ASSESSMENT OF QUALITY OF PMTCT SERVICE PROVIDED TO HIV POSITIVE WOMEN AND THEIR HIV EXPOSED INFANTS IN IRINGA DISTRICT COUNCIL

ASSESSMENT OF QUALITY OF PMTCT SERVICES PROVIDED TO HIV POSITIVE WOMEN AND THEIR HIV EXPOSED INFANTS IN IRINGA DISTRICT COUNCIL

By

Firma Ambrose Kisika

A dissertation submitted in fulfilment for required of Award of the Master of Science in Health Monitoring and Evaluation (HME) of Mzumbe University

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CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, A Research Report entitled **Assessment of the Quality of PMTCT Services Provided to HIV Positive Women and their HIV Exposed Infants** in health facilities in Iringa District Council, in partial fulfilment of the requirement for the Award of Master Degree of Monitoring and Evaluation (HME) of Mzumbe University.

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DECLARATION

I, Firma Ambrose Kisika, declare solemnly that this thesis in my original work and it has never been presented to any other institute or university for similar from other academic award. All information from other sources has been dully acknowledge.

Sign _____

Date _____

This thesis has been submitted for examination with the approval of the University Supervisors.

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DEDICATION

This thesis is dedicated to my parents Mr. Ambrose Lukas Ndomba and Angelina, who found it necessary to give care, love and send me to school. To my daughters Doroth, Teresia and my son Hamfrey for their endurance, support and encouragement throughout my study period.

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Special word of appreciation goes to my family for their support which helped me to accomplish the study.

LIST OF ABBREVIATIONS AND ACRONYMS

ANC	-	Antenatal Care
AIDS	-	Acquired Immune Deficiency Syndrome
ARV	-	Antiretroviral
ART	-	Antiretroviral Therapy
CHMT	-	Council Health Management Teams
CUAMM	-	Doctors with Africa
DBS	-	Dried Blood Spot
DFP	-	District Processing File
DACC	-	District AIDS Control Coordinator
DRCHCO	-	District Reproductive and Child Health
eMTCT	-	Elimination of mothers to Child Transmission of HIV
EID	-	Early Infant Diagnosis
HIV	-	Human Immunodeficiency Virus
MTCT	-	Mothers- to- Child Transmission
MOHSW	-	Ministry of Health and Social Welfare
NVP	-	Nevirapine
OIs	-	Opportunistic Infection
PCR	-	Polymerase Chain Reaction
PMTCT	-	Prevention of Mother- to -Child Transmission
UNAIDS	-	Joint United Nations Programme on HIV / AIDS
UNICEF	-	United Nations Children's Funds
UNFPA	-	United Nations Population Fund
WHO	-	World Health Organisation

ABSTRACT

This study was conducted to assess the quality of PMTCT services provided to HIV positive woman and their HIV exposed infants following the challenges of increasing dropouts. Specific objectives of the study were: to assess the input factors and their effects on the perceived quality to the satisfaction of the clients; and to assess the process factors and their effects on the perceived quality to the satisfaction of the clients. The study employed cross-sectional and descriptive designs in which data collection methods were questionnaire, in-depth interview, observation and documentary analysis. Data was analysed using Atlas it and SPSS version 16.

The study findings revealed presence of some supplies and facilities requited for the provision of PMTCT services. However, it has been found that there are gaps/deficiencies in the structure, process and outcome that requited for providing PMTCT services. The study indicated that about half of the respondents had different views, both negative and positive, on the quality of PMTCT they received due to deficiencies in structural and process attributes that resulted in dissatisfaction.

The study further showed deficiencies in structural attributes, in which majority of health care providers are not trained in PMTCT services, whereas it has been found that there is stock out of basic drugs for prevention of opportunistic infection. The study had opinions from CHMT concerning the problem of poor implementation at PMTCT services. The most and commonest problem is inadequate supervision.

Further analysis indicated gaps in the process, where the majority of midwives demonstrated poor skills in counselling, whereas about half did not gather information. With regard to client provider interaction as they were not involved in the discussion. The study also revealed that none of the midwives used guidelines during provision of PMTCT services. In relation to history taking, it was observed that the majority of midwives did not obtain history and those few who attempted it came out with incomplete history. Almost all women and their HIV exposed infants were not examined. It is concluded that PMTCT services providers in Iringa District are poor quality.

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CHAPTER ONE

BACKGROUND AND PROBLEM STATEMENT

1.1 Background: An Overall Picture of MTCT Problem

Children born to women living with HIV, whether they are infected or not, increase their risk of morbidity and mortality. Data indicate that Mother-to-Child Transmission (MTCT) of HIV is by and large responsible for more than 90% of this infection in children under 15 years (UNAIDS, 2010). In 2012, it was estimated that about 15.7 million women aged 15 years and above were living with HIV globally, of whom 1.4 million became pregnant. MTCT takes place in several ways: during pregnancy (as transmission occurs across the placenta), during labour and delivery, or through breast-feeding. Because of this, MTCT has remained a major child health challenge, as the number of newly infected infants per day remains as high as 900,000 (WHO, 2011). Consequently, the number of children (age 0-14) living with HIV has increased to 3.3 million in 2013 as compared to 1.4m in 2009. This has generally resulted in increased deaths of these children. For example, the estimated 260,000 children who died from AIDS-related in 2009 globally were 19% fewer than the estimated 320,000 who died in 2004 (WHO and UNAIDS, 2011).

The global trend indicates that women constitute about half of the burden of people living with HIV. Since most women will have babies in their lives, the possibility of many new born being exposed to HIV from these women is very high with consequential effects of increased mortality and morbidity not only among these children but also among their mothers unless timely and effective preventive measures are in place (WHO and UNAIDS, 2011). UNICEF (2011) provides that the risk of MTCT without intervention can be as high as 20 to 45%. For example, the MOHSW-PMTCT (2013) estimates that out of 100 infants, 5-10 will be infected during pregnancy, about 10-15 will be infected during labour and during delivery, and 5-20 will be infected during breast-feeding. Further, data from UNICEF (2011) reveals that more than half of the infants who do not receive treatment/prophylaxis die before their second birthday. In this case, while 260,000 of the 430,000 newly infected children died in 2009, for example, most of these deaths could have been

avoided through early diagnosis of HIV and timely provision of effective care and treatment (WHO/UNICEF, 2012). PEPFAR (2010) data show that approximately one third of children born to HIV mothers will acquire HIV in absence of preventive measures. Thus, the Prevention of Mother- to- Child Transmission (PMTCT) becomes a major strategy and a major goal for the global community over the last decade towards reducing HIV transmission at 18 months (WHO and UNAIDS, 2011). Under ideal condition, comprehensive PMTCT programmes can reduce MTCT rate to about 1 to 2 percent (UNICEF, (2010). This suggests that PMTCT must remain the main strategy of preventing these children from HIV infection.

According to WHO (2010), PMTCT of HIV has been at the fore front of global HIV prevention activities since 1998, following the success of the short course of Zidovudine and single dose Niverapin. To make it more effective, PMTCT which targets woman of reproductive age, pregnant women, breastfeeding mothers, and their HIV exposed infants and families, has been integrated in routine Maternal and New Born Care and Child Health (MNCH). Principally, PMTCT operates under the World Health Organisation recommendations of the four pronged approaches: (i) prevention of HIV among women of reproductive age involving women being educated on HIV and MTCT and parents-to-be being tested for HIV in order to plan for a safe (HIV free) pregnancy; (ii) prevention of unintended pregnancies among infected couples with HIV; (iii) provision of appropriate counselling to women living with HIV to enable them make informed choices about their future reproductive life; (iii) prevention of HIV transmission from women infected with HIV to their infants through HIV counselling and testing to all pregnant women, through access to antiretroviral drugs among infected pregnant women, through safer delivery practices and through safer infant feeding practices; and (iv) better integration of HIV care, treatment, and support for HIV positive women and their HIV exposed infants and family, including prevention and treatment of OIs and also provision of antiretroviral treatment, palliative care, and nutritional support (WHO, 2005).

Generally, the PMTCT programme has various strategies in place that include strengthening the supply chain management and development of institutional, human resource capacity in PMTCT, and paediatric HIV care, treatment, and support. Other strategies are integration of the PMTCT and paediatric HIV care treatment and support services at all levels, and community mobilisation. Besides these strategies, the PMTCT programme has also in place management monitoring, evaluation and supply chain management mechanisms (WHO, 2010).

Highlighting the PMTCT milestones, the WHO (2010) shows that the programme has undergone several changes especially in drug regimen for both mothers and their HIV exposed infants. Initially, the programme started with a single regimen in which all HIV positive women were provided with ARV prophylaxis of a single dose of Niverapine during pregnancy and during labour and delivery, whereas HIV exposed infants ARV prophylaxis was provided at birth and continued through postpartum period until one week after cessation of breast feeding (UNICEF, 2012). The second change involved two prophylaxis regimens: option A and option B, which in accordance with the WHO (2010) PMTCT recommendations, countries were provided with a room to choose between the two. In regard to option A, women receive ARV prophylaxis for PMTCT during pregnancy and during delivery followed by a seven-day dose after delivery. For HIV exposed infants, they receive ARV prophylaxis throughout the duration of breastfeeding.

Under option B, it has a simpler flow in which pregnant women and lactating mothers with HIV are initiated with ART and continue with the prophylaxis throughout the breastfeeding. For those women who do not yet require ART for their health would discontinue the prophylaxis and continue to monitor their CD4. While option A seems to be abandoned, a third approach is now being used: the option B+, making option B and option B+ the available regimen for many countries now. Under the B+ option, all pregnant women diagnosed with HIV are offered with life-long ART regardless their CD4 count, with reduced duration of prophylaxis for HIV exposed infants to six weeks (WHO, 2010). Because of its continuity in receiving or in providing prophylaxis and treatment, the administration is simple on both the side of the client and on the side of the provider since one does not need recollection of

dates or instructions once they have started the programme because of its continuity. As such, the regimen updates offer important programmatic and operational advantages and could accelerate progress towards eliminating of new paediatric by 2015 (WHO, 2011).

Option B+ was the entry point of the eMTCT and the emergence of the e-MTCT Strategy 2012-2015, with a global plan towards elimination of new HIV infection among children by 2015 and keeping their mothers alive (Global Plan, 2011). Global plan towards elimination of new infections among children is possible because of the new updates of providing ARV and ART prophylaxis on a continuous basis rather than in peace-meals, which had the danger of creating drug resistance. Among the world's eMTCT Strategies' targets for 2015 were to reduce the number of new HIV infections among children by 90%; to reduce number of AIDS related maternal deaths by 50%; and to reduce the MTCT rate to less than 5% at 18 months by 2015.

HIV Burden and PMTCT efforts in Tanzania

UNAIDS Report (2010) has shown that in 2009, 1.4 million people were estimated to be living with HIV, of whom approximately 12% were children. Of these, an estimated 5% of the adults of reproductive age 15-49 were infected with HIV. Generally, HIV prevalence in the country is higher among women (7%) compared to men (5%) (TACAIDS, 2008) and is even higher for women attending antenatal clinics (8.2%) (TDHS, 2010; NACP, 2011). Data reveal that in Tanzania, about 119,000 HIV positive women give birth per year. With an estimated MTCT rate of nearly 25%, which puts Tanzania to be among 22 countries with the highest burden of MTCT of HIV, this amounts to an estimated 29,750 new born being HIV infected every year. Without preventive measures, up to 40% of children to HIV mothers will be infected in this way (MOHSW -NACP, 2004). UNAIDS (2010) estimates that about 200,000 children under 15 years of age are living with HIV of whom 90% may have acquired the infection through MTCT, posing MTCT of HIV a great concern. The MOHSW- eMTCT Plan (2012) approximates that the number of new paediatric HIV infection among under-fifteen in Tanzania is 43,050 per year. This has resulted into AIDS mortality rates among children of under-five years being unacceptably high (18.6% of the 43,050) in this country (MOHSW, 2012).

In realisation of the HIV burden to women of reproductive age and in the wake of the whole question of MTCT, the Ministry of Health and Social Welfare in collaboration with UNICEF introduced PMTCT in the year 2000 in five regions Kilimanjaro, Mwanza, Mbeya, Kagera and Dar es Salaam, and piloted in four referral hospitals and one regional hospital in Tanzania. These hospitals included Bugando, Muhimbili, Mbeya, KCMC, and Kagera (MOHSW, 2012), with the national PMTCT programme goal of reducing the proportion of infants infected with HIV by 25% in 2005 and 50% in 2010 (MOHSW, 2004). The PMTCT programme in this country falls under the RCH section of the Ministry of Health and Social Welfare and the PMTCT services have been integrated into existing RCH services in a package of comprehensive services. The PMTCT implementation is coordinated by RRCHCOs and RACC at regional level whereas at district level DRCHCOs and DACC are responsible. At health facility level RCH facility in charge is responsible for service provision (MOHSW, 2013). The integrated services are offered through static health facilities, outreach and mobile. Health care providers providing MNCH services are trained to provide a comprehensive package including PMTCT services.

Much seems to have been achieved in implementing PMTCT in Tanzania. For example by December 2011, 4603 (96%) of RCH health facilities had integrated PMTCT in routine antenatal, delivery, and postnatal care services; reaching about 70% of the pregnant women with ARV prophylaxis (MOHSW, 2012). At the beginning, ARV prophylaxis for mothers was provided during the antenatal as well as at maternity, whereas the baby was initiated at maternity and continued through the postnatal period until one week after cessation of breast feeding. In 2010, the early infant diagnosis of HIV using DNA-PCR testing was adopted and piloted in four regions and scaled up gradually. By December 2010, a total of 1520 sites were providing Early Infant Diagnosis of HIV services through collection of DBS (Dried Blood Sample and transporting the reference laboratories (MOHSW, 2012). In that same year 2010, Tanzania adopted option A regimen for ARV prophylaxis. In 2012, the country moved to option B+ where all pregnant women diagnosed HIV positive during antenatal, labour and post- delivery were initiated on fixed combination of TDF/3TC/EFV for life regardless CD4 and HIV exposed babies were provided with

ARV prophylaxis for the period of six weeks regardless the option of feeding (MOHSW, 2012).

To align to global commitments and virtual elimination of the new infections among children and to keep their mothers alive, the Ministry of Health and Social Welfare revised the current PMTCT Scale-Up Plan (2009 – 2013) hence the development of new eMTCT of HIV Plan 2012-2015. In order to achieve some of the key global targets, the country developed its own targets to guide the implementation of the programme based on the four PMTCT prongs: 50% reduction of HIV incidences among women; reduction of unmet needs for FP to zero among all women; reduction of MTC vertical transmission rate to <5%; 90% of mothers receiving ARV during pregnancy and delivery; and providing 90% of pregnant women in need of ART for their own health with life-long antiretroviral.

The strategies to achieve the intended eMTCT targets towards achieving the elimination goal included: strengthening eMTCT programme accountability at all level of implementation; developing human resource capacity through training and supportive supervision; providing quality integrated comprehensive eMTCT services offered at health facilities; to have uninterrupted logistic supplies of PMTCT commodities; actively involve the community members to participate in the implementation process; and finally providing 90% of pregnant women in need of ART for their own health with life-long ART. This national eMTCT plan called for the regions and districts to develop their own specific eMTCT plans after making their analysis of their bottlenecks towards the elimination of new HIV infections among children by 2015 (MOHSW, 2012).

Under technical and financial support from UNICEF, Iringa Region and Iringa District Council were among regions that developed their eMTCT plans in 2012, in line with the national plan. Currently, 71 health facilities are providing eMTCT services in the region with at least one health provider trained in comprehensive PMTCT, whereby 91% of pregnant women attended at least one ANC clinics in 2011. In terms of coverage, for example, 96% of the health facilities are providing PMTCT services in which 93% of pregnant women were counselled and tested for HIV, and 70 % of HIV positive women were enrolled in PMTCT care and follow up

and provided with ARV prophylaxis (HMIS, 2011). Generally, the number of pregnant women tested for HIV have increased from 78% in 2009, reaching 85 % of them in 2012 (HMIS, 2012). This statistics suggest a high acceptance rate of testing at ANC sites that offer HIV-testing services (HMIS, 2011). According to HMIS (2010), the proportion of pregnant women who access PMTCT services has grown from none at the pilot stage of the PMTCT services in 2005 to 85% in 2011, and that access to antiretroviral (ARV) drugs continues to grow district wide with 78% of pregnant women living with HIV having received ARVs for PMTCT in 2010.

1.2 Description of PMTCT programme with focus on e-MTCT - 2012-2015

The programme to be evaluated is based on Iringa District Council, in Iringa. It was introduced in 2005 and piloted in five health facilities and gradually scaled up to 71 health facilities by 2010, supported by different partners. Need for HIV programme was to address high MTCT of HIV as a public health problem that affects infants and children and their HIV positive pregnant and women. The programme has been integrated within the existing maternal and new born care as it has been proven to be an effective strategy to reduce HIV infected mothers and their children. The main gate way is HIV pre counselling and testing which was conducted as part of routine antenatal care hence facilitate prevention, treatment, care and support services for HIV positive pregnant and breast feeding mothers and HIV exposed infants.

The provider- initiative approach has been an instrument for increasing the coverage of HIV testing among pregnant women and post-delivery mothers, thus has contributed to high coverage rate 93%, in 2011 (HMIS, 2012). For example, in 2011 the total number of pregnant women who attended ANC clinic was 8180 of which 7817 (96%) were tested for HIV and 666 (8.5%) diagnosed to have HIV positive (HMIS, 2012). All infected women diagnosed to have HIV positive are given appropriate prophylaxis and treatment including their HIV exposed babies as per guideline, using the adopted new WHO guideline issued in 2012 June that called for lifelong ART to all pregnant women who were HIV positive, regardless their CD4 count (MOHSW, 2011). For HIV, exposed babies are provided with prophylaxis soon after delivery. The new strategy is aimed at eliminating MTCT to less that 5% by 2015.

To attain the elimination strategy the district is focused on reducing 90% of new infections in infants and MTCT rate less than 5%. To attain this goal the district is guided by the eMTCT plan which has stated the target expected effects, objectives; major strategies; programme activities and resources; programme logic model and stakeholders supporting eMTCT plan implementation are described in programme logic model in the diagrams below.

