. These are individual/personal and socio cultural categories with their

variables that may contribute to the pregnant woman’s ability to access and use PMTCT services including HIV counseling and testing.

Figure 1: Conceptual framework for analyzing the factors related to access and utilization of HIV counseling and testing for PMTCT services.

**Figure 1: Adaptation and application of the Anderson model to this study**



Source: Karia (2008)

**Individual Factors:** Marital status, level of education, fear of knowing HIV status, attitude of client, disclosure, knowledge and perceived benefits of service

**Socio cultural factors:** Gender, stigma and discrimination, social roles, cultural constraints, socio economic, decision making and accessibility

## 2.6. Summary

This chapter presented the literature review. It reviewed the socio cultural and person factors that affect HCT in provision of PMTCT services and outlined the application of the conceptual framework and defined the operational terms. The next chapter presents the research design and methods used in the study.

## **Chapter Three: Research design and methods**

### **3.1. Introduction**

In this chapter, the researcher presents the research design and methodology. In addition, the researcher describes sampling procedure that was used in the study. Furthermore, the researcher also describes the sample characteristics, data collection process and data analysis procedure. The researcher also demonstrates how the sample size was calculated in this chapter.

According to Burns and Grove (1995, cited in Shangula 2006), research methodology ‘refers to the strategy of the study, from identification to final data collection’. Research methodology consists of aims, objectives, definition of terms, study type and design, study population, sampling, data collection tools, data processing analysis, validity and reliability of the designed instruments, data management, generalization, ethical consideration and limitation of the study. The definition of terms, aims and objectives of this study, however, have been discussed in the earlier chapters.

### **3.2. Research design and methods**

Both quantitative and qualitative methodologies were used to conduct this study. Focus Group Discussions were conducted with groups of pregnant women that have never been tested for HIV before and Key Informant Interviews with health care workers (midwives or nurses) to ask them about factors affecting HCT in provision of PMTCT services among pregnant women were used.

A retrospective statistical report review was also used to ascertain the accessibility rate for the HIV counseling and testing for PMTCT services. In this light, statistical report review was used to collect the number of pregnant women attending ANC and number of pregnant women receiving HIV testing.

#### **3.2.2. Qualitative study design**

The qualitative methodology component of this study comprised of Focus Group Discussions and Key Informant Interviews.

Focus Group Discussions were conducted with groups of pregnant women that have never been tested for HIV before and Key Informant Interviews were conducted with health care

workers (midwives or nurses) to ask them about factors affecting HCT in provision of PMTCT services among pregnant women were used.

Open ended questions were used in the focus group guide on related topics which were grouped together to include respondents' knowledge on HIV/AIDS and PMTCT; information on the social and demographic characteristics of the women; personal circumstances, views and expectations; personal attitudes towards PMTCT services recommendations on improving the performance of PMTCT services at the health facility; and cultural dimensions.

### **3.2.2.1. Qualitative data collection methods**

According to Denise et al (2001), data collection is the gathering of information needed in order to address a research problem.

Data collection commenced after the ethics committee from University of Stellenbosch, ethics committee of Zambia and MOH granted permission to proceed with this study at the hospital. Data collection started on 12 November 2012 and continued until a total of 48 pregnant women were discussed with and 2 health care workers were interviewed. Data collection was done from 12 to 16 November 2012.

The researcher made an appointment with the person in charge at the hospital to administer FGDs and KII on ANC clinic days.

This part of the study was qualitative and was based on primary data obtained using focus group discussions and key informative interviews. The focus group discussion guides and KII are attached as appendix A and appendix B respectively. The KII was directly administered to two health care workers that provide ANC services at the hospital.

Detailed descriptive data was collected using the two tools. Each question in KII lasted approximately 6 minutes and each question in the FGD lasted approximately 15 minutes. The focus group discussions were the main source of data for this study. This method of data collection was preferred because it is able to collect a lot of detailed data in a short period of time from as many participants as 10 per group. The KII is also similar to FGD except participant is interviewed at length, so it was also easy to collect detailed information from the participants using KII.

Data on social, cultural and personal factors influencing access of HIV counseling and testing was collected using focus group discussion guides and key informant interviews from target maternal group attending antenatal services and health care workers respectively.

A focus group discussion guide was used to collect data from five (5) focus groups of between 8 and 10 pregnant women that have never been tested for HIV per group to determine the women's level of knowledge, practice and attitude towards HIV counseling and testing for PMTCT services. The researcher collected data from multiple individuals simultaneously using five focus groups. The researcher chose focus groups because they are less threatening to many research participants, and its environment is helpful for participants to discuss perceptions, ideas, opinions and thoughts (Krueger & Casey 2000, cited in Onwuegbuzie et al 2009). This method of data collection is economical, fast and efficient as data is collected from multiple respondents simultaneously. Small numbers of about 8-10 pregnant women were engaged in informal discussions which focused around the topic of interest.

The pregnant women attending antenatal service at Kabwe Mine Hospital were invited after their antenatal session to participate in the FGD upon asking them to find out if they have never had an HIV test before. Five (5) FGDs were conducted and two FGDs were conducted per day. The FGD participants were offered refreshment and snacks for the inconvenience of spending an additional hour after their antenatal visit.

Two health care workers from Kabwe mine hospital were on the first day interviewed using key informant interviews to collect information on the service delivery in question. In addition, existing data like percentage of pregnant women receiving counseling and testing for PMTCT was collected from HIA2 reports generated from PMTCT registers and safe motherhood registers. PMTCT and safe motherhood registers were not be reviewed as they contained individual record data that may contain HIV status for some mothers. HIA2 reports contain statistics of pregnant attending ANC in a given month and statistics of pregnant women tested for HIV in a given month among other information. The report also contains statistics on PMTCT, ANC and HCT. HIA2 reports for six months to target maternal group for the target population were reviewed and analyzed.

### **Data collection tools**

Denise et al (2001) define the data collection tools as research instruments or vice that a researcher uses to collect data. The researcher for this study designed the KII, FGD guide and record review tool to collect data from the study population. Some of the questions in the KII and FGD guide were adopted and adapted from [www.usaid.gov](http://www.usaid.gov). while other questions were developed by the researcher herself with the help of her supervisor. The FGD guide KII questions consisted of open ended questions with enough flexibility to allow for new ideas and issues to be raised by participants regarding the subject matter. Open ended questions were used in the focus group guide on related topics which were grouped together to include respondents' knowledge on HIV/AIDS and PMTCT; information on the social and demographic characteristics of the women; personal circumstances, views and expectations; personal attitudes towards PMTCT services recommendations on improving the performance of PMTCT services at the health facility; and cultural dimensions.

In order to meet the purpose and objectives of the study, the researcher developed the questions after reading and understanding the literature review.

#### **3.2.3. Quantitative study design**

A retrospective statistical report review was also used to ascertain the accessibility rate for the HIV counseling and testing for PMTCT services. In this light, statistical report review was used to collect the number of pregnant women attending ANC and number of pregnant women receiving HIV testing.

A retrospective six month report review was conducted of available HIA2 reports filed at the hospital (refer to appendix c for report review form that was used to ensure that data collected was complete). These were systematically selected set of HIA2 reports for 6 months at the mine hospital in Kabwe, Zambia between January 2012 and June 2012. The period of 6 months was chosen to allow for the researcher to have enough records to show a good picture of HCT uptake. Statistics from HIA2 reports were extracted by the researcher using a structured data collection sheet (refer to appendix d). Data was entered and analyzed using Microsoft excel. Microsoft excel was found to be more user friendly considering that the researcher just needed to establish the HCT uptake levels from the data collected using the record review, so using Epi info and SPSS was deemed unnecessary at the time.

**3.2.3.1. Data collection for the retrospective review**

Data on number of pregnant women attending ANC and number of pregnant women accessing HIV counseling and testing for PMTCT services was collected from HIA2 to get percentage of pregnant women accessing HIV counseling and testing for PMTCT services at Kabwe Mine Hospital MCH.

**3.2.3.2. What information was collected from the retrospective review?**

- i. Number of pregnant women attending antenatal services for a given pregnancy.
- ii. Number of pregnant women receiving HIV counseling and testing for PMTCT services during their ANC visits

**Table 1: Summary of data collection methods**

<b>Method</b>	<b>Target group</b>	<b>Number</b>	<b>Tool</b>	<b>Purpose</b>
FGD	Pregnant women that have never been tested for HIV at Kabwe Mine Hospital	5 FGDs of 8-10 participants	Focus group discussion guide	KAP of HCT use for PMTCT
KII	Health care workers (Nurses and midwives) at KMH	2 KIIs	Interview guide	Factors affecting HCT in provision of PMTCT
Retrospective report review	Reports showing statistics on how many women are attending ANC and how many women have tested for HIV at KMH	HIA2 reports for 6 months	HIA2 reports	HCT in provision of PMTCT

### **3.3. Data analysis**

#### **3.3.1. Qualitative data analysis**

For this study, the researcher used the constant comparison analysis to conduct the data analysis from the focus group data. Constant comparison analysis was developed by Glaser and Strauss (Glaser 1978, 1992; Glaser & Strauss 1967; Strauss 1987, cited in Onwuegbuzie et al 2009). This method is also known as the method of constant comparison, and was first used in grounded theory research. Yet as Leech and Onwuegbuzie (2007, 2008) have discussed, constant comparison analysis can be also used to analyze many types of data, including focus group data. It is important to note that three major stages characterize the constant comparison analysis (Strauss & Corbin 1998). The first stage includes chunking data into smaller units and the researcher attaches a descriptor, or code to each of the units. Then in the second stage, the researcher groups these codes into categories, and finally in the third stage, the researcher develops one or more themes that express the content of each of the groups (Strauss & Corbin 1998).

This type of data analysis allowed the researcher to assess for saturation in general and across-group saturation in particular considering that there were five different focus groups used to collect the same data. Because focus group data are analyzed one focus group at a time, analysis of multiple focus groups effectively serves as a proxy for the theoretical sampling, which is when additional sampling occurs to assess the meaningfulness of the themes and to refine themes (Charmaz 2000, cited in Onwuegbuzie et al 2009). The researcher used the multiple groups to assess if the themes that emerged from one group also emerged from other groups. Doing so helped the researcher in reaching data saturation.

The researcher also checked data for quality control and leaning while collecting data in the field. This was done in order to ensure that all the information collected using the KII and FGDs had been properly collected, recorded and checked for data completeness and consistency. Qualitative data obtained through FGDs and KIIs were manually analyzed using to provide information on the factors that pregnant women feel affects CT in PMTCT services. Information was sorted based on themes about what the pregnant women were saying concerning the factors.

The following steps were taken to conduct the qualitative data analysis.

I. Familiarization with data

In the first stage of any qualitative analysis method the researcher needs to familiarize oneself with the data. To do so, the researcher reviewed and read through interview notes and listened to the audio tape recordings of the FGDs. The researcher worked with transcripts and notes from the KII and FGDs recorded on audio tape format. Some FGDs were not recorded on tape as some women were uncomfortable being recorded, so some discussions were just noted in writing using a note book. The researcher spent time on reading through the notes from the KII and FGDs. She also spent time to listen to the FGDs. While listening to the recorded audio tapes, the researcher made notes in her reflective note book of anything in particular which takes her interest in the conversation or things she thinks might be significant to the study.

II. Transcription of tape recorded materials

FGDs were recorded in fur 90 minute audio tapes. These were later transcribed verbatim into hand written text which was again typed into computer's Microsoft word.

III. Data reduction

The researcher organized the mass of data into meaningful reduced and reconfigured data. Mile and Huberman (1994, cited in Nixdorff 2008) describe data reduction as the first of the three elements of qualitative data analysis, however the searcher started with familiarization of data as the first step. Mile and Huberman (1994, cited in Nixdorff 2008) define data reduction as the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written up field notes or transcriptions. In addition to condensing the data for the purpose of manageability, data reduction helps transform data so that can be intelligible in terms of the issues being addressed. It is important to note that data reduction often forces choices about which aspects of the assembled data should be emphasized, minimized, or set aside completely for the purposes of the study at hand. The researcher decided which data was to be singled out for description according to principles of selectivity. This involved some combination of deductive and inductive analysis. While initial categorizations were shaped by pre-established study questions, the researcher remained open to inducing new meanings from the data available that was collected during the FGDs and KII.

