BARRIERS TO THE UPTAKE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV INTERVENTIONS AMONG WOMEN IN KIBERA SLUM, KENYA

BY

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DECLARATION

This research thesis is my original work and has not been presented for a degree or any other award, in any other university.

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This work is dedicated to my dear family members and friends, German Academic Exchange Service (DAAD) for the scholarship award and Kenyatta University for the supervision offered.
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DEFINITION OF TERMS

**Human Immunodeficiency virus:** A virus that destroys the human immune system rendering the body vulnerable to other infections.

**Acquired Immune Deficiency Syndrome:** This means the body is too weak to fight against illnesses

**Prevention of mother-to-child HIV transmission:** is an intervention that prevents the mother from transmitting HIV to the child, the intervention includes counseling and testing for pregnant women, ARV prophylaxis for HIV-infected pregnant women and newborns, counseling and support for maternal nutrition and safe infant feeding practices.

**Family planning:** is a program to regulate the number and spacing of children in a family through using contraceptives or other methods of birth control.

**Ante-natal clinic:** is an obstetric practice, where a pregnant woman is observed on a regular basis to check the progress of her pregnancy.

**Anti retroviral drugs:** are drugs that inhibit the replication of HIV. When antiretroviral drugs are given in combination, HIV replication and immune deterioration can be delayed, and survival and quality of life improved.

**Behavior change Communication:** is the process by which information and skills are shared and disseminated to people in the specific target audience with the intention of influencing them to adopt sustained changes in sexual behavior or attitude, or to engage in other health-seeking behavior.

**Voluntary counseling testing:** making a personal choice to be counseled and tested for HIV
**LIST OF ABBREVIATIONS AND ACRONYMS**

<table>
<thead>
<tr>
<th>Abbr</th>
<th>Description</th>
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<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome.</td>
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<tr>
<td>ART</td>
<td>Anti Retroviral Therapy</td>
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<tr>
<td>ANC</td>
<td>Ante-natal Care</td>
</tr>
<tr>
<td>BCC</td>
<td>Behavior Change Communication</td>
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<tr>
<td>FP</td>
<td>Family Planning</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>KDHS</td>
<td>Kenya Demographic Health Survey</td>
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<td>MTCT</td>
<td>Mother-to-Child Transmission</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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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NASCOP</td>
<td>National AIDS and Sexually Transmitted Disease Control Programme</td>
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<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
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<tr>
<td>PLWHA</td>
<td>Person/people living with HIV/AIDS</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>U.S</td>
<td>United States</td>
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<tr>
<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
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<td>WHO</td>
<td>World health organization</td>
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ABSTRACT

A significant proportion of mothers with HIV pass the virus to their children during pregnancy, labour, delivery or breast-feeding. Current estimates indicate that over 90% of the HIV infection in children is due to mother-to-child transmission of HIV virus. During the last two decades of the national response to HIV/AIDS, focus of programme interventions shifted its attention to more specific health services such as PMTCT (Prevention of Mother-to-Child Transmission). Although the government has current strategies geared towards improving the health of HIV-infected mothers and reducing the transmission to their children during pregnancy, labour, delivery and post-delivery through breast-feeding, there is little effort geared towards responses that tackle the social, cultural and economic factors that put women at risk of transmitting HIV to their newborns. Therefore the aim of the study was to identify the barriers that hinder women from the uptake of the PMTCT intervention. Random sampling was used and a sample size of 335 respondents was interviewed. The data collection technique used household-based questionnaires in 5 selected villages namely Makina, Lindi, Laini Saba and Gatwikira. The results were presented in form of tables, bar charts, and pie charts. Analysis of the data found out that 5% of the respondents would identify all the three ways the mother would pass HIV to the child, 62% mentioned two ways, 29% mentioned one way, while 4% had no idea how HIV is passed from the mother to the child. Although 64% of the respondents said long distance to PMTCT delivery points was a barrier to PMTCT uptake this was not significant (P=0.372). Fifty seven percent of the respondents said married marital status influenced negatively the uptake of PMTCT but the relationship between marital status and uptake of PMTCT was not significant (P=0.1). Respondents’ high level of education was significant in influencing positively the PMTCT uptake (P=0.045). The ones with a higher level of education had better PMTCT seeking behavior. Negative Cultural practices were found not to influence PMTCT uptake whereby 59% of respondents said it is a personal decision to either follow or ignore the negative cultural practices and most mothers ignored the negative cultures. Negative Religious practices like praying for mothers and not advising them to seek medical attention, were identified as a barrier to uptake of PMTCT, justified by 52% of respondents, a P value of 0.04 was obtained. Finally most respondents (66%) did not identify low financial status as a barrier to the uptake of PMTCT, a P value of 0.823 was obtained. The health professionals at various PMTCT points also gave several contributions towards the health seeking behavior of the women in Kibera slum. The results will be very instrumental to the Government of Kenya, Non governmental organizations and community based organizations in coming up with program planning tools for PMTCT advocacy purposes which will increase the level of awareness of the barriers hindering the women from the uptake of PMTCT interventions.
CHAPTER 1
INTRODUCTION

1.1 Background information

The AIDS situation in Kenya, like many other countries, has progressed from one case in 1984 to the prevalence of 6.7% in 2005 (NASCOP, 2005). Mother-to-child HIV transmission (MTCT) accounts for the vast majority of the more than 700,000 estimated new HIV infections in children worldwide annually. Without intervention, HIV-infected mothers have a 35 percent overall risk of transmitting HIV to their child during pregnancy, delivery and breastfeeding. More than 50 percent of global perinatal infections occur in the 15 focus countries of the U.S. President’s Emergency Plan for AIDS Relief’s (Emergency Plan/PEPFAR) of which Kenya is part of the countries in focus. In these countries, approximately 1.25 million of the 18 million women who deliver annually are HIV-positive (U.S. Government interagency website, 2007).

HIV infection has become a common complication of pregnancy in many countries, with more than 600,000 children world-wide being infected annually through Mother-to-Child transmission. In Kenya, HIV prevalence at urban sentinel among antenatal women ranged between 11% to 17% and 2% to 31% in rural areas. In adults aged 15-49 years in Kenya, prevalence was estimated at 13% (NASCOP, 2002). In Kenya a significant proportion of mothers (25-48%) pass the virus to the child during pregnancy, labour, delivery or breastfeeding. The National AIDS and sexually transmitted disease control programme has a surveillance programme throughout Kenya; blood samples from antenatal mothers are regularly taken to test the prevalence of HIV infections. The
estimated rate of mother–to–child transmission of HIV 1 is 25-48% in developing countries. In 1996 the prevalence of HIV1 among antenatal mothers in Kenya was 10%-15% in the urban areas and 5%-6% in the rural areas (NASCOP, 2002).

Kenya has a population of 31.1 million, with 1.2 million births every year. Of the 2.2 million people living with HIV/AIDS in Kenya, 1.4 million are women. The most rapidly growing population becoming infected with HIV is women. HIV-positive women give birth to 118,000 children annually. An estimated 35,000–40,000 of those infants are HIV-positive. Ten percent of reported HIV/AIDS cases in Kenya are in children <5 years of age. (NASCOP, 2002). PMTCT interventions include antiretroviral drug prophylaxis, optimal obstetric care, infant feeding counseling, and family planning. Replacement feeding (as opposed to breastfeeding) is only recommended in environments where it is acceptable, feasible, sustainable, and safe. Through the CDC Global AIDS Program in Kenya, 18,000 antenatal women have learned their HIV status, and 50% of those who are HIV-positive have received prophylactic antiretroviral drugs. Barriers to testing include a lack of spousal support, fear of partner violence, and fear of disclosure and the stigma that may accompany it (Shaffer, et al, 2004).

Nearly 90% of pregnant women in Kenya attend an ANC for pregnancy care. According to the Kenya Demographic Health Survey (2003), 71% of mothers who gave birth in the last 5 years visited a hospital or health care while another 18% went to government or mission hospital dispensaries, and 11% did not attend any antenatal clinic. HIV prevalence in the women who visited hospitals and health centers for ANC care was
10.1%. Sentinel surveillance health facilities are all either hospitals or health centers and the prevalence in these pregnant women from the best fit of the curves is 10%, nearly identical to KDHS 10.2% (MOH/NASCOP, 2005).

