



THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

**EXPLORING DETERMINANTS OF MALE INVOLVEMENT IN
PMTCT PROGRAMS IN CHIBOMBO DISTRICT OF CENTRAL
PROVINCE OF ZAMBIA**

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DEDICATION

I can do all things through Christ who strengthens me. To God be the glory. I dedicate this work to my aunt Mrs Mweemba who taught me to be resilient in a mist of challenges. To my wife Manjeya for being supportive during my studies and for her understanding during my absence from home.

STATEMENT

I hereby state that this dissertation is entirely the result of my own personal effort. The various sources to which I am indebted have been clearly indicated in the references and acknowledgement.

Signed:

Matongo Lenon Hang'andu

DECLARATION

I declare that this dissertation herein presented for the degree of Master of Science in Public Health (Health Policy and Management) has not been previously submitted either wholly or in part for any other degree at this or any other university nor is it being currently submitted for any other Degree.

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APPROVAL

The University of Zambia approves this dissertation of Matongo Lenon Hang'andu as fulfilling part of the requirements for the award of the Master of Science Degree in Public Health (Health policy, Management and Economics).

Signatures

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LIST OF ABBREVIATIONS

ANC: Antenatal Care

AIDS: Acquired Immune Deficiency Syndrome

ART: Antiretroviral Therapy

CDHIMS: Chibombo District Health Information Management Systems

CSO: Central Statistical Office

FAO: Food Agriculture Organisation

FDG: Focus Group Discussion

HIV: Human Immune Virus

MTCT: Mother to Child Transmission

PMTCT: Prevention of Mother to Child Transmission

PRECEDE: Predisposing, Reinforcing and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation

PROCEED: Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development.

UNICEF: United National International Children Fund

UNZABREC: University of Zambia Biomedical Research Ethics Committee

VCT: Voluntary Counselling and Testing

WHO: World Health Organization

ZDHS: Zambia Demographic Health Survey

OPERATIONAL DEFINITIONS

Attitude: The way male and female partners think feel or behave towards the involvement of males in PMTCT.

Belief: A commonly held understanding about male involvement in PMTCT and its consequences.

Behavior: A specific, observable, often measurable and usually customary action.

Environment: The social, political or economic conditions that influences behavior.

Knowledge: The information, understanding and skills that were gained through education or experience that supports or deters the involvement of males in PMTCT.

Lifestyle: A collection of related behaviors that go together to form a pattern of living.

Involvement: To take part in or to make somebody take part in the PMTCT program

Reinforcing attitudes: Feelings and behaviors of influential people that either support or deter the involvement of males in PMTCT.

ABSTRACT

Introduction

The role that men can play in the prevention of HIV is cardinal in changing the course of the epidemic. When men take part in the Prevention of Mother to Child Transmission (PMTCT) of HIV, their knowledge of HIV increases, they become supportive to their partners and their response to HIV testing improves.

Aim

The main purpose of the study was to determine factors that influence male involvement in PMTCT programs in Chibombo district of Central Province in Zambia. Since men are seen to be powerful decision makers at house hold level, their involvement in PMTCT programs could positively influence the utilization of PMTCT services and also curb the spread of HIV.**Methodology**

The study was a cross sectional descriptive study conducted in Chibombo District in Central Province of Zambia. The information was collected from 240 male participants whose partners had attended ANC and PMTCT programs from 1st January, 2008 to 31st December, 2013 using a semi structured questionnaire, and from six focus group discussions comprising of community members, health workers and community health workers that were held in Chisamba, Keembe and Chibombo. Systematic random sampling technique was used to select participants.

Results

The participants had a mean age of 35 years, and that age was not statistically significant ($p > 0.353$). Factors such as education, and knowledge of PMTCT ($P < 0.007$, and 0.01 respectively) had an association with men's willingness to attend PMTCT programs. The occupation of respondents who were in formal employment was statistically significant ($p = 0.026$) indicating an association with male involvement in PMTCT programs. There was no association between Age, residence, and financial earnings and attending PMTCT program attendance ($P > 0.05$) and only 134 (58.3%) knew partners ANC appointment. The majority of the respondents, 219 (91.7%) indicated that they would accept couple counselling and testing during PMTCT programs.

Findings from the Focus Group Discussions revealed that there are individual, socio economic, health related factors that have an effect on men's participation in PMTCT activities, hence need for community sensitization for men on the benefits of prevention of mother to child transmission of HIV and also that timing and what is offered during the programs should include men's reproductive health needs.

Conclusion

The level of male involvement in PMTCT programs was associated with knowledge of PMTCT, occupation and education level of male partners. The willingness of males to get involved in PMTCT was low 63.7% hence the need for more concerted effort to persuade men to be attending PMTCT programs.

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CHAPTER ONE: INTRODUCTION

1.0 Background

The Human Immune deficiency Virus (HIV) continues to be a leading cause of morbidity and mortality among women and children worldwide. According to 2010 estimates, over 390,000 children were newly infected with HIV, and over 90% of these were through Mother-to-Child Transmission (MTCT) of HIV (WHO, 2010). Mother to Child Transmission (MTCT) of HIV can occur during pregnancy, labour, delivery, and during breastfeeding. In the absence of any intervention there is a 20% to 45% transmission rate from mother to child, but this risk can drop to 2% in non-breastfeeding populations, and 5% in breastfeeding populations in which specific interventions are carried out (WHO, 2010). These interventions include: providing lifelong antiretroviral treatment (ART) for all HIV pregnant women with CD4 \leq 350 cells/mm³ or advanced clinical disease; providing prophylaxis to either the mother or the infant during breastfeeding in settings where breastfeeding is the preferred feeding option (WHO, 2010).

Prevention of Mother to Child Transmission was introduced as a comprehensive package of interventions with an aim of reducing MTCT in 1998. Prevention of Mother to Child Transmission programme consists of a range of interventions, including improved antenatal services, opt-out HIV counseling and testing pregnant women for HIV, antiretroviral drug prophylaxis for HIV positive pregnant women and newborns, referral to support groups, and counseling on options for safer infant feeding practices. Comprehensive PMTCT programme also includes continued follow-up and treatment for HIV positive mothers and their children, especially for the first 18 months of the child's life (WHO, 2010).

In Zambia the perinatal HIV epidemic remains a major public health problem. Recent estimates indicate that over 16.4% of women aged 15-49 years presenting for antenatal care are infected with HIV. Furthermore about 28,000 of babies are born with HIV infection annually, (ZDHS, 2007). In an effort to reduce the increasing rates of HIV infections among infants and young children in the country, the Ministry of Health (MOH) introduced the PMTCT programme in 1999, with a minimum package which includes the promotion of male involvement. (Kankasa et al, 2002)

At present the World Health Organization (WHO) promotes a comprehensive four-pronged approach for PMTCT. This includes: preventing HIV infection among women of

childbearing age; preventing unintended pregnancies among women living with HIV; preventing HIV transmission from a woman living with HIV to her infant; and providing appropriate treatment, care, and support to mothers living with HIV, their children, and their families (WHO, 2010). These programs are more focused on women and generally omit men.

According to the World Health Organization, 2010 report, it was outlined that male involvement is a critical component of the PMTCT program. Male involvement is necessary for improving women's uptake of core PMTCT services; it is also a key contributor to community acceptance and support of PMTCT. It has been linked to greater uptake of HIV testing, greater uptake of antiretroviral, increased condom use, facilitate disclosure in case of discordant HIV status, increased communication and support for infant feeding choices.

Male involvement is critical for primary prevention of HIV and for avoiding unintended pregnancy (UNICEF, 2003). In spite of the acknowledged contribution of male involvement in increased uptake of PMTCT services, actual involvement of male partners in PMTCT programs in several counties in Sub-Saharan Africa is low and programs report difficulties in attracting the involvement of male partners (UNAIDS, 2010).

In order to encourage male involvement in PMTCT programs different countries have employed a number of strategies. The Zingatia Maisha program, developed by the Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), was developed to get men more involved in PMTCT. The Kenyan program offers a practical example of how male partners can create a more supportive environment for women. The initiative works toward eliminating AIDS-related shame and stigma by targeting the partners of women that visit clinics. By increasing male participation in the prevention of mother-to-child HIV transmission (PMTCT) programs, the initiative creates more understanding and tolerance. It also encourages men to visit exclusively male clinics and is fast gaining popularity in western Kenya women (IRIN PLUS News, 2007). It offers couple-counselling and partner involvement in MTCT prevention programmes and helps people living with HIV to cope with day-to-day life, offers support systems to HIV-positive individuals and aims to enhance effective treatment. The Zingatia Maisha program encourages male participation by giving priority to women who attend with their male partners and to men who bring their children to clinics. The concept has gained popularity in Kenya, and is increasing male participation in prevention of MTCT programmes. There are currently many similar programs being run all over the continent,

including in South Africa, Ethiopia, Nigeria, Zambia, Uganda, Mozambique, Namibia, Tanzania and Botswana (IRIN PLUS news, 2007).

In Malawi the strategy of male peer initiative is used to encourage men go for antenatal and PMTCT programs. Men who had participated in maternal health care are told to inform their peers about their experiences, As a result, other men become motivated and discuss with their wives. When they agree, they visit the health facilities together as partners to access the services.

This approach should be emphasized, as men would want to identify with fellow men. So the men that are influential among their peers should be targeted with male involvement information in order for them to be role models for their peers (Lucy et.al, 2011).

Sensitization campaigns are also used to encourage men to participate in PMTCT and maternal health care. The health providers and influential traditional leaders are used to inform men about the importance of going with their wives for PMTCT programs. Other observational studies indicate that educating men about the importance of family healthcare improves health-seeking behaviour for antenatal care and child immunization (Khan, 2003) and also enhances communication and support of the female partner (Varkey, 2004). This evidence suggests that male partner involvement is crucial in the uptake of PMTCT services. The importance of male partner participation was also recognized by the WHO in their 2010 PMTCT Strategic Vision document where it is stated that male partners play an important role in the scale-up of PMTCT services (WHO, 2010).