IV. Data display

Data displays goes a step beyond data reduction in order to provide an organized, compressed assembly of information that allows for drawing conclusion (Miles & Huberman 1994, cited in Nixdorff 2008). The data was displayed in text that provided a way of arranging and thinking about the more textually embedded data. This allowed the researcher analyzing that data to extrapolate from the data enough to begin discern systematic patterns and interrelationships. At the stage the additional themes emerged from the data that go beyond those first discovered during the initial data reduction process.

V. Organization of data for easy retrieval and identification

The data sets from the different focus groups were kept separately with headings indicating the themes. These were typed into Microsoft under the appropriate themes.

VI. Anonymising of sensitive data

Any references to people's and/or organizational names appearing in the FGDs were removed.

VII. Coding of data

The five FGDs and KII data sets were examined for discussions that answered the research question. All text containing knowledge levels about PMTCT services, personal, social and cultural factors that affect HCT in provision of PMTCT were copied and pasted into a new data set document under appropriate headings.

VIII. Identification of themes

Data collected was then grouped under different themes in accordance with the categories under which data was collected. These were knowledge levels about PMTCT, Personal, social and cultural factors affecting HCT in provision of PMTCT services were the categories under which data was collected, so these were identified within each category. It was easy to identify themes because there were categories already under which data was being collected from respondents. Therefore, the themes were easily aligned within the categories.

IX. Exploration between themes

Once the themes were identified, the researcher tried to identify and explore links or relationships among the themes and their categories.

X. Development of theory and incorporation of pre-existing knowledge

The factors were analyzed and then consolidated into a theoretical construct that attempts to explain the phenomenon of factors that affect HCT in provision of

PMTCT services. This construct was then compared with the pre-existing theory of factors that affect health care accessibility, such as the Andersen behavioral model.

#### XI. Report writing

The dissertation was written from the analyzed data and theoretical constructs which was compared with the pre-existing theory. Excerpts as verbatim quotes of what was actually said by the responds from the original data have also been included.

### **3.3.2. Quantitative data analysis**

The quantitative data (this was a smallest part of data collected) collected through a reports review form was cleaned and processed to facilitate for data analysis. Statistics from HIA2 reports were extracted by the researcher using a structured data collection sheet. Data was entered and analyzed using Microsoft excel. Microsoft excel was used because it was found to be more user friendly considering that the researcher just needed to establish the HCT uptake levels from the data collected using the record review, so using Epi info and SPSS was deemed unnecessary at the time.

The analysis lead to having information on the uptake rates for the CT services in PMTCT setup. Mainly percentages were used in this data analysis.

### **3.4. Validity and reliability**

Healy and Perry (2000, cited in Golafshani 2003) assert that the quality of a research study in each paradigm should be judged by its own paradigm's terms. For instance, while the terms reliability and validity are essential criterion for quality in quantitative paradigms, in qualitative paradigms the terms credibility, neutrality or confirmability, consistency or dependability and applicability or transferability are to be the essential criteria for quality (Lincoln & Guba 1985, cited in Golafshani 2003). To be more specific with the term of reliability in qualitative research, Lincoln and Guba (1985, cited in Golafshani 2003) use 'dependability', in qualitative research this closely corresponds to the notion of 'reliability' in quantitative research. In order to enhance the dependability of the qualitative research, Lincoln and Guba (1985, cited in Golafshani 2003) further emphasize the use of inquiry audit.

According to Hoepfl (1997) inquiry audit can be used to examine both the process and product of the research for constancy. Campbell (1996, cited in Golafshani 2003) states that the consistence of data will be achieved when the steps of the research are verified through examination of such items as raw data, data reduction products, and process notes. In the

same vein, Clont (1992, cited in Golafshani 2003) and Seale (1999, cited in Golafshani 2003) approve the concept of dependability with the concept of consistency or reliability in qualitative research. In order to ensure reliability in qualitative research, examination of trustworthiness is crucial. Seale (1999, cited in Golafshani 2003), states that the trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability. He said this while understanding good quality studies through reliability and validity in qualitative research. Further, Strauss and Corbin (1990) suggest that when judging or testing qualitative work, the usual principles of good science require redefinition in order to appropriate the realities of qualitative research

The findings of this study were checked against validity and reliability in relation to the pregnant women aged above 17 years in Kabwe. The researcher relied on reliability to ensure that the method of data collection leads to constant findings. In order to have valid and reliable research results, the researcher employed the following strategies;

- I. The researcher checked her questions to determine if they are prompting the types of responses that the researcher expected. To do this, the researcher run a pilot test with a small set of 4 people from the target population which was not otherwise involved in the study.
- II. The researcher had experts in the area of PMTCT (these were gotten from her working place, CT and PMTCT officers) to check and provide guidance on the data collection tools used.
- III. The researcher asked the same questions to five different groups in the FGDs and triangulated the findings in order to improve the validity and reliability of the research. According to Nahid Golafshani (2003), triangulation is typically a strategy for improving the validity and reliability of research findings. Mathison (1988, cited in Golafshani 2003) elaborates triangulation as an important methodological issue in naturalistic and qualitative approaches to evaluation in order to control bias and establishing valid propositions because traditional scientific techniques are incompatible with this alternate epistemology.
- IV. The researcher asked a series of questions on the knowledge levels about PMTCT among pregnant women, socio-cultural and personal factors affecting HCT in provision of PMTCT, and then compared the answers in the research of others.
- V. The researcher allowed for free and open discussions of issues through participant homogeneity.

- VI. The researcher summarized the answers at the end of each category and confirmed the answers with the respondents.
- VII. The researcher checked the data , the processes and the product of the research for consistency

### **3.5. Data management**

The researcher checked the data collected using the FGD guide and the KII immediately after each discussion and interview respectively. These were checked for completeness and consistency and any queries were clarified with the respondents immediately.

### **3.6. Ethical considerations**

Participation in the study was completely voluntary and each participant was fully informed about the FGD and the interview. Since the study included questions about participants' personal habits, participants' relationships with spouses and social and cultural dimensions, the participants were assured about confidentiality for every piece of information they provided. Confidentiality of data collected during research is important. Therefore, all personal information collected using focus group discussion guides was anonymised as far as possible and consistent with the needs of the study.

Participants were assigned a reference number or code at the beginning of the study and all data collected was stored against this number/code rather than against the names of the participants. Separate lists of people who took part in the research were maintained in a separate location and strict access to this document was adhered to, only allowing primary investigators access. The document was used to link the study code to subjects' identifying information. However, steps were taken to ensure it was not possible to relate a particular set of data back to any given participant by any other person.

Face sheets containing identifiers (e.g. names, address, employers' name or address, relative's names or address, date of birth, phone numbers, email address, social security numbers, voiceprints, finger prints, full face photos and comparable images) were removed from the survey instruments containing data received from study participants.

The importance of the study together with how important their honest answers are to the study results was emphasized. Therefore, the participants were encouraged to respond to all questions that they could answer. Participants were also informed and assured that they

would not publicly be identified and that there would be no way of linking participants to their responses. The interviewer was only able to proceed with interviews and FGDs after obtaining consent from each participant.

The five basic moral principles (respect, for persons and their autonomy, beneficence and no maleficence, justice, trust, and fidelity and scientific integrity) were observed and adhered when conducting the research as outlined by Sales and Folkman (2000).

Stellenbosch University ethical clearance and approval from relevant ethical committee in Zambia were obtained together with permission to carry out the study from Kabwe Mine Hospital of site of Kabwe District.

### **3.7. Limitations of the study**

There was low turn up of pregnant women at Kabwe mine hospital during the data collection time, and so, some of the women included in the sample were from Makululu health Centre which is clinic within the catchment area of Kabwe mine hospital. Makululu health Centre was not originally included in the target group. It would have taken longer if the researcher had waited to attain the sample size of 48 pregnant women at Kabwe mine alone considering that the researcher had very limited time owing to the fact that the research proposal took long to be approved as it was subject to be approved both by the university and the ethics committee in Zambia. In addition the researcher felt that the pregnant women could not share their negative experience about the health service in question as the discussions were done within the confines of the hospital rooms and therefore the presence of the health care workers was very much felt even if the health care workers were in the room next door to the room where the discussions were being conducted.

Data reduction research was difficult because the data that was collected was rich and also because the researcher doing the data analysis also played a direct and personal role in data collection. The human factor is the greatest strength and the fundamental weakness of qualitative inquiry and analysis (Patton 1990).

The sample should have had come from the community as findings showed that nearly every pregnant woman that attends ANC takes an HIV test, so the information of social, cultural and personal factors was more or less like reported information on what the respondents had observed on others or heard about unlike what the respondents experienced themselves. The sample seemed like a proxy sample.

Burns and Grove (2001), indicate that in order to infer generalization of the finding of a same to the population, there should be a response of  $> 50\%$ . This study, the response achieved was 100% of the sample of the pregnant women attending ANC services at Kabwe mine hospital, therefore the findings of this study can be generalized to pregnant women attending similar clinics in Kabwe. The sample size was 48 pregnant women and 2 health care workers.

### **3.8. Summary**

This chapter presented the research methodology. The chapter outlined and described the data collection tools, data collection methods, sampling procedure, study population and site of the study group. Further the chapter describes the sample characteristic, sample size, data collection process and data analysis. Validity and reliability, data management, generalization of the study findings, ethical considerations and limitations of the study have also been described in this chapter. The next chapter presents the research results and findings.

## Chapter Four: Results and Findings

### 4.1. Introduction

In this chapter the researcher presents the findings of the study. She outlines the socio cultural and personal factors that affect HIV counseling and testing in provision of PMTCT services among pregnant women in Kabwe, in order to make recommendations for the development of an intervention program to help improve uptake of HIV counseling and testing for PMTCT services as given by the respondents. This chapter is divided into four sections corresponding to the four objectives of the study. These are knowledge levels about PMTCT services among pregnant women, personal, social and cultural factors that affect HCT in provision of PMTCT services. Each section describes in details the factors presented by the respondents

### 4.2. Findings of uptake of HIV counseling and testing

Findings from the retrospective record review showed an uptake of over 90% of the total pregnant women that attended ANC during the period under review. The record review showed a total number of 137 pregnant women attending ANC from January 2012 to June 2012, out of these, 124 pregnant women were counseled and tested for HIV which represented 91% uptake of HCT. The table below shows the breakdown of the uptake per month.

**Table 2: Uptake of HIV counseling and testing at Kabwe Mine Hospital, January to June 2012**

<b>Indicator</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>
No. of new and revisit ANC attendees	31	19	32	20	14	21
No. of women who were pre-test counseled and tested for HIV	26	16	28	20	13	21
<b>Percentage uptake</b>	<b>84%</b>	<b>84%</b>	<b>88%</b>	<b>100%</b>	<b>93%</b>	<b>100%</b>

These findings show that the uptake of HIV counseling and testing was very good with an uptake ranging from 84% in January to 100% in June 2012.

The figures below illustrate the uptake of HCT over the period of six months in 2012.

