FACTORS INFLUENCING PARTNER NOTIFICATION OF HIV STATUS BY PREGNANT WOMEN AFTER UNDERGOING ROUTINE HIV TESTING AT ANTENATAL CLINICS IN KALOMO URBARN DISTRICT.

BY
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A Dissertation submitted to the University of Zambia in partial fulfillment of the requirements for the Degree of Master of Science in Nursing.

THE UNIVERSITY OF ZAMBIA
LUSAKA

JANUARY 2009
DECLARATION

I, Masumo M. Maureen declare that this Dissertation represents my own work and that all sources I have quoted have been indicated and acknowledged by means of complete references. I also declare that this Dissertation has not been submitted for a Degree or any other qualification at this or another University. This work is in accordance with the guidelines for Master of Science in Nursing Dissertation of the University of Zambia.

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ABSTRACT
Kalomo District Health management report revealed lack of partner notification of HIV status among pregnant women to their sexual partners. The purpose of this study was to identify the factors that influence disclosure among the pregnant women undergoing routine HIV testing at antenatal clinic.

A cross sectional, descriptive quantitative study was conducted in Kalomo urban District in five health centres. The study population included 350 pregnant women in child bearing age who were tested for HIV and knew their results. At each clinic women who came for antenatal and met the criteria were listed. To arrive at a sample of 120 every 3rd woman on the sampling frame was selected as a sample unit. The data was collected using a structured interview schedule.

The data was analysed using SPSS and Chi square, p values equal or less than 0.05 were considered statistically significant. Most of the respondents 87 were married and 33 were single. The results indicated that 65.5% (57) respondents who were married were able to notify their partners (p value 0.0001, significant). Most respondents 70.2% (33) who had been in a relationship for a period of 5 years and more notified their partners of their HIV status (p value 0.008, significant). The study revealed that 65.3% (62) respondents who discussed sexual matters with their sexual partners were able to notify their partners about their HIV status (p value 0.000, significant). Majority 85.7% of the respondents who had a discussion on HIV testing with their partners prior to testing notified their partners (p value 0.000, significant). Majority 95% (39) of the respondents who were aware of the partners HIV status were able to notify their partners (p value 0.000, significant).

These findings suggest a need for psychosocial counsellors to use these factors to assess and identify women who are likely to disclose their HIV status to their partners and those who are likely to face problems and help them.

Key words: - Partner notification, HIV status, Pregnant women, Routine HIV testing, Antenatal Clinic.
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DEDICATION

I dedicate this study to all the pregnant women who the findings of this study seek to help and the midwives who find themselves in a dilemma while caring for these women in relation to issues of HIV status disclosure.

To my children, Chungu and especially Kunda who remained at home without Mum at very young age.
ACKNOWLEDGEMENTS

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My supervisor Miss C. Kwaleyela and other members of Faculty in the Department of Post Basic Nursing and Department of Community Medicine for their guidance and constructive criticism.

My husband and my children (Chungu and Kunda) for the endurance when I was away from home.

My family members and friends for their support and encouragement during my studies.

To all I say may God bless you abundantly.
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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>ANC</td>
<td>Antenatal Clinic</td>
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<td>ART</td>
<td>Antiretroviral Treatment</td>
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<td>ARV</td>
<td>Antiretroviral</td>
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<tr>
<td>CDC</td>
<td>Centre for Disease Control</td>
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<td>CSO</td>
<td>Central Statistics Office</td>
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<td>DHMT</td>
<td>District Health Management Team</td>
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<td>DHO</td>
<td>District Health Office</td>
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<tr>
<td>EPI-INFO</td>
<td>A word - processing, database and statistics program for Public Health</td>
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<tr>
<td>GIDD</td>
<td>Gender In Development Division</td>
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<td>HMIS</td>
<td>Health Management Information System</td>
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<td>HIV</td>
<td>Human Immuno-deficiency Virus</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>MCH</td>
<td>Maternal Child Health</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>MTCT</td>
<td>Mother To Child Transmission</td>
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<td>NAC</td>
<td>National Aids Council</td>
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<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>STIs</td>
<td>Sexually Transmitted Infections</td>
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<td>UNAIDS</td>
<td>Joint United Nations Program on HIV/AIDS</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VCT</td>
<td>Voluntary Counselling and Testing</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>Zambia Demographic and Health Survey</td>
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CHAPTER 1

1.0 INTRODUCTION

1.1 BACKGROUND INFORMATION.

United Nations joint Programme on Acquired Immunodeficiency Syndrome (UNAIDS, 2003) estimates that 40 million people globally were living with the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) at the end of 2003. Furthermore the same report indicates that approximately 14,000 new infections occur everyday, with almost one half of these occurring in women and over one half in youths aged 15-24 years and that over 95% of these new infections occur in developing countries. UNAIDS (2003) also states that, between 25 and 28 million Africans are living with HIV/AIDS with over 3 million new infections and 2.2 to 2.4 million deaths occurring in 2003. Of all people infected with HIV around the world six out of every ten adult men, eight in every ten adult women and over nine of every ten children live in Sub Saharan Africa (UNAIDS, 2003).

Zambia has a population of approximately 10 million people and an estimated HIV prevalence of 14.3% adult population (Central Statistics Office, CSO, 2008). Data from the Zambia sentinel surveillance (2004) indicate that the HIV prevalence among pregnant women who attend antenatal clinic is 19%. It was estimated that 1.2 million Zambians at the end of 2001 were living with HIV/AIDS, and over half of these infections were in women and approximately 150,000 infections were in children as reported by National AIDS Council (NAC) /Ministry Of Health (MOH/NAC, 2005).

Mother To Child Transmission (MTCT) is by far the major cause of HIV infection in children below the age of 15 years (NAC/MOH, 2005). According to UNAIDS (1998) estimates, more than 90% of children who acquire the
disease through MTCT acquire the virus during pregnancy, birth or through breastfeeding. The risk of transmission from an infected mother to her child is about 30% (UNAIDS, 2007). Within the 30% overall transmission rate, 5-10% will be as a result of transmission through pregnancy, 10 -20% during labour and 5- 10% through breastfeeding. With the high HIV prevalence and the transmission risk, of the 520,000 babies born annually in Zambia, approximately 41,000 may acquire HIV infection and this translates into 112 new infections in babies per day; that is if no interventions are put in place (NAC/MOH, 2005).

The Zambian Government has responded positively to this challenge by supporting programmes to establish Prevention of Mother To Child Transmission (PMTCT) of HIV and establishing a framework for national scaling up of these services (MOH/ NAC, 2006). The implementation of PMTCT of HIV programmes yielded positive results in developed countries such as the United States and Thailand, a middle income country, where the MTCT rates have been reduced to less than 2% and 10% respectively (MOH, 2004).

The Zambia National PMTCT programme uses an opt out approach. This entails that HIV testing be part of the routine laboratory process undertaken during all pregnancies (MOH/ NAC, 2006). It further states that the woman does not need to sign a consent form but only needs to be fully informed of the test. However she has the option and right to refuse to take the test. The provision of universal counselling and testing services to all women attending antenatal clinics in conjunction with PMTCT services is to help protect babies and link family members to HIV/AIDS clinical care.

World Health Organisation (WHO, 2004) indicates that the prevention and control of HIV infection depends on the success of strategies to prevent new infections and treat currently infected individuals. HIV testing and counselling
is a critical component of prevention strategies to reduce transmission of HIV from mother to child. Disclosing HIV test results to one’s sexual partner allows the partner to engage in preventive behaviors as well as the access of necessary support for coping with serostatus or illness. It may motivate partners to seek testing or change behavior, and ultimately decrease the transmission of HIV (Kabede, et al, 2008).

Unless pregnant women are willing to be tested and counselled for HIV, the encouraging advances made in the use of drugs to reduce perinatal transmission will be meaningless. HIV testing and counselling also offers the opportunity to identify HIV infected individuals and channel them into treatment programmes. Through the early identification of the infection, its management can be substantially improved (WHO, 2004).

Within the PMTCT programme emphasis is placed on the importance of HIV status disclosure among tested women particularly to their sexual partners (United States for International Development (USAID, 2003). Disclosure is an important public health goal for a number of different reasons. It may motivate sexual partners to seek testing, change behavior and ultimately decrease transmission of HIV. In addition disclosure may facilitate other health behaviors that may improve the management of HIV. For example women who disclose their status to partners may be more likely to participate in programme for prevention of HIV transmission from mothers to their infants (Kabede, 2008). The Bulletin of the World Health Organization (2004) documented that disclosure of HIV test results also offers a number of important benefits to the individuals and general public. The benefits include;

- Increased opportunities for instrumental and expressive social support.
- Improved access to HIV prevention and treatment programme.
- Expands awareness of HIV risk to untested partners, which can lead to greater uptake of voluntary testing and counselling and changes in HIV risk behaviors.
• Enables couples to make informed reproductive health choices that may ultimately lower the number of unintended pregnancies among HIV positive women.
• Increased opportunities to discuss and implement HIV reduction with partners.
• Increased opportunities to plan for the future carefully and thoughtfully.

Collins (1994) further documented that self disclosure of sensitive information is generally thought to have beneficial effects on an individual’s health, lower stress and lead to better psychological health.

MOH (2004) in the PMTCT training manual emphasizes that both HIV positive and negative mothers should be strongly encouraged to inform their sexual partners of their results and bring them in for counselling and testing. The manual further indicates that knowledge of partner’s HIV status will help couples make informed choices.

This study therefore identified the factors that influence the pregnant women tested in the context of PMTCT programmes in Kalomo District to either disclose or not disclose their HIV serostatus to their sexual partners. Kalomo is one of the 11 Districts in Southern Province of Zambia that have implemented the PMTCT programme. The implementation process of the PMTCT programme begun in 2003 (Kalomo District Health Office KDHO, 2008). Initially only four Health Centers were providing the PMTCT services but this has so far scaled up to 29 health centers in 2007. The District adopted the PMTCT opt out approach after the 2006 training of health workers in PMTCT. The uptake in the PMTCT programme since then recorded an increase from an average of 13% first antenatal attendees being tested in 2005 to about 80% in 2007. The Health Management Information System (HMIS) report further indicates that the district has a total population of 213,106; women of child-bearing age are estimated at 47,743 pregnancies at 10,362 and deliveries at 8,725.
1.2 STATEMENT OF THE PROBLEM

PMTCT is one of the strategies adopted by countries in the Southern African region to confront HIV/AIDS. The Zambia Government has also adopted the PMTCT strategy to curb the transmission of HIV/AIDS to unborn babies. The first step in PMTCT programme is for all pregnant women to know their HIV status (NAC/MOH, 2005). Therefore at booking and subsequent visits, all pregnant women receive care that includes counselling and testing and information on MTCT. Knowledge of one’s own HIV status and that of the partner may be an important influencing factor for preventing acquisition of HIV (NAC/ MOH, 2006). It is documented in the National Guidelines for HIV counselling and testing that early detection of HIV infection and partner notification of HIV status can result in public health benefit by decreasing risk behaviors that could transmit HIV to uninfected partners and unborn babies. Kalomo district HIV rate is at 16%. To reduce on the transmission of HIV from an infected mother to unborn babies the district implemented the PMTCT programmes in 2003 (KDHO, 2008).

Despite the benefits of partner notification being stipulated to women during ANC counselling sessions, not all women notify their partners about their HIV status. The urban health centers in Kalomo have documented that there is lack of disclosure of HIV status by pregnant women to their sexual partners. For instance, from September to November 2007, 70% of the women who attended antenatal were tested for HIV after pre test counselling. Majority (97%) of these women collected their results after post test but only 6% of these tested notified their partners and had their partners come for counselling and testing at the antenatal clinic (Kalomo DHO, 2008).

The period between December and February 2008 showed an increase in the number of women tested (98%). All the women tested collected their results
and were post test counselled but only 8% notified their partners and these partners came for counselling and testing. Although there is a noted slight increase of 6% in 2007 to 8% in 2008 in the number of women notifying their partners, the rates of partner notification are still very low. The PMTCT programme recommends that all women tested should notify their partners about their HIV status regardless of the HIV status. This is because disclosure of HIV status plays an important role in women’s uptake of PMTCT programmes and in their participation in treatment and care and support programmes.

Rutenberg’s (2003) study done in Kenya and Zambia on HIV testing and disclosure: experience from PMTCT programs revealed that 72% of the pregnant women tested in Lusaka disclosed their HIV status to partners. However the situation in Kalomo is different from Rutenberg’s findings. The disparity could be attributed to various factors such as the geographical location and the women’s level of education. Further more the National guidelines for HIV counselling and testing has documented that there are feasibility questions that are yet unanswered. Some of these questions are; what are the rates for partner notification and how can these be improved? It further recommends that these operational research questions should be investigated to best inform implementation on the counselling and testing for HIV/AIDS. The Kalomo district report (2008) further shows that they’re more couples (30% of those tested) seeking counselling in VCT clinic than in ANC clinics.