1.1 Problem Statement

The HIV AIDS pandemic is one of the major public health problems in Zambia. It is one of the major contributors of morbidity and mortality in the country. In order to combat the transmission of the HIV virus from the mother to her baby, the Zambian government through the Ministry of Health in 1999 introduced the prevention of mother to child transmission of HIV during antenatal clinics, with a minimum package of male involvement. Despite the many benefits of male involvement in antenatal care services with PMTCT, there has been an observed low male participation in accompanying their pregnant women for antenatal care and PMTCT.

The available statistics from Chibombo district health information management system (CDHIMS) indicates that in 2011 there were 4,186 first visit antenatal attendants and only 1,988 men accompanied there pregnant women for antenatal representing a 47% of male involvement. In 2012 there were 3,774 first antenatal visit attendants and only 1,805 men accompanied there pregnant women for antenatal representing still a 47% male involvement in Chibombo. From the above statistics it is evident that there is a problem of male involvement in antenatal care activities with PMTCT in Chibombo district of central province of Zambia.

1.2 Rationale for the study

As the HIV/AIDS epidemic continues to claim more and more lives, more attention needs to be directed towards incorporating men into reproductive health education interventions (Mullany, 2007). Involving men in PMTCT services could increase the uptake of couple counselling and disclosure of HIV status among partners. This would in turn open doors for the provision of services to HIV-negative couples and discordant couples, as well as preventive care and treatment for HIV-positive couples and their families. Male involvement could further enhance partner support for follow-up care for HIV-positive pregnant women and HIV-exposed infants, including ARV adherence. It could also eliminate harmful consequences faced by women who seek PMTCT services such as stigmatization and gender-based violence. Moreover, male involvement in PMTCT services could address the healthcare needs and responsibilities of men, providing them with positive male norms, and linking them to other healthcare services.

Findings of the research would help improve PMTCT program implementation at district level in Chibombo; which consequently would help to increase male participation in the program. It would also ensure smooth information flow, education and communication to the intended target. Stakeholders would use the findings of the study to advance policies intended at increasing PMTCT knowledge and men's acceptance of the program.

The findings would also provide a basis for advocating increased male participation and involvement in PMTCT activities and help formulate policy recommendations on how to improve male participation in PMTCT activities.

1.3 Scope of the study

The study was only limited to the men whose spouse had attended antenatal care services from 2008 to 2013. Those who were in the selected study areas within Chibombo were included.

1.4 Research Questions

What are the factors associated with male involvement in prevention of mother to child transmission of HIV in Chibombo district of central province? And how can these factors be well understood and addressed?

1.5 Research Objectives

1.5.1 Aim of the study

- To explore determinants of male involvement in PMTCT program in Chibombo district of central province, in order to determine potential interventions.

1.5.2 Specific objectives

- To describe social demographic characteristics of men whose partners had or not attended PMTCT services?
- To identify barriers to men's involvement or participation in ANC and PMTCT programs
- To determine the acceptability of couple counselling and testing during PMTCT service by men.
- To evaluate determinants of male involvement in PMTCT

CHAPTER TWO: LITERATURE REVIEW

2.0 Male involvement in reproductive health and in prevention of mother-to-child transmission of HIV

Despite the growing realisation of men's right to reproductive health, most of the family planning and reproductive health programmes have been made in such a manner that they focus on women (WHO, 2002). A number of reasons have been attributed for this of which some include the following; Women were the ones who became pregnant and had to take care of their health; most contraceptive methods were designed for women- who were perceived to be more compliant consumers. It was also seen that reproductive health services could be offered more conveniently as part of maternal and child health services. Other family planning programs avoided serving men with the belief that many women needed privacy when dealing with issues of reproductive health matters; men were only included mainly in programs of vasectomy and condom use, (WHO, 2002).

Efforts to involve men in reproductive health programs begun in the early 1970s, by making women-oriented family planning clinics more inviting to men. A number of reasons were brought forward as to why it was thought to be important to involve men in reproductive health programs because:

Men's health status and behavior was seen to affect women's reproductive health. Involving them increases their awareness, acceptance and support to partners' needs, choices, and rights. In terms of HIV prevention all methods except for the female condom are male controlled; therefore there is a need to involve men in this domain (FAO, 1998).

Many of the decisions regarding reproductive health for example condom use are made within a set of gender relations that affect the decision or its implementation. Therefore it is necessary to involve both male and female partners in decision making (Network, 1998).

Involving men gives the opportunity for communication on the issue of equality between men and women. The process of empowering men, regarding reproductive health issues will help them to be more sensitive to women's needs and therefore supportive of participating in efforts of enhancing women's status (WHO, 2002).

Men have their own sexual and reproductive health concerns and needs which are not always met. The focus on male involvement only as a means to improve women's reproductive health may cause an oversight of men's own reproductive health needs (WHO, 2002).

The global concern over the rapid spread of HIV/AIDS has opened discussion on male involvement with regard to sexual behavior, partnerships and gender roles. (EuoPROFEM,

2006). Programmes seeking to incorporate male involvement however have been criticised for limiting male involvement in reproductive health to male methods of family planning, focusing on males only ignoring the gender relations, decision making and related contexts; the negative premise that men are irresponsible, and the view of men as a route for women's wellbeing, thus failing to address men's needs, (Network, 2009).

In view of these arguments the Cairo International Conference on Population and Development Programme of Action to male involvement and responsibility called upon understanding of men's and women's joint responsibilities in order that they become equal partners in public and private life and to encourage and enable men to take responsibility for their sexual and reproductive behavior. Actions to achieve this included the emphasis on men's shared responsibility and the promotion of their active involvement in responsible parenthood, sexual and reproductive behavior including family planning, prenatal, maternal and child health; prevention of sexually transmitted diseases including HIV; prevention of unwanted and high risk pregnancies; shared control and contribution of family income, children's education, health and nutrition; and recognition and promotion of the equal value of children of both sexes(FAO, 1998).

2.1 Male involvement in prevention of STIs and HIV

In 2010, the number of people living with HIV worldwide reached an estimated 33.4 million; and heterosexual transmission was the leading cause of HIV transmission in Sub-Saharan Africa (UNAIDS, 2010). Heterosexual men have been regarded as active transmitters of HIV and not active agents in prevention, conversely heterosexual women have been portrayed as especially vulnerable to HIV infection because of biological susceptibility and men's sexual power and privilege (Higgins J.A, 2010). However there is a call to review this paradigm, and consider men's own sexual health concerns in HIV/AIDS Programming (Higgins J.A, 2010).

. A systematic review to determine the most effective methods of preventing the spread of HIV and other STIs in heterosexual men found that heterosexual men are rarely targeted separately in intervention efforts to prevent the spread of STIs/HIV; however where there were interventions in the workplace, military and STI clinics these were found to be more effective in reducing the incidence of STIs/HIV. Multiple methods were used such as onsite-counselling, HIV testing with individual sessions, mass communication approaches to risk reduction and multi-component motivation and skills approaches in STI clinics some of the approaches that had been used in Africa to involve men in reproductive health programmes were formation of men's clubs, running of male clinics, public sensitizations and

workshops, group counselling for men with their pregnant partners, and development of policy guidelines. The challenges to male involvement were that men were at risk of reproductive health problems linked to puberty, substance abuse, sexual and domestic violence and infection with HIV and STI; men did not possess sufficient information and knowledge with regard to sexual and reproductive health; men in the region generally lacked interest in their partners' reproductive health; men were marginalized by the sexual and reproductive health services; most men do not actually accompany their partners to family planning or antenatal care consultations and during labor or delivery; and partner notification and treatment of STIs was difficult due to poor inter-partner communication and unequal balance of power relationships between men and women (WHO, 2002). Men's use of STI and HIV/AIDS services has also been influenced by their interpretation of the cause of illness for example in Zimbabwe men interpreted sexual-health concerns as due to either natural (disease, psychological stress) or supernatural (displeased ancestral and religious spirits, witchcraft) causes. These interpretations influenced their choice of treatment and health service provider.

In addition dominant gender norms of resilience and self-reliance, together with shyness and embarrassment, were found to delay men's treatment-seeking, and HIV-related stigma was found to hinder men's help-seeking for sexual-health concerns particularly for sexually transmitted infections (Pearson S, 2008).

2.2 Factors associated with male involvement

Mother-to-child transmission of HIV accounted for 390,000 new infections among children below 15 years of age in Sub-Saharan Africa in 2010. According to WHO 2010 report, it outlined that, male involvement is a critical component of the PMTCT program. Male involvement is necessary for improving women's uptake of core PMTCT services; it is a key contributor to community acceptance and support of PMTCT. It has been linked to greater uptake of testing, greater uptake of antiretrovirals, increased condom use, increased communication and support for infant feeding choices. Male involvement is critical for primary prevention of HIV and for avoiding unintended pregnancy, Maman S, 2008.

In spite of the acknowledged contribution of male involvement in increased uptake of PMTCT services, actual involvement of male partners in PMTCT programs in several counties of Sub-Saharan Africa is low and programs report difficulties in attracting the involvement of male partners, Moyo A.T, 2006.

The involvement of male partners in PMTCT programs has been extensively studied and attributed to a wide range of factors. According to a study done in Nigeria by Moses et al (2009), observed that for PMTCT to be successful, above optimal levels, involvement of male partners must be recognized as a necessary component. The male partner is to be involved, and educated together with his spouse, to provide necessary support whenever the need arise. Involving the partner would not only provide support and encouragement, but would also improve adherence to program ethics.

In the same study it was realized that community awareness on PMTCT programs is paramount as it can assist the male partner together with the family to successfully fight against stigma and discrimination for desired results. (Moses et. al, 2009).

Other studies have also shown that male sexual partners play a role not only in women's risk of acquiring HIV but also in uptake of antenatal care and MTCT prevention programs.

In their study Katz D et al, 2009, observed that the involvement of male partners in antenatal VCT was associated with increased uptake of interventions to prevent vertical and sexual HIV transmission. It is in this vein that men's involvement in PMTCT programs becomes very critical as success of these programs largely depends on their involvement in every step of the program. Unfortunately men's involvement in PMTCT programs is very low. Studies have shown that men would like to be involved in these programmes but face many challenges that hinder them. Such challenges include cultural definitions of masculinity; lack of PMTCT related information as well as challenges related to PMTCT program itself. For instance, a study by Peacock, in 1998 revealed that male heads of households would wish to do more when their partners fall ill but were curtailed by cultural definitions of maleness and the defined roles which determine masculinity.