**Figure 1: HCT uptake at Kabwe Mine Hospital, January-June 2012**

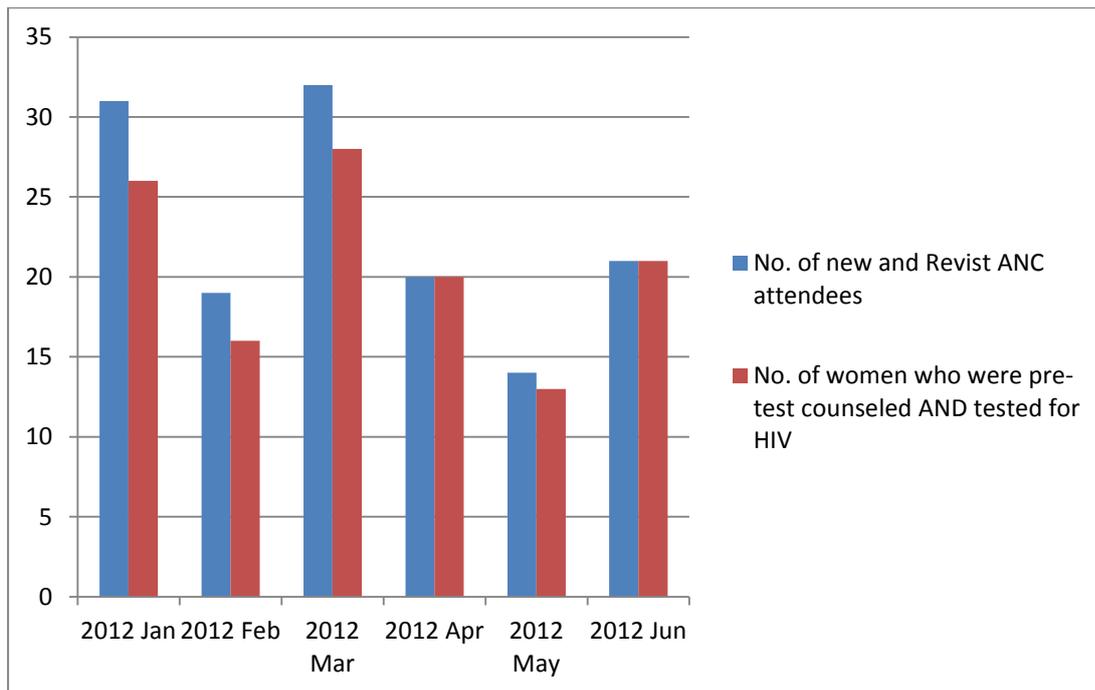


Figure 1 above shows the number of new and revisit attendees at Kabwe Mine Hospital fluctuated between 31 in January to 14 in May. It also shows that the number of women who were pre-test counseled and tested also fluctuated between 26 in January and 13 in May.

**Figure 2: HCT uptake at Kabwe Mine Hospital, January-June 2012**

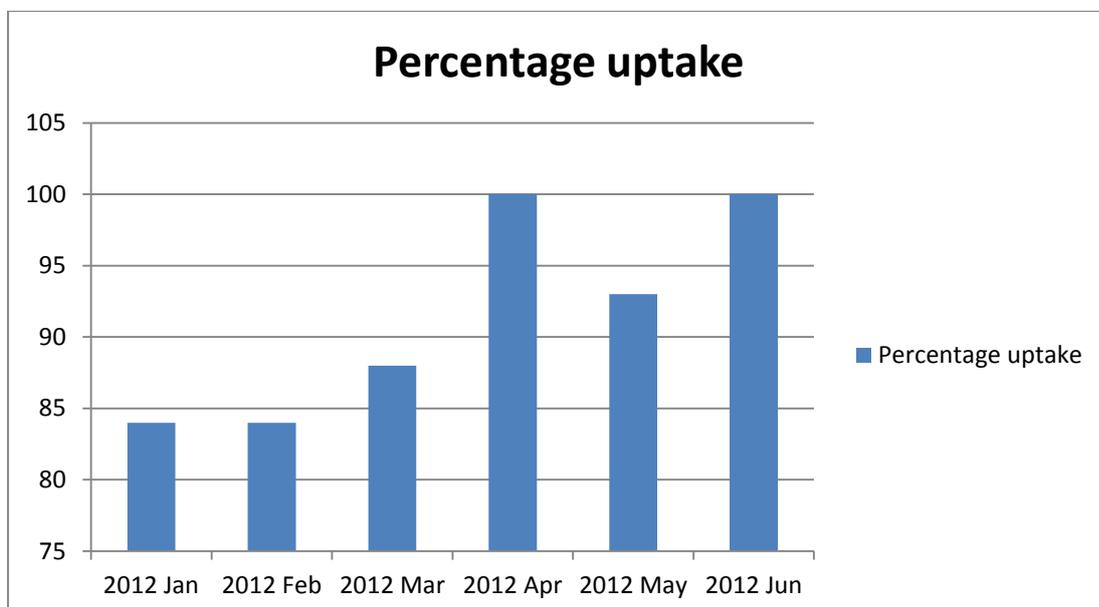


Figure 2 above shows that HCT uptake at Kabwe Mine Hospital increased steadily from 84 in January to 100 in June 2012. However, the uptake dipped from 100 in April to 92 in May.

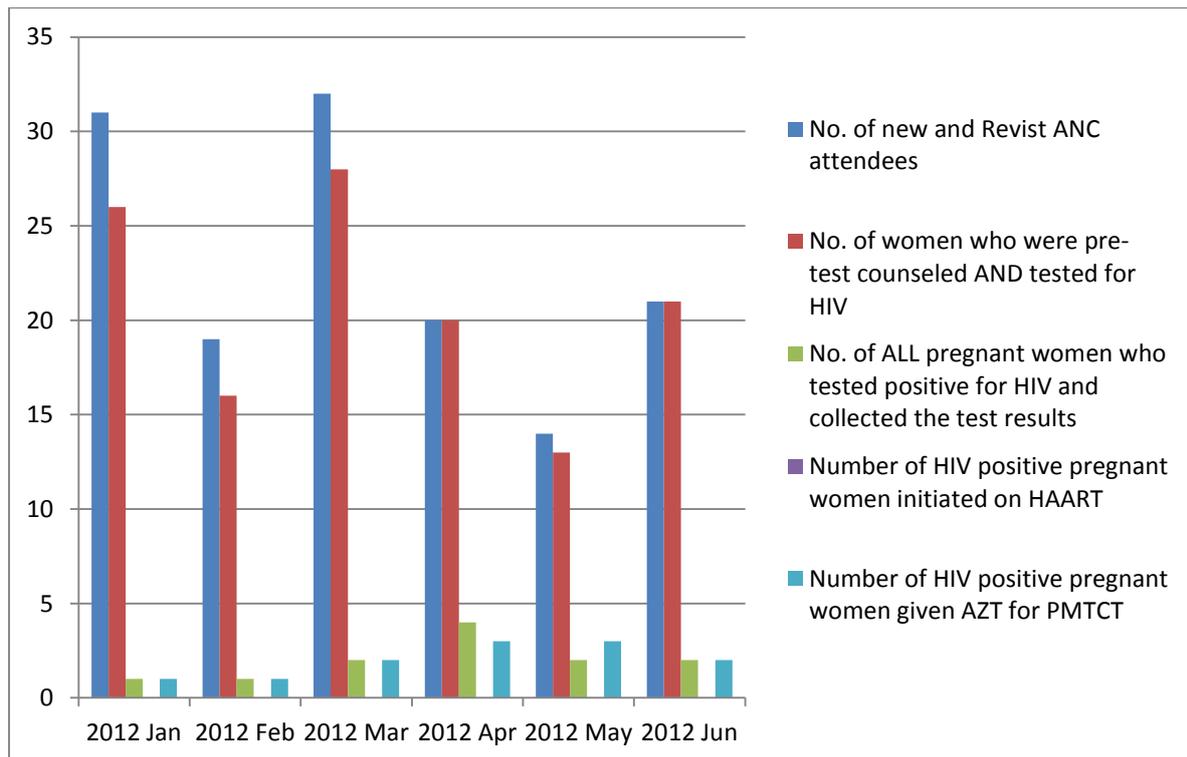
**Figure 3: PMTCT uptake at Kabwe Mine Hospital, January-June 2012**

Figure 3 shows the number of new and revisit ANC attendees ranged from a high of 32 in March to a low of 14 in May. The number of women who were pretest counseled and tested matched the number of new and revisit ANC attendees. However, the number of HIV positive pregnant women initiated on HAART and the number of HIV positive pregnant women given AZT for PMTCT were very low.

#### 4.3. Knowledge about PMTCT services among pregnant women

The researcher wanted to assess the knowledge levels about PMTCT services by pregnant, so she included questions on what HIV is, and how it is transmitted. She also included questions on the difference between HIV and AIDS, as well as PMTCT interventions.

Overall, the respondents had good knowledge of what is HIV is and how is it transmitted from one person to another. Most women who participated all the groups had knowledge of how the HIV virus is transmitted and identified the following as the ways through which HIV virus can be transmitted;

- Sharing sharp utensils such as razor blades and needles
- Having unprotected sex with an infected person

- Through mother to her child during pregnancy, delivery and breast feeding if the mother is infected
- Through blood transfusion
- At traffic accidents if there is contact of blood of the infected to the uninfected.
- HIV transmitting can also be through blood if the blood is not screened properly.

They indicated that this is very rare as health care profession take extra care in the screening blood for transfusion. HIV is a virus that attacks the immunity system. It weakens the immunity system to the point that the body cannot fight infections. This leads to someone getting very sick. This is when we said such a one has full brown AIDS

A number of the respondents were able to differentiate between HIV virus and AIDS as they described HIV as the virus that attacks the immune system and AIDS as a condition when one is presenting with illness because their immune system has been destroyed by the HIV virus.

Most women discussed with in all the five groups did not seem to know how the PMTCT interventions help to prevent HIV transmission from mother to a child. However, they knew that the drugs are given to pregnant women to reduce HIV transmission. It was only in one discussion group (group 2) that it was indicated that ARVS fights the virus in the body for pregnant women and so the viruses reduce, resulting in lower chances of HIV transmission from mother to child. However, most women in the all the five discussion groups understood that drugs are given to pregnant women that test HIV positive to reduce HIV transmission.

Most women discussed with were only able to identify one intervention (ARVS prophylaxis) that is included in the PMTCT interventions. Furthermore, the women's knowledge about on what is included in the PMTCT interventions were only limited to drugs that are given the HIV positive pregnant women for prophylaxis. Interventions like feeding options, cesarean section, and HAART were not mentioned by all the five FGDs as interventions included in the PMTCT.

This helps to draw a conclusion that the first objective of the four was met, as the pregnant women had good knowledge about PMTCT services.

#### **4.4. Social factors**

The researcher wanted to identify social factors that affect HCT in provision of PMTCT services, so she included questions in the KII and FGDs to ask respondents to identify factors they thought affected the service delivery. Stigma and discrimination, Domestic violence, Accusation of promiscuity by partner, Abandonment by partner, Religion, and Fear were identified as social factors that affect HCT in provision of PMTCT.

##### **4.4.1. Stigma and discrimination**

The general information given by the respondents on attitude of people towards people living with HIV/AIDS in the communities was mixed. A good number of the respondents indicated that the attitude lately has been positive though there are still some people that still stigmatize and discriminate people living with HIV/AIDS. They said that more efforts need to put in the fight against stigma and discrimination especially for people living with HIV/AIDS.

The respondents indicated that the communities are moving towards the right direction in the fight against this vice. However, the respondents still sighted the following below as ways in which the people living with HIV/AIDS are being stigmatized and discriminated against.

It was indicated that replacement feeding has been aligned with HIV positive mothers in the community, so some HIV positive women would breastfeed their babies so for the community to see that they are not HIV positive. This is done because of the fear of stigma that is usually experienced in the community. Women in group 3 and 5 stated that stigma actually starts from the hospital environment considering the way the health service delivery setup up is made at the health facilities in Zambia. Services for HIV treatment are provided in isolated and separate from the other clinical services. HIV counseling is given its own place, HIV therapy is also in its own separate place and so is the Pharmacy for ARVS drugs. So people fail to access such services for the fear of being identified by the location where they are accessing treatment from. Women discussed with in all the five FGDs alluded that HIV has been labeled as a disease for the promiscuous people, as a result, people fear to be noted and associated with HIV sero-positivity. Hence they shun using the HIV testing service.

It was stated in the FDGs that some families do not allow HIV positive people to cook for fear of transmitting the HIV virus to the other members of the family. It was also stated that in some households the bath and toilet rooms are immediately disinfect after the HIV positive persons use the facility. Further, it was indicated that some HIV positive people are given their own plates and cups to eat from. In addition, some HIV positive people are not usually

allowed to use the kitchen utensils that everyone else is using for fear of transmitting the HIV virus to the others in the home. It is this level of stigma that makes some women fear to take a test.

The pregnant women the FGDs stated that in the community they call taking HIV drugs as swallowing beans, so people fear to take HIV tests because they feel they cannot stand to swallow 'beans' for life if they test HIV positive.