WHO (2004) documented that in Africa women lack the power to make independent decisions with regard to their own health and that of their children. This makes it difficulty for them to disclose their status to their partners if they did not consult the partner before testing. Therefore, non disclosure of HIV status by pregnant women in Kalomo District could be the reason for low number of women consenting to ARV prophylaxis. In 2007, 357 (16%) tested positive and out of these only 180 (50%) consented to ARV prophylaxis. The
District report further indicates that the PMTCT infants tested for HIV at 18 months were 39 and all the 39 tested positive (Kalomo DHO, 2008), which could be attributed to the fact that women who don’t disclose are less likely to take the ARVs to prevent transmission of HIV. It is for these reasons that the investigator conducted this study to identify the factors that influence pregnant women in Kalomo to or not to notify their partners about their HIV status.

1.3 FACTORS INFLUENCING PARTNER NOTIFICATION OF HIV STATUS AMONG ANTENATAL WOMEN WHO UNDERGO ROUTINE HIV TESTING.

Partner notification is an important strategy in the context of HIV/AIDS prevention, care and mitigation. Its main goal is to facilitate behavior change, promote personal responsibility in preventing further spread of HIV infection and reduce social stigma associated with HIV/AIDS as documented by Zambia Counselling Council (ZCC, 2003). The promotion of safer sex practices and PMTCT of HIV/AIDS revolves around couples that are well informed about their HIV status. Thus partner notification at couple level is of great significance in that it has implications for the individual, family and community. Knowledge of HIV status and openness between partners make prevention and risk reduction easier to achieve.

The factors that influence partner notification of HIV status among the antenatal women who undergo routine HIV testing can be classified into three broad categories: socio-cultural economic factors, service related factors and disease related factors.
1.3.1 SOCIO-CULTURAL ECONOMIC FACTORS

- Socio economic status

Gender In Development Division (GIDD) documented that the socio-economic decline that Zambia has been experiencing from the mid 1970’s has eroded the standard of living of people (GIDD, 2000). There has been a general increase in crime due to the deteriorating socio-economic situation. In 1998 a total of 1,446 cases were reported to victim support unit, of which 146 were defilement cases, 694 cases of spouse assault and 55 cases of rape.

The prevailing socio-economic, cultural and political contexts have exacerbated the gender imbalances. In the Zambian culture, men are favored and women have been treated as minors in both the pre and post independence period. Women are marginalized in terms of access to education, employment and other social services (GIDD, 2000).

Men are financially empowered have the physical strength and gender defined right to demand specific sexual practices. This puts women at a disadvantage if they demand safe sex regardless of the education given after taking HIV test. The social and economic dependence of women on their partners militates against any demand that can be perceived as threatening to the relationship such as disclosure of HIV positive results.

Among other coping strategies adopted by women to sustain their economic welfare is engaging in prostitution. This exposes them to diseases and unwanted pregnancies. A woman with multiple sexual partners would not know who is responsible for their pregnancy. This will make it difficult for her to disclose her status to all her sexual partners for fear that she will no longer get the economic support.
However, a study that was conducted in Kenya on prevalence and correlates of partner notification regarding HIV-1 in an antenatal setting, revealed that women of lower socio economic status had a higher disclosure rate than women of high higher socio economic status (Farquhar et al, 2000).

- **Literacy level**

Basic education in Zambia is an individual’s right and is regarded as a prime factor in enabling the individual to influence personal, community, social, cultural and economic development (GIDD, 2000). It is further indicated by Gender in Development that in Zambia illiteracy levels among women are high compared to men. Women make up 2/3 of the 44% adult population who are unable to read and write. The low literacy level, gives women little leverage on decision making process hence affecting their well-being. They cannot for example insist on condom use or persuade their partner from risk behavior. Issiaka (2001) documented that literate women were more likely to share their results with their partners than women who were illiterate.

- **Cultural practices and beliefs**

In many communities in Zambia some cultural practices and norms often place women at a disadvantage and pose great risk to their health (GIDD, 2000). Girls are socialized to become wives and mothers who are generally submissive and have a low opinion of themselves. ZCC (2003) states that women are generally socialized to take a passive role on issues of sex and reproductive health. For example, some women would rather have sex with their spouse or sexual partner even when they know he is infected with HIV. This could be attributed to the social and economic dependency of women on their partners.

Most women often learn they have HIV during or after pregnancy. Thus women’s partner and their partner’s families, previously unaware of the man’s
own infection, often blame the woman for infecting him as well as the infant. Women are blamed even though culturally it is a man who is allowed to look for other women when the wife is breastfeeding (ZCC, 2003).

In a large study conducted in Democratic Republic of Congo, more than 97% of pregnant women were unwilling to inform their partners because of fear of blame, divorce, physical harm and public scorn (WHO, 2002). It was also indicated in the ZCC (2003), that it is not uncommon for one partner to blame the other for unbecoming behavior that may have resulted in HIV infection. The couple may verbally or physically abuse each other.

Polygamy is an accepted practice in Zambia. In the past polygamous marriages had a potential to limit the sexually transmitted infections (STIs) since a man and his wives lived together. Nowadays it has been observed that partners in polygamous marriages tend to live separately and may not have adequate sexual attention, hence the tendency to have extra marital sex outside the home. United States Agency for International Development (USAID, 2003) documents that individuals who live in the same house with their partner were 9 times more likely to disclose to their partners compared to those who do not live in the same house. When the other women and the husband do not know their status, the wife who has been tested will fear to lose her marriage if she disclosed a positive result. She may fear to be blamed to blamed that she the infection.

- **Stigma and discrimination**

ZCC (2003) further indicates that isolation and secrecy in dealing with HIV is detrimental to client’s health and emotional well being. The partner, spouse, family and friends enhance care and support. Most women who receive a positive HIV antibody test may not know any other women in the same situation. Lacking a community in which to share their fears and grief, HIV positive women remain isolated, secretive and fearful (Marger, 1993).
clients should be encouraged to attend at least one support group which can easily be done if the significant others are aware of the woman’s status.

USAID (2003) report states that communities must be mobilized to normalize the notion of disclosing one’s HIV serostatus and to provide ongoing psychosocial support. It further indicates that in high prevalence communities, it should become a norm to be tested and disclose one’s status in order to access care and support and to provide peer support for others.

- Prior discussion on HIV testing

Men dominate decision making in many relationships, while many women can accept to be tested and get their results, they can only find it easier to disclose their status if they had discussed testing before with their partner (USAID, 2003). Kabede (2008) in a study conducted in South West Ethiopia revealed that nearly four times as many respondents who reported prior discussion about HIV testing disclosed to their partners. This study further indicates that respondents that reported not knowing their partner’s HIV status were 98% less likely to disclose in comparison with those who knew. The study conducted that it is not only knowing HIV positive status that is associated with disclosure but knowing negative status is significantly associated with HIV status disclosure as well. This could be attributed to the fact that discordance occurs even when couples have not been practicing safer sex. Therefore, this increases the uncertainty in disclosure of HIV positive status in fear of what would happen to the relationship if the other partner were negative. It can also imply that individuals who know their partner’s HIV status have at least had a discussion about HIV testing and this would help them to anticipate their partner’s reaction towards disclosure.

For those whose test results are negative, they may not consider the aspect of discordance and take it that their spouse is also negative which may not be the
case. USAID (2003) indicates that HIV negative women find it harder to negotiate safer sex with their partners after disclosing their negative status. This could be because the partner would also consider himself as having the same status.

- **Age and length of the relationship**

Galliard et al (2000) in a study conducted at MTCT/ HIV prevention projects documented that younger women (under the age of 24 years) were more likely to disclose their HIV status to their sexual partner than older women. They further documented that women who had been in a relationship for a duration of more than 2 years were more likely to disclose than those with a shorter period. This was attributed to the fact that those who have been together for a longer period of time are more likely to know when and how to disclose their HIV status to the partner.

**1.3.2 SERVICE RELATED FACTORS**

- **Counseling services**

Wherever HIV is prevalent, health services have faced high patient turnout and counselling had to be introduced (ZCC, 2003). Counselling people is a noble undertaking and can exert psychological pressures on the counsellor. Witnessing people suffering and dying from HIV/AIDS related illnesses could evoke worry in the counsellor to the extent that the counsellor may fail to function competently and professionally. This may result in poor counselling outcome.

- **Interpersonal communication skills**

Marger (1993) documented that many positive women are not well informed about their medical condition. She further stated that health care workers do not often provide the women with useful or accurate information on their HIV
status. This therefore leads to women seeking treatment when significant damage to their immunity system has already taken place.

- **Attitude of staff**

In a Zambian study by Kankasa et al (2002) it was documented that most mothers interviewed in Zambia were pleased with the counselling received and the attitude of the health workers although some wanted more counselling time. Some mothers said that the post test counselling they received did not give them ample opportunity to ask questions and others received no advice on how to tell their spouse about their HIV status. Many said they needed more information on how to reduce their risk of infection and others wanted to know how their HIV positive would affect their babies. These findings suggest the need to invest more time in post test counselling.

- **Guidelines on partner notification**

ZCC (2000) documented that some people experience difficulties to share results of their HIV status due to lack of adequate guidance from the counsellor and non availability of national guidelines on partner notification. At times these women receive inadequate post test counselling or it is not provided at all. As earlier on alluded to, MOH/NAC (2004) state that it is during post test counselling when a client should be encouraged to disclose their status to their spouse. This may mean those who receive adequate post test counselling, guidelines on partner notification and guidance from the counsellor are more likely to disclose their status to their partners or spouses.

- **Counselling skills**

In some situations, some counselors are not knowledgeable of the various aspects of HIV and are not adequately trained in counselling skills (ZCC, 2003).
As such they fail to motivate clients to self disclose or notify their partners about their HIV status. The counsellor’s knowledge can be said to have a relationship on how his/her clients will respond to the outcome of the HIV test.

- **Staff shortages**

Staff shortage one of the factors that contributes to inadequate counselling training and inadequate client counselling. WHO (2004) stated that staff working in PMTCT programmes in many countries have taken extra workloads without extra pay. The same ANC health worker usually provides both HIV/AIDS and pregnancy related care. This therefore has demotivated staff. In Zambia Kankasa (2002) cited staff shortages and heavy workload as key constraints to providing adequate VCT. A study conducted in Uganda found an association between greater number of counselors and higher VCT uptake (Oyango, 2002).

- **Male involvement**

In Kalomo District, the PMTCT services are provided at antenatal clinics from Monday to Friday from 08:00hrs to 16:00hrs. In Zambia, most men are either in full time employment or doing business and therefore are busy all day. Therefore PMTCT services may not be easily accessible to most of these men. Shultes (2002) suggests that in order to increase accessibility of PMTCT services to men, couples counseling clinics should be conducted on Saturday mornings.

Mutunda (2001) in a study conducted in keembe in Zambia found out that more than 40% of male partners of women in the PMTCT programme had undergone HIV counselling and testing after a direct talk program with the male leaders about PMTCT. Therefore male involvement in PMTCT may improve the women disclosure rates.
1.3.3 DISEASE RELATED FACTORS

- Long latency period

Marger (1993) documented that most people with HIV have no idea when they become infected. Many get no sign whatsoever while the commonly experienced signs like fever, swollen glands, skin rash and sore throat are common symptoms of cold, flu and other illnesses. This makes people not to realize what has happened. Marger further stated that HIV is a slow acting virus and low levels may remain quietly in the body for years with few or no problems. This may influence how one is going to respond to HIV test result. Those who test negative while in the window period may not see the need for safer sex practices and may not disclose their status. On the other hand, they may disclose but without emphasis on prevention of HIV/AIDS and partner knowing his status.

- Stage of disease

The stage at which the disease is may have an influence on the woman’s decision to seek treatment or acceptance. Those who would have reached a stage where significant damage to their immunity system has taken place may be more likely to disclose their status. Marger (1993) stated that HIV positive women seek treatment when their health has been compromised.
Figure 1. Conceptual Model of factors influencing partner notification of HIV status among antenatal women after undergoing routine HIV testing.

SERVICE RELATED FACTORS
- Poor Attitude of staff
- Lack of guidelines on partner notification
- Lack of interpersonal communication skills
- Staff shortages
- Work over load
- Lack of male involvement

DISEASE RELATED FACTORS
- Limited counselling time
- Long latency period
- Stage of the disease
- Limited capacity for follow up

SOCIO-CULTURAL ECONOMICAL FACTORS
- Low socio economic status
- Negative cultural beliefs
- Stigma and discrimination
- Low education level
- Care and support
- Polygamous marriage
- Duration of relationship
1.4 RESEARCH OBJECTIVES

1.4.1 GENERAL OBJECTIVE

- To identify factors that influence women who undergo routine HIV testing in antenatal clinics notify their partners about their HIV status.

1.4.2 SPECIFIC OBJECTIVES

- To establish the role pregnant women’s cultural beliefs play in self disclosure of HIV status to a sexual partner.
- To assess if women’s level of knowledge on benefits of partner notification of HIV status is associated with partner notification of HIV status.
- To assess if economic status of a woman can influence disclosure of HIV status.
- To identify any other factors associated with partner notification of HIV status.