1.2 Problem statement and justification

HIV/AIDS is a complex pandemic which requires a strong, vibrant and multisectoral response. One key challenge is to ensure that relevant sector ministries mainstream HIV/AIDS into their sector strategies, further, the continuing presence of high levels of stigma, discrimination and denial signifies the need to intensify advocacy and public education efforts at all levels. Prevention, treatment and mitigation are all critical to the success of the national response (Christophe and Enos, 2004).

The public awareness of HIV transmission from mother-to-child is high and 90% of pregnant women in Kenya attend antenatal clinics, but despite of this, 90% of the HIV infection in children is from the mother to the child; this displays some gaps that need to be filled in the PMTCT interventions (MOH/NASCOP, 2005). Despite the government’s efforts to provide more than 60 PMTCT services country wide and the NGO’s providing almost 10 PMTCT service points in Kibera as part of the national response to HIV and AIDS, the transmission of HIV from the mother to the child still takes place. This therefore implies that there might be some barriers or shortcomings with the national response intervention on PMTCT that needs to be addressed by different stakeholders. In this regard, the study found out the barriers to the uptake of PMTCT services, focusing on Kibera slum (Appendix II) which is a high risk and vulnerable population (PATH and FHI, 2004).
1.3 Research question

What are the barriers to the uptake of PMTCT interventions among women in Kibera slum?

1.4 Broad Objective

To examine the barriers that hinder women in Kibera location from the uptake of PMTCT services.

1.5 Specific objectives

i. To establish if the negative Socio-cultural practices are barriers to the uptake of PMTCT interventions among women in Kibera slum

ii. To determine if the negative religious practices hinders the uptake of PMTCT interventions among women in Kibera slum

iii. To find out if low or no education are barriers to the uptake of PMTCT interventions among women in Kibera slum

iv. To establish whether low financial status are barriers to the uptake of PMTCT interventions among women in Kibera slum

v. To determine if far distance from a household home to PMTCT site hinders the uptake of PMTCT interventions among women in Kibera slum

vi. To identify if married marital status are barriers to the uptake of PMTCT interventions among women in Kibera slum
1.6 Null hypothesis

i. Negative socio-cultural practices are not barriers to the uptake of PMTCT interventions among women in Kibera slum.

ii. Negative religious practices are not barriers to the uptake of PMTCT interventions among women in Kibera slum.

iii. Low or no education status is not a barrier to the uptake of PMTCT interventions among women in Kibera slum.

iv. Low financial status is not a barrier to the uptake of PMTCT interventions among women in Kibera slum.

v. Far distance from household home to PMTCT sites is not a barrier to the uptake of PMTCT interventions among women in Kibera slum.

1.7 Significance of study

The study exposes the barriers to PMTCT uptake among women in Kibera location as per the study findings, which includes: Negative religious practices and low or no education status. The results will be used to challenge concerned parties like the Government of Kenya, Non Governmental Organizations and the beneficiaries towards coming up with appropriate interventions to scale up the PMTCT uptake among women in Kibera slum and other similar informal settlements.
1.8 Delimitation and limitations

Limitations

i. Inaccessibility to some of the households due to lack of roads.
Due to lack of roads leading to some households, accessing the household was challenging. When it rained the roads were full of mud and the households could not be easily accessed. The research assistants wore mud proof shoes and went out to collect data during dry days.

ii. Unwillingness of giving personal information by the respondents.
Some respondents were suspicious to disclose some personal information to strangers. They later complied when they were assured of confidentiality.

iii. Some participants were not willing to talk about HIV and AIDS
They feared stigmatization by their neighbors who did not know their status. As a precaution against this limitation sensitive questions were asked in a lot of privacy.

Delimitations

i. The presence of 6 PMTCT centers namely; MSF Kibera Self help Centre, Universe Clinic, Friends Clinic, AMREF clinic, Makina Clinic, and Lea Toto Clinic within the study region was instrumental in adding value to the study’s objectives.

ii. Willingness of the research assistants to look for panya roots to access households that were not easily accessible

iii. Alternating dry day, after a wet day, during the data collection period, that facilitated easier accessibility to households due to the muddy ground drying up
iv. Research assistants were well educated and understood the research tool well especially after being taken through and trained on the tool. They also translated the research questions to the respondents in Kiswahili.

1.9 Assumptions

During the period of data collection, it was assumed that all the respondents approached would cooperate in giving all the information required for the study; this did not happen as some of the respondents were not willing to answer certain personal questions but this did not affect the sample size since in the questionnaire there was a section for no response which was analyzed later.

1.10 Conceptual framework and Theoretical framework

WHO convened a meeting in Morges Switzerland in March 2002, to discuss the expected contributions of various programme approaches to preventing HIV infection in infants who live in different epidemiological situations and service delivery settings. The meeting also provided guidance on priority areas of work to be addressed so as to optimize its contribution to global efforts of preventing HIV infection in infants. The participants emphasized that a comprehensive approach was required to reach the goals; they confirmed a strategic approach that includes: - Primary prevention of HIV infection, unintended pregnancies among HIV-infected women, HIV transmission from HIV-infected women to their children and providing care for HIV-infected mothers and their infants. Below is a framework for a comprehensive approach to prevent HIV infection in infants and young children (WHO, 2002)
Fig 1.1 Conceptual frameworks on strategic approaches to the prevention of HIV

Infection in infants

Preventing HIV infection in women → Preventing unintended pregnancy among HIV infected women → Preventing transmission from an HIV infected woman to her infant

Providing care and support for HIV-infected women, their infants and their families through:
- Adopting friendly socio-cultural practices
- Economic empowerment to women
- Easily accessible PMTCT services
- Promoting accommodative religious practices/believes towards HIV and AIDS
- Formal and informal education given to the girl child and the woman

The conceptual framework above links with the study’s aim of finding out some of the barriers that hinder women from PMTCT uptake; the framework provides some strategies that can be utilized by the Government’s efforts to prevent HIV infections to children. The study therefore adds value on the conceptual framework by outlining that for the strategy to be effective in Kenya, factors like socio-culture, economical, physical, religious and educational factors should be incorporated in the comprehensive strategy of preventing Mother-to-child transmission of HIV.
CHAPTER 2
LITERATURE REVIEW

2.1 Preamble

HIV and AIDS pandemic has emerged as one of the leading challenges to global public health and development. Since the first case was discovered two decades ago the pandemic has taken on an extraordinary human toll. According to the report on global AIDS epidemic, about 40 million people are currently living with the virus worldwide. Each year, 5 million people succumb to the disease (UNAIDS 2002). This number is likely to reach 100 million within less than a decade if a massive response is not effected immediately (UNDP, 2002). In Kenya over 2.5 million people are believed to be infected with the HIV and AIDS virus (Christophe and Enos, 2004). The countries most severely hit by the HIV pandemic are some of the poorest in the world and heavily rely on donor support to combat HIV and AIDS (Ainsworth and Teokul, 2000).

HIV and AIDS programmes are as complex as the pandemic itself. The programmes usually address cultural, religious, political and economic aspects, the goal being to prevent the transmission of HIV and to mitigate the consequences of AIDS through care support and treatment. In Kenya, a wide range of interventions have been adopted within the multi-sectoral approach which includes interventions for preventing the transmission of HIV.

In the absence of an immediate cure or vaccine for HIV, the only options are to prevent further spread of the pandemic, minimize its impact and provide a caring and compassionate environment for those infected and affected (World Bank, 1997)
2.2 HIV and AIDS Prevalence in Kenya

Using the general population prevalence rates from the KDHS (2003), it is estimated that the number of adults aged 15-49 years who are HIV-infected in Kenya is 1,100,000, urban residence being 410,000 while rural residence being 670,000, Nairobi Province being 130,000 (MOH, 2005). The prevalence of HIV in Nairobi province is 16.8%. The prevalence of HIV/AIDS among pregnant women in Kenya is currently estimated at 13%. This rate of infection in women aged 15-49 years translates into an estimated 50,000 to 60,000 children under 5 years of age infected with HIV per annum. This transmission occurs during labour, delivery and breastfeeding. Five percent to 8% of babies become infected through transmission across the placenta, 10% to 20% during labour and 10% to 15% through breastfeeding (MOH, 2005).