Some women stated that people fear to be laughed at and mocked if found HIV positive, so some women would prefer using the health the child when it is born to "tell if they are positive or not". They said they would rather just see how the child's health is rather than taking an HIV test. Some even fear to attend ANC at public health facilities, they go to private clinics because there they are not pressured to take an HIV test at private clinics.

It was reported both by the pregnant women and health care workers that that there is still some level of stigma in the communities to the point that HIV positive individuals have been labeled as "moving corpses". Sometimes HIV positive people are discriminated to the point that they are left to eat alone and never to use utensils that are being used by other people for the fear of transmitting HIV to others.

*'We have observed where an HIV positive person visits some home. Whenever he/she uses the bath, someone would scream like please disinfect the bathroom! When he/she uses a cup, someone is like please give him/her own cup'* said one of the pregnant women

It is this stigma that prevents women from taking a test for HIV. Some said that neighbors, friends and relatives alike come to visit women immediately they delivery and they are discharged from Hospital to go home. They do it in the name of welcoming the new born baby, yet their mission is to see is the baby is being breast fed. The moment they see that the baby is not being breast fed, they start running with the story in the community that the women is HIV positive that is why she is unable to breast feed her baby. It's because of this stigma that some HIV positive women have resorted to breast feed their babies beyond the 6 month exclusive breast feeding so that people don't talk. However, it was stated that this has also resulted in putting the babies at risk of contracting HIV of which some babies have actually contracted HIV during breast feeding.

The health care workers interviewed mentioned that some women have self-stigma that why they fail to access HIV testing during pregnancy. The said that most health care workers

come from the same communities where these pregnant women are coming from, so women feel the health care workers would tell people in the community once they test HIV positive, so they fail to access the test as a result. The health care workers mentioned that some pregnant women have distrust in confidentiality in the health systems that is why they refuse to take an HIV test. The health care workers interviewed mentioned concerns for the advertisement in the media on pre-employment test for HIV for service men and women in military and police service. They said that the women fear that they may not be employed at the said service offices when need arise if they test positive for HIV because information reaching the communities from the grape vine indicates that these service offices do not employ HIV positive people, so even pregnant women fear to take a test as they plan for their future employment.

#### **4.4.2. Domestic violence**

The FGDs indicated that there has been reported domestic violence resulting from HIV positive results disclosure. Women mentioned that this actually encourages hiding HIV test results especially for the ones that test positive for HIV. This in the end has increased the chances of HIV transmission in discordant couples. It was stated that women fear to take an HIV test because of domestic violence that has been experienced in homes due to HIV seropositive results. Therefore, women would rather not take an HIV test to maintain peace in their homes. Fear of domestic violence as a result of HIV sero-positive disclosure affects HCT in PMTCT as most women talked to indicated that there is so much gender violence in homes for discordant couples, so most women refuse to take HIV test in order to keep their peace as they are usually the victims in the fights.

*'I experienced one incidence when one of the pregnant mothers was found HIV positive and was asked to go back to the health facility with her spouse. When the woman brought her spouse, the man also told about the HIV status of his wife. The man got so annoyed with the health workers including his wife and he even asked his wife never to go back to her matrimonial home, saying she should be staying at the health facility. He said this woman has brought a very big problem in our home as she test HIV positive, where did she get the HIV from?'* said one of the pregnant women.

Women also stated that they fear their husbands so much that they would not even discuss issues such as HIV testing during pregnancy. It was indicated that it is this fear that leads these women not to take an HIV test during pregnancy. Some women talked to said that some men

tell their spouses that “*if you want to take an HIV test, do it at your own ‘cost’ and don’t involve me*”. This makes some women to be left helpless to the point of shunning the test because they fear for their peace in case the results come out positive. There was an example which was given about a discordant couple where a man was negative and the wife was positive and their child was positive. When the health worker asked for consent from their parents to start the child on treatment, the man refuse to have his child to be put on treatment. *‘Now if there are such men out there that can even go to the level of denying his own child the right to medication, I don’t think women have a say in the issues of HIV in their families, said one woman. There is so much gender imbalance in the communities to the point that the women are left helpless. It is said that this gender inequality actually not only prevents women from accessing HIV testing services, it also plays a role increasing the chances of women contracting HIV from the spouses especially if the woman is HIV negative and her spouse is HIV positive. Men decide whether to use a condom or not. In an ideal situation both man and woman should decide to use a condom to gather but the reality is that women normally have no say when it comes to the use of a condom especially in marriages’* (pregnant women 2012, pers.comm., 14 November).

*‘We fear to test for HIV because our husbands chase us from our matrimonial homes if we test HIV positive’* (pregnant women 2012, pers.comm., 14 November).

#### **4.4.3. Accusation of promiscuity by partner**

Most men do not go with their spouses for ANC services because they mostly reported being busy at work fending for their families. So if a woman goes on her own and decides to take a test and the results comes out to be HIV positive, the woman mostly accused of bringing the virus into the household even if the man has not tested. *‘It’s like the person that test first and results come out positive is the cause of the disease in the home especially from married couples’* (pregnant women 2012, pers.comm., 15 November).

#### **4.4.4. Abandonment by partner**

Most public health facilities ask pregnant women to go with their partners for ANC services so that they can be tested for HIV together. However, most men refuse to go with the partners for ANC services citing being busy at work among other reasons. Usually women fear to test

especially if their partners refused to go to the health facility to be tested with them. Some women indicated that usually women that take an HIV test without their husbands mostly face divorce as they are normally chased from their matrimonial homes by their husbands upon disclosing their HIV sero-positive results. It was indicated that men in the issue of HIV/AIDS are very difficult, ignorant and unsupportive. *'We have seen so many women that have been abandoned by their husbands because they tested HIV positive'* (pregnant women 2012, pers.comm., 15 November).

The health care workers interviewed also alluded that most women that tested HIV positive and their partners tested negative ended in divorce.

#### **4.4.5. Religion**

Some women indicated that a number of people are being fooled through the media by the confessed former Satanists that say that HIV was developed by the Satanists in the dark kingdom, so are the HIV treatment drugs. So some women that are grounded in Christian faith would refuse to take a test because they would believe that the all process is Satanism. Other believe that the blood drawn for an HIV test is sold to Satanists, so women fear to take a test because the fear to be enrolled into Satanism.

*'we heard on the radio that a self-confessed former Satanist said that this HIV/AIDS is actually from the devil. It was manufactured in the dark kingdom and so are the drugs used to treat it, so if you get HIV just pray instead of getting HIV treatment. Getting treatment is enrolment to Satanism'* (pregnant women 2012, pers.comm., 15 November).

#### **4.4.6. Fear**

Some women indicated that since the location for HIV testing is known by everyone, they fear how they would compose themselves coming out of the said room with HIV positive results considering that they are usually people waiting outside the said room. They said no matter how much one composes oneself it would still show on the face that the results are positive, so some women fear to test for HIV because they are scared of how the people would view them when coming out of the testing room with positive results for HIV.

It was indicated that some women fear to know their HIV status. Some fear the community so they do not take an HIV test. The majority of the pregnant women responded that fear was the most common factor why some women do not take an HIV test during pregnancy. The women mentioned fear of a positive HIV test result, and fear of rejection by a partner among

other fears as being the most main deterrent to HIV testing. Fear of dying and fear of stigma and discrimination were also mentioned among other fears that came out very strongly.

The Health care workers mentioned that some pregnant women come with their neighbors and /or friends to the health facility to attend ANC services, so they fear that their friends or whoever they have come with would tell the community if they test positive and so they fear to be laughed at in the community and fear that their friend or neighbors would back bite about her test results being positive.

*'Some women fear their friends so they do not test for HIV'*. (pregnant women 2012, pers.comm., 16 November).

#### **4.4.7. Service delivery**

Most women indicated that health staff provides good health services. They stated that most often health care workers took time for each pregnant mother to provide proper counseling and provide enough information needed to mothers on PMTCT. The health care workers in the KII however, indicated that the facility faced some challenges since the PMTCT program came into practice, among the challenges sighted by the health care workers interviewed were shortage of human resource to provide adequate PMTCT services at the facility and male involvement in the ANC services. The health care workers hoped that the Ministry of health could employ counselors specifically for PMTCT services to ease the human resource shortage challenge. The health care workers indicated that most mothers complied with taking an HIV test once they are given the right information. The respondents in the KII indicated that pregnant women were encouraged to come with their spouses during the first booking for ANC. The health care workers interviewed said that the facility provides group discussion and lessons on preparedness, danger signs during pregnancy, and after delivery are taught to the expecting mothers. It was mentioned that it is during these group discussions that the expectant mothers are given information about HIV/AIDS and are encouraged to take an HIV test. For the ones that agree to take a test, the health care workers provide one-on-one counseling for the ones that come alone and couple counseling for the ones that come as a couple and the test is provided after counseling. The health care workers indicated that most women that attend ANC agree to take an HIV test. However, the mentioned that the problem is usually with the mothers that do not attend ANCs. They said that these are usually the ones that miss out on HIV testing during pregnancy. When asked if they would have an idea of on

average how many women do not attend ANC services, the response from the health care workers was that it was difficult to ascertain but they thought they could be many out there that don't attend ANC services for fear of taking an HIV test among other reasons. The health care workers mentioned that they link the individuals that test positive for HIV to ART clinic for management.

*'Mothers whose CD4 count is above 350 are given ARVs for prophylaxis and the mothers whose CD4 count is less 350 are initiated into HAART. Mothers presenting with WHO stage 3 or 4 of AIDS disease conditions are initiated on HAART irrespective of their CD4 count.'* (Health care workers 2012, pers.comm., 13 November).

#### **4.4.8. Cost**

Most women mentioned that the HIV test at the health facility was free therefore there was no cost implication to taking an HIV test during pregnancy. However, the ANCs services were delivered at a cost and the mothers that cannot afford to pay are encouraged by the health care workers to attend ANC services at other public health institutions where they would not be required to pay.

#### **4.5. Personal factors**

##### **4.5.1. Religion**

Some women indicated that some religions mislead people about HIV/ AIDS. They said most Pentecostal believers say HIV/AIDS is a demon and can be prayed for and it would leave someone. Therefore, many people would opt for prayers rather than taking a test for HIV.

Some people talked to say they cannot take a test because of the faith which doesn't allow them to do so. They said taking a test is like doubting their faith in God.

*'Me, I cannot take an HIV test, my faith can't allow me. Taking an HIV test is like I doubt my God'* said one of the participants.

Some women indicated that their religion doctrines do not allow them to be tested for HIV because the doctrines do not allow them to have blood drawn from their bodies.

Some women feel that women are delivering through caesarean unnecessarily when they deliver from a hospital. So some women shun ANC services with the fear of being operated on when delivering, so they prefer delivering from homes. In doing so these women miss out on other health services being provided for during ANC such as HCT in PMTCT.

#### **4.5.2. Fear**

Some women indicated that some women fear to know the HIV status because they fear to be on treatment if found HIV positive as they said that the HIV drugs are too toxic, therefore the drugs end up damaging important organs in a human body.

Some fear to know their HIV status because they have heard that the drugs for HIV are big and difficult to swallow. So they feel they would still not manage to be on treatment if found positive. As a result they don't even bother to take a test.

Some said that the drugs that are being given for HIV treatment is meant for boosting chickens to grow fast, so they feel some would not bother to take an HIV test because they feel they cannot still on the treatment once tested positive.

Some women indicated that some people say the HIV drugs do not work especially if they see someone put on HIV treatment is not improving, so some women would say testing would not serve purpose because the drugs would not help either.

*'The drugs don't work! We have seen some people that have gotten worse and died after starting HIV treatment'* (pregnant women 2012, pers.comm., 15 November).

It was indicated that some women fear to know their HIV status. Some fear the community so they do not take an HIV test. The majority of the pregnant women responded that fear was the most common factor why some women do not take an HIV test during pregnancy. The women mentioned fear of a positive HIV test result, and fear of rejection by a partner among other fears as being the most main deterrent to HIV testing. Fear of dying and fear of stigma and discrimination were also mentioned among other fears that came out very strongly.