For instance a woman who decides on her own without the knowledge and approval of her husband to access PMTCT services is likely to experience Gender Based Violence (GBV) and stigmatised not only by her husband but also by her husband's relations.

The PMTCT project in Kaemba, Zambia, successfully persuaded men to be involved in the program (Kilewo, 2001). This was achieved by involving male community leaders who directly talked to fellow men. As it was done by Burke et. al. (2009), where men preferred to receive information from other men who are peer or older.

Lack of knowledge about PMTCT has also been known to affect male sexual partner's involvement in PMTCT programs. In theory, some studies have shown that male sexual partners fail to get involved in PMTCT because they are not knowledgeable about PMTCT.

For instance in a study that was done in Mambwe District of Zambia in 2006, it was found that male involvement in PMTCT was influenced positively by increasing age of the male partner, and increasing level of knowledge of PMTC, (Tshibumbu, 2006); this implied that men who had some understanding of what PMTCT was were likely to get involved in these programs.

In a study conducted in Kwa Zulu Natal, South Africa, by Peacock, it indicated that men were willing to participate in antenatal care but felt they did not have the necessary skills and knowledge, (Peacock D, 2003). Another study conducted in Kenya by the society for women and AIDS in Kenya (SWAK), (2004), found that lack of sufficient PMTCT information and programs that target men specifically was a hindrance to men's involvement in PMTCT programs. It was observed that unlike women who due to their reproductive health needs have adequate avenues of getting HIV and AIDS information men rarely have such opportunities. Men are left at home while their partners attend family planning, pre-natal and post natal clinics where they are educated on PMTCT, and only come to learn of it from their wives or partners who due to men's attitude are rarely taken seriously.

According to a study that was conducted in Tanzania, it was also found that lack of information and knowledge, lack of time, neglected importance of services, that services represented a female responsibility and fear of HIV test result prevented men from getting involved in PMTCT services (Theuring et.al, 2009). The participation of men in carrying out sustainable HIV/AIDS interventions in rural Uganda was influenced by socio-economic, cultural and limited access to accurate information (Kavuma et.al, 2004).

Some studies have revealed that culture i.e. cultural values and norms prevent men from being involved in activities regarded as feminine. For example in a study that was conducted in Kinshasa DRC by Mbuyi and others, found that men are afraid of being ridiculed, some have even experienced resistance from their partners who fear that members of the community might interpret their role in work culturally regarded as women domain as a sign of weakness, (Mbuyi et al, 2004)

Failure to recognize the community leadership of men, men as channels of information for other men, involving men from initiation of PMTCT program, woman centred services, and leaving men with inadequate services hindered male involvement in the program in Tanzania(burke and burke, 2004).

In another study that was undertaken in Uganda it was found out that the education level and occupation of the man plays a role in men taking part in PMTCT programs. It also revealed that men who had completed 8 or more years of education were twice more often involved compared with those with less than 8 years of education. As for occupation it was found that men who did ordinary jobs such as tax drivers and other manual job were unlikely to go for PMTCT programs as opposed to those who had well paying jobs were more likely to take part in PMTCT interventions.(Byamugisha et.al, 2010).

The other determinants include waiting time at the health facility and communication between partners. Frequently women have to wait for a long time before receiving PMTCT/ANC services because of burdensome administrative procedures which result in poor patient/client treatment at health facilities. Men, who frequently are in the paid workforce, are often not in a position to spend virtually the entire day participating in PMTCT/ANC services. Poor communication between men and their female partners is also associated with poor male involvement. On the other hand, good couple communication is associated with high HIV status disclosure and support between husband and wife (Reece et.al, 2010).

According to a study by Moyo et.al, 2006, in their analysis of socio cultural construction shaping male involvement in HIV/AIDS prevention in Botswana, the involvement of males in HIV prevention programs was seen to be hindered by patriarchy, gender dynamics and the dual legal system of the country which perpetuates male exposure, vulnerability and risk to HIV/AIDS and dictates their identity, health culture, health seeking / health preserving behavior. Intersections with structural, political, cultural, ethnic, racial, spatial and socioeconomic factors contribute to the current state.

Social cultural construction according to Giddens A, 2001, implies to values and norms that give meaning and offers guidance to humans as they interact with their social world, and are reinforced by social institution like traditional and religious groups in the community. These values and beliefs influence men and women living in the same society about what is considered appropriate roles and responsibilities for each gender.

To address these challenges PMTCT programs have devised various strategies of addressing low male involvement, however mixed results have been obtained. For example, Letters of invitation to partners and also through employers verbal invitations through community health workers, Saturday clinics for male partners, VCT education in men's worksites, market places and provision of printed materials (flyers), Masinga et al, 2004. Verbal

invitations to male partners of HIV positive women did not yield the expected increase in male involvement, Waweru M.N, 2004.

Although there are benefits of involving male partners in PMTCT programs, and male partners supporting PMTCT services, the involvement of male partners has been low, and strategies to improve on their involvement have achieved mixed responses. This may be attributed to a disparity in the understanding of the definition of male involvement between programmers and targeted program recipients, For example while in ANC clinics in Durban, men were expected to accompany their partners to clinics for appointments, however less than a quarter of women were accompanied as required, but over half of the women described other support they received from their partners before and after delivery (Maman et.al, 2008).

2.3 Weakness and strength of reviewed studies

The studies that were reviewed most of them used women as their respondents to gain insight on men's perception and attitude towards PMTCT as well on the barriers to their involvement in the program. Most of them as well were qualitative studies that use small samples. Other quantitative studies only focused on men's whose partners attended PMTCT. However, these studies provide useful insights regarding social, cultural and economic factors that have an impact on men's involvement in PMTCT, because they are from different countries with varying cultures.

Nevertheless there is need to gain more understanding on men's attitude towards PMTCT by doing a mixed method research that targeted men whose partner either attended or did not attend PMTCT.

2.4 THEORETICAL FRAMEWORK

In order to fully understand the underlying issues of male involvement in PMTCT program, the study used the precede and proceed model (Green, 1999). PRECEDE is the Predisposing, Reinforcing and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation and leads up to the intervention.

Predisposing factors are those factors that motivate or provide a reason for a given behavior; they include knowledge, attitudes, cultural beliefs, and readiness to change.

Enabling factors are those that enable a person to act on their predispositions; these factors include available resources, supportive policies, assistance, and services.

Reinforcing factors, which come into play after a behavior has been initiated; they encourage repetition or persistence of behaviors by providing continuing rewards or incentives. Social

support, praise, reassurance, and symptom relief might all be considered reinforcing factors (Green, 1999)

PROCEED defines how to proceed a defined intervention; it spells out Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development. This model focuses on the community as the wellspring of health promotion, and is based on the premise that the change process should focus initially on the outcome, not on the activity. This model assumes that since the health promoting behaviours and activities that individuals engage in are almost always voluntary, carrying out health promotion has to involve those whose behavior or actions one wants to change.

To understand the perceptions of men towards their involvement in PMTCT, the four assessment phases of PRECEDE were undertaken as follows:

Phase 1: Identification of the ultimate desired outcome: this comprised a definition of male involvement.

Phase 2: Identifying the issues and factors that might influence the outcome: this comprised an assessment of the behavioural, lifestyle or environmental supports for and barriers to male involvement.

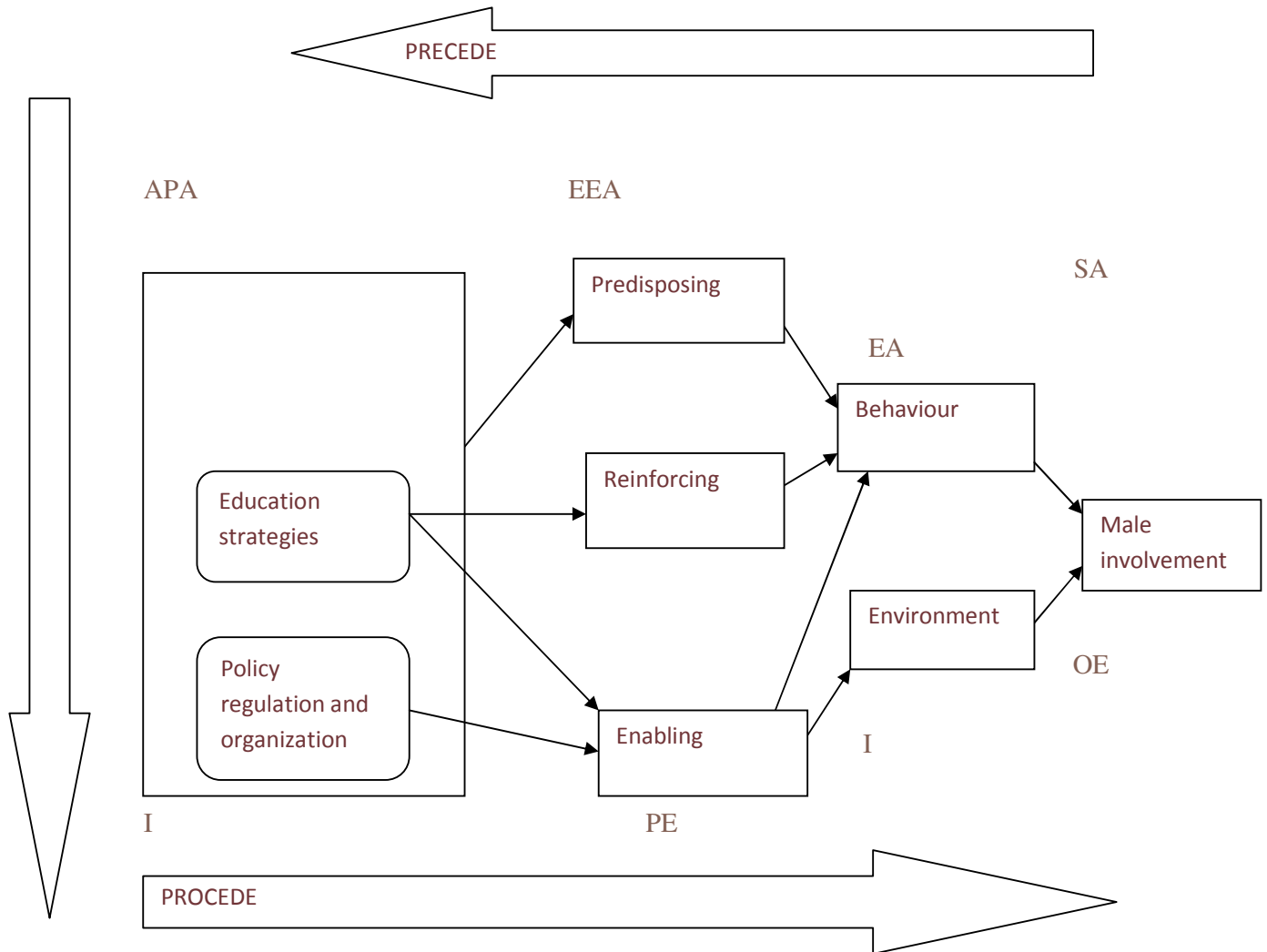
Phase 3: Identifying the predisposing, enabling and reinforcing factors that affect the behaviours, attitudes, and environmental factors identified in Phase 3 previously.