1.2.1 Programme targets, objectives, and expected effects of e-MTCT strategy

The District came up with the following targets during development of eMTCT plan for 2012-2015.

- Increased percentage of HIV positive pregnant women and breast feeding mothers receiving lifelong ART for PMTCT from 55% 2011 to 90% by 2015.
- Increased proportion of HIV exposed infants received ARV prophylaxis for MTCT soon after birth as per the national guideline at health facilities from 48% in 2011 to 90% by 2015.
- Increased proportion of HIV exposed infants tested for HIV by the age of 4 – 6 weeks from 21% in 2011 to 90% by 2015
- To complement in achieving the national goal of elimination to less than 5%

1.2.2 Major Strategies for PMTCT with focus to eMTCT

A number of strategies developed to respond to the key bottlenecks identifies and facilitates the achievements of the targets that include: Building capacity to PMTCT providers using the updated WHO (2013) comprehensive PMTCT – option B^+ approach; ensuring quality of PMTCT option B^+ services are provided according to national guideline, Standards operating procedures and protocols; ensuring uninterruption of basic commodities, mainly drugs like CTX, ARVs, ART, laboratory facilities HIV test Kits, DBS, through proper stock management and timely ordering; engaging communities to create demand for PMTCT utilisation: facilitate follow up of HIV positive pregnant and lactating mothers and their HIV exposed babies, through use of mothers' support groups in the community; and promote adherence to lifelong ART.

1.2.3 Programme Activities and Resources

The programme activities and resources are human, material, organisational resources required to effectively implement PMTCT intervention this include: availability of trained PMTCT providers, adequate and uninterrupted PMTCT supplies such as Laboratory facilities (HIV Test Kits, DBS Kits for early infants diagnosis of HIV, reagents for CD4), drugs (ARV prophylaxis, ART and cotrimoxazole for opportunistic infection). Standard programme data collection tools such as registers, protocols, SOP, and monthly summary.

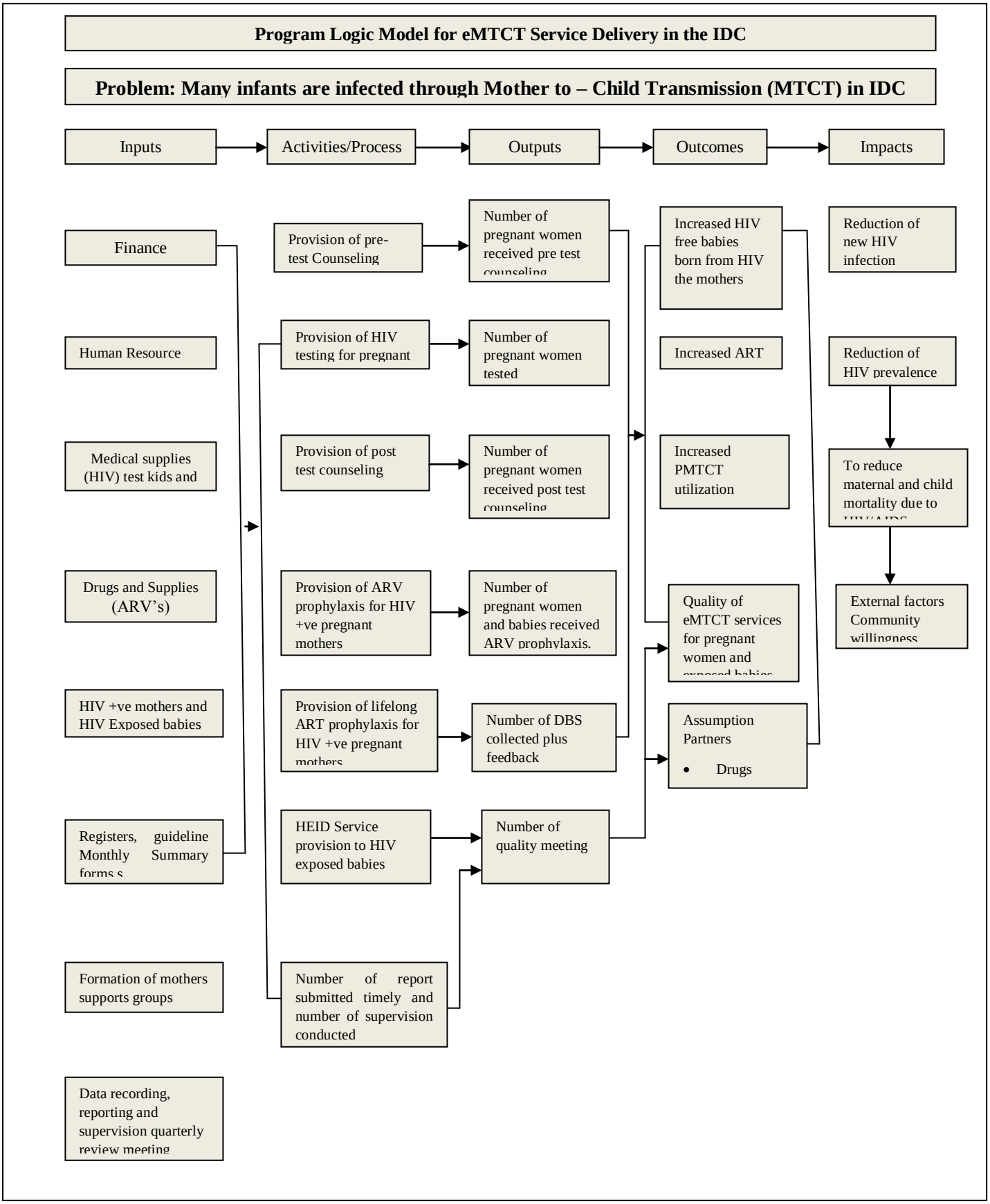
Moreover, funds are also among the key resources for implementation of PMTCT services most of the activities are supported mainly by UNICEF and TUNAJALI.

1.2.4 Programme logic model

The logic model describes the sequence of events for bringing about changes to the MTCT problems through the main PMTCT programme elements, in the way of how the programme in Iringa district is supposed to work to solve the problems. In addition, the model helps to focus on the important elements of the PMTCT programme and identify what evaluation questions should be asked and why and what measures of performance are key ones. (Wholey,1987).

However in 1.1 figure below describes the logic model for PMTCT service delivery in Iringa District Council displays the resources needed to support the programme operations and links processes to the intended effects for changes in the problems. Elements that are connected with these logic models include programme inputs, processes, outputs, outcomes and impacts see (Figure 1.1)

Figure 1.1 Logic Model



1.2.5 Stakeholders Analysis for PMTCT programme in Iringa District Council

The Centre of Disease Control (CDC), (2002) defined stakeholders as individuals, groups or organisations that can affect or are affected by an evaluation process or its findings. Patton, (2008) pointed out that stakeholders are selected to work with the evaluator throughout the evaluation in terms of participating in making design and methods for measurement, interpretation of the results to ensure that evaluation is meaningful, relevant and credible. Therefore, the Evaluability assessment on PMTCT services programme has identified a number of stakeholders to be involved in PMTCT programme, including: The Ministry of Health and Social Welfare, supervisors at regional and district levels, key implementer's, development partners and beneficiaries. Stakeholders' identification and engagement has been done carefully to assure support during the evaluation process.

For this evaluation the stakeholders are divided into three major groups: Stakeholders involved in programme operations. This include (i) CHMT, health care providers, partners and funding agencies ie UNICEF, TUNAJALI and CUAMM, (ii) Those served or affected by the programme mainly the beneficiaries, HIV positive pregnant and breast feeding women, including HIV exposed infant and children including their partners. (iii) The last group are those intended or primary users of the evaluation findings including funding partners policy makers like and key implementers.

Communication Strategies:

Different approaches used for communicating mainly sharing progress among stakeholders is through quarterly meetings, reports, e-mail, letters and phone. More details are indicated in the stakeholders analysis table (Table 1.2).

Table 1.1 Stakeholder Analysis for PMTCT Service in Iringa District Council.

Stakeholders	Role in the Programme	Role in Evaluation	Interest/ Perspective on Evaluation	Means of communication	Level of importance
MOH&SW	.Development of Guideline, Standards and training materials .Medicine and supplies	Use of findings for decision making	Effectiveness	Sharing reports	High
UNICEF	.Financial and Technical support .Conducting periodic monitoring.	Use of findings for decision making and evaluation questions Development	Use of findings for decision making	Email, phone and sharing	High
TUNAJALI	.Technical support. .Organising programme resource and finance support.	Use of findings for decision making and evaluation questions Development	Use of findings for decision making	Face to face	High
CUAMM	Financial and Technical support .Conducting periodic Monitoring and evaluation	Use of findings for decision making and evaluation questions Development	Use of findings for decision making	Face to face	High
RHMT	.Supervision .Quality control	.Use of findings for decision making	Use of findings for decision making	Face to face	High
CHMT	Supervision, Quality control Medicine supply and M & E	Data provision/Source Use of findings	Use of findings for decision making	Face to face	High
HIV positive mothers	.Service utilisation .Beneficiaries	Data provision/ Source	.To get quality services	Face to face	Medium
Health care providers	.Health care provision .Implementers	Data provision/ Source	Use finding to improve PMTCT services	Face to face	Medium
Mother support groups	.HBC .Dropout tracing	Data provision/ Source	To get quality services	Face to face	Medium

Source; Field, data (20150

1.3 Statement of the Problem

Despite the remarkable success in the numbers of women enrolled in the PMTCT in Iringa region, data show that the dropout rate is high. In 2013 for example, the dropout for the region was 40% while for Iringa District it was 50% (HMIS, 2013). Indeed, these data support the information that indicates that only 48% of HIV exposed babies aged 4-6 weeks tested for HIV through DNA/PCR do access ARV

prophylaxis for e-MTCT. Hence, the MTCT rate is also remaining high 9.1% (HMIS, 2014). Furthermore, the HIV prevalence among pregnant women is 9% (Tanzania HIV and Malaria Indicator Survey (THMIS, 2011/2012). What could be the factors for this? Could it be the process factors that contributed to this problem? Could it be input factors? Could the problem be associated with outcome factors? To what extent is quality a factor to this problem? On this, the father of quality, Donabedian (1980, 1986, 1988), emphasizes that continuum of care and access are important elements of quality of care such that if we are to offer quality care, continuity of the service is imperative.

Based on Donabedian views, there are three levels for assessing quality. These are structure, process, and outcome. In process, the main quality indicators involve effectiveness and compliance to guidelines and during procedures when providing PMTCT services for example, health care providers to adhere to standards when providing pre and post counselling and testing for HIV; counselling and support for ARV adherence to HIV positive pregnant women and HIV positive breastfeeding mothers. In terms of structure, the main indicators are availability of supplies, availability of qualified human resources and waiting time for clients. As for outcome, quality indicators measure the impact for example satisfaction question in these efforts is the quality of the services being offered so far. The fact that we have clients dropping out, it suggests that the PMTCT programme is definitely experiencing problem in its implementation, hence calling for this evaluation.

1. 4: Evaluation questions

1.4.1 Evaluation Main Question

How well has the PMTCT programme in Iringa district been implemented to the satisfaction of HIV positive women.

1.4.2 Specific evaluation questions

i. Are the required input factors for PMTCT adequately available to the satisfaction of clients?

ii. What has been the level of the process factor and what are its effects on the on the perceived quality to the satisfaction?

1.5: Evaluation objectives

1.5.1 General objective

The general objective of this study is to assess the quality of PMTCT services in Iringa District in terms of the perceived quality services to the satisfaction of clients

1.5.2 Specific Objectives

i. To assess the input factors and their effects on the perceived quality to the satisfaction of the clients

ii. To assess the process factors and their effects on the perceived quality to the satisfaction of the clients

1.6: Significance of the evaluation

The need to carry out this evaluation comes from the fact that despite the initiatives taken by the government and partners who have invest a lot of resources to alleviate the situation, still there is an evidence which has been identified in quantitative data indicating challenges in some indicators such as high dropout rate and MTCT rate remains high. This implies continuity of care is questionable, thus, this may result in failure in achieving the elimination goal. The drop out has negative consequences for both mothers and HIV exposed infants. This negative impact affect the outcome of HIV exposed infants which may result into increased MTCT. Thus, it is important to understand and examine the quality of PMTCT services provided to HIV positive women and their HIV exposed infants when receiving care in health facilities during follow up visits, and this is the rationale behind this evaluation. Therefore, the process evaluation will provide baseline data for further evaluation hence providing feedback to implementers, stakeholders and policy makers on the identified gaps.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Literature review

In this chapter, the main discussion will be on two parts, the theoretical part and empirical part with focus on different quality attributes. The chapter will be presented by giving an overview of the situation of PMTCT, concept of quality care client views on quality, various criteria to monitor quality, measurements of quality and empirical literature review.

2.1.1 History and Magnitude of HIV

The Human Immune Deficiency (HIV) has created an enormous challenge worldwide. Since the recognition of the disease, HIV infected close to 71million people and more than 30 million have died due to acquired immune deficiency syndrome (AIDS). More than 66% of 40% million people are living with HIV/AIDS(PLWHA) are in Sub-Saharan Africa, where AIDS is leading cause of deaths (UNAIDS, 2010).

2.1.2 Situation of Prevention of Mother to Child transmission

Joint United Nations Programme on HIV/AIDS,(2012), reported that In sub-Saharan Africa, women comprised 60% of people living with HIV and Acquired Immune Deficiency Syndrome in 2011, and was the leading cause of deaths among women. The burden of HIV in women has the implications not only to their health but also to the health of their children. Moreover, in 2011, ninety one percent of children were living with HIV in sub-Sahara Africa. According to Tanzania HIV/AIDS and Malaria Indicator Survey, (2011-2012), the prevalence of HIV among women in reproductive age reported to be 6.2% and 3.2% was pregnant women.

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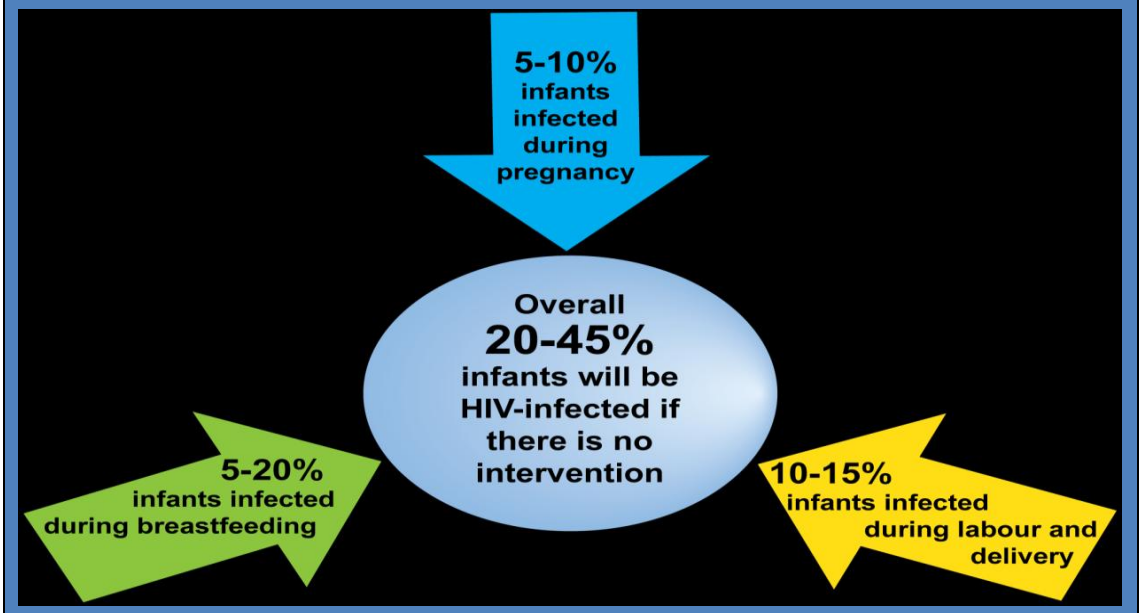
Figure 2.1 Estimated HIV outcome for infants born to HIV positive women



Source : Adopted from National Guideline for PMTCT, 2013

It is estimated that about 70,000 to 80,000 newborns were at the risk of acquiring HIV every year during pregnancy, delivery or via breastfeeding (THMIS, 2011-2012). Mother –to-Child –Transmission of HIV is transmitted from an HIV infected mother during pregnancy, labour, delivery or breastfeeding. Without intervention the overall MTCT is approximately 20% to 45 %.(See Figure 2.1), the prevention of MTCT is the main strategy of reducing transmission and keeping mothers alive.

Prevention of Mother-to-Child Transmission (PMTCT) is one of the packaged of interventions focused on responding to the vulnerability of women and children. However, the coverage rate of ART for pregnant women is very low only 15% for those who are in need of it (MoHSW,2012). In Tanzania, the PMTCT package is integrated into routine RCH services where a series of activities are carried out that include counselling, testing, leading to early receiving treatment and prophylaxis for

HIV positive pregnant and breastfeeding and their HIV exposed infants so that the transmission is prevented. Therefore, this necessitates the need for critically focus on quality care to ensure HIV continuity of care, is the most important factor in quality (MOHSW, 1999).

2.1.3 Quality of care

This referred to as meeting the needs of the clients through achievement of predetermined goal and standards. However, to ensure quality the programme should be a room for improvement. The quality of health care focused on meeting and satisfying the needs of clients of which lies at the heart of quality improvement. WHO/AVSC/ International (1999). Moreover, health programmes should focus on meeting the client needs through provision of wide range of quality service, for example in PMTCT services there is range of services delivered at multiple points through women's interaction with health system. (MOHSW, 2012). However, in many developing countries, quality of care has not been a priority issue (International Journal for Quality in Health Care, 2002).