*'Some people fear to test for HIV because they are scared that they may be found to be HIV positive, and other are stopped by their spouses so they worry about their spouses, so they fear to test for HIV' reactions if they are tested HIV positive'* (pregnant women 2012, pers.comm., 14 November).

#### **4.5.3. Disbelief of test results**

Disbelief of test results affects HCT for PMTCT services as some women indicated that a lot of people do not believe their HIV test results especially if the results are positive. Some women indicated that HIV is thought to be introduced in a person's body during the drawing of blood for HIV testing since they believe that the injections being used may have been used on someone with HIV. So they fear to test as they fear to contract HIV through this thought process.

The health care workers interviewed also confirmed that some women do not believe their test results if the results are HIV positive. The health care workers mentioned that they usually attend to women that could have test for HIV from so many other clinics with Sero-positive tests results.

*'If a woman test HIV positive today and still goes to so many other clinics to test for HIV and results still show positive for HIV, shows the level of disbelieve in the test results'* said one health care worker.

#### **4.5.4. Other reasons**

Some said that some HIV/AIDS is meant for human beings so there is no need to be worrying oneself by taking HIV tests. They indicated that in this case, women would not take an HIV test unless they get to *'na Mulenga sunshilempapa weleka tushalilenuma'*. This is a Bemba saying which means that one would do something about it when things are really bad! In this case, they meant that some women would only take an HIV test when they are in the last stages of AIDS.

Some women cited laziness as a reason why some pregnant women do not seek ANC services including HIV counseling and testing.

Some women indicated that taking an HIV test was not necessary because they knew that they were still going to die if they are HIV positive even if they take a test since there is no cure for HIV.

## 4.6. Cultural factors

### 4.6.1. Decision making

It was indicated that most men make decisions for their families. Women in homes have no powers to make decisions, so if the husband refuses her to take a test, the wife just has to comply.

*“It’s like family planning; I can only go if my husband allows me. I can even give an example of discordant couples where a man is positive and a woman is negative, men still force their spouses to have sex with them without a condom. Now you can imagine, if a woman has no say even in issues that concern her health such as allowing herself to be put at risk of contracting HIV from their spouses, do you think women would have a say in matters such as HIV testing especially if the man says no to the test for his wife?”* said one woman.

It was indicated that a good number of women are oppressed in their homes and most decisions are made by their men as they are considered to be the heads of their households.

*‘Some women are stopped by their husbands to take an HIV test’,* said one woman.

It was discussed in the FGDs that culturally, men have been brought up knowing that married partners should not use condoms when having sex with their spouses, so usually men refuse to use condoms and women usually do nothing about it. As a result women feel taking a test would not help in any way because they have seen discordant couples still engaging in unprotected sex. So they feel even if they take a test, life continues the same way, the men are still their husbands unless they decide to divorce. It was indicated that discordant couples usually get the condoms just to please the health workers because as a matter of fact, the condoms are usually not used. This is one other example that shows that women usually do not make health choices in marriages, men decide for them.

Most women talked to say that they would still have unprotected sex with their spouses even if their partners happened to be HIV positive and they are HIV negative themselves. This was due to their submissions as wives to husbands, so this gives a picture of how much these women submit to their husbands and how much the men dominates in the relationships to the point of making decisions for their families. During marriage ceremonies, women are taught to submit to their husbands in the marriage and men are taught to be the head of the house and to make decisions of their families. It is with this background that men make decision for their families including decisions such as taking attest for HIV.

The health care workers interviewed also aired that decisions in most households are made by the husbands, so some women fear their husbands for a positive HIV test results especially if they came without their spouses to the clinic.

#### **4.6.2. Tradition medicines**

Some women believe in the use of traditional medicines such as makole, fisongole (traditional fruits), Kalempla (sweet potato leaves) and okra during labour. They said these medicines help women to have quick delivery without prolonged labour. Furthermore, the medicines helps to have a very slippery delivery, which they believe that would reduce transmission of HIV from mother to child if the mother is HIV infected. They said that the baby would not be under trauma during delivery and the contact in the vaginal canal for the baby is less since the baby comes out very fast without bruises and no tiers for the woman. Therefore, they think taking an HIV test during pregnancy is not necessary because they would be able to still prevent HIV transmission to babies using the said medicines. However it has not been proved if at all these medicines help reducing HIV transmission to a baby.

Some believe in traditional healers. They said that they believed in traditional healers because they believe that HIV/AIDS is associated with demons and witchcraft. Therefore, some people shun health services such as HIV testing because they believe so much in traditional healers. As a result some people has lost faith in western medicines to the point that the believe so much in traditional healers. They feel there is no need to test for HIV since they can easily be cured by the traditional doctors once they get AIDS like symptoms.

The respondents in the focus group discussion mentioned that there are some medicines that women believed to speed up delivery to reduce HIV transmission to a child were said to increase the chances of HIV transmission because of the force and tier that occur during delivery. Some believe ingesting soil from the goal keeper for the football pitch would help speed up labour.

Some women mentioned that traditional medicines such as moringa and holy fitho are being used to treat HIV in the communities, so many people do not bother about HIV testing because they know that they can easily take the said herbs once they are presenting with AIDs like symptoms. Others said some people believe that fat from crocodile and python snake are used to cure HIV/AIDS so they don't bother about taking HIV testing because they know that if they start presenting symptoms of HIV/AIDS they can use the said fats to get healed.

#### **4.6.3. Practices**

Women stated that some pregnant women are used in delivering from homes so they don't even attend ANC resulting in them missing out other services such as HIV testing.

Some older women do not seek ANC services including HIV counseling and testing because they do not approve of younger health staff attending to pregnant women in delivery, so they prefer home deliveries where they are being helped to deliver by older women. In doing so, they miss out on HCT for PMTCT. Culture in Zambia requires that a younger person should not seek an older person's nakedness during delivery. Some women discussed with indicated that they are so many student health employees that are also being placed in the palpation and delivery rooms at the health institutions and they indicated that it does not show respect for young students to be helping older women in pregnancy matters and they also requested to be having older women in provision of ANC services including delivery.

#### **4.7. Summary**

This chapter presented the research results and findings. It outlined the results from the record review, focus group discussions with the pregnant women and key informative interview with the health care workers. The next chapter presents the discussion of the findings by the researcher.

## **Chapter Five: Discussion**

The biographical picture of Kabwe mine hospital indicated that the women that took part in the study were at their peak ages in child reproductive and therefore, needed reproductive health services that included the need to know their HIV status.

### **5.1. Knowledge of HIV/AIDS**

The findings of the study also revealed that the majority reported to be married in monogamous relationships and were fairly educated to the level of an average grade 9.

This shows that the respondents were also able to read and write and had access to HIV information from the health facilities. To that effect, the study revealed that the pregnant women had excellent understanding of what HIV is, how is transmitted and the difference between HIV and AIDS. The study showed that pregnant women however, had fair understanding of the PMTCT interventions that are provide at the health facility. The study revealed that it was evident that pregnant women had access to and understanding of information on HIV/AIDS that they either received through the public media, health facilities and community mobilizations or campaigns.

Radio, TV, newspapers and health facilities were cited as sources of HIV counseling and testing information, with the health facility being the prominent source for pregnant women. It can therefore be inferred these findings that pregnant women in Kabwe are well informed about HIV counseling and testing during pregnancy. Despite the reported high knowledge levels about HIV/AIDS and HIV counseling and testing among pregnant women, which tentatively should translate into all pregnant women accessing the HCT during pregnancy, not all women accessed the services. And the non-access of the service was mainly attributed to the pregnant women that do not attend ANC citing fear of taking an HIV test among other reasons.

The findings of the high knowledge levels about HIV/AIDS among pregnant women concurs with a study conducted in Nigeria that indicated that the majority of women had good knowledge of the mode of HIV transmission. However, specific aspects of PMTCT interventions were poor (Ekanem et al 2004, cited in Shangula 2006). This again agrees with another study in the same country that indicated that 65% had good knowledge, 24% had fair knowledge while 11% had poor knowledge of HIV infection (Iliyasu et al 2005, cited in Shangula 2006). However these findings differ with the findings of a research in Russia that found out that low educational level and lack of accurate information about HIV/AIDS

among women of child bearing age was a contributing factor for some women not accessing HIV counseling and testing for PMTCT services. The research indicated that some women remain in denial about their pregnancy and some do not appreciate the benefits of PMTCT services (Babakian 2005, cited in Karia 2008). These findings again differ with the findings of a study that was carried out in USA among women of child bearing age, that indicate that just over one half had correct knowledge of effective perinatal HIV prevention strategies. The study also noted that pregnant women who should have received the knowledge through counseling, only 65% knew of the existence of PMTCT ARV prophylaxis (Anderson et al 2004, cited I Karia 2008). The findings again differed with the findings of a similar study conducted in Nigeria that also indicated that inadequate knowledge of PMTCT services was a barrier to PMTCT use (Arulogun 2007, cited in Karia 2008).

## **5.2. HCT uptake**

The study also revealed that most women that attend ANC services accept to take an HIV test contrary to what the study expected. However, the study revealed that mostly it's the pregnant women that do not attend ANC services during their pregnancies that miss out on HIV testing during pregnancy. These findings in away, confirms the findings of a study done by Nigatu and Woldegebriel (2011) in Ethiopia that showed that approximately one-third of mothers are receiving ANC services in either health centers which do not offer patient initiated HIV counseling and testing services for pregnant women, or at health posts without PMTCT services, missed opportunities for HIV counseling and testing. Although the study looked at the women that do not attend ANC as the ones missing out on HCT for PMTCT services, it can be aligned with the findings of Nigatu and Woldegebriel (2011) which concentrated on health facilities that do not offer PMTCT services. Both findings indicated that the pregnant women missed out on HCT in a way.

## **5.3. Fear, abandonment, domestic violence and stigma & discrimination**

The study revealed that fear of abandonment by partner if tested positive, fear of stigma & discrimination, fear of death, fear of being accused of being promiscuous by partner if tested HIV positive, and fear of domestic violence affected HCT in provision of PMTCT services. These findings concur with the findings of a study that reported that infant feeding with formula milk is a major barrier to seeking PMTCT services due to suspicion, stigma and

discrimination among the communities (Eide 2003, cited in Karia 2008). Similarly, it was reported that in South Africa, a woman feared fetching formula milk for her infant due to stigma among her neighbors (Reproductive Health Matters 2007). “Not breastfeeding can result in social stigmatization, economic hardships and early return of fertility” (Nduati & Ross 2007). The study confirms the findings of a study that was conducted in Zambia by Jurgensen et al (2011) that argues that the burden of knowing an HIV status and related reluctance to get tested can be understood both as a form of label- avoidance and as strong expression of the still powerful embodied memories of suffering and death among non-curable AIDS patients over the last decades.

The study also confirms the findings of four studies conducted by Chinouya and O’keefe (2006) that reported fear of isolation and social exclusion following HIV diagnosis as being a barrier to HIV testing. The findings of the study is also in agreement with the findings of a study that was conducted by Shangula (2006) in Namibian’s Tsumeb District on factors affecting HCT uptake in pregnant women that revealed that 51% of the participants avoided HCT because they feared death and they thought that if they were diagnosed with HIV they would soon die. 43% of the respondents feared stigma & discrimination and rejection by the family and community if there were found to be HIV positive. Furthermore the findings of the study concur with the findings of a study that was conducted by Moyo (2009), to investigate factors influencing HCT attendance by women in the Glen View high density suburb in Harare, Zimbabwe which showed that the HCT usage was low and that factors such as fear of the consequences of testing positive for HIV, stigma & discrimination, violence and rejection by male partners are responsible for the low HCT uptake.

The findings in this study suggested that if the vulnerability of women is not addressed, then increased HCT uptake and better reproduction health outcomes for men are also unlikely. Similarly, in Swaziland, a pregnant woman who chooses to seek PMTCT services to ensure the safety and health of herself and that of her unborn child often faces the possibility of abandonment by her spouse and relatives (Mahdi 2008). These findings also agree with the findings of Deacon, Stephney and Prosalendis (2004, cited in Moyo 2009) who argue that HIV testing and the disclosure of an HIV positive result have become female burdens that further exacerbate women’s vulnerability.