Phase 4: Identifying the administrative and policy factors that influence what can be implemented

PROCEED on the other hand focuses on implementation and evaluation of a designed intervention.

2.5 CONCEPTUAL FRAMEWORK

PRECEDE PROCEED MODEL



Note:

SA= social assessment (phase 1), **EA**= epidemiological assessment (phase 2) **EEA**= educational and ecological assessment (phase 3), **APA**= administrative and policy assessment (phase 4), **I**= implementation (phase 5)

PE= process evaluation (phase 6), **IM**= impact evaluation (phase 7) **OE**= outcome evaluation (phase 8)

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Study Variables

The variables listed in the table below will be of core focus in this research to understand the determinants of male involvement in Chibombo district.

TABLE 1: VARIABLES

Type of variable	Variable	Indicator	Scale of measurement
Dependent	Willingness to attend	Percentage of attendees	% of men who attended at least once PMTCT with partner
			Total # of men interviewed
Independent	Knowledge of PMTCT	Knowledge about PMTCT	80% and more knowledgeable < 80% not knowledgeable
	Education	-No education -Primary -Secondary -Tertiary	Proportion of participants who are educated
	Age	18+ and married	% of men in the age range and are married
	Occupation	-Waged employment -Self employed -Not working	% Proportion of participants working in waged, self employment
	Distance to health centre	5km More than 5km	% of men who cover short and long distance
	Financial constraints	Earnings per month Less than k500 More than k500	Average income earned per month
	Waiting time	Time spent at health centre to receive service	Hours/ minute

The other variables that were used in the study to assess men's involvement were replicated from the study that was done by Byamugisha et.al 2010 in Uganda in their study on male involvement in PMTCT in Mbale district were they came up with an ad hoc male involvement index which consisted of six variables that had the same weight and score. The

variables were used to assess whether men in Chibombo district take time to know what takes place in antenatal and PMTCT clinics and also to know the number of men who had taken time to go for PMTCT with their partners. These variables included;

1. Ever attended antenatal with partner.
2. Knows partners antenatal appointments.
3. Discusses with partner information or interventions given in ANC.
4. Provides financial supports to partner to attend antenatal.
5. Asked partner if he could use a condom.
6. Takes time to find out what goes on in ANC.

3.1 Study Design

The study was a cross sectional survey that used mixed methods. This study design was used because the study intended to gain immediate knowledge and information on factors associated with male involvement and participation in PMTCT services in Chibombo district.

3.2 Study Setting

The study was conducted in Chibombo district of central province of Zambia. Chibombo district is located 30km north of Lusaka town the capital city of Zambia and 40km from Kabwe the provincial headquarters of central province, it shares boundaries with Chongwe, Lusaka, Mumbwa, Kapiri Mposhi, Kabwe and Serenje districts.

The district is rural with the vast majority of people leading a rustic lifestyle of peasant farming. The district has three constituencies, namely Chisamba, Katuba and Keembe constituencies, and has got a total of 53,179 households (CSO, 2010). The study was carried out in all the three constituencies of Chibombo.

3.3 Study Population

The study units were married men whose partners had either attended antenatal care or not during the last five years period from 2008 to 2013, regardless of whether they had divorced or spouse died.

3.4 Inclusion Criteria

All men aged 18 years and above whose partners had or not attended PMTCT program from 2008 to 2013.

3.5 Exclusion Criteria

- ❖ Men below 18years.
- ❖ Those who would not give consent.
- ❖ Men who were not married in the study period range.

3.6 Sample Size

A sample size of 240 men was enrolled for the study. Since the prevalence of male participation and involvement in ANC services with PMTCT was known, the sample size was calculated using male prevalence involvement rate of 47%, and an estimated standard error of 0.2, at 95% power, $Z=1.96$ and with the accepted response rate of 90%. The laid down formulae was used for the calculation of sample size. $N=Z^2P(1-P)/e^2$.

N = Sample size, $Z^2= 1.96$ (95 confidence interval), $P= 47\%$ (prevalence rate of male involvement), $1=$ constant, $e^2=0.2$ (error term), 10% was taken to be the acceptable non response rate.

$$N= 1.96^2 \times 0.47 (1-0.47)/0.2^2$$

$$= 1.80552(0.53)/0.04$$

$$= 23.922875$$

$$=23.922875/0.1$$

=**239**. Round off to two significant figures gives **240** as the sample size for quantitative data collection.

A sample of **60** participants who were purposively selected was used in focus group discussion for the qualitative part of data collection. The total sample size for the study was **300**.

3.7.0 Sampling Procedure

3.7.1 Quantitative part

Systematic random sampling technique was used to select participants from households to whom the questionnaire was administered. This was done by selecting the first household randomly and then continued by selecting every (5th) household thereafter. This was necessitated because the households were not numbered. Eighty households with men who satisfied the inclusion criteria were selected from each constituency. A household in this study was defined as a single homestead and the selection of households was done in a clockwise manner.

3.7.2 Qualitative Part

This part involved the selection of key informants which included health workers, Community health workers, PMTCT program officers and MCH coordinator, the rest of the participants were identified and selected during the administration of a face to face interview schedule (Traditional leader's headmen, teachers). Each FGD comprised of 10 Participants who were informed at least a week in advance about the place, date and time of the discussion. A suitable quiet and comfortable place at a selected health centre was used as site for FGDs and all participants were assigned numbers in order to ensure confidentiality.

3.8 Pre-testing the Questionnaire

A total of 30 questionnaires were tested on men in Gwembe to check for clarity, appropriateness and to have clear understanding of the questions. A few adjustments were made to the questionnaire on the phrasing of questions.

3.9 Data Collection

This study employed both qualitative and quantitative methods of data collection (mixed methods). Quantitative data was collected using an interviewer administered semi structured questionnaire, which consisted of sections on demographic information, knowledge on PMTCT, socio economic factors and benefits of PMTCT to both men and women. The questionnaire comprised both open and closed ended questions so as to capture both quantitative and qualitative information. Both the researcher and the trained research

assistants collected the data from the selected sites. For qualitative data, six focus group discussions were conducted comprising of a total of 10 participants per group. The proceedings of the discussion were recorded using a tape recorder. The researcher led and guided the discussion using the focus group guide.

3.10 Data Processing and Analysis

The data from completed questionnaires was cleaned, coded and then entered into EPIDATA and then exported to STATA version 11 for analysis. The chi-square test was used to test for significance among binary variables with the p value of <0.05 and at 95% confidence interval. Data was then analyzed using multiple logistic regression. Column counts, frequencies and percentages were also used on all factors to willingness to attend PMTCT programs. For qualitative data that was generated from FGDs, NVIVO software was used to help in the organization of themes from the data, which aided the researcher to analyze the data. A report of the proceedings of the FGDs was prepared in which some participants own words were used as narratives.

3.11 Ethical Consideration

Ethical clearance was sought from and granted by Eres Ethical Committee. Permission to conduct the study was obtained from Ministry of Community Development Mother and Child Health and Chibombo District Medical Office. Verbal or written consent was sought from participants after the purpose of the study was explained to them. Anonymity, confidentiality and privacy were observed during data collection. Questionnaires were coded instead of names being used. The data was strictly used for the intended purpose as outlined in the proposal and report. All information gathered after carrying out the research was confidentially kept.

Budget

The total budget was k12, 000. The fund catered for food, transport, stationary, secretarial services and research assistant. Details of the budget are in the appendix.

Time frame

The study commenced on September 15th 2013 and was completed on February 25th 2014.

CHAPTER FOUR: PRESENTATION OF RESULTS

4.0 Demographic Characteristic of Respondents

The socio demographic features that were evaluated were age, residence, marital status, education level, occupation and religion.

Table: 2 below presents a summary of the demographic characteristic of the 240 respondents in the study. These were interviewed at household level and the response rate was 100%.

Table 2: Distribution of demographic characteristic of the respondents N=240

Variable	Frequency	Percentage (%)
Age		
18-29	132	55
30+	108	45
Residence (n) (%)		
Peri-urban	104	43.3
Rural	136	56.7
Marital Status (n) (%)		
Married	215	89.6
Widowed	7	2.9
Separated	7	2.9
Divorced	11	4.6
Distance (n) (%)		
Less than 5 km	134	56.7
More than 5km	106	43.3
Education level (n) (%)		
No Education	11	4.6
Primary	85	35.4
Secondary	109	45.4
Tertiary	35	14.6
Religion and Denomination (n) (%)		
Catholic	63	26.2
Seventh Day Adventist	60	25.0

New Apostolic	33	13.7
United Church of Zambia	43	17.9
Pentecostal	23	9.6
Others	18	17.5
Occupation (n) (%)		
Wage Employment	56	23.3
Self-Employment	148	61.7
Not Employed	36	15.0
Kwacha Earned per Month (Mean) (range)	2276	10920

The results indicate that out of the 240 respondents interviewed 132 (55%) were aged between 18-29 years and 108 (45%) aged 30+ years, and most of the respondents resided in rural areas 136 (56.7%), while 215 (89.6%) of respondents were married. The majority of respondents had received some schooling 229 (95%), while only 11 (4.6%) had never been to school. Most of the men were married and living with their spouse 215 (89.6%), while 7 (2.9%) were widowed and the remainder were separated or divorced. The majority of respondents were Catholics (63) 26.2%, followed by Seventh Day Adventist (SDA) (60) (25%), Pentecostals (23) (9.6%), while the rest belonged to other religious denomination (36) (17.5%). of the 240 respondents 134 (56.7%) lived less than 5 km from the health centre.