1.5 JUSTIFICATION FOR THE STUDY

In 2005, 17.5 million women were living with HIV out of which thirteen and a half million of those women live in sub Saharan Africa (UNAIDS, 2005). Zambia sentinel survey 2004 states that pregnant women attending antenatal has HIV prevalence above national level (19%). In Lusaka a study conducted by Rutenberg et al (2003) revealed that 72% of the pregnant women disclosed their HIV status to their partners. In Kalomo District no study on factors influencing disclosure of HIV status by pregnant has been done but the district still reports lack of disclosure as one of the constraints in the PMTCT programme.

In the sub Saharan region, most of the existing studies on PMTCT services focus on acceptance, disclosure rates but few on factors related to HIV status
disclosure to sexual partners. USAID (2003) documented that in general disclosure appeared to be more difficult for women than for men. Pregnant women attending PMTCT services are less likely to disclose than those that are tested in VCT clinic.

It is hoped that information obtained from the study will be used by health care providers, policy makers and Non Governmental Organization to identify strategies that will improve disclosure rates among pregnant women attending PMTCT. This will in turn increase once the women are able to disclose, the number of women benefiting from the PMTCT services will increase.

1.6 HYPOTHESIS

A hypothesis is a tentative prediction about relationship between two or more variables in the population under study (Polit and Hungler, 2001).

The hypothesis for this study is: There is an association between partner notification of HIV status by a pregnant woman and the following factors;

- Duration of the relationship
- Economic status
- Prior discussion of HIV testing with the partner before seeking the service
- Knowledge of benefits of partner notification of HIV status
- Socio-cultural factors.

1.7 DEFINITION OF TERMS

**Culture:** The whole complex of distinctive, spiritual, material, intellectual and emotional attributes that characterize a society or social group.

**Cultural practices:** Functional roles and rituals, which are culturally determined and may be assigned to the sexes.
Counselling: A helping relationship which often involves clients revealing information about their current and past situations, their opinions and inner most feelings.

HIV status: A state of being either sero positive or negative to HIV.

Partner: Any one having sexual relations with the woman.

Notification: Informing someone about something they were not aware of.

HIV: This is the virus that causes HIV infection and AIDS.

Prevention of Mother-To-Child Transmission: Prevention of the transmission of HIV from an infected mother to her baby.

Routine HIV testing: Means HIV testing is part of the routine laboratory processes undertaken during all pregnancies.

Antenatal care: It is care rendered to a pregnant woman from conception to the time the woman goes into labour.

Pregnant woman: A woman having a baby developing inside her.

Partner Notification: self disclosure to a sexual partner about something he was not aware of.

Opt out strategy: HIV test provided to each patient and the patient is informed of her right to refuse the test.
<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>CUT OFF POINTS</th>
<th>INDICATORS</th>
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<tbody>
<tr>
<td><strong><strong>INDEPENDENT VARIABLES</strong></strong></td>
<td></td>
<td></td>
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<tr>
<td>Knowledge of PMTCT and benefits of partner notification.</td>
<td>High</td>
<td>Scores of 17-25 on knowledge questions</td>
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<tr>
<td></td>
<td>Medium</td>
<td>Scores of 9-16 on knowledge questions</td>
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<td>Low</td>
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<tr>
<td>Economic status</td>
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<td>Monthly income of above K1,000,000</td>
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<tr>
<td></td>
<td>Medium</td>
<td>Monthly income of K500,000 - K1,000,000</td>
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<td></td>
<td>Low</td>
<td>Monthly income of below K500,000</td>
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<td>Scores more than 5 on cultural beliefs questions.</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>Score 0-4 Cultural beliefs questions.</td>
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<tr>
<td></td>
<td>Yes</td>
<td>Discussed with partner about testing prior to seeking service</td>
</tr>
<tr>
<td>Duration of the relationship with the partner</td>
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<td>5 years and more</td>
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<td></td>
<td>Medium</td>
<td>2 - 4 years</td>
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<tr>
<td></td>
<td>Short</td>
<td>Below 2 years</td>
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<td>Scores of 13-24 on counseling questions</td>
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<td>Inadequate</td>
<td>Scores of 0-12 on counseling questions</td>
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</tr>
<tr>
<td></td>
<td>Negative practice</td>
<td>Not being able to notify the partner about the outcome of HIV test (No).</td>
</tr>
</tbody>
</table>
CHAPTER 2

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the literature reviewed for this study is discussed. The general purpose of a literature review is to gain an understanding of the current knowledge on the topic and identify gaps in the existing literature. The literature review is based mainly on primary empirical sources contained in scientific journals, books, dissertations both published and unpublished. According to Babbie and Mouton (2001) every research should be placed in the context of the general body of knowledge. The literature is organized into three categories; global, regional and national perspective.

2.2 GLOBAL PERSPECTIVE

The literature from the United States and Sub Saharan Africa suggests that women who disclose their sero status to partners may be at increased risk of violence and that the threat of violence may play a key role in deterring women who wish to disclose their sero status to partners (Gielen et al, 1997). It is stated in the WHO Bulletin report that from 17 studies; 15 international conference abstracts from the Sub Saharan Africa and 2 from South east Asia the rates of disclosure to sexual partners ranged from 16.7% - 86% with women attending free standing VCT more likely to disclose their HIV status to their sexual partners than women who were tested in the context of their antenatal care (WHO, 2004). The disclosure rates among pregnant women tested in ANC in sub Saharan Africa ranged from 16.7% - 32% (USAID, 2003).
Disclosure of HIV status to sexual partners is an important prevention goal emphasized by the WHO and Centre for Disease Control (CDC) and Prevention in their protocols for HIV testing and counselling. Disclosure offers a number of important benefits to the infected individuals and to the general public. Some of the benefits stated include: less anxiety, increased social support, improved access to HIV prevention and treatment programs, increased opportunities to plan for the future, increased opportunities for risk reduction and expands the awareness of the HIV risk to the untested partner. It also enables couples to make informed reproductive health choices that may ultimately lower the number of unintended pregnancies among HIV positive women.

Disclosure of HIV status between HIV uninfected women and their sexual partner is necessary to initiate discussions about HIV and AIDS that raise both partners’ awareness of the risk of infection, which may ultimately lead to behavior change to reduce HIV risk.

Rutenberg et al (2003) indicates that among pregnant women who do take the test and are found to be HIV positive, a high proportion (up to 70%) choose not to tell their partners. It is further stated in the same study that these women who do not disclose are less likely to accept preventive drugs and to practice unconventional methods of infant feeding for fear of revealing that they are infected.

The WHO technical consultation report (2002) documented that there is need to re evaluate the testing and counselling approaches used in health care settings such as ANC. Furthermore, the same report suggests that there is a need to streamline counselling for women in antenatal care by tailoring it to the individuals, based on their HIV test results. This was arrived at after it was discussed that VCT protocols were originally designed for clients seeking HIV testing and counselling services at specialized clinics or in the context of consultations for sexually transmitted infections. The VCT protocols need to be
tailored for use in antenatal care services to focus specifically on the decisions that women in these settings are not voluntarily seeking HIV and are likely not to have considered being tested for HIV prior to attending antenatal clinics.

In Jamaica, most HIV infections are occurring in urban areas, the prevalence among pregnant women has remained at 1-2% since the mid 1990s, although recent HIV surveillance at antenatal clinics suggests that prevalence might be declining slightly in parts (UNAIDS / WHO, 2005). A study done in India in Mumbai, New Delhi and Bangalore looked at how HIV and AIDS related stigmatization and discrimination were perceived across the societies of the country. The study revealed that there were responses of ostracism and rejection on people living with HIV/AIDS. The predominant effect at the individual level was fear and withdrawal leading to secrecy about HIV status and self imposed social isolation (UNAIDS, 2002).

In Russia, it was also revealed that HIV positive women and children face widespread discrimination (UNAIDS, 2002). It is further indicated by UNAIDS that there are more HIV positive women than men. Overall, HIV infection levels among pregnant women rose from less than 0.01% in 1998 to 0.11% in 2003, therefore, children are being born to HIV positive mothers making PMTCT a priority (UNAIDS, 2002). In Baltimore, a survey of 136 health care providers was done and a substantial number reported knowledge of their HIV infected patient’s experiences with domestic violence before and after partner notification. Providers believed that fear of physical abuse, emotional abuse and abandonment are important reasons why many female patients resist partner notification.

2.3 REGIONAL PERSPECTIVE

The Sub Saharan region has generally recorded low disclosure rates among pregnant women tested in antenatal clinics (USAID, 2003). The rates are 16.7%
- 32% compared to those women who were tested in VCT centers (16 – 86%).
This was attributed to the fact that women tested in antenatal care clinics
settings may not have had the opportunity to psychologically prepare
themselves or their partners for the consequences of testing and knowing their
serostatus (USAID, 2003).

Disclosure to partners by HIV positive women has increased over time but is
still significantly less than that for HIV negative women. In a study conducted
at Muhimbili Health information center, 64% of the HIV positive women who
were tested as individuals disclosed their test results to a partner (Antelman et
al, 2001). While the figure for disclosure among HIV positive women is high, it
is significantly lower than 83% of HIV negative women who disclosed (WHO,
2004).

Overall the major reason for non disclosure (52%) among all women, regardless
of HIV sero status is fear of the partner’s reaction. A positive reaction was also
reported, most women stated partners showed support, and most women said
partners showed understanding when they were told test result. A large number
(66%) of these were those who tested negative and 37% of those who tested
positive. Regardless of the women’s sero status only a small percentage of the
women’s male partners said they would come for HIV testing. It is interesting
to note that some women were blamed for getting tested regardless of their sero
status.

WHO (2003) indicates that in Africa women often lack the power to make
independent decisions with regard to their own health care and that of their
children. It is therefore difficult for HIV infected women to seek social and
medical support from care and treatment programmes for themselves and their
infants without disclosing their HIV status to their partners. Kumah (1999)
noted that some cultural norms and taboos in Africa reinforce negative
stereotypes about male involvement in reproductive matters and some condone
abuses of women’s reproductive rights by men. Path (1997) also reports that there are unfavorable social and religious climate in some societies where sexual matters are not discussed openly and men may feel uncomfortable talking about reproductive health needs with their partners and health workers. This could imply that couples whose cultural beliefs do no allow them to discuss sexual issues can not discuss and implement safer sex practices as a preventive measure of HIV.

In a study done in Tanzania revealed it was that because of cultural norms men preferred to receive information about PMTCT from their fellow men who are peers or older and in gender specific groups. It is further stated that 67% of the respondents were of the opinion that women should seek permission from their male partners before testing for HIV (WHO, 2003).

Galliard et al (2000) found that younger women (under the age of 24 years) were more likely to disclose to sexual partners than older women. He also found out that those women of lower socio economic status had a higher disclosure rate than women of higher economic status. A study conducted by Antelman et al (2001) found that women who had been in relationships for a longer period of time (defined as more than 2 years) were more likely to disclose than women who had been in relationships for a shorter duration. Issiaka et al (2001) in their study living with HIV: women’s experience in Burkina Faso, West Africa found that women with a higher level of education were more likely to share their results with their partners than women who were illiterate. This could mean that women who are dependant on their spouses can not easily disclose their HIV status for fear of abandonment.

In Tanzania Kilewo’s study revealed that 46.4% of women did not disclose their HIV status to their partners while a higher percentage did disclose and their relationships continued afterwards. It was concluded that only women who are confident in the safety and strength of their relationship actually disclose their
results and women who are less confident choose not to. It could also mean that women perceive the risk of negative outcome to be more likely than it is in fact.

Kassaye et al (2005) in a study done in Ethiopia found that a longer and smoother duration of the relationship with the partner was an important factor in women's disclosing their HIV status. It is also interesting to note that a good percentage (69%) of women were able to share their HIV test results with their male partners. A study that was done in Cameroon revealed that women with secondary or higher education were 30 times more likely to have used a condom the last time they had sex. It was concluded that educated young women generally know more about how to protect themselves against HIV and more likely to delay their sexual debut and use a condom once they are sexually active. It can be concluded that educated women are more likely to benefit from the PMTCT programme as they can make their own decisions.

WHO (2003) documented that low rates of disclosure of the woman's HIV status have implications for each component of the strategy of the PMTCT programme. Kiarie et al (2004) in their study on infant feeding practices of HIV infected women in Kenya found that partner knowledge of HIV status of the woman was a factor influencing feeding decisions, a supportive partner attitude was very important for women.

2.4 NATIONAL PERSPECTIVE

Nyblade and Field-Nguer (2001) in a qualitative study in Zambia and Botswana on women, communities and PMTCT, reported that community members had opinions, beliefs and values that directly affected their decisions about participating programme such as PMTCT. They also reported that men were less informed than women about MTCT and this disparity in knowledge could be attributed to the place and manner in which information is usually shared.
Rutenberg et al. (2003) study on “HIV Testing and disclosure: experiences from PMTCT programs in Zambia and Kenya” revealed that 72% of the women disclosed their HIV status to their sexual partners. The study also found that 60% of those who disclosed their status regardless of their HIV sero status experienced stronger relationships.