2.3 Modes of HIV/AIDS Transmission in Children

Mothers infected with HIV can transmit the virus to new-born infants 30% to 40% of the time. Twenty five percent to 50% of the infection is through breast milk. Various approaches can be used to reduce the number of infected children. This includes:- protecting women from HIV infections; comprehensive antenatal care and nutrition during pregnancy; counseling and testing; antiretroviral therapy; reduction of transmission during child birth; provision of formulae milk or replacement feeding strategies for HIV exposed pregnancies (MOH, 2001)

Mother-to-child transmission (MTCT) is the most important source of HIV infection in children (WHO, 2004). Annually, 30,000 to 40,000 new infections occur in children in
Kenya mostly as a result of MTCT (MOH, 2005). In 2001, the United Nations general assembly special session on HIV and AIDS committed countries to reduce the proportion of infants infected with HIV by 2005 and by 50% by 2010. Achieving this target urgently requires an increase in access to integrated and comprehensive programmes to prevent HIV infection in infants and young children. Such programmes consist of interventions focusing on primary prevention of HIV infection among women and their partners; prevention of HIV transmission for HIV-infected women to their children; and the provision of treatment, care and support for women living with HIV/AIDS, their children and families. Programmes to prevent MTCT provide a key opportunity for identifying people who could benefit from ARV treatment either immediately or later and most women living with HIV and AIDS who have participated in such programmes are anticipated to have access to treatment (WHO, 2004). The Government of Kenya has strategies geared towards improving the health of HIV-infected mothers and reducing the transmission to their children during pregnancy, labour, delivery and post delivery through breastfeeding. Increasing the level of general knowledge of transmission of the virus from mother-to-child and reducing the risk of transmission by use of antiretroviral drugs is critical to achieving this goal (KDHS, 2003).

2.4 PMTCT services

In the year 2000, PMTCT services were initiated in Kenya on a pilot basis. Lessons learnt from the pilot sites were used to initiate the national programme in 2001. By the year 2004, nearly 600 facilities in the country were providing the services, this therefore means that the number of women tested, counseled and offered treatment has
progressively increased from just over 1000 in 2001 to over 265,000 in 2004 (MOH/NASCOP, 2005). The Ministry of Health, through the division of reproductive health and NASCOP, has also set up measures to improve the use of PMTCT services by improving communication to communities, informing them that PMTCT services are available with a continuum of care for mothers, children and family. Critical activities that are necessary for National implementation of the PMTCT program include: - improving infrastructure, training health workers, improving communication about PMTCT, strengthening management and administrative systems (MOH, 2002). In addition behavior communication change also forms an essential component of a comprehensive program that includes prevention services (medical, social, psychological, spiritual). Before individuals and communities can reduce their risk or change their behaviors, they must first understand the basic facts about HIV and AIDS, develop favorable attitudes towards prevention, learn a set of skills and have access to appropriate products and services. They must also perceive their environment to be supportive of changing behavior or seeking appropriate treatment (PATH and FHI, 2004).

Recently in the year 2007, the U.S. Government interagency through the U.S. President’s Emergency Plan for AIDS Relief’s (Emergency Plan/PEPFAR) aimed to support at least 80 percent of pregnant women with PMTCT services, and reduce MTCT by 40 percent in each of PEPFAR’s 15 focus countries. The Simple, effective PMTCT interventions that PEPFAR aims to support include:- The provision of routinely recommended rapid HIV counseling and testing in antenatal and maternity settings; provision of combination short-course antiretroviral (ARV) prophylaxis for mother and infant, antiretroviral
treatment (ART) for eligible mothers; Counseling and support for infant feeding; Link with wraparound services, such as nutrition, family planning services for women with HIV, and microeconomic activities (US Government Interagency website, 2007).

2.5 Strategies to Prevent Mother-to-child transmission of HIV/AIDS

The strategies recommended by United Nations agencies to prevent mother-to-child transmission of HIV include:

i. The primary prevention of HIV-infection among parents to be

ii. The prevention of unwanted pregnancies in HIV infected women

iii. The prevention of HIV transmission from HIV infected women to their infants.  
     
(WHO, 2001).

iv. Preventing infection in women

The best way to prevent MTC transmission of HIV is to prevent the women from becoming infected. Delaying the sexual debut of teenage girls, keeping girls in school and providing HIV prevention counseling can reduce the number of young pregnant women who are infected. Protecting women from becoming infected during pregnancy and lactation will also reduce the number of infants who are infected.

v. Comprehensive antenatal care and nutrition during pregnancy

Preventing and treating malaria and STD and correcting nutritional deficiencies promotes the health of mothers and babies and may reduce mother to child transmission of HIV

vi. Counseling and testing

Providing HIV counseling and testing for women and their partners during pregnancy offers and opportunity to prevent HIV infection in HIV negative women. Such counseling also enables couples to make informed reproductive choices for the future
vii. Anti retroviral therapy

Anti retroviral drugs taken during labour or during the last week of pregnancy can reduce the viral load in the mother and reduce the risk of the mother to child transmission during this time by half. Nevirapine is taken as a single dose early in labour and another dose is given to the new born at 3 days of age.

viii. Reducing transmission during child birth

Practices that reduce trauma and shorten exposure to the virus during labour can reduce HIV transmission. This may include prolonged rupture of the membranes for more than 4 hours, avoiding elective caesarean sections and episiotomies.

ix. Reducing transmission from breastfeeding

One third of mother to child transmission occurs through breast feeding however many children who are not breastfed die from diarrheal diseases and other infections. Therefore health personnel should counsel women about safe and appropriate feeding strategies to minimize mother to child transmission and improve child survival. This includes the choice of replacement feeding, lactation management, method and timing weaning.

x. Reducing number of HIV exposed pregnancies

Women who are HIV positive may wish to avoid childbearing that they do not infect their newborn babies or leave behind orphaned when they die (AMREF, 2004). Therefore, in order for the Government to fully achieve its objectives of fighting HIV and AIDS through interventions like PMTCT, more knowledge and information regarding obstacles that hinder the PMTCT intervention that lies among different communities like poverty, socio-cultural beliefs, ignorance, shortage of drugs, lack of male involvement in PMTCT and stigma about HIV have to be studied (MOH, 2002).
2.6 PMTCT interventions in Kenya

PMTCT intervention programs in Kenya includes:-Package services, which involves:-
routine counseling and testing, partner of HIV positive women offered counseling and
testing, optimal routine ANC, obstetric care, infant feeding and counseling
(MOH/NACC, 2005).

Other interventions suggested by the Ministry of Health include:-Prevention of HIV
infection in women; feasible strategies that are known to work are for teenage girls to
delay their sexual debut, girls to stay in school, women to have a single uninfected sexual
partner. Women who are HIV infected can use family planning methods to prevent
pregnancy and finally prevention of HIV transmission from HIV infected pregnant
women to their infants can be through the use of antiretroviral drugs, modified obstetrical
practices and appropriate choice for feeding infants (MOH/NASCOP, 2005).

2.7 Other strategies to slow down spread of HIV/AIDS in Kenya

Kenya, like other sub -Saharan African countries has adopted a multi -sectoral response
involving governments, civil society, private sector, religious and the international
community to take action, increase resources and build capacity to sustain efforts to slow
down the spread of the pandemic. The multi -sectoral responses is expected to extend the
reach of current prevention efforts to the vulnerable, reduce the impact of the HIV/AIDS
pandemic on all sectors and address the biological behavioral and social factors that
determine the profile of the epidemic (Christophe and Enos, 2004).
2.8 Approximate risk of Mother –to-child Transmission (MTCT) of HIV

Overall risk of MTCT is approximately 40% in breastfeeding populations, 5-10% during pregnancy, 10-20% during delivery, 5-15% during breastfeeding. An annual approximation of 30,000 to 40,000 new infections occur in children in Kenya mostly as a result of PMTCT while Paediatric HIV management is complex and challenging even when available (MOH/NASOP, 2005).

When women get infected with HIV several consequences arise which includes:- increased mortality of women, orphans, increased mortality among children of HIV positive women, loss of critical family and community manpower resources and dissolution of families when a woman dies (MOH/NACC, 2005).

