

**EFFECTIVENESS OF PREVENTION FROM MOTHER TO CHILD
TRANSMISSION PROGRAM IN REDUCING HIV/AIDS TO CHILDREN IN
KINONDONI DISTRICT**

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**A DISSERTATION SUBMITTED IN PARTIAL FULLFILMENT OF THE
REQUIREMENTS FOR THE MASTER DEGREE IN SOCIAL WORK OF
THE OPEN UNIVERSITY OF TANZANIA**

2017

CERTIFICATION

The undersigned certifies that, he has read and hereby recommends for acceptance by The Open University of Tanzania a dissertation titled: **“Effectiveness of Prevention from Mother to Child Transmission Program in Reducing HIV/AIDS to Children in Kinondoni District”**, in fulfillment of the requirements for the Master degree of Social Work of The Open University of Tanzania.

.....

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.....

Date

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DECLARATION

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.....

Signature

.....

Date

DEDICATION

This work is dedicated to my family and to all mothers and pregnant women living with HIV.

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ABSTRACT

This dissertation focuses on Assessing Effectiveness of Prevention from Mother to Child Transmission (PMTCT) program in reducing HIV/AIDS to children in Kinondoni District, in order to understand the success and the setbacks of the program in reducing HIV transmission from mother to child. In this study the researcher used simple random sampling without replacement and purposive sampling techniques in getting the respondents, and when the research data were obtained, the researcher used google forms in analyzing the data presented below. The findings of this research reveals that, the major setbacks for the PMTCT program include stigma that pregnant women with HIV and HIV positive mothers face either at the hospital (16.7%) or at home (50%) and this has contributed to low access to PMTCT services. Furthermore, poor adherence to ARVs (64%) and other drugs given to HIV positive women and their children, as well as poor status disclosure and lack of transparency (58%), among partners and close relative. The PMTCT program is doing well in the area of preventing MTCT of HIV during pregnancy (78%) due to strong services provided by qualified doctors and nurses working in PMTCT clinics. The fact that the PMTCT program faces challenges in its implementation it is recommended that, Ministry of Health Community Development Gender Elderly and Children should improve clinic's infrastructure to increase client's confidentiality during services. As per the study, social workers are also advised to address the problem of stigma especially to HIV positive mothers and pregnant women attending and receiving services at PMTCT clinics.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti Retroviral treatment
DNA	Deoxyribonucleic Acid
DBS	Dried Blood Sports
ELISA	Enzyme-Linked Immuno-Sorbent Assay
HIV	Human Immune Virus
HBM	Health Belief Model
HCWs	Health Care Workers
MTCT	Mother to Child Transmission
NCI	National Cancer Institute
NGO	Non Government Organization
PLHIV	People Living with HIV
PCR	Polymerase Chain Reaction
PMTCT	Prevention from Mother to Child Transmission
RNA	Ribonucleic Acid
RCH	Reproductive and Child Health
WHO	World Health Organization

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Background Information

The mother-to-child transmission (MTCT) of HIV refers to the transmission of HIV from an HIV-positive woman to her child during pregnancy, labor (also called childbirth and delivery) or breastfeeding (through breast milk), mother-to-child transmission of HIV is also called perinatal transmission of HIV. MTCT is by far the most common way that children become infected with HIV (90%).

Pregnant women with HIV receive HIV medicines during pregnancy and childbirth to reduce the risk of mother-to-child transmission of HIV. In some situations, a woman with HIV may have a scheduled cesarean delivery (sometimes called a C-section) to prevent mother-to-child transmission of HIV during delivery. Babies born to women with HIV receive HIV medicine for 6 weeks after birth. The HIV medicine reduces the risk of infection from any HIV that may have entered a baby's body during childbirth (AIDSinfo, 2015).

Effective PMTCT programs require women and their infants to receive a cascade of interventions including uptake of antenatal services and HIV testing during pregnancy, use of antiretroviral treatment (ART) by pregnant women living with HIV, safe childbirth practices and appropriate infant feeding, uptake of infant HIV testing and other post-natal healthcare services. Without treatment, the likelihood of HIV passing from mother-to-child is 15 to 45%. However, antiretroviral treatment

(ART) and other effective interventions for the prevention of mother-to-child transmission (PMTCT) can reduce this risk to below 5% (WHO, 2014).

Prevention of mother-to-child transmission (PMTCT) of HIV has been at the forefront of global HIV prevention activities since 1998, following the success of the short-course zidovudine and single-dose nevirapine clinical trials. These offered the promise of a relatively simple, low-cost intervention that could substantially reduce the risk of HIV transmission from mother to baby. Research and program experience over the past ten years has demonstrated newer and more effective ways to prevent new paediatric infections, particularly in high-burden, low-resource settings (WHO, 2010).

Advances in HIV research, prevention, and treatment have made it possible for many women living with HIV to give birth without transmitting the virus to their babies. HIV infections through perinatal transmission have declined by more than 90% since the early 1990s, while the number of HIV-infected women giving birth has increased. Today, if a woman takes HIV medicines exactly as prescribed throughout pregnancy, labor, and delivery, and provides HIV medicines to her baby for 4-6 weeks, the risk of transmitting HIV can be 1% or less. In some cases, a Cesarean delivery can also prevent HIV transmission. After delivery, a mother can prevent transmitting HIV to her baby by not breastfeeding and not pre-chewing her baby's food (CDC, 2016).

The World Health Organization (WHO) promotes a comprehensive approach to PMTCT programs which includes:

- (i) Preventing new HIV infections among women of childbearing age
- (ii) Preventing unintended pregnancies among women living with HIV
- (iii) Preventing HIV transmission from a woman living with HIV to her baby
- (iv) Providing appropriate treatment, care and support to mothers living with HIV and their children and families (WHO, 2010).

In September 2015, the WHO released new guidelines recommending lifelong antiretroviral treatment (ART) for all pregnant and breastfeeding women living with HIV. In that recommendation, the 2015 guidelines recommend Option B+ where lifelong ART is provided to all pregnant and breastfeeding women living with HIV regardless of CD4 count or WHO clinical stage. ART should be maintained after delivery and completion of breastfeeding for life.

Previously, the 2013 guidelines included another choice called Option B, where treatment was only continued after the completion of breastfeeding if the mother was eligible for ART for her own health. The 2015 guidelines no longer recommend this option (WHO, 2015).

1.2 Statement of the Problem

Globally Mother-to-child transmission (MTCT) accounts for over 90% of new HIV infections among children (De Cock, 2000). In Tanzania, the risk for infants born to women living with HIV and be infected is 5-10% infants infected during pregnancy, 10-15% infants infected during labor and delivery, 5-20% infants infected during breast feeding, and overall 20-45% of infants will be HIV infected if there is no intervention (MoHSW, 2012). Despite the efforts made by the government in

reducing MTCT of HIV, but still the risk of children being affected by their infected mother is very big. The global target is to reduce new HIV infections via MTCT by 90% by 2015 (Avert, 2016), but we are still far in reaching this target, and in so saying, children are still affected and many more are in a danger to be infected with this disease either during pregnancy, child birth or breast feeding, and that just translate on the lost future man power, leaders, politicians and scientists that this nation really needs for its development. It is therefore the focus of this study to assess the effectiveness of PMTCT program in reducing HIV/AIDS to children in Kinondoni District.

1.3 General Objective

Assessing effectiveness of Prevention from Mother to Child Transmission program in reducing HIV/AIDS to children in Kinondoni District.

1.3.1 Specific Objectives

- (i) To identify the main focus areas of the PMTCT program in reducing Mother – To – Child Transmission of HIV.
- (ii) To explore the challenges affecting effective reduction of Mother – To – Child Transmission of HIV.
- (iii) To suggest ways on how PMTCT program can be improved.

1.3.2 Research Questions

- (i) What are the main focus areas of the PMTCT program in reducing Mother – To – Child Transmission of HIV?

- (ii) What are the challenges affecting effective reduction of Mother – To – Child Transmission of HIV?
- (iii) What should be done to improve the PMTCT program?

1.4 Significance of the Study

In fighting HIV and AIDS, the area of Prevention from Mother to Child Transmission of HIV is very vital. This area if not worked on, the nation will continue to get HIV new infections. These infections will not be through traditional ways of transmission but through HIV infected mothers to their new born babies either during pregnancy, during labor and deliver or during breast feeding and the dream to have HIV free generation will not be realized. This study then is very significant in ensuring new born children stay safe from HIV and have right to enjoy the potentiality of their lives. Specifically this study will benefit a number of other stakeholders including the following:

1.4.1 To Government and Organizations

The findings of this study helps organizations and the government to understand the problematic areas of PMTCT program for improvement of the program infrastructure as well as service provision.

1.4.2 To HIV Positive Mothers and HIV Positive Pregnant Women

This group benefits with the study as the findings of this study informs how well the PMTCT services provided to them should be improved to cater for their specific needs. As this study addresses the challenges facing effective reduction of MTCT of

HIV which in turn if worked on, the number of children infected with HIV by their mothers will be reduced significantly and thus contribute to greater success of the PMTCT program.

1.4.3 To the Community

Potential future labor force which this nation is losing through HIV/AIDS as per the study will be protected through effective PMTCT program and services.

1.4.4 To Researcher

This study will also serve as a partial fulfillment of a researcher's requirement for Masters in Social Work award.

1.5 Scope of the Study

This study involve three hospitals located in Kinondoni district which are Mwananyamala Hospital, Tandale Hospital and Mwenge Hospital, also the study involve doctors and nurses working and providing PMTCT services as well as HIV positive mothers and HIV positive pregnant women who attend clinic at these hospitals, to understand the quality of PMTCT services provided to them and challenges associated with the service for improvement.

1.6 Limitations of the Study

The main limitation of this study was during distribution of questionnaires to respondents where by most of the respondents delayed returning the questionnaires and some refused to reply as there was no token of thanks provided to them for the information they provided.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition of Key Concepts

2.1.1 A child

According to the Tanzania Child Act, 2009 and the Convention of the Rights of the Child (CRC) 1990 defines a child as any person bellow the age of 18 years.

2.1.2 HIV/AIDS

According to National Policy on HIV/AIDS, 2001 defines HIV as Human Immune Virus and AIDS as Acquired Immune Deficiency Syndrome.

2.1.3 Mother-To-Child Transmission (MTCT)

MTCT is the transmission of HIV from a HIV- positive mother to her child during pregnancy, labor/delivery, or breast feeding (WHO, 2016).

2.1.4 Prevention from Mother-To-Child Transmission Program (PMTCT)

This is a program, which provides antiretroviral treatment to HIV- positive pregnant women to stop their infants from acquiring the virus either during pregnancy, or during labor/delivery or during breast feeding (Avert, 2016).

In operationalizing the key concepts, in this study when talk about Prevention From Mother-To-Child Transmission (PMTCT), the researcher means the efforts and prevention strategies that have been set forth by the government and Non-Government Organization to ensure that HIV infected mothers do not transmit HIV

to their babies either during pregnancy, child delivery, as well as during breast feeding.

2.2 Empirical Literature Review

2.2.1 Global and National Overview of the HIV and AIDS Epidemic

2.2.1.1 The Global HIV/AIDS Situation and PMTCT Services

Globally, an estimated 430 000 children were newly infected with HIV in 2008 while in 2014 the number was estimated to be 190 000 to 260 000, over 90% of them through Mother-To-Child Transmission (MTCT). Without treatment, about half of these infected children will die before their second birthday. Without intervention, the risk of MTCT ranges from 20% to 45%. With specific interventions in non-breastfeeding populations, the risk of MTCT can be reduced to less than 2%, and to 5% or less in breastfeeding populations (WHO, 2010).

In March 2011, PMTCT Global Plan was launched to reduce the number of new HIV infections via MTCT by 90% by 2015 (AIDS portal, 2015). According to the latest data, significant progress has been made in delivering PMTCT services in low- and middle-income countries. However, much work remains to be done. An estimated 430 000 children were newly infected with HIV in 2008, the vast majority of them through mother-to-child transmission. Even in countries with strong PMTCT programs, there is no room for complacency. In many developed countries, pediatric HIV has been virtually eliminated. The revised 2009 WHO recommendations for HIV treatment, PMTCT and HIV and infant feeding provide an important new opportunity to implement highly effective interventions in resource-limited settings,

and promote the health of mother and child (WHO, 2010). Figure 2.1 shows the PMTCT coverage by regions in the world.

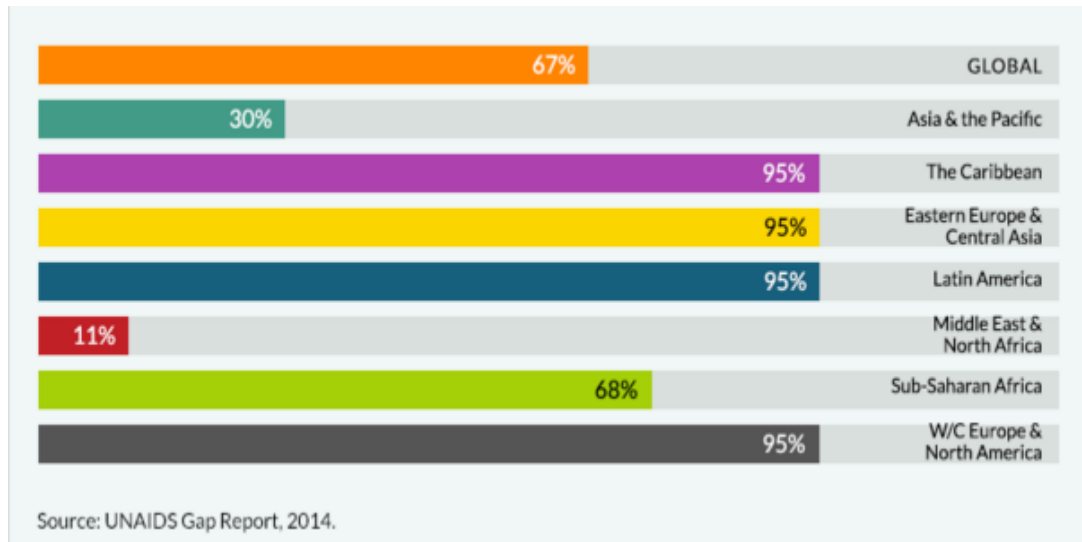


Figure 2.1: PMTCT Coverage by Regions, (2013)

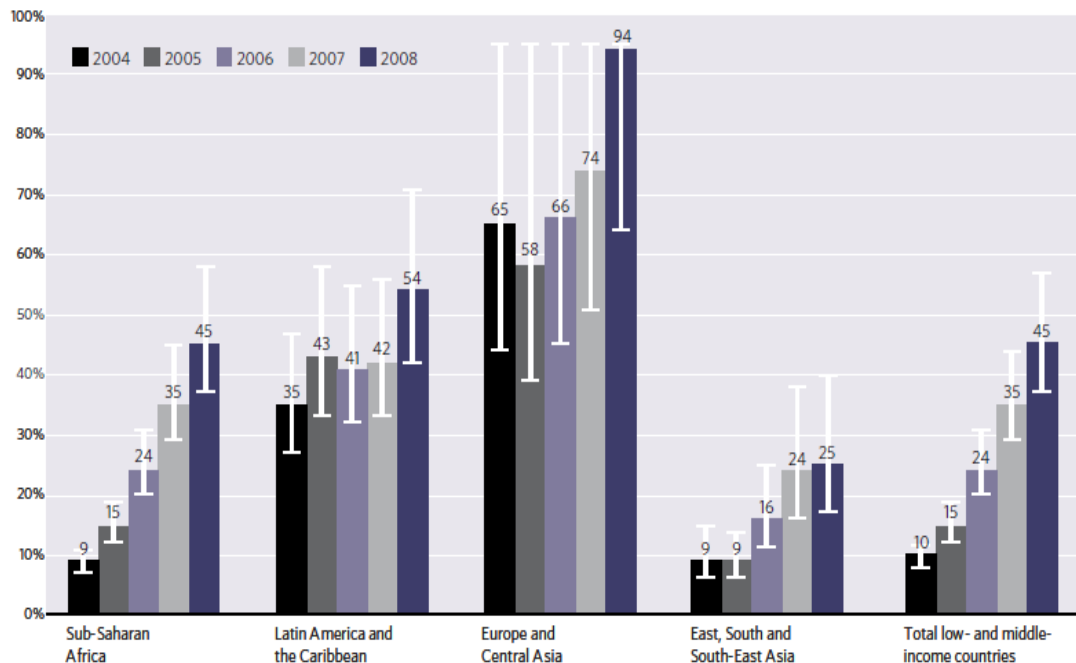


Figure 2.2: Percentage of Pregnant Women with HIV Receiving ART for PMTCT of HIV in Low and Middle Income Countries by Region, 2004-08

Source: WHO, UNAIDS, UNICEF. Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector. Progress report (2009)

According to Figure 2.1 it is clearly that, globally PMTCT is only covered by more than 50 percent, while regions like The Caribbean, Eastern Europe and Central Asia, as well as Latin America are the only world regions that PMTCT program is covered by 95 per cent, the situation is worse in Middle East and North Africa as well as Asia and the Pacific, while The Sub-Saharan Africa the PMTCT coverage is by 68 per cent which is good but not good enough. In Figure 2.2 shows percentage of HIV pregnant women who receive PMTCT services in low and middle income countries from 2004-08.

