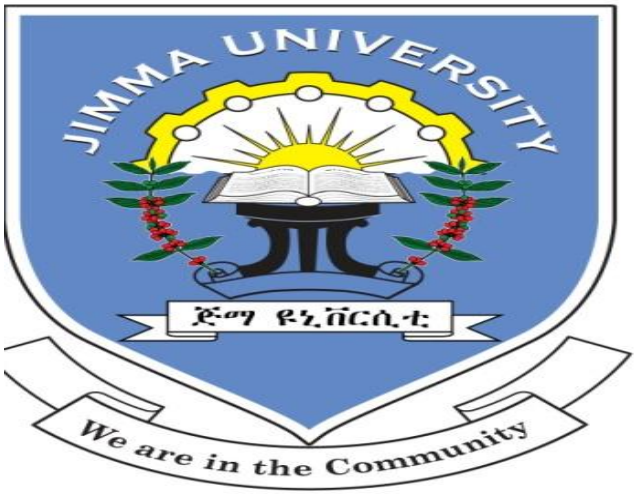

EVALUATION OF QUALITY OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV (PMTCT) OPTION B+SERVICE; THE CASE OF GOVERNMENT HEALTH FACILITIES OF JIMMA TOWN, SOUTH WEST, ETHIOPIA

AN EVALUATION THESIS REPORT SUBMITTED TO DEPARTMENT OF HEALTH ECONOMICS, MANAGEMENT AND POLICY, MONITORING AND EVALUATION UNIT, IN PARTIAL REQUIREMENT FOR THE FULFILLMENT OF MASTERS DEGREE IN HEALTH MONITORING AND EVALUATION

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JUNE, 2016

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Abstract

Background: Worldwide, an estimated 240,000 children were become newly Human Immunodeficiency Virus (HIV) infected in 2013. The main source of HIV infection in children is vertical transmission of HIV from mother-to-child during pregnancy, labor and delivery, or breastfeeding. Number of health facilities providing Prevention of Mother-to-Child Transmission of HIV service has increased throughout Ethiopia. However, published studies on services' provision in country are generally limited; even fewer studies do examine quality of the services.

Evaluation objective: The main objective of the evaluation was to evaluate the quality of prevention of mother to child transmission of HIV (PMTCT) option B^+ service in Jimma town government health facilities, 2016.

Method and Materials: Case study design involving both quantitative and qualitative methods was conducted in Jimma town government health facilities in March 2016. The focus of this evaluation was on the process of Prevention of Mother-to-Child Transmission of HIV option B+ service. A total of 292 pregnant women were interviewed and Six months record of Antenatal Care (ANC), PMTCT and delivery registers and reports were reviewed. Service provision processes were observed for 27 counseling sessions. Moreover, key informant interview was conducted with six heads of health facilities, six health care providers working at ANC/PMTCT and one program manager of town health office. Additionally, facility audit was done. Donabedian's Structure-Process-Outcome model was used to assess the quality of program service at respective study area. Data was analyzed using SPSS for windows version 20 software. Univariate analysis was conducted to see the frequency, proportion and mean of variables for descriptive findings. Binary and multivariate logistic regressions analyses were computed to see the predictors for satisfaction of clients on quality of service. Qualitative data were transcribed, summarized in to major thematic areas to complement the quantitative findings. The evaluation findings were interpreted based on pre-determined judgment matrix.

Result: Most of the minimum required resources such as ARV drugs, registers, report formats, separate room and other supplies were available. However, inadequate of trained human resource was observed. Also frequent stock out of test kits were observed as a resulting to missing of services among partners. On average availability of resources for program (84%) and compliance of health care providers (85.1%) were judged to be requiring improvement. Moreover, there was repeatedly missing some important components in the counseling manual during both pre-test and post-test counseling sessions. But, acceptability dimension (85.5%) was judged as acceptable and client satisfaction on PMTCT option B+ service was, about 94.2% of them were either satisfied or very satisfied. Overall quality of PMTCT option B+ service was acceptable. Clients' satisfaction with PMTCT option B+ services was found to be associated with travel time (AOR= 0.16, 95% CI (0.035, 0.706), p-value<0.016), consultation time (AOR = 3.34, 95% CI (1.59, 7.2), p-value<0.002) and marital status of clients (AOR= 0.066, 95% CI (0.01, 0.42), p-value<0.004).

Conclusion: Although the level of satisfaction with service provision was very high and overall quality of service was acceptable, availability of necessary resource and compliance of health care providers to national guideline need improvement. We recommend more efforts to be exerted on improving providers' compliance, availing of necessary resources to enhance the status of PMTCT services.

Keywords: Quality, PMTCT, Clients' Satisfaction, Jimma town

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Acronyms and Abbreviation

ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
CD4	Cluster of Differentiation 4
C/S	Caesarean Section
DBS	Dry Blood Sample
EA	Evaluability Assessment
EMTCT	Elimination of Mother to Child Transmission
FP	Family Planning
HAART	Highly Active Antiretroviral Therapy
HCP	Health Care Provider
HCT	HIV Counseling and Testing
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HTC	HIV Testing and Counseling
IP	Infection Prevention
JUSH	Jimma University Specialized Hospital
L&D	Labor and Delivery
MNCH	Maternal Newborn Child Health
MTCT	Mother to Child Transmission
ORHB	Oromia Regional Health Bureau
PFSA	Pharmaceutical Fund and Supply Agency
PLHIV	People Living With HIV
PMTCT	Prevention of Mother to Child Transmission
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Program on HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Operational Definition of Terms:

Health care quality-is the application of medical science and technology in a way that maximizes its benefits to health without correspondingly increasing its risks (Donabedian's, 2003). In this Evaluation it refers to availability of program resources, and implementation of process of care as per national implementation guideline, and acceptance of service by program clients.

Availability: Is the presence of required resources for PMTCT service as per national guideline**.** In this context it refers availability of the program resources for the implementation of the program like: Availability of human resources- qualification diploma and above who received training on comprehensive PMTCT program package and update training on option B+ service delivery. Program resources- refer to infrastructure, logistics and supplies (drugs, job aids, test kit, DBS kit, FP supplies, and IP supplies).

Adequacy: Is the degree of fit between the volume and type of existing services and resources to the client volume and types of needs.

HIV positive mothers on adherence support: in this evaluation mothers who are already on adherence support later become pregnant and visiting ANC clinic for PMTCT option B+ service

Compliance: is the occurrence of diagnosis and treatment activities based on national guideline recommendations and as well as provider-client interaction**.** In this context it refers to the compliance of health care providers to national PMTCT implementation guideline while testing and counseling; diagnosis and treatment; recording and reporting.

Client satisfaction: Is the measure of clients" perceived quality of care in the services provided. In this context it refers to self-perception of program clients on the availability of services and program resources, quality of service received client provider interaction and accommodation of service delivery set-up

Acceptability-refers to conformity to patient preference regarding accessibility, patient practitioner relation, the amenities, the effect of care and the cost of care

Structure: Refers the conditions under which care is provided. In this context availability of resources for implementation of PMTCT program.

Process: Is the activities that constitute health care including diagnosis, treatment and patient education which usually carried out by professional personnel, but also including other

contributions to care, particularly by patients and their families. In this context the compliance of health care providers to the implementation of PMTCT program.

Outcome: Is the changes (desirable or undesirable) in individuals and populations that can be attributed to health care. In this context the program client satisfaction on the PMTCT service.

Adherence: Means the client accepts agrees and correctly follows a prescribed treatment. It can be either adherence to care (clinical adherence) and/or drug adherence.

Safe and quality delivery service: Delivery service conducted by skilled attendant using partograph and with non-obstructive methods (spontaneous vaginal delivery or elective C/S).

Partner: For this evaluation refers to formal husband or the usual sexual contact of mother.

Report completeness: For this evaluation it refers to the number of reports related to PMTCT sent to next supervisory body (Jimma town health office) without missing of reportable variables.

Report timeliness: Refers to the timely arrival of report to the next supervisory body per schedule.

Minimum package for service: According to this evaluation as national guideline at least minimum requirement service package such as infrastructure, logistics and supplies, human resources and support system at each health facilities (specialized hospital, primary hospital and health centers).

CHAPTER ONE: INTRODUCTION

1.1: Background

Prevention of mother-to-child transmission is a term used to describe a package of services intended to reduce the risk of mother-to-child transmission of HIV (MTCT).This comprehensive approach includes the four elements: Primary prevention of HIV infection, Prevention of unintended pregnancies among women infected with HIV, Prevention of HIV transmission from women infected with HIV to their infants and Provision of treatment, care and support to women infected with HIV, their infants and their families. Mother-to-child transmission is the transmission of HIV from an infected mother to her baby during pregnancy, labor and delivery and breastfeeding. Most of the children infected with HIV acquired the virus through MTCT (1).

In 2013, there were 35 million people living with HIV and 2.1 million people became newly infected of them 240000 (210000–280000) were children. In the similar year, there were 24.7 million people living with HIV and an estimated 1.5 million new HIV infections, including 210 000 [180 000 – 250 000] children in sub-Saharan Africa which accounts for almost 70% of the global total of new HIV infections. Women account for 58% of the total number of people living with HIV in this region (2).

As global report of UNAIDS in 2013, over 900 000 pregnant women living with HIV globally received antiretroviral prophylaxis or treatment. Coverage of antiretroviral programmes for prevention of mother-to-child transmission increased from 57% (51–64%) in 2011 to 62% (57–70%) in 2012. Expanded access to services to prevent mother to-child transmission prevented more than 670 000 children from acquiring HIV from 2009 to 2012 (3).

In 2012, 62 % of pregnant women living with HIV in low- and middle-income countries received the medicines they needed to prevent transmission of HIV to their babies. In the 22 priority countries of the Global Plan, to eliminate new HIV infections among children by 2015, overall MTCT rates have declined from an estimated 26 % in 2009 to 17 % in 2012 (4,5).

By June 2014, almost half of the 58 WHO HIV focus countries had adopted the WHO recommendation to provide lifelong ART to all pregnant women living with HIV (option B+), and all 21 Global Plan priority countries in the WHO African Region now has guidelines

officially endorsing options B or B+. At current trends, the mother-to-child transmission of HIV may soon be virtually eliminated in some countries in which very low numbers of children are being newly infected with HIV. Eliminating congenital syphilis and strengthening maternal, new born and child health services form part of the efforts to prevent new HIV infections among children and rapid adoption of Option B+ led to large increases in percentage of HIV-positive pregnant women accessing ART in antenatal care (6).

By the end of 2013, most programs reached at least 50% of HIV-positive women in antenatal care with ART, even in countries using a phased approach to implementation in Africa. Scaling up Option B+ through integrating ART in maternal and child health settings has required expansion of the workforce, and task shifting to allow nurse-led ART initiation has created staffing pressure on lower-level cadres for counseling and community follow-up (7).

On February 20, 2013, Ethiopia launched the Option B+ implementation. Option B+ proposes same triple ARV drugs to all HIV- infected pregnant women, beginning in the antenatal clinic setting but also continuing this therapy for all these women for life without need for an initial CD4 testing. To ensure successful implementation of Option B+, the government is using a phased approach, prioritizing health centres that provide both PMTCT and Anti Retro Viral Treatment services. In Ethiopia, where half of new HIV infections are the result of mother to child transmission, effective implementation of Option B+ could be an important step toward an HIV free generation. Added benefit of Option B+ beyond the clinical benefit includes Lower transmission of HIV to infants, improved maternal health and transmission of HIV negative male sexual partners (8).

Every initiative taken to improve quality and outcomes in health systems has as its starting point some understanding of what is meant by ‘quality’. Without this understanding, it would be impossible to design the interventions and measures used to improve results(9). Health care and quality are inextricable, therefore to provide health care services without concern for quality is unprofessional and potentially deadly. To be silent about the quality of health care is to support the untimely death of millions of people every year. Quality in African health care systems has become a major concern due to seemingly intractable poor health indices in most countries. Importance of health care on lives of people makes quality critical regardless of where services are provided in the hospital, or community(10). Quality of care can be assessed using structural, process, or outcome measures. Although each of these elements can be assessed individually, proper integration of all 3 elements is critical (11).

To improve quality of PMTCT service FMOH, recommended that Provision of regular on job training and mentorship to HCW at health centers and hospitals, strengthen continuous availability of good medicine, diagnostics and other essential supplies and ensuring adequate staffing of HCW (12).

Fewer studies do examine quality of the services recommended that offering quality counselling on MTCT and PMTCT to all pregnant women, Strengthening providers' capacity and motivation technique, comprehensive PMTCT interventions, improving provider-client communication and devising ways of increasing clients' satisfaction (13).

1.2: Statement of the Problem

Ten countries including Ethiopia—account for 81% of all people living with HIV in sub-Saharan Africa. There are also more women living with HIV in the region than HIV-positive men: women account for 58% of the total number of people living with HIV. There are 2.9 million children (aged 0–14), 2.9 million young people (aged 15–24) and more than 2.5 million [2.4 million–2.7 million] people aged 50 years and older living with HIV in sub-Saharan Africa (14).

In 2010, an estimated 1.49 million women living with HIV were pregnant and several priority countries for preventing mother-to child transmission have made important progress towards improving this among women 15–24 years old (15).

Over 90 % of new HIV infections in infants and young children occur through Mother-to-child transmission (MTCT) and without any interventions, between 20 % and 45 % of infants may become infected, but this risk can be reduced to less than 2 % in a non-breastfeeding population by a package of evidence-based interventions (16).

The number of women requiring services to prevent mother-to-child transmission remains high at 1.3 million among the 21 priority countries including Ethiopia. But, all women, including women living with HIV, should be given the opportunity to plan their pregnancies. By helping avert unintended pregnancies among women living with HIV, health-care providers can then focus on women with wanted pregnancies, and such women may be more motivated to adhere to treatment, to seek health-care services, among others, thereby improving service delivery efficiency (14).

Ethiopia is one of 25 countries in Africa that has shown a 50% decrease in new infections, Significant challenges remain to addressing PMTCT, although there have been improvements. Estimated number of HIV positive pregnant women was 38,000 out of 1,125,986 women attending antenatal care who were tested for HIV, but of the 21,871 who tested HIV positive, only 69% reportedly received antiretroviral to decrease mother to child transmission in 2012. A major focus on continuous quality improvement to decrease fall off along the PMTCT cascade, including better tracking of mother-infant pairs post-delivery, strengthening of early infant diagnosis and ensuring that family planning services are available in facilities providing ART but, barriers to improving maternal health have been cultural practices, the lack of basic

services at health facilities and a weak infrastructure and supply chain and out of the total health facilities, 57% of the facilities are providing PMTCT services (17,18,19).

In Ethiopia there are 154,084 children under 14 years living with HIV/AIDS in 2012. There were 7,792 new infections in children less than 15 years in 2012 .More than 90% of the infection is through mother to child transmission of HIV. Some of the main challenges of the PMTCT program include missed opportunity and high dropout rate along the PMTCT cascade. This calls for improved quality of care provided to retain women in PMTCT services and more expansion of PMTCT sites (12).

Recognising existing challenges, in 2013, the Government of Ethiopia developed a MTCT Elimination Plan (e-MTCT) to guide programme implementation and coordination which is intended to rapidly increase service provision sites, improve quality of services, and increase demand, and ultimately service utilisation. The goal was to provide Option B+ to 95% of HIV positive pregnant women by 2015; reduce new infections of HIV among reproductive women by 50%, reduce the unmet need for family planning to 10%, and reduce MTCT rate to less than 5%. Key EMTCT strategies include integration of ART into MNCH services through rolling out simplified regimen of Option B+ for pregnant women in the context of PMTCT, capitalizing on the Health Expansion Program and Health development army to effectively engage communities and improve maternal and child health outcomes and improving the quality of integrated MNCH/PMTCT services at all levels (17).

However, published studies on the PMTCT services' provision in Ethiopia are generally limited; even fewer studies do examine quality of the services.

Therefore, this study has investigated the quality of PMTCT services' provision using the Donabedian's Structure-Process-Outcome model of health service quality assessment

1.3: Significance of the Evaluation

PMTCT option B+ is an initiative launched by the government of Ethiopia believed to improve quality of service delivered at service delivery point. And in doing so timely and accurate information (evidence based information) about the implementation of the program is required to achieve its goal (reduction of new pediatrics HIV infections). So this evaluation tries to show the implementation quality of PMTCT option B+ service to improve the program in government health facilities of Jimma town. Additionally it also tries to come up with plausible barriers that hinder quality of the program. So the result of the evaluation will help programme coordinators, service providers and as well as other stakeholders to improve PMTCT option B+ program. Further it can also serve as baseline information for other evaluators.

CHAPTER 2: PROGRAM DESCRIPTION

Program descriptions convey the mission and objectives of the program being evaluated. Descriptions should be sufficiently detailed to ensure understanding of program goals and strategies. The description should discuss the program's capacity to effect change, its stage of development, and how it fits into the larger organization and community. Program descriptions set the frame of reference for all subsequent decisions in an evaluation (20).