2.9 Effects and consequences of MTC

HIV and AIDS is worsening the socio economic situation and the poverty level in Kenya and continues to give a gloomy picture. Some of the effects of MTCT includes:-

i. Impact on health:-AIDS affects child survival. About 30-40% of babies born to infected mothers will also be infected and most of them develop AIDS and die within 2 years. Few survive past the age of 5 years

ii. AIDS orphans:-One of the worst consequences of AIDS is an increase in number of orphans. These orphans may lack proper care and the supervision they need at this critical period of their lives. Their care and support put strain on family members, the community and the nation as a whole (AMREF and Nursing council of Kenya, 2004)
2.10 Other studies carried out on PMTCT interventions in Kenya

There have been limited experimental studies on HIV/AIDS programmes in Kenya. Two surveys were conducted in 1998 and 2000 to assess the HIV/AIDS policy environment in Kenya (policy project, 2000) In another study the NACC through JAPR (Joint AIDS program review) performed an analysis of the HIV/AIDS programme in Kenya. The study findings suggested the increase coverage of prevention of mother to child transmission but little has been mentioned regarding factors that would hinder mothers from partaking the PMTCT services (JAPR, 2003)

Although there might be several studies that have been conducted on HIV and AIDS in Kenya, little is known or published concerning specific areas of the negative socio-cultural practices, Negative religious practices, Low or no education level and Low economic status, as factors that prevent the mothers from accessing PMTCT services in Kenya.
CHAPTER 3
METHODOLOGY

3.1 Research Design
Cross sectional design was employed in the study. It was instrumental in determining how the dependent variable influenced the independent variables of the study phenomena at one point of time in a cut across sample.

3.2 Variables
According to the World Bank, HIV and AIDS programme is as complex as the pandemic itself. The programmes usually address cultural, religious, political and economic aspects, the goal being to prevent the transmission of HIV and to mitigate the consequences of AIDS (World bank, 1997). These findings therefore set the stage for selecting the variables below to test them in the context of PMTCT interventions:-

The independent variables includes:-

i. Socio-cultural barriers: - some cultural practices increase women’s infection risk. For example avoiding or limiting sex during pregnancy or breastfeeding may encourage men to have sex with other partners thereby increasing the risk of acquiring the virus and in return infecting the women and the unborn child. There is also an increased social perception among women to fit into their society’s norms. For example a woman would want to be seen breast feeding her new born as per her society’s expectations.

ii. Financial barriers: - a large proportion of the HIV infected women in the slums are economically impaired to adequately adhere to the requirements of effective PMTCT intervention. Example most of the women cannot afford elective caesarian section fee and some cannot afford formula milk for their infants.
iii. Physical barriers: - accessibility to health centers and lack of ARV in some of the local health centers are barriers to PMTCT uptake by women.

iv. Religious barriers: - Some religious groups believe that any health interventions need Godly interventions, they do not believe in going to the hospital and this increases the chances of MTCT.

The dependent variable on the other hand is the uptake of PMTCT interventions by the women.

3.3 Location of study

Kibera Location is found in Nairobi Province, Lang’ata Division (Appendix I). It is located in the outskirts of the City of Nairobi in the south, about 7 kilometers from the city centre. It consists of 13 villages which are: - Makina, Kianda, Line Saba, Gatwikira, Lindi, Kambimuru, Soweto, Silanga, Woodley, Kisumu ndogo, Mashimoni, Raila and Ayany. The study sample was randomly drawn from 5 villages which are: - Makina, Lindi, Siranga, Laini saba and Gatwikira Villages (Appendix III).

Kibera is the largest informal settlement in Nairobi covering approximately 225 hectares. The population is estimated at 700,000 people translating to a density of 2,200 persons per hectare. The land is owned by the Government leading to insecure land tenure.

Kibera, the largest slum in East Africa, has a history of ethnic tension. Over 600,000 people do not receive basic services such as water, healthcare, education, or sewage disposal. Over 80% of all youth are unemployed, nearly 20% are HIV positive, and the slum has been the source of two violent clashes between ethnic groups over the past ten years.(http://globalgiving.com)
3.4 Study Population and target population

The Kibera Slums, an area 5 Kilometers Southwest of City Centre Nairobi, is the most populated informal settlement in East Africa, housing more than one quarter of Nairobi’s population. It is the largest slum in Kenya and the third largest in Africa. It has a population of about 700,000 people, (Appendix II). (www.wikipedia). Kibera is divided into ten official villages, each with its own Village Elder. They are: Kianda, Soweto, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Siranga/ Undugu, Makina, Mashimoni and Raila. These villages, excluding Raila, rest on the northern half of the valley east of the Nairobi Dam.

Kibera is roughly 2 Kilometres squared with an estimated population of 1 million people. There are no residential buildings over a single storey. The average home size in Kibera is 3 meters by 3 meters, with an average of five persons per dwelling. Urban services such as water or sanitation are minimal Health Services and Sexual Education is minimal. Fifty-Four percent of people living in urban areas in Kenya are either HIV positive or have AIDS.

The study targeted a population of approximately 300,000 women in child bearing age and health workers in selected PMTCT sites

3.5 Inclusive criteria

Females of reproductive age bracket 14-49 years (both HIV positive and negative females)
3.6 Exclusive criteria
Females aged below 13 years and above 50 years

3.5.1 Sampling technique
The study sample was drawn from Makina, Siranga, Laini saba, Lindi and Gatwikira villages. In each of the 5 villages an approximate number of 70 respondents were selected, where by the 5th household that was found near a market place, by the road side, by the railways line, in churches, in mosques and health centres were selected until the 335 needed respondents were reached. This reduced the occurrence of biasness on the samples that were selected.

3.5.2 Sample size
The sample size was computed using the formulae as used by Fisher et al., 1998.

Sample size formulae: \( n = \frac{Z^2 pq}{d^2} \)

Where by;
- \( n \) = the desired sample size (if the target population is greater than 10,000)
- \( Z \) = the standard normal deviation at the required confidence level (1.96)
- \( P \) = the proportion in the target population estimated to have characteristics being measured (in this case 16.8% which is the prevalence rate of HIV in Nairobi based on estimates on sentinel surveillance of HIV in Postnatal clinics before release of 1999 census data).
- \( q = 1 - p \)
- \( d \) = the level of statistical significance set (0.04)

Sample size: \( n = \frac{(1.96)^2 (16.8\%) \ (1-16.8\%)}{(0.04)^2} \) = 335 respondents
3.6 Construction of research instruments and data collection technique

The research tool was a questionnaire (Appendix I). It had both quantitative and qualitative responses administered through structured and unstructured questions. The questionnaire addressed the specific and broad objectives of the study. Some of the questions used in the questionnaire were structured with yes or no answers, but supported with further four options of choices or explanation from the respondent, this facilitated easier data analysis. Unstructured questions were also employed; this enabled the respondents to respond in an in depth manner stimulating them to think more about their situations and letting them out. The questionnaire was administered by the researcher through face to face interaction with the respondents.

3.7 Pilot study/ pre-test

This was conducted to pre test the tool’s effectiveness. It was done in a different area from the study area. The pre-test was done one week before the actual data collection period so as to allow time for correction of the tool. Corrections and adjustments were then made to rectify the tool to fit the needs of the study in the most appropriate manner.

3.8.1 Validity

The study contents’ validity was ensured by having a specific time frame for the data collection period. This ensured that the contents under study were relevant and valid at the specific time of the study. Delays in data collection were reduced to increase validity of the study.

3.8.2 Reliability

For accuracy and precision of the data collected, accurate entry and coding of each questionnaire was ensured by having an intact data base system. The research tool was tested through a pilot study to rectify ambiguous instructions to the subjects. The External
sources of variations which would interfere with the research assistants’ data collection, such as boredom, fatigue, and anxiety was minimized through motivating them through several ways like taking some few days off to relax from the hectic data collection exercise.

3.9 Logistical and Ethical Consideration

Permission to carry out this study was granted by Kenyatta University Board of Postgraduate Studies, Ministry of Education and Ministry of Health. The subjects’ consent was also sought before starting the interview and an assurance of confidentiality was guaranteed (Appendix I).

3.10 Statistical Analysis

A computer software program known as SPSS was used for the data analysis. The data on the questionnaires were first coded then entered into the computer data form. Analysis was then done to the data, which involved computations such as: - mean mode, percentages and Chi square tests. The results were then presented in form of tables and graphs.
CHAPTER 4

RESULTS

4.1 SOCIO-DEMOGRAPHIC INFORMATION OF RESPONDENTS

The charts below demonstrate the socio-demographic characteristics of the study population.