2.2.1.2 HIV/AIDS Trend in Africa and PMTCT Services

The HIV pandemic remains a major public health problem worldwide, with devastating effects in sub-Saharan Africa. Since the beginning of the epidemic, more than 60 million people have been infected with HIV and nearly 30 million people have died of HIV-related causes. Data from 2009 indicates that approximately 68% of the estimated 33.3 million women and children living with HIV were from Sub Saharan African (22.5 million). Almost 3/4th of all women and child deaths due to AIDS occurred in sub-Saharan Africa: 1.3 million of the global total of 1.8 million.

However, the number of AIDS-related deaths in sub-Saharan Africa has decreased due to the increasing availability of antiretroviral (ARV) medications. In sub-Saharan Africa, women now account for almost 60% (12.1 million of 20.3 million) of the adults living with HIV. The number of children worldwide (age 0–14) living with HIV has increased to 2.5 million (at the end of 2001 that figure was 2.0 million). Approximately 90% of these children (2.3 million) live in sub-Saharan Africa (MoHSW, 2012).

Despite these gloomy statistics, the global community and national governments have made great strides over the years in combating the disease by informing their populations, training Health care Workers (HCWs), scaling-up programs and services, and monitoring progress. For example, in sub-Saharan Africa an estimated 320,000 (or 20%) fewer people died of AIDS-related causes in 2009 than in 2004, when antiretroviral therapy began to be dramatically expanded. Globally, deaths among children younger than 15 years of age are also declining. The estimated 260,000 children who died from AIDS-related illnesses in 2009 were 19% fewer than the estimated 320,000 who died in 2004. This trend reflects the steady expansion of PMTCT services and an increase in access to treatment for children (MoHSW, 2012).

In combating MTCT, WHO 2013 identified 22 priority countries, with the top 10 (Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana and India) accounting for 75% of the global PMTCT service need. It was estimated that the effective scaling up of PMTCT interventions in these countries would prevent over 250,000 new infections annually (WHO, 2013).

The proportion of pregnant women living with HIV receiving ART more than doubled in 21 of the 22 Global Plan priority countries from 37% in 2009, to 77% in 2014. In 2014, seven priority countries (Botswana, Mozambique, Namibia, South Africa, Swaziland, Uganda and Tanzania) met the Global Plan target that at least 90% of pregnant women living with HIV received ART (UNAIDS, 2015).

2.2.1.3 HIV/AIDS trend in Tanzania and PMTCT services

In Tanzania the first cases of HIV were reported in 1983 in the Kagera region. By 1985, there were an estimated 140,000 people living with HIV (1.3% prevalence); by 1990, this had grown to about 900,000 (7.2% prevalence). In 2009, 1.4 million people were estimated to be living with HIV, approximately 12% of them children (UNAIDS 2010).

An estimated 6% of adults age 15–49 were infected with HIV. However, this number has been on the decline since it peaked at 8% in 1997 (MoHSW, 2012). Best estimates suggest that rural HIV prevalence (5%) is lower than that of urban areas (9%) (TACAIDS, 2009). HIV prevalence is slightly higher among women (7%) than men (5%) and is even higher for women attending antenatal clinics (8.2% in 2006).

This epidemic has caused the death of many people, including many young men and women at their most productive age. AIDS-related mortality rates among children under five years of age are also increasing. It is estimated that 200,000 children under 15 years of age are living with HIV (UNAIDS 2010), and that 90% of them may have acquired the infection through MTCT (MoHSW, 2012).

Different parts of the country are disproportionately affected. The prevalence of HIV infection ranges from 1.8% in Kigoma region to 15.7% in Iringa region (THMIS 2007-08). This implies that several different drivers are responsible for the epidemic in different parts of the country. Factors that have driven the epidemic include low and inconsistent use of condoms; multiple sex partners; mobility; transactional sex; cross-generational sex; poor quality of transfused blood; lack of male circumcision;

mother-to-child transmission; gender inequities accompanied with poverty, and most at risk populations (TACAIDS 2009).

PMTCT services have been implemented in the country since 2000, and by 2014, 5361(91%) of all 5,863 RCH facilities were providing PMTCT services. Since 2012, Tanzania has adapted the global plan for elimination of HIV infection among children born to HIV infected mothers and keeping their mothers alive. The goal of the national eMTCT Plan is to reduce vertical transmission rate from 26% in 2010 to 4% by the end of 2015. To further expedite progress towards this set target, Tanzania in 2013 adapted WHO recommendation of providing lifelong ART to pregnant and Lactating women living with HIV, using a fixed dose combination regimen of one pill once per day (option B+). This is a simplified, easy to administer treatment regimen that is being implemented down to primary health facility level (MoHSW, 2014).

Nearly a fifth of all HIV new infections in Tanzania are due to mother-to-child transmission (MTCT). Tanzania aims to virtually eliminate MTCT and reach 90% of all pregnant women with treatment, reduce the MTCT rate to less than 5%, and maternal and child mortality by 90% by 2017. In 2013 77% of all pregnant women are on antiretroviral treatment for PMTCT. To reach as many women as possible, 93% of PMTCT services are now integrated with reproductive and child health services. 85% of all women are now tested for HIV during antenatal care visits. This has contributed to a 48% reduction in MTCT from 2009 to 2012. 53% of women are also receiving ART for their own health (MoHSW, 2014).

In spite of the challenges, much progress has been made in combating HIV and AIDS. The number of men and women testing for HIV and receiving results has doubled from 15% in 2003 to approximately 32% in 2008. The proportion of antenatal mothers who access PMTCT services has grown from almost none at the pilot of PMTCT services in 2000, to 61% in 2008, and the access to ARV medications continues to grow nationwide. Similarly, annual number of AIDS deaths has been on the decline (MoHSW, 2012).

2.2.2 Basic Facts about Mother-to-Child Transmission of HIV

Mother-to-child transmission (MTCT) of HIV refers to the transmission of HIV infection from HIV-infected mothers to their infants. MTCT can occur during pregnancy, labor and delivery and breastfeeding. Without intervention, the overall risk of MTCT is approximately 20% to 45% (MoHSW, 2012) as shown in Figure 2.3.

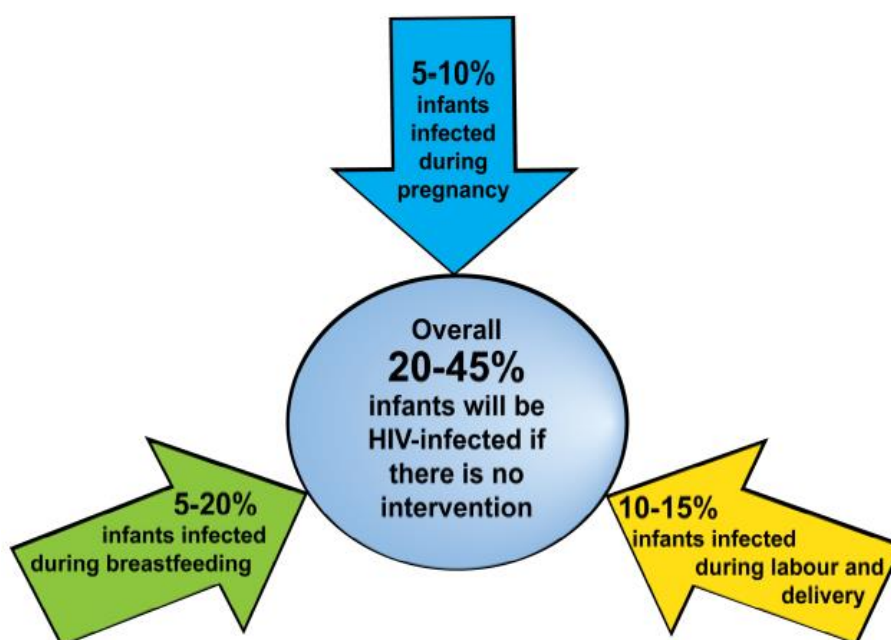


Figure 2.3: Estimated HIV Outcomes for Infants born to Women Living with HIV

Source: (MoHSW, 2012)

2.2.2.1 Multiple Risk Factors that Increase the Chance that a Mother Will Transmit HIV to Her Child

- (i) High maternal viral load and low CD4 count, which occur in new infections and in advanced stages of HIV disease (AIDS), increase the risk of MTCT.
- (ii) Viral subtypes and strains may also affect HIV transmission rates for example; MTCT rates are higher with HIV-1 infection than with HIV-2 infections.
- (iii) Obstetric and neonatal risk factors that increase the risk of MTCT, as outlined in Figure 2.2.

2.2.2.2 Four Elements of a Comprehensive Approach to PMTCT (WHO, 2010)

(i) Primary prevention of HIV among women of childbearing age and their partners

Because there is no cure for HIV, primary prevention is the most effective means to control the spread of HIV and minimize its impact on individuals, families and communities. Preventing HIV infection in women of childbearing age is the best way to prevent MTCT.

(ii) Prevention of unintended pregnancies among women living with HIV

Family planning is part of a comprehensive public health strategy to prevent MTCT. All women living with HIV and their partners should receive family planning counseling and should be empowered to access and utilize effective contraceptive methods in order to avoid unintended pregnancies.

(iii) Interventions to prevent HIV transmission from mothers to their infants

The PMTCT program offers a range of services and interventions that reduce the risk of MTCT. These include routine HIV education, testing and counseling for pregnant

women and their partners, ART and prophylaxis, safer delivery practices and counseling on safer infant feeding and care of the HIV-exposed infant. These interventions are discussed in detail in subsequent chapters of these guidelines.

(iv) Treatment, care and support for HIV-infected women and their families

Providing HIV treatment, care and support is critical for enabling women living with HIV to address their health needs and ensure the well-being of their children and families. The PMTCT program should thrive to provide comprehensive HIV care and treatment services, and when this cannot be provided in RCH clinics it is important to strengthen coordinated referral systems to ensure that women and their families have access to comprehensive HIV care services at appropriate clinics. All women diagnosed with HIV infection should have clinical and immunological evaluation to assess their eligibility to receive ART. Care and treatment services to pregnant women living with HIV should be provided in RCH settings or by referral when care and treatment services cannot be provided in RCH clinics.

2.2.3 Stigma, Gender and PMTCT Programs

Women are usually the first of the two partners in a couple to be tested for HIV. If they are found to be infected, their partners often blame them unfairly for introducing HIV into the family. As a consequence of HIV-related stigma, women may experience violence, loss of shelter and economic support, and exclusion from their family and community.

Fear of social stigma; abandonment by family, friends and community; and extreme feelings of isolation and loneliness, as well as the perceived and very real threat of

violence: all these may cause women to keep their HIV status a secret (MoHSW, 2012). The fear of knowing and eventually disclosing their HIV status deters women from seeking PMTCT services and results in poor adherence to PMTCT interventions, in particular safer infant-feeding decisions, decisions on taking and adhering to ARV medication, condom use and family planning and preference not to deliver at healthcare facilities.

Being open about one's HIV status is one of the most powerful ways to reduce HIV-related stigma. Disclosing one's status also has other benefits. It encourages partners to be tested for HIV and prevent the spread of HIV by allowing those infected to openly take appropriate prevention steps. Disclosure also allows individuals to receive support from partners, family and friends. Disclosure is stressful for clients and requires counselling support and assistance from HCWs and peers (MoHSW, 2012).

Healthcare workers and stigma

When HCWs deliver PMTCT services, they need to be aware of the scope and intensity of stigma suffered by women and their families. More importantly, they should be acutely aware of their own stigmatizing attitudes and behaviors towards People Living with HIV (PLHIV).

Healthcare workers, family members and community members may simultaneously express both sympathetic and stigmatizing attitudes towards PLHIV. Frequently, it is the fear of acquiring HIV through occupational exposure or of being stigmatized because of their close association with HIV-infected clients that causes an HCW to have negative attitudes towards PLHIV (MoHSW, 2012).

2.2.4 Actions to Reduce Stigma in PMTCT Programs

The National PMTCT program recognizes the importance of taking action to reduce stigma. Healthcare workers should be encouraged to take the lead in challenging negative attitudes and behavior, both in their work settings and in the community.

Role of health care workers in reducing stigma

It is the responsibility of all health care workers to abide by policies and procedures that protect clients from discrimination in healthcare facilities. Client's confidentiality should be maintained at all times. Facilities should have procedures in place for reporting discrimination. Healthcare workers should familiarize themselves with the relevant sections of the National HIV and AIDS (Control and Prevention) Act of 2008. The healthcare facility's anti-discrimination policies should be promoted to HCWs and clients. Clients should be notified that they may file a complaint if they feel they have been the target of discrimination as per HIV and AIDS Act. In addition to abiding by established policies and standard operating procedures, training HCWs about HIV transmission risks, infection prevention and control, as well as issues of stigma associated with HIV and AIDS is of utmost importance. The training should be geared towards addressing employees' attitudes towards PLWHIV, correcting misinformation regarding HIV and AIDS and assessing HCWs' skills in creating a non-stigmatizing environment (MoHSW, 2012).

2.2.5 National Recommendations for HIV Testing in PMTCT Programs HIV

Testing Procedures

HIV tests should be performed by trained HCWs or laboratory technicians who should know how to interpret results and understand the testing procedure, including

how to correctly dispose of all testing materials. In performing HIV testing, HCWs should follow infection control procedures and Universal Precautions. Proper specimen collection procedures, including quality phlebotomy techniques, should be used and all samples should be labelled carefully and accurately. Tests should be conducted according to test kit instructions and special care should be taken to avoid the contamination of testing reagents. All HIV tests results should be recorded on the Mother's Health Card and on the appropriate PMTCT program registers (MoHSW, 2012).

2.2.5.1 Serial Testing of HIV

In serial testing, if the initial rapid HIV test yields a nonreactive result, then the client is concluded as uninfected (negative). However an initial reactive rapid HIV test result has to be confirmed by a different rapid HIV test on the same blood sample. If the results of those two tests differ, a third test is conducted using a different rapid test as a tiebreaker. Nationally, a serial testing strategy is recommended in PMTCT settings because it is less costly and time consuming than other strategies. In serial testing, only one test is performed initially, and a second test is performed only if the first result is reactive (MoHSW, 2012).

2.2.5.2 Laboratory Diagnosis of HIV infection in Children

All infants born to women living with HIV have passively acquired antibodies, which can persist until 9 to 18 months of age. These passively transferred maternal HIV antibodies, make interpretation of positive antibody tests difficult in children less than 18 months of age. In order to definitely diagnose HIV infection in children

less than 18 months of age, assays that detect the virus or its components are required. The most commonly used tests are DNA PCR or RNA PCR tests. In general each test has advantages and disadvantages that determine which test is most appropriate depending on resources.

However, DNA PCR is considered the gold standard and is the preferred method of choice for diagnosis of HIV infection in infants and children less than 18 months of age. In children 18 months of age or older, HIV antibody tests, (either rapid tests or ELISA or a combination of both), can be reliably used to definitively diagnose HIV infection in the same manner as they are used in adults (MoHSW, 2012).