2.1: Program Goals and Objectives

2.1.2: Program Goal

The prevention of mother to child transmission (PMTCT) option B+ program goal in the study area is to eliminate paediatric HIV infections and improve maternal, new born and child health and survival in the context of HIV in Jimma town, Oromia region, South-western Ethiopia.

2.1.3: Objectives of the Program

- At the end of June 2016 the proportion of pregnant women counselled and tested will increase from 98.2% to 100% in government health facilities in Jimma town
- At the end of June 2016 the proportion of HIV+ pregnant/lactating women who receive ARVs will increase from 98% to 100% in government health facilities in Jimma town
- At the end of June 2016 the proportion of labouring mothers with unknown HIV status and receive HIV testing and counselling (HTC) will increase from 98.7% to 100% in government health facilities in Jimma town
- At the end of June 2016 the proportion of skilled deliveries conducted by skilled birth attendant will increase from 87.9% to 100% in government health facilities in Jimma town

2.2: Major Strategies

The strategies of the program include:

- Mobilization of the community and enhancement of awareness activities
- Strengthening mother to mother support group for HIV/AIDS
- Ensuring availability of ARV drugs and other supplies

- Provision of HCT service integrated with MNCH services to pregnant mothers, labouring mothers and their partners
- Ensuring continuous quality improvements through clinical mentoring and supportive supervision
- Strengthening the linkage between health centers and hospitals

2.3: Program Resources/Input

Program inputs are resources required to implement activities necessary to accomplish intended outcomes. Inputs are the financial and non-financial resources used by organizations, policies, programs and initiatives to produce outputs and accomplish outcomes (21). The inputs for the implementation of program in the study area are: human resource, financial resource, infrastructure including PMTCT drugs and medical supplies, guidelines, recording and reporting tools.

2.4: Program Logic Model

Logic model of PMTCT program in government **health facilities of Jimma town, 2016**

Problem of statement: PMTCT service has been implemented in Ethiopia since 2001 in four hospitals. Even though number of Health facilities providing PMTCT service has increased; mother-to-child transmission of HIV still remains to be a challenge for the country due to high missed opportunities and dropout rates in addition to low coverage of services as well as study area.

Goal: To contribute to eliminate paediatric HIV infections and improve maternal, new born and child health in **Jimma town.**

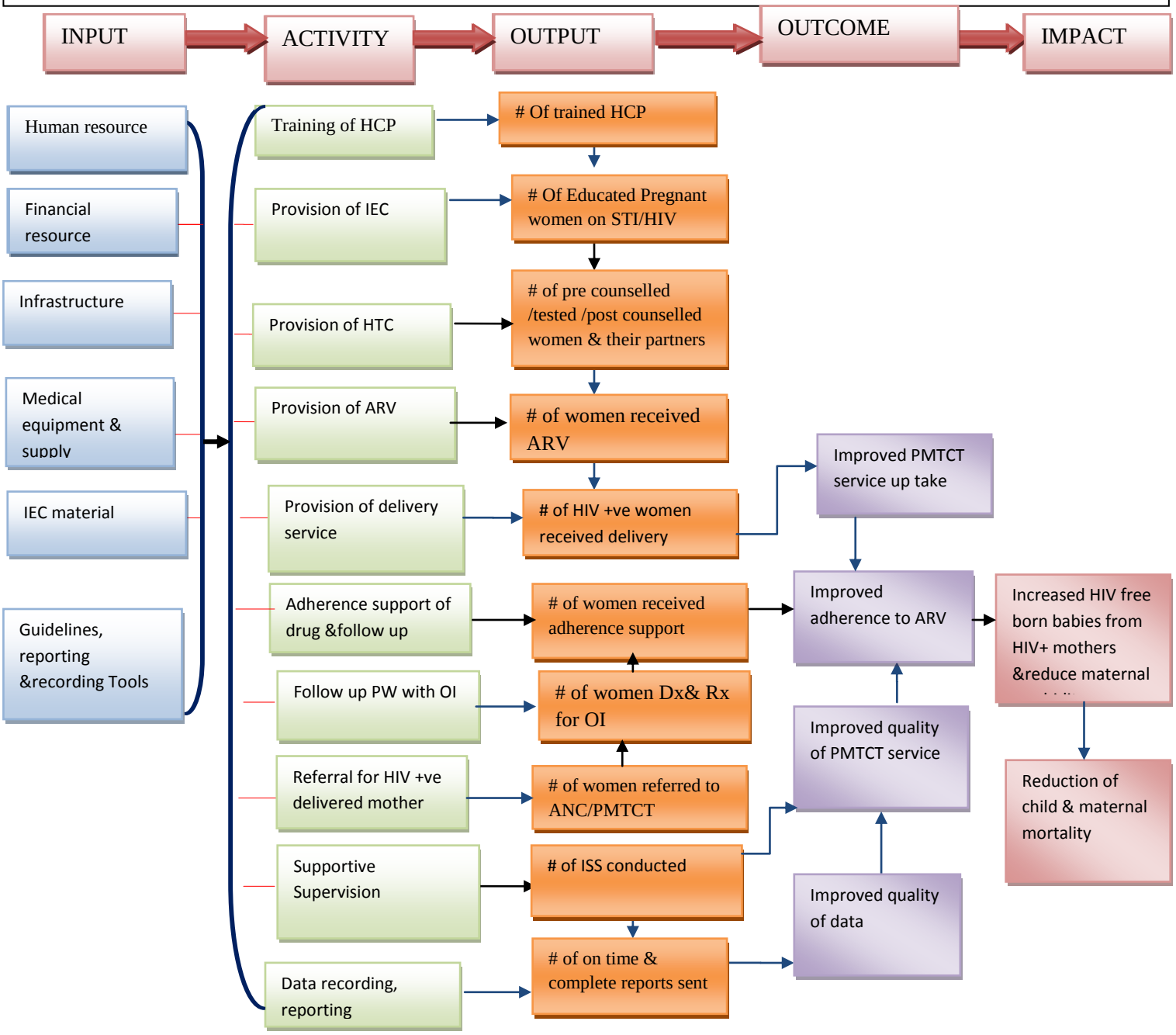

Figure 1 : Logic model of PMTCT program in government health facilities of Jimma town, 2016

2.5: Stage of Program Development

Public health programs mature and change over time; therefore, a program's stage of development reflects its maturity. Programs that have recently received initial authorization and funding will differ from those that have been operating continuously for a decade. Programs can be roughly classed into three stages of development: planning, implementation, and maintenance/outcomes achievement. The stage of development plays a central role in setting a realistic evaluation focus in the next step. Stage of development is way to identify whether the program is just getting started, it is in the implementation stage, or it has been underway for a significant period of time (21, 22).

2.5.1: History of the Program

2.5.1.1: Program History at National Level

The national PMTCT program in Ethiopia was launched in 2001 through implementing the first PMTCT guideline that focused on opt-in approach and use of single dose NVP for the mother and the baby. Ethiopia has revised PMTCT guidelines successively in 2007 and 2012 to adapt the 2006 and 2010 WHO guidelines based on Option A respectively.

Following the launch of the Global E-MTCT plan in 2011, Ethiopia has launched the accelerated plan of PMTCT in 2012 focusing on site expansion, quality improvement, demand creation and use of more efficient PMTCT regimen. In light of the global and country commitments to the elimination of new paediatric infections and new evidence, Ethiopia has examined its PMTCT program goals and implementation experience to make optimal programmatic choices.

Although Ethiopia's experience with option "A" implementation is limited, it has decided to make a rapid switch from option A to Option B+ approach, because of the substantial clinical and programmatic advantage of option B+. It has developed and launched the operational plan for the implementation of Option B+ in 2013 to contribute to the national elimination plan. The plan follows a phased roll out strategy to implement option B+ in all existing and new PMTCT facilities by the end of December 2013(12).

2.5.1.2: Program History in Oromia Region

Oromia regional state is one among the nine (9) regions in Ethiopia comprising of a total of eighteen (18) zones and 12 towns administration. In Oromia region PMTCT program

introduced in 2004 in three health facilities through time the number of health facilities providing service increased.

2.5.1.3: Program History in Jimma Town

Prevention mother to child transmission (PMTCT) program was first introduced in Jimma town 2005 in Jimma University specialized hospital (JUSH) and expanded to four health centers and one primary hospital (shenan gibe hospital) in the course of time. Among health facilities in which program has implemented; 4 of them are ART sites and two (2) PMTCT sites only, namely Mendara Kochi and Bochobore health centers. Currently in all of these health facilities option B+ is under implementation.

2.6: Stakeholder of the Program

Stakeholders are persons involved in or affected by the program and primary users of the evaluation.

A strong results-management process aims to engage stakeholders in thinking as openly and creatively as possible about what they want to achieve and encourage them to organize them to achieve what they have agreed on, including putting in place a process to monitor and evaluate progress and use the information to improve performance (20,23).

Table 1: stakeholder analysis of matrix used for evaluation of quality of PMTCT option B+ program in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	List of stakeholders	Role in the program	Interest in the evaluation	Role in the evaluation	Means of communication
1	Oromia regional health bureau (ORHB)	Planning of PMTCT program Capacity building Resource support Supportive supervision	Use of findings for planning, design &further program improvement (decision making, resource allocation etc.) Organizational change Behaviour change	Problem identification Indicators identification Data provision	Telephone

			of individual		
2	Jimma town health office	Planning, financing, implementing and evaluation of program	Use of findings for program improvement (decision making, resource allocation etc.) Organizational change Behaviour change of individual	Source of data Problem identification Selection of indicators Setting judgment criteria Interpretation of findings	Face to face, formal letter and telephone
3	PFSA	Supply of drugs and medical equipment	Use of findings for program improvement & ensure supply of drug	Problem identification Selection of indicators	Telephone Face to face
4	Jimma university	Providing technical support by scientific studies	Knowledge generation and enhancing training	Financial support for evaluation Sending student for study	Face to face Evaluation report
5	Health facilities (hospitals/ health centers)	Planning and implementation of the program	Use of findings for program improvement Organizational change Behaviour change of individual	Source of data Problem identification Selection of indicators Setting judgment criteria Interpretation of findings	Discussion, face to face and telephone
6	Community representatives (HDA)	Involve in implementation of program	Program improvement and use the quality service	Source of data for evaluation, problem definition and	Face to face

				identification	
7	Program clients	Involve in implementation of program	Program improvement and use the quality service	Source of data for evaluation, problem definition and identification	Face to face
8	Health care providers	Implementation of the program	Use of findings for program improvement (decision making) Organizational change Behaviour change of individual	Source of data Problem identification Selection of indicators Setting judgment criteria Interpretation of findings	Discussion, face to face and telephone

CHAPTER 3: LITERATURE REVIEW

3.1: Approaches to Assessment of Health Care Quality

Quality measurement in health care is the process of using data to evaluate the performance of health plans and health care providers against recognized quality standards. Quality measures can take many forms, and these measures evaluate care across the full range of health care settings, from doctors' offices to imaging facilities to hospital systems. Measuring the quality of health care is a necessary step in the process of improving health care quality (24).

3.1.1: Availability of the Program Resources and Quality of Health Care (Structure)

Structure refers to the characteristics of the setting in which care takes place. Measures of the setting used might include characteristics of human resources, infrastructure Policies related to care delivery (24).

A study conducted to assess quality of PMTCT services in Gebretsadiq Shawo Memorial Hospital, Kafa Zone showed that almost all of the minimum required resources such as test kits, prophylactic drugs and other supplies were available in the hospital(25).

3.2: Compliance of Health Care Provider and Quality of Health Care (Process)

Process measures assess whether a patient received what is known to be good care. They can refer to anything that is done as part of the encounter between a physician or another health care professional and a patient, including interpersonal processes, such as providing information and emotional support, as well as involving patients in decisions in a way that is consistent with their preferences (24)

A study conducted to assess the relationship between quality of prevention of mother to child transmission of HIV (PMTCT) services and the maternal ARV prophylaxis uptake in Kenya identified that majority (81.5%) of the respondents were seen within 1 hour. About 90% of the counsellors have received PMTCT training (26).

Study conducted to assess acceptability of provider initiated HIV counselling and testing in pregnant mothers attending ANC at Nekemte town government health facilities shows that the HCWs had given pre-test counselling for (79.9%) of the mothers and the rest with no pre-test counselling and their major sources of information to PIHCT was health workers 260(61.6%). The main challenge reported by service providers were lack of training (27).

Another study conducted to assess quality of PMTCT services in Gebretsadiq Shawo Memorial Hospital, Kafa Zone showed that counsellors followed the national guideline in providing HIV counselling and testing services (25).

3.2.1: HIV Counseling and Testing (Antepartem-Intrapartem)

Family Health international (FHI) 360's Strategic Approach recommended that during antenatal period, all pregnant women must have access to HIV testing and counselling (HTC) (28).

Knowledge of HIV status is essential in order to consider all available treatment options, and to make informed decisions related to partner infection, childbearing and pregnancy. Testing for pregnant women, youth and children at risk is a national priority. Provider-initiated approaches are being promoted to increase the availability of testing, reduce stigma and reach people in need of testing and treatment(29).

Provider-initiated routine counselling and testing using the opt-out approach is recommended for all clients seen within the context of maternal care (i.e. antenatal, labor, postpartum). This means that HIV testing is offered as a routine component of standard maternal/child health care. The client is given pre-test information in a group or individually on HIV/AIDS and PMTCT and is told that her routine antenatal laboratory tests will include an HIV test. The provider also must inform the client that she has the right to say "no" (to opt out), and this decision by no means affects the services she will get from the health facility(29)**.**

A study conducted to assess acceptability of HIV testing and counselling by Antenatal Clients of a Tertiary Institution in Northern Nigeria identified that routine HIV testing and counselling was more acceptable than voluntary counselling and testing among antenatal clients. Although the awareness and uptake of HTC were quite high among the antenatal clients, there is remaining minority who are still ignorant of the benefits of HTC (30)**.**

Another study conducted to assess pregnant women's satisfaction and comprehension level of information given during HIV counselling and testing for PMTCT in public health facilities in Addis Ababa of the 422 women interviewed, 314 (74.6%) had discussion on MTCT/PMTCT; and 287 (91.4%) of those 314 reported to have comprehended the information. The odd of knowing why HCT is offered during pregnancy was higher among clients who spent 5-15 minutes on discussion with their counsellors (31).

3.2.2: Initiation or Continuation of ARV (Antepartem-Intrapartem)

Clinical guidance across the continuum of care of WHO guide recommended that ARVs should be given to every HIV-infected pregnant woman during labor and delivery, including those newly diagnosed in labour. All pregnant and breastfeeding women with HIV should initiate triple ARVs (ART), which should be maintained at least for the duration of mother-to-child transmission risk (32,33).

3.2.3: Safe and Quality Obstetric Services

Obstetric safety and quality is an emerging and important topic not only as a result of the pressures of patient and regulatory expectations, but also because of the genuine interest of caregivers to reduce harm, improve outcomes, and optimize care(34).

Good practices for HIV-positive pregnant women include: (1) limited vaginal examination and (2) avoidance of episiotomy, forceps, vacuum extractor and artificial rupture of membranes unless absolutely indicated. If a spontaneous rupture of membranes occurs before or early during the course of labor, interventions to decrease the interval to delivery, such as administering oxytocin, may be considered in women without indications for caesarean delivery (28).

As up to a third of infant HIV infections occur through transmission from the mother during labour and delivery, this period for prevention of MTCT is critical. Many strategies which prevent MTCT, including standard infection prevention precautions and limiting/avoiding unnecessary obstetric interventions, are protective for all women and their infants.

Intra partum care and infection prevention include: Essential obstetric care for all mothers (a skilled attendant at every birth, early identification of danger signs and prompt referral to a facility where comprehensive obstetric care is available), Safe delivery practices and avoiding invasive procedures when possible (no artificial rupture of membrane to shorten labour, no routine episiotomy, avoid use of vacuum extraction and forceps if possible, limit vaginal examinations during labour, treatment of acute chorioamnionitis, early infant eye and cord care) and Safe delivery practices designed to protect health workers, mothers, family members, and babies(29).

3.2.4: Linking Mother-Infant Pair to Postpartum Care Clinic (Referral Services)

Barriers to attending PMTCT services outside the health facility included: denial of the HIV diagnosis, financial barriers, lack of information, competing obligations, lack of perceived need, unsupportive partners and stigma. Linkage to follow-up care and treatment services for women and infants was affected by barriers similar to those for PMTCT services more generally, with additional barriers including low levels of knowledge of these services and low perception of need (35).