WHO (2003) indicates that at an Antenatal Clinic in Zambia, some 60% of women eligible for free ARV opted out of treatment partly because they feared violence and abandonment if they were to disclose their HIV status to their partners. Another study done in Zambia found that 66% did not disclose their HIV status to a partner due to fear of blame, abandonment and losing the economic support of their partner (Kankasa et al., 2002). It is stated in the same document that courts of law in Zambia were responsible for fear of disclosure amongst women, as divorce was granted to men on grounds that a wife went for voluntary HIV testing and was on ART without male approval.

Tshitumbu (2006) in his study entitled “Factors influencing men’s involvement in PMTCT of HIV programme in Mambwe District,” documented that the PMTCT programme was scaled up to Mambwe District in March 2004. From that time to December 2005, a total of 801 women were counselled and tested at Kamoto Hospital for PMTCT and 9.9% proved to be HIV infected. All counselled and tested women (both positive and negative) were advised to come with their male partners at subsequent visits so that they could also be counselled and tested. Only 0.6% (5 out of 801) managed to do so, and the rest were afraid of their partners’ reactions. Semrau et al. (2005) also found similar results where only 10% of the women who were tested were able to encourage their husbands’ participation in PMTCT.
2.5 CONCLUSION

The literature review has revealed that previous studies have been conducted on determining disclosure rates in the Sub Saharan Region where the prevalence of HIV among pregnant women is high (about 36%) unlike in the western countries where it is low (about 2%). The literature review has also shown that in some places disclosure rates are high among the women who go for VCT than those who get tested in the antenatal clinics. Most of the studies have revealed that women are afraid of their partner’s reaction that is why they decide to keep their results a secret. It is also clear that for those women who have not disclosed they are less likely to benefit from the PMTCT programme. In Zambia, a few studies have been done to evaluate the disclosure rates and to identify factors that would influence men to participate in PMTCT. However, no study has been done in Kalomo District to address the problem of non disclosure of HIV status among the ANC women.
CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research methodology used in this research. It comprises of the study design, study population, sample selection, data collection techniques, ethical consideration, pre testing, dissemination and utilization of results and limitation of the study.

3.2 STUDY DESIGN

A research design is the overall plan for addressing a research question, including specifications for enhancing the integrity of the study (Polit and Hungler, 2001). This study used a cross sectional, quantitative descriptive study design. Dempsey and Dempsey (2000) state that a descriptive study is one that sets out to discover new meaning when little is known about a phenomenon of interest, whereas a cross section study is one which involves collecting data about various variables of the sample at one point in time in order to uncover relationships existing among those variables (Basavanthappa, 2007). This study involved identifying the factors influencing HIV serostatus disclosure to a sexual partner among the pregnant women who undergo routine HIV testing in antenatal clinics.

3.3 RESEARCH SETTING

Research setting is the physical location and conditions in which data collection takes place (Polit and Hungler, 1997). The study was conducted in Kalomo District, in the Southern Province of Zambia. According to Central Statistics
Office (2004) Kalomo has a population of 213,106; women of child bearing age are estimated at 47,743 and deliveries at 8,725 per annum. The district has 29 health centers and 2 hospitals. Out of these 29 health centers, 3 health centers and 2 hospitals namely Kalomo Hospital, Zimba Mission Hospital, Mawaya, Nakowa and Namianga clinics were purposively chosen as study sites. All these sites were located in Kalomo urban and they were the first health centers to implement PMTCT programme. These health centers conduct PMTCT activities in the Maternal Child Health (MCH) department on a daily basis from 08.00hrs to 16.00hrs except weekends.

The health centers were chosen as study settings on the basis that they recorded a high number of antenatal women being tested for HIV in antenatal setting (a total of 350 out of 720 the whole district). Women in these areas differ in characteristics like socio economic status, cultural beliefs and educational background unlike in the rural areas where the setting is predominantly the Tonga speaking people.

3.4 STUDY POPULATION

A target population is the total group of individual people or things meeting the designated criteria of interest to the researcher (Basvanthappa, 2007). In this study, the study population comprised of all pregnant women attending ANC at the research settings and had been tested for HIV, while the target population were those 18years and above as this is the age group that can give consent to taking the HIV test (MOH/ NAC, 2006).

3.5 SAMPLE SELECTION

Sample selection is the process of selecting representative units of a population from a target population (Maree, 2007). The sampling technique that was used to select the respondents is systematic sampling. According to Polit et al (2001)
systematic sampling technique involves selection of every Kth case from a list or group (sampling frame) and this k (the sampling interval), is established by the desired sample size. A study population of 350 which is an approximate number of pregnant women attending ANC in a month was divided by the 120 (sample size) to establish a sampling interval of about every 3rd person on the list that was selected as a sample unit. The investigator made a list of all women who met the inclusion criteria as women came for registration in the safe motherhood register during their antenatal visit. Every third woman was selected and interviewed. Each research assistant interviewed about 5 women on each day until the sample size was reached.

3.5.1 Inclusion criteria
- Pregnant women who were 18 years and above attending antenatal and had been tested through the opt out strategy in the PMTCT programme.
- Those who consented to participate.
- ANC re-attendance who had already collected their test results.
- Women residing in Kalomo District.

3.5.2 Exclusion criteria.
- Pregnant women who were not tested through the opt out strategy in PMTCT programme.
- First antenatal attendees
- Those who declined to participate.
- Women who opted out of the programme and didn’t get tested.
- All pregnant women who were under age of 18 years
- All men

3.6 SAMPLE SIZE

The sample size comprised 120 pregnant women. This number was calculated with the help of a statistician using Epi-info version 6.0 stat calc command for
descriptive study. According to Kalomo DHO (2008) the total population of women tested for HIV for a period of one month and attended the antenatal clinic were approximately 350 at research sites. This was taken as the population size as the data collection was for one month. Rutenberg (2003) indicated that the disclosure rate to sexual partners by pregnant women in Lusaka was 72%. This was used as an approximate prevalence rate of disclosure by pregnant women to their sexual partners. Confidence Interval (CI) was set at 95% and 80% power was used and so sample size of 109 was calculated. With the addition of a 10% non-response rate the final sample size came to 120.

- Population size = 350
- Expected frequency = 72%
- Worst acceptable = 65%
- Confidence interval = 95%
- \( n \) = 109
- Increased by 10% = 11
- \( n \) = 120

3.7 DATA COLLECTION TOOL

A data collection tool is a measuring device used in gathering of information needed to address a research problem (Polit and Hungler, 2001). In this study, data was collected using an interview schedule over a period of one month. The interview schedule had three sections; section A contained demographic information, section B had a knowledge items, section C counseling session information, section D cultural practices and section E partner notification. The tool had a set of pre determined open and close-ended questions with the same wording and order of questions. One of the advantages of using the structured interviews is that all respondents were asked exactly the same set of questions in the same sequence (Fisher and Foriet, 2002). This increased the objectivity of the collected data even though different interviewers are used. It also assisted in reducing difficulties related to low literacy levels of respondents.
3.7.1 Validity

Validity is the degree to which an instrument measures what it is intended to measure (Hofstee, 2007). To measure validity of the tool, an extensive literature review was conducted before designing the tools. Some questions in the tool were adapted from similar studies that were done and presented at international conferences. Experts in the PMTCT programme also checked the questions. Pre testing of instruments was done to determine whether they were bringing out the required responses from respondents. The questions were constructed in such a way that they were not ambiguous. Using proper sampling method and avoiding preference in selecting research samples ensured internal validity.

3.7.2 Reliability

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attributes it is designed to measure (Hofstee, 2007). In this study the researcher ensured reliability by pre testing the instrument before it was administered. During the pre test, the respondents were asked if there were any questions they did not understand. This was going to allow room for alterations of the interview schedule if necessary. No alterations were made. The questions were simple, concise and brief. The subjects were exposed to the tool once and the lay counselors who were used as research assistants were trained and they were able to understand the questions in a similar way without distorting the meaning. Open ended questions provided an opportunity to clients to add their own ideals thereby bringing out issues not thought of when designing the interview schedule.
3.8 DATA COLLECTION TECHNIQUE

This is a procedure of collection of data information needed to address a research problem (Polit and Hungler, 1999). A technique that was used in data collection is interviewing. Data collection was done by the researcher and research assistants. The interviews were conducted in such a manner that only one person was interviewed at a time in an enclosed room. About 3 respondents were interviewed by each research assistant each day. The interviews took about 15 minutes and were conducted at the most convenient time of the respondents where they were not distracted from what they were doing.

The interviewer introduced herself to the respondents and explained the purpose of the study. Respondents were reassured of confidentiality and anonymity. After seeing that the respondent appeared relaxed and at ease the interviewer then proceeded with the interview. Any questions that were not clear to the respondent were repeated, rephrased but the interviewer ensured that the meaning of the question was not changed. The respondents were asked to ask questions at the end of interview if they had any. The interviewer then thanked the respondents for their time and participation before ending the interview.

3.9 PRE TEST

Pre test is the trail administration of newly developed instrument to identify flaws or assess time requirements (Polit and Hungler, 2001). The purpose of the pre test was to elicit flaws in the data collection tools, such as ambiguity and illogically sequenced questions and make revisions to strengthen the methodology. The pre test was done to determine the predictability of the data collection.

The data collection tool was pre tested on pregnant women who had been tested for HIV at Choonga urban Health Center. This clinic was selected because it
had similar characteristics as the actual research sites. The respondents for pre
test were 12 which is 10% of the study sample size. The sample was selected
by systematic sampling. No adjustment was done to the interview schedule after
pre testing.

3.10 ETHICAL CONSIDERATION

Ethical consideration refers to ethics which are a system of moral values that is
concerned with the degree to which research procedures adhere to professional,
legal and social obligations to the study participants (Dempsey and Dempsey,
2002).

Ethical clearance was obtained from the BioMedical Research Ethics
Committee. Written permission to conduct the study was obtained from the
MoH. The purpose and nature of the study was explained to the study
participants. Those who declined to participate were reassured that no privileges
would be taken away from them as clients attending antenatal clinic. Those who
agreed to take part in the study were requested to sign a consent form. Those
who participated in the study were not remunerated in anyway.

Confidentiality was maintained during the interview by interviewing one
participant at a time. Anonymity was ensured by not writing participants’ names
on the interview schedules and no other person apart from the researcher was
allowed access to the collected data. The participants were not subjected to any
physical harm as the research did not involve any invasive procedures.
CHAPTER 4

4.0 DATA ANALYSIS AND PRESENTATION OF FINDING

4.1 INTRODUCTION

Data analysis is defined as, 'the systematic organization and synthesis of research data and testing of research hypothesis using those data (Polit and Hungler, 1997). A total of 120 respondents were interviewed, giving a response rate of 100%.

4.2 DATA PROCESSING AND ANALYSIS

The interview schedules were sorted and edited for internal consistence, completeness, legibility and accuracy. Closed ended questions in the interview schedules were assigned numerical codes for easy entry and analysis was done using SPSS computer package.

When processing open ended questions the investigator read through the data in its entirety to identify and group answers that belong together. According to Polit and Hungler, 1997 this is known as categorization. The groups were then assigned numerical codes (1, 2, 3, 4, and 5). The codes were then entered and analyzed using SPSS computer package.

Using SPSS the following analysis was done. Chi square was used to test association between variables and the outcome (partner notification of HIV status). The variables included knowledge of PMTCT and benefits of disclosure of HIV status to a partner, cultural beliefs, prior discussion of HIV testing with the partner before being tested, and information received during post test counselling. The cut off point for statistical significance was set at 5%, only p
values less or equal to 0.05 were considered statistical significant thereby rejecting the null hypothesis.

4.3 DATA PRESENTATION

The findings of this study are presented according to the sequence of questions and categories in the interview schedule. The findings have been presented in form of tables, pie charts and cross tabulations. The cross tabulations are helpful in the showing of relationships between variables.

The tables under section A represent the demographic characteristics of the respondents, the tables and pie chart in section B represent the respondents’ knowledge on PMTCT and benefits of HIV status disclosure to a partner, those in section C represents the information the respondents got on counselling session and section D represents respondent’s cultural beliefs. The respondents’ ability to notify their partner is represented in section E and the cross tabulations in section F represents the association between the independent variables and a dependent variable.
**SECTION A**

**TABLE 2: SOCIO-DEMOGRAPHIC DATA (n = 120)**

<table>
<thead>
<tr>
<th></th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 23</td>
<td>53</td>
<td>44.2%</td>
</tr>
<tr>
<td>24 – 29</td>
<td>41</td>
<td>34.2%</td>
</tr>
<tr>
<td>30 – 34</td>
<td>23</td>
<td>21.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>100%</td>
</tr>
</tbody>
</table>

| **Marital status**   |           |            |
| Single               | 33        | 27.5%      |
| Married              | 87        | 72.5%      |
| **Total**            | 120       | 100%       |

<table>
<thead>
<tr>
<th><strong>Duration of relationship</strong></th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years (short)</td>
<td>48</td>
<td>40%</td>
</tr>
<tr>
<td>2 – 4 years (medium)</td>
<td>25</td>
<td>20.8%</td>
</tr>
<tr>
<td>5 and above (long)</td>
<td>47</td>
<td>39.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>100%</td>
</tr>
</tbody>
</table>

| **Religion**               |           |            |
| Christian                  | 120       | 100%       |

| **Level of education**      |           |            |
| None / primary (low)        | 47        | 39.2%      |
| Secondary (moderate)        | 61        | 50.8%      |
| College / university (high) | 12        | 10%        |
| **Total**                   | 120       | 100%       |

| **Occupation**              |           |            |
| House wife                  | 54        | 45%        |
| Formal employment           | 9         | 7.5%       |
| Self employed               | 32        | 26.7%      |
| Unemployed                  | 25        | 20.8%      |
| **Total**                   | 120       | 100%       |

| **Income**                  |           |            |
| K1000,000 and above (High)  | 10        | 8.3%       |
| K 500,000- 1000,000 (Medium)| 23        | 19.2%      |
| Less than K500,000 (Low)    | 87        | 72.5%      |
| **Total**                   | 120       | 100%       |

Table 2 show that most 44.2% (53) of the respondents interviewed were within the age group 18 – 23 years and 34.2% (41) were between age group 24 -29 years while 21.6% (23) were between the age group 30-34 years. More than half of the respondents 72.5% (87) were married and 27.5% (33) were single.
Most 40% (48) of the respondents had been in a relationship with the present partner for duration of less than 2 years, 20.8% (25) were in a relationship for 2-4 years while 39.2% (47) were in a relationship for more than five years. Majority 50.8% (61) of the respondents had secondary level of education while 39.2% (47) had low levels of education and only 10% (12) had college or university education. All the respondents were Christians.