Blood collected on filter paper as Dried Blood Spots (DBS) offer an easy way to obtain blood in infants and young children; collection of specimen is less traumatic than vene-puncture and uses only a small volume of blood. DBS can be obtained by using blood from a heel-prick in infants or a finger-stick in older children, it carries less biohazard risk than liquid samples, can be stored at room temperature making them easier to transport to central sites for testing and HCW can be trained to collect DBS for early infant diagnosis and only when trained should they be permitted to carry out DBS collections. DBS can be collected at any time and stored at the hospital laboratory until it can be delivered to the testing laboratory (MoHSW, 2012).

2.2.6 ART for PMTCT

ARV medications improve maternal health by reducing related morbidities, which in turn improve survival chances of their babies. ARV medications decrease HIV viral

load in the mother, which reduces an infant's exposure to HIV. ARV medications also provide prophylaxis or protection for the infant during and after exposure to HIV, including during breastfeeding. ARV medications are effective for both treating HIV infection in the pregnant woman and reducing MTCT. They do not cure HIV in a person who is already HIV infected (MoHSW, 2012).

2.2.6.1 ART During Period of Pregnancy

Pregnant women who are HIV infected and eligible for ART for their own health should be offered combination ART in accordance with national guidelines. Women who are diagnosed with HIV during pregnancy and are eligible for ART should start treatment as soon as possible.

A women's eligibility for ART can be determined by clinical staging or CD4 cell count. If a woman is on ART during her pregnancy, the regular dosing schedule should continue throughout labor and delivery, as well as the postpartum period. However, she may need to change the medications in the ARV regimen to avoid potential birth defects. For example, efavirenz (EFV) can cause birth defects and therefore it should not be used for pregnant women during the first trimester (MoHSW, 2012).

2.2.6.2 HIV Pregnant Women ART Eligibility Criteria

For pregnant women living with HIV, the initiation of ART for their own health is recommended for all women who have CD4 cell counts of ≤ 350 cells/mm³, irrespective of WHO clinical staging, and for all women in WHO clinical stage 3 or 4, irrespective of the CD4 cell count (MoHSW, 2012).

2.2.6.3 ARV Prophylaxis for Infants Born to Women Receiving ART

Infant prophylaxis provides added protection from early postpartum transmission, particularly in situations where women have started ART late in pregnancy or have less than optimal adherence to ART, and full viral suppression has not been achieved. Maternal ART should be coupled with the daily administration of NVP to infants from birth or as soon as feasible thereafter until 6 weeks of age, regardless of the mode of infant feeding (MoHSW, 2012).

2.2.6.4 ARV Prophylaxis for Women with HIV Infection who are not Eligible for ART for their Own Health

ARV prophylaxis should be provided to all women living with HIV who are not yet eligible for ART for their own health. They should be strongly encouraged to deliver at a healthcare facility where they and their children can benefit from safer delivery practices and have access to HCWs who are knowledgeable about interventions that reduce the risk of transmission (MoHSW, 2012).

2.2.6.5 Prophylaxis for Infants born to Women who did not Receive ARV

Prophylaxis or ART

All HIV-exposed infants should receive prophylaxis at birth or at their first encounter with a health facility (for those who turn up late and are breastfeeding). An infant born to an HIV-infected woman who did not receive any ARVs should receive the same regimen as indicated for infants of women who received ARV prophylaxis:

- (i) For breastfeeding infants, administer daily NVP to the infant from birth until 1 week after all exposure to breast milk has ended.

- (ii) For infants receiving only replacement feeding, daily administration of NVP from birth until 6 weeks of age is recommended.

2.2.7 Transmission of HIV through Breast Milk

There is a possibility of transmission of HIV to infants of an HIV-infected mother through breast milk. Therefore emphasis should be on infant feeding practices that support the greatest likelihood of HIV-free survival of their children and not harm the health of mothers known to be HIV-infected. The most appropriate infant feeding option for an HIV-infected mother depends on her individual circumstances, including her health status and the local situation (MoHSW, 2012).

The option should take greater consideration of the health services available, the counselling and support she is likely to receive. To achieve this, prioritization of prevention of HIV transmission needs to be balanced with meeting the nutritional requirements and protection of infants against non-HIV morbidity and mortality. Counselling and support for infant feeding can improve feeding practices, help to prevent malnutrition and reduce the risk of death in children (MoHSW, 2012).

Without intervention, 5% to 20% of infants breastfed by their HIV-positive mothers become infected with HIV. Factors that increase the risk of transmitting HIV during breastfeeding include mastitis, cracked or bleeding nipples, breast abscesses, candida infection of the breasts, oral ulcers or sores in the infant's mouth, mixed feeding and high maternal viral load, which usually occurs with recent HIV infection or advanced HIV disease (AIDS). Despite these risks exclusive breastfeeding is beneficial to the exposed infants and can be made safer through the use of proper breastfeeding

techniques and the use of ARV prophylaxis during the period of breastfeeding (MoHSW, 2012).

2.3 Policy Literature Review

In policy literature review, we review how available policy(ies), inform the problem that a researcher is trying to address. Policy literature review shows how a policy explain issues that are pertinent with the study at hand and in the area where the policy does not address those issues the researcher has formed a base for discussion whether a policy failing to address key issues related to the study may be a reason for the persistence of the problem that a researcher is trying to address.

In this part of policy literature review, the researcher reviewed Tanzania national Policy on HIV/AIDS of 2001 especially on the issues of stigma and HIV/AIDS as well as the issue of Prevention from Mother –To- Child Transmission (MTCT) of HIV. These two issues that the policy address are also the issues of interest in this study.

HIV/AIDS related stigma is one of the key challenges in the prevention and control of the epidemic. In Tanzania, like in other countries in south of the Sahara, stigma against HIV/AIDS remains very strong and plays a major role in fueling HIV infection. In our community HIV related stigma tends to be firmly linked in people's minds to sexual behavior, which again is regarded as 'promiscuous' behavior. This attitude puts PLHAs into unnecessary hostile and embarrassing situation, they face discrimination and sometimes neglect. Worse still, stigma leads to secrecy and denial that tends to hinder openness about the HIV and prevents people from seeking

counselling and testing for HIV. This leaves hundreds of thousands of apparently healthy looking people who are infected with HIV transmitting the infection to hundreds of thousands of uninfected people. Therefore in fighting the epidemic, every effort shall be put into breaking the long deadly silence on HIV/AIDS by all sectors at all levels. This involves health workers, political and government leaders, religious leaders, NGOs, PLHAs, community leaders and families (HIV/AIDS Policy, 2001).

The policy generally put emphasis on the effect of stigma and the increase transmission of HIV. Stigma is still one of the big challenges that face People Living with HIV and AIDS (PLHA) and especially pregnant mothers who access services in health facilities. The policy did not talk specifically on the effect of stigma to HIV infected mothers accessing health services and how that can contribute to the rise of MTCT of HIV if stigma in health settings will not be controlled.

On the area of Prevention of Mother – To – Child Transmission (PMTCT) of HIV, the policy acknowledges the potential threat of a mother transmitting the virus to her child either during pregnancy, child delivery or during breast feeding. Although the policy did not go into details about Mother to child Transmission of HIV and even the policy did not outline strategies and plans that should be put in place to reduced MTCT of HIV but rather it provided some kind of recommendations on what should be done to minimize the risk of MTCT of HIV.

2.4 Theoretical Literature Review

In theoretical literature review, the researcher has used use The Health Believe Model as a theory to explain the relationship this theory has with PMTCT. The

Health Believe Model (HBM) is by far the most commonly used theory in health education and health promotion (Glanz, Rimer & Lewis, 2002; National Cancer Institute [NCI], 2003). This theory was developed in the 1950's as a way to explain why medical screening programs offered by the U.S Public Health Services, particularly for tuberculosis, were not very successful (Hochbaum, 1958).

Among the goal of this study is to understand that, despite Prevention from Mother-to Child Transmission Program that is struggling to minimize the vertical transmission of HIV from mother to child, but still the program has not achieved the monumental success in reducing the risk of children being infected of the disease from their mothers. Hence the HBM will help us to gain insight to what might be the reasons that PMTCT program has not gained the success that we are all envisioning like reducing the MTCT by 90% or Zero %.

The underlying concept of the original HBM is that health behavior is determined personal beliefs or perceptions about a disease and the strategies available to decrease its occurrence (Hochbaum, 1958). The theoretical construct of the HBM has four perceptions that serve as the main construct of the model and these are:

2.4.1 Perceived Seriousness

The construct of perceived seriousness speaks to an individual's belief about the seriousness or severity of a disease. While the perception of seriousness is often based on medical information or knowledge, it may also come from belief a person has about the difficulties a disease would create or the effect it would have on his or her life in general (Mc Cormick Brown, 1999). In linking that with my study, how a

perceived seriousness of an HIV positive pregnant woman can influence transmission of HIV from mother to child? How an HIV positive woman does understands the risk her new born stands, to acquire the virus from her? This perceived seriousness can be a factor for an HIV pregnant woman adhering or not adhering to prevention strategy designed to minimize the risk of transmitting the virus from a mother to child.

2.4.2 Perceived Susceptibility

Personal risk or susceptibility is one of the more powerful perceptions in prompting people to adopt healthier behaviors. The greater the perceived risk, the greater the likelihood of engaging in behaviors to decrease the risk. This is what prompts men who have sex with men to be vaccinated against hepatitis B (de wit et al., 2005) and to use condoms in an effort to decrease susceptibility to HIV infection (Belcher et al., 2005). Perceived susceptibility motivates people to be vaccinated for influenza (Chen et al., 2007), to use sunscreen to prevent skin cancer, and to floss their teeth to prevent gum disease and tooth loss.

It is only logical that when people believe they are at risk for a disease, they will be more likely to do something to prevent it from happening. Unfortunately, the opposite also occurs. When people believe they are not at risk or have a low risk of susceptibility, unhealthy behaviors tend to result. An HIV pregnant woman who believes that there is a great risk of her transmitting the virus to her baby will be more positive in responding to treatments or interventions that are designed to minimize that risk than a woman who believes that there is low or no risk of her transmitting the virus to her child. This also has a positive or negative effect on the

overall PMTCT program and how a program can reach its targets. The more HIV pregnant women are aware and have high perceived susceptibility that they can transmit the virus to their babies, the more they will adhere to PMTCT strategies as well the more they will distance themselves from risk behaviors that may affect their babies negatively.

2.4.3 Perceived Benefits

This is a belief in how effective the advised medicine or action will be in mitigating the problem of the condition considered in severity. You can give a positive message about the benefit of taking specific actions, including accurate information about how effective medicines are at reducing susceptibility and severity (Glanz, K., Rimer, B.K., & Lewis F.M., 2002).

The construct of perceived benefits is a person's opinion of the value or usefulness of a new behavior in decreasing the risk of developing a disease. People tend to develop healthier behaviors when they believe the new behavior will decrease their chances of developing a disease. Would people strive to eat five servings of fruits and vegetables a day if they didn't believe it was beneficially? Would people quit smoking if they didn't believe it was better for their health? Would people with albinism use shade hats during the day if they didn't believe they might develop a skin cancer? Probably not. This is the same with HIV pregnant women or mothers who cannot take a certain behavior seriously if they didn't believe it might have a benefit or consequence for them or for their babies. It is easier for an HIV pregnant woman to abide with good breast feeding practices if she believed that, good breast

feeding practice has a benefit of protecting her child from acquiring a disease than a woman who does not believe in that.

2.4.4 Perceived Barriers

Since change is not something that comes easily to most people, the last construct of HBM addresses the issue of perceived barriers to change. This is an individual's own evaluation of the obstacles in the way of him or her adopting a new behavior. Of all the constructs, perceived barriers are the most significant in determining behavior change (Janz & Becker, 1984).

In order for a new behavior to be adopted, a person needs to believe the benefits of the new behavior outweigh the consequences of continuing the old behavior (Centers for Disease Control and Prevention, 2004). This enables barriers to be overcome and the new behavior to be adopted. With HIV pregnant women, even if an HIV pregnant woman or mother believes that, taking regular medications has a benefit of safeguarding her child from acquiring a disease, if the consequence of taking medication and especially when the status is not disclosed to the partner is greater than the obvious benefits, she will not take them and hence exposing her child to the disease.

2.4.5 Modifying Variables

The four major construct of perception are modified by other variables, such as culture, education level, past experiences, skill, and motivation to mention the few. These are individual characteristics that influence personal perceptions. For example, if someone is diagnosed with skin cancer and successfully treated, s/he may have a

heightened perception of susceptibility because of this past experience and be more conscious of sun exposure because of this past experience. Conversely, this past experience could diminish the person's perception of seriousness because the cancer was easily treated and cured.

2.4.6 Cues to Action

In addition to the four beliefs or perceptions and modifying variables, the HBM suggests that behavior is also influenced by cues to action. Cues to action are events, people or things that move people to change their behavior (Graham, 2002). Knowing a fellow church member with prostate cancer is a significant cue to action for African American men to attend prostate cancer education programs (Weinrich et al., 1998). Hearing TV or radio news stories about foodborne illness and reading the safe handling instructions on packages of raw meat and poultry are cues to action associated with safer food handling behaviors (Hanson & Benedict, 2002). The same applies to HIV pregnant women, cues to action might be the understanding of other people on the risk a child may be exposed to if HIV pregnant woman won't take her medication properly or if a mother won't abide with safe breast feeding practices, this understanding will help to educate these pregnant woman to be aware of the potential risk over a baby if a mother won't take proper precautions.

2.4.7 Self-Efficacy

In 1988, self-efficacy was added to the original four beliefs of the HBM (Rosenstock, Strecher & Becker, 1988). Self-efficacy is the belief in one's own ability to do something (Bandura, 1977). People generally do not try to do something new unless they think they can do it. If someone believes a new behavior is useful

(perceived benefit), but does not think he or she is capable of doing it (perceived barrier) chances are that it will not be tried.

If an HIV pregnant woman believes that taking medication and adhering to good breast feeding practices is important because her child is going to be safe of HIV but if the cost of doing all this greater like regular taking of medication, travelling to health facilities to get proper medicines, bearing to possible stigma from health workers or community around, exposing her health status to the partner or family members, taking proper food and proper diet to maintain her health and health of the child which might have financial implications, and all these can be too overwhelming, even the desire to adopt a more healthier behavior or practice can be difficult and hence its more likely to stick to the old practices which can be dangerous to the health of a mother or the child.

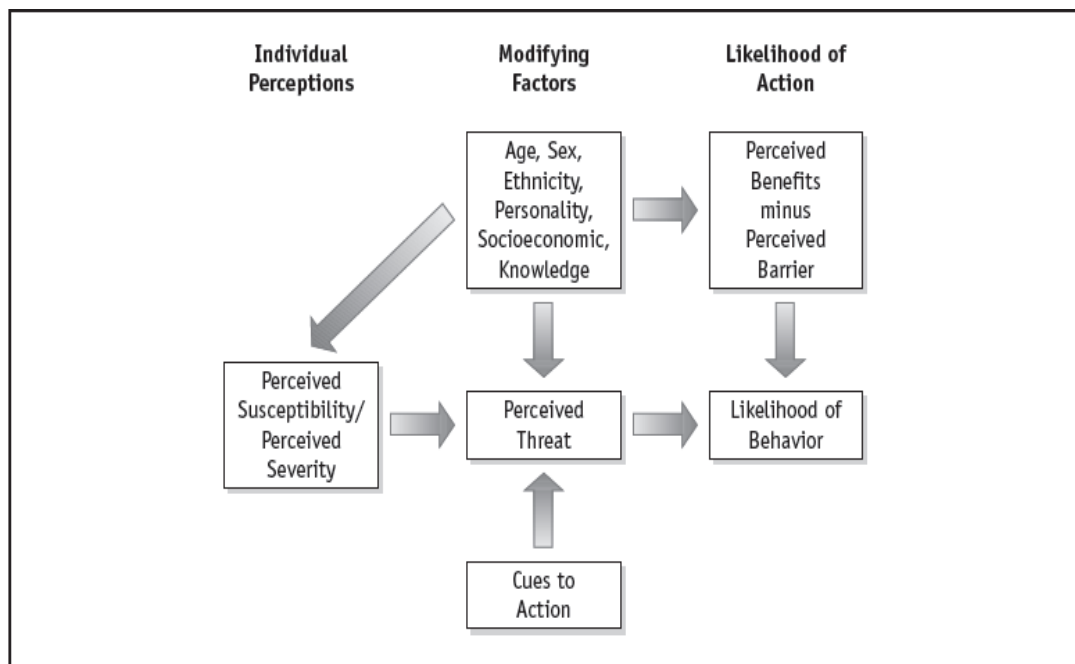


Figure 2.4: Health Belief Model (HBM)

Source: Stretcher, V., & Rosenstock I.M (1997)

In summary, according to the HBM, modifying variables, cues to action and self-efficacy, affect our perception of susceptibility, seriousness, benefits, and barriers and therefore, our behavior Figure 2.4.