2.1.4 Various criteria to monitor quality

The concept of quality care has tried to answer two key questions; Firstly, can an individual get care they need when they need it or required? The second question is, when they get care, is it effective in terms of effectiveness and interpersonal relationship. (MOHSW, 1999). Moreover, to assess quality of health care, the concept and definitions of quality must be translated specific criteria and standards that specify and describe the relevant quality attributes that include: structure (inputs), process (activities) and outcome (results) (Donabedian, 1988). This includes guidelines that describe in general way how any activity should be undertaken. More especially it underscores standards used to describe performance. Standards can simply be defined as quality measure serving as a basis to judge the level of excellent performance

2.1.6 Measurement of quality

Measuring quality should be carried out to ascertain what is being done and what was supposed to be done, it should never be done as a blaming procedure (De Greyndt, 1995). Thus, based on Donabedian (1988) conceptual model for measuring quality of care which has three components, from which information about quality can be obtained. Moreover, Donabedian,s quality assessment approach focuses on three levels: structure (inputs), process (activities) and outcomes (results). This approach or method is widely used to assess health care. When the three levels has been combined provides an opportunity to obtain a complete assessment of quality the combination can help to explore, more in information in several aspects of quality. (Donabedian, 2002).

This approach assesses programs operation and services delivery with focus on dimension that lead to improving the observed deficiencies (De Geydnt, 1995). Thus using the structure-process-outcome model the shortcoming across program will become evident and may indicate area for improvement. Furthermore, (De Geyndt, 1995), pointed out that conceptual model for measuring quality based on three basic elements-structure-process and outcome helps to guide the selection of indicators based on guidelines and performance standards.

(i) Structure

This describes programme inputs or efforts that enhance the health facility readiness to provide the intended services when clients came for the required services. (Warren, 2015). Constant availability of resources needed for provision of quality services is crucial with adherence to guidelines and protocol, For example, human resources that are responsible for provision of services and they have major influence in provision of quality offered, ie PMTCT services rendered to HIV positive women and their HIV exposed babies. Skilled health care providers are required to transform all resources into action that are required for providing quality services, failure to that they need to be trained. In addition, to ensure constant availability of health care providers, in health facilities prevent uninterrupted of services. De Geyndt, (1995). Structural inputs provide concrete and quantifiable information but not sufficient condition for good quality.

Provision of an adequate supply of drugs and consumables supplies is critical to successful implementation of services (WHO, 1994) PMTCT. For example, availability of drugs ART, Syrup Niverapine, Co-trimoxazole in PMTCT services will enhance HIV positive pregnant women and breast feeding mothers to increase utilisation. Any short-fall of this is associated with poor quality. Furthermore, availability of infrastructure, support mechanism, information system that need to monitor programme progress using standardized tools for example in PMTCT a number of tools used such as registers, cards, PMTCT guideline to ensure standard quality care, supervision checklist. In this evaluation inputs for PMTCT services will be investigated that included, human material resources and organisational structure availability, completeness of records and utilisation.

(ii) Process

Refers to actual implementation of various activities or procedures that take place daily in the health facilities that need to be performed by health providers so that clients receive quality care. (Warren, 2015). This includes a number of factors such as, technical competence that involves application of knowledge and skills in line with the use of standards guidelines and protocols. Moreover, client-provider interaction is a key factor that enhances satisfaction, acceptability and utilisation among HIV positive pregnant women and breastfeeding mothers, client -provider interaction enhances the likelihood of achieving both clients' needs and as well as the programme (WHO, 1999).

In process stage valid judgment about quality care can be drawn effectively because of the actual implementation of the activities or takes place. Donabedian, (1988), noted that it is easy to obtain information on quality care during process stage using different tools such as: direct observation, interview and medical record review. For example, direct observation of a certain procedure i.e in this evaluation, observing health providers when providing counselling to pregnant women or breast feeding mothers, the assessor will observe the application of skills and technique on counselling, interaction between health care providers and HIV positive women during counselling, how health care provider apply skills to convince a HIV positive women to be accept the lifelong ART and to promote continuity.

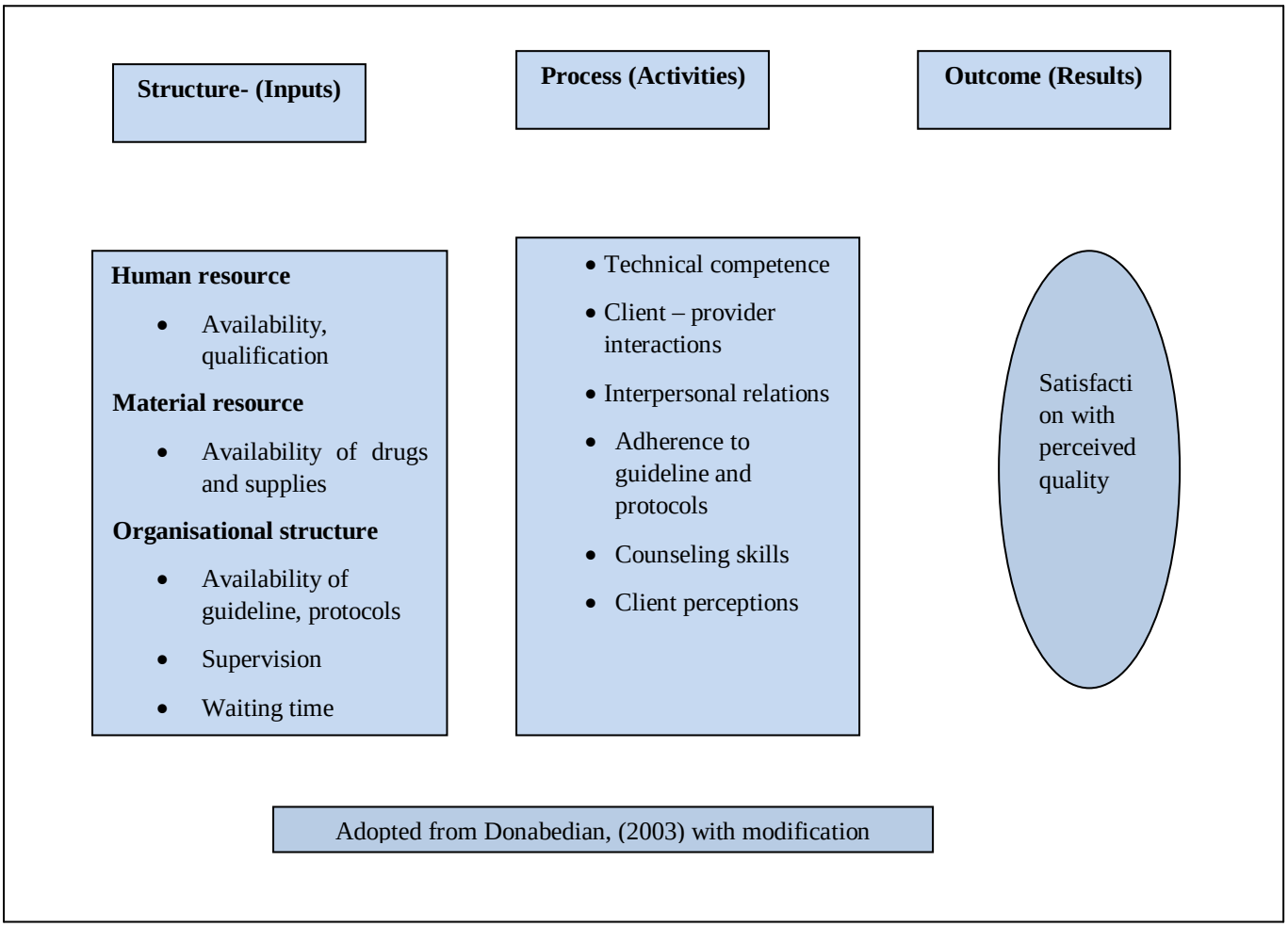
For Interview can be used to assess quality care during exit interview obtaining information on client satisfaction with services they received or assess the level of understanding on the advice given for example how to ART or how to administer syrup Niverapine to HIV exposed infant and return visit. For record review will be verify various services provided to clients i.e HIV positive women received TB screening test, WHO clinical staging, CD4 count test during pregnancy and recorded and early infant diagnosis of HIV to infant at the age of 4 – 6 weeks and HIV testing after cessation of breastfeeding. Donabedian (2003) noted some limitations in record review that it cannot show how skilful the provider was but it tells about when and how something has been done. He further concluded that the processes are directly related to outcome rather than the characteristics of structure.

Process measures seeks to identify problems that interfere with proper delivery o health services, they assess how well the health perform the task. A correct process has a high probability of a satisfactory health improvement outcome. Process deficiencies required correct action in how care is delivery.

Outcome

Refers to changes in individuals (Donabedian, 2003). Furthermore, (De Geyndi (1995) describes outcomes as the end result of the process of client care the timely availability of inputs. According to Donabedian (1998), outcome also include the changes in behaviours, degree of patient satisfaction. Mostly measures outputs from service delivery which includes client satisfaction, coverage of both attendance and services provided, morbidity, survival for PMTCT services the expected outcomes is to have HIV free infants and health improvement of HIV positive women. Thus, when good quality care has been ensured there should be increased utilisation of services and reduced morbidity. Warren(2015), highlighted that output can be measured through client exist interviews to assess client satisfaction with services received. More correcting outcome defects require improving structure or process because an outcomes has already occurred it may be difficult to be corrected.

Figure 2.2 Donabedian's framework for measuring quality in health care



2.2 Empirical Literature Review

2.2.1 Review of studies from abroad

A study on evaluation of mother's perception on the quality of care services in central Shanghai China assess both the availability of equipment and supplies, use of standard guideline during provision of services and provision of information. It was found that mothers had greater expectations of help from health care workers compared with that was provided during clinic visits. The disparity between mother's expectation and the level of service provision became apparent to health planners in the region after presentation of the results of this study (Lomoro, Ehiri, Quian and Tang. (2002). Moreover, it was also observed that mothers opinion on quality on the given care, about 50% did not consider that the services to be of high quality, as they defined that high quality is full satisfaction of the mother and baby. Some reasons given by mother their response were service providers do not usually give us reliable and correct messages, they are usually in hurry. A study conducted in Mali by Mariko (2003), reported that mother's perception is key determinant for deciding whether to attend in the health facilities or not thus, quality of care can be observed from the providers or users' perspective and is differentiated into observed and perceived quality (Mariko, 2013), client perception reflecting result of the given services

Mariko (2003), in his evaluation on quality of care and the demand for health services in Bamako-Mali, concluded that omitting the process quality variables it can produce biased results whereas to measure quality by structural attributes only are necessary but is not sufficient.

In South Africa a study was done by Mnyani and Macluntyre (2013) with the title "Challenges to delivering quality care in prevention of mother-to-child transmission of HIV" specific objective to investigate key aspects of the quality of care in PMTCT services in clinic in Soweto, focusing on the PMTCT programme knowledge and experience of HIV positive women and health care providers. The result showed gaps in knowledge among HIV positive women of the available PMTCT programme, despite the counselling session provided, although they perceived that they received

adequate counselling. Whereas, health workers had low knowledge on the use of PMTCT guideline, similarly they had low job satisfaction.

World Health Organisation (WHO), (1998), reported that key determinants of quality include: availability of basic supplies, human resources, infrastructures supportive environment will ensure continuing of services being provided. This has been evidenced by a study conducted in Bamako-Mali by Mariko (2003), which reported that availability of drugs has strong effect on utilisation of health services. A study in Zambia by Mahingo (1996), noted that due to inadequacy of resources both human and materials women received in sufficient care, hence suffered adverse consequences because complications which were not identified neither treated. The implication that lack skilled health personnel and material resources can prevent women from getting quality care. Moreover, inadequate number of trained health care provider in PMTCT services, insufficient basic supplies and poor infrastructure has effect on quality of PMTCT services. Thus, provision of adequate supply of drugs, human resources is critical to successful implementation of activities. (WHO, 1998).

2.2.1 Review of studies from Tanzania

The evaluation done by Selena, Asha, Amnesty, Mpembeni, Mosha, Mohan, Yang, Chebet, Lipingu, Killewo, Winch, Baqui and Kilewo (2015), to assess pregnant women and health providers perceptions about integrated HIV testing and counselling on care seeking during antenatal care. The findings revealed that women expressed that lack of supportive client-provider interaction is among the major problems, similarly, harsh treatment results in lack of trust or breach of confidentiality.

A study on client satisfaction with PMTCT services conducted in Dodoma-Tanzania reported that about a quarter of the respondents were not satisfied with the services they received during clinic visits that include: counselling, privacy, time waiting time spent waiting for services. Willingness to continue using services can be reflected quality of service rendered (Msamanga and Kalinga (2002).

CHAPTER THREE

EVALUATION METHODOLOGY

3. 1 Evaluation approach

Structural, Process, and Outcome evaluation approaches were employed to assess the quality of PMTCT services provided to HIV positive women and exposed infants at health facilities of Iringa District Council. Structural attribute was chosen because it was possible to evaluate settings where care services were being provided. It denoted human resources availability, facilities, as well as equipment needed for provision of quality PMTCT services. Process attribute assessed what actually happened in giving and receiving care, whereas, outcome based on assessing the effects of PMTCT care to health status of clients.

3.2 Evaluation design

The cross-sectional and descriptive in nature, where both qualitative and quantitative were employed to assess the quality of PMTCT services provided to clients at health facilities of Iringa DC. Cross-sectional descriptive type of evaluation design involved systematic collection and presentation of data at one point in time that give a clear picture of quality of services provided to HIV positive pregnant women and HIV exposed infants.

3.3 Evaluation period

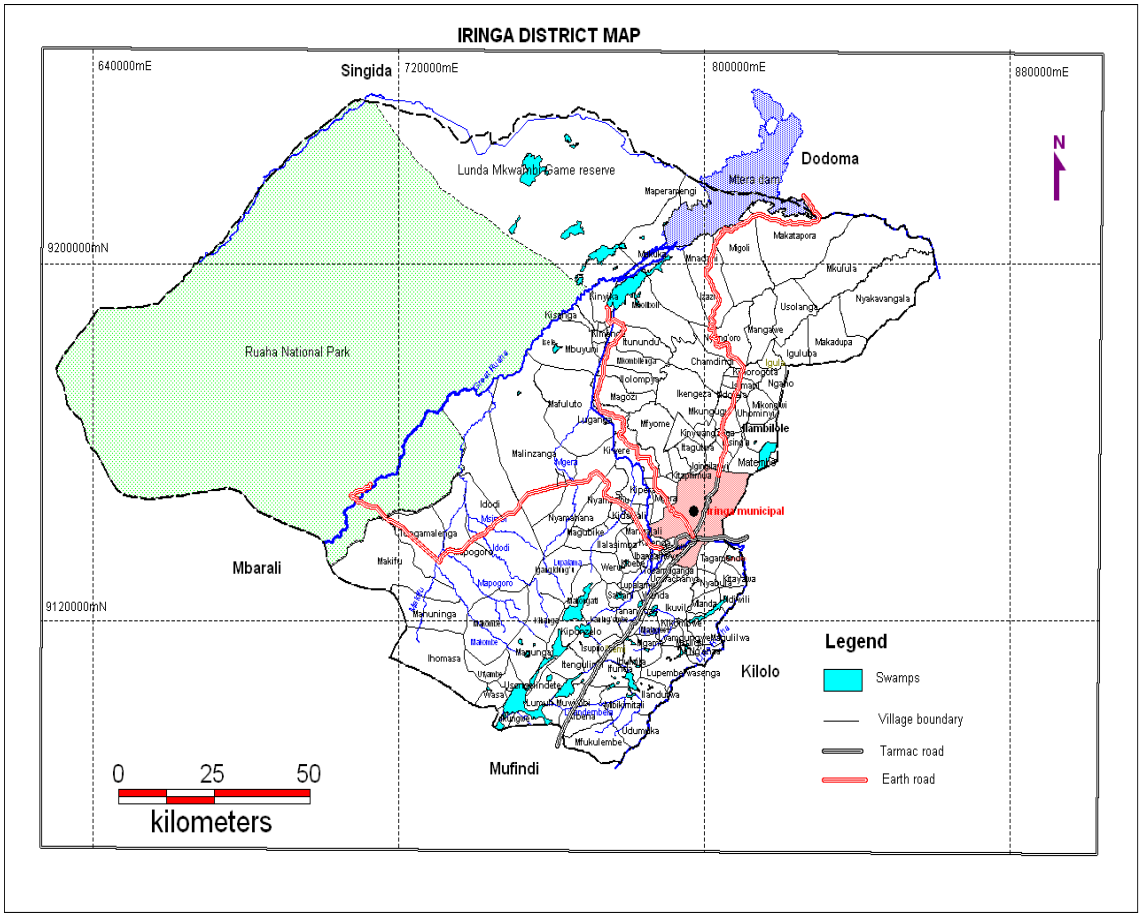
Evaluation of PMTCT services took 2 months, whereby data was collected from March 2015 to April 2015.

3.4 Study areas

The evaluation of PMTCT services was conducted in Iringa District Council. The district was purposively selected due to several reasons. First, it was a special programme, where development partners have invested a lot of resources. Second PMTCT programme was due for evaluation in 2015 in line with the global focus. Thirdly, it was due to negative outcome of high dropout rate (50%) among HIV positive women and their infants registered in PMTCT programme. The last reason was that the HMIS had been revised within this implementation period.

Administratively the district is divided into six divisions, 23 wards and 122 villages. The population according to the 2012 census was 254,023 people of which 49669 are women of reproductive age. PMTCT services in 2014 were available in 73 health facilities of which 66 dispensaries, 6 health centres and one diocesan district hospital, and are provided under routine RCH through mobile, outreach and static sites.

Figure 3.1 Map of Iringa District Council



3.5 Study population

The study population included programme manager, health workers providing PMTCT services and a representative sample of clients attending PMTCT services in health facilities of Iringa District Council. The target population was all health care providers who provide PMTCT services in health facilities, HIV positive women registered in PMTCT programme, HIV positive women registered in PMTCT

programme who are lost to-follow up for three months and more, as well as Council Health Management Team.

3.6 Units of analysis

The unit of analysis for evaluation involved HIV positive individuals in the PMTCT programme and those who have dropped out and individual health providers including DACC, DRCHCO, Pharmacist, DMO, DNO, Laboratory technologist and CHACC.

3.7 Variables and their measurements

3.7.1 Independent variables

Independent variables used include; Social-demographic characteristics of PMTCT clients, availability of medical supplies, adherence to guideline and privacy.

3.7.2 Dependent variables

Dependent variable measured was Perceived quality of PMTCT services offered to HIV positive women and their exposed infant.