Most 45% (54) of the respondents were housewives while 20.8% (25) were unemployed. The majority 72.5% (87) of the respondents had low household income while 8.3% (10) had high household income.
SECTION B

TABLE 3: HEARD PMTCT (n=120)

<table>
<thead>
<tr>
<th>Heard PMTCT</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>109</td>
<td>90.8</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows that majority 90.8% (109) of the respondents had heard about PMTCT while 9.2% (11) had not heard about PMTCT.

TABLE 4: SOURCE OF INFORMATION (n =109)

<table>
<thead>
<tr>
<th>Source of information</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>Health personal</td>
<td>107</td>
<td>98.1</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>100</td>
</tr>
</tbody>
</table>

Most 98.1% (109) of the respondents’ source of information on PMTCT was from the health personal while 1.9% (2) respondents got the information from the media.

TABLE 5: POSSIBILITY OF HIV TRANSMISSION FROM MOTHER TO CHILD (n=120)

<table>
<thead>
<tr>
<th>POSSIBILITY OF TRANSMISSION</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>115</td>
<td>90.8</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5 shows that majority 90.8% (115) of the respondents indicated that it was possible for an HIV infected to transmit HIV to her child while 4.2% (5) said that it was not possible for the mother to transmit HIV to her child.
Most 62.6% (60) of the respondents mentioned breastfeeding as the only mode of transmission of HIV from the mother to child, 31.3% (36) were able to mention three modes of transmission while 6.1% (7) mentioned pregnancy as the only mode of transmission.

**TABLE 6: ANY BENEFIT OF KNOWING HIV STATUS (n= 120)**

<table>
<thead>
<tr>
<th>ANY BENEFIT OF KNOWING HIV STATUS</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 6 shows that all 100% (120) respondents said that there's a benefit in knowing their HIV status during pregnancy.
TABLE 7: KNOWING BENEFITS OF PMTCT (n = 120)

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication for PMTCT is given to the mother</td>
<td>95</td>
<td>79.2</td>
</tr>
<tr>
<td>Advice is given to those negative to prevent infection</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 79.2% (95) of the respondents said that the benefit of knowing their HIV status during pregnancy is that those who are positive are given medication that helps in prevention of HIV transmission to the baby while 20.8% (25) respondents said those who are negative are given advice on how to prevent infection.

TABLE 8: IS IT IMPORTANT TO NOTIFY ONE’S PARTNER THEIR HIV STATUS? (n=120)

<table>
<thead>
<tr>
<th>Important to notify partner</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>97</td>
<td>80.8</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 80.8% (97) of the respondents indicated that it was important to notify their partners about their HIV status while 19.2% (23) said it was not important.
FIGURE 3: WHICH HIV STATUS SHOULD BE DISCLOSED TO A PARTNER? (n = 97).

* only 97 respondents answered this question.

Of the 97 respondents who indicated that it was important to notify their partners about their HIV status. Majority 73.2% (71) of the respondents said that both the HIV positive and negative status was important to notify the partner. Meanwhile only 3.1% (3) of the respondents said that only the negative status was important to should notify their partners.
Figure 4: LEVEL OF KNOWLEDGE ON BENEFITS OF PARTNER NOTIFICATION AND PMTCT (n = 120)

Figure 4 show that majority 82.5% (99) of the respondents had medium level of knowledge on PMTCT and benefits of partner notification while 18% (21) had high level of knowledge.
SECTION C

TABLE 9: NUMBER OF GROUP TEACHINGS ATTENDED ON IMPORTANCE OF HIV TESTING IN PREGNANCY (n = 120)

<table>
<thead>
<tr>
<th>Number of teaching sessions</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td>Two</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>More than two</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 88.3% (106) of the respondents stated they had one teaching session on importance of HIV testing before being tested, 4.2% (5) had two sessions while 7.5% (9) had more than 2 teaching sessions.

TABLE 10: RECEIVED POST TEST COUNSELING (n = 120)

<table>
<thead>
<tr>
<th>Received post test counseling</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

All 100% (120) of the respondents were post test counselled before receiving their test results.
Figure 5 shows that half 50% (60) of the respondents were counseled for less than 5 minutes, 36.7% (44) were counseled for about 5 to 10 minutes while 13.3% (16) reported having been counseled for more than 10 minutes.
### TABLE 11: COUNSELOR MENTIONED IMPORTANCE OF PARTNER NOTIFICATION OF HIV STATUS (n = 120)

<table>
<thead>
<tr>
<th>Discussed importance of partner notification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65</td>
<td>54.2</td>
</tr>
<tr>
<td>No</td>
<td>55</td>
<td>45.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

More than half 54.2% (65) of the respondents stated that the counsellor did mention to them the importance of partner notification of HIV status while 45.8% (55) reported not having been told.

### TABLE 12: COUNSELOR DISCUSSED BENEFITS OF PARTNER NOTIFICATION (n= 120)

<table>
<thead>
<tr>
<th>Discussed benefits of partner notification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>45</td>
</tr>
<tr>
<td>No</td>
<td>66</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 12 shows that more than half 55% (66) of the respondents were not told the benefits of notifying their partners about their HIV status while 45% (54) were told the benefits of partner notification.
TABLE 13: COUNSELLOR DISCUSSED CONSEQUENCES OF NON DISCLOSURE (n = 120)

<table>
<thead>
<tr>
<th>Discussed consequences of non disclosure</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>No</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 77.5% (93) of the respondents reported that the counsellor never told them the consequences of non disclosure of their HIV status to the sexual partner while 22.5% (27) reported having been told.

TABLE 14: POSSIBILITIES OF DISCORDANT COUPLES (n = 120)

<table>
<thead>
<tr>
<th>Possibility of discordant couples</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82</td>
<td>68.3</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>31.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 14 indicates that 68.3% (82) of the respondents knew that it was possible for one of the sexual partner to have a negative HIV status while the other was HIV positive even when they were not practicing safer sex. While 31.7% (38) said they did not know.
TABLE 15: INFORMATION RECEIVED DURING COUNSELLING  
(n= 120)

<table>
<thead>
<tr>
<th>Information received during counseling</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>102</td>
<td>85</td>
</tr>
<tr>
<td>Adequate</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 15 shows that 85% (102) most of the respondents did not receive adequate information regarding partner notification during counselling while 15% (18) had received adequate information regarding partner notification.
FIGURE 6: KNOWING IF DISCUSSING SEXUAL ISSUES WITH A PARTNER IS TABOO (n = 120)

More than half 54.1% (65) respondents stated that it was not taboo to discuss sexual issues with their partner, 36.7% (44) of the respondents said it was a taboo while 9.2% (11) said that they did not know.
TABLE 16: WOMEN NEED PERMISSION FROM PARTNER TO TEST FOR HIV (n = 120)

<table>
<thead>
<tr>
<th>Need permission</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>94</td>
<td>79.1</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>20.9</td>
</tr>
<tr>
<td>I don’t know</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 79.1% (94) of the respondents stated that they needed to seek permission from their partners for them to test for HIV while 20.9% (25) said that they would be tested even without permission from their partner.

TABLE 17: ARE WOMEN CULTURALLY ALLOWED TO START DISCUSSING SAFER SEX WITH HER PARTNER (n = 120)

<table>
<thead>
<tr>
<th>Discussing safer sex</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>71</td>
<td>59.2</td>
</tr>
<tr>
<td>I don’t know</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Most 59.2% (71) of the respondents indicated that it was not culturally right for them to start discussing about safer sex with their husbands, 33.3% (40) said that they were culturally allowed to start discussing safer sex practices with their partners while 7.5% (9) said they did know.
More than half 75% (90) of the respondents stated that they could advise their partners to go for HIV testing while 5% (6) stated that they did not know whether they could be able to advise their husbands to go for HIV testing.

**TABLE 18: CULTURAL PRACTICES (n= 120)**

<table>
<thead>
<tr>
<th>CULTURAL PRACTICES</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>95</td>
<td>79.2</td>
</tr>
<tr>
<td>Negative</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Most 79.2% (95) of the respondents had positive cultural practices while 20.8% (25) had negative cultural practices.
SECTION E

TABLE 19: DISCUSSED WITH PARTNER ABOUT TESTING PRIOR TO TESTING (n= 120)

<table>
<thead>
<tr>
<th>Discussed</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>63</td>
<td>52.5</td>
</tr>
<tr>
<td>No</td>
<td>57</td>
<td>47.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority 52.5% (63) of the respondents stated that they had discussed HIV testing prior to testing while 47.5% (57) had no prior discussion before testing.

TABLE 20: AWARENESS OF PARTNER’S HIV STATUS BEFORE TESTING (n= 120)

<table>
<thead>
<tr>
<th>Aware</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>41</td>
<td>34.2</td>
</tr>
<tr>
<td>No</td>
<td>79</td>
<td>65.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 20 shows that most 65.8% (79) stated that they were not aware of their partner’s HIV status before testing while 34.2 (41) were aware of their partners’ HIV status.
TABLE 21: DISCLOSURE INFLUENCED BY KNOWLEDGE OF PARTNER’S STATUS (n= 120)

<table>
<thead>
<tr>
<th>Influenced</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>68</td>
<td>56.7</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>43.3</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

More than half 56.7% (68) of the respondents stated that their behavior in disclosing their HIV status to their partners was influenced by the knowledge of their partner’s status while 43.3% (52) stated that knowledge of their partner’s status did not influence them.

TABLE 22: INFORMED THE PARTNER HIV STATUS (n = 120)

<table>
<thead>
<tr>
<th>Informed partner</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>68</td>
<td>56.7</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>43.3</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 22 shows the number of participants who informed their sexual partners about their HIV status. Most 56.7% (68) of the respondents were able to inform their partners their HIV status while 43.3% (52) were unable to disclose their status to their partners.
SECTION F

TABLE 23: ASSOCIATIONS OF MARITAL STATUS AND PARTNER NOTIFICATION (N= 120)

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Single</td>
<td>11 (33.3%)</td>
<td>22 (66.7%)</td>
</tr>
<tr>
<td>Married</td>
<td>57 (65.5%)</td>
<td>30 (34.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (56.7%)</td>
<td>52 (43.3%)</td>
</tr>
</tbody>
</table>

Of the 72.5% (87) married respondents, most of them 65.5% (57) were able to notify their partners about their HIV status while out of 27.5% (33) single respondents 66.7% (22) did not notify their partners their HIV status (Chi square test, value 10.092, df 1, p value 0.001 significant).

TABLE 24: ASSOCIATIONS OF DURATION OF RELATIONSHIP AND PARTNER NOTIFICATION (N= 120)

<table>
<thead>
<tr>
<th>Duration of the relationship</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Short</td>
<td>22 (45.8%)</td>
<td>26 (54.2%)</td>
</tr>
<tr>
<td>Medium</td>
<td>13 (52%)</td>
<td>12 (48%)</td>
</tr>
<tr>
<td>Long</td>
<td>33 (70.2%)</td>
<td>14 (29.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (56.7%)</td>
<td>52 (43.3%)</td>
</tr>
</tbody>
</table>

Most 70.2% (33) of the respondents who had been in a relationship with their partner for a longer period of time (more than 5 years) were able to notify their
partners while those who were in a relationship for a shorter period of time (less than 2 years) 54.2% (26) did not notify their partners (Chi square test value 6.028, df 2, p value 0.008, significant).