2.5 Research Gap

Different studies have been done regarding the issues of PMTCT program in reducing infection levels of HIV from MTCT during the period of pregnancy, labor/delivery and breast feeding. However, there is no a single study done in Kinondoni district about the effectiveness of the PMTCT program in reducing HIV transmission to Children.

2.6 Conceptual Framework

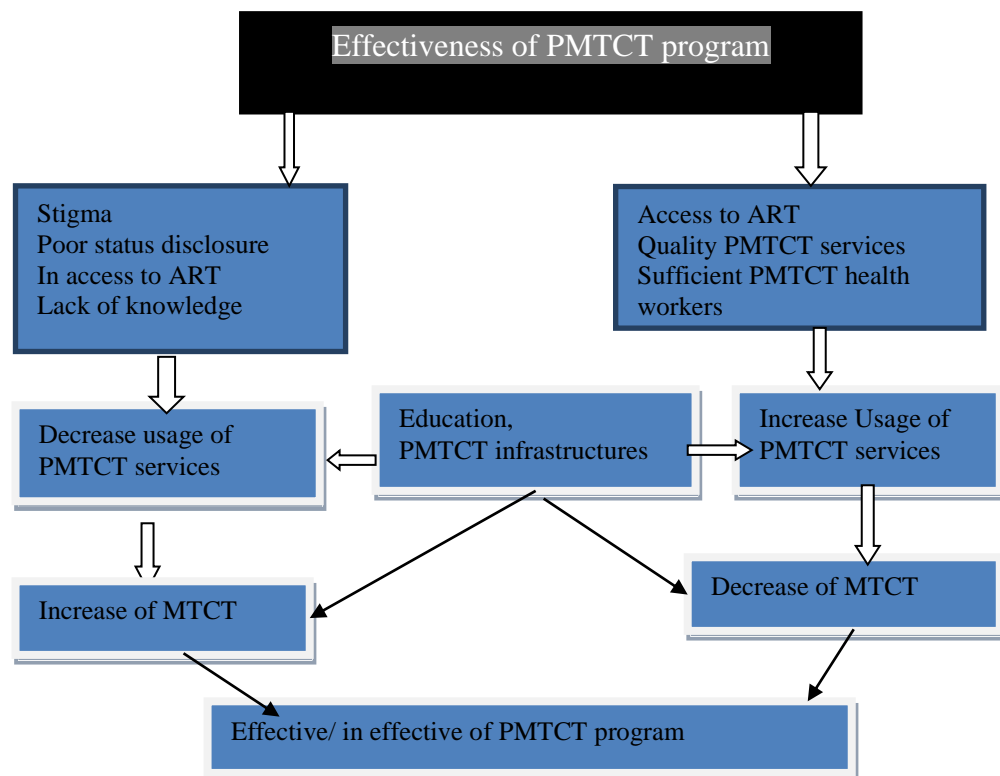


Figure 2.5: Conceptual Framework

Source: Researcher's design, 2016

Therefore, this study has been designed to bridge that knowledge gap that will ensure the new born children stay free from HIV and have the right to enjoy the potentiality of their lives through strong and effective implementation of the PMTCT program.

The conceptual framework was developed by looking at the relationship PMTCT program has with other variables (dependent and independent) and how together they can contribute to effective PMTCT program or ineffective PMTCT program. On the top left side of the conceptual frame work are the dependent variables like stigma, poor status disclosure, in-access to ART as well as lack of knowledge while on the top right side of the conceptual framework there are independent variables like access to ART, quality PMTCT services, and sufficient PMTCT health worker. The dependent variables mentioned may contribute to the decrease usage of PMTCT services while the independent variables mentioned contribute to the increase usage of PMTCT services.

The intervening variables to the conceptual framework are education and PMTCT infrastructures. If there is enough education provision to the community about PMTCT and its services things like stigma and poor status disclosure that decrease usage of PMTCT services would have been decreased. On the other hand, if we have good PMTCT infrastructures, they contribute to more access to ART, or they even promote quality PMTCT services.

In the conceptual frame work, variables that decrease usage of PMTCT services contribute to the increase of Mother –To- Child Transmission (MTCT) of HIV and

hence contribute to in effectiveness of PMTCT program while the variables that promote increase usage of PMTCT services will as well contribute to the decrease of MTCT of HIV as well as contribute to effectiveness of PMTCT program.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Area

The area of this study is Kinondoni municipality but the findings of this study can as well be suitable to be used for generalization of the study area itself as well as other municipalities in Dar-es-Salaam region as they possess similar geographic and demographic characteristics. Kinondoni municipality is the northernmost of three municipalities in Dar es Salaam, Tanzania, the other being Temeke (to the far southeast with total population of 1,345,051, Male population being 655,638=48.74% and Female population being 689,413=51.26%) and Ilala (downtown Dar es Salaam with total population of 1,195,936, Male population being 581,184=48.60% and Female population being 614,752=51.40%). To the East is the Indian Ocean, to the north and west The Pwani region of Tanzania. The area of Kinondoni is 531km square. The latest population census of 2012 showed that population of Kinondoni was 1,738,045: 897,621(51.65%) female 840,424 (48.35%) male (NBS, 2016). The reason to choose Kinondoni Municipal is because of the large population of Kinondoni compared to all other municipal as well as the large female population compared to other municipals.

3.2 Research Design

According to Creswell (2009), there are six methods of mixed designs and one of them has been used in this study. This study has employed sequential transformative design (where by the researcher starts with collection and analysis of either qualitative or quantitative data). The reason behind using this approach is first to

overcome the limitations of using a single design, and second the researcher is interested in exploring the feelings, perceptions and opinions of respondents, which can be backed up with quantitative data that would link between PMTCT program implementation with program effects.

3.3 Study Population

Study population refers to the group of representative individuals selected from a population for a purpose of statistical analysis (Kumar, 2008). Mugenda, et al (1999) defines population as the aggregate of all individuals, events and objectives having observable characteristics needed by the researcher. The study population for this research includes doctors and nurses working in PMTCT program, as well as HIV positive mothers and pregnant women obtaining PMTCT services. This population is the ideal for this study as they are aware of the PMTCT program and services hence provided informed answers to the questions that were asked in this study.

3.4 Sample Unit, Sample Size and Sampling Techniques

3.4.1 Sample Unit

Sampling unit may be a geographical one such as state, district, village, and so on, or a construction unit such as house, flat, and others, or it may be a social unit such as family, club, school, and others, or it might be an individual (Kothari, 2014). The Sample unit for this study are the hospitals providing PMTCT services.

3.4.2 Sample Size

This refers to the number of items to be selected from the universe to constitute a sample (Kothari, 2014). The sample size for this study is calculated by using Taro Yamane formula with acceptable confidence level of 95% as follows.

$$n = N / (1 + Ne^2)$$

Where as:

- n – Sample size
- N – Population size
- e – The acceptable sampling error (5%)

$$n = 100 / (1 + 100 \times 0.05^2) = 80$$

80 respondents have constituted a sample size for this study. The sample size structure is presented in Table 3.1.

Table 3.1: Sample Size Structure

S/N	Respondents	Sub-Total
1	Doctors providing PMTCT services	20
2	Nurses providing PMTCT services	30
3	Mothers and expecting mothers using PMTCT services	30
	TOTAL	80

Source: Researcher, (2016)

3.4.3 Sampling Technique

Sampling technique is the way by which the sample of units is selected from the population (Thompson, 2012). Sampling techniques are classified into non-probability and probability sampling techniques. Non-probability sampling techniques are sampling techniques where selection of individuals for the sample does not give all the individuals in the population equal chances of being selected. Probability sampling techniques are sampling techniques where selection of individuals for the sample gives all the individuals in the population equal chances of

being selected (Msabila and Nalaila, 2013). In this study both probability and non-probability sampling techniques have been used as follows:

3.4.3.1 Non-Probability/Purposive Sampling Technique

In this type of sampling, items for the sample have been selected deliberately by the researcher. Respondents who have been selected by non-probability sampling technique are doctors and nurses working in hospitals which provide PMTCT. The reason for choosing these respondents by using non-probability sampling technique is that, this two categories of respondents have required enough knowledge and they can give information that the researcher is interested in.

3.4.3.2 Probability Sampling

Under this sampling technique, every respondent has an equal chance of being selected in the sample. In this study simple random sampling without replacement has been used for HIV positive mothers and HIV positive pregnant women who attend clinic and use PMTCT services. The reason to use this sampling technique to this category is that, mother and pregnant women using PMTCT services cannot be deliberately selected as you cannot expect someone specific to attend clinic on the day of data collection and also the willingness of participants make this technique ideal as the researcher has collected data from the willing respondents.

3.5 Source of Data

3.5.1 Primary Source of Data

Primary data are those which are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2014). Primary data have been collected by using questionnaires and interviews.

3.5.2 Secondary Source of Data

Secondary data are those data which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2014). In this study, the researcher has taken the advantage of the readily available secondary data relevant to the study including books, journals, articles and other already available scientific findings that will help widen the understanding of the research problem.

3.6 Methods of Data Collection

In data collection, a researcher may use different methods in collecting his/her research data. For the purpose of this research, the researcher have employed two methods of gathering the data needed for the research namely questionnaires and interviews.

3.6.1 Questionnaires

Questionnaire as a method for data collection have been used to gather information from doctors and nurses working in hospitals providing PMTCT service, to understand their views about the program and problem areas that hinder the success expected from the program.

The reason to choose questionnaire to this group of respondents is that, due to the nature of their work, it is was difficult to sit with them for an interview or focus group discussion because all the time they have to attend patients, so questionnaires was an ideal to them because they filled on their free time and the researcher collected them on their convenience.

3.6.2 Interview

Kahn and Cannel (1957), describe interviewing as a “conversation” with a purpose. The researcher has used semi-structured interviews as a method for data collection to get in-depth information with HIV positive mothers and pregnant women about the PMTCT services they get while attending clinic and challenges associated with the service for improvement of the program. The reason to choose interview with this category of respondents is because the researcher wants to capture respondent’s views as well as understand their situation better in relation to the PMTCT services they get. With this method, a researcher had a chance to observe any non-verbal communication portrayed by the respondents which other methods would have been difficult to capture. The semi-structured interview also allows flexibility basing on the answers provided by respondents. Table 3.2 below present structure of data collection methods.

Table 3.2: Structure of the Data Collection Methods

S/N	Type of Respondents	Questionnaire	Interview	Sub-Total
1	Doctors	20		20
2	Nurses	30		30
3	HIV positive mothers and pregnant women		30	
			Grand Total	80

Source: Researcher, (2016)

3.7 Instrumental Validity and Reliability

3.7.1 Data Validity

According to Kothari, (2008) explains validity as how well the data collection and data analysis of the research captures the reality being studied. In other words, this is

the credibility and believability of research data to ensure the data obtained are genuine and trustworthy. In ensuring data validity the researcher has used content validity that ensures broad coverage of issues in the tools for data collection that will generate enough answers to the questions asked by the study by using the expertise of other academics to go through the content and make sure it is adequately covered. Also these tools were tested to 6 academics who understands the PMTCT program and the obtained responses were satisfying and justifiable and most important, they matched with the ones obtained from the field.

3.7.2 Data Reliability

Data reliability as explained by (Kothari, 2008) explain reliability as demonstrating the operation of a study, such as the data collection procedures can be repeated with the same outcome. To stress on the same, data reliability can be explained as the degree to which the researcher's tools used for data collection can produce stable, reliable and consistent results to the extent that if the study was to be conducted for a second time with a different researcher, still the findings could have been the same. In assuring data reliability a researcher with a help of other academics have gone through the data collection tools several times to ensure the findings produced by the tools are reliable findings and if the study were to be repeated by any other researcher using the same methodology the findings would still be the same.

3.8 Data Processing and Analysis

Data processing and analysis involve systematic and application of statistical techniques to describe, illustrate, condense and evaluate data (Edward and Holland, 2013). Data processing and analysis also means the computation of certain indices or

measures along with searching for parents of relationship that exists among the data group (Kothari C.R, 2014). In analyzing the data, the researcher has compared and contrasted each and every element of data, built typologies and finding sequence and patterns to understand their relationships with another and with the problem at hand.

Both qualitative and quantitative data were gathered in this study and have been processed by using google forms which are forms created by google to help collecting and organizing information or surveys. Google forms helps a researcher analyze the data collected right away from a researcher's web browser. Reasons of using google forms is its flexibility and simplicity in gathering the required information. It is also cost effective as the forms are readily available from the web browser and no additional cost needed by a researcher in purchasing software for data processing and analysis.

Qualitative data were obtained through interview conducted with HIV positive mother and pregnant women seeking services in PMTCT clinics while the quantitative data were obtained by using questionnaires distributed to doctors and nurses working in PMTCT clinics.

3.9 Ethical Consideration

Ethics can be defined as perspectives in deciding how to act in analyzing complex problems and issues. The Belmont report (1974) mentions three basic ethical principles relevant to research involving human subjects, which are respect for persons, beneficence and justice. In ensuring that ethics are considered, the researcher in his best ability treated all respondents with respect and as autonomous

agents, together with giving them a full disclosure of the nature of the study and its purpose, the risk, benefits and alternatives with an extended opportunity to ask questions in case of doubt or clarification, also respondents consent (Verbal) has been asked as all the respondents are above 18 years of age as well as assurance of the maintenance of confidentiality of the information they have given in this study has been provided.

CHAPTER FOUR

DISCUSSION AND PRESENTATION OF THE FINDINGS

4.1 Respondents Characteristics

As explained in chapter three in Table 3.2, the main respondents in this study were doctors and nurses working in hospitals under PMTCT units, as well as HIV positive pregnant women and HIV positive mothers. All these groups gave sufficient information regarding the PMTCT program and the services provided under this program. The respondents are varying in terms of their education, gender, and age as shown on the following figures and tables. Figure 4.1 shows the summary of all respondents.

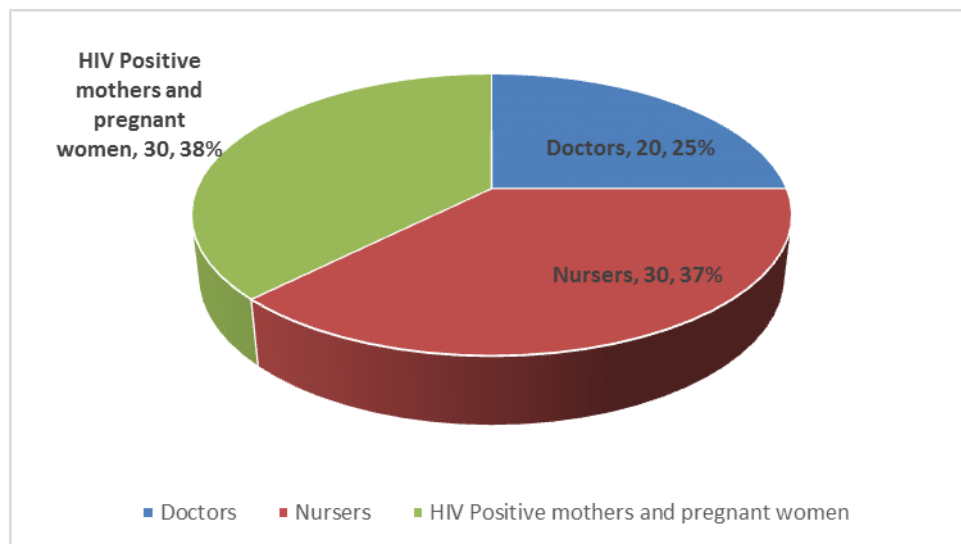


Figure 4.1: Summary of Respondents

Source: Researcher, (2016)

4.1.1 Age Category of Respondents

The following is age category of respondents of HIV positive mothers and pregnant women as presented in Figure 4.2.