Graph 4.1.1 Ages of respondents

![Bar chart showing age distribution of respondents](image)

Graph 4.1.2 Marital status of respondents

![Bar chart showing marital status distribution](image)
Graph 4.1.3 Respondents children's ages

Graph 4.1.4 Occupation of respondents
Graph 4.1.5 Religion of respondents

![Religion of Respondents Graph](image)

Graph 4.1.6Education level of respondents

![Education Level of Respondents Graph](image)
4.2 Level of knowledge of HIV transmission from mother to child

Table 4.2 below shows the percentages of the level of knowledge of the participants on the common ways HIV can be transmitted from the mother to the child, namely during labour, at delivery and during breastfeeding.

Table 4.2.1: Level of knowledge of HIV transmission from mother to child

<table>
<thead>
<tr>
<th>Ways of mother to child transmission of HIV</th>
<th>Don't know any</th>
<th>One way</th>
<th>Two ways</th>
<th>Three ways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makina</td>
<td>4%</td>
<td>20%</td>
<td>68%</td>
<td>7%</td>
</tr>
<tr>
<td>Lindi</td>
<td>4%</td>
<td>36%</td>
<td>57%</td>
<td>4%</td>
</tr>
<tr>
<td>Siranga</td>
<td>3%</td>
<td>29%</td>
<td>67%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Laini Saba</td>
<td>4%</td>
<td>20%</td>
<td>68%</td>
<td>8%</td>
</tr>
<tr>
<td>Gatwikira</td>
<td>4%</td>
<td>38%</td>
<td>51%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Most respondents (62%) could name at least two ways of HIV transmission from mother to child, then followed by one way (29%). However very few of them could identify all the three common ways of transmission (5%). The responses from the different villages did not have big disparities on their responses on the HIV transmission modes as seen on the table above, example on the one way of HIV transmission the highest level of

4.3 Distance from household to PMTCT points versus uptake of PMTCT

When respondents were asked if the distance from their homes to their respective PMTCT delivery points determined their uptake of PMTCT services they had varying responses shown below.
Table 4.3.1: Far distance from household to PMTCT service delivery points
Towards the uptake of PMTCT interventions

<table>
<thead>
<tr>
<th>village</th>
<th>Distance to site affects PMTCT uptake</th>
<th>Distance to site does not affect PMTCT uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makina</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>Lindi</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Siranga</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Laini Saba</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>Gatwikira</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Fig 4.3.1: Distance from household to PMTCT site versus PMTCT uptake

Although most (64%) respondents across all the 5 sites sampled said that distance to PMTCT point was a barrier to PMTCT uptake, when a Chi square test was used to compute the effect of this as a barrier, it was not significant between the village sites ($\chi^2 = 5.3776$, df =11, P =0.372). This result could be associated with the fact that farness or nearness to a place depends on an individual’s perception. However for the purpose of
uniformity in the study, a distance of more than 1 kilometer was termed as far while less than 1 kilometer was termed as near.

4.4 Respondents marital status versus the uptake of PMTCT

More than a half of the respondents (57%) said their marital status (married) influences their uptake of PMTCT services, while 43% singles said their status is not a barrier to their uptake of PMTCT. The results were further analyzed by Chi square test basing on the comparison between those who had never been married before and those who either were married or had ever been married at a point in their lives. Married marital status was found not to be significant ($\chi^2 = 0.972$, df=1, $P = 0.1$). Below is the findings in form of table and graph.

**Table 4.4.1: Respondents’ marital status versus PMTCT uptake**

<table>
<thead>
<tr>
<th>MARITAL STATUS</th>
<th>INFLUENCES OF UPTAKE OF PMTCT</th>
<th>DOES NOT INFLUENCE OF PMTCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single (never married)</td>
<td>0%</td>
<td>43%</td>
</tr>
<tr>
<td>Currently married or at least was married before (widow/divorced)</td>
<td>57%</td>
<td>0%</td>
</tr>
</tbody>
</table>
4.5 Low level of education versus the uptake of PMTCT

In general, as shown by the tables below, it was found that respondents who had never attended formal schooling (12%) significantly identified their lack of formal education as a barrier to their PMTCT uptake, while the ones with at least a primary education said their level of education promotes their uptake of PMTCT interventions. Further analysis confirmed there was a significance between uptake of PMTCT services with low level of education \( (\chi^2 = 4.0, \text{df}=1, P=0.045) \).

Table 4.5.1: Level of education of the respondents

<table>
<thead>
<tr>
<th>LEVEL OF EDUCATION OF RESPONDENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never gone to school</td>
<td>12%</td>
</tr>
<tr>
<td>Primary</td>
<td>50%</td>
</tr>
<tr>
<td>Secondary</td>
<td>25%</td>
</tr>
<tr>
<td>College</td>
<td>12%</td>
</tr>
<tr>
<td>University</td>
<td>1%</td>
</tr>
<tr>
<td>No response</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 4.5.1.0 uptake of PMTCT versus level of education

<table>
<thead>
<tr>
<th>Respondents' Level of education</th>
<th>Uptake of PMTCT</th>
<th>A barrier</th>
<th>Not a barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never gone to school</td>
<td>12%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Has attended at least primary school</td>
<td>0%</td>
<td>88%</td>
<td></td>
</tr>
</tbody>
</table>

4.6 Negative cultural practices versus the uptake of PMTCT interventions

Most of the respondents (59%) said negative cultural practices like:- cultures that prevented the mother from seeking medical interventions but instead resolve to traditional medicine men, did not hinder them in any way from the uptake of PMTCT, 16% said those cultural practices hindered their PMTCT uptake, while 25% did not respond as shown by the graph below.

Fig 4.6.1: Culture versus uptake of PMTCT intervention

[Diagram showing effects of cultural practices on PMTCT uptake]
4.7 Negative religious practices versus PMTCT uptake

The result revealed that up to 51 % of respondents identified negative religion practices such as, praying for heavenly interventions for the sick as opposed to taking the sick to the hospital, being a barrier to the uptake of PMTCT services, as shown by the table 4.7.1 below. Chi square test found the negative religious practices to be significant, \( \chi^2 = 9.8, df=4, P=0.04 \).

**Table 4.7.1 Negative religious practices versus the uptake of PMTCT intervention**

<table>
<thead>
<tr>
<th>Effects of Religion to PMTCT uptake</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
</tr>
</thead>
<tbody>
<tr>
<td>A barrier</td>
<td>51.4</td>
<td>11.4</td>
<td>8.6</td>
<td>20.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Not a barrier</td>
<td>34.1</td>
<td>20.1</td>
<td>11.0</td>
<td>19.5</td>
<td>14.0</td>
</tr>
<tr>
<td>Non response</td>
<td>23.6</td>
<td>31.7</td>
<td>11.4</td>
<td>8.1</td>
<td>22.0</td>
</tr>
</tbody>
</table>

**Fig 4.7.1: Negative religious practices versus uptake of PMTCT**

![Graph showing the relationship between religion and PMTCT uptake]
4.8 Respondents financial status versus PMTCT uptake

Overall, most respondents 66% did not identify low financial status as a hindrance to the uptake of PMTCT services as shown by the table 4.6 below. Further analysis by Chi square revealed there was no significance difference ($\chi^2=0.001$, df=1, $P=0.823$). This could be attributed to the fact that PMTCT services are offered free of service in health institutions apart from caesarian section which is really done in Kibera health centers.

The table below gives more information

Table 4.8.1: Financial status versus PMTCT uptake

<table>
<thead>
<tr>
<th>Effects of low financial status to PMTCT uptake</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A barrier</td>
<td>29.2</td>
<td>15.3</td>
<td>15.3</td>
<td>26.4</td>
<td>12.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Not a barrier</td>
<td>40.3</td>
<td>18.0</td>
<td>9.4</td>
<td>16.5</td>
<td>15.1</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Fig 4.8.1: Financial status versus PMTCT uptake
4.9 PMTCT delivery points and management in Kibera

This data was relevant to the study as it displayed the PMTCT facilities that are in Kibera. The delivery points were the entry points to the community in scaling up the PMTCT interventions as per the findings of the study. This finding will also be instrumental in coming up with recommendations on how to scale up the PMTCT uptake through involving the PMTCT stakeholders. Findings as per the table below displays that the government of Kenya (MOH) have a high presence in Makina village, while the NGO has high presence in Laini saba, while private individuals high presence in Makina.