Standing referral and feedback arrangements should be put in place that: encourage counselling, testing and treatment for partners of women who test positive, refer all HIV-positive mothers for ART, care and support, and treatment of OI and psychological support, family planning follow-up, especially for women who do not seek routine health services in the facility where they delivered, support infant feeding options chosen by the mother, support adherence to antiretroviral treatment or other medications and coordinate with health extension workers, community volunteers, and association of people living with HIV(29)

3.3: Satisfaction of Clients and Health Care Quality (Outcome)

Outcomes refer to a patient's health status or change in health status (e.g., an improvement in symptoms or mobility) resulting from the medical care received. This includes intended outcomes, such as the relief of pain and unintended outcomes, such as complications (24).

A study conducted to assess the relationship between quality of prevention of mother to child transmission of HIV (PMTCT) services and the maternal ARV prophylaxis uptake in Kenya identified the majority of the respondents 71.4% successfully accessed PMTCT services on the first visit. About 86.7% of the health facilities sampled had satisfactory quality of PMTCT services and 89% of HIV positive pregnant women reported that they received satisfactory PMTCT counselling services (26).

Another study conducted to assess clients' satisfaction with services for prevention of mother-to-child transmission of HIV in Tanzania, of 113 clients' who accessed PMTCT services, 75.2% were satisfied with the counselling provided. A significant difference was observed between clients with no formal education as compared to those with primary level of education and above. Nearly a quarter of the clients who accessed PMTCT of HIV services were not satisfied with the privacy in the settings providing the service. It was also found that 71.7% of clients accessing PMTCT of HIV service were satisfied with the waiting time spent

for the service; however a difference was observed between clients who accessed services at health centre (77.6%) and hospital (33.3%) (36).

According to study done to assess pregnant women's satisfaction and comprehension level of information given during HIV counselling and testing for PMTCT in public health facilities in Addis Ababa showed that concerning clients' satisfaction with the services 82.5% of them said that the counselling room's privacy was maintained, and 98.9% of the clients were counselled by the same counsellor both in the pre-test and post-test sessions. More than ninety two percent (92.2%) felt comfortable with the counsellors' client handling/respect; 91.5% were satisfied with the technical competence of the counsellors (31).

A study conducted on prevention of mother-to-child transmission (PMTCT) of HIV services clients' satisfaction and challenges experienced by service providers in Adama town identified that about three-fourth (74.7%) of clients reported that they were satisfied with the PMTCT services provided by the health facilities. Clients' satisfaction with PMTCT service was found to be associated with liking the discussion they had with their counsellor, non-preference to a different counsellor with regards to sex and/or age and not seeing the same ANC counsellor before and after HIV test (13).

Another study conducted on quality of PMTCT services in Gebretsadiq Shawo Memorial Hospital, Kafa Zone showed that most (90%) of clients were satisfied or very satisfied by the PMTCT services they received. However, from 858 pregnant mothers who visited the ANC clinic in 2011, only 330(38.5%) were offered HIV pre-test counselling, while 281 (33%) were tested (25).

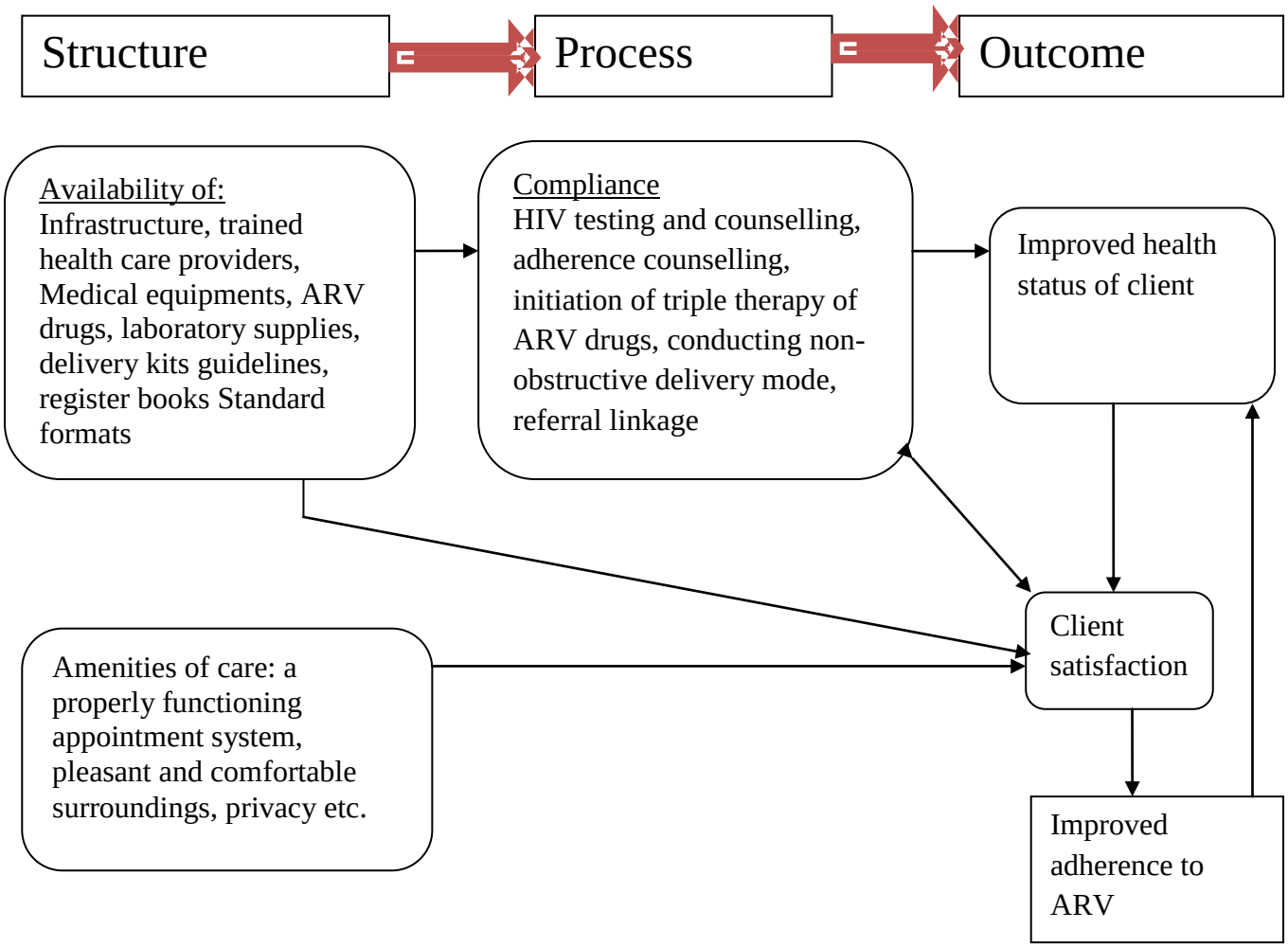

Figure 2: Conceptual framework of quality of PMTCT option B+ service implementation at government health facilities of Jimma town, 2016

(Adapted from Avedis Donabedian, 2003 edition with few modification)

CHAPTER 4: EVALUATION QUESTIONS AND OBJECTIVES

4.1: Evaluation Questions

1. Are the required program resources available to implement PMTCT option B+? If yes How? If not why?
2. Do health care providers congruence to national implementation guideline in implementation of PMTCT option B+? If yes how? If no why?
3. Are the PMTCT program clients satisfied by the services provided? If yes how? If no why?

4.2: Objective of Evaluation

General Objective

To evaluate the quality of PMTCT option B^+ service in Jimma town government health facilities in 2016

Specific Objective

1. To evaluate the availability of resources for the PMTCT option B^+ service at study area.
2. To evaluate the compliance of the service providers with the National PMTCT Guideline at study area.
3. To determine the satisfaction level of PMTCT clients with service received at study area.
4. To identify the determinants of clients' satisfaction on PMTCT service at study area.

CHAPTER 5: METHODS OF EVALUATION

5.1: Study Area

The study was conducted in Jimma town government health facilities. Jimma town is a zonal town which is located in Oromia Region, Jimma zone; about 353 kilometres Southwest of Addis Ababa, Ethiopia. Based on the 2007 census of Ethiopia, Jimma town has a total population of 342,827, of whom 171,930 were men and 170,897 women. There are one (1) specialized hospital and one (1) primary hospital, four (4) health centers, seventeen (17) health posts, in the town from which the urban and rural residents have access to the various health services. In the town, all government health facilities have been providing PMTCT service namely Jimma University Specialized hospital, Shenan-Gibe primary hospital, Jimma health center, Higher two health center, Mendara kochi health center and Bochobore health center. There is also one (1) NGO health facility which has been providing PMTCT service namely Family Guidance Association Ethiopia (FGAE), Jimma clinic.

5.2: Evaluation Period

Evaluability assessment was done from December, 16- 30, 2015

The data collection was conducted from March 07 to 31, 2016

5.3: Evaluation Approach

Formative evaluation seeks to strengthen or improve a programme or intervention by examining, amongst other things, the delivery of the programme, the quality of its implementation and the organisational context, personnel, structures and procedures. And the aim of the evaluation is to assess quality of PMTCT option B+ service in Jimma town government health facilities, identify challenges of quality and recommend areas of improvement. Hence the approach of the evaluation was formative.

5.4: Evaluation Design

Case study design involving both quantitative and qualitative methods was used. Case Study is used for developing a complete understanding of PMTCT option B+ implementation quality in government health facilities of Jimma town, with a goal of having comprehensive understanding of a case including the context and circumstances in which it occurs, through extensive description and analysis.

5.5: Focus of Evaluation and Dimensions

5.5.1: Evaluation Focus

The focus of this evaluation was on the process of Prevention of Mother-to-Child Transmission of HIV option B+ service. It was focused on the input of the program, activities conducted and the immediate result of the activities. And in the PMTCT continuum of care; the process evaluation only was focused on the ante partum and intra partum continuum of care. The reason for the focus to be limited in this PMTCT continuum of care is that to include all the required information with regards to the postpartum continuum of care; it requires at least 18-24 months.

5.5.2: Evaluation Dimensions

Quality of service is multidimensional concept and can be assessed in different ways. This evaluation was employed Donabedian's structure, process, and outcome model to assess the quality of PMTCT services. The structure attributes of quality: availability of skilled and trained human resources, drugs and medical supplies such as laboratory and logistics were assessed. And in the process element of quality: compliance of program implementers to national standards or guideline was assessed. Whereas as an outcome component satisfaction of service clients with the process of care or service received was assessed. In general the dimensions of the evaluation used were: availability of resources, compliance of health care provider, and acceptability of service by clients. For each dimensions indicators measured were identified in collaboration with key stakeholders of program. Moreover the weight for each of the indicators under the dimensions was given based on their relative relevance during Evaluability assessment with stakeholders.

5.6: Indicators and Variables

5.6.1: Indicators of the Evaluation

A total of 38 quality indicators were used: Availability 8 indicators, compliance 15 indicators, and acceptability 15 indicators.

Availability (Structural Quality) Indicators:

- Proportion of health facilities with at least six trained human resource on PMTCT service

- Proportion of health facilities with no stock out of ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period
- Proportion of health facilities with no stock out of non-ARV drugs at least Cotrimoxazole syrup/tablet and iron folate tablets in last six months period
- Proportion of health facilities no stock out HIV test kits in last six months period
- Proportion of health facilities with logistics (HMIS registers, guidelines, HMIS formats)
- Proportion of health facilities with delivery kits
- Proportion of health facilities with FP drugs
- Proportion of health facilities with functional laboratory

Compliance (Process Quality) Indicators:

- Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic
- Proportion of the pregnant women tested in their first visit to ANC clinic
- Proportion of pregnant women who received post-test counselling and test result in their first visit to ANC clinic
- Proportion of pregnant women tested positive and received ARVs drugs at ANC/PMTCT clinic
- Proportion of labouring mothers with unknown HIV status received on coach pre-test counselling
- Proportion of labouring mothers with unknown HIV status who received testing service
- Proportion of labouring mothers who received post-test counselling and test result
- Proportion of labouring mother initiated on HAART as soon as diagnosed
- Proportion of HIV positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS)
- Proportion of HIV exposed infants who received NVP after delivery
- Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral)
- Proportion of program clients' partners tested for HIV
- Proportion of health facilities which received integrated supportive supervision monthly for last six month period

- Proportion of health facilities which sent report timely to the next supervisory body monthly for last six month period
- Proportion of health facilities which sent complete report to the next supervisory body monthly for last six month period

Acceptability (Outcome) Indicators:

- ✓ Proportion of clients satisfied with HCT services is available always when needed.
- ✓ Proportion of clients satisfied with infant feeding counselling services are available always when needed.
- ✓ Proportion of clients satisfied with laboratory services is available always when needed.
- ✓ Proportion of clients satisfied with health care providers prescribes appropriate therapy.
- ✓ Proportion of clients satisfied with always the information health care providers provide them are appropriate
- ✓ Proportion of clients satisfied with the waiting time for service
- ✓ Proportion of clients satisfied with waiting area is comfortable
- ✓ Proportion of clients satisfied with the competency of health care providers
- ✓ Proportion of clients satisfied with counselling and testing room is private
- ✓ Proportion of clients satisfied with counselling and testing room is comfortable
- ✓ Proportion of clients satisfied with duration of the counselling session is adequate
- ✓ Proportion of clients satisfied with respectfulness of the counsellor
- ✓ Proportion of clients satisfied with trustworthiness of the counsellor
- ✓ Proportion of clients satisfied with clarity of the counsellor's explanation
- ✓ Proportion of clients satisfied with overall of services

5.6.2: Variables

5.6.2.1: Dependent Variable

- Client satisfaction on PMTCT option B+ service

5.6.2.2: Independent Variables

- Socio-demographic characteristics (Age, Marital status, Occupational status, Ethnicity, Religion, Educational status)

- Residence
- Waiting time to receive services
- Consultation time
- Travel distance in minute
- Frequency of clinic visits

5.7: Population and Sampling

5.7.1: Source Population

- All pregnant mothers in Jimma town
- All Head of health facilities, program managers and health care providers assigned and working in government health facilities of Jimma town
- All program documents since September 2015

5.7.2: Study Population

All pregnant mothers who visited ANC/PMTCT clinic to receive services in Jimma town government health facilities during data collection period

Head of health facilities, program managers and health care providers who have work experience of a year or more in government health facilities of Jimma town

Six months record of ANC, PMTCT and delivery registers and reports since September 2015

5.7.3: Study Units and Sampling Units

The study units were program clients, health care providers, health care managers and service documents (registers, reports).

The sampling units were Jimma town health office, all government health facilities and program clients' primary, secondary and tertiary sampling units, respectively.

5.7.4: Sample Size

Satisfaction Survey: The sample size for clients' satisfaction was determined using single population proportion formula. The assumptions: Level of confidence 95%, 5% margin of error, and P is the proportion of clients' satisfaction on PMTCT service since there was study done on clients' satisfaction in Adama town health facilities showed that 74.7% of clients

reported that they were satisfied with the PMTCT services provided by the health facilities (13), p =74.7% was taken to calculate sample size. Based on these assumptions the actual sample size for the study was computed using the formula for single population proportion

$$= \frac{(Z\ \alpha/2)^2\ P\ (1-p)}{d^2}$$

Where, n_o= sample size, Z α/2= Critical value=1.96, P= clients' satisfaction by the PMTCT service they received (74.7%), d= precision (marginal error) =0.05,

Then $n = \frac{(1.96)^2\ (0.747*0.253)}{(0.05)^2} = 290$

Since total population N is less than 10,000, when N (6,584) = expected pregnancy of Jimma town of 2008 so, correction formula was used:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

= 278 by adding 5% non-response rate the total sample size was= **292**

Then total sample size was allocated proportionally for six health facilities per ANC client load per month. So, based on client flow assessed during Evaluability assessment the proportion for each health facilities was as follow (Annex V): Jimma University Specialized Hospital =90 clients, Shenan Gibe Primary Hospital = 82 clients, Higher Two Health Center = 31 clients, Bochobore Health Center =24 clients, Mendara Kochi Health Center =28 clients and Jimma Health Center =37 clients.

Document Review: Six months record of ANC, PMTCT and delivery registers and reports were reviewed.

In-Depth Interview: Six head of hospitals/health centers, one program manager of town health office and six health care providers who have work experience of a year and more in ANC/PMTCT were included.

Observation: Observation of HIV testing and counselling and adherence support sessions were performed to assess client counsellor interaction, compliance and quality of the counselling sessions. Observation sample size was determined based on UNAIDS tool for HIV testing and counselling recommendation three to five observation sessions per health care provider (37). So it was taken three per health care provider that is twenty seven observation sessions. Eighteen observation sessions for HIV testing and counselling and nine observation sessions for adherence support were conducted.

In addition**, facility audit** was done to assess the presence of the minimum required resources, including staffing, infrastructure, medicines and supplies.

5.7.5: Sampling Procedure

The study sample selection employed all public health facilities implementing the program in Jimma town were included in the evaluation.

Sampling Procedure for Client Satisfaction Survey:

For the assessment of clients' satisfaction, the program clients were interviewed at exit consecutively until the required sample was obtained.