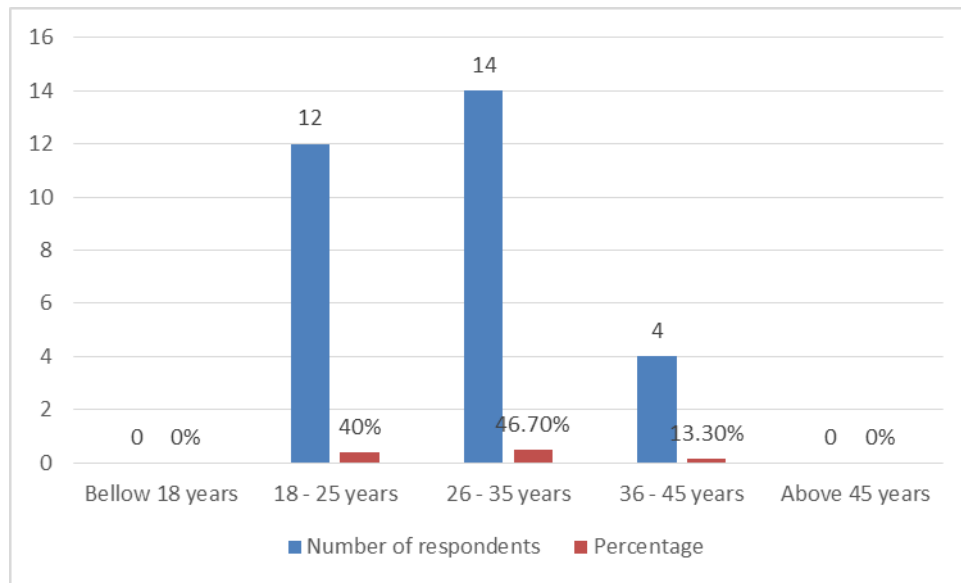


Figure 4.2: Age Category of HIV Positive Mother and Pregnant Women

Source: Field data, (2016)

Figure 4.2 shows the total number of respondents under this category which is 30 respondents where by 46.7% is the largest group consisting of women aging from 26-35 years, followed with age group aging from 18-25 years which consist of 40% and the last age group with fewer respondents consist 13.3% aging from 36-45 years. This clearly shows that, the first and second category is the most risk ages, which mostly consist of youth from 18-35 years.

4.1.2 Education Level of Respondents

All respondents vary in their education level. Table 4.1 shows education level of HIV positive mothers and pregnant women.

Table 4.1 shows most respondents under this category who participated in interview had only primary education 83.3% and only 16.7% had attained secondary education. This shows that, the women with poor education backgrounds are in a bigger risk of

being infected with HIV and hence increase the chance to transmit the virus to their newborns when they bear children.

Table 4.1: Education Level of HIV Positive Mothers and Pregnant Women

Level of education	Number of respondents	Percentage
Primary education	25	83.3
Secondary education	5	16.7
University/college	0	0
Total	30	100

Source: Field Data, (2016)

4.1.3 Marital Status of Respondents

Table 4.2 presents the marital status of HIV positive mothers and pregnant women.

Table 4.2: Marital Status of HIV Positive Mothers and Pregnant Women

Marital status	Number of respondents	Percentage (%)
Married	10	33.3
Single	6	20
Widowed	0	0
Divorced/separated	0	0
Cohabiting	14	46.7
Total	30	100

Source: Field Data, (2016)

In Table 4.2 most women who attended the interview were not married but lived with a partner (cohabiting) and this group make a large percentage of all respondents 46.7%, followed by the group of married women 33.3% and lastly the group of single women (single mothers) of 20%. This implies that, Most women who were

living with partners have the possibility of having multiple relationships with other partners followed by the group of married women and hence making these two groups more vulnerable in acquiring HIV and hence increase the possibility of transmitting the virus to their babies.

4.1.4 Work Experience of Respondents

The Figure 4.3 will show the work experience of doctors and nurses working in PMTCT clinics.

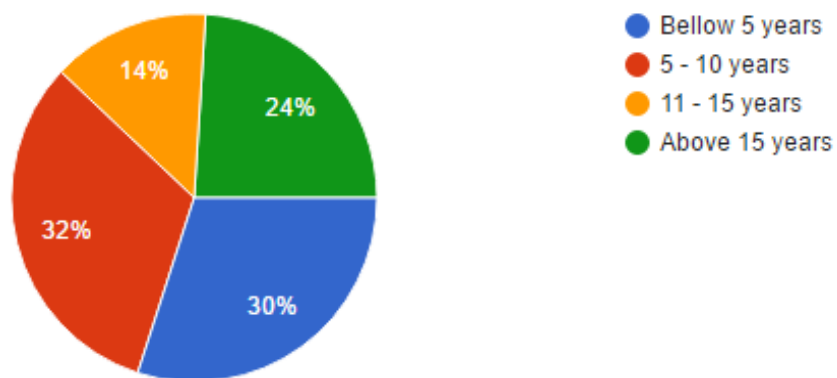


Figure 4.3: Work Experience of Doctors and Nurses

Source: Field Data, (2016)

Figure 4.3 shows, among the doctors and nurses responded to interview questions, only 30% had experience bellow 5 years, while the rest combined 70% had experience from 5 years and above. This implies that, in PMTCT clinics, health workers have enough working experience and they know the PMTCT situation very well which is strength because even clients are expected to get quality PMTCT services from qualified health workers.

4.2 The Main Focus Areas of the PMTCT Program in Reducing Mother-To-Child Transmission (MTCT) of HIV

In the struggle to reduce transmission from mothers to children, the PMTCT program has focused more in making sure pregnant women with HIV infections are not transmitting the viruses to their new babies. This was a response given to many of the respondents asked this question. They also commented that, the PMTCT program has put more emphasis in the Reproductive and Child Health (RCH) clinic, this is because, by strengthening this clinic, it is easier to track patients and easier to deal with pregnant women who have HIV infections, these responses can be easily viewed in Table 4.3 which presents the view of the respondents when they were asked this question.

Table 4.3: Main Focus of PMTCT Program

Focus area	Number of respondents	Percentage %
Reproductive and Child Health (CRH)	18	36
Reducing HIV from mother to child	32	64
Total	50	100

Source: Field Data, (2016)

As shown in Table 4.3, shows 64% of respondents, responded saying that, the program focuses on reducing transmission of virus from mother to a child, however, 36% of respondents said, it is equally important to focus on Reproductive and Child Health (RCH) clinic. Specifically one of the respondents commented that:

“RCH is the area that PMTCT program has focused because, at the clinic pregnant women are identified and given treatment to make sure that children are born free from the virus through constant monitoring and giving clients medicines”

Respondents were also asked to mention the services they were getting in PMTCT clinic to understand their knowledge on the services provided at PMTCT clinic and importance of getting those services and most of them (More than 90%) showed understanding of the kind of services they are supposed to receive at PMTCT clinic with the goal of reducing transmission of HIV from mother to a child as shown in Figure 4.3.

0 / 30 correct responses

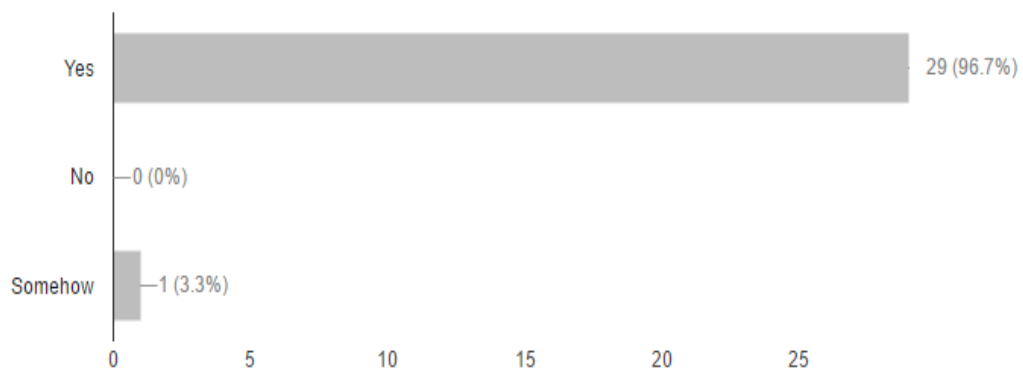


Figure 4.4: Respondents Understanding about PMTCT Services Provided

Source: Field Data, (2016)

In Figure 4.4 apart from the respondents showing great understanding on the services they are getting at the PMTCT clinic, they were also asked to evaluate the overall services they get at the clinic to see how much they are satisfied with the service provided to them and most of the respondents (90%) showed great satisfaction on the services provided to them at the clinic and this shows if clients are satisfied with the service they are getting at the PMTCT clinic, is a step forward in obtaining more clients who attend the clinic and there is a big chance to reduce the MTCT of HIV as shown in Figure.4.5.

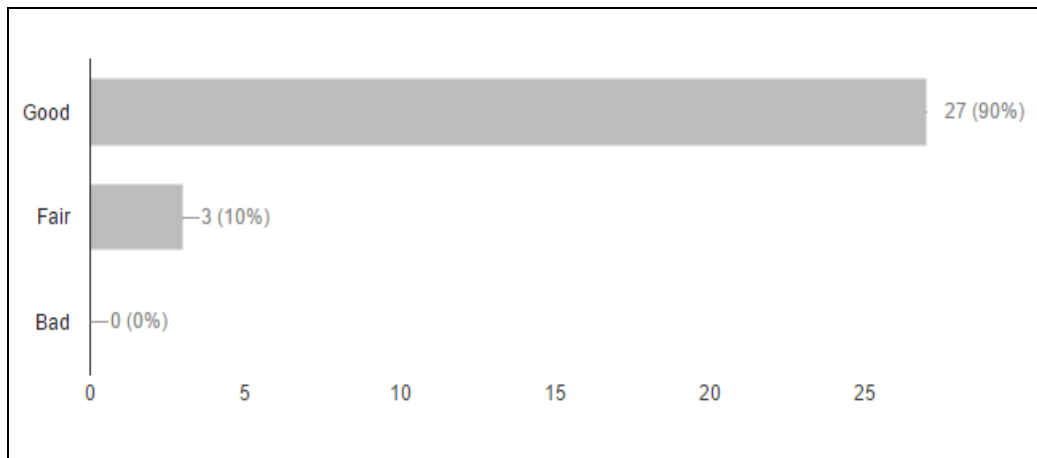


Figure 4.5: Respondents Evaluation on the PMTCT Services Provided

Source: Field Data, (2016)

In Figure 4.5, despite the big number of clients to be satisfied with the services provided to them at PMTCT clinic, still there is a small portion of respondents who were not fully satisfied (10%) who showed that PMTCT clinic have the room to improve the services that they provide to clients attending the clinic and although the number is small but it is worth paying attention to. Another interesting question that support the above responses is that, respondents were asked to give marks from 1 – 10 (1 being the lowest and 10 being the highest) on the service that are provided to them at the PMTCT clinic and the results are shown on Figure 4.6.

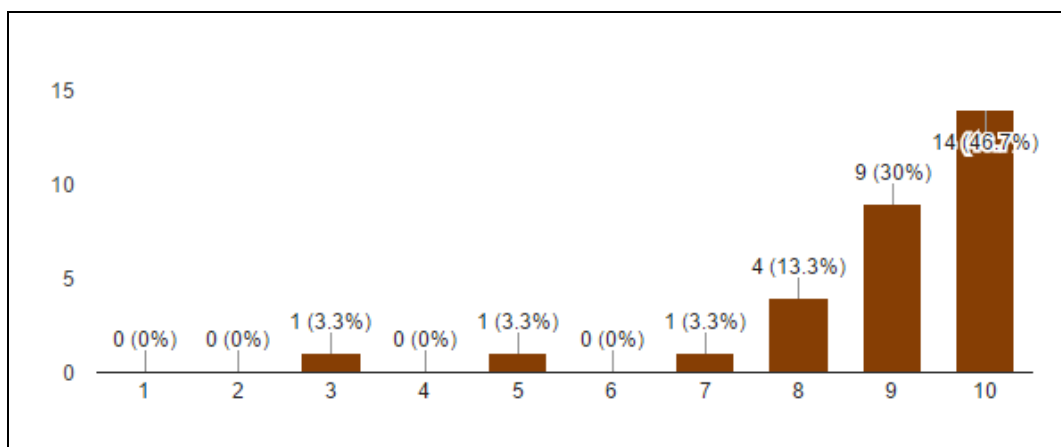


Figure 4.6: Respondents Marks on the PMTCT Services Provided

Source: Field Data, (2016)

As seen in Figure 4.6 shows 46.7% gave all 10 marks showing that they are very satisfied with the service that is provided to them at PMTCT clinic, followed by 30% and 13.3% who rated the services by 9 marks and 8 marks respectively and only 3.3% rated the services by giving 7 marks, 5 marks and 3 marks showing they were not as much impressed with the services provided to them at PMTCT clinic and hence there may be a need for some improvements in service provision, so that service does not become a barrier for HIV positive mothers and pregnant women to attend clinic.

4.3 Exploring the Challenges Affecting Effective Reduction of MTCT of HIV

Challenges affecting effective reduction of MTCT of HIV are many, and most of these challenges actually are the bottle neck for reducing pediatric HIV. Some of the challenges mentioned by respondents include, stigma, status disclosure, education, shortage of health workers and so many others as discussed as follows.

4.3.1 Status Disclosure

Among the respondents asked if they disclosed their HIV status to their husbands or partners most of them said they did not disclose their status. Figure 4.7 shows the data for those who answered the question about status disclosure.

Among the respondents who answered this question in Figure 4.7 shows 56.7% have not disclosed their HIV status and only 43.3% disclosed their status to their partners. This implies that, most women who keep their HIV status secret are in a bigger risk of transmitting the virus to their partners through sexual intercourse as it will be difficult to practice safe sex with their partners due to the questions that they may be

asked by their partners or fear of breaking up with them if they were to say that they are HIV positive.

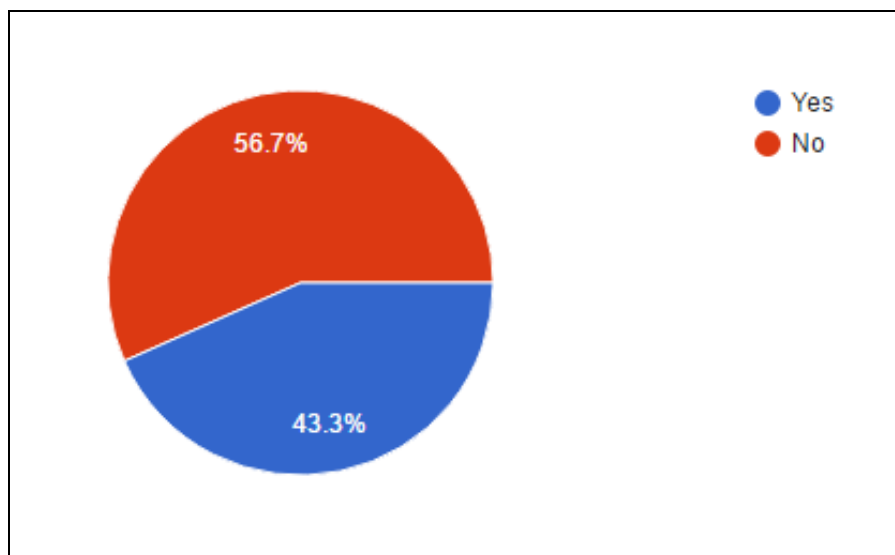


Figure 4.7: Respondents Status Disclosure

Source: Field Data, (2016)

Second, Women who have not disclosed their HIV status with their partners, are in even a greater risk of transmitting the virus to the babies during pregnancy, due to poor adherence to ARVs. Most of them will be taking ARV drug in secret due to fear of being seen, also if they have delivered, it will be difficult for them to safeguard the child during breast feeding, as there is a specific breast feeding practice that they have to follow including giving their children medicines that prevent them from getting HIV, as well as adhering to exclusive breast feeding for six month without giving a child additional meals or water, something which is very rare for mothers who are not HIV positive to adhere with their children, hence, if an HIV positive mother or pregnant woman has not disclosed her status to her partner or a close relative, there is a great chance to transmit the virus to the child and hence increasing a challenge to the PMTCT program in ensuring pediatric HIV is reduced.