Women that test first in a relationship through antenatal services are often blamed and accused of bringing the disease burden into the households. As a result, women often do not

disclose HIV positive results for fear of abandonment and domestic violence. Usually disclosure is assumed especially the woman is not breast feeding her baby, or is suggesting use of condoms or taking certain pills. This in turn has resulted in HIV positive women shunning these kinds of activities to avoid unintentional disclosure as these activities are usually stigmatized. This is also confirmed by a study conducted in Uganda by Mama (2002) also confirms the findings of Deacon et al (2004). The study found that women did not go for HCT because they feared violence from their husbands. The study revealed that the women feared that if their husbands found out that they were HIV positive, they would be blamed and separated or suffer domestic violence.

The findings of this study also confirms the findings of a study conducted by Meiberg et al (2008) in Limpopo province in South Africa which revealed that fear of stigmatization is an important barrier to HIV testing and has negative consequences for AIDS prevention and treatment.

#### **5.4. Decision making and male involvement**

The study revealed lack of male involvement in maternal health services, and that women are marginalized and still regarded as inferior beings and most decisions are made by their male sexual partners. These findings confirm the finding of studies in many African communities that showed that women are marginalized and still regarded as inferior beings. Therefore they lack autonomy to make decisions on HIV prevention. These women are usually stigmatized and discriminated, and they fear rejection and violence if they are identified as HIV infected. As a result, they will be reluctant to take advantage of the PMTCT services (Karia 2008).

The findings of this study also confirms the findings of the study conducted in East Gojam Zone in Ethiopia by Belachew and Abebe (2011) that revealed that women traditionally are under the influence of their men and that there is power imbalance between men and women, and most decisions are made by men. The findings of this study further confirms the observation made by Meursing (1999:37-38, cited in Mutombo 2007) that indicated that women's participation in HIV testing depended on approval from their spouses. The findings also agrees with the findings by Belachew and Abebe (2011) that revealed that of most men could not attend ANC with their spouses because there were reported being overloaded with other works.

The findings of this study also agree with the findings of a study that was conducted in Kenya that documented that an average of 65% of pregnant women attending antenatal care decline to take a test, citing lack of male involvement as a significant barrier for women to accept PMTCT services (NASCO 2005, cited in Karia 2008). These findings were also in agreement with the findings of a study that showed that a woman's ability to access or seek health care services is usually shaped by several factors including socio-cultural, her spouse and relatives, and religious norms. These factors may hinder a pregnant woman from accessing health care services including PMTCT (Jones 2004, cited in Karia 2008). "Gender inequalities and discrimination are taken as normal especially in African cultures. The marginalized position of women in the society which mostly makes it difficult for them to negotiate issues on reproductive health is taken lightly" (Richard et al 2003, cited in Karia 2008).

The study also confirmed the findings of a study that was conducted by Pathfinder international in Kenya which indicated that 43% of married women said that their husbands make decision for them on health matters. The research found out that restrictive socio-cultural traditions which relate to marriage and sexuality exist. These traditions could be helping to cripple the woman's ability to seek health services and also put her in danger of the HIV infections (Pathfinder International 2002-2005, cited in Karia 2008). These findings also confirms that findings of a study conducted by Avert (2008) investigating women attending an STI clinic in Pune, India which reported that women were vulnerable and at great risk of HIV infections because of gender issues. Although introduction of condoms in matrimonial relationships may seem obvious, implementation was very difficult and problematic because men were the chief decision makers.

### **5.5. Service delivery**

The study revealed that pregnant women received adequate maternal health services including HCT despite the challenges of human resource shortage at the health facility. These findings contradict the findings of a study of patients done by Prost et al (2009) that showed that lack of psychosocial support as a potential disadvantage of HIV testing in primary care. However, the study also revealed that since PMTCT program came into practice, the hospital had been facing a number challenges, among them shortage of staff to provide PMTCT services. This is a confirmation of the study that was conducted by Torpey (2010) through Zambia prevention care and treatment project in collaboration with the ministry of health in Zambia on uptake of prevention of mother to child transmission of HIV (PMTCT) services in

a resource-limited setting following the introduction of context-specific interventions, which indicated that uptake of PMTCT services in resource-limited settings can be improved by utilizing innovative alternatives to mitigate the effects of human resource shortage such as by providing technical assistance and mentorship beyond regular training courses, integrating PMTCT services into existing maternal and child health structures, addressing information gaps, mobilizing traditional and opinion leaders and building strong relationships with the government. These health system based approaches provide a sustainable improvement in the capacity and uptake of service.

Furthermore, these findings contradicts with the findings of a study that was conducted in Uganda that discovered that pregnant women's reservations to seek PMTCT services are based on fear that if their HIV status is known; the maternity health care providers might decline to assist then during delivery.

#### **5.6. Distrust of test results and distrust in confidentiality in the health systems**

The study revealed that some pregnant women have distrust in test results and also in confidentiality in the health systems that why they refuse to take an HIV test.

#### **5.7. Summary**

This chapter presented the discussion of the research findings by the researcher. The next chapter presents conclusion and recommendations of the study. The research draws conclusion as she looks on what the key factors are in HCT of PMTCT, and makes recommendations on how the system or individuals can deal with the factors as outlined.

## Chapter six: Conclusions and Recommendations

### 6.1. Conclusion

From the findings of the study, the researcher draws the following conclusions

- A person's ability to access health related services is shaped by socio cultural and personal factors among others factors. These findings fit well with the Anderson behavioral model which describes the individual factors as having three elements that relate to the individual's ability to access and utilize health care services.
- The pregnant women had excellent knowledge about HIV/AIDS.
- If tested positive, fear of abandonment by partner, fear of being accused of being promiscuous by partner, and fear of domestic violence were the main factors why some pregnant women did not accept to take an HIV test during their pregnancies. Though fear of stigma & discrimination and fear of death were mentioned and discussed during the FGDs, these fears were very insignificant to have a negative impact on HCT in PMTCT, as it was mentioned that stigma and discrimination were only experienced in few isolated cases.
- It was indicated that most men make decisions for their families. Women in homes have no powers to make decisions, so if the husband refuses her to take a test, the wife just has to comply. A good number of women are oppressed in their homes and most decisions are made by their men as they are considered to be the heads of their households. This came out strongly as one of the key factors that affect HCT in PMTCT.
- Although disbelief of test results was mentioned and discussed as one of the factors affecting HCT in PMTCT, from the discussions it was seen not be one of the key factors affecting HCT in PMTCT.
- Respondents both the FGDS and KII respectively mention cost and service delivery as one of the factors affecting HCT in PMTCT. This was seen not to be a threat to provision of HCT as pregnant women that could not afford to pay for ANC at Kabwe mine hospital were encourage to attend ANC at other public health facilities where this service was offered free of charge. The health care workers indicated that they are doing their best to deliver quality service in HCT in PMTCT despite the human resource constraints being faced by the health facility.

- Respondents indicated religion as a factor that affect HCT in PMTCT. This factor however, was not a very prominent factor, but if left unchecked, it has a potential to negatively impact HCT in PMTCT.
- Health service delivery setup was mentioned as one of the factors affecting HCT in PMTCT. This factor however, was not seen to be among the key factors that affect HCT in PMTCT. Despite the service delivery location setup, people still accessed the HCT

## **6.2. Recommendations**

The respondents indicated fear of abandonment by partner, fear of domestic violence and fear of being accused of being promiscuous if tested HIV positive as the main factors that make women not to receive HCT during their pregnancies. This came about because it was revealed that there was lack of male involvement in ANC services and mostly women attended ANC without their sexual partners, as male partners mostly were reportedly being busy at work or fending for their families. Based on these findings, the researcher recommends that the Ministry of Health through its health facilities scale up male involvement in ANC services that includes HCT. Although the ministry of health is already encouraging pregnant women to come with their partners for ANC services, it would be important to put more effort in scaling up this activity so that pregnant women can be counseled and tested together with their sexual partners. Couple counseling would help clear misunderstandings between partners that arise when a pregnant woman is tested alone and tests HIV positive

The researcher also recommends that the government of Zambia through the cooperating partners should scale up sensitization campaigns on male involvement in HCT during ANC services. Campaign messages on how important it is to have an HIV test should being emphasized outlining the benefits for both the mother and the child through the media (i.e. newspapers, TV and community mobilizations such as drama groups)

The researcher also recommends that the Ministry of health should train more HCT counselors to help alleviate the human resource shortages being experienced at the health facilities. This will in turn improve on service delivery though the situation about service delivery is not very bad at the moment.

The respondents also mentioned the health service delivery setup as a source of concern for HCT service delivery, as HIV/AIDS related services are offered in isolated areas making the locations very noticeable and 'labeled' by others. It would be good to integrate these services into the already existing health services to avoid suspicion that lead to some people shunning to receive HCT.

The researcher also recommends that couples should encourage open communications between themselves so that they understand each other in their matrimonial homes. Open communications in homes between partners would lead to couple counseling and testing as couples would be able to communicate and discuss HCT even when they are planning for a pregnancy.

Respondents indicate that most decisions are made by their male partners in their homes. Though this has been a culture from time in memorial, things are changing now mostly men have excessive decision making powers in their homes when women are less empowered economically and financially. With these findings, the researcher recommends scaling up women empowerment, so that these women can be equipped enough to also contributes to the decision making especially when it affects their health.

Traditional medicines were also mentioned as a factor affecting HCT. Though is not wide spread, it has a danger of negatively impacting on HCT if left unchecked. This has a great danger of misleading people using these medicines that have not been approved scientifically to cure HIV/IADS. The researcher recommends that the Ministry of health to scale up the engagement of these traditional leaders, and healers in the fight against HIV/AIDS. The government of Zambia is already discussing with traditional leaders and healers on the dangers and safety of medicines being used to treat HIV/AIDS traditionally and the ministry of health is seeing how best it can utilize these traditional leaders and healers to disseminating accurate information on HIV/AIDS. Traditional healers are being trained safety and how HIV is transmitted as most of these healers use lazar blades for tattooing one patient to another.

The respondents also indicated that some women could not receive HCT because of the faith in their religions. It was reported that some churches discouraged people from receiving HCT as they indicate that HIV/AIDS is a demon. Some clergy prayed for HIV positive people are declare them healed. This was not very prominent in the discussions, but it has a great danger of misleading a lot more people into not receiving HCT if left unchecked. The researcher

recommends that the Government of Zambia through the ministry of health and its cooperating partners engages religions to discuss HIV/AIDS and provides guidance and benefits of HCT and HIV treatment in addition to prayers.

## References

Asiimwe, D, Kibombo, R, Neema, S 2003. Focus group discussion on social cultural factors impacting on HIV/AIDS in Uganda report. Makerere institute of social research

Belachew, A & Abebe, GM 2012. Factors affecting acceptance of HIV counselling & testing among antenatal care attendants: With emphasis on role of male partners. International journal of scientific & engineering research, volume 3, no. 4, pages. 1-11

Bweupe, M, Chitembo, L, Maswenyeho, S, Murless, E, Mwale, J, Tambatamba, B, Vwalika, C & Mbewe, R 2010. Republic of Zambia Ministry of health national protocol guidelines: integrated PMTCT

Byamugisha, R, Tumwine, JK, Semiyaga, N & Tylleskär, T 2010. Determinants of male involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda: a cross-sectional survey

Centre for health policy and innovation n.d., Essential language towards zero new HIV infections, zero discrimination and zero AIDS-Related deaths: Declaration of commitment on HIV/AIDS and the political declaration on HIV/AIDS report

Christensen LB, Johnson, RB & Turner LA 2011. Research methods, design and analysis, 11<sup>th</sup> edn, Pearson.

CIDRZ 2007. Prevention of mother-to-child HIV transmission (PMTCT). Available from: <<http://www.cidrz.org/pmtct>> [4 April 2012]

De Cock, KM, Fowler, MG, Mercier, E, de Vincenzi, I, Saba, J, Hoff, E, Alnwick, DJ, Rogers, M & Shaffer, N 2000. Prevention of mother-to-child HIV transmission in resource-poor countries: translating research into policy and practice.

Department for International Development 2011. Towards zero infections report.