The results further shows that, (56) (23.3%) of respondents were in wage employment comprising of those in formal employment, while the majority of respondents were in self employment about (148) (61.7%) mainly comprising of small scale farmers; there were a few people (36) (15%) who indicated that they were not involved in any economic activity. The average earnings of the respondents were 2276 kwacha.

Table 3: men's willingness to attend PMTCT

Variable	N	%
Went for PMTCT		
Yes	153	63.75
No	87	36.25
Total	240	100
Reasons for not going for PMTCT		
Distance	8	9.20
Financial constraints	2	2.30
Work	10	11.49
Woman's domain	58	66.67
Health worker attitude	5	5.75
Time of program	4	4.60
Total	87	100

The table above shows men's willingness to getting involved in PMTCT programs. An initiative such as the need to get men involved in PMTCT for it to achieve its objectives there is need for the target population to widely understand and then later support it. Willingness to attend was measure by the number of men who had attended at least one PMTCT program before. The results above indicate that about 157 (63.75%) of respondents were willing to attend PMTCT services.

When those who had not attended PMTCT before were asked, the reason, the majority (66.67%) indicated that it was a domain for women as the main reason. Other reasons such as financial constraints, health worker attitude and timing of program accounted for (5%) and less as the reason for not attending PMTCT.

Table4: Distribution of PMTCT importance by School Attendance and Age.

Variable	N	%
Important to attend PMTCT		
Yes	209	87.1
No	31	12.9
Total	240	100
Education		
No education	2	1.0
primary	74	35.4
secondary	98	46.9
Tertiary	35	16.7
Total	206	100
Age		
18-29	127	60.8
30+	82	39.2
Total	209	100

The results in the table above shows that 209 (87.1%) of the respondents were aware of the importance of PMTCT. The majority of the respondents who had attained a secondary school education were aware of the value of PMTC (46.9%) and all respondents who had tertiary education 35 (16.7) knew the importance of PMTCT. The results further indicate that the majority of the respondents aged 18-29 (60.8) knew the need for PMTCT.

ANALYSIS OF FACTORS ASSOCIATED WITH WILLINGNESS TO ATTEND PMTCT

4.1 BIVARIATE ANALYSIS

The independent variables namely educational level, occupation, knowledge of PMTCT, and acceptance of couple counselling had their p values less than 0.05. Therefore these observations were statistically significant and could not have occurred by chance. Therefore there was a significant positive association between the above independent variables and willingness to attend PMTCT programs. Other independent variables such as age, residence, denomination, earnings per month, and distance had p values greater than 0.05. This indicates

that these observations were not statistically significant and could have occurred by chance, as a result there was no association between these variables and willingness to attend PMTCT programs. Refer to table 5 below.

Table 5: Association between selected independent variables and willingness to attend PMTCT

	Has attended PMTCT				<i>statistic</i>
	Yes		No		
	n	%	n	%	P
Age					<i>0.480</i>
18-29	112	84.9	20	15.2	
30+	86	79.6	22	20.4	
Residence					<i>0.209</i>
Peri-urban	62	47.0	42	38.9	
Rural	70	53.0	66	61.1	
Distance (km)					<i>0.174</i>
Less than 5km	99	75.0	35	32.4	
5km or more	33	25.0	73	67.6	
Marital Status					<i>0.284</i>
Married	122	92.4	93	86.1	
Widowed	4	3.3	3	2.8	
Separated	2	1.5	5	4.6	
Divorced	4	3.3	7	6.5	
Education					<i>0.007</i>
No education	4	3.1	7	6.5	
Primary	37	28.0	48	44.5	
Secondary	65	49.2	44	40.7	
Tertiary	26	19.7	9	8.3	
Denomination					<i>0.773</i>
Catholic	32	24.2	31	28.7	
Seventh Day Adventist	35	26.5	25	23.2	
New Apostolic	16	12.1	17	15.7	
United Church of Zambia	25	18.9	18	16.7	

Pentecostal/Baptist	12	9.1	11	10.2	
Others	12	9.1	6	5.6	
Occupation					
Wage employment	32	24.2	24	22.2	0.036
Self-employment	82	62.1	66	61.1	
Doing nothing	18	13.6	18	16.8	
Knowledge of PMTCT					
Knowledgeable	105	79.6	30	27.8	< 0.001
Not Knowledgeable	27	20.4	78	72.2	
Earnings per month					
<500	117	88.6	32	29.6	0.151
500+	15	11.4	76	70.4	
HIV can be transmitted during pregnancy					
Yes	68	63.0	86	65.2	0.725
No	40	37.0	46	34.9	
HIV can be transmitted during delivery					
Yes	80	74.1	110	83.3	0.079
No	28	26.0	22	16.7	
Reduction of HIV through ARVs					
Yes	53	49.5	107	81.1	< 0.001
No	20	18.7	14	10.6	
Don't know	34	31.8	12	8.3	
Acceptance of couple counselling					
Yes	89	83.2	130	98.5	< 0.001
No	18	16.8	3	1.5	

4.2 Knowledge levels of respondents on PMTCT.

The table above shows that (105) (79.6%) of the respondents who were knowledgeable about PMTCT were willing to attend PMTCT programs, (30) (27.8% would not. (78) (72.2%) of those who were not knowledgeable would not attend PMTCT program. Being knowledgeable about PMTCT had positive association with willingness to attend PMTCT programs with (P <0.001).

The men were also asked whether HIV could be transmitted during pregnancy and delivery, and overall, 154 (64.2%) knew that transmission of HIV was possible during pregnancy, 86 (35.8%) thought that transmission of HIV was not possible during pregnancy. On delivery, 190 (79.2%) knew that transmission could occur during delivery, 50 (20.8%) indicated that they did not know. There was no statistical significance on whether one knew that the virus of HIV could be transmitted during pregnancy or delivery with p value of (0.725 and 0.079) respectively.

The results indicate that of the 240 respondents, (160) (66.7%) knew that HIV transmission could be reduced by the use of antiretroviral drugs, while the rest of the participants (80) (33.3%) did not know about it. ($p < 0.001$).

4.3 Acceptance of couple counselling and HIV testing during PMTCT.

One of the requirements for PMTCT is the need for couple counselling and HIV testing. According to the table above the majority of the respondents, out of 240, (219) (91.7%) of respondents indicated that they would accept couple counselling and testing during PMTCT programs, (21) (8.4%) could not test giving reasons ranging from either already knowing their status or not just wanting to know their status. There was a positive association between accepting couple counselling and willingness to attend PMTCT programs ($p < 0.001$).

4.5 Multivariate Analysis

4.5.1 Table6: Factors independently associated with willingness to attend PMTCT programs

Variable	P value	Odds ratio	95% CI
Age			
18-29	0.353	1.0	0.93,1.04
30+	0.484	1.85	
Education			
primary	0.265	0.47	0.31,6.72
Secondary+	0.013	1.88	0.65,3.46
Residence			
Peri urban	0.476	1.51	0.31,1.82
Rural	0.712	0.80	0.49,4.68
Denomination			
Catholic	0.773	3.65	0.83,6.49
Protestants	0.130	5.43	0.75,3.91
Occupation			
Employed	0.026	4.61	0.95,5.34
Not employed	0.341	0.62	0.65,8.30
Knowledge about PMTCT			
Knowledgeable	0.004	8.98	2.00,6.23
Not knowledgeable	0.453	1.41	0.52,3.47
Earnings /month(kwacha)			
<500	0.109	1.00	0.99,1.00

500+	0.870	1.83	0.65,2.33
Went for ANC with partner			
Yes	<0.001	5.82	3.86,3.39
No	0.735	0.78	0.18,3.29
Knew partner ANC appointment			
Yes	0.495	0.62	1.61,2.42
No	0.562	1.64	0.96,3.81
Told need to attend PMTCT			
Yes	<0.001	4.21	0.02,0.25
No	0.645	1.37	0.35,5.37
Distance (km)			
Less than 5km	0.305	4.14	0.27,218
5km or more	0.932	0.94	0.26,3.49

The odds for men who were knowledgeable about PMTCT were 8.9; this implies that men who were knowledgeable about PMTCT were 8.9 times more likely to attend PMTCT programs. Respondents who had a secondary school of education or higher were 1.8 times more likely to attend PMTCT services as opposed to those without any education. Men who were in formal employment (civil servants) were 4.6 times more likely to go for PMTCT programs. The above variables had a positive association with willingness to attend PMTCT programs.

4.6 BARRIERS TO MEN'S INVOLVEMENT IN PMTCT PROGRAMS: QUALITATIVE DATA FINDINGS (FGD)

Six focus group discussions were held at Chibombo, Keembe and Chisamba. The main aim of the focus group discussions was to gather in-depth information about men's involvement in PMTCT programs. The issues that were addressed in the FGDs that comprised of health providers, CHW and community members, included level of awareness and knowledge of men about PMTCT, Acceptability of couple counselling and HIV testing, reasons why some men do not attend PMTCT programs and what could be done to improve men's involvement in PMTCT programs.

During the FGDs it was evident that most of the participant had a fair deal of knowledge about PMTCT and were aware of its benefits. Most of them knew PMTCT as a service that is provided during the pregnancy of the spouse and is mostly offered during ANC. Key informants outlined the benefits of PMTCT as a measure that is used to protect the baby from acquiring the HIV virus from an HIV pregnant mother during pregnancy, at delivery and during breast feeding. However a few did not know what it was all about. As one respondent from Keembe FGD said, *"I have never heard of what PMTCT is, this is my first time to come across that word"*

The above sentiment was amplified by one of the community health worker who said, *"Most men out there in the community do not know what this is all about, because since its inception it is highly focused on women."*

4.6.1 Factors that prevent men in attending to PMTCT programs.

The focus group discussions brought out a number of various factors that prevent men in attending to PMTCT programs. These factors were categorized as follows; individual, socioeconomic, health facility and cultural and gender factors.