3.8 Evaluation Focus and dimensions

3.8.1 Focus of evaluation

The centre for disease control (CDC), (2012), has pointed out that evaluation is situational, thus they differ depends on: the purpose of evaluation, length of the program operation and when results is needed by users. Moreover, other factors need to be considered when conducting evaluation include: availability of resources both human, financial, time for conducting the evaluation and length of program operation (Fitzpatrick, Sanders and Worthen, 2004). Therefore, from this view, the evaluation was focused on process evaluation to assess the quality of PMTCT services provided to HIV positive women and their HIV exposed infants in health facilities in Iringa District Council with the purpose of indentifying bottlenecks in quality.

3.8.2 Evaluation dimensions

De Geyndt (1995)m highlighted that quality of health care is multidimensional concept interwoven with judgement about what constitute good quality. Foe this reasons this evaluation of quality of PMTCT services offered to HIV positive women and their HIV exposed infants was assessed based on the following three dimensions:

i) **Availability:** of resources required to provide quality PMTCT services that included: adequate trained PMTCT providers, constant availability of ART, ARVs, opportunistic infections (Is) drugs, laboratory supplies ie HIV test kits, CD4 reagents. In addition organizational arrangements that include: availability of guidelines, protocols registers and reporting forms. Waiting time, support mechanism from management ie supervision and the frequency.

ii) **Compliance:** provision of PMTCT services according to guideline to guideline and protocols. This include: technical performance in counseling, client-provider interactions and adherence to guidelines that included: client history taking, physical examination, CD4 count, HIV clinical staging, TB screening, weight monitoring, provision of ARV, ART, and opportunistic infection drugs.

iii) **Outcome of care:** the end results of the process of the client care and timely availability of the necessary inputs (De Geyndt, 1995) this include the degree of client satisfaction, adherence to ART. For detailed information on has described in attached annex vii matrix for evaluation dimension.

3.9 Sample size

The sample size was determined from sample frame of health facilities in Iringa District Council. There were three categories of health facilities involved which are: Hospitals, Health Centres and Dispensaries. The district has only one hospital which was purposefully selected and included in the sample frame of facilities under study. The district has 10 health centres and 63 dispensaries, therefore 30% of health centres were selected and 10% of dispensaries. This make the total selected health facility to be 1 hospital, 3 health centres and 6 dispensaries respectively. The study sample of health care providers was determined purposely because these people were

the ones who provided care to people living with HIV in PMCTC clinics. Two health care providers were selected from each dispensaries, 3 from each health centre and 4 from hospital to be involved in observations during data collection to make a total of 25 health care providers. The second group of health care workers were PMCTC managers of which the total number was 7. The study sample for client's attending was selected conveniently hence 2 clients were picked as they came out from receiving PMCTC services in each health facility making a total of 50 study samples whereby 20% cause from client cluster. The third group were 18 HIV positive women, participants for FGD. The total sample size was 100 participants.

3.9.1 Sampling procedure/technique

i) For quantitative method

As for document review, data were selected accordingly to assess clinical records using structured questionnaire to collect quantitative clinical data on services provided to HIV positive women TB screening, WHO clinical staging, CD4 assessment and early infant diagnosis including availability of drugs and supplies.

ii) For qualitative method

Convenient sampling was used to select 50 clients for exit interview with average of 4 clients per day per facility. Purposive sampling was used, with the aim of gathering individuals with the experience on PMTCT programme. A total of 7 key informants for interview were included, which were DRCHCO, DMO, DNO, DACC, CHACC, Pharmacist and Laboratory Technician. Similarly, PMTCT providers were selected purposively to assess their application of counselling skills and techniques in accordance with the guideline. Participants for FGD were selected based on their ability to provide in-depth information.

3.10 Types and sources of data collection

3.10.1 Data collection methods

Quantitative and qualitative; primary and secondary data were collected. Quantitative data refers to all data which range from simple count such as the frequency and occurrence to more complex data such as tests scores, prices or costs (Sanders,

2007).While qualitative data are defined as non-numerical and are based on explanation (Sanders,2007).

The questionnaire was administered using Face-to-face interviews with HIV positive women who were registered in PMTCT programme and those who were lost to-follow-up. The method was applied in a discussion form with the Key Informants in what is called in-depth interviews. The observation method was used to PMTCT providers on application of counselling skills and their interaction with the clients. Secondary data was collected for different services provided to HIV positive women that included Monthly TB screening, CD4 assessment at once during pregnancy and WHO clinical staging and for HIV exposed infants was on Early Infant Diagnosis of HIV services through PMTCT registers and MTUHA, whereas information was obtained on completeness of registers and attrition, record of those adhere to lifelong ART.

3.11 Validity issues

3.11.1 Validity issues

Validity can be defined as the degree to which an instrument measures what it is supposed to measure (Polit & Beck 2008). There are two main types of validity: external and internal validity.

i. External validity

External validity refers to the generalisability of the research findings to populations, settings, treatment variables and measurement variables. The study is externally valid if its findings can be generalised to a larger population. The sample size for this study comprised a total of 68 PMTCT mothers aged 19 – 49 who attended for PMTCT services from twelve health facilities, with non-response rate of 10%, which indicate that the findings can be generalised to a wider population.

ii. Internal validity

Internal validity refers to the extent to which an instrument measures what it aims to measure (Wholey, Hatry & Newcomer, 2010). To ensure internal validity, the principal evaluator used the same questionnaire with well-structured questions and made sure that there was causal connection between programme and intended effects to all participants. Also, the questionnaire was pre-tested before being administered

to participants. Moreover, all data collectors were trained in advance using standardised training protocols to eliminate bias.

3.12 Data management and analysis methods

Quantitative data were processed using advanced programme of Statistical Software Programme for the Social Science (SPSS) version 16 starting with coding and importing into the software. Before the analytical process, data were cleaned and the frequencies of each variable were run to ensure consistency. In- depth interviews were transcribed verbatim into Swahili and then the transcriptions were then translated into English and typed in Microsoft word. In-depth interviews were then imported and processed by Atlas.ti software package. Then data were coded and condensed to produce meaning and then data were presented in the organised manner.

3.13 Ethical issues

Prior to conducting the evaluation an introductory letter was obtained from the Director of postgraduate studies Mzumbe University for the District Executive Director (DED) and District Medical Officer (DMO) seeking permission to conduct the proposed evaluation.

The DMO wrote a letter to the health facility in charge of the studied health facilities. The letters were presented to village's government leaders in village where there were studied facilities. A written informed consent was given to respondents to grant permission to carry out the study after explaining the purpose of the study. To ensure confidentiality each questionnaire was serial numbered and was observed when selecting HIV positive women for exit interview or during direct observation. Similarly during report writing and dissemination participant's confidentiality was respected.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This study aimed at evaluating the quality of PMTCT services provided to HIV positive women and their HIV exposed infants in Iringa district. The objectives were; to assess the availability of inputs factors and its effects on the satisfaction of the clients; to assess the process factors and the perceived quality to the satisfaction of clients. The chapter is divided into five major sections. Section 4.2 presents the demographic characteristics of the respondents involved in the study. Section 4.3 represents finding of the results on outcome factors with focus on client's perception and satisfaction with quality of PMTCT services among HIV positive women including their reasons for the given perceived quality and satisfaction. Section 4.4 represents structural factors (inputs) this included human resource, material resources and organisational structure, in section 4.5 this represents findings on process factors that include technical performance in counselling, adherence to guideline and client –provider interactions.

4.2 Sample and characteristics

(i) Demographic characteristics of respondents

This section presents a description of the demographic characteristics of respondents involved in exit interviews, direct observation a non-participant observation and focus-group discussion. A total of 50 respondents were interviewed face to face during exit interviews immediately after receiving PMTCT services in the respective health facilities. In terms of age, 28% of the respondents were of age group 15-24 years, 46% age group of 25-34 ages and 26% age group 35 and 49 ages. With respect to marital status, the majority of the respondents (54%) were married, while 42% and 45% were single and widowed respectively. In relation to educational levels, 94% of the respondents had primary education, 4% had no formal education while 2% had secondary school education. With regard to types of occupation, 62% of the respondents were peasants, 36% were house wives and 2% were students (see Table 4.1).

Table 4.1 Demographic characteristics of PLAHIV (N=50)

Characteristics	Frequency	Percentage
Age group		
15-24 years	14	28%
25-34 years	23	46%
35-49 years	13	26%
Total	**50**	**100%**
Marital Status		
Single	21	42%
Married	27	54%
Widowed	2	4%
Total	**50**	**100%**
Education Status		
No education	2	4%
Primary	47	94%
Secondary	1	2%
Total	**50**	**100%**
Occupational status		
House Wives	18	36%
Farmers	31	62%
Students	1	2%
Total	**50**	**100%**

Source: Field data (2015)

(ii) Focus Group Discussion respondents' characteristics

Two focus group discussions were held with 18 HIV positive women who had been in PMTCT programme in two health facilities. The two FGDs comprised 12 and 6 participants respectively. In terms of age, 44.4% were of the age group 19-24 which was the largest group followed the age group 30-34 (16.6). With respect to marital status, 55.5% of the respondents were single, 33.3% were married and 11.1% were cohabitants. Therefore, this implies that the majority of the respondents in the study were at age group 19-24 which implies that most of the respondents were single in both FGDs and exit interview see Tables 4.1.

Table 4.2: FGD characteristics and distribution (n- 18)

Characteristic	Attribute	Frequency	Percent
Age group	19-24	8	44.4
	25-29	2	11.1
	30-34	3	16.6
	35-39	2	11.1
	40-44	1	5.5
	45-49	2	11.1
	Total	**18**	**100**
Marital Status	Married	6	33.3
	Single	10	55.5
	Widowed	0	0
	Co-habitants	2	11.1
	Total	**18**	**100**

Source: Field data (2015)

iii) Midwives characteristics

In Table 4.2 shows various information concerning midwifes characteristic during the study, in which their age distribution indicates that the majority were at age group 20-29 followed by age group 30-39. Basing on health provider cadre majority were enrolled nurse 20 nurses equivalent 80%, in the study also basing on experience of workers majority had experience of between 0-4 years working experience as midwives. Also the study identified that majority workers had a certificate level of education making a total at 80% of all involved during the study.

Table 4.3 Distribution participants in the study with by different to background variables

Characteristics	Frequency	Percent
Health provider Age distribution		
20-29 Years	9	36%
30-39 Years	7	28%
40-49 Years	5	20%
Above 50 Years	4	16%
Total	**25**	**100%**
Health Provider Cadre		
Enrolled Nurses	20	80%
Registered Nurses	5	20%
Total	**25**	**100%**
Health provider Work Experience		
0-4 Years	12	48%
5-9 Years	5	20%
10-14 Years	4	16%
Above 15 Years	4	16%
Total	**25**	**100%**
Health provider Education Level		
Certificate	20	80%
Degree	1	4%
Diploma	4	16%
Total	**25**	**100**

Source: Field data (2015)

(iv) Health facilities distribution by ownership

The result in Table 4.4 shows that 50 % of health facilities available in the area are owned by the government and 50% by FBO. This implies that community members have access to health services in the area.

Table 4.4: Distribution of health facilities by ownership

Health facilities type	Ownership	
	Government	**FBO**
Hospital	0	1
Health centre	2	1
Dispensary	3	3
Total	**5**	**5**

Source: Field data (2015)

4.3 Results

4.3.1 Client perception and satisfaction

For any programme to perform well or be more successful clients perception and their level of satisfaction is a very important indicator because as it gives a picture of the users in terms of their positive and negative views. It will also, highlight on the acceptability of the programme and area for improvement. This results from the use of Likert scale and analysis of transcript are describes below.

4.3.1.1 Perception

Client perception on quality is a key determinant for deciding whether to attend services or not. For clients, quality depends largely on their interaction with providers, getting services they want and other attributes like waiting time and easy access of services. Thus, the way HIV positive women view quality of PMTCT services and usefulness of the programme needed to be investigated based on their experiences during clinic visit. To study HIV positive women perception on quality of PMTCT services and usefulness of the programme, respondents were exposed to several items about quality and benefits of the programme. A Likert scale was used to measure clients' perception during exit interviews, whereby they agree or disagree against each item. Scores were assigned for each respondent as 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. The frequencies for each were captured, (see Table 4.5).

Results from the use of a Likert scale show that, of the 50 participants 52% (n=26) had negative perception on the quality of PMTCT services, while 46% (n=23) of the respondents perceived positively. Analysis of the transcript of FGD show that; Those who had negative perception gave different reasons which made them to perceive so. For example one of them said:

> We *start in receiving services late for example today we have been here since 8.30 am. The nurse started to attend us at 11am at same time are not getting some of the services like to be checked for CD4 count test. Also, we are getting partial information from the health providers and sometimes our concern are not well addressed.*

Another participant reported that; we need to get information from health care providers during clinic visits, but we over they have stopped giving information on HIV diagnosis since we last received. For those respondents with positive perception on quality aspect they said:

> "*We are happy with the availability of consultation rooms with door and windows which maintain privacy when they provide service to us. What we are discussing cannot be heard by other people. Also, we are happy with the way the health care providers respect us."*

The second aspect clients were asked to reveal the usefulness of the programme. This question was asked based on the assumption that if clients perceived the programme to be useful, they would increase utilisation; otherwise utilisation would be low. The study findings revealed that more than half 54% (n=27), of respondents perceived negatively on thew usefulness of the programme. One participant from FGD said:

> "*There are a number of shortcomings we experience during clinic visits;* for example, *transfer in and out this creates inconveniences to us, before pregnancy I was getting my ART in CTC and I was happy with care I received. When I became pregnant I was told that I would be shifted to RCH clinic to get my ART. I was not happy as we kept changing providers.* Another added: '*Sometime HIV test and initiation of ART is not good practice because it does not give a client*

time to internalise. It creates confusion, hence discouraging a client to accept the PMTCT services. Why in this practice it is only in PMTCT while in CTC clients are given more time and more counselling session?".

That answer was given when asked about the challenges they face with regard to the programme. Furthermore, for those who agreed and perceived positively also had their reasons to say so:

"*It is a nice programme because services are more easily accessible especially in the rural areas. It has helped us to reduce long travelling distances and travelling cost in terms of money and time".*

Additional comments from one of the participants in the FGD cited that: "*The programme is useful because it is educating us on how to take care of our HIV exposed infants and how to protect them".*

The third aspect was health improvement, participants were also asked about health improvements, among those who perceived positively respondent courted said:

"*I quite agree that this programme improved our healt., I experienced a very difficult situation before being enrolled in PMTCT services. I was getting sick frequently and I was weak which made me to be unable to perform my routine duties. Having started using ART there is no more problem, all symptoms have gone now and I have resumed my normal duties. Another factor that is my child is HIV free following the second test".*

4.3.1.2 Satisfaction

Client satisfactions are among the key determinants of utilisation. Based on women's experiences during PMTCT subsequent visits, a Likert scale was used to measure client satisfaction with PMTCT services during exist interview immediately after receiving services and in Focus Group Discussion. Participants in the study were exposed to different options about PMTCT services whereby agree and disagree scale was used. The frequencies of each item were captured in four areas

and scored:.(See Table 4.5). Participants were asked to give their views on satisfaction with the quality between HIV mothers and their infants. The findings revealed that of the 50 respondents 52% were not satisfied with the quality of PMTCT services they get during clinic visits due to the following reasons: They said: "*We are not comfortable with waiting time, in every visit we receives late. Frequent stock out of Contrimoxazole tablets which result in inconsistent use".* For those who agreed (42%) that they were satisfied with the services they had the following reasons: Health workers are friendly to us, they respect us, and they welcome and greet us. They do not break confidentiality of our HIV status.

The second aspect was the views of client's satisfaction and usefulness of the programme (54%) of the participants responded negatively and gave the following reasons: One participant claimed;

> "*I am scared with the use of lifelong ART while we are not physically sick. We have been enrolled in PMTCT for many years, during pregnancy we were just given short term prophylaxis and our children are not infected. Why now putting us in lifelong ART?. We find the programme not useful."*

The third aspect was the health improvement in regard to PMTCT programme, they were asked to give their views whether PMTCT programme brings health or not.

Improvement for HIV positive women and their HIV exposed babies, about 46% participants disagreed that PMTCT programme does not improve health. One of the respondents voiced up that: "*We do not depend only on the programme to improve our health, we need other basic things like food which is a problem to most of us.* For those who responded positively more than half 54% had this to say*: Am satisfied because my baby is HIV free after a second HIV test."*

Table 4.5 Satisfaction with perceived quality care by HIV positive women (n=50)

Variables	Strongly disagree		Disagree		Agree		Strongly agree	
	N	%	N	%	N	%	N	%
Quality	1	2	26	52	23	46	0	0
Usefulness of PMTCT programme	7	14	27	54	21	42	0	0
Health improvement among HIV mothers and their infants	3	6	23	46	24	48	0	0

Source: Field data (2015)

In conclusion, both perception and satisfaction showed that participants had two different views in quality of PMTCT care, usefulness of the programme and in terms of health improvement among HIV positive women and their HIV exposed infants. Despite the fact that the majority had negative views, they were still utilising services. This implies that there is no option for them.

4.3.2 Reasons for perception and satisfaction

4.3.2.1 Structure (Inputs)

Among the causes of the major factors affecting the above level of satisfaction and perception included the inputs in the programme which involve material resources with a focus on availability of medicine and supplies, as well as human resources and availability of organisational attributes which include guidelines and protocols, registers, supervision and waiting time. Theoretically, inputs are essential in shaping or transforming or making things happen, hence, delivery of effective and acceptable services depend on availability of inputs. Physical checking and counting of availability of inputs was done using checklist. When equipment were available but not functioning were counted as not being present. This implies that, inadequacy of these inputs factors have contributed to HIV positive women to come up with two

different views positive and negative in terms of their perception and satisfaction with quality, usefulness of the programme and their health improvement.