Table 4.9.1 Management of PMTCT facilities in Kibera

<table>
<thead>
<tr>
<th>Village/Site</th>
<th>The government (MOH)</th>
<th>NGO</th>
<th>Private individuals</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makina</td>
<td>34.0</td>
<td>22.7</td>
<td>31.7</td>
<td>33.6</td>
</tr>
<tr>
<td>Lindi</td>
<td>26.1</td>
<td>21.1</td>
<td>23.3</td>
<td>23.4</td>
</tr>
<tr>
<td>Siranga</td>
<td>10.1</td>
<td>10.2</td>
<td>10.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Laini Saba</td>
<td>10.1</td>
<td>24.2</td>
<td>19.2</td>
<td>14.0</td>
</tr>
<tr>
<td>Gatwikira</td>
<td>18.1</td>
<td>19.5</td>
<td>14.2</td>
<td>15.66</td>
</tr>
<tr>
<td>Non respondent</td>
<td>1.6</td>
<td>2.3</td>
<td>1.7</td>
<td>1.9</td>
</tr>
</tbody>
</table>
The graph below visually displays the above table.

**Fig 4.9.1 Management of PMTCT facilities in Kibera slum**

![Graph showing management of PMTCT facilities in Kibera study site](image)

- **Village/Site**: Makina, Lindi, Siranga, Laini Saba, Gatwikira, Non respondent
- **Services offered at Kibera PMTCT service delivery points**
  This section is a further discussion to build on the above discussed section which opted to find out what the existing PMTCT service delivery points in Kibera really offer to the women. The PMTCT sites visited were:- Kibera self help centre (MSF), Universe clinic, Friends clinic, AMREF clinic, Makina clinic and lea Toto clinic. The results below displays Kibera community as having PMTCT sites which offers at least some of the recommended PMTCT interventions.
Table 4.10.1 Kind of PMTCT services offered in Kibera

<table>
<thead>
<tr>
<th>Kind of PMTCT services offered in Kibera</th>
<th>Village/Site</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Non response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Makina</td>
<td>Lindi</td>
<td>Siranga</td>
<td>Laini</td>
<td>Saba</td>
<td>Gatwiki ra</td>
</tr>
<tr>
<td>Primary prevention</td>
<td>37.2</td>
<td>19.8</td>
<td>9.5</td>
<td>17.0</td>
<td>15.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Core intervention of PMTCT</td>
<td>29.9</td>
<td>26.6</td>
<td>9.3</td>
<td>14.1</td>
<td>18.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Care and support</td>
<td>32.6</td>
<td>24.2</td>
<td>9.1</td>
<td>15.4</td>
<td>16.5</td>
<td>2.1</td>
</tr>
<tr>
<td>No response</td>
<td>23.4</td>
<td>21.3</td>
<td>25.5</td>
<td>13.8</td>
<td>12.8</td>
<td>3.2</td>
</tr>
</tbody>
</table>

From the findings in all the 5 villages, all the PMTCT services were offered which included: - Primary prevention, Core intervention, Care and support

Table 4.10.2 Primary intervention services

<table>
<thead>
<tr>
<th>Primary intervention services</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini</th>
<th>Saba</th>
<th>Gatwiki ra</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC</td>
<td>40.9</td>
<td>19.7</td>
<td>8.3</td>
<td>18.7</td>
<td>11.4</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>VCT</td>
<td>33.1</td>
<td>23.2</td>
<td>9.6</td>
<td>14.3</td>
<td>18.2</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Promotion and provision of condoms</td>
<td>34.8</td>
<td>24.6</td>
<td>9.0</td>
<td>14.8</td>
<td>15.6</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>18.2</td>
<td>26.6</td>
<td>17.7</td>
<td>13.8</td>
<td>19.7</td>
<td>3.9</td>
<td></td>
</tr>
</tbody>
</table>

The findings found out that all the primary interventions services offered in a PMTCT delivery point were available in the clinics in Kibera which included: - BCC, VCT and Condom provision.
Table 4.10.3 Core intervention services offered in Kibera

<table>
<thead>
<tr>
<th>core intervention services</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive MCH services</td>
<td>37.0</td>
<td>23.7</td>
<td>9.1</td>
<td>16.0</td>
<td>12.8</td>
</tr>
<tr>
<td>Counseling and testing of pregnant women</td>
<td>39.0</td>
<td>20.5</td>
<td>9.5</td>
<td>17.6</td>
<td>11.4</td>
</tr>
<tr>
<td>ARV for mother and infant</td>
<td>32.6</td>
<td>20.9</td>
<td>10.6</td>
<td>15.8</td>
<td>17.2</td>
</tr>
<tr>
<td>Family planning</td>
<td>33.3</td>
<td>23.4</td>
<td>8.8</td>
<td>15.7</td>
<td>17.2</td>
</tr>
</tbody>
</table>

Upon further inquiries made all the core interventions were also offered in the PMTCT sites in Kibera which included: MCH, Counseling and testing, ARV provision and Family planning

Table 4.10.4 Care intervention services

<table>
<thead>
<tr>
<th>care intervention services</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post partum care for mothers</td>
<td>38.0</td>
<td>19.6</td>
<td>9.2</td>
<td>20.1</td>
<td>12.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Post partum care for infants</td>
<td>32.4</td>
<td>25.6</td>
<td>9.1</td>
<td>13.3</td>
<td>17.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Social support for families affected with HIV/AIDS(OVC)</td>
<td>36.8</td>
<td>21.8</td>
<td>9.5</td>
<td>15.0</td>
<td>15.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>

The PMTCT care interventions were also present in all the health delivery points located in Kibera which included: Post partum care for mothers, post partum care for infants and Social support for families.
4.11 Service delivery at PMTCT health delivery points

The study sought out to find if the health personnel were a barrier to the women in Kibera from the PMTCT uptake. The respondents were asked if they liked the way the services were offered at the health points and the table below shows some of their responses.

Table 4.11.1 positive attitudes towards service delivery at the health delivery points

<table>
<thead>
<tr>
<th>Village</th>
<th>They are polite</th>
<th>They do not stigmatize us</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makina</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>Lindi</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Siranga</td>
<td>95%</td>
<td>60%</td>
</tr>
<tr>
<td>Laini Saba</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>Gatwikira</td>
<td>80%</td>
<td>60%</td>
</tr>
</tbody>
</table>

The analysis was based per village since there were different health points in all the 5 villages. The analysis revealed that majority of the health professionals were friendly to the clients and dint stigmatize them and they were not barriers towards their uptake of the intervention.
Table 4.11.2 Unsatisfactory PMTCT service delivery

<table>
<thead>
<tr>
<th>Village/Site</th>
<th>They are too harsh</th>
<th>They stigmatize us</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makina</td>
<td>31.6</td>
<td>38.1</td>
<td>12.5</td>
</tr>
<tr>
<td>Lindi</td>
<td>30.6</td>
<td>28.6</td>
<td>50.0</td>
</tr>
<tr>
<td>Siranga</td>
<td>8.2</td>
<td>4.8</td>
<td>12.5</td>
</tr>
<tr>
<td>Laini Saba</td>
<td>9.2</td>
<td>16.7</td>
<td>12.5</td>
</tr>
<tr>
<td>Gatwikira</td>
<td>17.3</td>
<td>11.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Non respondent</td>
<td>3.1</td>
<td>0.0</td>
<td>12.5</td>
</tr>
</tbody>
</table>

The respondents also had some negative attitudes towards how they are treated by the health officers at the PMTCT sites. However the attitudes were not exposed to further analysis. The information added more value to the general findings analyzed.