4.6.2 Individual factors

Lack of knowledge

From the FGDs it emerged that in some instances men were not involved in PMTCT of HIV services because of inadequate knowledge about the service and their role in the service.

Respondents believed that men would be more involved if they were adequately informed about the existence of the service and had a clear definition of their role in the service.

“There is need for education in our communities to understand the benefits of accompanying a partner for antenatal care, most of men do not know the importance , such that even if their wives asked them to accompany her, they would not do it. They do not understand the importance or relevance of it”. Respondent 10, Chisamba FGD.

Fear of knowing one’s HIV status

Men’s fear of being found HIV positive during PMTCT program was also identified as one of the other reason men do not take part in PMTCT clinics.

Participants from all FGDs reported that some men are not willing to get involved in PMTCT programs because they are afraid of learning their HIV status. It was reported that attendance to the service entailed taking an HIV test; therefore most men would opt for not getting involved in order for them to avoid the test.

“Sometimes, men refuse to come because they do not want the test (HIV test), because they know what they have been up to, they fear that they may likely be infected hence most of them refuse”. Health worker 5, Chibombo FGD.

“Men have that self stigma of fear of being found with the HIV virus and being looked down upon by community members, Keembe FGD.

“According to our culture we are polygamist therefore the chances of being HIV positive are high so men would rather not go because they fear, traditional leader, keembe FDG.

The lack of perceived benefits.

The participants in three FGD felt that some men do not participate in PMTCT programs or activities because they are not interested or are unwilling to take part in the service. The lack of perceived benefits from the service by men coupled with men undermining the importance of PMTCT to the family, emerged as reasons for men’s unwillingness to participate in PMTCT services. As such, a man would rarely seek permission from work in order for him to accompany his wife for antenatal care. Additionally, regarding work as a barrier to participation, male participants expressed the inability to obtain release from work. Other participants from Keembe FGDs expressed that some women do not want partners to be

involved, and in such cases a man will not be invited for ANC or be briefed on the need for his involvement.

“How can you attend a program were you are just going to be a mere observer as they attend to your wife, Chibombo FGD. Another one said the only interest from men is just to test them for HIV as a result men feel that they cannot come to just sit there without doing anything.

“Some have no interest at all so they just take the issue lightly. Respodent7, Chisamba FGD.

Lifestyle

A lifestyle of multiple sexual partnerships in the community was identified as a hindrance to male involvement in PMTCT, to the extent that men were afraid of being seen with either one or another of their sexual partners at the health facility; according to the participants being seen with any one particular partner would stir up disgruntlement and accusations of favouritism; also if one female partner was known to be HIV infected this would ruin the man’s chances of maintaining several other relationships. It was known that some men were in illicit relationships and did not want to expose these relationships by being seen with their partner especially those men who had married under-aged girls. This was shown in the following quotes:

“Male involvement in the PMTCT program is very poor because men have many women /wives so when he escorts wife number one ,wife number two will get annoyed ,that's why man have not got involved in the PMTCT program,” Chibombo, FGD.

“Sometimes, some of us men have extramarital affairs, we may have a wife but also have girlfriends so sometimes one is afraid that if he shows up at the clinic there could be fights when the wife and the girlfriend meet, so it is better for a man not to go and let the woman go on her own for antenatal care”. Traditional leader 1, Chibombo FGD.

4.6.3 Socio economic factors

Competing interests

The opinions of the FGD participants were very similar on the dilemma that arises between the need to provide for the family versus the demand for men being involved involvement in PMTCT program. Participants expressed that although some men are willing to be involved;

they fail to participate in the programme because of work or business obligations in order for them to provide for their families. This is evident from one participant Chisamba FGD,

“For some of us casual labourers who work in farms if we attend antenatal care we lose time and our pay may be cut due for not reporting for work hence will not be able to find food so it’s better not to attend”. Respondent1, Chibombo FGD.

4.6.4 Health facility factors

Facility set up

The fact that health facility structures where PMTCT services are offered were previously designed to accommodate females only, hinders the male partners from getting involved in the PMTCT program. Similarly PMTCT program is delivered in health centres, where women and not men are more likely to go deter the participation of men.

“The women are common there because they usually take the children for treatment, and attend antenatal clinics, as a result men feel isolated in such settings, Chisamba FGD. Even the health services that are provided during the PMTCT program are specifically tailored for women as a result men do not see the need to attend” key informant Chisamba FGD.

Nature of services provided

One health worker stated that the messages that are taught force men not attend because they are highly focused on women. This was echoed in the following quote from one of the participants.

. “How can you attend a program were you are just going to be a mere observer as they attend to your wife, Chibombo FGD. Another one said the only interest from men is just to test them for HIV as a result men feel that they cannot come to just sit there without doing anything.

The respondents in two FGDs outlined that even waiting time is a factor that hinder men in getting involved in PMTCT programs. According to one respondent in Chisamba FGD said, *“Men find it difficult to wait for a long period of time, there are impatient to wait, therefore they would rather remain at home to do other things”*. Men who are in formal employment

are often not in a position to spend a lot of time at health centre to take part in PMTCT program because they also have to go for work.

Lack of confidentiality

Participants in FGDs reported that lack of perceived professionalism and unwelcoming attitude of health care workers as barriers to men' willingness to take part in PMTCT services. Human Immunodeficiency Virus services require sensitivity thus involves higher levels of confidentiality and privacy which is not currently the case. Participants stated that some health care workers may not keep HIV test results in confidence, as portrayed in the following quote, “Some *health workers do not keep secret of people's HIV results.*

As a result of lack of confidentiality most men do not prefer couple counselling and testing. The prominent views that came out were that other men do not want to know their status in the presence of their partner, the manner in which the test is conducted, and lack of confidentiality by some health providers deters men from accepting the HIV test.

“ I cannot test for HIV in the presence of my wife i have to know first before she knows so that i can be able to tell her later,” respondent 5, Chisamba FDG.

“Most of the time men are caught unaware that they need to be tested there and then and be given the results the same day as a result some do not accept to be tested as a couple, Health worker1, Chibombo FGD.

“Lack confidentiality by some health workers make men like me not to accept couple counselling and testing, last month a friend of mine went ANC and tested with her wife now the whole community almost know that he is sick,” respondent 10, keembe FGD.

Despite the above views, couple counselling and testing was seen as good thing for it is aimed at giving couples make an informed decision on how to go about their lives whether positive or not.

“ A lot of men these days accept couple counselling and HIV testing during PMTCT because they have finally come to understand the benefits of PMTCT,” Health provider 2, Chibombo FGD.

“it is important to test because it gives an opportunity to protect the baby if one of you is positive or both, i can’t bear it to see an innocent baby getting sick for something i could have prevented,” Respondent 3, chisamba FGD.

“These days it is necessary to be tested as couples so that you are helped at the same time,” Respondent 7, Keembe FGD.

4.6.5 Cultural and gender factors

Woman’s domain

Culture and gender considerations were perceived as a barrier. Participants from both the key informants and men’s FGDs reported that culturally pregnancy and child bearing issues are a woman’s responsibility and that men are partially involved. The cultural beliefs regarding pregnancy therefore make it difficult for men to be involved.

“It appears to be only for women such that for a man to be among a group of women and discuss women’s issues, it seems as if a man is wasting his time”. Respondent 4, Chibombo FGD.

Man’s identity as the head of house

Rooted in the hegemonic notion of masculinity, particularly from the male FGDs, it emerged that men are heads of the household and command respect. Men strongly believed that as household heads, they are decision makers in the family. This notion prevents them from attending to PMTCT programs because these services are targeted towards women thereby undermining his position and masculinity if he attends. This is reflected by the following quote

“One actually knows that what his wife is saying is important and what she is suggesting is the right thing but for a man as the head of the family, he may not accept that, he fears that he will lose his authority and his wife will now be controlling him”. Respondent3, Chisamba FGD.

Poor communication between men and health care providers was cited as one of the barriers to men’s involvement in PMTCT programs. It was discussed that women should not be the sole link of information from health workers to their partners. *“ it is of great importance if*

health workers can be calling for community meetings specifically targeting men so as to educate them on the importance of PMTCT”, Chisamba FGD.

4.7.0 Factors that could promote male involvement in PMTCT programs

In response to a question on factors that may improve male involvement, the participants suggested several ways in which men’s willingness to take part in PMTCT programs may be promoted and enhanced, at community level, health facility level and personal level.

4.7.1 Community level

Community sensitization

Taking advantage of community events as they occur in the community may promote male involvement in PMTCT of HIV services. Participants proposed that during community events, messages on the importance of men taking part in PMTCT of services may be shared. Other messages could be in form of posters which would spark interest in men eventually leading to their involvement. Currently, posters are available at the health centre but not in the communities.

“..... there can be a function in the community and other people will be drawn to the activities and because the message on male involvement is embedded within the activity then they get to know about the message there”. Traditional leader2, Chisamba FGD.

Respondents suggested that health workers should proactively reach out to the community and sensitize them, especially men, on the relevance of men being involved in PMTCT services and how they can be involved.

4.7.2 Health facility level

Health education sessions

Participants suggested inclusion of a package of men’s health in PMTCT as part of the health education that could take place in the outpatient department, family planning clinic of the health facility in order to reach more people. The health education on men should not be limited to the antenatal clinic because most men patronize the General Medical Outpatient department than the antenatal clinic.

“Health talks within the OPD tackling on male involvement, because if we only discuss it in antenatal clinic we will only inform women only however in the OPD department the message will get to men as well”. Health worker 5, Chibombo FGD.

Within the health education, there ought to be clarification of the term “PMTCT”. A key informant advocated for precise explanation on the meaning of PMTCT to men. In as much as the term refers to “mother” it should be emphasized to men that such a reference does not exempt them from the services.

“And even for the name of PMTCT, it should be explained in detail so that the woman should not be blamed in instances where both the woman and her baby are HIV infected”. Health provider 1, Chibombo FGD.