**TABLE 25: ASSOCIATIONS OF INCOME AND PARTNER NOTIFICATION (N= 120)**

<table>
<thead>
<tr>
<th>Income</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>&gt; K1000,000 (High)</td>
<td>4 (40%)</td>
<td>6 (60%)</td>
</tr>
<tr>
<td>K 500,000 – 1000,000 (medium)</td>
<td>14 (60.9%)</td>
<td>9 (39.1%)</td>
</tr>
<tr>
<td>&lt; K 500,000 (low)</td>
<td>50 (57.5%)</td>
<td>37 (42.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68 (56.7%)</strong></td>
<td><strong>52 (43.3%)</strong></td>
</tr>
</tbody>
</table>

Table 25 indicates that 57.5% (50) of the respondents who were in the low income category of K500,000 and below were able to notify their partners while of the 8.3% (10) respondents who were in the high income category 60% (6) were not able to notify their partners their HIV status (Chi square value 1,328, p value 0.173 not significant).

**TABLE 26: ASSOCIATIONS OF PRIOR DISCUSSION OF HIV TESTING WITH PARTNER AND PARTNER NOTIFICATION (N= 120)**

<table>
<thead>
<tr>
<th>Prior discussion about HIV testing with partner</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>54 (85.7%)</td>
<td>9 (14.3%)</td>
</tr>
<tr>
<td>No</td>
<td>14 (24.6%)</td>
<td>43 (75.4%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68 (56.7%)</strong></td>
<td><strong>52 (43.3%)</strong></td>
</tr>
</tbody>
</table>

Most 75.4% (43) of the respondents who had not discussed HIV testing with their partners prior to testing did not tell their partners their results while of the
52.5% (63) who had discussed with their partners 85.7% (54) informed their partners (Chi square value 50.432, df 1, p value 0.00 significant).

**TABLE 27: ASSOCIATIONS OF AWARENESS OF PARTNER’ S HIV STATUS BEFORE TESTING AND PARTNER NOTIFICATION (N = 120)**

<table>
<thead>
<tr>
<th>Awareness of partner’s HIV status before testing</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes: 39 (95%)</td>
<td>41 (34.2%)</td>
</tr>
<tr>
<td></td>
<td>No: 2 (5%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes: 29 (36.7%)</td>
<td>79 (65.8%)</td>
</tr>
<tr>
<td></td>
<td>No: 50 (63.3%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Yes: 68 (56.7%)</td>
<td>120 (100%)</td>
</tr>
<tr>
<td></td>
<td>No: 52 (43.3%)</td>
<td></td>
</tr>
</tbody>
</table>

Majority 63.3% (50) out of 65.8% (79) respondents who were not aware of partner’s status were not able to notify their partners about the outcome of the HIV test while of the 34.2% (41) who were aware of the partner’s status 95% (39) were able to notify their partners (Chi square value 37.506, df 1, p value 0.000 significant).

**TABLE 28: ASSOCIATIONS OF COUNSELLING SESSION AND PARTNER NOTIFICATION (N= 120)**

<table>
<thead>
<tr>
<th>Counseling session</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Inadequate</td>
<td>55 (53.9%)</td>
<td>47 (46.1%)</td>
</tr>
<tr>
<td>Adequate</td>
<td>13 (72.2%)</td>
<td>5 (27.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (56.7%)</td>
<td>52 (43.3%)</td>
</tr>
</tbody>
</table>

Most 53.9% (55) of the respondents who did not have adequate counseling information regarding partner notification during counseling notified their partners their HIV status while of the 15% (18) who had adequate counseling
information 27.5% (5) did not notify their partners (Chi square value 2.087, df 1, p value 0.117 not significant).

**TABLE 29: ASSOCIATIONS OF CULTURAL PRACTICES AND PARTNER NOTIFICATION (N= 120)**

<table>
<thead>
<tr>
<th>Cultural practices</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes (65.3%)</td>
<td>No (34.7%)</td>
</tr>
<tr>
<td>Positive</td>
<td>62</td>
<td>33</td>
</tr>
<tr>
<td>Negative</td>
<td>6 (24%)</td>
<td>19 (76%)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (56.7%)</td>
<td>52 (43.3%)</td>
</tr>
</tbody>
</table>

Table 29 show that of the 79.2% (95) respondents who had positive cultural practice 65.3% (62) notified their partners their HIV status while 76% (19) who had negative cultural practices were not able to notify (Chi square 13.723, df 1, p value 0.000 significant).

**TABLE 30: ASSOCIATIONS OF LEVEL OF KNOWLEDGE AND PARTNER NOTIFICATION (N = 120)**

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Partner notification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes (71.4%)</td>
<td>No (28.6%)</td>
</tr>
<tr>
<td>High</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Medium</td>
<td>53 (53.5%)</td>
<td>46 (46.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (56.7%)</td>
<td>52 (43.3%)</td>
</tr>
</tbody>
</table>

Of the 82.5% (99) respondents who had medium level of knowledge on PMTCT and benefits of partner notification 53.5% (53) notified their partners their HIV status while of the 17.5% (21) respondents with high level of knowledge 28.6% (6) did not notify their partners (Chi square value 2.259, df 1, p value 0.103).
CHAPTER 5

DISCUSSION OF FINDINGS

5.1 Introduction

The current study focuses on identifying factors associated with partner notification of HIV status by pregnant who undergo routine HIV testing in antenatal clinics.

5.2 Socio demographic characteristics of the sample.

A total number of 120 respondents were interviewed yielding a response of 100%. Among the 120 respondents interviewed, most of them 78.4% (91) were between 18 and 29 years old and no one was 35 years and above which reflects the young age structure of the Zambian population. HIV prevalence is higher (24%) in this age group and is above national prevalence which is 14% (CSO, 2008).

Marriage is generally considered to be a primary indicator of exposure to pregnancy. The findings have revealed that majority 92.5% (87) of the respondents in the study were married and no one was divorced or separated. In Zambia, however, a union is not a pre requisite to child bearing (CSO, 2003). Many women bear children before entering a stable union, informal relationships are common and women may have children in the context of such relationship. The study revealed that 27.5% (33) were single. Most 40% (48) of the respondents were in a relationship with their present partner for a short period (less than 2 years), this finding indicates that most of the respondents were in a new relationship or recently married and were expecting their first babies.
Zambia was declared a Christian nation in the second Republic by the then President of Zambia, Dr. F.J.T. Chiluba in 1991 (CCZ, 2005). All 100% (120) the respondents in this study were Christians. This be could be attributed to the fact that Zambia is a Christian nation.

Education attainment influences personal development and decision making, that is why in Zambia basic education is each individual’s right (GIDD, 2000). More than 50.8% (61) of the respondents had attained secondary school education. The findings of this study are higher than what is documented in the ZDHS where in the age group 20 -24 years 34.4% had secondary education (CSO 2003). The explanation could be that with the increased campaign of girl child education more girls are going to school and the introduction of basic schools has increased the number of pupils who reach grade eight and nine.

Most women are constrained to choose income earning activities that can easily be combined with child care and house work. The study revealed that only 8.2% (10) respondents indicated an income of more than K1, 000, 000, while majority 72.5% (87) had income below K500, 000 per month. This finding supports the works of the International Monetary Fund (IMF) who found that there is widespread poverty in Zambia and most people survive on less than a dollar per day (Golds brough and Cheelo 2007).

Women’s reproductive and domestic roles are generally perceived to be their primary function. In this study most 45% (54) of the respondents were housewives who probably depend on their husbands for their living. GIDD (2000) indicates that women’s economic dependence on men prevents them from making demands that can be perceived as threatening to their relationship like disclosure of HIV status without getting permission take a test from the husband.
5.3 Knowledge of benefits of partner notification and PMTCT.

Once one acquires knowledge she is more likely to make an informed choice on the subject matter. The health care providers were able to educate the clients who sought antenatal services on PMTCT despite the staff shortages and the workload. The study findings show that majority 90.8% (109) of the respondents interviewed had heard about PMTCT and the commonest source of information was a health care provider. However, 9.2% (11) stated that they had not heard about PMTCT (Tables 4 and 3). The finding supports that of Macwan'gi and others (1994) who found in their study that 93% of the women had heard about AIDS.

However, 4.2% (5) of the respondents did not know that it is possible for an HIV infected mother to transmit HIV to their child (Table 5). One possible explanation for this could be most of the Information Education and Communication (IEC) outside the antenatal clinic do not emphasize MTCT as one of the modes of transmission but transmission through sexual intercourse is done. This could be because in Zambia HIV transmission is primarily through heterosexual contact (Zambia Sexual Behavior survey, 2005; NAC 2004).

In an environment like Zambia where HIV infection in pregnant women is high (about 21%) lack of knowledge on the mode of transmission is a very big concern. Among the 90.8% (115) respondents who indicated that it was possible for an HIV infected mother to transmit HIV to her child 62.6% (72) mentioned breastfeeding as the only mode of transmission (Figure 2). The percentage of the respondents who correctly mentioned the three (breastfeeding, during pregnancy and delivery) modes of HIV transmission from the mother to her child was 31.3% (36). The finding of this study is higher than the one reported by Siziya et al (2008) where 4.3% women believed that an HIV infected woman could transmit HIV to her unborn child. The reason for this difference could be with the introduction of PMTCT services in Zambia most women have been
taught on the possibility of HIV being transmitted from the mother to her unborn child. The other reason could be the respondents in this study were antenatal women who had attended the clinic before and could have more knowledge than women interviewed in the community.

It should be noted that all 100% (120) the respondents indicated that there is a benefit in knowing their HIV status in pregnancy (Table 6). The most common mentioned reason why it is beneficial for one to know her HIV status during pregnancy was that medication is given to those women who are HIV positive to prevent transmission of HIV to the unborn baby and that those who are negative can prevent transmission of infection by behavior change. This finding is similar to what WHO (2004) has documented.

It is noteworthy that 19.2% (23) of the respondents indicated that it was not important to notify their partners about their HIV status regardless of the status (Table 8). This finding is worrying because it may limit the beneficial aspect of HIV testing and disclosure as negotiating safer sex becomes difficulty, and it raises the possibility of HIV transmission from mother to child or the sexual partner (Nicolai et al, 2006). Of the 97 respondents who said it was important to notify their partner of their HIV status, majority 73.2% (71) indicated that both negative and positive HIV statuses were supposed to be disclosed to the partner while 23.7% (23) felt that only those who were positive should notify their partners (Figure 3).

The overall level of knowledge among the respondents indicates that the majority 82% (99) of the respondents had medium knowledge and 18% (21) had high knowledge (Figure 4). This could be attributed to the fact that most of the women interviewed had secondary school education and did not have problems to assimilate the information given by the service providers in the ANC.
5.4 Information received during post test counseling

Anywhere HIV is prevalent, health services have faced major increase in patient numbers and counseling had to be developed but man power did not increase. Despite the work over load, the service providers are able to counsel the clients before testing them for HIV. All 100% (120) respondents reported that they had attended a group teaching on HIV testing at ANC before being tested and they also received post test counseling (Tables 9 and 10). Most 86.7% (104) of the respondents said the duration of counseling was less than 10 minutes (Figure 5). This could be due to the fact that the counselors are overwhelmed with work and could not have time to counsel all the women adequately. This finding is not similar to the findings by USAID (2003) in a study conducted in Lusaka where it was reported that counselors spent about 15.3 minutes with clients during the post test counseling. The clients may appreciate more time with the counselor so that most of their questions are answered. In the same study, it was reported that most women interviewed stated that the post test counseling they received did not give them ample time to ask question. Furthermore, it was reported that some clients stated did not receive advice on how to tell their partner about their HIV status. The inadequate counseling was attributed to staff shortages and heavy workload by the health personnel.

Non disclosure of HIV status to a partner in context of PMTCT deprives women of the benefits of disclosing HIV status like preventing HIV infection by practicing safer sex. It is noteworthy that 77.5% (93) of the respondents reported that the counselor never told them the consequences of non disclosure of their HIV status to their sexual partner (Table13). Table 15 show that majority 85% (102) of the respondents did not receive adequate information regarding partner notification during post test counseling. This is in line with the findings by ZCC (2003) which revealed that some clients experience difficulties to share their results as they do not get adequate guidance from the
counselor. ZCC (2003) further states that some counselors fail to motivate their clients to notify their partners about HIV status because they are not adequately trained in counseling skills.

5.5 Cultural Factors

We all grow up in our cultures. We grow and develop a clear understanding of what cultural prescriptions we must adhere to and the prescriptions strongly influence our personalities. Some cultural norms perpetuate the subordinate position of women socially and economically. It is an encouraging development to note that more than half 51.4% (65) of the respondents said it was not a taboo to discuss sexual issues with their partners. Some respondents 36.7% (44) said it was a taboo to discuss sexual issues with their partners (Figure 6). Perhaps the reason why the respondents gave varying responses was because they were from different cultural backgrounds. This clearly indicates that there are still some cultures that do not encourage couples to discuss sexual issues which could be a set back in HIV prevention. ZCC (2003) documented that the fight for HIV needs informed couples for it to be a success. Without discussion of sexual issues by partners, issues like safer sex practices which are important in the prevention of HIV and MTCT can not be well understood.

According to USAID (2003) men dominate decision making in many relationships. This is in line with what this study revealed. Majority 79.1% (94) of the respondents indicated that women needed permission from their husband to test for HIV (Table 16). This could mean that the women who never asked for permission to take the HIV test are less likely to inform their partner of the outcome of test.