Fig 4.11.2 Unsatisfactory PMTCT service delivery
Table 4.11.3 Practice of PMTCT by all mothers in Kibera slum

<table>
<thead>
<tr>
<th>Practice of PMTCT by all mothers in Kibera slum</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should be practiced</td>
<td>25.4</td>
<td>28.5</td>
<td>11.5</td>
<td>15.4</td>
<td>16.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Should not be practiced</td>
<td>29.2</td>
<td>33.3</td>
<td>4.2</td>
<td>25.0</td>
<td>8.3</td>
<td>0.0</td>
</tr>
<tr>
<td>No response</td>
<td>37.5</td>
<td>18.5</td>
<td>11.3</td>
<td>13.7</td>
<td>17.3</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Further probing to the Respondents to find their feelings on whether the PMCTC services Should be practiced yielded the following responses

4.12 Why PMTCT should be practiced by women in Kibera

Some women gave their views on why PMTCT should be practised by all women who are infected by HIV in Kibera as shown by the table below.

Table 4.12 Reasons why PMTCT should be practiced by women in Kibera

<table>
<thead>
<tr>
<th>Reasons given as to why PMTCT should be practiced by all women</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>It empowers the decisions of the mothers</td>
<td>46.8</td>
<td>18.3</td>
<td>3.7</td>
<td>17.4</td>
<td>11.9</td>
<td>1.8</td>
</tr>
<tr>
<td>To protect the child from HIV transmission</td>
<td>40.6</td>
<td>15.6</td>
<td>9.4</td>
<td>12.5</td>
<td>15.6</td>
<td>6.3</td>
</tr>
<tr>
<td>To protect the life of the Mothers</td>
<td>39.5</td>
<td>18.4</td>
<td>15.8</td>
<td>7.9</td>
<td>18.4</td>
<td>0.0</td>
</tr>
<tr>
<td>It is a mothers’ right to attend PMTCT interventions</td>
<td>26.7</td>
<td>36.7</td>
<td>6.7</td>
<td>3.3</td>
<td>26.7</td>
<td>0.0</td>
</tr>
</tbody>
</table>
4.13 Why PMTCT should not be practiced by women in Kibera

Reasons given by respondents why PMTCT should not be practiced by women were as shown in the table below

Table 4.11.5 Reasons why PMTCT should not be practiced by women in Kibera

<table>
<thead>
<tr>
<th>Reasons as to why PMTCT should not be practiced by women</th>
<th>Makina</th>
<th>Lindi</th>
<th>Siranga</th>
<th>Laini Saba</th>
<th>Gatwikira</th>
<th>Non respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is meant for the infected only</td>
<td>56.7</td>
<td>6.7</td>
<td>6.7</td>
<td>20.0</td>
<td>10.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Fear to know ones HIV status</td>
<td>30.8</td>
<td>15.4</td>
<td>0.0</td>
<td>38.5</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>To avoid rejection and stigmatization</td>
<td>30.0</td>
<td>40.0</td>
<td>0.0</td>
<td>30.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>No response</td>
<td>30.4</td>
<td>24.7</td>
<td>11.4</td>
<td>14.4</td>
<td>17.2</td>
<td>1.9</td>
</tr>
</tbody>
</table>
CHAPTER 5
DISCUSSION

5.1 Introduction

Children represent one of the most valuable national treasures. Unfortunately the same children are hit hard by the HIV and AIDS pandemic which threatens their future. However through joint efforts of several players on the ground, this pandemic can be stopped from reaching the children, through reinforcing the PMTCT interventions. Therefore, the study through the comparisons made with some published findings on PMTCT, sought to find out how players on the ground can add their contributions towards the PMTCT interventions in a cosmopolitan, low resourced community setting. The results can as well be replicated in similar socio-economic setting.

The results thus exposed several hypothesis that include:- low level of education, negative cultural and religious practices, low financial status, low level of education and far distance from households to PMTCT sites. The hypothesis that turned out to be barriers to the uptake of PMTCT at the time of data collection, included: - low level of education of the women and negative religious practices. Below is the detailed discussion of the findings.

5.2 Knowledge of modes of HIV transmission from mother to child

This question introduced the topic of PMTCT to the respondents. It aimed at setting the pace for the study. Almost all the respondents had information on how HIV is passed from the mother to the child, apart from very few respondents (4%) who had no response for the question. The majority of the respondents (62%) named 2 ways of which the virus
is passed from mother to child, followed by those who knew 1 way (29%), then 5% who identified all the three common ways of transmission. Therefore the topic of discussion (PMTCT) was familiar to majority of the respondents at varying levels.

5.3 Distance from household to PMTCT points versus uptake of PMTCT

The respondents sampled from the 5 villages lived at different distances from their homes to the PMTCT service delivery points. Some lived 1 kilometer from the service points, while others lived farther than 1 kilometer from the delivery point, and had to walk longer distances than others. Respondents identified that, when they walk more than 1 kilometer from their homes to the PMTCT sites, then that is considered far for them, but if they walk less than 1 kilometer, then that was considered to be near for them. Therefore a kilometer was used to gauge if the distance was near or far for the different respondents. Most of the respondents (64%) said distance was a barrier to their uptake of the PMTCT while a few (36%) said distance was not a barrier to their uptake of PMTCT. But when the data was further exposed to Chi square test, distance was found not to be a barrier towards the uptake of PMTCT services. This result could be associated with the fact that farness or nearness to a place depends on an individual’s perception although the research had given a kilometer as a measure of nearness or farness. Some people would walk for more than a kilometer but still feel the distance was not far for them, while some people might walk for 500 meters and feel it was a very long walk.
5.4 Respondents’ marital status versus the uptake of PMTCT

The study sought to find out whether married marital status influenced the uptake of PMTCT positively or negatively. The respondents interviewed were of different marital status ranging from single, married, widowed, and divorced. For the purpose of analysis the marital status was placed into two categories of the married at a point (which included the divorced, widowed and separated) and the never married. Most of the respondents (57%) said married marital status was a barrier to their uptake of PMTCT services while few (43%) said single marital status was not a barrier.

The results further analysis by chi square test found out the two variables not to be significant ($\chi^2=0.972$, df=1 $P=0.1$) therefore the variables were independent to each other thus marital status was found not to be a barrier to the uptake of PMTCT. Some reasons given by married respondents as to why their marriage was a barrier to their uptake of PMTCT services was that their husbands would not give them permission to go to the PMTCT centers. The husbands never trusted the PMTCT centers; some would not allow their wives to take any HIV tests for fear of uncertainties, therefore most women suffered in silence. Some of the women who said being single was a blessing to their uptake of PMTCT was that they were the sole decision-makers and they would not consult with any one on matters regarding their health. Therefore, as per the responses the marital status had both advantages and disadvantages towards PMTCT uptake.
5.5 Level of education versus the uptake of PMTCT

The study compared respondents who had attended some formal schooling and those who had never attended any formal schooling. Those respondents who had not attended any formal schooling said they found it difficult to comprehend interventional instructions given in formal ways, like sensitizations done through print media, they are not able to read in English or Swahili, any messages given to them on PMTCT and thus became ignorant along the way. As per the results, 88% of those with formal education said their level of education was not a barrier to their PMTCT uptake while 12% of those with no formal education said lack of formal education was a barrier to their PMTCT uptake. When the results were further analyzed by chi square test, it was revealed that low level of education was significant towards the uptake of PMTCT interventions.

5.6 Cultural practices versus the uptake of PMTCT interventions

Culture is a way of life and it shapes most of the activities that revolve around ones’ way of living. The study therefore tested if negative cultural practices would affect the PMTCT uptake. Some cultural practices identified by the respondents revolved around the expected position of the woman in the society as being there to be seen and controlled by the husband, child bearing cultural practices that attached the importance of children in the society, so culture emphasized more on procreation but little emphasis was put on the health seeking behavior during pregnancy and child care to the infected mothers. Most of the respondents 59% said negative cultural practices did not hinder them in any way from the uptake of PMTCT while 16% said it did and 25% had no response. Some reasons given as to why negative cultural practices was not seen as a barrier to PMTCT
uptake was that, due to the HIV and AIDS pandemic, some cultures are now encouraging women to attend antenatal clinics when they get pregnant as opposed to seeing traditional medicine men. On the other hand some reasons given as to why cultural practices are seen as a barrier to PMTCT uptake is that some cultural practices believe that the more children one has the more respect one would get in the community, so it encouraged women to get pregnant more often but it failed to advise the women to check their HIV status in order to take the PMTCT interventions. Some cultural practices did not allow the sick to take drugs or seek medical advice from the hospitals so it was hard for some women to take ARV or go to the PMTCT centers.