Additionally, participants believed that offering explanations to men on the procedures and events that take place at the antenatal clinic will encourage men to be involved in PMTCT services.

“This man needs to be adequately informed so that he fully understands on how he can take part in protecting his family, some men lack knowledge on the issuesthey may not have enough opportunity to learn more on these issues”. Respondent 8, Keembe FGD.

Male friendly environment

The respondents suggested the creation of male friendly environment such as private room that can be used for couples counseling and interventions on PMTCT. This environment may eliminate shyness which also influences men’s participation in PMTCT. This was described in the following ways:

“Some men are shy, so if we could have a private room for the men to use, for them to be attended to faster, that would be nice”. Respondent 4, Keembe FGD.

Additionally, it was suggested that integration of services would promote MI, such as men having their other health needs attended to holistically within PMTCT of HIV services.

Clinic flow management

Key informants asserted that ensuring that couples that come together for PMTCT should get preferential treatment; this would promote male involvement in PMTCT. They were cognizant that some men have work commitments therefore would need to be released early for such responsibilities.

“...a pregnant woman who has come with her partner must be assisted first, being respectful to them, maintaining privacy. Then most men would come because they will know that they will not take long, the discussion will be in private because there will be the nurse and my wife”. Health worker 7, Chisamba FGD.

Reward based promotions

Key informants suggested the use of a reward based system in order to promote MI in PMTCT of HIV services. It was suggested that a woman who attends the service with her partner should get a reward such as baby hampers.

Attitude of health care workers

Key informants suggested that a positive attitude by health care workers as they render care to couples would promote and lead to more men being willing to take part in PMTCT activities.

Men to men promotions

In order to encourage men that are not patronizing the service, key informant from Chibombo FGD suggested use of men who are involved to reach other men, on an individual basis or through men only groups, and educate them on the relevance of their involvement in PMTCT programs.

CHAPTER FIVE: DISCUSSION, CONCLUSION and RECOMMENDATIONS

5.0 Discussion

The main findings of this study on factors that are associated with male involvement in PMTCT show that the factors are interrelated among and within individual, community and health facility factors, such that a successful male involvement program requires a multifaceted and multilevel approach that includes all the factors involved. The current study findings validate and augment on what has been reported by other studies in this area.

The main findings of this study from the quantitative data findings, the study found that there was a positive association between education level and men's willingness to taking part in PMTCT programs. This positive association suggest that an increase in the level of education has a positive influence on men's involvement in PMTCT. This finding is similar to that of Tshibumbu 2006, were he found that education level of men was a significant factor that influences men's participation in PMTCT services.

The study further found that the knowledge level of a man about PMTCT was found to strongly influence men's involvement in PMTCT programs. These findings suggest that an increase in knowledge about PMTCT may have a positive association to male involvement in PMTCT activities. Most of the respondents knew that the HIV virus could be transmitted from an HIV positive mother to her baby during pregnancy and delivery. The above findings are consistent with the finding from a study done in Tanzania that indicated that lack of knowledge of PMTCT was a deterrent to men's involvement in PMTCT, (Theuring et al, 2009).

The other factor that was associated with male involvement in this study was the occupation of respondents. There was a positive association between men who were employed than those who were not working. This finding was supported by qualitative findings were it was echoed that men who work in farms would not have time to attend PMTCT programs. This finding is consistent with study findings from Mbale Uganda which found an association between occupation and male involvement, (Byamugisha et. al 2010).

The study found that there was no association between Age, Residence, denomination, and distance to health facility and earnings per month with willingness to attend PMTCT programs. These had no effect on men's willingness to take part in PMTCT activities.

The study also wanted to find out the proportion of men who would accept couple counselling and HIV testing during PMTCT programs. The findings revealed that 219 (91.7%) of the respondents would accept couple counselling and HIV testing during PMTCT clinics and 21 (8.3%) would not accept being tested. These findings are consistent with those of Tshibumbu 2006, on his study on factors influencing men's involvement in prevention of mother to child transmission (PMTCT) of HIV program in Mambwe district where he found that 73.3% of men would agree to be tested for HIV with their spouse during PMTCT program as opposed to 21.1%. This shows that men are more likely to test for HIV when they are with their partner looking at the high percentages from the two studies.

The individual factors that hinder male involvement as highlighted in this study remain consistent with other studies. A man's lack of knowledge on the relevance and his role in PMTCT services limits his participation, (Aarnio P, et.al 2009). Additionally, lack of knowledge on pregnancy and its associated factors contributed to lack of male involvement in the PMTCT program, (Mullany B.C, 2006). The lack of information also included men being unaware of the; existence of PMTCT services, the benefits and the role of a man in PMTCT services. Low formal education in men further limits a man's understanding of issues on HIV and AIDS. As reported in other studies, due to inadequate information on HIV and AIDS, men have used their wives HIV test results as a proxy for their own HIV status, (Nkuoh G.h, 2010, sarker M, et al, 2007). Conversely, educating men in antenatal care aspects yields positive results in birth preparedness and postnatal visit compliance.

The fear of learning one's HIV status following attendance of PMTCT services prevents men from attending the service as has been reported by other studies, (Theuring S et al, 2009 and Nkuoh G.N, 2010). In Zimbabwe men perceived HIV as a threat to their manhood and they discouraged their partners in accessing ART services to avoid learning their HIV status indirectly, (Skovdal M et al, 2011). Equally, women have also expressed the fear of learning their HIV status as a barrier to their participation in PMTCT programme. However with the

current opt out policy of HIV testing; women are rarely refusing an HIV test in Zambia as evidenced by the high rates of HIV testing during antenatal.

A man's lack of knowledge on PMTCT activities, his fear of learning his HIV status fear, and traditional gender roles and cultural norms, partially explain the unwillingness of men or lack of interest by men with the PMTCT program as expressed in this study, thereby, hindering their involvement. These results are congruent with reports from Tanzania where 74.6% of men were unwilling to participate in PMTCT programs, (Theuring S et al, 2009).

The belief that a man is the head of the family who may not be influenced by his partner deters them from participating in PMTCT services especially when invites come through his partner. This finding remains consistent with Tanzanian and Ugandan studies where women could not ask their partners for HIV tests because they had no authority over them, (Pool R, 2001). Superiority norms held by men led to men shunning of any HIV related clinics for fear of being regarded as weak or less masculine.

Furthermore, men stated that it was against their culture to be involved in female affairs. It could be argued that for a successful male involvement in PMTCT service; cultural aspects and gender roles need to be explored and incorporated in the development and implementation of the program.

Time constraints, such as balancing the need to provide for the family versus attendance to PMTCT clinic and negotiating time off from work, is a barrier to male involvement in this study. This builds upon findings from other studies that identified socioeconomic demands, poverty and job responsibilities as a barrier to male involvement in PMTCT, (Mullany B.C, 2006, Nkuoh G.N, 2010 and Byamugisha R et al, 2010). As a way of averting this problem, countries may consider legitimizing male involvement in PMTCT for men that are formally employed while those in informal employment may utilize their free days to attend to the service.

Health system related factors highlighted in this study are similar with those reported in earlier studies such as services located in an antenatal clinic, non-male friendly environment

there by marginalizing men, organization of the PMTCT program, and inadequate space, (Mullany B.C, 2006).

Factors that can foster male involvement in PMTCT

Incentivizing couples that report together for PMTCT services is a promoting factor for male participation reported in this study. Incentives, a part of behavioural economics, have a potential in increasing uptake and retention in PMTCT programs.

Creation of a male friendly environment within the antenatal clinics would promote men's participation in PMTCT. This finding remains consistent with earlier findings on ensuring a male friendly environment that offers some privacy and an environment that handles men's sexual and reproductive health needs, (Kura S, 2013).

A male peer approach as stated in this study was also advocated in PMTCT services and other maternal health services. Additionally, this approach would be culturally appropriate as men will be advised by fellow men as opposed to being advised by women. Furthermore, this approach would offer a live personal communication which is deemed beneficial for increased understanding in men.

Additionally, improving the attitude of health care workers and instilling maintenance of confidentiality as expressed in this study remains consistent with findings from other studies that proposed integration of services as a measure of ensuring confidentiality (Skovdal M, 2009).

Community sensitization via open day functions, use of posters and use of influential people such as chiefs were suggested in this study as promoting factors. These findings remain consistent with other studies that suggested community mobilization to enhance male involvement in PMTCT as well as use of community leaders through community outreach, public meetings in places like churches market place as strategies for promoting male involvement, (Burke M.G, 2004). Community meetings have the potential of increasing uptake of couple counselling in PMTCT and men may have all their concerns addressed.

5.1 Conclusion

Men's involvement in PMTCT is very important for the successful prevention of MTCT of HIV. It has been observed from literature that in countries where male involvement has been successful that it has led to an increase in the uptake of PMTCT services. Lack of male involvement implies low uptake of PMTCT interventions and an increase in mother to child transmission of HIV.

There are several factors that are associated with men's willingness to get involved in PMTCT, ranging from one's education, occupation, knowledge about PMTCT, individual, social economic and health system related factors. Among these there are also barriers that deter men from taking part in PMTCT. Therefore the success of male involvement in PMTCT programs depends on implementing interventions that would minimize the barriers whilst enhancing the factors that promote men's participation in a contextual manner.

At a health facility level, health care personnel need to proactively involve males by eliminating all the health care related factors whilst optimizing health care promoting factors. Other innovative measures need to be explored within the health system such as active couple counselling, and extending working hours to accommodate working men. The procedures that take place during PMTCT clinics should be revised so as to reduce on the waiting time.

On a personal level, men need to be well informed on HIV for them to make informed decisions about their involvement. At community level, community leaders ought to encourage men in the various forms of communication and also amend cultural norms to accommodate men's willingness to take part in PMTCT. Involvement of traditional leaders and influential men within communities is paramount for the success of the program.

5.2 Limitations of the Study

The study was limited to respondents response hence challenges for generalisation to other areas. The focus group discussion did not involve women hence failing to capture their views.

5.3 Recommendations

1. The district community medical office should improve the knowledge levels of men on the importance of PMTCT services through mass sensitization and information, education men during community meetings.