Sampling Procedure for Document Review:

Six months documents were reviewed. The document review included labor and delivery register, ANC registers and PMTCT registers and reports (since September 2015).

Sampling Procedure for an Observation:

Observations of HIV testing and counselling and adherence support sessions were conducted with the purpose of assessing the compliance of health care providers to national PMTCT guideline. All health care providers delivering HIV testing and counselling and adherence support services while data collection period at ANC/PMTCT clinic were participated in the direct observation. Three observation sessions per health care provider were conducted. All health care providers, at ANC/PMTCT during data collection period were included and only six health care providers each at health facility were observed for HIV testing and counselling session.

But regarding adherence support counselling only three health care provider from three health facilities and the rest were not due absence client for adherence support counselling during data collection period.

Key informant interviews with Program Managers

The purpose of conducting interview with heads of health facilities and program manager was to obtain information regarding program management and barriers to service implementation and solutions. Six head of hospitals/health centers and one program manager of town health office were participated in the study.

Key informant interviews with Health Care Providers

The purposive (criteria sampling technique) was used to select the study participants. The criteria were:

- Health care providers assigned and working in ANC/PMTCT clinic
- Working experience at least for the one year

The purpose was to get rich information from participants.
Six of health care providers were participated in key informant interviews, who were working at ANC/PMTCT clinic. Whereas one health care provider from each facility was participated in the interview based of working experience at least for a year and assigned to ANC/PMTCT clinic.

5.7.6: Inclusion and Exclusion Criteria

5.7.6.1: Inclusion Criteria:

- Health care providers assigned and working in ANC/PMTCT clinic at least for the one year.
- Heads of health facilities and program manager
- All pregnant mothers visiting ANC/PMTCT clinic during data collection period.
- All PMTCT Service related documents of six months prior to data collection period at respective health facilities.

5.7.6.2: Exclusion Criteria

- Clients unable to speak and/or hear

- Clients who visit health facility for the second time during data collection period given that previously participated in the study.

5.8: Data Collection

5.8.1: Data Collection Tool Development

The structured questionnaire was adapted from validated baseline assessment for PMTCT by Family Health International (37,38) were used for the client exit interview and others were developed by the researchers, checklists composed of different components such as PMTCT resource inventory tool, document review template, observation consultations and an key informant interview guides referring national guideline.

The questionnaires for satisfaction survey were translated to local language (Afan Oromo) and back to English with independent translator who has health professional back ground to simplify the data collection process.

All of the tools were pre-tested with 5% of sample size to check for their applicability in the local context at Agaro primary hospital prior to data collection.

5.8.2. Data Collectors

Data Collectors for the evaluation were selected health professionals outside of the study area. For satisfaction survey and direct observation a total of **6** diploma nurses were participated. All of the data collectors were selected outside of the study area in order to minimize interviewer bias. Furthermore **2** supervisors (Bsc. Nurses) were selected and assigned for each public hospital/health centers. The data collectors and supervisors received two days training on the evaluation objectives, data collection instruments, data collection techniques, interview skills and ethical issues. The training was given in the same session in order to familiarize data collectors and supervisors with data collection tools. They participated only on satisfaction survey and observation.

Whereas key informant interview, resource inventory and document review were conducted with the investigator himself.

5.8.3. Data Collection Field Work

Data were collected from each public hospital/health center through:-

Client exit interview:-It was conducted after each participant received services at ANC clinic while they exit from service. Initially appropriate place was selected for interview in order to protect the privacy of clients particularly HIV positive mothers and written consent was taken from these respondents. Then the program clients were interviewed at exit consecutively until the required sample was obtained.

Document review: - Six months of ANC, PMTCT and delivery registers and reports were reviewed and in all cases permission taken from the respective units.

Direct observation: - the observations were conducted while the health care providers deliver HIV testing and counselling and adherence support services. Initially the observers took informed consent from the health care providers and then health care provider took from clients in each session. The first three observations were dropped from each health care provider in order to minimize Hawthorne effect (observer influenced compliance).

Key informant interview: - All healthcare providers assigned and working in ANC/PMTCT clinic at least for the one year were interviewed after completion of direct observation and clients' interview. Lastly, the head of health facilities and program manager of town health office were interviewed. In all cases tape recorded was used after consent taken from each participant.

Resource inventory: - The resource inventory combined both direct observation and dialogue with responsible bodies. In the process of resource inventory pharmacy head, laboratory head and head facilities were interviewed.

5.9: Data Management and Analysis

Data were checked for accuracy and completeness; then, cleaned and coded and analysed using SPSS for windows version 20 software.

Satisfaction of clients on PMTCT was measured by 15 items each having five point likert scale from very dissatisfied (1) to very satisfied (5). To see the total score of each respondent, the points obtained from the 15 items by each respondent were summed. Clients were categorized as dissatisfied or satisfied by using cut of point calculated using demarcation threshold formula, {(total highest score-total lowest score)/$_{2}$} $_{+}$total lowest score. The cut off point for client satisfaction on the PMTCT received was 55 (36, 73).

Univariate analysis was done to see the frequency, proportion, and mean of variables for descriptive findings. Bivariate and multivariate logistic regressions were computed to see the independent variable for satisfaction of clients on quality of service. Variables whose $p \leq 0.25$

were taken as candidate for multivariate logistic regression analysis and statistical significant variables were checked at $p<0.05$ after multivariate logistic regression analysis. Qualitative data were transcribed, summarized in to major thematic areas and presented in narrative form to complement the quantitative findings. The evaluation findings were interpreted based on pre-determined judgment matrix.

5.10: Matrix of Analysis and Judgment

Indicators based approach evaluation was used to evaluate quality of PMTCT option B+ service in public health facilities of Jimma town. Indicators set for availability, compliance and acceptability dimensions. For each respective dimensions weight were given during evaluability assessment after detail argument and discussion with stakeholders (Annex IV).

5.11: Ethical Consideration

Ethical clearance and permission was obtained from Jimma University Institutional Review Board. Subsequently, letter of ethical clearance was submitted to town health office for collection of necessary data from the study participants.

The study participants were informed about the objectives and purpose of the study. Then informed about their voluntary participation in which they have the right to refuse totally or withdraw from the study at any time without any consequence. In addition, the clients name was not retrieved from clinical registers. Questionnaires were anonymous which kept the privacy and confidentiality of participants. Then written informed consent was obtained from all study participants.

5.12: Evaluation Dissemination Plan

This evaluation report will be presented and submitted to Jimma University, College of Health Science, Department of Health Economics, Policy and Management, Health Program Monitoring and Evaluation unit and respective stakeholders. The evaluation findings and recommendations will also be communicated with Jimma university scientific communities, Jimma town health bureau and others stakeholders. Finally, this evaluation will be disseminated through hard copies and soft copies to stakeholders and publication on scientific journals will be considered.

CHAPTER SIX: RESULT

6.1: Resources Availability

In all government health facilities of Jimma town PMTCT option B+ services have been provided in integration with other maternal, newborn and child health services. In those facilities there was separate ANC/PMTCT room and as well as the laboratory units were observed to be functional and available for PMTCT services delivery. There were also running water and electricity supplies.

Most of the laboratory supplies that are required for the service provision were available. Laboratory equipments like dry blood sample (DBS) kits, acid fast bacilli (AFB) smear, and haemoglobin test, syphilis test, and pregnancy test were available and functional. In addition to the above equipments and services, in Jimma University Specialized Hospital and Shenan Gibe hospitals cluster of differentiation four (CD4) count machine and chemistry tests were available and functional.

Nevirapine in syrup form and first line drugs for option B+ services at least tenofovir-lamivudine-Efavirenzi (TDF+3TC+EFV) were available in all government health facilities. Similarly, all basic obstetric care supplies, that is, delivery couches, delivery sets and Oxytocin were available in the health facilities. Except for goggles and sharp boxes, all other infection prevention materials were available in the health facilities including; gloves, aprons and autoclave.

All recording and reporting formats related to PMTCT services were available in the health facilities including; monthly summary reporting format, counselling registration book, ANC-PMTCT enrolment register, labour and delivery register, Lab referral slips and ANC-PMTCT appointment card. However, the following job aids and Information, Education, Communication/Behavioral Change Communication (IEC/BCC) materials were not available: guideline for paediatrics 2007, PMTCT performance standard, client education materials like brochures and leaflets and PMTCT cue card.

Generally, there were intermittent supply HIV test kits in all government health facilities but, on the average it was stock out for more than 30 days in three public health facilities particularly. As the result of this, there is missed opportunity among program clients particularly partners. This means there is resource constraint to provide the service according

to participants' responses. Intermittent supply of HIV test kit was supported by finding of the qualitative data.

A 38 years old female key informant, PMTCT focal person of one of the town hospital said,

"... If test kits and other supplies like updated job aids were available in health facilities according to national standards, the outcome of the program will become very good and it enables health care providers to contribute to get HIV free generation."

Another 38 years old female participant, assigned to one of the town health center said,

" ... We lack protective equipments such as gown, eye goggle and other IP materials while conducting labour in our health center…if such supplies were addressed, the program may become more successful."

Regarding to human resources, in the government health facilities there are health professionals who assigned to ANC/PMTCT and labour and delivery units. These are a total of 14 health professionals, 12 nurses/midwifes and two general practitioners are assigned to ANC/PMTCT clinic only. Concerning to training out of 12 nurses/midwifes 11(91.7%) of them are trained on basic plus option B+ update training.

Table 2: Total human resources working on PMTCT and their training status in government health facilities of Jimma town, Southwest Ethiopia, 2016.

Human resource	Total human resource working at PMTCT option B+ service trained on basic plus updated option B+ service							
	JUSH	Shenan gibe hospital	Jimma health center	Higher two health center	Mendar a kochi health center	Bochobore health center	Trained on basic PMTCT	Trained on updated option B+
Medical doctor	2	1	0	0	0	0	3	3
Nurses	2	2	2	2	2	2	12	11
Pharmacy	4	1	1	1	1	1	6	2
Laboratory	3	1	1	1	1	1	3	1
Data clerk	2	2	1	1	1	1	6	4

On daily basis at ANC/PMTCT clinic 8 nurses/midwifes; 2 for each public hospitals and 1for each health center are assigned to provide PMTCT services in integration with MNCH services and additionally one general practitioner for each hospital according to the human resource inventory and key informant interviews result. Most of participants of key informant interview indicated that shortage of trained human resources due to staff turnover.

A 40 years old male key informant, head of one of health center of the town said,

"... PMTCT option B+ is the best program ... but the shortage of trained human resource is one of the challenges of program. There is health care provider turnover."

A 26 years old female participant, assigned to one of health center of the town added,

" ... Shortage of trained human resource is our main problem because one health care provider assigned both ANC/PMTCT clinic and delivery unit. So if labour client comes, ANC/PMTCT clients are waiting until mother delivered."

Quality of PMTCT option B+ service with the respect to program resource availability was measured to be 84%, requiring an improvement based on the decision parameter. Summary of performance of government health facilities in resource availability is presented in table below.

Table 3: Summary of performance on program resource availability indicators in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Indicators	Achievement (P)	Relative weight(W)	Score (W*P)	Judgment parameter
1	Proportion of health facilities with at least six trained human resource on PMTCT service	50.0	18	9	
2	Proportion of health facilities with no stock out of ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period	100.0	18	18	
3	Proportion of health facilities with no stock	100.0	14	14	

	out of non-ARV drugs at least Cotrimoxazole syrup/tablet andiron folate tablets in last six months period				
4	Proportion of health facilities no stock out HIV test kits in last six months period	50.0	14	7	
5	Proportion of health facilities with logistics (HMIS registers, guidelines, HMIS formats)	100.0	9	9	
6	Proportion of health facilities with delivery kits	100.0	10	10	
7	Proportion of health facilities with FP drugs	100.0	8	8	
8	Proportion of health facilities with functional laboratory service	100.0	9	9	
	Quality of PMTCT option B+ program for availability dimension		100	84.0	

90-100%-Acceptable, **75-89%-Needs improvement**, ≤74%-Needs urgent improvement

6.2: Compliance of health care providers to national standards

6.2.1: Record Review

Six months record of PMTCT, ANC and delivery registers were reviewed. The review revealed that a total of 2647 had at least first ANC visit at the health facilities (since September 2015). Out of these mothers, 2276 (86.0%) were offered pre-test counselling and 2261 (85.4%) got HIV test. Out of the mothers who were tested 2236 (84.5%) were also post-test counselled, regardless of their serostatus. And only 295 partners got tested for HIV.

Concerning documented PMTCT registers a total of 140 mothers were received PMTCT services at the health facilities within six months (since September 2015). While 139 (99.3%), were on HAART. Out of the 139 women who were initiated ART drugs, 129 (92.8%) were on TDF+3TC+EFV (1e) and 9 (6.5%) of them on AZT+3TC+NVP (1C). And their partner status was documented for 133 (95.0%) and selection infant feeding option for 122 (87.1%) mothers. Concerning syphilis test result out of 140 women received PMTCT services, only 46 (32.9%) of them recorded as non-reactive, but others were not documented.

Regarding documented delivery registers a total of 2065 mothers were received labor and delivery services at the health facilities within six months (since September 2015). While out of total deliveries majority (56.9%) of them were SVD and 24.8%, 5.6% and 12.6% were C/S, forceps/vacuum extraction and episiotomy respectively. The majority of deliveries are conducted with non-obstructive procedures. From a total of 38 HIV positive mothers delivered in the public facilities of Jimma town 37 (97.4%) of deliveries are SVD, 1 (2.6%) C/S. Overall 100.0% of deliveries was conducted according to national guideline concerning HIV positive women came for laboring. Additionally, six months report documents were reviewed. About 77.8% and 83.3% of health facilities were sent their report timely and completely to the town health office respectively. But, 66.7% of them received regular monthly supportive supervision. This was supported by finding of the qualitative data.

Most of key informant interview participants responded that there is unfamiliarity of completing of registers in appropriate way. This means that there was inappropriate recording of registers may due to training gap.

A 35 years old female key informant, focal person of PMTCT at one health center of the town said,

"... Even though there was supportive supervision from town health office, supervisor competency should be considered. Provision of updated training, refreshment on PMTCT especially on registers because sometimes incomplete records were seen due to unfamiliarity of it."

A 40 years old male key informant, program manager of the town health office said,

"... In addition to staff turnover there is also lack of commitment of health care providers at some health facilities of the town. In order to overcome such problem we have taken some measures such as writing letter to health facility, giving feedback, giving training and discussing with frontline health care providers to improve the quality of PMTCT services in our town."

6.2.2: Direct observation of HCT and adherence support sessions

In HCT sessions a total of 6 health care providers are participated. From whom 5(83.3%) of them are trained on basic plus option B+ update training. Two Bsc nurses, two diploma mid-wife and two diploma clinical nurses are participated in the observation. All of them have been in the ANC/PMTCT unit since 2015.

Pertaining to findings of observation session (HCT), in all of the sessions the health care providers invite client into the room and offer chair to sit / greet with respect for the clients. But 50% of them didn't introduce self to client. It was observed that the counsellor discussed the need and benefits of HIV testing and ensured understanding of the client by asking pertinent questions in eleven of the 18 sessions; and explained the HIV testing procedure in thirteen sessions. However, the counsellors did explain procedures to safe guard confidentiality and the need for shared confidentiality for 7 (38.9%) only.

As part of post- test counselling reinforce prevention massages (A, B, C) addressed in 11 (61.1%) sessions, remind the client that her result does not indicate partner's HIV status and encourage to test if not 17 (94.4%) sessions and the importance of retesting following window period was discussed in all sessions but for positive test result items, no case was seen within data collection period. Moreover, they had repeatedly been missing some important components in the counselling manual during both pre-test and post-test counselling sessions.