5.7 Religious practices versus PMTCT uptake

Respondents were from different religious backgrounds which included Christians (Catholics, Protestants) and Muslims. The two groups gave their sentiments as to whether negative religious practices in their faith affected their uptake of PMTCT. Example of the practices that stopped them from going to the hospital but instead seek for divine intervention was used to trigger a discussion with a common religious practice among the various religion groups. Fifty one percent of respondent identified negative religious practices as a barrier to their uptake of PMTCT services while 49% of the respondents said negative religious practices were not a barrier to their PMTCT uptake. Chi square test showed negative religious practices to be significant as a barrier to PMTCT uptake.
5.8 Respondents financial status versus PMTCT uptake

Although poverty is always blamed for non-adherence to several health services, it is different in most of the PMTCT centers in Kenya because almost all the PMTCT services are offered free of charge to the public. Overall, most respondents (66%) did not identify poor financial status as a hindrance to the uptake of PMTCT services while 34% said poor financial status was a barrier to the uptake of PMTCT services, basing their arguments on the fact that despite the ARV drugs are given free, other PMTCT interventions were costly for example:- interventions like replacing breast feeding with alternative feeding cost them some money of which to some is hard to come by, so some ignored the alternative feeding and opted to breastfeed their children. Some women also mentioned that the caesarian section was just meant for the rich, they could not even dream of affording it, further more, the PMTCT centers around them did not offer the service.
CHAPTER 6
CONCLUSION AND RECOMMENDATIONS

6.1 Summary
The study has exposed the barriers to the uptake of PMTCT interventions among women in Kibera. It has revealed that majority of the women do not practice PMTCT services because they are hindered by their religious practices and level of education this therefore implies that a lot of advocacy against the barriers identified need to be done by the various players on the ground.

6.2 Conclusions
The study concluded that:-

i. Level of education and religious practices are the perceived barriers to the uptake of PMTCT interventions among women in Kibera slum.

ii. Socio-cultural practices, marital status and distance from households to PMTCT sites and household financial status are not barriers to the uptake of PMTCT interventions among women in Kibera location.

6.3 Recommendations

i. The Government of Kenya, Donor agencies, NGOs, religious institutions, and the community should fight the HIV and AIDS pandemic in a more wholistic approach. In their various interventions, they should focus on the indirect barriers that hinder the uptake of the various interventions like PMTCT.

ii. The religious institutions should be targeted as an indirect contributing factor towards the uptake of PMTC interventions. Different programmes can be
developed geared towards changing the attitudes of some of the religious institutions towards health seeking behaviors, reproductive health and sexual activities.

iii. Interventions targeting PMTCT should be scaled up to also target the woman who has never gone to school and has difficulties in grasping formal information. Very simple ways of passing the knowledge to the illiterate should be invented so as to be sure non adherence is not due to education barriers.

iv. Adequately educate women on all the modes and risks of HIV transmission via labour, delivery and breastfeeding.

6.4 Further research

i. An intensive research should be conducted to clearly articulate why religious and education variables are barriers to the uptake of the PMTCT Services among women in Kibera.

ii. This research can further be intertwined in finding more information on Public health approach for increasing access to PMTCT services since the prevention of HIV infection in infants and young children is an evolving area from both a scientific and programmatic stand point.
REFERENCES


MOH (2001). *Guidelines to antiretroviral drug therapy in Kenya*
NASCOP and NACC (2002). *National guidelines for voluntary counseling and testing: Reprint 2005 NASCOP.*

PATH (2004). *Developing materials on HIV and AIDS/STI for low literate audiences*


[www.csgkibera.org/maps.html](http://www.csgkibera.org/maps.html)


APPENDICES

Appendix I

Questionnaire

**Consent**

My name is Doreen Bwisa. I am a student from Kenyatta university doing my masters in public health. I am conducting a case study on PMTCT intervention as part of my educational requirements. Whatever information you give me will be kept confidential. Now that you have been selected for the interview, are you willing to participate?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes continue to the questions if No proceed to the next respondent</td>
<td></td>
</tr>
</tbody>
</table>

| 1. Age of respondent | a)14-25  
b)26-30  
c)31-40  
d)41-49 |
| 2. Sex of respondent  | a)Male  
b)Female |
| 3. Marital status     | a)Single  
b)Married  
c)Divorced  
d)Widowed |
| 4. Respondent’s children’s age | a)0-5years  
b)above 5 years |
| 5. Occupation         | a)employed  
b)not employed  
c)run a business |
| 6. Religion           | a)Christian  
b)Muslim  
c)no religion |
| 7. Education level    | a)Never gone to school  
b)Primary  
c)Secondary  
d)College  
e)University |
<table>
<thead>
<tr>
<th>Question</th>
<th>Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the ways that mothers can pass the HIV virus to the child?</td>
<td>a)Labour</td>
</tr>
<tr>
<td></td>
<td>b)delivery</td>
</tr>
<tr>
<td></td>
<td>c)Breastfeeding</td>
</tr>
<tr>
<td>Distance to service point</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you think the distance from your home to the PMTCT delivery point affects your uptake of PMTCT?</td>
<td>No</td>
</tr>
<tr>
<td>If yes above, is the PMTCT site more than 1 kilometer from your house?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Do you think your age is a barrier to the uptake of PMTCT?</td>
<td>Yes</td>
</tr>
<tr>
<td>Explain more</td>
<td>No</td>
</tr>
<tr>
<td>Do you think your marital status affects your uptake of PMTCT?</td>
<td>Yes</td>
</tr>
<tr>
<td>Explain more</td>
<td>No</td>
</tr>
<tr>
<td>Level of education</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you think your level of education is a barrier to PMTCT uptake?</td>
<td>No</td>
</tr>
<tr>
<td>Why?</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Do you think your religion is a barrier to PMTCT uptake?</td>
<td></td>
</tr>
<tr>
<td>Why?</td>
<td></td>
</tr>
<tr>
<td>Does your culture stop you from participating in any of the above PMTC intervention?</td>
<td>NO</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Do you think money is a barrier to participating in the PMTCT intervention in Kibera?</td>
<td>NO(explain)</td>
</tr>
<tr>
<td>Do you think PMTCT should be practiced by all mothers in Kibera?</td>
<td>YES (why?)</td>
</tr>
<tr>
<td>a) empowers women in decision making</td>
<td></td>
</tr>
<tr>
<td>b) protects the child from HIV</td>
<td></td>
</tr>
<tr>
<td>c) protects the mother from HIV</td>
<td></td>
</tr>
<tr>
<td>d) it is the right of the mother</td>
<td></td>
</tr>
<tr>
<td>e) other reason</td>
<td></td>
</tr>
<tr>
<td>NO (why)</td>
<td>a) It is meant for the HIV infected only</td>
</tr>
<tr>
<td></td>
<td>c) To avoid stigmatization and rejection</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Is there any health centre that provides PMTCT services near your home?** | Yes  
No |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If yes name them</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Do you like the way service providers offer their service to you?** | NO  
a) they are too harsh  
b) they stigmatize us  
c) other  
YES  
a) they are polite  
b) they don’t stigmatize us  
c) other |
| **What advice can you give to MOH, the communities and families to help scale up the PMTCT intervention programme in Kibera?** | (at least 3 recommendations) |
| **SECTION 2**  
**TO BE FILLED BY HEALTH PROFESSIONALS AT THE PMTCT SITES** | |
| **Name of the PMTCT site** |  |
| **Who runs the PMTCT health centers?** | a) The government (MOH)  
b) NGO  
c) Private individuals |
| **What services are offered at the PMTCT centers?** | a) Primary prevention  
-BCC  
-VCT  
-Promotion and provision of condoms |
| What are the health seeking behavior of pregnant mothers towards PMTCT services | a) good attendance  
b) poor attendance  
c) don’t know |
|---|---|
| What are some of the reasons you think influences or are barriers towards women partaking PMTCT services | a) distance to service point from households  
b) lack or low level of education  
c) marital challenges  
d) religion barriers  
c) low economic power  
d) don’t know |
| What advice can you give the government to improve on the service provision and uptake of PMTCT among women in Kibera and Kenya at large |  |

**THANK YOU FOR YOUR TIME**
Appendix II
Arial view of Kibera

Source: http://wikipedia.org
APPENDIX III

Kibera sketch map

Source:- www.csgkibera.org/maps

http://www.mapsofworld.com/Kenya