2. The MCMCH and MOH should come up with a comprehensive component in the PMTCT package that will specifically address men's health so as to make the program male friendly.
3. The MCMCH should train more men community health workers with specific focus on encouraging men to take part in PMTCT services.
4. The MCMCH should always ensure that before any program is implemented, the community should be adequately sensitised so as to empower them with knowledge and information in order for them to make informed decisions.

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APPENDICES

Appendix 1

Work plan

The study was conducted for a period of nine months.

period	May 2013	June 2013	July 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013
Activity									
Proposal writing									
Proposal submission to ethics									
Clearance of proposal									
Training of research assistants									
Pilot study									
Data collection									
Data entry and analysis									
Report writing and submission									

Appendix 2

Budget

The approximate total cost of the research was approximately Kr21, 270. The breakdown of activities was as follows

No	Activity	Quantity	Unit cost	Total cost
1	Stationary			
	Rims of paper	10	30,000	300,000
	Folders	10	5,000	50,000
	Flash disc	2	50,000	100,000
	Pens	20	2,000	40,000
	Pencils	10	1,000	10,000
	Rubber	5	2,000	10,000
	Printer Tonner	1	850,000	850,000
	Sub total			1,360,000
2	Secretarial services			
a	Proposal/ questionnaire			
	Typing	30	5,000	150,000
	Printing	30	2,000	60,000
	Photocopying	5x30 pages	500/page	75,000
	Binding	5 copies	50,000	250,000
	Questionnaire	?x343	?	1,500,000
	Sub total			2,035,000
b	Dissertation			
	Typing	150 pages	2,000	300,000
	Printing	150 pages	2,000	300,000
	Photocopying	5x150 pages	500/page	375,000
	Binding	5 books	50,000	250,000
	Sub total			1,225,000

c	Training of research assistants			
	Venue hire	1	1,500,000	1,500,000
	Stationary			650,000
	Sub total			2,150,000
d	Allowances			
	Transport cost for data collection	1	2,000,000	2,000,000
	R.A meal allowance	4	50,000/dayx4x30	6,000,000
	Assistant data analyst	1	250,000/dayx10	2,500,000
	Investigator meal allowance	1	50,000/dayx50	2,500,000
	Sub total			13,000,000
	Miscellaneous costs			1,500,000
	GRAND TOTAL			21,270,000

Appendix 3

Information sheet for participants

I'm..... doing a research on health issues in your community. We are trying to get information that will help me understand better how men in your community have responded to governments call for men to be going with their wives for PMTCT activities. This information will help us better understand why men go or do not go for PMTCT program with their wives.

1. Procedure

The purpose of my visit is to ask you some questions related to health. I'm conducting a study on determinants of male's involvement in PMTCT program. The interview will take about 20 minutes. I will ask you some questions about yourself, such as your age and others. I will ask you questions and write down your responses in a questionnaire form. I will not put your name on the questionnaire form and your name will not appear with any typed information. I will be asking other men in your community the same questions.

2. Risk of participation

There is no anticipated risk involved in taking part in this study. The only anticipated risk is the loss of privacy in an event that the researcher fails to secure the information collected from participants. In order to insure privacy and confidentiality all information collected will be stored in a safe place that will only be accessible to the researcher. Some questions may make you feel uneasy. You may be embarrassed telling me your thoughts. You don't have to answer any question(s), if you don't want to.

3. Benefits of participation

There are no direct benefits to you the participant for taking part in the study, but the information you will provide will help me understand the response of men to PMTCT program better, which will in turn help policy makers to redesign or improve the program.

4. Privacy

What we will talk about will be kept private. Your name will not be attached to any written forms. All written materials will be kept in a secured area that is a locked cabinet. Only the researcher and the supervisor will have access to the information. All materials will be destroyed after the research is successfully concluded. Your name or other facts that might point to you will not appear when i present the results of this project or publish its result.

5. Voluntary participation, Refusal and Withdraw

This interview is completely voluntary. You do not have to answer questions that you do not feel comfortable with. You can stop the interview at any time without giving reasons. Your relationship with health and social service providers in the community will not be affected in any way. You can still receive services and take part in other programs.

Appendix 4

9.4 Informed consent form

Instruction

Only those men aged 18 years and above whose partners had attended PMTCT program (antenatal) should sign this consent form.

Participation in the study, exploring determinants of male involvement in PMTCT programs in Chibombo district of central province of Zambia.

Dear participant,

I understand that participation in this research is voluntary. The material in the information sheet has been read and explained to me. All questions that i had have been answered to my satisfaction. I choose to participate freely and voluntarily. During the interview i understand that I can stop answering questions without giving reasons why. I also understand that my rights and privacy will be respected.

Sign/Thumbprint of participant.....Date.....

Signature/Thumbprint of witnessDate.....

Researcher (Name).....Date.....

CONTACT PERSONS FOR ANY QUERIES OR INFORMATION RELATED TO THE STUDY

1. Dr SH Nzala, Assistant dean postgraduate, University of Zambia, school of medicine, P.O Box 50110, Lusaka

2. Dr TM Malebe, Senior PMTCT Advisor, Family Health International (FHI360), Lusaka.

3. The Chairperson, ERES Converge IRB, 33 Joseph Mwilwa Road Rhodes Park, Lusaka. Tel: 0955155633/4

Appendix 5

9.5 QUESTIONNAIRE FOR MEN INVOLVEMENT IN PMTCT

AREA CODE:..... **DATE**.....

NAME OF INTERVIEWER:.....

INSTRUCTION TO RESEARCH ASSISTANTS

1. Always introduce yourself before beginning the interview.
2. Explain the purpose of the study and ask for permission to do the interview.
3. Make the respondents sign or thumbprint the consent form before you start the interview.
4. Interviewer to read out the questions exactly the way they appear in the text.
5. Interpretation/translation should have the exact meaning as the text.
6. Assure confidentiality of collected information
7. Do not force a respondent to participate if they are reluctant or unwilling
8. Do not write the names of the respondents on the questionnaire
9. Write the appropriate response in the space provided.
10. Thank the interviewee after the interviews.

SECTION A: DEMOGRAPHIC DATA

1. How old were you on your last birthday? Years

2. Residential

1. Peri-urban
2. rural

3. How far is the health centre from your home?

1. Less than 5km
2. More than 5km

4. What is your marital status?

1. Married
2. Widowed
3. Separated
4. Divorced

5. How long have you been in married?

1. 0-5 years
2. 6 years and above

6. What is the age of your partner at her last birthday?.....years

7. Do you have any children?

1. Yes
2. No – go to Q 8

8. How many do you have?

1. 1-5
2. 6 and above

9. What is your denomination?

1. Catholic
2. Seventh day Adventist (SDA)
3. New apostolic
4. United church of Zambia (UCZ)
5. Others specify.....

10. What level of education have you attained? (Completed level)

1. None
2. Primary
3. Secondary
4. College/university

11. What is your occupation?

1. In wage employment (formal and informal)
2. Self employed
3. Not working (go to Q 13)
4. Retired
5. Others specify

12. How much do you earn per month from your job? Kwacha.....

SECTION B: KNOWLEDGE OF PMTCT

13. Have you ever gone for antenatal clinic with your wife?

1. Yes – go to Q 14
2. No

14. If no to question 12, give reasons for your answer

15. Have you ever heard about PMTCT?

1. Yes

2. No – go to Q 16
16. If yes to Q 15, what was your initial source of PMTCT knowledge?
1. Wife
 2. Girlfriend
 3. Friends
 4. Health worker
 5. Any other specify.....
17. Does your spouse tell you that you need to go for PMTCT program with her?
1. Yes
 2. No
18. What is PMTCT?
1. Protecting the baby from getting HIV from mother
 2. Removing HIV from the baby
 3. others
 4. I do not know
19. Can the virus that causes AIDS be transmitted from an HIV positive mother to her baby during pregnancy?
1. Yes
 2. No
 3. I do not know
20. Can the virus that causes AIDS be transmitted from an HIV positive mother to her baby during delivery?
1. Yes
 2. No
 3. I do not know
21. Are there any special drugs that are given to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?
1. Yes
 2. No
 3. I don't know
 - 4.
22. Do you think it is important to go for PMTCT programs with your wife?
1. Yes – go to Q 23

2. No

23. Give reasons for your answer?

1. Distance to health centre
2. Financial constraints
3. Lack of time due to work
4. It's for women
5. Health workers attitude towards men
6. Time when the program is done not favourable
7. Others specify

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24. Would you accept couple counselling and testing of HIV during PMTCT program?

1. Yes- go to section C
2. No

25. Give reasons

1. Staff do not keep confidentiality
2. Lack of convenient place to do the test
3. Staff members do not have counselling skills
4. Afraid because of my past sexual lifestyle
5. Already know my status
6. Others specify

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SECTION C: MEN INVOLVEMENT IN PMTCT/ANC

26. Have you ever attended a PMTCT program with your wife?

1. Yes
2. No

27. Do you know your wife's appointment for antenatal?

1. Yes
2. No

28. How many times should she attend during her pregnancy?

29. Do you give your wife transport money when going for ANC& PMTCT?

- 1. Yes – go to Q 29
- 2. No

30. Give reasons.

31. Do you ask your wife of information given to her during ANC?

- 1. Yes
- 2. No

32. Have you asked your wife that you want to use a condom during her last or current pregnancy?

- 1. Yes
- 2. No

33. Do you ask your wife what happens during ANC?

- 1. Yes
- 2. No

34. Give suggestions on how best men can be encouraged to participate in PMTCT program.

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FOCUS GROUP DISCUSSION GUIDE

Topic: Exploring determinants of male involvement in Chibombo district of central province of Zambia.

1. Introduction – researcher, recorder and participants
2. Introduction of topic
3. What do you know about PMTCT services?
4. Who should take part in PMTCT programs?
5. Is it important for men to get involved in PMTCT?
6. What are the benefits (if any) of men taking part in PMTCT programs?
7. What are some of the reasons why men do not take part in PMTCT programs?
8. Are there any cultural beliefs in your community that affects men's participation in PMTCT?
9. What do you think should be done in order to ensure that all men should take part in PMTCT activities?
10. Thank you very much for your active participation.