Table 4: Direct observation of HCT sessions in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Observation items	n=18	
		Yes, n (%)	No, n (%)
1	Does the HCP invite client into the room and offer chair to sit?	18 (100.0)	0 (0.0)
2	Does the HCP greet patient with respect?	18 (100.0)	0 (0.0)
3	Does the HCP introduce self to client?	9 (50.0)	9 (50.0)
4	Does the HCP call client by name?	7 (38.9)	11 (61.1)
5	Does the HCP discuss the need and benefits of HIV testing?	11 (61.1)	7(38.9)
6	Does the HCP ensure understanding of the client by asking pertinent questions?	11 (61.1)	7(38.9)
7	Does the HCP explain the HIV testing procedure?	13 (72.2)	5 (27.8)
8	Does the HCP explain the possible HIV test result?	9 (50.0)	9 (50.0)
9	Does the HCP inform the client when the result will be ready and how and where to receive the result?	17 (94.4)	1 (4.6)
10	Does the HCP explain procedures to safe guard confidentiality and the need for shared confidentiality?	7 (38.9)	11 (61.1)
	Complete below for negative test result only		
1	Has a test result ready before post-test counselling session begins?	18 (100.0)	0 (0.0)
2	Does the HCP invite client into the room?	12 (66.7)	6 (33.3)
3	Does the HCP offers client a seat?	18 (100.0)	0 (0.0)
4	Does the HCP close the door or draws the curtains of the room to ensure privacy?	10 (55.6)	8 (44.4)
5	Does the HCP thank the client for waiting?	8 (44.4)	10 (55.6)
6	Does the HCP inform client that the test result is available?	18 (100.0)	0 (0.0)
7	Does the HCP provide result clearly and simply?	18 (100.0)	0 (0.0)

8	Does the HCP review meaning of the result, including window period?	16 (88.9)	2 (11.1)
9	Does the HCP reinforce the need to consider the test result in reference to most recent risk exposure?	5 (27.8)	13 (72.2)
10	Does the HCP use language that client can understand?	16 (88.9)	2 (11.1)
11	Does the HCP maintain eye contact?	14 (77.8)	4 (22.2)
12	Does the HCP answer client's questions?	17 (94.4)	1 (4.6)
13	Does the HCP reinforce prevention massages (A, B, C) so that patient can stay negative?	11 (61.1)	7 (38.9)
14	Does the HCP remind the client that her result does not indicate partner's HIV status and encourage to test if not?	17 (94.4)	1 (4.6)

Three health care providers participated in the adherence support session who had received both basic and update training of PMTCT option B+. The findings of the adherence support sessions revealed that in all of the sessions the health care providers show respect for program clients and clearly explained the next appointment date. Counsellors reviewed adherence of client to drugs and adherence to clinical care; determine adherence score in 7(77.8%) sessions. They discussed current health status with client including overall health and current problems; the latest laboratory result including CD4 in 5 (55.6%) sessions.

Table 5: Direct observation result of adherence support session in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Observation items	N=9	
		Yes, n (%)	No, n (%)
1	Does the HCP invite client into the room and offer chair to sit?	9 (100.0)	0 (0.0)
2	Does the HCP greet client with respect?	9 (100.0)	0 (0.0)
3	Does the HCP introduce self to client?	6 (66.7)	3 (33.3)
4	Does the HCP call client by name?	9 (100.0)	0 (0.0)
5	Does the HCP review adherence of client to drugs and adherence to clinical care; determine adherence score?	7 (77.8)	2 (22.2)

6	Does the HCP discuss current health status with client including overall health and current problems; the latest laboratory result including CD4?	5 (55.6)	4 (44.4)
7	Does the HCP review with client possible barriers to adherence; stigma, living situation, travel to clinic for refill of medication, side effect, depression etc.?	4 (44.4)	5 (55.6)
8	Does the HCP review possible drug interaction?	3 (33.3)	6 (66.7)
9	Does the HCP refill the client with standard ART regimen with clear explanation including name, dosing food requirement, side effect, drug storage?	2 (22.2)	7 (77.8)
10	Does the HCP documents all examination results and treatments plan including: prescribed drugs with their dose, adherences score etc.?	8 (88.9)	1 (11.1)
11	Does the HCP schedule next appointment, discuss what should prompt and earlier visit?	8 (88.9)	1 (11.1)
12	Does the HCP review understanding of the client including: asking client to describe her ARV regimen, what to do if side effects, when is next appointment, how to take medications, how to remind time?	2 (22.2)	7 (77.8)

The quality of the PMTCT option B+ service in relation to compliance to national standards was determined to be 85.1%, requiring improvement according to the decision parameter. Summary of performance on quality indicators of compliance to national guideline is presented in table below.

Table 6: Judgment matrix of performance indicators of compliance to national standards in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Indicator	Achievement (P)	Relative weight(W)	Score (W*P)	Judgment parameter
1	Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic	86.0	7	6	
2	Proportion of the pregnant women tested in their first visit to ANC clinic	85.4	6	5.1	

3	Proportion of pregnant women who received post-test counselling and test result in their first visit to ANC clinic	84.5	5	4.2	90-100%-Acceptable, **75-89%-Needs improvement**, ≤74%-Needs urgent improvement
4	Proportion of pregnant women tested positive and received ARVs drugs at ANC/PMTCT clinic	100.0	7	7	
5	Proportion of labouring mothers with unknown HIV status received on coach pre-test counselling	100.0	6	6	
6	Proportion of labouring mothers with unknown HIV status who received testing service	100.0	4	4	
7	Proportion of labouring mothers who received post-test counselling and test result	100.0	5	5	
8	Proportion of labouring mother initiated on HAART as soon as diagnosed	100.0	9	9	
9	Proportion of HIV positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS)	100	5	5	
10	Proportion of HIV exposed infants who received NVP after delivery	100.0	9	9	

11	Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral)	100.0	7	7	
12	Proportion of program clients' partners tested for HIV	11.1	8	0.9	
13	Proportion of health facilities which received integrated supportive supervision monthly for last six month period	66.7	6	4	
14	Proportion of health facilities which sent report timely to the next supervisory body monthly for last six month period	77.8	8	6.2	
15	Proportion of health facilities which sent complete report to the next supervisory body monthly for last six month period	83.3	8	6.7	
	Quality of PMTCT option B+ program for compliance dimension		100	85.1	

6.3: Socio-Demographic Characteristics and Obstetric histories of the Respondents

A total of 292 clients responded to the questionnaire, of which 90 (30.8%) were from JUSH, 82 (28.1%) were from Shenan Gibe hospital, 37 (12.7%) were from Jimma health center, 31 (10.6%) were from Higher two health center, 28 (9.6%) and 24 (8.2%) were from Mendara Kochi health center and Bochobore health center respectively. The age of respondents ranges

from 18 to 41 with a mean (±SD) age of 25.39 (±4.217) years. Ninety seven percent of them were married and most of them were literate with only 13% being unable to read and write. More than half (56.5%) of the respondents were Muslims followed by Orthodox Christians (29.1%) and Protestants (12.7%). Oromo was the major ethnic group which accounted for 60.3% of the respondents, followed by Amhara (14.7%) and Yem (14.4%). Majority (81.5%), of the respondents were urban dwellers. While 43.5% of the respondents had experienced a total of one or two pregnancies, 15.1% had three and only 6.5% had four and more pregnancies.

Table 7: Socio-demographic characteristics of respondents, on quality of PMTCT services in government health facilities of Jimma town, Southwest Ethiopia, 2016.

Variables	**Characteristics**	**Frequency(n = 292)**	**Percent**
Age	15-20	57	19.52
	21-25	102	34.93
	26-30	108	36.99
	31-35	24	8.22
	41 and above	1	0.34
Marital status	Married	285	97.6
	Single	2	0.7
	divorced	3	1.0
	widowed	2	0.7
Level of education	Unable read and write	38	13.0
	Read and write only	7	2.4
	Primary school	131	44.9
	Secondary school	66	22.6
	Tertiary	50	17.1
Ethnicity	Oromo	176	60.3
	Amhara	43	14.7
	Yem	42	14.4
	Kafa	27	9.2

	Other*	4	1.4
Religion	Muslim	165	56.5
	orthodox	85	29.1
	protestant	37	12.7
	catholic	3	1.0
	Other**	2	0.7
Occupational status	Government employee	64	21.9
	merchant	53	18.2
	farmer	17	5.8
	house wife	138	47.3
	daily labourer	17	5.8
	Other***	3	1.0
Place of residence	Jimma town	238	81.5
	out of Jimma town	54	18.5
Total pregnancies	One	41	14.0
	Two	86	29.5
	Three	44	15.1
	more than three	19	6.5

a) **Other*:-** Dawuro, Tigre, Guraghe.

b) **Other**:-** waaqefata, Adventist seventh day.

c) **Other***:-** Private employee, student.

6.4: Clients' Experience

Most of the respondents (95.5%), knew about the presence of PMTCT service before they came to the hospitals/health centers for ANC service. The commonest sources of information were health workers which accounted for 44.9% of them, followed by TV/radio (42.1%). Majority (61.0%), of the clients got the service in less than 20 minutes time with a range of 5 to 50 minutes. The duration of the counselling sessions ranged from 5 to 30 minutes with a

median duration of 15 minutes. While 34.2% of the respondents had experienced a total of three or more ANC visits, 29.1% had two and only 12.7% had one ANC visit.

Table 8: Time expenditure of clients for service, information source and frequency of visit, in government health facilities of Jimma town, Southwest Ethiopia, 2016

Variables	**Characteristics**	**Frequency(n = 292)**	**Percent**
Knowledge of PMTCT before?	yes	279	95.5
	no	13	4.5
source of information of PMTCT	health care provider	131	44.9
	radio/TV	123	42.1
	community health agents	21	7.2
	health extension worker	4	1.4
	other	1	0.3
Transportation	on foot	109	37.3
	car	183	62.7
How long to reach health facility (in minute)?	< 30 minutes	157	53.8
	≥30 minutes	135	46.2
Frequency of visit	one	37	12.7
	two	85	29.1
	three & more	100	34.2
	don't know	1	0.3
Average wait for service (in minute)	< 20 minutes	178	61.0
	≥20 minutes	114	39.0
consultation time (in minute)	<15 minutes	125	42.8
	≥15 minutes	167	57.2

Majority (88.7%), of the respondents believed that the waiting area was comfortable where they were either very satisfied or satisfied with it. Most of clients (92.2%) and (81.8%) were very satisfied or satisfied by the counselling room's comfort and privacy during counselling respectively. Regarding the waiting time to see the PMTCT counsellor, 26.7% of clients were

very satisfied and 59.9% were just satisfied. More than 93% of the clients were either satisfied or very satisfied with the adequacy of the duration of the counselling session.

Almost 75% of the clients were very satisfied or satisfied both by the laboratory service and infant feeding counselling and 95.8% of them were very satisfied or satisfied by availability of HIV testing and counselling.

Table 9: Clients' satisfaction on availability service, room and adequacy of counselling session at government health facilities of Jimma town, South West Ethiopia, 2016

Item: how do you rate your satisfaction with:	very dissatisfied		dissatisfied		Neutral		satisfied		Very satisfied	
	No.	%	No.	%	No.	%	No.	%	No.	%
HIV testing and counselling service available always when needed?	1	0.3	2	0.7	9	3.1	140	47.9	140	47.9
Infant feeding counselling service available when needed?	3	1.0	4	1.4	66	22.6	125	42.8	94	32.2
Laboratory services available always when needed?	5	1.7	33	11.3	35	12.0	140	47.9	79	27.1
with waiting time	2	0.7	22	7.5	14	4.8	175	59.9	78	26.7
comfort of waiting area	1	0.3	15	5.1	17	5.8	178	61.0	81	27.7
comfort of counselling room	3	1.0	12	4.1	8	2.7	183	62.7	86	29.5
privacy of counselling room	7	2.4	30	10.3	16	5.5	137	46.9	102	34.9

Regarding the counsellors characteristics, most clients believed that the counsellor was respectful (97.6%) and trustworthy (95.6%). Almost 90% of the respondents believed that the

counsellors provide appropriate information regarding to PMTCT services and 88.7% of them responded that providers prescribe appropriate therapy for their problem. Moreover, most of them (94.9%) were very satisfied or satisfied by the counsellors' explanation during counselling and 89.4% were very satisfied or satisfied by his/her competency. When clients were asked to rate their satisfaction by the overall PMTCT services provision, about 94.2% of them were either satisfied or very satisfied.

Table 10: Client satisfaction by counsellor's characteristics, quality of PMTCT services in government health facilities of Jimma town, South West Ethiopia, 2016

Item: how do you rate your satisfaction with:	very dissatisfied		dissatisfied		Neutral		satisfied		Very satisfied	
	No.	%	No.	%	No.	%	No.	%	No.	%
HCPs prescribe appropriate therapy	1	0.3	3	1	29	9.9	176	60.3	83	28.4
Health care provider is always provide appropriate information	2	0.7	3	1	23	7.9	174	59.6	90	30.8
respectful of counsellor	0	0.0	4	1.4	3	1.0	178	61.0	107	36.6
adequacy of duration of counselling session	1	0.3	5	1.7	14	4.8	188	64.4	84	28.8
trustworthiness of counsellor	3	1.0	3	1.0	7	2.4	193	66,1	86	29.5
clarity of counsellor explanation	0	0.0	3	1.0	12	4.1	199	86.2	78	26.7
counsellor's competency	1	0.3	7	2.4	23	7.9	199	68.2	62	21.2
with overall services	0	0.0	10	3.4	7	2.4	219	75.0	56	19.2

The level of satisfaction with the PMTCT service provision was very high. The proportion of clients satisfied with the overall quality of PMTCT option B+ services is 88.6%, based on judgment parameter. So the outcome dimension was judged as acceptable as overall, but there are poor achievements in the particular areas, which need improvement such as low proportion of clients are satisfied with availability of counselling service on infant feeding, laboratory service and privacy of counselling room at ANC clinic.

Table 11: Judgment matrix of performance indicators on acceptability dimension in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Indicator	Achievement (P)	Relative weight (W)	Score (W*P)	Judgment parameter
1	Proportion of clients satisfied with HCT services is available always when needed.	95.9	5	4.8	**88-100%-Acceptable**, 78-87%-Needs improvement, ≤77%-Needs urgent improvement
2	Proportion of clients satisfied with infant feeding counselling services are available always when needed.	75.0	8	6.0	
3	Proportion of clients satisfied with laboratory services is available always when needed.	75.0	8	6.0	
4	Proportion of clients satisfied with health care providers prescribes appropriate therapy.	88.7	9	8.0	
5	Proportion of clients satisfied with always the information health care providers provide them are appropriate	90.4	7	6.3	
6	Proportion of clients satisfied with the waiting time for service	86.6	6	5.2	
7	Proportion of clients satisfied with waiting area is comfortable	88.7	4	3.5	
8	Proportion of clients	89.4	5	4.5	

	satisfied with the competency of health care providers				
9	Proportion of clients satisfied with counselling and testing room is private	81.8	7	5.7	
10	Proportion of clients satisfied with counselling and testing room is comfortable	92.1	6	5.5	
11	Proportion of clients satisfied with duration of the counselling session is adequate	93.2	7	6.5	
12	Proportion of clients satisfied with respectfulness of the counsellor	97.6	6	5.9	
13	Proportion of clients satisfied with trustworthiness of the counsellor	94.5	5	4.7	
14	Proportion of clients satisfied with clarity of the counsellor's explanation	94.9	9	8.5	
15	Proportion of clients satisfied with overall of services	94.2	8	7.5	
	Quality of PMTCT option B+ service as acceptability dimension		100	88.6	

6.6.1: Association of variables with clients' satisfaction on PMTCT services

The association of dependent and independent variables were computed for socio demographic variables, Place of residence, Frequency of visit, Travel distance in time, waiting time and Consultation time. Concerning crude association all variables with p-value less than 0.25 were considered as candidate variables for multivariate logistic regressions.

Bivariate logistic regression analysis showed that socio-demographic variables such as marital status, ethnicity of client, religion, occupational status, frequency of ANC visit, travel time, consultation time and waiting time were candidate for multivariate logistic regression.

Table 12: Bivariate analysis of variables with overall satisfaction of pregnant women at government health facilities of Jimma town, Southwest Ethiopia, 2016

Variables		Satisfied	Not satisfied	P-value	COR	95% CI of COR
Name	Category	Frequency (%)	Frequency (%)			
Age in year	<25	183(92.4)	15(7.6)	0.29	0.68	(0.33,1.4)
	≥25	74(78.7)	20(21.3)	1		
Place of residence	Jimma	208(87.4)	30(12.6)	0.5	0.71	(0.26,1.92)
	Out of Jimma	49(90.7)	5(9.3)	1		
Occupation status	Gov't employee	58(90.6)	6(9.4)	0.73	0.81	(0.24,2.68)
	Merchant	47(88.7)	6(11.3)	0.652	1.655	(0.19,14.76)
	Farmer	16(94.1)	1(5.9)	0.455	0.690	(0.26,1.83)
	House wife	120(87.0)	18(13.0)	**0.210****	0.414	(0.10,1.65)
	Daily labourer	16(80.0)	4(20.0)	0.68	1	
Ethnicity	Oromo	154(87.5)	22(12.5)	0.33	0.63	(0.24,1.62)
	Amhara	36(83.7)	7(16.3)	**0.191****	0.461	(0.14,1.47)
	Others	67(91.8)	6(8.2)	0.42	1	
Education	No formal education	40(88.9)	5(11.1)	0.84	0.90	(0.31,2.61)
	Primary	115(87.8)	16(12.2)	0.871	0.90	(0.28,2.97)
	Secondary	58(87.9)	8(12.1)	0.892	0.92	(0.26,3.24)
	Tertiary	44(88.0)	6(12.0)	0.998	1	
Frequency of visit	First visit	64(92.8)	5(7.2)	**0.172****	1.99	(0.74,5.34)
	More than first visit	193(86.5)	30(13.5)	1		

Religion	Muslim	144(87.3)	21(12.7)	**0.077****	5.63	(0.83,38.32)
	Orthodox	76(89.4)	9(10.6)	**0.107****	4.57	(0.72,28.98)
	Protestant	34(91.9)	3(8.1)	**0.064****	7.56	(0.89,64.44)
	Other	3(60.0)	2(40.0)	0.29	1	
Marital status	Married	254(89.1)	31(10.9)	**0.002****	0.092	(0.02,0.43)
	Not married	3(42.9)	4(57.1)	1		
Travel time	<30 minutes	193(85.4)	33(14.6)	**0.022****	0.18	(0.043,0.78)
	≥30 minutes	64(97.0)	2(3.0)	1		
Waiting time	<20 minutes	206(90.0)	23(10.0)	**0.055****	2.11	(0.98, 4.52)
	≥20 minutes	51(81.0)	12(19.0)	1		
Consultation time	<15 minutes	183(92.4)	15(7.6)	**0.001****	3.3	(1.6, 6.8)
	≥15 minutes	74(78.7)	20(21.3)	1		

N.B**: **** where variables with p-value less than 0.25 were candidate for multivariate analysis

6.6.2: Adjusted association of variables with clients' satisfaction on PMTCT services

Multivariate logistic regression analysis showed mothers who stayed less than 15 minutes with health care providers for consultation were 3.34 times more likely to be satisfied as compared to who stayed greater or equals to 15 minutes (AOR = 3.34{95% CI = 1.59,7.2}, p-value = 0.002). And married mothers were 93.4% less likely satisfied as compared to those who were not married (AOR= 0.066{95% CI = 0.01, 0.42}, p-value = 0.004); those who travelled less than 30 minutes from home to health facility were 84% less likely to be satisfied than who travelled greater or equals to 30 minutes (AOR= 0.16{95% CI= 0.035,0.706}, p-value = 0.016).