(i) Availability of human resources

The technical competence of health providers is very crucial in providing quality care and thus enabling skilled provider to perform well the given task (MoHSW, 1999). They must know how to conduct procedures like physical examination or seek information from clients and utilise information in advising clients. Lack of skills among providers and shortage has adverse effects on clients. A facility checklist was developed to establish availability of human resources required to provide quality PMTCT service to HIV positive woman. Generally, the result indicates that there is a deficit in trained PMTCT providers by 45.7% in 10 visited health facilities. On average each dispensary has at least two providers and health centres had an average of three providers and a hospital four trained providers. This implies that the majority of the providers are not trained, thus there is a shortage of trained providers required for providing PMTCT service in 24 hours (see Table 4.6). As far as the shortage of health providers is concerned, one of the participants in Focused Group Discussion voiced up that:

> *"Shortage of health providers is a big problem as it creates a delay in getting services during clinic visit. This is because the same provider was needed to attend outpatients. For health centres and dispensaries it is more difficult to get PMTCT services after 3.30Pm. We end up making multiple clinics due to this problem, for example, due to this delay and overworked provider, she/he just provide us ART and gave a new appointment for HEID* services (M 49years)".

In addition, one of the study participants recommended that: The government should consider increasing the number of health care providers to reduce the existing shortage. Moreover, one of the key informants from the district level explained that there is a big number of health care providers but they are not trained in PMTCT services.

Table 4.6 Distribution of trained PMTCT providers by level at health facilities

Level of HFs	Required health providers for PMTCT services	Available PMTCT providers	Human resource availability %
Hospital	16	8	50
Health centres	30	12	40
Dispensaries	24	12	50
Total	**70**	**32**	**45.7**

Source: Field data (2015)

(ii) Material resources

Availability of drugs and supplies

An assessment of the availability of basic drugs and supplies was conducted in 10 health facilities using facility based checklist to find out the availability of drug and HIV test kits for the past three months during the evaluation period. Further, a documentary review was conducted through reviewing the ledger books and physical count, the response was sometimes available and sometimes not available. The assessment revealed that HIV test kits, ART drugs and Niverapine syrup were constantly available in all health facilities. In addition, Dried Blood Sample (DBS) kits were not available in two out of 10 health facilities. This implies that the health facilities had adequate stock of ART, Niverapin syrup, HIV test kits and DBS kits. (See Table 4.7).

Table 4.7 Availability of drugs and supplies in health facilities

Items	No. Of HFs were drugs/supplies was availability	Percentage	No. of HFs stocked out with drugs &supplies	Percentage
Unigold & Determine	10	100	0	0
DBS kits for HEID	8	80	2	20
ART	10	100	0	0
Niverapin syrup	10	100	0	0
Cotrimoxazole syrup	7	70	3	30
Contrimoxazole tablets	2	20	8	80

Source: Field data (2015)

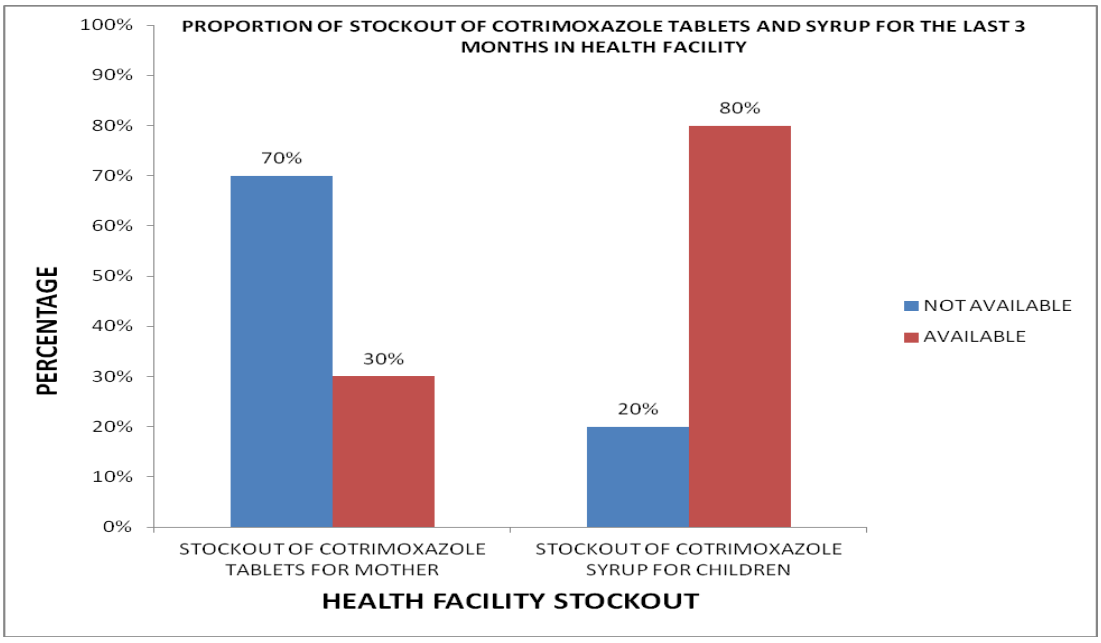
The assessment also revealed that, almost all health facilities (80%) were stocked out with basic drugs like Cotrimoxazole tablets for HIV positive women for the past three months during the evaluation period. Similarly, 20% of health facilities had stock out of Cotriomoxazole syrup for the same period (See Figure 4.1)

One of the respondents from focus group discussion: claimed that: *"We are not getting Cotrimoxazole tablets regularly, for example since January, 2015 to April being pregnant women we have not give any, no explanation to why we are using.* (S 24 for years)." In addition, an interview with the key informants to assess the availability of Cotrimoxazole , 4/7 of the participants were cited saying;

> "*We have a problem with opportunistic infection drugs like Cotrimoxazole, most of the time we experience stock outs. It is caused by the number of reasons. These drugs were given as a support by partners and currently they are no longer supporting. Secondly is inadequate ordering skills among providers and shortage of funds."*

With this view Cotrimoxazole Preventive Therapy as an intervention of reducing opportunistic infection among HIV positive women is adequately practised which is against the national guideline. Therefore she recommended that all HIV pregnant mothers should be given throughout the pregnancy period and HIV exposed from four to six weeks of age (MoHSW,2013).

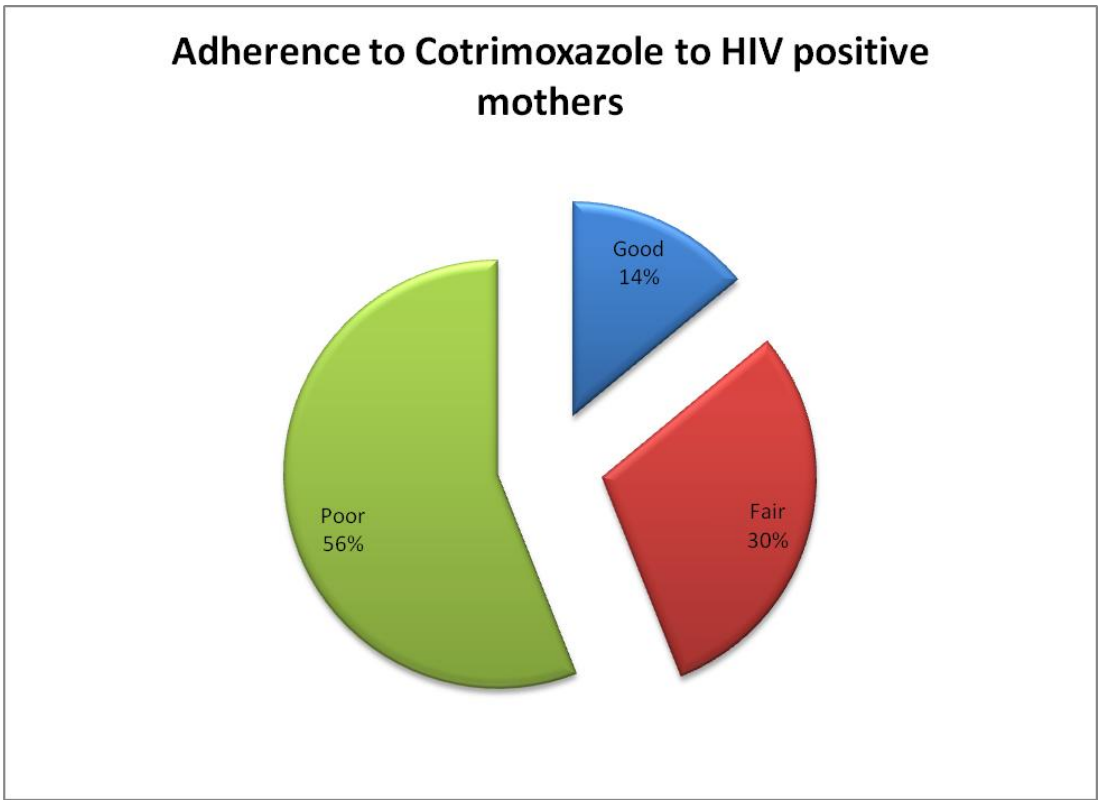
Figure 4.1 Availability of Cotrimoxazole in HFs for three months (n=10)



Source: Field data (2015)

The findings on the availability of Cotrimoxazole have shown a relationship with adherence as noted in this evaluation. This was assessed through record review and exit interview. The study showed that (56%) of HIV positive women had poor adherence in the use of Cotrimoxazole tablets for three months, due to frequent stock outs. While HIV exposed infants had good (72%) adherence due to availability of Contrimoxazol. The implication is that children had more chances to adhere to the Cotrimoxazole than HIV positive women (See Figure 4.2) and (See Figure 4.3)

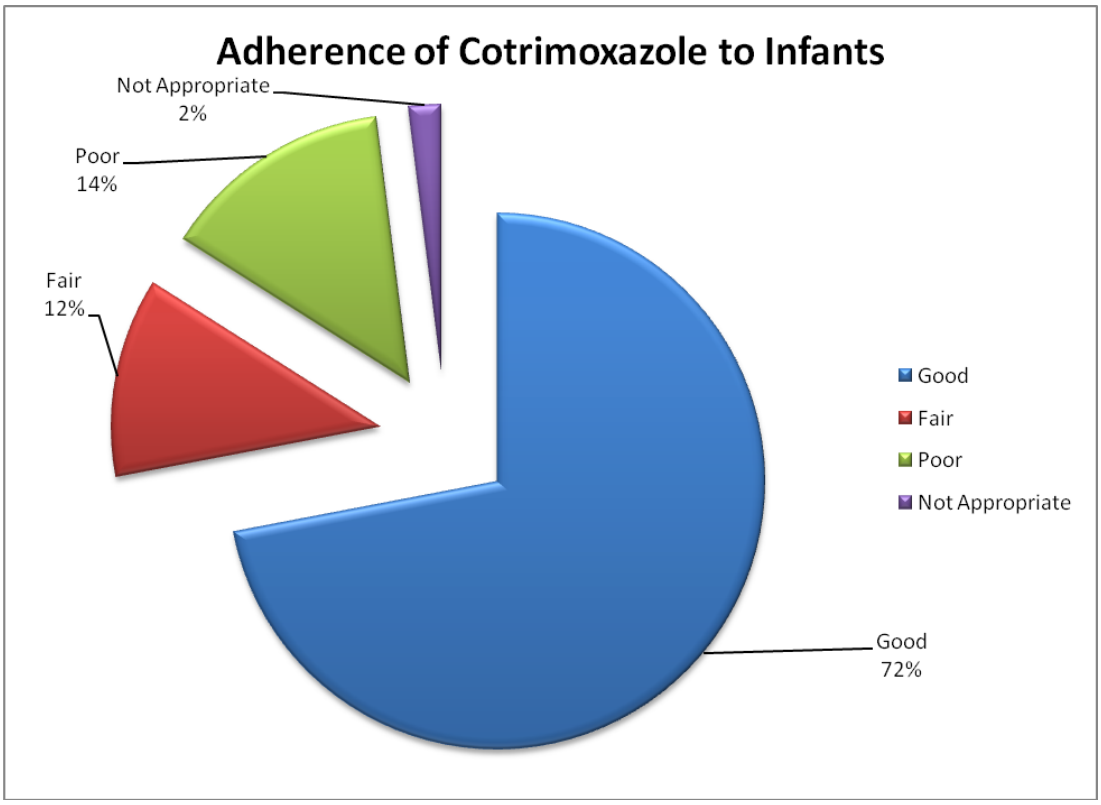
Figure 4.2 Proportion of HIV positive women shows adherence of Cotrimoxazole tablets for the past three months in respect to availability



Source: Field data (2015)

The figure above indicates poor adherence (56%) of contrimoxazole among HIV positive women.

Figure 4.3 Proportion of HIV exposed infants reflecting adherence to Cotrimoxazole tablets for the past three months. In respect to availability



Source: Field data (2015)

The figure above indicates good 72% adherence to contrimoxazole among HIV exposed infants.

(iii) Organisational structure

Availability of Guidelines, Protocols and Registers

A documentary review was conducted to find out the availability of National guidelines, protocols, registers and reporting forms. In regard to the availability of National guidelines all 10 studied health facilities had standard PMCTC guidelines, protocols, registers and reporting forms. For the case of registers in some facilities they had different versions. In almost all health facilities HIV positive women and their HIV infants are recorded in register books, but there is a problem with completeness of records, most of services are not recorded like HIV staging, TB screening, CD4 count and HEID. As far as the use of guidelines during counselling

is concerned, none of the health providers used it. In addition, in all health facilities appointment books were not used and most health facilities were not available.

(iv) Supportive supervision

As far as supervision was concerned, is one of the essential elements in ensuring quality services. An interview with key informants was conducted to assess whether supervision for PMTCT services are conducted, how often, and if the findings are documented in MTUHA. In addition to what extent the supervisors use checklist during supervision and whether spot feedback is provided to health providers. Study findings revealed that the district has a supervision matrix for integrated supervision which is supposed to be done quarterly. For the visited health facilities PMTCT supervision has been conducted quarterly in five health facilities which are under the support of UNICEF. One of the key informants commented that*:*

> *"It was supposed to be conducted quarterly but it is not done as planned due number of reasons including overlapping of activities, inadequacy of funds and unreliable supervision transport.*

Other respondents reported that *PMTCT is integrated in package of routine supervision. It is rarely conducted separately when it is supported by partners.*

When asked on the availability of PMTCT supervision checklist, the response was: "*We have an integrated checklist which is a complex and when filled no copy is left at the health facility.* When, we need to verify the filled checklist at the district level, no copy was found. Moreover, supervision findings were not documented in MTUHA book number two at health facility. With these revealed findings it indicates that PMTCT supervision is weak, despite of it importance of supervision as a cornerstone of the programme that promotes the quality aspect.

(v) Waiting time

HIV positive women were interviewed during exit interview about their satisfaction with time spent while waiting for services before they come into contact with midwives. The study measured time spent by clients before being attended by midwives based on the distributed time with score ranging from 0 to30 minutes, 30 to1hour, and 1 to 2 hours. The study results revealed that of the 50 respondents 58%

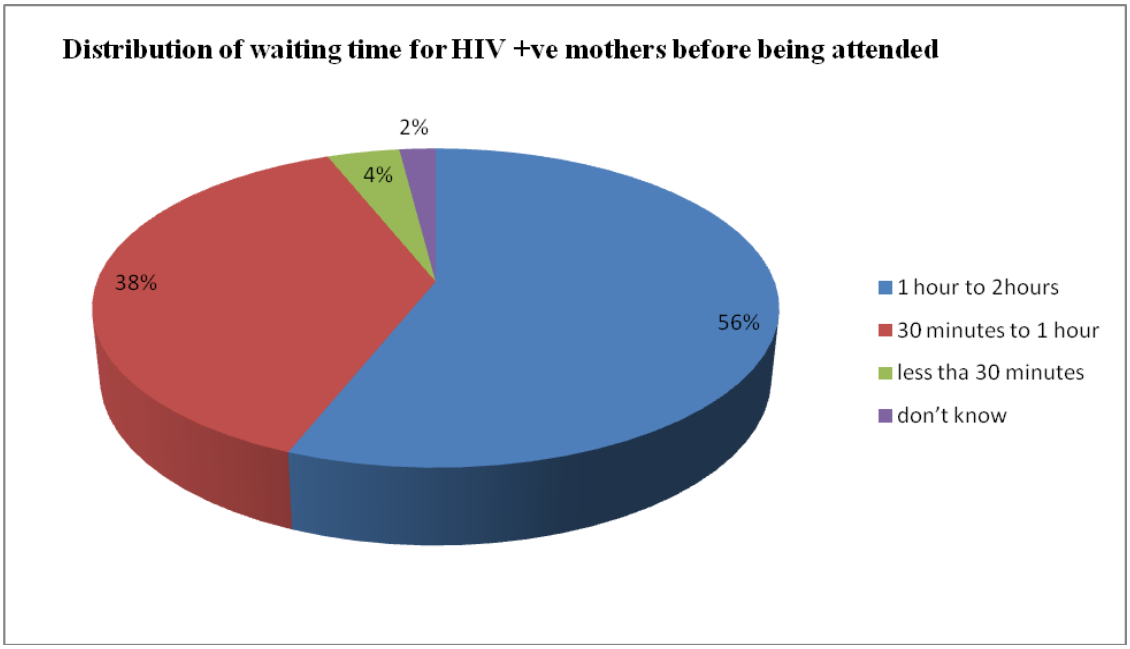
(n=28) waited for about 1-2 hours before attended, while 38% (n=19) of the participants also spent between 30 minutes to one hour. (See figure 4.4) This implies that more than half of HIV positive women had a long waiting time before receiving services the from provider. One of the respondent said that:

> *"We are not happy with the waiting time as we spend more than two hours waiting for services in every visit. However breastfeeding mothers sometimes are given priority."*

Furthermore, one of key informants claimed that*:*

> *"To my understanding waiting time vary, in the busy health facilities clients wait for less than an hour but for busy facilities they spent more time about two hours or more".*

Figure 4.4 Waiting time before being attended



Source: Field data (2015)

4.4.1 Process Factors

Process attributes of quality, involves consistent application of guidelines, use of standards protocols in the actual implementation of various activities, procedures. For example, in PMTCT services they have a well defined package of services

and how it should be done. In this study, process quality factors include: Technical competence in counselling, adherence to guidelines and protocols in performing activities or procedures, client- provider interactions during procedures as it has been described in sub section (a, b, and c).