4.3.2 Stigma

Stigma is another challenge that respondents have identified. Stigma may be experience either at home from close relatives and from partners or in hospital settings when acquiring the services or both. Respondents were asked if they have experience stigma when they acquire the PMTCT services at hospitals or at home where the live and the following were their responses.

Table 4.4: Respondents Responses on Stigma

Response on stigma	Number of Respondents	Percentage (%)
No stigma	10	33.3
Stigma at home	15	50
Stigma at the hospital	5	16.7
Total	30	100

Source: Field data, 2016

In Table 4.4 shows 15 respondents equal to 50% responded that they face stigma at home from either their partners or from relatives, 5 respondents equal to 16.7% said they face stigma at the hospital and 10 respondents equal to 33.3% said they face no stigma. It should also be noted that, the problem of stigma is very big, even the respondents who said they do not face stigma, some of them have not even disclosed their status due to fear of being stigmatized either by their partners or relatives. The problem of stigma is one among the big challenges that face the PMTCT program. Stigma will prevent an HIV positive mother from attending clinic as required, stigma will prevent an HIV positive mother from adhering to ARV drug regime, stigma will also prevent HIV positive mother from practicing safe breast feeding to the baby and hence children end up acquiring disease from their mothers. One of the respondents said:

“Stigma is a very big problem in our society especially to HIV positive mothers, they do not disclose their HIV status and hence they fail to practice safe breast feeding because they fail to justify to the relatives or partners/husbands why they are not giving their children water or why they do not implement alternative feeding practice to their babies”

Respondents were also asked to mention what they consider as the main recent challenges facing the PMTCT program today and the following responses were provided in Table 4.5.

Table 4.5: PMTCT Main Recent Challenges

Challenges	Number of respondents	Percentage (%)
Poor ARVs adherence	26	52
Stigmatization	34	68
Lack of transparency and poor status disclosure	24	48
Poor knowledge of Sexual Reproductive Health Education	19	38
Poverty	8	16
Insufficient delivery instruments in some hospitals	7	14
Rigidity of men in checking their HIV status	6	12
Insufficient number of trained health workers	6	12

Source: Field Data, (2016)

In Table 4.5 shows among the respondents answered this question, 68% said stigmatization is one of the challenge that facing PMTCT program, 52% of respondents said poor ARVs adherence by HIV positive mothers and pregnant

women is another challenge that face the program today, and poor adherence also is accompanied by stigma, if the problem of stigma will be well addressed people will adhere to ARVs, other respondents mentioned lack of transparency and poor status disclosure as one of the challenge facing the PMTCT which again this problem is very closely related to the problem of stigma and ARV adherence, 38% of respondents mentioned poor knowledge of sexual reproductive health education, poor knowledge of how to breast feed a child as other challenges that face PMTCT program, other challenges include poverty (16%), rigidity of men in checking their HIV status (12%), most men do not accompany their wives or partners to the clinic and they do not want to check their HIV status, insufficient delivery instruments to some hospitals (14%) also is a challenge facing the PMTCT program, and lastly insufficient trained health workers in PMTCT clinics (12%) also are some of the challenges facing the PMTCT program currently.

4.3.3 Success of the PMTCT Program

Respondents were also asked to say how much the PMTCT program has succeeded in reducing transmission of HIV from a mother to a child and their responses are shown in Figure 4.8.

In Figure 4.8 shows 66% of respondents who answered this question said the PMTCT program is fairly successful (between 70-80%) in reducing HIV transmission to children while other respondents 30% said the PMTCT program is very successful (Above 90%). This shows that, despite the efforts made by the government and various Non-Government Organizations in trying to decrease

pediatric HIV, still more efforts are needed to make sure that pediatric HIV is eliminated by strengthening the PMTCT services and infrastructures.

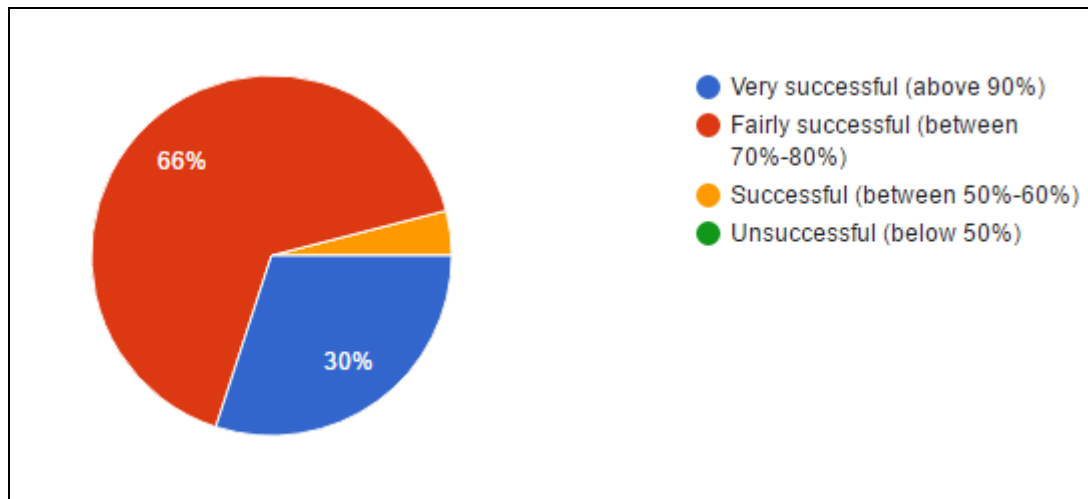


Figure 4.8: Respondents Responses on the Success of the PMTCT Program

Source: Field data, 2016

Figure 4.9, will present the data about the PMTCT area viewed to be more successful in preventing MTCT of HIV.

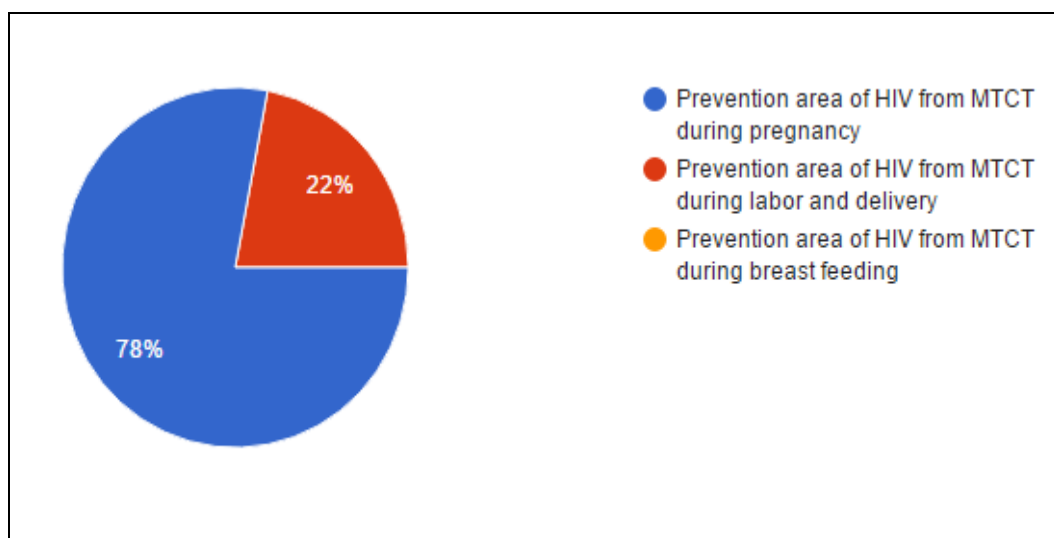


Figure 4.9: Most Successful PMTCT Prevention Area

Source: Field Data, (2016)

In Figure 4.9 shows 78% of respondents agreed that, prevention area of HIV from mother to child during pregnancy is the most successful area followed by prevention area of HIV from mother to child during labor and delivery where only 22% of respondents agreed that it is the more successful area. 78% make this area to be the strong area for PMTCT program in insuring that new born are not acquiring HIV during the period of pregnancy and hence even the PMTCT program will give much emphasis on other areas that are less successful.

Respondents were asked about their views to why they think prevention area of HIV from mother to child during pregnancy is the most successful area and they gave the following responses shown in Figure 4.10.

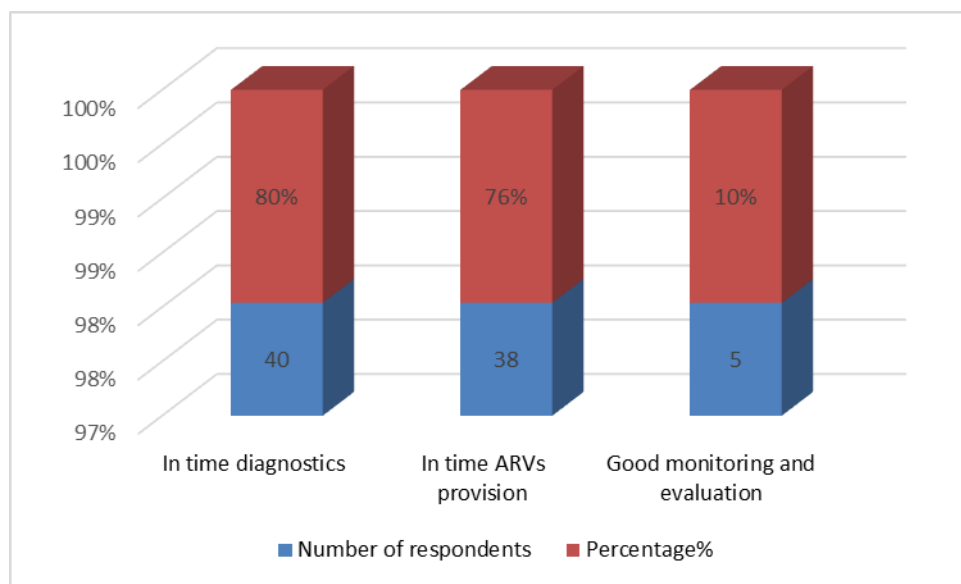


Figure 4.10: Respondents Responses about Reasons for Success

Source: Field Data, 2016

In Figure 4.10 shows 80% of respondents said, in time diagnostics of HIV positive pregnant women is one of the main reason to why prevention area from mother to child during pregnancy is the most successful one in ensuring HIV transmission is

reduced to new born. Also 76% of respondents said in time ARVs provision after a pregnant woman has been diagnosed and found positive she is given medications that help her to safe guard the unborn child from getting the virus. This is why prevention from mother to child transmission during pregnancy is the most successful one.

HIV positive mothers were asked to mention which period to them was the most difficult one in ensuring that they don't transmit the virus to their babies when comparing the period during pregnancy, the period of labor and delivery and the period of breast feeding the child and the following responses are provided in Figure 4.11.

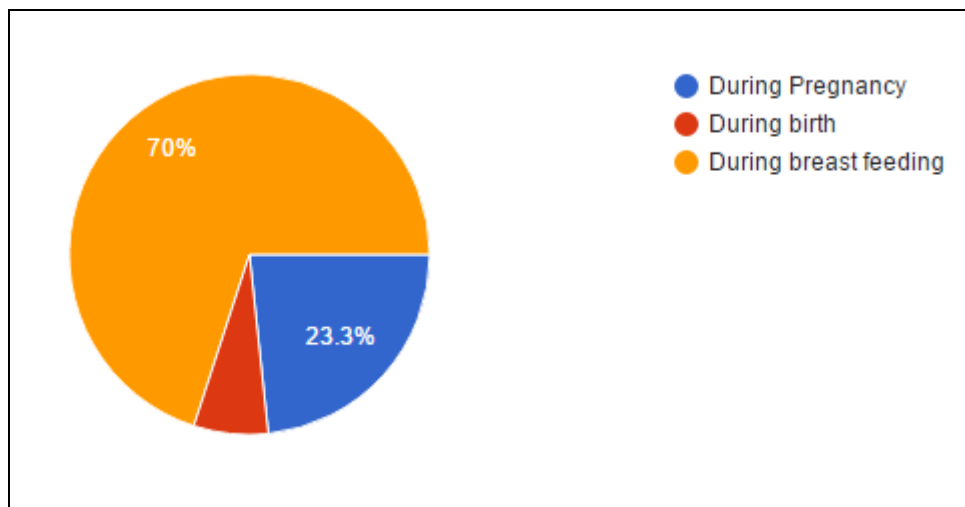


Figure 4.11: The Difficult Period for HIV Pregnant Woman to Safeguard a Child from HIV

Source: Field Data, (2016)

In Figure 4.11 shows 70% of respondents answered that the period during breast feeding the child is the most difficult period comparing to other two periods, and only 23% of respondents said the period during pregnancy is the most difficulty period comparing to other two periods. This implies that, there is a big possibility

that children acquire the HIV virus from their mothers during the period of breast feeding the child and this is the area that is supposed to be paid much attention to. During the period of pregnancy and the period of labor and delivery, pregnant women are under a good care of nurses and doctors to make sure that the child is not infected, but when a woman delivers, they face many challenges that doctors and nurses are not there to prevent. One of the respondent when was asked this question replied that,

“The period of breast feeding to me is the most challenging period, I have to stay close to my child all the time, this is because where am living, people do not know that I am HIV positive, so I have to take extra care of my child, one day I went to fetch water and when I returned I found my neighbor gave my child water without my permission while I am not supposed to give my child water or anything else until the age of six month, I felt very bad but what can I do? They accuse me of staying with my child all the time and I don’t find time to do other house chores but they don’t know why I am doing that, I have to stay close to him until six month passes”.

The alike question was asked to doctors and nurses to mention which prevention area of the PMTCT program is less successful in reducing transmission of the virus from a mother to a child when comparing prevention area during pregnancy, during labor and delivery and during breast feeding and their responses are shown in Figure 4.12.

Upon responding to that question in Figure 4.12 shows 68% of doctors and nurses agreed that prevention area of HIV from mother to child during breast feeding is the

most difficult area comparing to other areas while 28% of respondents said the most difficult prevention area of HIV from mother to child is during labor and delivery.

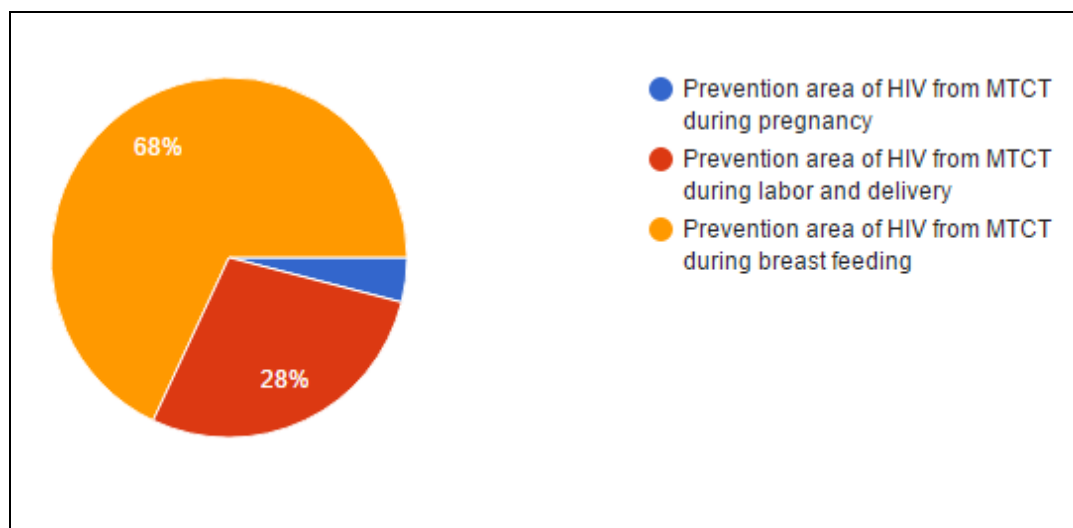


Figure 4.12: PMTCT Program Less Successful Area

Source: Field Data, (2016)

According to explanations, the prevention area of HIV from mother to child during breast feeding is less successful because women face stigma or fear stigma from their husbands, they fear if they disclose their status, they are going to be divorced, they fear that their relatives are going to stigmatize them and hence when a child need to be given medicines that prevents them from acquiring the virus, they are given in secret where no one can see, otherwise when they will be asked why are you giving a child medicine while a child is not sick they will fail to respond.