Therefore predictors of the clients' satisfaction level on PMTCT services provision were travel time from their home to health facility, duration of consultation time while client receives service and marital status of the client.

Table 13: Multivariate analysis of variables predicting satisfaction of PMTCT clients at government health facilities of Jimma town, Southwest Ethiopia, 2016

Variables		Satisfied	Not satisfied	P-value	AOR	95% CI of AOR
Name	Category	Frequency (%)	Frequency (%)			
Marital status	Married	254 (89.1)	31 (10.9)	**0.004**	**0.066**	**(0.01,0.42)**
	Not married	3 (42.9)	4 (57.1)	**1**		
Travel time	<30min	193 (85.4)	33 (14.6)	**0.016**	**0.16**	**(0.035,0.706)**
	≥30 min	64 (97)	2 (3)	**1**		
Consultation time	<15 minutes	183 (92.4)	15 (7.6)	**0.002**	**3.34**	**(1.59,7.2)**
	≥15 minutes	74 (78.7)	20 (21.3)	**1**		

The evaluation finding showed that the overall quality of PMTCT option B+ services in the respective government health facilities is 85.5%. Process sub component of quality of PMTCT option B+ services is measured by the use of congruence of program implementers to national guideline and found to be 85.1%. While structure and outcome components measured by the use of program resource availability and acceptability of service and found to be 84% and 88.6% respectively. Overall quality of PMTCT option B+ service with the three dimensions was acceptable based on the decision parameter.

Table 14: Overall judgment matrix of performance indicators of PMTCT option B+ services quality in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Dimension	Achievement	Relative weight (W)	Score (W*P)	Judgment parameter
1	Availability of program resources as per the national guideline (summary of 8 indicators)	84.0	43	36.1	90-100%-Acceptable, **75-89%-Needs improvement**, ≤74%-Needs urgent improvement
2	Compliance to national guideline in delivery of PMTCT services (summary of 15 indicators)	85.1	32	27.2	90-100%-Acceptable, **75-89%-Needs improvement**, ≤74%-Needs urgent improvement
3	Acceptability of service (summary of 15 indicators)	88.6	25	22.2	**88-100%-Acceptable**, 78-87%-Needs improvement, ≤77%-Needs urgent improvement
	Overall quality of PMTCT option B+ service (summary of above three dimensions)		100	85.5	**85-100%-Acceptable**, 75-84%-Needs improvement, ≤74%-Needs urgent improvement

CHAPTER SEVEN: DISCUSSION

This evaluation study used an indicator-driven approach for the measurement of PMTCT option B+ service quality and has addressed three components of quality—structure, process and outcome.

As structural component, availability of program resources as per to national guideline is considered. While as process component compliance of health care providers or program implementers as per to national guideline and as an outcome component satisfaction of service clients on the overall quality of services is considered. Scoring is done using indicator average method by assigning weights for selected indicators of quality based on their relative relevance for quality measurement.

The evaluation finding showed that the overall quality of PMTCT option B+ services in the respective government health facilities is 85.5%. Process sub component of quality of PMTCT option B+ services is measured by the use of congruence of program implementers to national guideline and found to be 85.1%. While structure and outcome components measured by the use of program resource availability and acceptability of service and found to be 84% and 88.6% respectively. The status of quality in the three dimensions of measurement is acceptable but structural and process dimension require improvement according to judgment parameter. This is inconsistent with national guideline which was less than minimum requirement indicated(29).

Structure is the condition under which the care provided. It can include material resources, human resources and organizational characteristics. According to the national guideline of Ethiopia the minimum required program resources for certain health facilities to provide services includes: human resource, infrastructure, logistics and supplies (test kits, ARV drugs, IP supplies, FP supplies, HMIS job aids) and support system(29).

This study found out that laboratory supplies that are required for the service provision were available. Similarly, all basic obstetric care supplies, that is, delivery couches, delivery sets and Oxytocin were available in the health facilities. Infection prevention materials such as gloves, aprons and autoclave were available, but eye goggles and sharp boxes were absent. But, the national PMTCT implementation guideline recommends that the universal protective materials for infection prevention are among the minimum required resources (39). This

finding was also supported by qualitative finding showed that 38 years old female participant explained,

" ... We lack protective equipments such as gown, eye goggle and other IP materials while conducting labour in our health center…

All recording and reporting formats related to PMTCT option B+ services were available in the health facilities including; monthly summary reporting format, counselling registration book, ANC-PMTCT enrolment register, labour and delivery register, Lab referral slips and ANC-PMTCT appointment card. However, the following job aids and Information, Education, Communication/Behavioral Change Communication (IEC/BCC) materials were not available such as guideline for paediatrics 2007, PMTCT performance standard, client education materials like brochures and leaflets and PMTCT cue card. This evaluation identified that there is gap minimum required resources as compared to national guideline recommendations (29). The inconsistence may be due to weak supply chain management.

Moreover, this study finding showed that program resources like ARV drugs, OI drugs and testing and counselling rooms were available to a minimum level according to the national guideline recommendations in government health facilities of Jimma town. However, inadequate of trained human resource in health centers and stock out of test kit is observed for more than 30 days as a result missed of service clients, particularly partners. The reason for stock out of test kit is shortage happened at national level, as reported by health care managers and health care providers which is contrast to national guideline(29). However, most clients were satisfied by availability of HIV testing and counselling always when they need.

Concerning providers compliance to national guideline in this study (86.0%) women were offered and (85.4%) of them got HIV test. Almost all of them were also post-test counselled, regardless of their serostatus. These findings similar to study conducted in Kafa Zone 85.15% of them got HIV test from those offered and all tested were also post-test counselled, regardless of their serostatus (25).

About 99.3%, HIV positive women on adherence support were initiated Highly Active Anti-Retroviral Therapy (HAART) drugs. This finding congruence to WHO recommendation that is all pregnant and breastfeeding women with HIV should initiate triple ARVs (ART) (32,33).

The majority of deliveries for HIV positive women were conducted with non-obstructive procedures. It was conducted according to national guideline concerning HIV positive women

came for labouring (29). Good practices for HIV-positive pregnant women include: (1) limited vaginal examination and (2) avoidance of episiotomy, forceps, vacuum extractor and artificial rupture of membranes unless absolutely indicated(28).

Pertaining to findings of observation session of HTC, in all of the sessions the health care providers invite client into the room and offer chair to sit / greet with respect for the clients. Similar to study conducted in Kafa Zone on the quality of PMTCT service showed that the counsellor had received the women in welcoming manner (25).

Counsellors ensured understanding of the client by asking pertinent questions in eleven of the 18 sessions. As part of post- test counselling reinforce prevention massages (A, B, C) addressed in 11 (61.1%) sessions, remind the client that her result does not indicate partner's HIV status and encourage to test if not 17 (94.4%) sessions and the importance of retesting following window period was discussed in all sessions. This differ from study conducted in Kafa Zone on the quality of PMTCT service showed that counsellor checked to be sure that the women understood the information provided in eight of the 10 observed sessions and explored options for reducing risk and assessed them for possible risks in all of the observed sessions disclosure and partner referral was negotiated and, but consistent with the importance of retesting following window period was discussed in all sessions (25).

This study showed that, counsellors had repeatedly been missing some important components in the counselling manual (29) during both pre-test and post-test counselling sessions. This is similar to study conducted in Kafa Zone on quality of PMTCT service (25).

According to this study most of clients (92.2%) and (81.8%) were very satisfied or satisfied by the counselling room's comfort and privacy during counselling respectively. This was almost similar to study conducted in Kafa Zone showed that 88.4% for both comfort and privacy of counselling room (25).

Regarding the waiting time to see the PMTCT counsellor in this study, 86.6% of clients were either very satisfied or just satisfied. This was differ from study conducted in Kafa Zone (92.6%) (25). Difference could be due to subjective nature of the subject matter.

Majority (88.7%), of the respondents believed that the waiting area was comfortable where they were either very satisfied or satisfied with it. This finding was consistent with study done in Kafa Zone which 85% of the women were believed that the waiting room was comfortable where they were either very satisfied or satisfied with it (25).

This study showed that, most clients believed that the counsellor was respectful (97.6%). Nearly similar to study conducted in Kafa Zone which 94% of the women were believed that the counsellor characteristic was respectfully (25).On other hand, in our study 89.4% of respondents were very satisfied or satisfied with the technical competence of the counsellors. This finding was almost similar to study done in Addis Ababa 91.5% were satisfied with competence of counsellors (31).

More than 93% of the clients were either satisfied or very satisfied with the adequacy of the duration of the counselling session. This finding was inconsistent with study done in Kafa Zone which 80% of the women were believed that the duration of counselling session was adequate where they were either very satisfied or satisfied with it (25). Difference could be due to subjective nature of the subject matter and the setting of the study area included health centers, which load of clients less as compared to hospital.

According to this study it was found out that overall satisfaction with PMMTCT option B+ service in the study population was about 94.2% of them were either satisfied or very satisfied. This is somewhat similar with findings of a study conducted in Kafa Zone (90%) (25). But greater than study conducted in Adama (74.7%) (13), the difference could be due to subjective nature of the subject matter.

Satisfaction of clients in this study was generally very high; most were either satisfied or very satisfied by all satisfaction items, which may be due to different factors besides true rating of clients. First satisfaction of clients could be affected by their HIV test result. Hence the result may influence them to be more satisfied. Second most of the clients might not have adequate knowledge on what is expected from the counsellors during the counselling sessions.

This study finding showed that mothers who stayed less than 15 minutes with health care providers for consultation were 3.34 times more likely to be satisfied as compared to who stayed greater or equals to 15 minutes (AOR = 3.34{95% CI = 1.59,7.2}, p-value = 0.002). The possible reason why they prefer less time for length of stay with health care provider may be time saving for other business. Furthermore married mothers were 93.4% less likely satisfied as compared to those who were not married (AOR= 0.066{95% CI = 0.01, 0.42}, p-value = 0.004); those who travelled less than 30 minutes from home to health facility were 84% less likely to be satisfied than who travelled greater or equals to 30 minutes (AOR= 0.16{95% CI= 0.035,0.706}, p-value = 0.016).

Limitations of Evaluation

The information presented by participant is based upon their subjective perceptions. Even if participants were assured of confidentiality, it is therefore possible that they may be either over- or under-reported their level of satisfaction.

Incompleteness of data since secondary data were used

Since the observation was direct, health care providers often might not have performed in the ways that are typical of their everyday behavior.

CHAPTER EIGHT: CONCLUSION AND RECOMMENDATION

8.1: Conclusion

Availability of resources for PMTCT option B+ services in government health facilities Jimma town was 84.0% which was judged to be requiring improvement with inadequate availability of necessary resources such as trained human resource in health centers. One healthcare provider was assigned for both ANC/PMTCT clinic and delivery unit particularly in three health centers on daily basis which was less than recommended national standards and HIV test kits were being stock out in health facilities. Additionally, job aids and client education materials were not available in most health facilities as recommended by the national PMTCT guideline.

Compliance of health care providers was 85.1% which were similarly judged to be requiring improvement since they were not recorded in particularly partner HIV testing and counselling, syphilis test result of program clients and moreover, they had repeatedly been missing some important components in the counselling manual during both pre-test and post-test counselling sessions.

The level of satisfaction with the PMTCT service provision was very high. So the outcome dimension was judged as acceptable as overall, but there are poor achievements in the particular areas, which need improvement such as low proportion of clients are satisfied with availability of counselling service on infant feeding, laboratory service and privacy of counselling room at ANC clinic. The proportion of clients satisfied with the overall quality of PMTCT option B+ services is acceptable, based on judgment parameter.

The predictors of the clients' satisfaction level on PMTCT services provision were travel time from their home to health facility, duration of consultation time while client receives service and marital status of the client.

In general the evaluation finding in this study showed that the overall of three dimensions quality of PMTCT option B+ in public health facilities of Jimma town was acceptable (85.5%) based on the judgement parameter of the evaluation, but there were areas which require improvement.

8.2: Recommendations

Based on these findings of the evaluation the following recommendations are drawn.

- ❖ Health care providers of Jimma town health facilities:
    - Health care providers should follow national guideline counselling manual during both pre-test and post-test counselling sessions.
    - Health care providers should work to increase client satisfaction rate particularly counselling service on infant feeding, laboratory service and privacy of counselling room at ANC clinic.
- ❖ Government health facilities of the Jimma town:
    - Government health facilities should work on areas such as registrations recording completeness and accuracy, client's satisfaction monitoring on the services, which need improvement and as result there will be no any need for additional human resource.
- ❖ Oromia Regional Health Bureau/Jimma Town health office :
    - Additional trained human resource should be hired particularly, for health centers and given refreshment training on PMTCT option B+ program. This will help to solve the problem of inadequate trained human resource and poor compliance of health care providers to national guideline.
    - Program resources like HIV test kits, guideline for paediatrics 2007, and PMTCT performance standard, client education materials like brochures and leaflets and PMTCT cue card should be consistently supplied to public health facilities of Jimma town. Helps to ensure continuous flow of medical supplies and equipment.
- ❖ Researchers: Concerning determinants of clients' satisfaction due to the nature of data, there was disproportion of variable category which may affect each other and we recommend other researcher to conduct larger sample size study.

CHAPTER NINE: META-EVALUATION

9.1: Utility

The stakeholders were identified at the beginning and consulted throughout the process and the evaluation questions and a judgment criterion was set with stakeholders. The evaluator is a health monitoring and evaluation student. This evaluation was conducted by one of the health monitoring & evaluation professional. Information was collected using different methods of data collections: documents review, interview, observation of consultations and facility readiness observations from all concerned bodies.

This evaluation was provided a clear, defensible basis for value judgments using different matrixes that accounted the stake holders values & different procedures which are appropriate for evaluation of quality of PMTCT option B+ service, in study area.

Evaluation reports and any significant findings will be disseminated to stakeholders. All will be provided with clear, simple and summarized soft and hard copy report. And also will be presented to them so that they may be used in a timely fashion. In order to increase the likelihood of the evaluation to be used, stakeholders were involved throughout the evaluation process.

9.2: Feasibility

In order to make evaluation procedures practical, minimize disruption & obtain relevant and needed information; competent & qualified data collectors were recruited & trained. While planning and conducting the evaluation, different positions of various interest groups was anticipated so that their co-operation has been obtained. This evaluation was efficient and produces information of sufficient value to justify the use of resources.

9.3: Propriety

This evaluation of quality of prevent mother-to-child transmission of HIV (PMTCT) has been designed to help organizations address and effectively serve the needs of the full range of participants. Evaluation purpose and questions, audiences, evaluation reports, evaluation procedures and schedule, Confidentiality/anonymity of data and Evaluation resources were agreed. In the design process of this evaluation, respecting and protecting the rights and welfare of human subjects was considered.

9.4: Accuracy

The Purposes, Procedures and approach of the evaluating the quality of prevent mother-to-child transmission of HIV service were described in enough details. The information collected, processed, and reported in an evaluation were systematically reviewed and any errors found were corrected. Quantitative information in an evaluation was appropriately and systematically analyzed and qualitative information narrated to supplement so that evaluation questions are effectively answered. In order to guard against distortion caused by personal feelings and biases of any party to the evaluation, evaluation reports fairly reflect the evaluation findings. Lastly, the checklist based on the Program Evaluation Standards was used in judging this evaluation report.