Nonetheless it is encouraging to note that 59.2% (71) respondents said that it is culturally right for them to initiate a discussion on safer sex with their partner (Table 17). This could help in prevention of mother to child transmission of HIV as women could be able to advise their partner on safer sex as they stand a
better chance of getting the right information through ANC. However, USAID (2003) documented that women who are HIV negative may find it difficult to negotiate safer sex with their partners.

The findings show that majority 95% (90) of the respondents said that they can advise their partners to go for HIV testing. This is a welcome development for HIV prevention program in the country. The study has also revealed that most 79.2% (95) of the respondents had positive cultural practices as they were able to discuss sexual issues with their partners (Table 18). This could be because most 78.4% (94) of the respondents were between 18 – 29 years of age and might be more aware of the modern ways of life and have little or no knowledge on their cultural beliefs.

5.6 Partner Notification

Discussing HIV/ AIDS protection with a spouse or partner is important in the prevention of HIV infection of the couple. This would help the women anticipate the partner’s reaction if they decided to go for HIV testing. Most 52.5% (63) of the respondents said that they had discussed HIV testing with their partners prior to seeking the service (Table 19). Most of the respondents were able to discuss HIV testing with their partners before seeking the service as most women are now aware of the dangers of HIV/AIDS and that HIV testing is one of the routine laboratory test done during antenatal care. CSO (2003) indicates that the highest level of men who have not been tested for HIV is in Southern province and Kalomo is one of the districts in the province. This could be the reason for most 65.8% (79) of the respondents not being aware of their partner’s HIV status before testing. The respondents who were aware of their partner’s status could have been tested together with their partners when getting married or during medical attention of another illness.

Knowledge of a partner’s HIV status and having the same status may influence one to easily disclose their HIV status to their partner. The study revealed
(Table 21) that more than half 56.7% (68) of the respondents said that their decision to disclose their HIV status to the partner was influenced by their knowledge of the partner’s HIV status. This could mean that, the women who had similar results with their partners found it easier to disclose their HIV status.

This study revealed that 56.7% (68) of the respondents informed their partners about their HIV status while 43.3% (52) were unable to disclose their status to their partners (Table 22). This finding is lower than the finding by USAID (2003) which showed that in Lusaka, 71% of the respondents were able to disclose their HIV status. Kadebe et al (2008) also indicated a high (91.8%) disclosure rate in a study conducted in Kenya. However this study has revealed a higher finding than WHO (2004) disclosure rate of HIV status to their sexual partners among pregnant women in the sub Saharan region (16- 32%).

5.7 Factors associated with partner notification of HIV status by pregnant women.

Of the 87 (72.5%) respondents who were married 65.5% (57) were able to notify their partners about their HIV status while 34.5% (30) were not able to notify their partners. The married respondents were more likely to disclose their HIV status to their partners unlike the single respondents. Of the 27.5% (33) respondents who were single only 33.3% (11) notified their partners (Table 23). Marital status is associated with partner notification (chi square value = 10.0092, df = 1 and p value = 0.0001) showing statistical significance.

This study has revealed an association between duration of relationship with the present partner and partner notification. Most of the respondents 70.2% (33) out of 47 (39.2%) who had been in a relationship for a period of 5 years were able to notify their partners while 29.8% (14) did not notify their partners (Table 24). Similar findings were also reported by Antelman et al (2001). Antelman et al (2001) found that women who had been in a relationship for a longer period of
time were more likely to disclose than women who had been in a relationship for a shorter duration (less than 2 years). This may mean that women who are confident in the safety and strength of their relationship actually disclose their results and those who are less confident choose not to (WHO, 2004). Brough et al (2007) documented that they are “tellable” moments when HIV positive women are more likely to disclose their status to their sexual partners. Probably duration of the relationship plays a role in a woman being able to identify the tellable moments.

Galliard et al (2000) are of the opinion that women of lower socio economic status have a higher disclosure rate than women of high socio economic status, however the findings of this study disagree with this notion. This study revealed no association between income of the woman and partner notification (chi square = 1.328, p value 0.173) thus failure to reject the null hypothesis which states that there is no association between income and partner notification (Table 25).

This study has revealed that prior discussion of HIV testing with partner before seeking the service is associated with partner notification (p value = 0.000, chi square value = 50.432, df = 1). Of the 52.5% (63) respondents who had discussed HIV test with their partner 85.7% (54) notified their partners while only 14.3% (9) did not notify their partners (Table 26). Of the 47.5% (57) who had not discussed 75.4% (43) did not notify their partners while only 24.6% (14) did notify their partners which show that those who had not discussed with the partner prior to testing are less likely to disclose their HIV status. This is in line with Kabede et al (2008) who reported that communicating with one’s partner about testing prior to seeking service was significantly associated with disclosure. They also reported that nearly four times as many respondents who reported prior discussion about HIV, disclosed to their partners compared to those who reported having a prior discussion about HIV (OR 3.8; 95% CI, 1.6 – 86). This was further linked to a possibility of women anticipating the partner’s
reaction. A similar finding has also been reported in a study by Manan et al. (2003).

The results of this study are in agreement with studies conducted by other researchers (Kabede et al 2008; Niccolai et al 2006 and simbayi et al 2007) which revealed an association between knowing a partner’s HIV status and disclosure of one’s own status to a partner. In this study (Table 27) 31.2% (41) of the respondents who were aware of the partner’s HIV status 95% (39) were able to notify their partners while 5% (2) did not notify their partners (chi square value = 37.506, df = 1, p value = 0.000). This result was statistically significant thereby rejecting the null hypothesis stating that there’s no association between awareness of partner’s HIV status and partner notification. Kabede et al (2008) indicated that what matters is not the HIV status but rather knowledge of partner’s status. It further indicated that respondents who reported that they did not know their partner’s HIV status were (98%) less likely to disclose to a partner in comparison with those who knew their partner’s status (OR 0.02; 95% CI 0.01 – 0.04).

This (Table 28) study revealed no association between receiving adequate information on partner notification and notifying the partner about HIV status (p value = 0.117). The null hypothesis stating that there is no association between the two variables was therefore rejected. ZCC (2003) documented the opposite as it indicates that there is a relationship between the counsellor’s knowledge and the client’s response to the outcome of HIV test.

No association was found between knowledge of PMTCT and benefit of disclosure (chi square value = 2.259 df = 1, p value = 0.103). One possible explanation for this is that knowledge of the benefits of disclosure do not influence partner notification if the woman knows that her relationship may be destabilized if she discloses.
The other factor associated with partner notification identified in this study is cultural factors (Table 29). The study revealed that of the 79.2% (95) respondents who had positive cultural practices 65.3% (62) notified their partners about their HIV status while 34.7% (33) did not notify their partners. Of the 20.8% (25) who had negative cultural practices 76% (19) respondents did not notify their partners their HIV status while 24% (6) notified their partner (chi square value = 13.723, p value = 0.000) thus rejecting the null hypothesis which states that there is no association between the two variables.

Limitations of the study

The following are the limitations of this study:

- Study relied on self report, and is therefore subject to reporting bias. To minimize this limitation the respondents were interviewed in privacy and the interview schedules did not include the names of respondents.

- The study sample was small (120), therefore the results should be generalized to other settings with caution.

- The study was conducted in Kalomo urban making it difficult to generalize the findings to the entire country.

5.8 IMPLICATIONS TO NURSING

5.8.1 Nursing education

The study show that majority (85% (102) respondents did not receive adequate information regarding partner notification during counselling. There is evidence therefore that nurse midwives who are counselling clients do not have the adequate knowledge on counselling and therefore do not adequately educate the women regarding the benefits and consequences of partner notification. It is imperative that all nurse midwives are up to date with current trends in HIV/AIDS to be able to counsel clients effectively.
5.8.2 Nursing administration

The study revealed that majority 86.7% (104) respondents were counseled for less than 10 minutes and 85% (102) had inadequate information on benefits of partner notification during counselling. Nurse administrators should ensure that the nurse midwives handling these clients have been trained to offer psycho socio counselling. They should also allocate more staff to handle the counseling session so that the women are not left with questions unanswered as this can lead to failure to achieve the prevention of mother to child transmission of HIV.

5.8.3 Nursing service providers

This study has revealed that there are factors that are associated with disclosure (marital status, duration of relationship with present partner, prior discussion about HIV testing with the partner before seeking service, positive cultural practices and awareness of the partner’s HIV status before testing). The nurse midwives should be reading research findings so as to enable them use the findings to improve the disclosure rate of HIV status by pregnant women to their partners. This will improve the number of women benefiting from the PMTCT program.

5.8.4 Nursing Research

The literature reviewed in this study show that there is limited research done in Zambia to identify disclosure rates and the factors that are associated with disclosure among antenatal mother who in the region have low disclosure rates (16 – 32%). Therefore nurse researchers need to investigate more on the above mentioned and find out how women can be helped to disclose their HIV status with little or no risks.
5.9 CONCLUSION AND RECOMMENDATIONS

5.9.1 CONCLUSION ACCORDING TO THE STATED RESEARCH OBJECTIVE

The study was carried out to identify the factors that influencing partner notification of HIV status by pregnant women after undergoing routine HIV testing at antenatal clinics in Kalomo urban District.

The study revealed that there are factors that are associated with partner notification of HIV status. The factors that were found to be significantly associated are marital status, duration of the relationship with the present partner with those who were married and those who had been in a relationship for a period longer than five years more likely to disclose their HIV status to their partners respectively. The other factors identified to be associated with partner notification are positive cultural factors (those able to discuss sexual matters with partner), prior discussion with the partner about HIV testing and awareness of the partner's HIV status. The other factors examined and were not associated with partner notification in this were knowledge on PMTCT and benefits of partner notification, household income and information received regarding partner notification during post test counselling. However these factors were found to be statistically significant to partner notification in similar studies.

5.9.2 RECOMMENDATIONS

5.9.2.1 Recommendations for improving the disclosure rates of HIV status by pregnant women to their partners.

The following recommendations have been made based on the findings of this study;
• Policy makers to formulate clear guidelines and tools on disclosure for the service providers to use in the ANC when counselling pregnant women on disclosure of their HIV status to their sexual partners.

• Policy makers should involve community leaders to be able to determine culturally specific partner notification to enable women disclose their HIV status and be able to discuss sexual issues with their partners.

• Policy makers should also revise the informed consent policies to include options for disclosure so that women who can not manage to disclose can be helped by a service provider.

• Service providers should adopt domestic violence screening and referral tools to identify women at risk of negative outcomes after they disclose their HIV status to their sexual partner. Once these women are identified they can be helped to disclose without them facing negative consequences of disclosure like violence.

• Service providers should also assist women determine potential for negative outcome so that they are helped to disclose their HIV status to their partners without experiencing negative outcomes.

• Community should promote establishment of autonomous self help groups which will be able to help those women who finding it difficult to disclose their HIV status to their sexual partner.

5.9.2.2 Recommendations for further research

• There is need to research on the contribution of domestic violence and changes in relationships among PMTCT clients in relation to partner notification of HIV status.
REFERENCE:


Semrau, K., Kuhn, L., Vwalika, C & Kasonde, P. (2005). *Women in antenatal HIV counseling and testing are not more likely to report adverse social events: AIDS CARE*.


WHO. (2003). Gender Dimensions of HIV status Disclosure to sexual
APPENDICES

APPENDIX 1

CLIENT INFORMATION

Title of Study: Factors influencing partner notification of HIV status by pregnant women after undergoing routine HIV test at antenatal clinics in Kalomo District.

INTRODUCTION

I, Masumo M. Maureen; a student of Masters of Science in Nursing at the University of Zambia is kindly requesting for your participation in the research study mentioned. The overall aim of the study is to identify factors influencing HIV status disclosure to sexual partners by women tested in antenatal care facilities, which will be used improve the number of women disclosing and thereafter benefit from PMTCT programme. I will explain to you the purpose of the study, risks or benefits and what I expect of you before you decide to participate.

The participation in this study is voluntary. If you are not interested to participate in this study you are free to do so. Even after you have joined the study you are free to withdraw as you wish, and that will not affect your health services at this center.

If you are willing to participate, you will be asked to sign a consent and agreement to participate, will not result in any immediate benefits. Please ask where you do not understand.
PURPOSE OF THE STUDY

The study will identify the factors influencing partner notification of HIV sero status among pregnant women. The information obtained will help the policy makers and implementers of the PMTCT programme in the MOH to re direct programme implementation in order to improve the HIV status disclosure rates.

PROCEDURE

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

RISKS AND DISCOMFORTS

There is no risk involved in this research though part of your time will be utilized to answer some questions. Some questions may seem to be sensitive and personal. If you will need further counseling it will be offered to help you deal with whatever situation that arises especially on sensitive questions.

BENEFITS

There is no direct benefit to you by participating in this study, but the information which will be obtained will help the policy makers to take measures to that will ensure you are attended to in a way that will help you benefit from the PMTCT programme fully. No monetary favours will be given in exchange for information obtained, but education will be given on benefits of partner notification of your HIV status.
CONFIDENTIALITY

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

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

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

I _____________________________ (Names)

agree to take part in this study.