So this period especially to women who have not disclosed their HIV status is very challenging, and many fail to adhere to the right usage of medicines and the fixed timetable of giving a child medicine and hence make it very easy for children to be affected by the virus from their mothers through breast milk.

Other respondents who replied that, the difficulty period is the period during labor and delivery explained that, during labor and delivery, it is easier for the child to be infected if there is any birth complications or if the child obtain any scratches and a mother's blood penetrate a child's skin, a child is easily infected with the HIV virus. This concern was also raised due to lack of enough delivery equipment for some health facilities that are used during delivery of women who are HIV positive and hence increase the chances for children to acquire the virus from their mothers during birth.

4.4 Ways on How PMTCT Program can be improved

This question was asked to both HIV positive mothers and HIV pregnant women as well as doctors and nurses, for the purpose of gaining more insight from them on how PMTCT program can be improved, in order to continue reducing HIV transmission from mothers to their children. The Table 4.6 shows responses that were given out, by presenting in percentage wise responses that acquired higher percentage than other responses, and that should imply that, those responses with higher percentage carry more weight and when it comes to improvement of PMTCT program they should be taken into consideration first.

From Table 4.6 shows 82% of respondents gave much emphasis on investing in education provision about PMTCT especially to youth who seemed to be the most affected group. Still many youth have no enough knowledge about reproductive health education and they end up being infected with HIV virus, and when they become pregnant still many do not have enough knowledge on how to safeguard a

child from acquiring a disease. Investing in education will result to the decrease of pediatric HIV from mothers to children.

Table 4.6: Responses of Respondents on how PMTCT Program can be Improved

S/n	Responses	Doctors and nurses	HIV positive mothers and pregnant women
01	Increase PMTCT education provision	82%	
02	Improve PMTCT clinics infrastructures	60%	
03	Increase number of PMTCT health workers		60%
04	Increase availability of medicines and equipment	40%	
05	Adequate and quality health service provision	24%	
06	Increase partners and relatives participation	16%	
07	Following policies and regulations	14%	
08	Increase number of hours for services provision		6.7%

Source: Field Data, (2016)

Improving PMTCT clinic infrastructure was also seen as equally important. 60% of respondents commented on the poor infrastructures available to most health centers especially at the PMTCT units. Poor infrastructure may result even to decreasing of clinic attendants as well as partners participation during clinic sessions as most men find the environment unfavorable.

Number of health workers in PMTCT clinics was also a concern as most of the time clients are facing long cue for services due to un-proportioned nurses-patient ratio. Small number of available nurses had to attend a large number of clients coming to clinic every day.

Insufficient medicines and delivery medical equipment was also seen as something to be addressed when comes to improving PMTCT program. Some of the clients said sometimes they are told to go and buy medicines, which are not available at the hospital by using their own money while the policy says all services including medicines are free of charge. This shows there is insufficient needed medicines and well as medical equipment in most PMTCT clinics.

In order to improve PMTCT program, increasing partners and relatives participation is very important. Most women come to clinic alone without their partners or husbands. This may be due to the number of factors including poor hospital infrastructures, lack of favorable hospital conditions that support confidentiality, poor status disclosure among partners and increase stigmatization. Without partners and relative participation, there will be increase in poor adherence to clinics or poor adherence to ARVs, which helps both mothers and their children from transmitting

the virus to the child. When this area is strengthened, expectation of decreasing HIV transmission from mother to child will improve and hence successfulness of the PMTCT program.

14% of respondents stressed the importance of following policy and regulations. They stressed on the importance of mandatory HIV testing to pregnant women as well as their partners and husbands. Most pregnant women attend clinic alone without the presence of their partners and husbands and still acquire the services. If their partners would have attended clinic with them, there would be a joint commitment on how to protect a child from HIV infection from the mother and even to reduce the risk of new infection in case one partner is negative. This can only be possible if the policies and guidelines are followed properly.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Findings

The purpose of this study was to “Assess effectiveness of prevention from Mother – To – Child Transmission (PMTCT) Program in Reducing HIV/AIDS to Children in Kinondoni district”. This study employed sequential transformative research design, with sample size of 80 respondents.

Some of the key findings in this study include poor status disclosure of HIV positive mothers and pregnant women. The study found out that, many women (56.7%) have not disclosed their HIV status either to their husbands or partners and hence make it very difficult for them to properly adhering to ARVs or even be comfortable to breastfeed a child with a mother’s milk only until a child reaches 6 month and hence increase the possibility of children being infected with HIV or partners being contracted with HIV in case one of the partner is negative.

In case of HIV positive mothers and pregnant women, the study found out that 50% of respondents are experiencing stigma at home either from their partners or from close relatives. The problem of stigma and the fear of stigma may result the above problem of not disclosing status or even quitting attending clinic or adhering to medicines as per instructions. Another major finding is poor ARVs adherence, which is one of the recent challenges facing the PMTCT program today.

The study also found out that, the most successful area of the PMTCT program is the area of prevention of HIV from mother to child during pregnancy. 78% of

respondents said this is the most successful area of the program right now due to on time diagnostics and on time usage of ARVs for HIV pregnant women. On the other hand, the study found out that, 68% of respondents comment on the least successful area of the PMTCT program that is the area of prevention of HIV from mother to child during breast feeding. This is due to the reason that, Most HIV positive mother (50%) face stigma at home, which in turn affect their exclusive breast feeding as well as proper adhering to ARVs which increase a risk of their babies to acquire the virus from their mothers.

Lastly, the study found out that, there is a need to give more education to people especially to youth who are the most affected group (from 18 years to 35 years) about sexual reproduction health education as well as PMTCT education in case they are pregnant and found HIV positive. Also improving PMTCT clinic infrastructure is among the findings when the researcher wanted to know ways to improve the PMTCT program. Some hospital infrastructures are not conducive, which sometimes impair the patient's confidentiality. Improving the PMTCT clinic infrastructure will also help to strengthen the PMTCT program, which may increase number of clinic attendants, which in turn may decrease the HIV transmission from a mother to a child.

5.2 Conclusion

This study aimed to assess effectiveness of PMTCT program in reducing HIV/AIDS to children in Kinondoni district, the focus being identifying factors that make this program strong and factors that acts as bottleneck for this program to thrive and hence making the sole target of this program of reducing HIV transmission from

mother to child difficult. In this study the researcher found out that, the PMTCT program is doing well although it can do even better if some of the critical issues that affect the program performance are going to be addressed.

On one hand the program is successful by its ability to strengthen the PMTCT clinics through thorough PMTCT services provided by well-trained health workers, in-time diagnostics of PMTCT cases and in-time provision of ARVs to HIV positive mother and pregnant women, this made the PMTCT program to identify PMTCT cases from the early stages and monitor the pregnant woman with HIV from the early stages in making sure the virus are not transmitted to a child. This is why the prevention area of MTCT of HIV during pregnancy is the most successful area.

On the other hand, problems like stigma and lack of status disclosure among partners, acts as hindrance of the program success. With stigma, HIV positive mothers and pregnant women fail to adhere to usage of ARVs medication as well as adhering to advice of doctors and nurses in how to breast feed a child, which keeps a child in a greater risk of being infected with the HIV virus from their mothers. If the challenges facing the PMTCT program are going to be well addressed, this program will thrive and it will cut the pediatric HIV by more than 90%.

5.3 Recommendations

In this part the researcher has given specific recommendations to a number of stakeholders who are in a position to make difference in PMTCT program and improve the program for the better. These recommendation includes recommendation to Ministry of Health, Community Development, Gender, Elderly

and Children, recommendations to PMTCT clinics, recommendations to social workers and NGO's and lastly recommendations to religion leaders.

5.3.1 To Ministry of Health, Community Development, Gender, Elderly and Children

(i) Improving PMTCT clinics infrastructure

The ministry of health should improve PMTCT clinics infrastructure to ensure there is increase client's confidentiality when they attend clinics, something which will motivate more people to use PMTCT services. When respondents were asked to mention what they consider as the main recent challenges of PMTCT program, 12% replied, rigidity of men checking their HIV status is one among the challenges. This challenge may be influenced by lack of confidentiality in PMTCT clinics and people do not turn out to use the services. If the PMTCT clinic infrastructures will be improved, HIV positive mothers and pregnant women will attend clinic with their partners which will also increase the joint efforts of the partners to safeguard a child from HIV.

(ii) Improving incentives and motivation to health workers

When respondents were asked what should be done to improve the PMTCT program, 26% said there should be motivation increase to those working in PMTCT clinics. The ministry should improve incentives and motivation to health workers especially to those working in PMTCT clinics including risk allowances as many are working in difficult conditions and are exposed to greater risk of being infected themselves due to poor working conditions.

(iii) Increase availability of medicines and medical equipment

The ministry should also increase availability of medicines to PMTCT clinics around the country. Some patients fail to get the needed medicines and are told to buy to other pharmacies. When respondents were asked what they think should be done to improve the overall performance of PMTCT program, 40% of them said to improve the PMTCT program, medicines and medical equipment should be available at PMTCT clinics. This problem is even a serious one in health centers which are in rural areas, some health centers also lack delivery equipment especially when it's a case with PMTCT patient, which increases a chance for a new born to be infected by a virus or health workers to be exposed by the virus during delivery.

5.3.2 To PMTCT Clinics

5.3.2.1 Strengthening PMTCT Clinics

Health workers working in PMTCT clinics should strengthen PMTCT services provided in the clinic (24% of respondents) including compulsory HIV testing to both HIV pregnant woman and their partners or husbands which will improve transparency as well as joint efforts of both a mother and father to safeguard a new born against HIV infections.

5.3.2.2 Increase Education Provision

82% of respondents suggested education provision as one among the ways of improving PMTCT program. PMTCT clinics should increase education provision to both mothers or expecting mothers and their partners on the importance of safeguarding a child from HIV infection, importance of adhering to ARVs and other medicines that protect both a mother and a child against transmitting a virus to a new born, as

well as education of how to implement exclusive breast feeding to a new born in a period of six month. Provision of this education is very important and will help a lot in decrease the pediatric HIV and hence improve the PMTCT program.

5.3.2.3 To Increase Number of Trained Health Workers in PMTCT Clinics

Health workers in PMTCT clinics should also be increased (54% of respondents) so as to improve service provision to clients as well as decreasing cue for clients attending PMTCT clinics. Apart from that, enough number of health workers in PMTCT clinics will decrease the workload and improve working efficiency of doctors and nurses working to PMTCT clinics daily which in turn will improve the quality of the services provided to clients.

5.3.3 To Social Workers, NGO's and Social Work Profession

5.3.3.1 To Increase Sexual Reproductive Health Education

Social workers and NGOs working with youth should provide more education about sexual reproductive health especially to youth between 18-35 years who are in the greater risk of being infected with HIV. The study findings shows youth aged 18-35 years have the bigger possibility to be infected and when they bear children increase that possibility to infect their new born with the virus.

5.3.3.2 Addressing the Problem of Stigma

Social workers and NGOs should address the problem of stigma to people living with HIV. HIV positive mothers and pregnant women still face stigma and this has a huge impact on adhering to ARVs or practicing exclusive breast feeding which in turn increase chances to infect their babies with the HIV virus. Addressing the

problem of stigma to the society will increase chances of reducing MTCT of HIV by a bigger magnitude and hence more success to PMTCT program.

5.3.3.3 Conducting more Research on the Area of PMTCT

This research work has contributed to the social work body of knowledge by exploring effectiveness of PMTCT program in reducing HIV transmission to children. The researcher has fulfilled his professional obligation as among the codes of ethics of social workers is engaging in ethical research practice. Furthermore, the researcher fulfilled the roles of social work including advocating for children's right to life. Many children die from pediatric HIV acquired from their mothers and this study address the HIV problem faced by children. Actions taken may help rescue lives of millions of these children facing this problem. The researcher also fulfilled the educating role of a social worker through giving education on the problem of HIV to children. This education reveals the strength of the PMTCT program in reducing HIV transmission to children and also reveals weakness of PMTCT program in reducing HIV transmission to children. If proper measures are to be taken, PMTCT program will be well improved and children's death through MTCT of HIV will be decreased or eliminated. Social work profession should encourage ethical research practice to its practitioners and especially to the area of PMTCT so as help children grow free from HIV and reach their full life potentials.

5.3.4 To Religion Leaders

5.3.4.1 Strengthening Society Moral Behaviors

Religion leaders have the chance to strengthen moral behaviors of the society through religious lectures and talks. The degradation of moral behavior is among the

reasons that put the HIV persistent. People are more likely to engage in bad moral behaviors that put them in big risk of acquiring HIV. This also increase the chances to have more PMTCT cases as well as putting more risk to children born with HIV positive parents of being infected with the virus.

5.3.4.2 Periodic Lectures on Marriage Issues

Most married men and women engage in risk behaviors that may increase the chances of acquiring HIV including having multiple relationships. Religion leaders have a chance to lecture about the marriage issues and about the importance of married men and women not to engage in behaviors that expose them to risk of acquiring HIV and infect the other partner and hence increase the chance to have children who will be born free of HIV.

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APPENDICES

Appendix 1: Questionnaire For Doctors and Nurses Providing PMTCT Services

Introduction

My name is Kanduru, Hussein Ally, a student from The Open University of Tanzania, Kinondoni Dar Es Salaam. I am currently conducting a research on **ASSESSMENT OF EFFECTIVENESS OF PREVENTION FROM MOTHER TO CHILD TRANSMISSION (PMTCT) PROGRAM IN REDUCING HIV TRANSMISSION TO CHILDREN- A case study of Kinondoni District**, as an attempt to find out the success and setbacks of the program in reducing HIV transmission from mother to child. This study is as well conducted as a partial fulfillment for my academic requirement for the award of Master Degree in Social Work (MSW), hence I would like to ask you for your utmost cooperation to answer the questions of this tool properly in order to make this study a success.

I would also like to ensure you that, all answers and information to these questions will be treated and kept with maximum confidentiality and will never be used for any other purpose than the academic.

Thank you in advance and hopefully you will cooperate with me.

SECTION A: GENERAL INFORMATION/ PERSONAL PARTICULARS:

Please tick [✓] where appropriate or fill on a space provided.

1 . Work experience (years) _____

2. Work designation _____

3. Sex

(i) Male []

(ii) Female []

4. Education level

- (i) Certificate level ☐
- (ii) Diploma level ☐
- (iii) Degree level ☐
- (iv) Masters level ☐
- (v) Others (Please mention) _____

SECTION B: SPECIFIC INFORMATION

Please put a tick [✓] on the most appropriate answer and fill in the space provided where necessary.

PMTCT- Prevention from Mother to Child Transmission**MTCT- Mother to Child Transmission**

1 . How successful is the PMTCT program today in reducing MTCT of HIV?

- (i) Very successful (above 90%) ☐
- (ii) Fairly successful (between 70%-80%) ☐
- (iii) Successful (between 50%-60%) ☐
- (iv) Unsuccessful (below 50%) ☐

2. What is the main focus area of the PMTCT program today in preventing MTCT?

Please explain.