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Annex I: Information matrix for quality indicators to assess quality of PMTCT option B+ service in Jimma town government health facilities, Southwest, Ethiopia, 2016.

Evaluation questions	Respective indicators	Source of data	Data collection method	Data collection tool
Are the required program resources available to implement PMTCT option B+? If yes How? If not why? **(structural quality indicators)**	**P**roportion of health facilities with at least six trained human resource on PMTCT service Proportion of health facilities with no stock out of ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period Proportion of health facilities with no stock out of non-ARV drugs at least Cotrimoxazole syrup/tablet and iron folate tablets in last six months period Proportion of health facilities no stock out HIV test kits in last six months period Proportion of health facilities with logistics (HMIS registers, guidelines, HMIS formats) Proportion of health facilities with delivery kits Proportion of health facilities with FP drugs Proportion of health facilities with functional laboratory service	Staff interview Resource log book	Document review Interview of staffs Resource inventory	Semi-structured questionnaire Resource inventory checklist
Do health care providers congruence to national implementation guideline in implementation of PMTCT option B+? If yes how? If	Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic Proportion of the pregnant women tested in their first visit to ANC clinic Proportion of pregnant women who received post-test	ANC registers PMTCT log book Labor and delivery registers Staffs/Health care providers	Document review Interview of staffs/health care providers Direct observation	Semi-structured questionnaire Observation checklist Document review

no why? **(process quality indicators)**	counselling and test result in their first visit to ANC clinic Proportion of pregnant women tested positive and received ARVs drugs at ANC/PMTCT clinic Proportion of labouring mothers with unknown HIV status received on coach pre-test counselling Proportion of labouring mothers with unknown HIV status who received testing service Proportion of labouring mothers who received post-test counselling and test result Proportion of labouring mother initiated on HAART as soon as diagnosed Proportion of HIV positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS) Proportion of HIV exposed infants who received NVP after delivery Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral) Proportion of program clients' partners tested for HIV Proportion of health facilities which received integrated supportive supervision monthly for last six month period Proportion of health facilities which sent report timely to the next supervisory body monthly for last six month period			

	Proportion of health facilities which sent complete report to the next supervisory body monthly for last six month period			
Are the PMTCT program clients satisfied by the services provided? If yes how? If no why? **(outcome quality indicators)**	Proportion of clients satisfied with HCT services is available always when needed. Proportion of clients satisfied with infant feeding counselling services are available always when needed. Proportion of clients satisfied with laboratory services is available always when needed. Proportion of clients satisfied with health care providers prescribes appropriate therapy. Proportion of clients satisfied with always the information health care providers provide them are appropriate Proportion of clients satisfied with the waiting time for service Proportion of clients satisfied with waiting area is comfortable Proportion of clients satisfied with the competency of health care providers Proportion of clients satisfied with counselling and testing room is private Proportion of clients satisfied with counselling and testing room is comfortable Proportion of clients satisfied with duration of the counselling session is adequate Proportion of clients satisfied with respectfulness of the counsellor	Program clients	Client exit-interview	Structured questionnaire

	Proportion of clients satisfied with trustworthiness of the counsellor Proportion of clients satisfied with clarity of the counsellor's explanation Proportion of clients satisfied with overall of services			

Annex II: Relevance matrix for quality indicators to assess quality of PMTCT option B+ service in Jimma town government health facilities, Southwest Ethiopia, 2016.

S.no	Quality indicators	Dimensions		
		Com.	Ava.	Accep.
1	Proportion of health facilities with at least six trained human resource on PMTCT service		**RRR**	
2	Proportion of health facilities with no stock out of ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period		**RRR**	
3	Proportion of health facilities with no stock out of non-ARV drugs at least Cotrimoxazole syrup/tablet and iron folate tablets in last six months period		**RRR**	
4	Proportion of health facilities no stock out HIV test kits in last six months period		**RRR**	
5	Proportion of health facilities with logistics (HMIS registers, guidelines, HMIS formats)		**RRR**	
6	Proportion of health facilities with delivery kits		**RRR**	
7	Proportion of health facilities with FP drugs		**RRR**	
8	Proportion of health facilities with functional laboratory service		**RRR**	
9	Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic	**RRR**		
10	Proportion of the pregnant women tested in their first visit to ANC clinic	**RRR**		
11	Proportion of pregnant women who received post-test counselling and test result in their first visit to ANC clinic	**RRR**		
12	Proportion of pregnant women tested positive and received ARVs drugs at ANC/PMTCT clinic	**RRR**		
13	Proportion of labouring mothers with unknown HIV status	**RRR**		

	received on coach pre-test counselling			
14	Proportion of labouring mothers with unknown HIV status who received testing service	**RRR**		
15	Proportion of labouring mothers who received post-test counselling and test result	**RRR**		
16	Proportion of labouring mother initiated on HAART as soon as diagnosed	**RRR**		
17	Proportion of HIV positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS)	**RRR**		
18	Proportion of HIV exposed infants who received NVP after delivery	**RRR**		
19	Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral)	**RRR**		
20	Proportion of program clients' partners tested for HIV	**RRR**		
21	Proportion of health facilities which received integrated supportive supervision monthly for last six month period	**RRR**		
22	Proportion of health facilities which sent report timely to the next supervisory body monthly for last six month period	**RRR**		
23	Proportion of health facilities which sent complete report to the next supervisory body monthly for last six month period	**RRR**		
24	Proportion of clients satisfied with HCT services is available always when needed.			**RRR**
25	Proportion of clients satisfied with infant feeding counselling services are available always when needed.			**RRR**
26	Proportion of clients satisfied with laboratory services is available always when needed.			**RRR**
27	Proportion of clients satisfied with health care providers prescribes appropriate therapy.			**RRR**
28	Proportion of clients satisfied with always the information health care providers provide them are appropriate			**RRR**
29	Proportion of clients satisfied with the waiting time for service			**RRR**
30	Proportion of clients satisfied with waiting area is comfortable			**RRR**
31	Proportion of clients satisfied with the competency of health care providers			**RRR**
32	Proportion of clients satisfied with counselling and testing room is private			**RRR**
33	Proportion of clients satisfied with counselling and testing room is comfortable			**RRR**
34	Proportion of clients satisfied with duration of the counselling session is adequate			**RRR**
35	Proportion of clients satisfied with respectfulness of the			**RRR**

	counsellor			
36	Proportion of clients satisfied with trustworthiness of the counsellor			**RRR**
37	Proportion of clients satisfied with clarity of the counsellor's explanation			**RRR**
38	Proportion of clients satisfied with overall of services			**RRR**

Annex III: Indicator Definition for quality assessment of PMTCT option B+ service in government health facilities of Jimma town, Southwest Ethiopia, 2016

Dimension	Indicator	Eligibility	Numerator	Denominator	Remark
Availability	Proportion of health facilities with at least six trained human resource on PMTCT service	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with trained human resource on PMTCT service at least six	Total number of health facilities implementing the program	
	Proportion of health facilities with no stock out of ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with ARV drugs at least TDF+3TC+EFV and NVP syrup in last six months period	Total number of health facilities implementing the program	
	Proportion of health facilities with no stock out of non-ARV drugs at least Cotrimoxazole syrup/tablet and iron folate tablets in last six months period	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with no stock out of non-ARV drugs at least Cotrimoxazole syrup/tablet and iron folate tablets in last six months period	Total number of health facilities implementing the program	
	Proportion of health facilities no stock out HIV test kits in last six months period	All government health facilities in Jimma town implementing the program since	Number of health facilities with no stock out HIV test kits in last six months period	Total number of health facilities implementing the program	

		September 2015			
	Proportion of health facilities with logistics (HMIS registers, guidelines, HMIS formats)	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with logistics (HMIS registers, guidelines, HMIS formats)	Total number of health facilities implementing the program	
	Proportion of health facilities with delivery kits	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with delivery kits	Total number of health facilities implementing the program	
	Proportion of health facilities with FP drugs	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with FP drugs	Total number of health facilities implementing the program	
	Proportion of health facilities with functional laboratory service	All government health facilities in Jimma town implementing the program since September 2015	Number of health facilities with functional laboratory service	Total number of health facilities implementing the program	
	Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic	Sampled pregnant women who received PMTCT services within six months (since September 2015)	Proportion of pregnant women who received pre-test counselling in their first visit to ANC clinic	Total pregnant women visiting the ANC clinic	
	Proportion of the pregnant women tested in their first visit to ANC clinic	Sampled pregnant women who received PMTCT services within six months (since September 2015)	Proportion of the pregnant women tested in their first visit to ANC clinic	Total pregnant women visiting the ANC clinic & received pre-test counselling	
compliance	Proportion of pregnant women who received post-	Sampled pregnant women who received PMTCT	Proportion of pregnant women who received	Total pregnant women visiting the	

	test counselling and test result in their first visit to ANC clinic	services within six months (since September 2015)	post-test counselling and test result in their first visit to ANC clinic	ANC clinic & received test service	
	Proportion of pregnant women tested positive and received ARVs drugs at ANC/PMTCT clinic	Sampled HIV+ mothers enrolled in the program within six months (since September 2015)	Proportion of pregnant women tested positive and received ARVs drugs	Total pregnant women tested positive	
	Proportion of labouring mothers with unknown HIV status received on coach pre-test counselling	Sampled pregnant women with unknown HIV status during labouring within six months (since September 2015)	Proportion of labouring mothers with unknown HIV status received on coach pre-test counselling	Total labouring mothers visiting the L&D ward	
	Proportion of labouring mothers with unknown HIV status who received testing service	Sampled pregnant women with unknown HIV status during labouring within six months (since September 2015)	Proportion of labouring mothers with unknown HIV status who received testing service	Total labouring mothers who received on coach pre-test counselling the L&D ward	
	Proportion of labouring mothers who received post-test counselling and test result	Sampled pregnant women with unknown HIV status during labouring within six months (since September 2015)	Proportion of labouring mothers who received post-test counselling and test result	Total labouring mothers who received on coach testing service in the L&D ward	
	Proportion of labouring mother initiated on HAART as soon as diagnosed	Sampled HIV positive pregnant mothers identified during labouring within six months (since September 2015)	Proportion of labouring mother initiated on HAART as soon as diagnosed	Total labouring mothers tested positive	
	Proportion of HIV	Sampled HIV	Proportion of	Total number	

	positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS)	positive mothers who received delivery services within six months (since September 2015)	positive women deliveries conducted with non-obstructive mode of delivery(SVD and/or CS)	of HIV positive mothers who received delivery service	
	Proportion of HIV exposed infants who received NVP after delivery	Sampled HIV+ mothers who received delivery services within six months (since September 2015)	Proportion of HIV exposed infants who received ARVs after delivery	Total number of deliveries from HIV+ mothers	
	Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral)	Sampled HIV+ mothers who received delivery services within six months (since September 2015)	Proportion of HIV positive delivered mothers referred to ANC clinic for postpartum PMTCT services (intra facility referral)	Total number of HIV+ mothers who received delivery service	
	Proportion of program clients' partners tested for HIV	Sampled pregnant women who received PMTCT services within six months (since September 2015)	Proportion of program clients partners tested	Total clients of the program received pre-test counselling at ANC	
	Proportion of health facilities which received integrated supportive supervision monthly for last six month period	All government health facilities in Jimma town implementing the program within six months (since September 2015)	Number of health facilities which received integrated supportive supervision	Total number of health facilities which received integrated supportive supervision	
	Proportion of health facilities which sent report timely to the next supervisory body monthly for last six	All government health facilities in Jimma town implementing the program within six months (since	Number of health facilities which sent report timely to the next supervisory body	Total number of health facilities which sent report	

	month period	September 2015)			
	Proportion of health facilities which sent complete report to the next supervisory body monthly for last six month period	All government health facilities in Jimma town implementing the program within six months (since September 2015)	Number of health facilities which sent complete report to the next supervisory body	Total number of health facilities which sent report	
acceptability	Proportion of clients satisfied with HCT services is available always when needed.	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with HCT services is available always when needed.	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with infant feeding counselling services are available always when needed.	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with infant feeding counselling services are available always when needed.	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with laboratory services is available always when needed.	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with laboratory services is available always when needed.	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with health care providers prescribes appropriate therapy.	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with health care providers prescribes appropriate therapy.	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with always the information health care providers provide them are	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with always the information health care providers provide	Total clients responded satisfaction questionnaire	

	appropriate		them are appropriate		
	Proportion of clients satisfied with the waiting time for service	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with the waiting time for service	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with waiting area is comfortable	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with waiting area is comfortable	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with the competency of health care providers	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with the competency of health care providers	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with counselling and testing room is private	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with counselling and testing room is private	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with counselling and testing room is comfortable	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with counselling and testing room is comfortable	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with duration of the counselling session is adequate	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with duration of the counselling session is adequate	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with respectfulness of the counsellor	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with respectfulness of the counsellor	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with trustworthiness of the counsellor	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with trustworthiness of the counsellor	Total clients responded satisfaction questionnaire	

	Proportion of clients satisfied with clarity of the counsellor's explanation	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with clarity of the counsellor's explanation	Total clients responded satisfaction questionnaire	
	Proportion of clients satisfied with overall of services	Sampled program clients visiting ANC/PMTCT clinic	Proportion of clients satisfied with overall of services	Total clients responded satisfaction questionnaire	

Annex IV: Matrix of Analysis and Judgment

Overall judgment matrix of performance indicators of quality of PMTCT option B+ services in government health facilities of Jimma town, Southwest Ethiopia, 2016

S.no	Dimension	Achievement	Relative weight (W)	Score (W*P)	Judgment parameter
1	Availability of program resources as per the national guideline (summary of 8 indicators		43		90-100%-Acceptable, 75-89%-Needs improvement, ≤74%-Needs urgent improvement
2	Compliance to national guideline in delivery of PMTCT services (summary of 15 indicators)		32		90-100%-Acceptable, 75-89%-Needs improvement, ≤74%-Needs urgent improvement
3	Acceptability of service (summary of 15 indicators)		25		88-100%-Acceptable, 78-87%-Needs improvement, ≤77%-Needs urgent improvement

	Overall quality of PMTCT option B+ service (summary of above three dimensions)		100		85-100%-Acceptable, 75-84%-Needs improvement, ≤74%-Needs urgent improvement

Annex V: Average of ANC clients load per government health facility in Jimma town, south west Ethiopia, 2016

S.no	Name of health facilities	September 2015	October 2015	November 2015	Average
1	JUSH	157	116	106	**126**
2	Shenan Gibe Hospital	111	117	117	**115**
3	Jimma Health Center	51	56	49	**52**
4	Higher Two Health Center	61	34	35	**44**
5	Mendara Kochi Health Center	39	37	44	**40**
6	Bochobore Health Center	29	34	39	**34**

Annex VI: Meta Evaluation checklist based on the program Evaluation standards for PMTCT option B+ service quality in government health facilities of Jimma town, 2016

S.no	**META-EVALUATION STANDARDS**	Yes	No
A	**REQUIREMENTS FOR UTILITY**		
1	**Stakeholder Identification**		
	Clearly identify the evaluation client	√	
	Engage leadership figures to identify other stakeholders		√
	Consult potential stakeholders to identify their information needs	√	
	Use stakeholders to identify other stakeholders	√	
	With the client, rank stakeholders for relative importance	√	
	Arrange to involve stakeholders throughout the evaluation	√	
	Keep the evaluation open to serve newly identified stakeholders		√
	Address stakeholders' evaluation needs	√	
	Serve an appropriate range of individual stakeholders	√	
Judged	Serve an appropriate range of stakeholder organizations	√	
	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**8**	2
2	**Evaluator Credibility**		
	Engage competent evaluators	√	
	Engage evaluators whom the stakeholders trust		√
	Engage evaluators who can address stakeholders' concerns	√	
	Engage evaluators who are appropriately responsive to issues of gender, socioeconomic status, race, and language and cultural differences	√	
	Assure that the evaluation plan responds to key stakeholders' concerns	√	