4.4.1.1 Technical performance in counselling

Counselling is critically important for HIV positive women to accept PMTCT services and promotes good behaviour. It builds a relationship with a provider and client that gives an opportunity to the provider to gather information, answer questions and make sure that clients understand the information you are providing. A direct observation and non –participant approach was used to observe 25 midwives' skills in counselling HIV positive women during follow up visit using standard checklist. In order to assess midwives' counselling skills they were exposed to several items that included: Ability of midwives in establishing a relationship with HIV positive women; Information gathering, information sharering, how midwives paraphrase to make the client understand, ability to ask questions to clients, clarifying issues related to HIV by, reflecting feelings summarising the information to clients and information to the client the next appointment. A rating scale of scoring "good" or "poor" was used, whereby a score of 1 stands for very poor, 2 for poor, 3 for adequate, 4 for good and 5 for very good.

Study findings revealed that the majority (84%) of the respondents established good rapport with HIV positive women by greeting them in a culturally good manner, welcomed and provided a seat. With regard to information gathering as an entry point of understanding what is happening to the clients in terms of knowing their ability to follow treatments, ART uptake, how she is taking ART. Of the 25 midwives assessed only 28% demonstrated good skills in gathering information from HIV positive women. Whereas, only 32% of the respondents had good skills in delivering. Moreover, 82% of respondents demonstrated poor skills in paraphrasing, in terms of making clients understand or giving time for clients to internalise. This implies that HIV positive women are given inadequate information. This was also reflected in FGDs where participants raised a concern about the counselling they received. For example, one respondent in the FGD claimed.

"*A friend of mine who is HIV positive is the one who assisted me in giving me encouraging words and provided deep counselling that made me accept the situation and started taking the lifelong ART. It was not easy for me to accept lifelong ART in spite of the instruction given by health provider. For one week I didn't take ART*. (J 24 years)".

In addition, the participant recommended that: *Deep counselling should be repeated at least three sessions as it is being done in CTC to help the clients reduce fear and accept lifelong ART. It is difficult to internalise and recall information with one counselling session following same –day HIV test and initiation of ART."*

Another responded that a teen mother shared her experience in pre –test and post-test counselling she received during the first day when she came for antenatal clinic booking claimed that:

"*I got on the same day HIV test and initiation of lifelong ART during pregnancy.I was not given post-test counselling instead it was given to my aunt plus the instructions on how to use ART. The same day my aunt instructed me to start taking ART with no explanation. On the third day my aunt and uncle gave me the feedback that I was HIV positive and I would be put on lifelong ART drugs. I was shocked, this has affected me negatively, I have stopped using ART and I have lost trust with the health provider. (M 19 years)".*

However, interviews with key informants raised a concern on counselling as follows: Of the 5/7 of key informants reported that:

Counselling in PMTCT services is a challenge as most of HIV positive women do not receive deep or repetitive counselling. It is not done as it is being conducted in CTC. In addition, the existing PMTCT guideline does not tell much about counselling sessions like in CTC. They also claimed that: Health providers are weak in counselling, as it has been indicated in CTC. This might be due to the training aspect or inadequate supervision.

Furthermore, in summarising also midwives demonstrated poor skills as only 12% of midwives took time to summarise the information given to HIV positive women. Failure to summarise the session is deficit because the client will leave the facility without being reminded the main points and also she might not recall the given information. Generally, the majority of midwives have demonstrated poor skills in counselling to HIV positive women during clinic visits. None of the respondents used counselling skills and technical checklist that could guide them to be more systematic. This implies that the quality of counselling was poor, thus might not address issues that clients feel or and pertinent of staying in care and or that would help make decision (See Table 4.8).

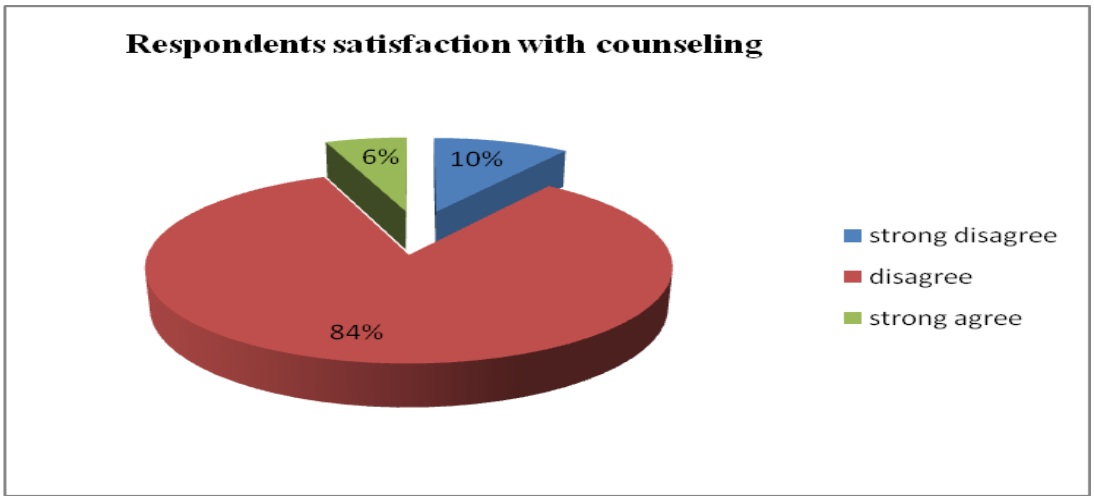
Table 4.8 Counselling skills observed during provision of PMTCT care to HIV positive women by Midwives (n=25)

Midwives technical skills	Very poor	Poor	Adequate	Good	Very good
Establishing a relationship	0	0	16	84	0
Gathering information	0	16	56	28	0
Information giving	0	24	44	32	0
Paraphrasing	0	82	18	0	0
Reflecting feelings	0	64	14	22	0
Questioning	0	58	34	8	0
Clarification	0	12	54	34	0
Summerizing	0	78	8	14	0

Source: Field data (2015)

In summary, the above findings show that counselling was poorly practised in all 10 health facilities involved in the assessment. Thus, HIV positive women were not satisfied with counselling services they received as per Figure 4.5. The results from the use of Likert scale, which indicates 84% were not satisfied with the counselling that they received. (See Figure 4.5). The explanation is that there was inadequacy or lack of follow up counselling is described as a programme shortcoming.

Figure 4.5 Respondents' satisfaction with counselling



Source: Field data (2015)

4.4.1.2 Client –provider interactions

Client-provider interaction is among the important aspects in satisfaction with services. Existence of positive interactions between a client and a health care provider will lead to client's confidence and compliance. A Likert scale was used to observe the interactive discussion between clients and health providers. The findings revealed that 56%, (n=27), of the participants strongly disagreed that the discussions were not interactive as they were not involved (See Figure 4.6). Furthermore, the analysis revealed that 54% of the respondents reported that health providers' had insufficient time for counselling. One of the study participants commented that*: "We spend less time with the health provider usually less than 10 minutes during the clinic visit, we are just being given drugs and weight checking".*

With regard to time spend between the client and provider majority 64% disagreed, while 62% of the respondents reported that the counselling was not interactive and were not encouraged to ask questions. Another explanation came from another different HIV positive women who recommended on interaction between the client and the provider, said that:

> "*Follow- up counselling is partially I made quarterly done. In most of the time it is not conducted and I think the health providers are also few*

interms of number. We are just coming to collect our drugs and request for given the next appointment".

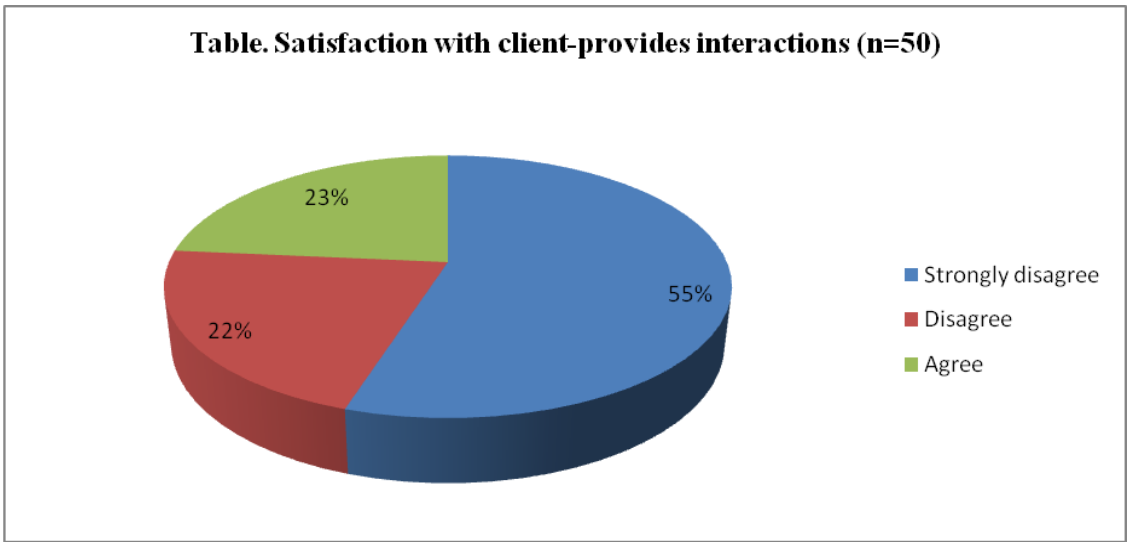
However, more than half (62%) responded positively that health care providers established good rapport before giving services (See Table 4.9).

Table 4.9: Client- Provider interactions during PMTCT services (n=50)

Variables	Strong disagree		Disagree		Agree		Strong agree	
	N	%	N	%	N	%	N	%
Health providers use sufficient time during counseling	27	54	20	30	3	6	0	0
Health providers establish and maintain rapport	3	6	14	28	33	66	0	0
Time spend between client and health provider enough	16	32	32	64	2	4	0	0
Interactive counseling to allow clients ask questions	31	62	17	34	2	4	0	0

Source: Field data 2015

Figure 4.6 Client-provider interactions (n=50)



Source: Field data (2015)

4.4.1.3 Adherence to guidelines

MoHSW 2013 has stipulated the standard package for PMTCT services that should be provided to HIV positive women and their HIV exposed infants during clinic visits based on the guideline and protocol. The package includes: client's history, physical examination, counselling, CD4 cell count test, HIV staging, TB screening, growth monitoring, and provision of drugs ART and Cotrimoxazole. A direct observation using an observation checklist was used to observe midwives when providing PMTCT services to HIV positive mothers if they adhere to and provide the standard package. An exit face-to-face interview was conducted to HIV positive mothers immediately after receiving PMTCT services to verify whether they received the recommended activities. The findings are described below:

(a) History taking

Client history taking is the main entry point for service provision. Therefore, routine collection of clients' information before service provision provides a clear picture of the clients and the overall status of the well-being of clients. It was expected that midwives would take a comprehensive history as an initial step. In service provision study found that only 22% (n=11) of the 50 respondents had their history taken prior to being given PMTCT services, neither for their HIV exposed infants 33.3% (n=39). This is a gap in the provision of quality PMTCT as the history enables midwives to

get information regarding the health status of HIV positive women and HIV exposed infants (Figure 4.7) and (Figure 4.8). Failure in taking client's history raised a concern in focus group discussion; one participant claimed that: Hence, voiced up as one of the HIV positive women.

(b) Physical examination

Physical examination is conducted to assess health status of HIV positive women and their HIV exposed infants. In this study midwives were observed to find out whether they examine HIV positive women and their HIV exposed infants during clinic visit. The result showed that only 18% (n=9) of the HIV positive women were physically examined. (Figure 4.7). Similarly, it was observed for HIV exposed infants; results revealed that only 20.5% of HIV exposed infants received physical examination (Figure 4.8). Failure to perform this physical examination to HIV positive women and exposed infants is a quality gap

(c) Follow up counselling

As far as counselling is concerned, the study revealed that more than half (64%) of the clients did not receive counselling during clinic visit mainly follow –up counselling That is against the National Guideline on PMTCT that requires follow - up counselling to be done in every subsequent visit. Failure to conduct follow up counselling is a gap in quality of PMTCT.

(d) Growth monitoring

Furthermore, weight check is another important aspect to monitoring process of HIV positive infant in every visit. People living with HIV are more likely to develop weight loss as one of the signs of nutritional deficiency which occurs to majority of HIV infected individuals. At the early stage of the initiation of ART, abnormal weight gain may occur as a result of ART use. Therefore, it is important to measure weight in order to assess the progress in weight gain or weight loss. Of the respondents (n=50) who participated in this study, 84% (n=42), had their weight measured and the remaining 16% (n=8) had not been measured. The majority of the clients who weighed were found to have positive results in terms of weight gain (Figure 4.7) and(Figure 4.8) and were recorded in x PMTCT register and card. For HIV exposed infants almost all their body weights were checked 88%.

(e) TB Screening

A person infected with HIV is ten times more likely to be infected with Tuberculosis, and is most common opportunistic infection for people living with HIV (MoHSW, 2013). Thus, all HIV infected with HIV should be screened for TB in each clinic visit to screen for signs and symptoms of TB using standard TB screening tool and initiating treatment. In this study, only 26% (n=19) of the respondents were screened for TB, while the majority 74% (n=31), did not screened for TB during the clinic visit. This result implies a gap (Figure 4.7). For HIV exposed infants only (23%) were screened for signs and symptoms of TB using standard TB screening tools and the result was recorded. Failure to screen HIV positive women and their HIV exposed infants this was consider performing below standard.

(f) Clinical staging of HIV

MoHSW (2013), states that clinical staging for HIV is critical to monitor the effectiveness of treatment in persons on ART and should be performed at every visit. In this study, only 14% (n=7), of the respondents were staged using WHO clinical staging procedure, while the majority 86%, (n=43) were not staged. This implies that there is failure in monitoring the effectiveness of drugs and in this regard midwives operate below the required standards and clients receive partial services.

(h) Early Infant Diagnosis of HIV

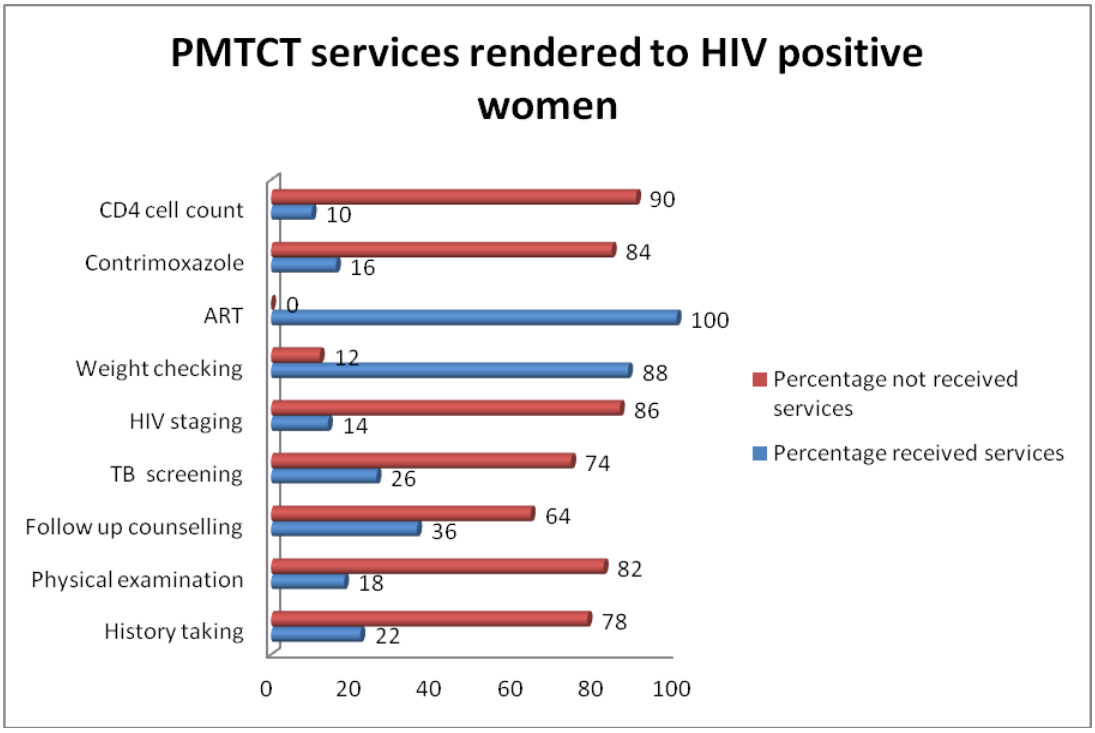
Early Infant Diagnosis of HIV is an entry point for HIV exposed infant to be enrolled in care and treatment when confirmed to be HIV positive and is crucial to infants as early as possible to delay in growth and mortality, thus infant blood samples are collected by dry blood sport for HIV testing. In this study, about half (58.8%) of the HIV exposed infants aged 4-6 weeks were collected blood sample and sent to the central laboratory.