3. Which prevention area of the PMTCT program is more successful in preventing MTCT of HIV?

- (i) Prevention area of HIV from MTCT during pregnancy ☐
- (ii) Prevention area of HIV from MTCT during labor and delivery ☐
- (iii) Prevention area of HIV from MTCT during breast feeding ☐

4. Why the above prevention area of MTCT of HIV is more successful? Please explain

5. Which prevention area of the PMTCT program is less successful in preventing MTCT of HIV?

- (i) Prevention area of HIV from MTCT during pregnancy []
- (ii) Prevention area of HIV from MTCT during labor and delivery []
- (iii) Prevention area of HIV from MTCT during breast feeding []

6. Why the above prevention area of MTCT of HIV is less successful? Please explain.

7. What do you consider as the main recent challenges of PMTCT program? Please explain.

8. What do you think should be done to improve the overall performance of the PMTCT program?

- (i) _____
- (ii) _____
- (iii) _____
- (iv) _____
- (v) _____
- (vi) _____
- (vii) _____

Appendix 2: Dodoso kwa Madaktari na Wauguzi Watoao Huduma ya Kuzuia Maambukizi Kutoka kwa Mama Kwenda kwa Mtoto

Utangulizi

Jina langu ni Kanduru, Hussein Ally, mwanafunzi wa chuo kikuu huriya cha Tanzania kilichopo Kinondoni, Dar Es Salaam. Kwa sasa nafanya utafiti unaohusu **TATHMINI YA UFANISI WA MPANGO/PROGRAMU YA KUZUIA MAAMBUKIZI KUTOKA KWA MAMA KWENDA KWA MTOTO KATIKA KUPUNGUZA MAAMBUKIZI YA VVU KWA WATOTO – Utafiti kesi wa wilaya ya Kinondoni**, kwa lengo la kugundua mafanikio na changamoto ya program hii kwenye kupunguza maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto. Tafiti hii pia inafanyika kama sehemu ya kukamilisha hitaji la kielimu katika masomo yangu ya shahada ya uzamili ya ustawi wa jamii, hivyo naomba ushirikiano wako wa hali ya juu katika kujibu maswali ya hii dodoso kwa usahihi ili kuweza kufanikisha tafiti hii.

Pia napenda kukuhakikishia kwamba, majibu yote na taarifa utakazotoa kwenye maswali yatakayoulizwa yatahifadhiwa na kufanyiwa kazi kwa usiri mkubwa na kamwe hayatatumika kwa dhumuni lingine lolote zaidi ya hili la kitaaluma.

Asante sana na natumaini utashirikiana nami.

SEHEMU A: TAARIFA BINAFSI:

Tafadhali weka alama ya vyema [$\sqrt{\quad}$] kwenye jibu sahihi zaidi au jaza sehemu iliyoachwa wazi.

1. Uzoefu kazini (Miaka) _____
2. Cheo _____
3. Jinsi
 - (i) Ke []
 - (ii) Me []
4. Kiwango cha elimu
 - (i) Cheti []

(ii) Diploma []

(iii) Shahada ya kwanza []

(iv) Shahada ya uzamili []

(v) Nyinginezo (taja) _____

SEHEMU B: TAARIFA MAALUM

Tafadhali weka alama ya vyema [✓] kwenye jibu sahihi zaidi au jaza sehemu iliyoachwa wazi panapostahili.

1. Ni kwa kiasi gani Program ya kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto imefanikiwa katika kupunguza maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto?

(i) Imefanikiwa sana (zaidi ya asilimia 90) []

(ii) Imefanikiwa kiasi (kati ya asilimia 70 – 80) []

(iii) Imefanikiwa (kati ya asilimia 50 – 60) []

(iv) Haijafanikiwa (chini ya asilimia 50) []

2. Ni eneo gani kuu program ya kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto imejikita kwa sasa katika kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto? Tafadhali elezea.

3. Ni eneo lipi katika program ya kuuzuia maambukizi kutoka kwa mama kwenda kwa mtoto limefanikiwa zaidi katika kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto?

(i) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa ujauzito []

(ii) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa kujifungua []

- (iii) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa kunyonyesha []

4. Kwanini eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto lililotajwa hapo juu limefanikiwa zaidi? Tafadhali elezea

5. Ni eneo lipi katika program ya kuuzuia maambukizi kutoka kwa mama kwenda kwa mtoto limefanikiwa kidogo katika kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto?

- (i) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa ujauzito []
- (ii) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa kujifungua []
- (iii) Eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto wakati wa kunyonyesha []

6. Kwanini eneo la kuzuia maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto lililotajwa hapo juu limefanikiwa kidogo? Tafadhali elezea

7. Unadhani ni changamoto gani kubwa zinazoikumba program ya kuzuia maambukizi kutoka kwa mama kwenda kwa motto kwa sasa? Tafadhali elezea

8. Unadhani nini kifanyike katika kuboresha utendaji kiujumla wa program ya kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto?

- (i) _____
- (ii) _____
- (iii) _____
- (iv) _____
- (v) _____
- (vi) _____

Appendix 3: Interview Guide With HIV Positive Mothers and HIV Pregnant Women

Introduction

Hello, my name is Kanduru, Hussein Ally, a student from Open University of Tanzania, Kinondoni Dar es Salaam. I am currently conducting a research on **ASSESSMENT OF EFFECTIVENESS OF PREVENTION FROM MOTHER TO CHILD TRANSMISSION (PMTCT) PROGRAM IN REDUCING HIV TRANSMISSION TO CHILDREN- A case study of Kinondoni District**, for the purpose of finding out the success and setbacks of the program in reducing HIV transmission from mother to child. This study is as well conducted as a partial fulfillment for my academic requirement for the award of Master Degree in Social Work (MSW), hence I would like to ask you some questions that will help me understand this study and your answers and cooperation will make this study a success. I would also like to ensure you that, all answers and information to these questions will be treated and kept with maximum confidentiality and will never be used for any other purpose than the academic.

Thank you in advance and hopefully you will cooperate with me.

SECTION A: GENERAL INFORMATION/ PERSONAL PARTICULARS:

Please tick [✓] where appropriate or fill on a space provided.

1. Age

- (i) Bellow 18 years ☐
- (ii) 18-25 years ☐
- (iii) 26-35 year ☐
- (iv) 36-45 years ☐
- (v) Above 45 years ☐

2. Education level

- (i) Primary education ☐
- (ii) Secondary education ☐

(iii) University/college []

3. Marital status

(i) Married []

(ii) Single []

(iii) Divorced/separated []

(iv) Widowed []

SECTION B: SPECIFIC INFORMATION

1. What kind of services to you receive under PMTCT program?

2. How do you evaluate the overall services provided to you when you attend clinic?

3. Is there stigmatization when you try to acquire PMTCT services?

4. Is the level of stigmatization make you not to want to acquire PMTCT services?

5. What are other challenges do you face when you are acquiring the service?

6. From 1-10 mark, how many marks do you give the PMTCT services you acquire in this hospital/clinic?

7. What do you think should be done to improve PMTCT services provided to HIV pregnant women and HIV positive mothers who attend the clinic?

Appendix 4: Muongozo wa Majadiliano na Wanawake Wajawazito na Waliojifungua Wenye Maambukizi ya VVU

Utangulizi

Habari, jina langu ni Kanduru, Hussein Ally, ni mwanafunzi wa chuo kikuu huriya cha Tanzania kilichopo Kinondoni, Dar Es Salaam. Kwa sasa nafanya utafiti wenye kichwa cha habari **TATHMINI YA UFANISI WA MPANGO/PROGRAMU YA KUZUIA MAAMBUKIZI KUTOKA KWA MAMA KWENDA KWA MTOTO KATIKA KUPUNGUZA MAAMBUKIZI YA VVU KWA WATOTO – Utafiti kesi wa wilaya ya Kinondoni**, kwa lengo la kugundua mafanikio na changamoto ya program hii kwenye kupunguza maambukizi ya VVU kutoka kwa mama kwenda kwa mtoto. Tafiti hii pia inafanyika kama sehemu ya kukamilisha hitaji la kielimu katika masomo yangu ya shahada ya uzamili ya ustawi wa jamii, hivyo basi, ningependa kukuuliza baadhi ya maswali ambayo yatanisaidia kuielewa tafiti hii, na majibu yako pamoja na ushirikiano wako utasaidia kufanikisha tafiti hii. Pia ningependa kukuhakikishia kwamba, majibu yote utakayotoa kwenye maswali nitakayouliza yatahifadhiwa na kufanyiwa kazi kwa usiri mkubwa na kamwe hayatatumika kwa dhumuni lingine lolote zaidi ya dhumuni hili la kitaaluma.

Asante sana na natumaini utashirikiana nami.

SEHEMU A: TAARIFA BINAFSI

Weka alama ya vyema [✓] kwenye jibu sahihi zaidi

Umri

- | | |
|---------------------------|-----|
| (i) Chini ya miaka 18 | [] |
| (ii) Kati ya miaka 18-25 | [] |
| (iii) Kati ya miaka 26-35 | [] |
| (iv) Kati ya miaka 36-45 | [] |
| (v) Zaidi ya miaka 46 | [] |

Kiwango cha elimu

- | | |
|-------------------------|-------|
| (i) Elimu ya msingi | [] |
| (ii) Elimu ya sekondari | [] |
| (iii) Elimu ya chuo | [] |

Hali ya ndoa

- | | |
|-----------------------|-------|
| (i) Nimeoa/Nimeolewa | [] |
| (ii) Sijaoa/sijaolewa | [] |
| (iii) Mtaliki | [] |
| (iv) Mjane | [] |


SEHEMU B: TAARIFA MAALUM

1. Ni huduma gani unazipata chini ya program ya kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto?
2. Unathaminisha vipi huduma unazozipata kwa ujumla unapofika kliniki?
3. Je unapata unyanyapaa wowote unapotaribu kupata/kupatiwa huduma kwenye program ya kuzuia maambukizi kutoka kwa mama kwenda kwa motto?
4. Je kiwango cha unyanyapaa kinakufanya usitake kupata huduma chini ya program hii ya kuzuia maambukizi kutoka kwa mama kwenda kwa motto?
5. Ni changamoto gani nyingine unazokumbana nazo unapotaka kupata huduma hii?
6. Kwenye alama 1 mpaka 10, unazipa alama ngapi huduma uzipatazo katika hospitali/kliniki hii?
7. Unafikiri nini kifanyike ili kuongeza ufanisi wa huduma wa program ya kuzuia maambukizi kutoka kwa mama kwenda kwa mtoto itolewayo kwa wanawake wajaawazito na wakina mama waliojifungua wenye maambukizi ya VVU wanaohudhuria kliniki.

Appendix 5: Research Clearance letter

THE OPEN UNIVERSITY OF TANZANIA
INSTITUTE OF RESEARCH, PUBLICATIONS, AND POSTGRADUATE STUDIES

P.O. Box 23409 Fax: 255-22-2668759 Dar es Salaam, Tanzania.
<http://www.out.ac.tz>



Tel: 255-22-2668752/2668445 ext.2101
Fax: 255-22-2668758,
E-mail: drns@out.ac.tz

12/10/2016,

To The District Commissioner
Kinondoni District Commissioner
Dar es Salaam.

RE: RESEARCH CLEARANCE


The Open University of Tanzania was established by an act of Parliament no. 17 of 1992. The act became operational on the 1st March 1993 by public notes No. 55 in the official Gazette. Act number 7 of 1992 has now been replaced by the Open University of Tanzania charter which is in line the university act of 2005. The charter became operational on 1st January 2007. One of the mission objectives of the university is to generate and apply knowledge through research. For this reason staff and students undertake research activities from time to time.

To facilitate the research function, the vice chancellor of the Open University of Tanzania was empowered to issue a research clearance to both staff and students of the university on behalf of the government of Tanzania and the Tanzania Commission of Science and Technology.

The purpose of this letter is to introduce to you **Mr. Kanduru A Hussein; PG 201507928**, who is a Master student at the Open University of Tanzania. By this letter, **Mr. Kanduru A Hussein** has been granted clearance to conduct research in the country. The title of her research is **"Assessment of the effectiveness of prevention from Mother to Child Transmission program in Reducing HIV Transmission to Children; the case Study of Kinondoni District Council"**. The research will be conducted in Kinondoni District. The period which this permission has been granted is from 12/10/ 2016 to 13/12/2016.

In case you need any further information, please contact:
The Deputy Vice Chancellor (Academic); The Open University of Tanzania; P.O. Box 23409; Dar es Salaam. Tel: 022-2-2668820

We thank you in advance for your cooperation and facilitation of this research activity.
Yours sincerely,




Prof Hossea Rwegoshora
For: VICE CHANCELLOR
OPEN UNIVERSITY OF TANZANIA

Appendix 6: Research Permit from District Commissioner's Office 1

The United Republic of Tanzania
PRIME MINISTER'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

DAR ES SALAAM REGION

Phone Number: 2203156/2203158
In reply please quote: _____



REGIONAL COMMISSIONER'S OFFICE,
P.O. Box. 5429,
DAR ES SALAAM

Date: 17/10/2016

Ref. No. _____


District Administrative Secretary,
KINONDONI
DAR ES SALAAM

RE: RESEARCH PERMIT

Mr./Dr./Mr./Mrs/Ms/Miss. HUSSEIN A. KANDURY is a
student/researcher from OPEN UNIVERSITY OF TANZANIA
has been permitted to undertake a field work research on ASSESSMENT
OF EFFECTIVENESS OF PREVENTION FROM MOTHER TO CHILD
TRANSMISSION (PMTCT) PROGRAM IN REDUCING HIV
TRANSMISSION TO CHILDREN

From OCTOBER 2016 to DECEMBER 2016

I kindly request your assistance to enable him/her to complete his/her research.



For: Regional Administrative Secretary
DAR ES SALAAM

Copy to: Municipal Director,
KINONDONI
DAR ES SALAAM

Principal/Vice Chancellor

Appendix 7: Research Permit from District Commissioner's Office 2

MALMASHAURI YA MANISPA YA KINONDONI
 IMEPOKELEW
 20 OCT 2016

THE UNITED REPUBLIC OF TANZANIA
 PRIME MINISTER'S OFFICE
 MINISTRY OF REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

KINONDONI DISTRICT
 Telephone No. 2170169 / 2170183
 To reply please quote:
 Ref. No. AB.320/378/01 'B'/146

THE DISTRICT COMMISSIONER'S OFFICE,
 P.O BOX 9583,
 KINONDONI,
 DAR ES SALAAM.

18th October, 2016

.....

RE: RESEARCH PERMIT

Hyssein A. Kandura^u is a Student/ Researcher from Open University of Tanzania. He has been permitted to undertake field work research on "Assessment of Effectiveness of Prevention From Mother to Child Transmission (PMTCT) Program in Reducing HIV Transmission to Children". A case study in Kinondoni Municipality which will take place between October, 2016 to December, 2017.

I kindly request your good assistance to enable him to complete his research.

F.A. Lisakatu, KINONDONI
 For; District Administrative Secretary
 DAR ES SALAAM

Copy: Municipal Director,
DAR ES SALAAM


Trans/Besad
Shughulwa
21/10/2016

Appendix 8 Research Permit from Municipal Medical Officer

KINONDONI MUNICIPAL COUNCIL
ALL CORRESPONDENCES TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

Tel : 2170173
Fax: 2172606

In reply please quote:
Ref. No. PF/K/14 Vol.VI/



MUNICIPAL MEDICAL OFFICER OF HEALTH,
KINONDONI MUNICIPAL COUNCIL
S. L. P.61665,
DAR ES SALAAM.

Date: 21/10/16

Health Facility I/C
FANDARE H/C, Mwenge H/C & M/Nyama H/C
KINONDONI MUNICIPAL.

REF: FIELD WORK PERMIT

1. HUSEIN X. KAMUKU
2. 2

The above-mentioned are student from OPEN UNIVERSITY
undertaking MSc SOCIAL WORK

They have been given a permit to perform the field work in your facility
commencing from 24/OCT/2016 to 31/DEC/2016

Kindly provide all the necessary assistance in order to enable them fulfill the
activities comfortably.

Best wishes,

Dr Miriam Chese
Rehema Massewe
TRAINING COORDINATOR,
KINONDONI MUNICIPAL COUNCIL