FHI 2009, Recipient agreement between Family health international and Kabwe district health office under Zambian HIV/AIDS prevention, care and treatment program II.

Fakoya, I, Prost, A, Burns, F & Hart, G n.d., Barriers to HIV testing – Final full report

Fanta, W and Worku, A 2012. Determinants for refusal of HIV testing among women attending for antenatal care in Gambella region, Ethiopia. *Journal of reproductive health*, volume 9, no. 8, pages 1-12.

Available from: < <http://www.reproductive-health-journal.com/content/9/1/8>> [5 May 2012].

Golafshani, N 2003. Understanding reliability and validity in qualitative research. *The qualitative report*, Volume 8 no. 4 pages 597-607.

Available from: < <http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf> >. [6 June 2012]

Harries, AD, Hargreaves, NJ, Chimzizi, R & Salaniponi, FM 2002. Highly active antiretroviral therapy and tuberculosis control in Africa: synergies and potential. *Bulletin of the World Health Organization* 2002, volume 80, no.6, pages 464-468

Hativa, N, Goodyear, J 2002. *Teacher thinking, beliefs and knowledge in higher education*. Kluwer academic publishers.

Available from:

<[http://books.google.com/books?id=UuOk9KjLzLgC&printsec=frontcover&source=gbs\\_ge\\_summary\\_r&cad=0#v=onepage&q&f=false](http://books.google.com/books?id=UuOk9KjLzLgC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false)>. [10 June 2012]

Hoepfl, MC 1997. Choosing qualitative research: A primer for technology education researchers. *Journal of technology education*, volume 9, no.1.

Available from: <<http://scholar.lib.vt.edu/ejournals/JTE/v9n1/hoepfl.html> > [1 May 2012]

Joint United Nations programme on HIV/AIDS 2011. *AIDS at 30: Nations at the crossroads*, Joint United Nations Programme on HIV/AIDS (UNAIDS) and WHO Library cataloguing-in-publication data

Jürgensen, M, Tuba, M, Fylkesnes, K & Blystad, A 2012. The burden of knowing: balancing benefits and barriers in HIV testing decisions. A qualitative study from Zambia. *Journal of BMC health services research*, volume 12, no. 2.

Available from: < <http://www.biomedcentral.com/1472-6963/12/2>> [7 July 2012]

Karia, JM 2008. Factors affecting access and utilization of PMTCT services in Nairobi province, Kenya. MPH thesis, University of Amsterdam

Key, JP 1997. Research design in occupational education: validity and reliability.

Available from:

<<http://www.okstate.edu/ag/agedcm4h/academic/aged5980a/5980/newpage18.htm>>. [22 November 2012]

Lampe, MA, Jamieson, DJ, Shaffer, N and Rogers, MF, 2007. Achievements, issues, and challenges: Prevention of mother-to-child HIV transmission in the United States and in resource-limited settings. *American Journal of Obstetrics and Gynecology*, volume 197, Issue 3, Supplement, Pages A1-A6, S1-S142

Available from: <<http://www.sciencedirect.com/science/article/pii/S0002937807004346>>. [3 April 2012].

Lekganyane, R & Du Plessis, G 2011. Dealing with HIV-related stigma: A qualitative study of women outpatients from the Chris Hani Baragwanath hospital. *Journal of the Association of nurses in AIDS care*, volume 5, no. 003, pages 1-8

Lincoln, YS & Guba, EG 1985. *Naturalistic inquiry*. Beverly hills, CA: Sage publications, Inc.

Makin, JD, Forsyth, BW, Visser, MJ, DPhil, MA, Sikkema, KJ, Neufeld, S & Jeffrey, B 2008. Factors affecting disclosure in South African HIV-positive pregnant women

Markowitz, MS n.d. Protecting privacy and maintaining confidentiality of data collected for research purposes: IRB perspectives

- Masiye, F, Chama, C and Moono, H 2009. Determinants of voluntary testing and counselling in Zambia. The university of Zambia department of economics
- Mawar, N, Sahay, S, Pandit, A & Mahajan, U 2005. The third phase of HIV pandemic: Social consequences of HIV/AIDS stigma & discrimination & future needs, pages. 471-484
- McIntyre, J 1998. HIV in pregnancy: A review. WHO/UNAIDS, pages 5-26
- Meiberg, EA, Bos, E, Onya, H, Schaalma, H 2008. Fear of stigmatization as barrier to voluntary HIV counseling and testing. East African journal of public health, volume 5, no. 2, pages. 49-53
- Mlobeli, R 2007. HIV/AIDS stigma: An investigation into perspectives and experiences of people living with HIV/AIDS. Master of arts thesis, University of the Western Cape
- Moses, AE, Chama, C, Udo, SM, Omotora, BA 2009. Knowledge, attitude and practice of ante-natal attendees toward prevention of mother to child transmission (PMTCT) of HIV infection in a tertiary health facility, Northeast-Nigeria. Journal of Third World Medicine, volume 8, no. 1. Available from: <<http://www.ispub.com/journal/the-internet-journal-of-third-world-medicine/volume-8-number-1/knowledge-attitude-and-practice-of-ante-natal-attendees-toward-prevention-of-mother-to-child-transmission-pmtct-of-hiv-infection-in-a-tertiary-health-facility-northeast-nigeria.html>> [7 May 2012]
- Moyo, P 2009. Factors influencing the attendance of voluntary counseling and HIV testing among women in Glen view high density suburb in Harare, Zimbabwe. Master of Arts thesis, University of South Africa
- Muko, KN, Tchangwe, KG, Ngwa, VC and Njoya, L 2004. Preventing mother-to-child transmission: factors affecting mothers' choice of feeding - a case study from Cameroon. Journal of Social Aspects of HIV/AIDS, volume 1, no. 3, pages 132-138. Available from: < <http://www.tandfonline.com/doi/abs/10.1080/17290376.2004.9724836>>. [28 November 2012]
- Mutombo, N 2007. How voluntary is HIV testing in Zambia? Paper presented at the fifth conference of the union for African population studies (UAPS) held 10-14th December 2007 in Arusha, Tanzania.

Namey, E, Guest, G, Thairu, L & Johnson, L 2007.' Data reduction techniques for large qualitative data sets' in "Handbook for Team-based Qualitative Research" G Guest and K MacQueen (eds.). Lanham, MD:AltaMira Press

Available from < [www.stanford.edu/~thairu/07\\_184.Guest.1sts.pdf](http://www.stanford.edu/~thairu/07_184.Guest.1sts.pdf)>. [10 May 2012]

National Statistical service n.d. Sample size.

Available from:

<Calculator.<http://www.nss.gov.au/nss/home.nsf/pages/Sample+size+calculator?OpenDocument>> [7 April 2012]

Nduati, R and Ross, J n.d., Mother to child transmission of HIV through breastfeeding: strategies for prevention. In HIV/AIDS prevention and care in resource - constrained settings. PC Handbook, chapter 19, pages 451-469

Network of Zambian people living with HIV/AIDS 2013. Available from:

<[http://www.nzp.org.zm/index.php?option=com\\_content&view=article&id=52:kabwe-district&catid=17:district-programmes&Itemid=70](http://www.nzp.org.zm/index.php?option=com_content&view=article&id=52:kabwe-district&catid=17:district-programmes&Itemid=70)>. [3 January 2013]

Nieburg, P, Cannell, T and Morrison, JS 2005. Expanded HIV testing: Critical gateway to HIV treatment and prevention requires major resources, effective protections. Center for Strategic and International Studies, pages 1-11

Nigatu, T and Woldegebriel, Y 2011. Analysis of the prevention of mother-to-child Transmission (PMTCT) service utilization in Ethiopia: 2006-2010. Journal of Reproductive Health, volume 8. Available from:

<<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094274/>>. [10 January 2013]

Nixdorff, JL 2008, Unraveling the process: A qualitative study of entrepreneurial cognition in opportunity recognition. Ph.D thesis, The George Washington university

Oguta, T, Omwega, A & Sehmi, J 2004. Infant feeding alternatives for HIV positive mothers in Kenya-case study. Field article, issue 22.

Available from: < <http://fex.enonline.net/22/infant>>. [15 September 2012]

Onwuegbuzie, AJ, Dickinson, WB, Leech, NL & Zoran, AG 2009. A qualitative framework for collecting and analyzing data in focus group research. International journal of Qualitative Methods, volume 8, no. 3, pages 1- 15

Onwuegbuzie, AJ, Leech, NL 2007. An array of qualitative data analysis tools: A call for data analysis triangulation. Journal of American psychological association, volume 22, no. 4, pages 557–584

Patton, MQ 1990. Qualitative evaluation and research methods. 2<sup>nd</sup> edn, Newbury Park, CA: Sage Publications, Inc.

Peltzer, K, Mlambo, M, Matseke, G, Shikwane, E, Louw, J & Kekana, Q 2011. Report on PMTCT comprehensive community intervention package including male involvement and infant deeding in Nkangala district, Mpumalanga province (Commissioned by the US centers for disease and prevention (CDC).

Posse, M, Meheus, F, Asten, HV, Ven, AV & Baltussen, R 2008. Barriers to access to antiretroviral treatment in developing countries: a review. Journal of Tropical Medicine & International Health, vol. 13, no. 7, pp. 904–913

Preventing mother-to-child transmission (PMTCT) Transmission of HIV 2012.

Available from: < <http://www.avert.org/motherchild.htm>> [7 July 2012]

Preventing Mother-to-child Transmission (PMTCT) in practice n.d. Available from:

<<http://www.avert.org/pmtct-hiv.htm>>. [28 March 2012].

Republic of Zambia Ministry of Health 2011. National health strategic plan 2011-2015

Republic of Zambia National AIDS council 2006. National HIV and AIDS strategic framework 2006-2010

Ryan, GW n.d., Techniques to identify themes in qualitative data.

Available from: [http://www.analytictech.com/mb870/readings/ryan-bernard\\_techniques\\_to\\_identify\\_themes\\_in.htm](http://www.analytictech.com/mb870/readings/ryan-bernard_techniques_to_identify_themes_in.htm) [20 November 2012]

Ryan, GW and Bernard, HR n.d., Handbook of qualitative research. 2<sup>nd</sup> edn, Sage publications, Inc

Sarker, M, Milkowski, A, Slanger, T, Gondos, A, Sanou, A, Kouyate, B & Snows, R 2005. 'The role of HIV-related knowledge and ethnicity in determining HIV risk perception and willingness to undergo HIV testing among rural women in Burkina Faso', journal of AIDS and Behavior, Volume 9, No. 2, pages. 243-248

Setswe, G, Wabiri, N, Seager, J. & Peltzer, K. 2009. The development of harmonized minimum standards for guidance on HIV testing and counselling (HTC) in the SADC region: assessment report on HTC policy reviews. (Commissioned by SADC Secretariat).

Sales, BD, Folkman, S 2000. Ethics in research with human participants. Available from: <http://www.apa.org/pubs/books/4312310.aspx> [20 April 2012]

Shangula, MN 2006. Factors affecting voluntary counseling and HIV testing among pregnant women in Tsumem district, Oshikoto region- Namibia. MPH thesis, University of the Western Cape.

Strauss, A & Corbin, J 1990. Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications, Inc.

Stuenkel, DL, Wong, VK n.d. Theoretical frameworks: Stigma, social identity and labeling theory. Jones & Bartlett learning, LLC

Teka, T, Jebessa, Solomie 2005. Knowledge and attitude towards mother to child transmission of HIV and its prevention among post natal mothers in tikur Anbessa and Zewditu memorial hospitals in Addis Ababa. Ethiopian Journal of Health Development , Volume 19, no. 3, pages 211-218

Topp, SM, Chipukuma, JM, Chiko, MM, Wamulume, CS, Bolton-Moore, C & Reid, SE 2010. Opt-out provider-initiated HIV testing and counseling in primary care outpatient clinics in Zambia. *Bulletin of the World Health Organisation*, volume 89, pages 328-335A

Torpey, K, Kabaso, M, Kasonde, P, Dirks, R, Bweupe, M, Thompson, C & Mukadi, Y 2010. Increasing the uptake of prevention of mother-to-child transmission of HIV services in a resource-limited setting. *journal of BMC health services research*, volume 10. No. 29. Available from: <<http://en.scientificcommons.org/55493534>>. [9 April 2012]

Torpey, K, Kasonde, P, Kabaso, M, Weaver, M, Bryan, G, Mukonka, V, Bweupe, M, Zimba, C, Mwale, F & Colebunders, R 2010. Reducing paediatric HIV infection: Estimating mother-to-child transmission rates in a programme setting in Zambia. *Journal of Acquired Immune Deficiency Syndrome*, volume 54, no. 4, pages. 415-422.