(i) Provision of ART and ARVs and Cotrimoxazole

Cotrimoxazole Prevention Therapy (CPT), all HIV exposed infants aged should be given prophylaxis against opportunistic infection using Cotrimoxazole syrup beginning at the age of 4 weeks (MOHSW,2013). This study investigated whether health care providers provide cotrimoxazole syrup to HIV exposed infants during visit. The result has revealed that (66.6%) of HIV exposed infants were given

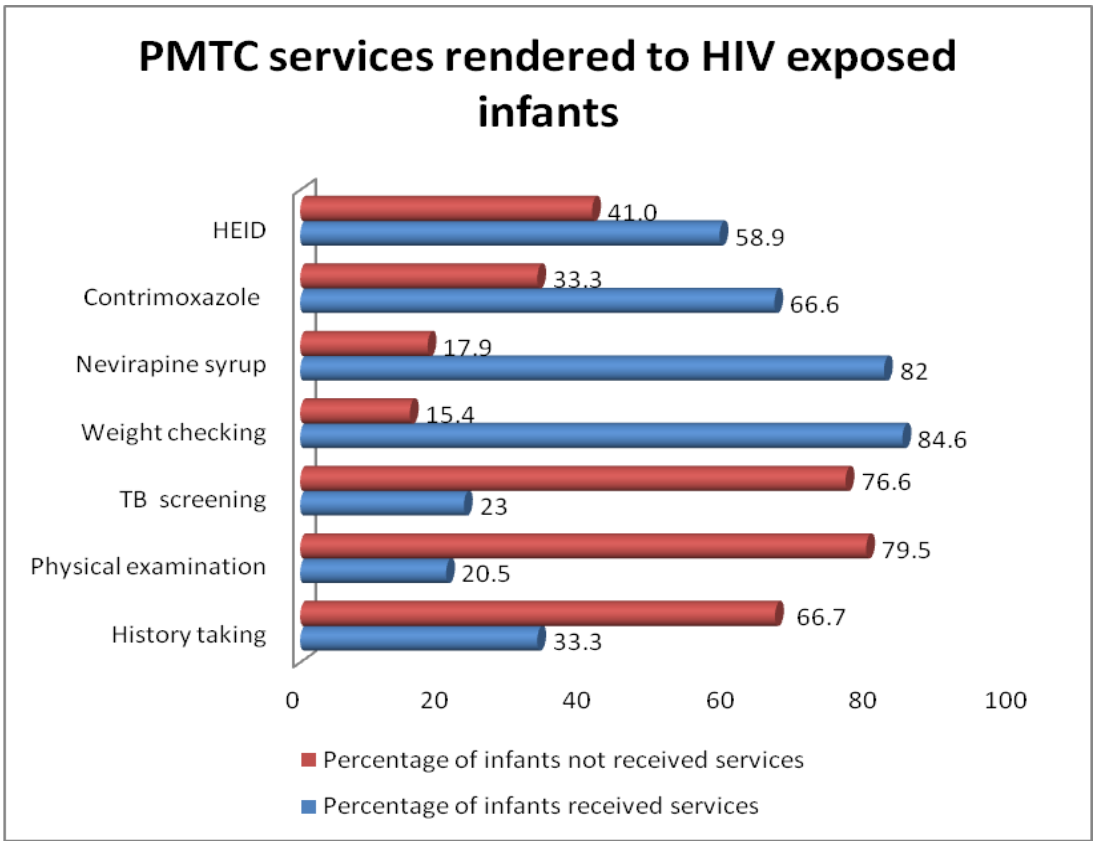
cotrimoxazole syrup, while (33.4%) of infants did not receive cotrimoxazole, (Figure 4.7) and (Figure 4.8). This implies that most HIV positive women did not receive Contrimoxazole drugs during clinic visits. Furthermore, Combination ART, was provided to all HIV positive women during clinic visits. Similarly, HIV exposed infants all received Niverapine syrup.

Figure 4.7 PMTCT services rendered to HIV positive women during clinic visit (n=50)



Source: Field data (2015)

Figure 4.8 PMTCT services rendered to HIV exposed infants (n=39)



Source: Field data (2015)

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

The aim of study was to assess quality of PMTCT services provided to HIV positive women and their HIV exposed infants. The study has identified several gaps in quality of PMTCT services provided in Iringa District Council. Over 50% HIV positive women accessing were not satisfied. The discussion will therefore address findings as reflected in chapter 4 and guided by two research objectives that state to assess the inputs factors and perceive quality to the satisfaction of clients; and to assess the process on the perceived quality to the satisfaction of the clients. However, the discussion will be based on all three components of quality care that include: structure (inputs), process (activities) and the outcome attributes (results). This chapter is divided into three sections as follows:

Section 5.2 discusses outcome variables used to measure quality. These were: perception and satisfaction among HIV positive women with quality of PMTCT services, usefulness of the programme and health improvement. Moreover, section 5.3 discusses the structural variables (inputs) how this contributed to affect quality of PMTCT services that included: availability of human resource, material resources which include; availability of drugs and supplies, availability of guidelines, protocols and registers, the last variable is organisational structure which included supervision and waiting time.

Finally, section 5.4 presents process variables which were used to measure quality including technical performance in counselling, client-provider interaction, application of guideline and standards when providing PMTCT package that included: clinical history taking, physical examination, follow up counselling, TB screening, Clinical HIV staging, weight checking, early infant diagnosis of HIV and provision of drugs. Generally, the evaluation has revealed inadequacy in all structure variables and process variables which resulted to poor quality of PMTCT services.

5.2 Client perception and satisfaction

In this evaluation findings showed that, the participants expressed two different views negative and positive on perception and satisfaction with quality, usefulness of the programme and its health improvement. Despite, that more than half still had negative perception towards quality of PMTCT service and usefulness of the programme that contributed to poor satisfaction of the service offered, but less than half had positive response. However, majority of them their utilising PMTCT services including those with negative perception, this means HIV positive women they have no options for the services, although their were not satisfied with existing PMTCT services. This implies that those with negative responses they are scarred with factors that affects quality i.e delay in receiving services as indicated chapter four section 4.3, but not the intended results of the programme of eliminating mother to child transactions of HIV for infants and keeping their mothers alive. Once the current services could be improved will bring more commitment, and facilitate to attain the global goal of having HIV free in infants.

This is inconsistent with findings from Mali where it was reported that those with negative perception on quality was found as a major factor for not utilising or by passing the health facility and go to next nearest health facility (Mariko. M,2003), In addition, the result are similar to a study in Nepal-India on women perception on quality care. It was found that women differed significantly in their views on quality care (Rajendak, Andy and Para, 2014).

An evaluation on programme – implication of the integrating HIV testing and counseling in maternal health conducted in Morogoro Tanzania, despite the positive views among women and health providers challenges remained. Thus both to perceived negatively that testing and counseling are compulsory services(Selena,Asha,Amnesty,Mpembeni,Mosha,Mohan,Yang,Chebet,Lipingu and Kilewo,2015). However, many studies conducted in African countries revealed that women with experience in PMTCT services were affected by factors like those noted in this evaluation (WHO/HIV, 2013).

5.3 Structure (Inputs)

Constant availability of essential inputs for PMTCT is a key factor for services continuation, hence, simplify the process of service delivery. Therefore, deficiency of human resource, materials deprived clients from receiving quality care. In this study, the findings observed inadequacy in almost all inputs required for PMTCT services.

5.3.1 Human resources

Availability of human resources

This study noted shortage of trained PMTCT provides in all 10 visited health facilities. Inadequacy has consequences that could affect HIV positive and their HIV exposed infants from getting quality care. Majority of client were not given information neither involved in the discussion nor checking their understanding on HIV and AIDS. The existing situation affects quality services due to non adherence to PMTCT package of service delivery. This is consistent with findings from Nepal-India by where women rated quality to be low because providers were inadequate interms of number of health care providers. With limited available number of care providers. This overburden then interms of workload.

5.3.2 Material resources

Availability of drugs and supplies

Constant availability of commodities for PMTCT care is a key factor for service continuation. In addition, availability of drugs and supplies is essential for easy process of service delivery. The result for this study revealed that, three quarters of health facilities had acute shortage of contrimoxazole that required to be given to HIV positive women as a preventive therapy intervention to reduce opportunistic infections during pregnancy. Furthermore, one third of health facilities were stocked out with cotrimoxazole syrup for HIV exposed infants. This implies that majority of HIV positive women do not have reliable supply of cotrimoxazole when required. The implication of this finding is that unavailability of the mentioned commodities

affected the quality of PMTCT services as those who needed it were not able to access it.

This is consistent with the finding from Mali by Mariko et al (2000) who suggested that the range of services and availability of supplies are influenced by the demand for services and utilisation. Furthermore, it was reported that the availability of drugs and supplies have strong effect on the utilisation of services. Moreover, as the by Drissen (1990), it was observed that when there is a considerable deficiency in drugs supply, equipment and physical amenities thus deprive women from receiving quality care.

5.3.3 Organisational structure

Availability of Guidelines, Protocols and Registers

Availability of guidelines and protocols that describe how activity or procedure should be undertaken. Regarding record keeping, the study revealed that all 10 health facilities had adequate standard PMTCT registers and tools for data documentation and reporting forms. In addition, at least each health facility had one guideline and protocols i.e. for dried blood sample collection. Despite the availability of PMTCT registers in almost all health facilities visited, most services were not recorded in the register like CD4 count, HED services. Moreover, guidelines were not used when providing PMTCT services like during counselling sessions. Similarly, appointments were not recorded in books. This implies that HIV positive women are poorly followed –up because an appointment book was supposed to be as the tracking mechanisms. In addition, failure to use guideline during provision of services; this has caused midwives to demonstrate poor skills during counselling.

Supportive supervision

As far as supportive supervision is concerned the evaluation found that it is inadequately done. Thus, this has contributed to poor implementation of PMTCT services. Also the study also gathered information from the CHMT members in regard to the existing problem of poor quality in PMTC programme services. The most common problem is inadequate supervision. They urged that though there is many problems that contribute to poor implementation of PMTCT, supervision is

oftenly the major one. However, the World Health Organisation (WHO), (1998) noted that poor care is often the result of health providers being poorly supervised, over-worked, inadequate training and refresher courses to update their skills.

Waiting time

Regarding waiting time, evaluation result showed that more than half of HIV positive women waited for a long time before being attended. The respondents cited that they were not happy such situation. The study findings are supported by the study conducted in Morogoro-Tanzania by Selena et al. (2015), whereby women raised a concern about waiting time and expressed their dissatisfaction. In addition, they further recommended that the number of health providers should to reduce waiting time for services.

5.4 Process Factors

All major components of process quality attributes for PMTCT care were observed. During the study it was noted that, the gaps in provider's performance, majority demonstrated poor practice on counselling, history taking and physical examination for both HIV positive women and their HIV infants. It includs inadequacy in providing information and weak interactions. Thus a big proportion of HIV women are not satisfied with the care provided by health facility staff.

5.4.1 Technical performance in counselling

The technical competence of health providers is a major determinant in health in providing quality care. It enhance service providers to be knowledgeable and skilled hence to enable them to perform well their job (MoHSW,1999). They must know how to use, to perform procedure and seek information from clients. In this evaluation the aspect of counselling HIV positive women, midwives demonstrated poor skills in this aspect areas. The areas were midwives failed to demonstrate their skills were mainly on the ability to gather information from client through probing using open and closed questions and summarising issues discussed. Moreover, information gathering is an important step that enables the provider to focused during discussion. The second aspect was the area of information giving. One Third have an

ability to provide information to HIV positive women, but the information was too brief. What is expected from midwives is to have up-to- date knowledge on HIV, repeating and reinforcing main points, allowing clients to internalise information or ask questions. However, the majority of respondents discussed with HIV positive women in return visits they did not summarize the discussions, neither checking with clients to be sure it they understood the important issues of concern. Failure to summarise the discussion will not encourage client to recall key issues.

However, women expressed their concern that they were not involved in the discussion neither the check of their understanding. This implies that the majority of HIV positive women received inadequate counselling during clinic visits. Inability to provide counseling reflect lack of essential skills and practice in counselling that could have adverse effects to the HIV clients. This is because health problems are often missed or diagnosed in late stages where little can be done to save life. For example, in the case of side effects of drugs or poor adherence.

The findings are in line with the study conducted in Tanzania by Selena et al, (2015), whereby women expressed their views that they did not have the opportunity to voice their concern and were disempowered for making informed decisions. The evaluation was also supported by study conducted in Botswana by Kabelepile (2001), it was reported that empowering women with information regarding their health problems enable them to understand and internalise their needs. Thus this will help them to seek health care without a delay. In addition, failure to give information keeps HIV positive women in dark and could creates barriers between the clients and health providers.

5.4.2 Adherence to guidelines

Client history and physical examination

In the evaluation on the aspect of history taking, it was revealed that almost all midwives did not obtain information from HIV positive women and for those who took the history, it was not properly done. This implies that the health care providers provide PMTCT services without obtaining properly client information's/history. History taking is an entry point and basis for the discussion.

Physical examination, the findings revealed that high proportion of HIV positive women were not examined including their HIV exposed infants. This provides evidences on health workers who do not provide quality care services to women and babies. The poor practice increases the risk of complications that could be prevented if proper examination was provided. This implies that examination and taking history of the HIV positive women and their HIV exposed infants are neglected areas of the PMTCT services.

Growth monitoring

Almost all HIV positive women and their HIV exposed infant were checked their body weight to monitoring progress, but some of them were not recorded in the register.

TB screening, clinical HIV staging, CD4 and HEID services

In this evaluation the result showed that the majority of HIV positive women and their HIV exposed infants are not screened for signs and symptoms of Tuberculosis using TB screening tools. For those few who were screened were not recorded in the card and register. This implies that a performance gap is required to be done in every visit.

With regard to clinic HIV standing using WHO clinical staging, almost all HIV positive women were not staged during the assessment period and even the past three months. This means the clients receive partial and inadequate services.

For CD4 count to be done during pregnancy and be repeated after six months, the result found out that the majority of clients the CD4 count test was done for both the baseline and the subsequent tests.

Furthermore, HEID test was done to almost all HIV exposed infants with respect to their age. For those who have tested for HIV their results were not documented in the registers.

Generally, most of the required PMTCT packages were not provided to HIV exposed infants and their HIV positive mothers. Failure to perform such activity/service most likely could have an adverse effect to the mother and her baby. This is because health

problems are often missed or diagnosed late when very little could be done to save life or prevent disability. In addition, due to these inabilities to perform these services, the majority of HIV positive women were not satisfied with PMTCT services. Marko et al, (2003), reported that a range of services and availability of laboratory influence the demand for services utilisation.

5.4.3 Client-provider interaction

The World Health Organisation (WHO), (1999), states that client-provider interaction enhance the likelihood of achieving both clients and health of programme goals. Responding to client's needs and concern is the key to effective programmes. Clients who are better informed are more likely to continue using services and will encourage them to use. Equally, providers who feel that clients respect their skills and that their work improves clients' lives are more likely to be satisfied and motivated. In this study, an observation was done to assess interaction between the client and health provider. The study findings showed that most of the midwives demonstrated less competence and poor practice in providing information. Most of the HIV positive women expressed their concern that they were not involved in the discussion. Moreover, the information given was too brief and almost all women were not given information. The findings are in line with the study conducted in Shanghai-China where most of women noted that the information given was too brief and the follow up was limited, while time spent between the clients with the provider was too short, furthermore, clients had a lot of questions to ask the health providers who were in hurry to go for next visit (Lomoro et al., 2002).

As a study by Selena et al. (2015), noted that many women raised challenges about communication discomfort in voicing their opinions or asking questions to their providers due to harsh attitude. In addition, it was also noted that client-provider relations were complicated by different social status such as age and education level differences. Moreover, WHO/HIV, (2013) it was reported that many studies in Africa described sub optional interactions between health workers and clients it was noted by most of HIV positive as poor interaction. Thus, more than (65%) were not satisfied with interaction. This implies that there are suboptimal interaction between HIV positive women and health providers, these have negative impact which might

affect the utilisation, and continuity of care or care seeking and hence may result in dropout.

CHAPTER SIX

SUMMARY, CONCLUSION AND IMPLICATIONS

6.1 Summary of findings

Specific objectives of this study were, to assess the availability of input factors and its effects on the satisfaction of the clients; to assess the process factors and the perceived quality to the satisfaction of clients. The study has revealed gaps in PMTCT services that have adverse impact to the quality of PMTCT services. Therefore, it is feasible to conclude that PMTCT services that PMTCT services provided in health facilities to HIV positive women and their HIV exposed infants in Iringa District Council is of poor quality. The findings effectively indicate areas of PMTCT services for improvement and the ways to reduce barriers that exist in provision services.

In the view of this study, the gaps have been observed in all three components of quality attributes that is the structural aspects, process and outcome. For outcome attributes, this viewed from the perspective of clients; data has revealed that the majority had negative perception over the quality of PMTCT that affected their satisfaction, and their expectations were not met. This has negative impact on service utilisation or adherence to ART drugs. Thus, there is a need to take appropriate action to improve PMTCT services.

With regard to structural attributes which involve all programme efforts that facilitate the health facility to provide PMTCT services when HIV positive women and their HIV exposed infants visit the facility; the result showed inadequacy in many aspects, thus affecting the clients. For example, in human resources only few health providers received PMCTC training in 10 visited health facilities, this affected the wait time. Another factor is material resources which revealed in shortage of some drugs creating opportunities for infection for HIV positive women. Similarly, in organisational structure, the study revealed weak support from the CHMT as supervisors to support health providers, also luck of appointment books. In all 10 health facilities most of the PMTCT registers and cards were partially filled,

However, all 10 health facilities visited had adequate ART, ARV, HIV test kits, guidelines and registers.

The process attributes involved all activities that needed to be performed by health providers so that HIV positive women and their HIV exposed infants could receive quality PMTCT services. The findings on technical performance in counselling revealed that the majority of midwives demonstrated poor skills in counselling, for example, almost all midwives did not gather information from clients, information shurering neither summarising the session. With regard to client –provider interaction, half of the respondents were not satisfied and expressed that they were not involved in the discussion. Moreover, the majority of midwives did not perform physical examination, neither did they take history of HIV positive women and their HIV exposed infants. This implies that the majority of midwives started providing PMTCT services without history taking neither performed physical examination. Hence, almost all HIV positive women and their HIV exposed infants received incomplete package of PMTCT services during clinic visits which was against the National Guideline. Also, almost all midwives established good rapport with clients that involved greeting and welcoming the clients.

6.2 Policy implications

Application of PMTCT Option B+ allows reducing transmission of HIV to less than 5%. The study has highlighted quality gaps on the PMTCT services provided to HIV positive women and their HIV exposed infants in Iringa District Council, thus the full potential of this prevention protocols were not exploited. Exposure of infants to HIV infection that could be prevented will translate in HIV positive children; in a context where vertical transmission should be virtually non-existent. The results provide evidence that to improve the quality of PMTCT services is necessary, otherwise the intended desired outcome of having HIV free infants by 2015 might not be reached due to poor quality. To address the problem of poor quality in PMTCT, further effort is needed because most of the gaps appear to be manageable with existing resources at local level. Therefore, a participatory intervention for improving the quality of PMTCTC services which will involve both the users as

beneficiaries and health care providers as implementers is necessary. At Government level there is the need to consider addressing the issue of human resources in terms of number, qualification, including training. Another aspect to be considered is develop a performance strategy with a focus on quality indicators need to be considered. Furthermore, at District level: ensure enhanced supervision from district to hospital, health centres and dispensaries. Also at, health facility level: help health care providers to improve their standards.

6.3 Programmatic Implications

HIV positive women and their HIV exposed infants receive incomplete packages of PMTCT services during clinic visits. Furthermore, counselling partially provided during follow up visits, whereas the majority of HIV positive women receive PMTCT service without their history being obtained and they are not examined. Moreover, none of the midwives use PMTCT services. Therefore, intervention plan through on the job training, monitoring and coaching will help to change their behaviour and practices towards improving quality of PMTCT care. More effort is needed in supportive supervision to help health care providers in counselling skills.