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

Signed: ________________________ Date: __________
(Witness)

Signed: ________________________ Date: __________ (Researcher)

PERSONS TO CONTACT FOR PROBLEMS OR QUESTIONS

1. Masumo M. Maureen, University of Zambia, Post Basic Nursing Department, P.O. Box 50110, Lusaka. Cell: 0977862284. E Mail masumom@yahoo.com

2. The Head of Department, University of Zambia, Post Basic Nursing Department, P.O. Box 50110, Lusaka. Telephone Number 252453.

3. The Chairperson, BioMedical Research Ethics Committee, University of Zambia. P.O. Box 50110, Lusaka.
## APPENDIX 11: BUDGET

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JUSTIFICATION FOR THE BUDGET

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

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

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

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

PERSONNEL
Data collection will be conducted throughout the day as such the researcher will need lunch allowance. The research has been allocated 30 days to allow adequate time for administration of interview schedules and for observations.

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

CONTIGENCY
Contingency fund which is 10% of the budget is required for any extra costs due to inflation and for any eventualities.
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APPENDIX IV
THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING

STRUCTURED INTERVIEW SCHEDULE

TOPIC: FACTORS INFLUENCING PARTNER NOTIFICATION OF HIV STATUS BY PREGNANT WOMEN AFTER UNDERGOING ROUTINE HIV TEST AT ANTENATAL CLINICS IN KALOMO DISTRICT.

DATE OF INTERVIEW: _______________________
PLACE OF INTERVIEW: _______________________
NAME OF INTERVIEWER: _____________________
SERIAL NUMBER: ___________________________

INSTRUCTIONS FOR THE INTERVIEWER

• Introduce yourself to the respondent.
• Explain the reason for the interview.
• Assure the respondent of confidentiality and anonymity.
• Do not write the name of the respondent on the interview schedule.
• Tick the most appropriate response to the question.
• Provide time for the respondent to ask questions at the end of the interview.
• Refer the respondents to a person who can answer the questions you are not sure of.
• Thank the respondent at the end of each interview.

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## SECTION A: DEMOGRAPHIC DATA

1. Age at last birthday
   1. 18 – 23 years
   2. 24 – 29 years
   3. 30 – 34 years
   4. 35 – 39 years

2. Marital status
   1. Single
   2. Married
   3. Divorced
   4. Separated
   5. Widowed

3. Duration of relationship with present partner
   1. Below 2 years
   2. Between 2 – 4 years
   3. 5 years and above.

4. Religion
   1. Christian
   2. Moslem
   3. Hindu
   4. Buddhist
   5. Others specify __________________________

5. Educational Level
   1. None
   2. Primary
   3. Secondary
   4. College
   5. University
6. Occupation
   1. Housewife
   2. Formal employment
   3. Self employed
   4. Unemployed

7. Income
   1. Above K1, 000,000
   2. Between K500, 000- K1, 000,000
   3. Below K500, 000

SECTION B: KNOWLEDGE OF PMTCT AND BENEFITS OF DISCLOSURE OF HIV STATUS TO A PARTNER

8. Have you heard of PMTCT?
   1. Yes
   2. No

9. If yes, which was your source of information? (Tick all appropriate)
   1. Media
   2. Health personnel
   3. Relatives
   4. Friends
   5. Others specify________________________

10. Do you think it is possible for an HIV infected woman to transmit HIV to her baby?
    1. Yes
    2. No

11. If yes to question 10, how can HIV be transmitted from the mother to the baby (Tick all applicable).
    1. During breastfeeding
2. During pregnancy
3. During delivery
4. During bottle feeding

12. Are there benefits of knowing your HIV status in pregnant?
   1. Don’t know
   2. Yes
   3. No

13. If yes to question 12, what are the benefits? (Tick all appropriate)
   1. Medication is given to those who are HIV positive to prevent transmission of the virus.
   2. Those that are negative are educated on how they can reduce risk of acquiring the virus
   3. Women who are HIV positive are taught not to have children again
   4. Other specify__________________________

14. Is it important to inform your partner about your HIV status?
   1. Yes
   2. No

15. Give one reason for your answer to question 14.
    __________________________________________
    __________________________________________

16. Which HIV status is important to notify your partner?
   1. Positive
   2. Negative
   3. Both
SECTION C: COUNSELING SESSION

17. How many teaching sessions have you had regarding HIV testing before testing?
   1. One
   2. Two
   3. More than two

18. Were you counseled before receiving your test result?
   1. Yes
   2. No

19. If yes how long was the post test counseling session?
   1. Less than 5 minutes
   2. Between 5 – 10 minutes
   3. Above 10 minutes

20. During counseling was the importance of individual responsibility to notify your sexual partner mentioned?
   1. Yes
   2. No

21. Did the counselor explain to you the benefits of self disclosure in the context of HIV infection and AIDS?
   1. Yes
   2. No

22. Mention any other two issues that were discussed concerning partner notification issues.
23. Did the counselor provide on going counseling from the initial counseling session?

1. Yes
2. No

24. Did the counselor discuss with you the consequences of non disclosure?

1. Yes
2. No

25. Do you think it is possible for one of the sexual partners to have a negative result when the other one is positive even when they were not practicing safer sex.

1. Yes
2. No

26. If yes to question 25, did it influence your behavior towards notifying your partner

1. Yes
2. No

27. If yes to question 26, what did you do?

SECTION D: CULTURAL BELIEFS

28. Do you think it is culturally right for a woman to take an HIV test without permission from the husband?

1. Yes
2. No
3. I don’t know
29. Is it taboo to discuss sexual issues with your partner?
   1. Yes
   2. No
   3. I don’t know

30. Do your culture allow a woman to start discussing about safer sex with her partner?
   1. Yes
   2. No
   3. I don’t know

31. Do you think a woman can advise her partner to take an HIV test?
   1. Yes
   2. No
   3. I don’t know

SECTION E: PARTNER NOTIFICATION

32. Did you discuss about HIV testing with your partner prior to testing?
   1. Yes
   2. No

33. Were you aware of your partner’s status before testing?
   1. Yes
   2. No

34. Did your answer to question 33 influence the way you behaved towards notifying your partner?
   1. Yes
   2. No

35. Did you inform your partner about your HIV status?
   1. Yes
   2. No

End of the interview and I thank you for your co-operation.
## APPENDIX V

### MARKING KEY FOR THE INTERVIEW SCHEDULE

#### SECTION B KNOWLEDGE OF BENEFITS OF PARTNER NOTIFICATION AND MTCT

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<th>Question</th>
<th>Correct answers</th>
<th>Maximum score</th>
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<td>If yes, which was your source of information?</td>
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<td>2. Health personnel</td>
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<td>3. Relatives</td>
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<td>4. Friends</td>
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<td>Do you think it is possible for an HIV infected woman to transmit HIV to her baby?</td>
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<td>11</td>
<td>If yes to question 10, how can HIV be transmitted from the mother to the baby (Tick all applicable).</td>
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<td>Are there benefits of knowing your HIV status in pregnant</td>
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| 13 | If yes to question 14, what are the benefits? | 1. Medication is given to those who are HIV positive to prevent transmission of the virus.  
2. Those that are negative are educated on how they can reduce risk of acquiring the virus. |
| 14 | Is it important to inform your partner about your HIV status? | 1. Yes |
| 15 | Give one reason for your answer to question 14. | 1. To plan the future together  
2. So that he is also tested  
3. To be able to get medical advice together  
4. To be able to access treatment easily |
| 16 | Which HIV status is important to notify your partner? | 1. Both |

**SECTION C: COUNSELLING SESSION**

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</table>
| 17 | How many teaching sessions have you had regarding HIV testing? | 1. One  
2. Two  
3. More than two |
| 18 | Were you counseled before receiving your test result? | 1. Yes |
| 19 | If yes how long was the post test counseling session? | 1. Less than 5 minutes  
2. Between 5 – 10 minutes  
3. Above 10 |
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<th>Minutes</th>
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</tr>
<tr>
<td>Did the counselor explain to you the benefits of self disclosure in the context of HIV infection and AIDS</td>
<td>1. Yes 2</td>
</tr>
<tr>
<td>Mention any other two issues that were discussed concerning partner notification issues.</td>
<td>1. partner testing 2. safer sex 3. prevention of re-infection 4. prevention of infection 2</td>
</tr>
<tr>
<td>Did the counselor provide ongoing counseling from the initial counseling session?</td>
<td>1. Yes 2</td>
</tr>
<tr>
<td>Did the counselor discuss with you the consequences of non disclosure?</td>
<td>1. Yes 2</td>
</tr>
<tr>
<td>Do you think it is possible for one of the sexual partners to have a negative result when the other one is positive even when they were not practicing safer sex.</td>
<td>1. Yes 2</td>
</tr>
<tr>
<td>If yes to question 25, did it influence your behavior towards notifying your partner</td>
<td>1. Yes 1</td>
</tr>
<tr>
<td>27</td>
<td>If yes to question 26, what did you do?</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**CATEGORY D: CULTURAL FACTORS**

<table>
<thead>
<tr>
<th>28</th>
<th>Do you think it is culturally right for a woman to take an HIV test without permission from the husband?</th>
<th>1. Yes</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Is it taboo to discuss sexual issues with your partner?</td>
<td>1. No</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>Do your culture allow a woman to start discussing about safer sex with her partner?</td>
<td>1. Yes</td>
<td>2</td>
</tr>
<tr>
<td>31</td>
<td>Do you think a woman can advise her partner to take an HIV test?</td>
<td>1. Yes</td>
<td>2</td>
</tr>
</tbody>
</table>

**SECTION E: PARTNER NOTIFICATION**

<table>
<thead>
<tr>
<th>32</th>
<th>Did you discuss about HIV testing with your partner prior to testing?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Were you aware of your partner’s status before testing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Did your answer to question 34 influence the way you behaved towards notifying your partner?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Did you inform your partner about your HIV status?</td>
<td>1. Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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KEY

SECTION A

Duration of relationship

1. Short – below 2 years
2. Medium – 2 – 4 years
3. Long – above 5 years

Educational level

1. Low - None and primary
2. Medium - Secondary
3. High - College and university

Income

1. Low – below K500,000
2. Medium – 500,000 – K1,000,000
3. High – above K1,000,000

SECTION B KNOWLEDGE

1. Knowledge – 0-8 scores
2. Medium knowledge – 9-16 scores
3. High knowledge – 17-25 scores

SECTION C COUNSELLING SESSION

1. Inadequate – 0-12 scores
2. Adequate – 13 – 24 scores

SECTION D CULTURAL PRACTICES

1. Positive – 5 – 8 scores
2. Negative – 0-4 scores

SECTION E PARTNER NOTIFICATION

1. Notified partner – YES
2. Did not - NO
The Permanent Secretary
Ministry of Health
P.O Box
Lusaka.

UFS
The Head of Department
Department of Post Basic Nursing
P.O Box 50110
Lusaka

Dear Sir / Madam,

Ref: PERMISSION TO COLLECT DATA FROM HEALTH CENTRES IN KALOMO DISTRICT.

I am a student pursuing a Master of Science in Nursing Degree at the University of Zambia. In partial fulfillment of my course, am required to conduct a research study and the title of my study is, “Factors influencing partner notification of HIV status by pregnant women after undergoing routine HIV testing at antenatal clinics in Kalomo district.”

I am therefore requesting for permission to collect data at four (4) selected health centres in Kalomo district for a period of one month (November 2008). The study involves interviewing pregnant women attending antenatal care who have undergone HIV testing in the PMTCT programme.

The University of Zambia Research Ethics Committee has approved my study.

Thank you for your support.

Yours faithfully,

Masumo M. Maureen.
November, 2008

Ref.: 004-09-08

Ms Maureen Masumo  
Department of Post Basic Nursing  
P.O. Box 50110  
LUSAKA

Dear Ms Masumo,

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee meeting on 1 October, 2008 where changes were recommended. We would like to acknowledge receipt of the corrected version with clarifications. The proposal has now been approved.

CONDITIONS:

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

Yours sincerely,

Dr. E. Munalula-Nkandu, BSc (Hons), MSc, PGDR/Ethics, PhD  
CHAIRPERSON

Date of approval: 4 November, 2008  
Date of expiry: 3 November, 2009
November 2008

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

Dear:

AUTHORITY TO COLLECT DATA IN PUBLIC HEALTH FACILITIES

I wish to inform you that following submission of your research proposal to my ministry, our review of the same and in view of the clearance from the University of Zambia Biomedical Research Ethics Committee, my Ministry has granted you authority to carry out your field research entitled “Factors influencing partner notification of HIV status by pregnant women after undergoing routine HIV testing at antenatal clinics in Kalomo District”.

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

The relevant Provincial and District Directors of Health where the study is being conducted are fully appraised;

Progress updates are provided to MoH quarterly from the date of commencement of the study;

The final study report is cleared by the MoH before any publication or dissemination within or outside the country.

Sincerely yours,

[Signature]

Mr. Simon K. Miti
PERMANENT SECRETARY
MINISTRY OF HEALTH

cc Director – Public Health & Research, MoH Headquarters
Information & Research Specialist, MoH Headquarters
Provincial Health Director - Southern Provincial Health Office
District Director of Health - Livingstone DHMT