Tshibumbu, DD 2006. Factors influencing men's involvement in prevention of mother to child transmission of HIV programmes in Mambwe District, Zambia. MPH thesis, University of South Africa

UNAIDS 2010. Getting to zero: 2011-2015 strategy. Available from: <[http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/jc2034\\_unaids\\_strategy\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/jc2034_unaids_strategy_en.pdf)> [4 January 2013]

UNAIDS 2010. UNAIDS strategy 2011-2015. Available from: <<http://www.unaids.org/en/aboutunaids/unaidsstrategygoalsby2015/>> [5 January 2013]

UNAIDS 2011. Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive 2011-2015. UNAIDS: Geneva

UNAIDS 2012. UNAIDS report on the global AIDS epidemic. Available from: <[http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/20121120\\_UNAIDS\\_global\\_report\\_2012\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/20121120_UNAIDS_global_report_2012_en.pdf)>. [12 September 2012]

UNAIDS 2012. UNAIDS World AIDS day report 2012. Available from:

<[http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/JC2434\\_WorldAIDSday\\_results\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/JC2434_WorldAIDSday_results_en.pdf)> [20 November 2012]

UNAIDS 2012. Sub-Saharan Africa Regional fact sheet 2012. Available from:

<[http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/2012\\_FS\\_regional\\_ssa\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/2012_FS_regional_ssa_en.pdf)> [30 July 2012]

UNAIDS & WHO 2009. 2009 AIDS epidemic update report. UNAIDS: Geneva.

United Nations Zambia 2011. Zambia high level forum on HIV: near zero new infection, zero discrimination and zero death. ??”

UN Special Sessions (2001). Fact Sheet: Mother-to-child transmission of HIV. UNAIDS: Geneva

USAID 2010. Prevention of mother-to-child transmission (PMTCT) of HIV.

Available from: < [http://www.aidstar-one.com/focus\\_areas/pmtct](http://www.aidstar-one.com/focus_areas/pmtct)> [27 March 2012]

Varga, CA, Sherman, GG, Maphosa, J, Jones, SA 2005. Psychosocial consequences of early diagnosis of HIV status in vertically exposed infants in Johannesburg, South Africa. *Journal of health care women int.* volume 26, no. 5, pages 387-397.

Women and HIV/AIDS, 2012.

Available from: < <http://www.avert.org/women-hiv-aids.htm>>. [6 November 2012]

WHO 2010. PMTCT strategic vision 2010-2015: Preventing mother-to-child transmission of HIV to reach the UNGASS and millennium development goals.

Available from: <[http://www.who.int/hiv/pub/mtct/strategic\\_vision/en/index.html](http://www.who.int/hiv/pub/mtct/strategic_vision/en/index.html)>. [29 March 2012]

WHO/UNAIDS/UNICEF 2011. Global HIV/AIDS Response: Epidemic update and health sector progress towards universal access progress report 2011.

Available from: < [http://whqlibdoc.who.int/publications/2011/9789241502986\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241502986_eng.pdf)>.

[30 June 2012]

Zambia National HIV/AIDS/STI/TB council 2009. Zambia HIV prevention response and modes of transmission analysis report

## **Appendices**

### **Appendix A: Focus group discussion guide**

#### **FOCUS GROUP DISCUSSIONS (FGDs) FOR THE STUDY OF FACTORS AFFECTING HIV COUNSELLING AND TESTING IN PROVISION OF PMTCT SERVICES**

##### **Introduction:**

You are all welcome. My Name is Cecilia Chitambala. I'm a student at Stellenbosch University, Cape Town, South Africa. I am inviting pregnant women above 17 years of age from this hospital that have never been tested for HIV to take part in a small group discussion about factors affecting HIV counseling and testing in provision of PMTCT services. This part of the study only involves taking part in a discussion. We are not asking people who take part in the discussions to be tested for HIV.

The purpose of this study is to identify socio cultural and personal factors that affect HIV counseling and testing in provision of PMTCT services among pregnant women attending antenatal services, in order to make recommendations for the development of an intervention program to help improve uptake of HIV counseling and testing for PMTCT services. It is therefore important to have good discussions so that we can get accurate information on factors affecting this service delivery. This study is being done at Kabwe mine hospital only.

While I'm introducing the focus group, I'm going to send sign in sheet with a few quick demographic questions on age, gender, marital status, and level of education.

- Are there any questions from the group before we get started? (Questions raised should be addressed).
- Completion time for Focus Group Discussion

The Focus Group Discussion is expected to take approximately 1 hour

**Discussion Questions**

<b>PMTCT knowledge</b>		
1.	How is HIV virus transmitted?	a) Probe for knowledge about MTCT b) Probe for of how a pregnant woman can transmit HIV her child (Look out for answers such as during pregnancy, during labor, during delivery and during breast feeding)
2.	What is HIV?	a) Probe for knowledge about relationship between HIV and AIDS
3.	How does PMTCT Interventions help to reduce HIV transmission from Mother to Child?	
4.	What is included in PMTCT interventions?	ARVs prophylaxis Formula feeding Exclusive breast feeding Caesarean section HIV counseling and testing Delivery None of the Above
<b>Social factors</b>		
1.	Are there are social factors that affect accessing of HIV counseling and testing for PMTCT?	For the no answers probe for reason why they think that there are no social factors that affect HIV counseling and testing for PMTCT services  For the yes answers, ask the participants to list the factors, probe for reasons why they think these factors affect HIV counseling and testing in PMTCT services, probe for when and how these factors affect HIV counseling and testing for PMTCT services
2.	Can fear of prejudice such stigma and discrimination affect CT in	Probe to find out how stigma and discrimination plays a roles in CT for

	PMTCT services?	PMTCT services
3.	Can fear of domestic violence as a result of HIV seropositive disclosure affect CT for PMTCT services?	Probe to find out how domestic violence plays a role in CT for PMTCT services
4.	Can fear of disruption of relations due to HIV seropositive disclosure affect CT for PMTCT services?	Probe to find out how fear of disruption of relations affects CT for PMTCT services
5.	Can fear of abandonment by partner due to HIV seropositive disclosure affect CT for PMTCT services?	Probe to find how fear of abandonment by partner affects CT for PMTCT services
<b>Personal factors</b>		
1.	Do you think there are personal factors that affect HIV counseling and testing for PMTCT services?	For the no answers probe for reason why they think that there are no personal factors that affect HIV counseling and testing for PMTCT services  For the yes answers, ask the participants to list the factors, probe for reasons why they think these factors affect HIV counseling and testing in PMTCT services, probe for when and how these factors affect HIV counseling and testing for PMTCT services
2.	Can attitude of health workers affect accessibility of CT for PMTCT services?	Probe to find out how the attitude can affect CT for PMTCT services  benefits of service
3.	Can medicines for PMTCT affect CT accessibility in PMTCT?	Probe to find out how, look out on distrust on medication for PMTCT

4.	Do counseling for HIV affects accessibility to HIV testing in PMTCT services?	Probe to find out how, look out for dissatisfaction of counseling
5.	Does disbelief of test results affects CT for PMTCT services?	Probe to find out how disbelief plays a role
<b>Cultural Factors</b>		
1.	Do you think there are cultural factors that affect HIV counseling and testing for PMTCT services	For the no answers probe for reason why they think that there are no cultural factors that affect HIV counseling and testing for PMTCT services  For the yes answers, ask the participants to list the factors, probe for reasons why they think these factors affect HIV counseling and testing in PMTCT services, probe for when and how these factors affect HIV counseling and testing for PMTCT services
2.	Do men in the communities make decisions for women including in health related matters?	Probe to find out how gender plays a role,
3.	Is there gender inequality in the communities	Probe to find out how this affects CT for PMTCT services

Thank you so much for coming and sharing your thoughts and opinions with us. If you have additional information that you did not get to say in the focus group, please feel free to write it on the plain papers provided.

**Appendix B: Sample Key Informant Interview Guide (for health workers)**

**Factors affecting HIV counseling and testing in provision of PMTCT services among pregnant women.**

Thank you for agreeing to meet with me. I'm trying to find out what socio cultural and personal factors that affect HIV counseling and testing in provision of PMTCT services at his hospital. Before we talk about that topic, could you please tell a little bit about your work with pregnant women and the services your hospital provides to them?

1. What social factors affect HIV counseling and testing in provision of PMTCT services at this hospital, and how do they affect the service?
2. What cultural factors affect HIV counseling and testing in provision of PMTCT services at this hospital and how do they affect the service?
3. What personal factors affect HIV counseling and testing in provision of PMTCT services at this hospital and how do they affect the service?
4. What do you think can be done to help improve the uptake of HIV counseling and testing in provision of PMTCT services at this hospital?
5. What questions would you like to ask me?

## **Appendix C: Records Review Form**

### **Instructions**

Examine consecutive HIA2 reports for the period of 6 months. Use the following scoring system for each month's record:

**For each 'yes' answer, score 1 point on the summary sheet provided (on the next page). You can give half points where the information is incomplete. Total and analyze these scores.**

### **Antenatal assessment record**

1. Is there evidence that the health worker has reviewed and summarized the statistics on ANC record and recorded information about the HCT and PMTCT?
2. Check the items on the Antenatal assessment form. Are all completed?
3. At the end of the form, is there a decision on HCT and PMTCT?

### ***HIV Counseling and Testing***

4. Was HCT pretest information or counseling provided?
5. Was HCT offered to clients?
6. Did the clients accept HCT?
7. If yes, was the HCT done?

### **PMTCT**

This is for all antenatal clients who tested positive

13. Did the clients accept to go on PMTCT?

<b>Hospital: Kabwe Mine Hospital</b>			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
	<b>Record #</b>								
	<b>#</b>								
<b>Antenatal assessment record</b>	<b>1</b>	Is there evidence that the health worker has reviewed and summarised the statistics on ANC record and recorded information about the HCT and PMTCT?	1	1	1		1	1	6
	<b>2</b>	Check the statistics in the HIA2 reports. Are all completed?	1	1	1	1	1	1	6
	<b>3</b>	At the end of the form, is there statistics to indicate decisions on HCT and PMTCT?	1	1	1	1	1	1	6
<b>The assessment of antenatal visit</b>	<b>4</b>	Are there statistics showing pregnant woman's antenatal visit?	1	1	1	1	1	1	6
	<b>5</b>	Has the HIA2 Report been completed?	1	1	1	1	1	0.5	5.5
<b>The assessment of HIV counseling and testing for pregnant women</b>	<b>6</b>	Are there statistics showing pregnant woman's HIV counselling and testing activity?	1	1	1	1	1	1	6
	<b>7</b>	Are there statistics to show that HCT offered to the clients?	1	1	1	1	1	1	6
	<b>8</b>	Are there statistics showing that the client accepted HCT?	1	1	1	1	1	1	6

	<b>9</b>	Are there statistics showing that HCT was done?	1	1	1	1	1	1	6
<b>PMTCT (This is for all antenatal clients who tested positive)</b>	<b>10</b>	Are there statistics showing that the clients accepted to go on PMTCT?	1	1	1	1	1	1	6
	<b>11</b>	Is there indication the clients were given the first dose of PMTCT?	1	1	1	1	1	1	6
	<b>12</b>	Is there indication the clients were given the second dose of PMTCT during delivery?	1	1	1	1	1	1	6
	<b>13</b>	Is there indication the clients' children were given the infant dose of PMTCT at birth?	1	1	1	1	1	1	6
<b>Final summary</b>	<b>14</b>	Has this form been completed	1	1	1	1	1	1	6
<b>Total score</b>			14	14	14	14	14	13.5	83.5
<b>Percentage</b>			100	100	100	100	100	97	