6.4 Use of findings for strategic planning

The study has revealed that HIV positive women and their HIV exposed infants receive poor quality health facilities during subsequent visits. It is necessary to strengthen the existing PMTCT services through designing strategies that are directed towards changing health care providers and improving communication and understanding between them and their clients as that could have significant benefits for quality of care. The management should design strategy to ensure that health facilities have and keep enough supplies and equipment for PMTCT care provision. In-service training on the quality of PMTCT is necessary in order to bridge the performance gap.

6.5 Limitations

The evaluation was conducted in Iringa District Council that involved only HIV positive women and HIV exposed infants, the timing of data collection was during rainy season where agricultural activities were taking place. Due to this some rural mothers exclude HIV positive with might have been excluded in this study. As a result the evidence obtained were generalised based on findings from urban health facilities.

6.6 Areas for further evaluation/research

Complementary research evaluation should be undertaken for exploration of health care provider's perception on quality of services. The exploration of health care provider's perceptions on quality of services, ideas on improvement may stem from health provider's focus group.

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APPENDICES

ANNEX I

TOOL – 01 FOR QUALITATIVE DATA

In depth interview guide for Key Informants

Introduction

1. Name of the interviewer …….. Date ……

Female…….Male…..

3. Age of responded ……..

4. Education

Primary ……..

Secondary Education …….

High school ……

University ……..

5. Title of respondents ……..

Overview of PMTCT services

6. To what extend PMTCT Programmeme is implemented in the district?

(a) What are key programme activities?

(b) For how long have you worked in the field?

(c) Are supervisors and health care providers trained/ up dated in PMTCT/ HEID and option B+

(d) Are guidelines, Job Aid and protocols available?

7. What modalities do you use to supervise the implementation of PMTCT Programme

–Tools, how often

8. To what extend PMTCT programme a success in the district.

Uptake of services

9. Does your PMTCT programme experience difficulties with same-day diagnosis of HIV and initiation of ART under option Bt and how do you address this?

10. What strategies do you use in order to enhance acceptability of PMTCT services?

11. Do you experience stock out of commodities (ART, ARU, Cotrimoxzzale, HIV test and DBS kits.

(a) What are the causes?

(b) What are the effects?

(c) How does your distract deal with stock outs.

12. What kind of challenges does your district face for making PMTCT successful?

ANNEX II

TOOL – 02 FOR QUANTITATIVE DATA

FACILITY RECORD REVIEW THROUGH PMTCT TOOLS

Clinical Record Review

(ii) Clinical record review of clients receiving PMTCT services

-Facility name…… Facility type……Ownership……

01	HIV is diagnosed date, month and years	
02	Started ART before pregnancy	
03	Started ART during this pregnancy	
	WHO clinical stage of AIDS during last visit	1. Stages IV 2. Stage III 3. Stage II 4. Stage I
09	Adherence to Cotrimoxazole for HIV exposed infants	1. >95% (G) Good 2. 85-94 (F) Fair 3. <85 – (P) Poor 4. Not appropriate 5. Not documented
10	Adhere to ARV prophylaxis (NIVERAPIN)	1. > 95% (G) Good 2. 85- 94 (F) Fair 3. < 85 –(P) Poor 4. Not documented
11	Which of the following test conducted during baseline (pregnancy).	1. CD 4 2. Full blood picture 3. Hemoglobin (Hgb) 4. Liver function test 5. Not tested
12	What was the result of the baseline during pregnancy	1. CD4— mm^3 2. Hgd — gm% 3. Live function test _____ 4. Not tested
	Tb screening	

13	TB screening every at visit	1. Screening result recorded 2. Result not recorded 3. Not screened
	Adherence	
14	Adherence to ARV drugs in last three month	1. >95 % (G) Good 2. 85-94 (F) Fair 3. <85 – (P) Poor 4. Not appropriate 5. Not documented
15	All cells in the registers completely filled	1. Cells completely field 2. Incomplete
16	HIV early infant diagnosis	1. HIV exposed infants at the age of 4-6 weeks 2. Not tested 3. Not recorded 4. Not due
17	Second HIV test	1. Tested after season of breast feeding 2. Not tested 3. Not records 4. Not due
18	Total pregnant women enrolled in PMTCT	1 .Enrolled in PMTCT…….. 2. Not enrolled in PMTCT…… 3. Not recorded……
19	Total pregnant women enrolled in PMTCT 2014	1. Total pregnant in enrolled …… 2. Dropout…… 3. Defaulters…….. 4. Not recorded……. 6 .Followed up……..

ANNEX III (a)

TOOL -03 FOR QUANTITATIVE DATA

CLIENT EXIT INTERVIEW.

(i) Exit Interview

Health Facility……..ID Number of simulating client……..Age……..

Date of visit…….Type of health facility……

Instruction: put a tick against the following questions appropriately after receiving PMCTC services.

CODE	QUESTION	RESPONSES
	PMTCT Registration number -Started ART before pregnancy -Started ART during pregnancy	…….. …….. ……
1	Age group	15-19 years 20-24 years 25-34 years 35-49 years
2	Marital status	1. Single 2. Married 3. Divorced 4. Widowed 5. Separated 6. Others ……specify
3	Educational status	1. No Education 2. Primary 3. Secondary school 4. High secondary school 5. University
4	Occupation status	1. Government 2. House wife 3. Farmer

		4. Students 5. Other, specify
5	How long is the client attending ANC at this facility	1. First visit 2. Second visit 3. Third visit 4. Fourth visit 5. Fifth and above visit
6	Has client disclosed her HIV Status	1. Disclosed 2. Not Disclosed
7	Has client have treatment support	1. Has treatment supporter 2. No treatment supporter

ANNEX III (b)

TOOL -03 FOR QUALITATIVE DATA

(ii). CLIENT INTERVIEW AND QUESTIONNAIRE

Use client rating of satisfaction **(1- Strongly Disagree, 2- disagree, 3-Agree, 4-Strogly Agree).**

Id number ……Number of simulating client ……Age ……

Date of visit …….

Section one

Instruction: Put a tick against the following questions appropriately after seeing the health care provider.

(iii) Satisfaction level

S/N	Item	Satisfaction rate			
		1	2	3	4
I. Availability of drugs and supplies for PMTCT					
1	ARV drugs are constantly available				
2	OI drugs are constantly available				
3	HIV test kits and DBS are constantly available				
4	PMTCT services is easily accessible				
II. Perceived quality care by HIV positive women					
5	Satisfaction with PMTCT services				
6	Usefulness of the programme				
7	Health improvement among HIV positive women and their infants				
III. Provider client interaction					
8	Health provider use sufficient time during counselling				

9	Health provider establish and maintain rapport				
10	Enough time spent between client and provider				
11	Health provider verify client adherence to ART				
12	The health workers keep confidentiality of my medical info				
13	Interactive counselling to allow client to ask questions				
14	Provide assess understanding of the information they receive about HIV				
Client Satisfactions					
15	Satisfied with waiting time before receiving services				
16	Comfort ability of waiting areas				
17	Satisfied with examination rooms (sound prove)				
18	Proper and constant information given on ART adherence and side effect				
	Acceptability of PMCT services				
19	Commitment to lifelong ART				
20	Providers keep their appointments strictly.				

ANNEX IV

TOOL -04 FOR QUALITATIVE DATA

OBSERVATION CHECKLIST

Counselling skills and Techniques checklist for PMTCT providers

Indicate the counselling skills and techniques by placing a tick to the appropriate box.

Name of the evaluator……

Name of the health care provider

……..

(i) Type of health facility (Tick one)

District Hospital …… Govt …….. DDH……

Health centre ……Govt…… FBO……

Dispensary …… Govt …… FBO …….

Date …….

(ii) HIV related services provided

Lifelong ART for HIV positive pregnant and lactating mothers……..

Care and Treatment ……

HEID …….

TB …….

CD4 ……..

FP ……..

STI ……

(**iii) Section two –Direct observation**

(iv) Use client rating of satisfaction (1 Very poor, 2 Poor, 3 Adequate, 4 Good and 5 Very good.

Skills and Technique	Behaviours, Statements	**Score**				
		1.Very poor	**2.Poor**	**3. Adequate**	**4.Good**	**5.Very good**
Establishing a relationship	Greeting the client in culturally					
	Welcome the client sit					
	The provider introduced herself/himself					
	The provider makes eye contact					
	The providers showed interest in client					
	The provider listens actively (both verbally and non verbally).					
Gathering Information	Use of appropriate questions both open ended and closed					
	Seeks more clarifications about a given information					
	Probes appropriately					
Information giving	-Gives information in clear and simple terms					

	-Gives information about ARV, ART, side effects, Adherence.					
	Gives client time to internalize information and to respond					
	Has up to date knowledge about HIV					
Paraphrasing	Restates what the clients has said using different words					
	Paraphrases in a manner that indicates the client has understood					
Reflecting Feelings	Reflecting emotional responses back to the clients using different words					
	The provider checks for understanding/ misunderstanding					
Questioning	The provider asks questions that identify, clarify, and break problems manageable way.					
	Use open-ended questions to get					

	more in-depth information from client					
Clarifying	Checks understanding of what the client is saying					
	Uses phrases such as: Are you saying that …….? Correct me if am wrong.					
Summarizing	Takes time to summarize information the client shares.					
	-Check with client to be sure they understand the important concerns and issues - The provider discuss return visit					

Mark "√" in the appropriate box. No multiple answers.

Section three

Type of service offered to HIV positive related to PMTCT services

	Type of service	**Yes**	**No**	**Comment**		
	Client history taking					
	Physical examination					
	Laboratory test -CD4 Test					
	TB screening					

	HIV staging					
	Opportunistic Infection (OI) prophylaxis					
	Antiretroviral treatment					
	Weight monitoring					
Health education						
	Adherence to treatment					
	Potential side effect of ART					
	ARV prophylaxis and treatment					
	Family planning					
	Safer sex practices					
	Nutrition					
HIV exposed infants	Growth assessment					
	Prevention of Opportunistic Infection(OI) prophylaxis					
	Early Infant diagnosis					
	Nevirapine syrup					
	Immunization					

Mark "√" in the appropriate box. No multiple answers.

ANNEX - V

TOOL 05 FOR QUANTITATIVE DATA

A CHECKLIST ON THE AVAILABILITY OF INPUTS FOR PMTCT SERVICES

Health provides interview

Name of health Facility ……..

Name of observer ……

Date of visit …….

Instructions: Tick against the answer and fill in the blank as appropriate.

1.0	Level of Health facility	
	Hospital	
	Hospital centre	
	Dispensary	

Health provider interview

(ii) Human resource

Health worker	Total number of health providers	Available providers trained in PMTCT	Total trained staff with >1 year experiences on PMTCT	Total trained staff available on the date of the interview.
Medical doctor				
Clinical officer				
Nurse midwife				
Laboratory technician				
Pharmacist				
Assistant medical officers				

(iii) Material resources (infrastructure, drugs and supplies) available at the time of visit

Item	Available	Not available	Remark
Room for PMTCT services			
Privacy counselling room (with doors and windows functional			
Laboratory supplies (HIV test kits, DBS kits, CD4)			
Waiting room			
PMTCT registers, cards			
ART with combination regimen			
NIVERAPINE syrup			
Cotrimoxazole tablet 900mg			
Cotrimoxazole syrup			

(iv) Drugs for Opportunistic Infections

	Stock out in the last three months		Check availability expired drugs Yes/No		Stock out in the last one month	
	Yes (=1)	**No (=0)**	**Yes (=1)** (quantity for each)	**No(=0)** (tick)	**Yes (=1)**	**Yes(=1)**
Cotrimoxazole syrup						
Cotrimoxazole tablets						

(v) ARTs and ARV Prophylaxis

	Stock out in the last three months		Check for availability of expired drugs Yes/No		Stock out in the last one month	
	Yes(=1)	**No(=0)**	**Yes(=1)**	**No(=0)**	**Yes(=1)**	**No(=0)**
Tenofovir (TDF)300mg + lamuviding (3TC)300 mg +efavirenz (EFV)600mg						
Niverapin syrup						

ANNEX VI

TOOL 06 QUALITATIVE DATA

Interview Guide Group Discussion For Focussed

1. For how long have you been in PMTCT problem?
2. What do you understand about PMTCT programme?
3. What advantages do you get having enrolled in PMTCT programme?
4. What kind of services do you received during the clinic visits?
5. How much time do you spent in the clinic?
   - Waiting time
   - Time spend with provider
6. To what extent are satisfied with PMTCT services?
7. What challenges do you face with this programme?
8. What is your opinion?

ANNEX VII

Matrix of variables and their measurements

Domain	Variables	Measurement	Source	Scale
Structure	**Human resources**	• Are health provider adequate • and available • Are health care providers trained in PMTCT	• DRCHCO • PMTCT providers	0-4Scale
	Material resources	Are HIV test facilities Unigold, Determine DBS kit, ART, Niverapine CTX , Uniglold, Determine, DBS kits available and adequate	• DRCHCO • Pharmacist • Laboratory technologist • PMTCT providers • ART drug register	**Satisfaction rate 1-5** -1-strongly agree -2Agree -3 Neither -4Disagree -5Strongly disagree
	Waiting time	For how long a client wait to see a health provider • Less 30 minutes • 30 min -1hours • 1-2hours	• HIV positive women registered in PMTCT	• Less 30 minutes

Domain	Variables	Measurement	Source	Scale
		• Over 2 hours		• 30 min - 1hours • 1-2hours Over 2 hours
Process	**Conducive environment for Counselling**	• Are counselling rooms convenient, comfortable and accepted by clients • Is Visual privacy available • Is Auditory privacy available	• Direct observation	**Satisfaction rate 1-5** -1-strongly agree -2Agree -3 Neither -4Disagree -5Strongly disagree
	Counselling skills	• Do health provider use sufficient time during counselling • Are guideline for PMTCT counselling available	Direct observation	**Satisfaction rate 1-5** -1-strongly agree

Domain	Variables	Measurement	Source	Scale
		• Do health provider establish and maintain rapport • Do health provider conveys essential PMTCT messages to HIV positive women • Is counselling interactive to allow clients to ask question • To what extend health providers assess understanding of clients • To what extend health providers verify client compliance/adherence to ART/ARV		-2Agree -3 Neither -4Disagree -5Strongly disagree
	Provider client interaction	Is there a good communication between health care providers and clients • Does counselling process take enough time for provider client interaction?	• Direct observation • Exist interview	**Satisfaction rate 1-5** -1-strongly agree -2Agree -3 Neither -4Disagree -5Strongly disagree

Domain	Variables	Measurement	Source	Scale
	Client perception	• What is the perception of clients about attributes of counsellor • Are HIV positive women receiving warm welcome? • Is time spent with counsellor sufficient • Are client personal issues remain safe? Do HIV positive women fear taking ART during pregnancy • What is the perception of HIV positive women to life-long ART commitment • To what extent pregnant women knew about eMTCT and that ARV can be used for ePMTCT	• Exit interview with evaluator • Direct observation	**Satisfaction rate 1-5** -1-strongly agree -2Agree -3 Neither -4Disagree -5Strongly disagree
	Linkages	• Are HIV positive pregnant women assessed for CD4 at least once during pregnancy • Do health providers screen for TB HIV positive women monthly using TB screening questionnaire • Do health providers assess HIV positive women for WHO clinical staging • Are HIV exposed infants receive HIV test	• Direct observation • Mother and Child (MC) • FilledTB screening questionnaire • CTCI,CTC2	0-4scale

Domain	Variables	Measurement	Source	Scale
		status with DNA PCR at age of 4-6 weeks		
	Follow up	• Are appointment books available in all HFs • Are HIV positive women registered in PMTCT care given appointment date • Do HIV positive women registered in PMTCT care have multiple clinics during visit • Do they get difficult to find health providers during follow up visit	• Direct observation • DRCHCO • Pharmacist • Laboratory technologist • PMTCT providers • ART drug register • DACC • CHACC	0-4Scale
	Supervision	• Are checklist for PMTCT supervision available • To what extent the supervisors use checklist during PMTCT supervision • How often is it conducted • Do supervisors document supervision findings in MTUHA number 2 • Do supervisors give on the spot feedback ?	• Direct observation • MUHA number 2 • HFs in charge • DRCHCO • DACC • CHACC	0-4Scale

Domain	Variables	Measurement	Source	Scale
	Completeness of records	• Are revised PMTCT registers available in all HFs • Are services properly recorded WHO staging, CD4 count assessment, TB screening, Early infant diagnosis of HIV • Are all cells completely filled	• Direct observation	0-4Scale
OUTCOME	**Satisfaction**	• To what extent HIV positive women are satisfied with PMTCT services • What is the level of commitment for HIV positive women to lifelong ART • To what extent HIV positive women are able to disclose their HIV status • To what extent are male partners involved in PMTCT service	• Exit interview with evaluator • Direct observation	**Satisfaction rate 1-5** -1-strongly agree -2Agree -3 Neither -4Disagree -5Strongly disagree
	Dropout	• How many HIV positive women enrolled in PMTCT • What percent of HIV positive women keep their monthly appointments • Are there mechanism for tracking dropouts • What is the percentage lost during each	• Direct observation • ANC register • Mother and Child register • Appointment book DRCHCO • Laboratory	Yes-1 No- 0

Domain	Variables	Measurement	Source	Scale
		quarter over 12 months • What percent of HIV exposed infants keep their monthly appointments • What percent of HIV positive pregnant women completed four or more visits • What percent of HIV positive breastfeeding women completed the four postnatal visits	technologist • PMTCT providers • DACC • CHACC	

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, A Research Report entitled **Assessment of the Quality of PMTCT Services Provided to HIV Positive Women and their HIV Exposed Infants** in health facilities in Iringa District Council, in partial fulfilment of the requirement for the Award of Master Degree of Monitoring and Evaluation (HME) of Mzumbe University.

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Major Supervisor

_____

Internal Examiner

_____

External Examiner

Accepted for the School of Public Administration and Management

_____

DEAN, SCHOOL OF PUBLIC ADMINISTRATION AND MANAGEMENT