	Help stakeholders understand the evaluation plan	√	
	Give stakeholders information on the evaluation plan's technical quality and practicality	√	
	Attend appropriately to stakeholders' criticisms and suggestions		√
	Stay abreast of social and political forces		√
	Keep interested parties informed about the evaluation's progress		√
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
3	**Information Scope and Selection**		
	Understand the client's most important evaluation requirements	√	
	Interview stakeholders to determine their different perspectives	√	
	Assure that evaluator and client negotiate pertinent audiences, questions, and required information	√	
	Assign priority to the most important stakeholders	√	
	Assign priority to the most important questions	√	
	Allow flexibility for adding questions during the evaluation		√
	Obtain sufficient information to address the stakeholders' most important evaluation questions	√	
	Obtain sufficient information to assess the program's merit		√
	Obtain sufficient information to assess the program's worth		√
	Allocate the evaluation effort in accordance with the priorities assigned to the needed information		√
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
4	**Values Identification**		
	Consider alternative sources of values for interpreting evaluation findings	√	
	Provide a clear, defensible basis for value judgments	√	
	Determine the appropriate party(s) to make the valuational interpretations	√	
	Identify pertinent societal needs		√
	Identify pertinent customer needs		√
	Reference pertinent laws		√
	Reference, as appropriate, the relevant institutional mission		√
	Reference the program's goals	√	
	Take into account the stakeholders' values	√	
	As appropriate, present alternative interpretations based on conflicting but credible value bases	√	
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
5	**Report Clarity**		
	Clearly report the essential information	√	
	Issue brief, simple, and direct reports	√	
	Focus reports on contracted questions	√	
	Describe the program and its context	√	
	Describe the evaluation's purposes, procedures, and findings	√	
	Support conclusions and recommendations	√	
	Avoid reporting technical jargon	√	
	Report in the language(s) of stakeholders		√
	Provide an executive summary	√	
	Provide a technical report	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	**9**	1
6	**Report Timeliness and Dissemination**		

	Make timely interim reports to intended users		√
	Deliver the final report when it is needed	√	
	Have timely exchanges with the program's policy board		√
	Have timely exchanges with the program's staff	√	
	Have timely exchanges with the program's customers		√
	Have timely exchanges with the public media		√
	Have timely exchanges with the full range of right-to-know audiences		√
	Employ effective media for reaching and informing the different audiences		√
	Keep the presentations appropriately brief	√	
	Use examples to help audiences relate the findings to practical situations	√	
Judged	0-2 Poor, **3-4 Fair**, 5-6 Good, 7-8 Very Good, 9-10 Excellent	**4**	6
7	**Evaluation Impact**		
	Maintain contact with audience	√	
	Involve stakeholders throughout the evaluation	√	
	Encourage and support stakeholders' use of the findings	√	
	Show stakeholders how they might use the findings in their work		√
	Forecast and address potential uses of findings	√	
	Provide interim reports		√
	Make sure that reports are open, frank, and concrete	√	
	Supplement written reports with ongoing oral communication	√	
	Conduct feedback workshops to go over and apply findings		√
	Make arrangements to provide follow-up assistance in interpreting and applying the findings		√
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
	Strength of the Evaluation's provisions for Utility (total score=16): 26 (93%) - 28 Excellent 19 (68%) - 25 Very Good **14 (50%) - 18 Good** 7 (25%) - 13 Fair 0 (0%) - 6 Poor		
B	**REQUIREMENTS FOR FEASIBILITY**		
1	**Practical Procedures**		
	Tailor methods and instruments to information requirements	√	
	Minimize disruption	√	
	Minimize the data burden	√	
	Appoint competent staff	√	
	Train staff	√	
	Choose procedures that the staff are qualified to carry out	√	
	Choose procedures in light of known constraints	√	
	Make a realistic schedule	√	
	Engage locals to help conduct the evaluation		√
	As appropriate, make evaluation procedures a part of routine events	√	
	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	**9**	1
2	**Political Viability**		
	Anticipate different positions of different interest groups	√	
	Avert or counteract attempts to bias or misapply the findings	√	
	Foster cooperation	√	
	Involve stakeholders throughout the evaluation	√	
	Agree on editorial and dissemination authority		√
	Issue interim reports		√

	Report divergent views	√	
	Report to right-to-know audiences	√	
	Employ a firm public contract		√
	Terminate any corrupted evaluation		√
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
3	**Cost Effectiveness**		
	Be efficient	√	
	Make use of in-kind services	√	
	Produce information worth the investment	√	
	Inform decisions	√	
	Foster program improvement	√	
	Provide accountability information	√	
	Generate new insights		√
	Help spread effective practices		√
	Minimize disruptions	√	
	Minimize time demands on program personnel	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**8**	2
	Strength of the Evaluation's provisions for Feasibility (total score=9): 11 (93%) - 12 Excellent **8 (68%) - 10 Very Good** 6 (50%) - 7 Good 3 (25%) - 5 Fair 0 (0%) - 2 Poor		
C	**REQUIREMENTS FOR PROPRIETY**		
1	**Service Orientation**		
	Assess needs of the program's customers	√	
	Assess program outcomes against targeted customers' assessed needs	√	
	Help assure that the full range of rightful program beneficiaries are served	√	
	Promote excellent service		√
	Make the evaluation's service orientation clear to stakeholders	√	
	Identify program strengths to build on		√
	Identify program weaknesses to correct	√	
	Give interim feedback for program improvement		√
	Expose harmful practices		
	Inform all right-to-know audiences of the program's positive and negative outcomes	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
2	**Formal Agreements** **Reach advance written agreements on:**		
	Evaluation purpose and questions		√
	Audiences		√
	Evaluation reports		√
	Editing		√
	Release of reports	√	
	Evaluation procedures and schedule		√
	Confidentiality/anonymity of data	√	
	Evaluation staff	√	
	Meta-Evaluation	√	
	Evaluation resources	√	
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**5**	5

3	**Rights of Human Subjects**		
	Make clear to stakeholders that the evaluation will respect and protect the rights of human subjects	√	
	Clarify intended uses of the evaluation	√	
	Keep stakeholders informed	√	
	Follow due process	√	
	Uphold civil rights	√	
	Understand participant values	√	
	Respect diversity	√	
	Follow protocol	√	
	Honor confidentiality/anonymity agreements	√	
	Do no harm	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	10	0
4	**Human Interactions**		
	Consistently relate to all stakeholders in a professional manner	√	
	Maintain effective communication with stakeholders	√	
	Follow the institution's protocol	√	
	Minimize disruption	√	
	Honor participants' privacy rights	√	
	Honor time commitments	√	
	Be alert to and address participants' concerns about the evaluation		√
	Be sensitive to participants' diversity of values and cultural differences	√	
	Be even-handed in addressing different stakeholders	√	
	Do not ignore or help cover up any participants incompetence, unethical behaviour, fraud, waste, or abuse	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	**9**	1
5	**Complete and Fair Assessment**		
	Assess and report the program's strengths		√
	Assess and report the program's weaknesses	√	
	Report on intended outcomes	√	
	Report on unintended outcomes		√
	Give a thorough account of the evaluation's process	√	
	As appropriate, show how the program's strengths could be used to overcome its weaknesses		√
	Have the draft report reviewed	√	
	Appropriately address criticisms of the draft report	√	
	Acknowledge the final report's limitations	√	
	Estimate and report the effects of the evaluation's limitations on the overall judgment of the program	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
6	**Disclosure of Findings**		
	Define the right-to-know audiences		√
	Establish a contractual basis for complying with right-to-know requirements		√
	Inform the audiences of the evaluation's purposes and projected reports	√	
	Report all findings in writing	√	
	Report relevant points of view of both supporters and critics of the program		√
	Report balanced, informed conclusions and recommendations	√	

	Show the basis for the conclusions and recommendations	√	
	Disclose the evaluation's limitations	√	
	In reporting, adhere strictly to a code of directness, openness, and completeness	√	
	Assure that reports reach their audiences	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
7	**Conflict of Interest**		
	Identify potential conflicts of interest early in the evaluation	√	
	Provide written, contractual safeguards against identified conflicts of interest		√
	Engage multiple evaluators		√
	Maintain evaluation records for independent review	√	
	As appropriate, engage independent parties to assess the evaluation for its susceptibility or corruption by conflicts of interest		√
	When appropriate, release evaluation procedures, data, and reports for public review	√	
	Contract with the funding authority rather than the funded program		√
	Have internal evaluators report directly to the chief executive officer		√
	Report equitably to all right-to-know audiences		√
	Engage uniquely qualified persons to participate in the evaluation, even if they have a potential conflict of interest; but take steps to counteract the conflict	√	
Judged	0-2 Poor, **3-4 Fair**, 5-6 Good, 7-8 Very Good, 9-10 Excellent	**4**	6
8	**Fiscal Responsibility**		
	Specify and budget for expense items in advance	√	
	Keep the budget sufficiently flexible to permit appropriate reallocations to strengthen the evaluation	√	
	Obtain appropriate approval for needed budgetary modifications	√	
	Assign responsibility for managing the evaluation finances		√
	Maintain accurate records of sources of funding and expenditures	√	
	Maintain adequate personnel records concerning job allocations and time spent on the job	√	
	Employ comparison shopping for evaluation materials		√
	Employ comparison contract bidding		√
	Be frugal in expending evaluation resources	√	
	As appropriate, include an expenditure summary as part of the public evaluation report	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
	Strength of the Evaluation's provisions for Propriety (total score=23): 30 (93%) - 32 Excellent **22 (68%) - 29 Very Good** 16 (50%) - 21 Good 8 (25%) - 15 Fair 0 (0%) - 7 Poor		
D	**REQUIREMENTS FOR ACCURACY**		
1	**Program Documentation**		
	Collect descriptions of the intended program from various written sources	√	
	Collect descriptions of the intended program from the client and various stakeholders	√	

	Describe how the program was intended to function	√	
	Maintain records from various sources of how the program operated	√	
	As feasible, engage independent observers to describe the program's actual operations		√
	Describe how the program actually functioned	√	
	Analyze discrepancies between the various descriptions of how the program was intended to function	√	
	Analyze discrepancies between how the program was intended to operate and how it actually operated	√	
	Ask the client and various stakeholders to assess the accuracy of recorded descriptions of both the intended and the actual program	√	
	Produce a technical report that documents the program's operations	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	**9**	1
2	**Context Analysis**		
	Use multiple sources of information to describe the program's context	√	
	Describe the context's technical, social, political, organizational, and economic features		√
	Maintain a log of unusual circumstances		√
	Record instances in which individuals or groups intentionally or otherwise interfered with the program		√
	Record instances in which individuals or groups intentionally or otherwise gave special assistance to the program		√
	Analyze how the program's context is similar to or different from contexts where the program might be adopted	√	
	Report those contextual influences that appeared to significantly influence the program and that might be of interest to potential adopters		√
	Estimate effects of context on program outcomes		√
	Identify and describe any critical competitors to this program that functioned at the same time and in the program's environment		√
	Describe how people in the program's general area perceived the program's existence, importance, and quality	√	
Judged	0-2 Poor, **3-4 Fair**, 5-6 Good, 7-8 Very Good, 9-10 Excellent	**3**	7
3	**Described Purposes and Procedures**		
	At the evaluation's outset, record the client's purposes for the evaluation	√	
	Monitor and describe stakeholders' intended uses of evaluation findings		√
	Monitor and describe how the evaluation's purposes stay the same or change over time		√
	Identify and assess points of agreement and disagreement among stakeholders regarding the evaluation's purposes		√
	As appropriate, update evaluation procedures to accommodate changes in the evaluation's purposes	√	
	Record the actual evaluation procedures, as implemented	√	
	When interpreting findings, take into account the different stakeholders' intended uses of the evaluation	√	
	When interpreting findings, take into account the extent to which the intended procedures were effectively executed	√	
	Describe the evaluation's purposes and procedures in the summary and full-length evaluation reports	√	
	As feasible, engage independent evaluators to monitor and evaluate the		√

	evaluation's purposes and procedures		
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
4	**Defensible Information Sources**		
	Obtain information from a variety of sources	√	
	Use pertinent, previously collected information once validated	√	
	As appropriate, employ a variety of data collection methods	√	
	Document and report information sources	√	
	Document, justify, and report the criteria and methods used to select information sources	√	
	For each source, define the population	√	
	For each population, as appropriate, define any employed sample	√	
	Document, justify, and report the means used to obtain information from each source	√	
	Include data collection instruments in a technical appendix to the evaluation report	√	
	Document and report any biasing features in the obtained information		√
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, 7-8 Very Good, **9-10 Excellent**	**9**	1
5	**Valid Information**		
	Focus the evaluation on key questions	√	
	As appropriate, employ multiple measures to address each question	√	
	Provide a detailed description of the constructs and behaviours about which information will be acquired		√
	Assess and report what type of information each employed procedure acquires	√	
	Train and calibrate the data collectors	√	
	Document and report the data collection conditions and process	√	
	Document how information from each procedure was scored, analyzed, and interpreted	√	
	Report and justify inferences singly and in combination		√
	Assess and report the comprehensiveness of the information provided by the procedures as a set in relation to the information needed to answer the set of evaluation questions	√	
	Establish meaningful categories of information by identifying regular and recurrent themes in information collected using qualitative assessment procedures	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**8**	2
6	**Reliable Information**		
	Identify and justify the type(s) and extent of reliability claimed		√
	For each employed data collection device, specify the unit of analysis	√	
	As feasible, choose measuring devices that in the past have shown acceptable levels of reliability for their intended uses	√	
	In reporting reliability of an instrument, assess and report the factors that influenced the reliability, including the characteristics of the examinees, the data collection conditions, and the evaluator's biases	√	
	Check and report the consistency of scoring, categorization, and coding	√	
	Train and calibrate scorers and analysts to produce consistent results	√	
	Pilot test new instruments in order to identify and control sources of error	√	
	As appropriate, engage and check the consistency between multiple observers	√	

	Acknowledge reliability problems in the final report	√	
	Estimate and report the effects of unreliability in the data on the overall judgment of the program		√
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**8**	2
7	**Systematic Information**		
	Establish protocols for quality control of the evaluation information		√
	Train the evaluation staff to adhere to the data protocols	√	
	Systematically check the accuracy of scoring and coding	√	
	When feasible, use multiple evaluators and check the consistency of their work	√	
	Verify data entry		√
	Proofread and verify data tables generated from computer output or other means	√	
	Systematize and control storage of the evaluation information	√	
	Define who will have access to the evaluation information		√
	Strictly control access to the evaluation information according to established protocols		√
	Have data providers verify the data they submitted	√	
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
8	**Analysis of Quantitative Information**		
	Begin by conducting preliminary exploratory analyses to assure the data's correctness and to gain a greater understanding of the data	√	
	Choose procedures appropriate for the evaluation questions and nature of the data	√	
	For each procedure specify how its key assumptions are being met	√	
	Report limitations of each analytic procedure, including failure to meet assumptions		√
	Employ multiple analytic procedures to check on consistency and replicability of findings		√
	Examine variability as well as central tendencies	√	
	Identify and examine outliers and verify their correctness	√	
	Identify and analyze statistical interactions	√	
	Assess statistical significance and practical significance	√	
	Use visual displays to clarify the presentation and interpretation of statistical results		√
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
9	**Analysis of Qualitative Information**		
	Focus on key questions	√	
	Define the boundaries of information to be used	√	
	Obtain information keyed to the important evaluation questions	√	
	Verify the accuracy of findings by obtaining confirmatory evidence from multiple sources, including stakeholders	√	
	Choose analytic procedures and methods of summarization that are appropriate to the evaluation questions and employed qualitative information	√	
	Derive a set of categories that is sufficient to document, illuminate, and respond to the evaluation questions		√
	Test the derived categories for reliability and validity		√
	Classify the obtained information into the validated analysis categories		√

	Derive conclusions and recommendations and demonstrate their meaningfulness	√	
	Report limitations of the referenced information, analyses, and inferences	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
10	**Justified Conclusions**		
	Focus conclusions directly on the evaluation questions	√	
	Accurately reflect the evaluation procedures and findings	√	
	Limit conclusions to the applicable time periods, contexts, purposes, and activities	√	
	Cite the information that supports each conclusion	√	
	Identify and report the program's side effects		√
	Report plausible alternative explanations of the findings		√
	Explain why rival explanations were rejected		√
	Warn against making common misinterpretations		√
	Obtain and address the results of a pre-release review of the draft evaluation report	√	
	Report the evaluation's limitations	√	
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4
11	**Impartial Reporting**		
	Engage the client to determine steps to ensure fair, impartial reports	√	
	Establish appropriate editorial authority		√
	Determine right-to-know audiences		√
	Establish and follow appropriate plans for releasing findings to all right-to-know audiences		√
	Safeguard reports from deliberate or inadvertent distortions	√	
	Report perspectives of all stakeholder groups	√	
	Report alternative plausible conclusions	√	
	Obtain outside audits of reports	√	
	Describe steps taken to control bias	√	
	Participate in public presentations of the findings to help guard against and correct distortions by other interested parties	√	
Judged	0-2 Poor, 3-4 Fair, 5-6 Good, **7-8 Very Good**, 9-10 Excellent	**7**	3
12	**Meta evaluation**		
	Designate or define the standards to be used in judging the evaluation	√	
	Assign someone responsibility for documenting and assessing the evaluation process and products		√
	Employ both formative and summative meta-Evaluation		√
	Budget appropriately and sufficiently for conducting the meta-Evaluation		√
	Record the full range of information needed to judge the evaluation against the stipulated standards	√	
	As feasible, contract for an independent meta-Evaluation		√
	Determine and record which audiences will receive the meta-Evaluation report	√	
	Evaluate the instrumentation, data collection, data handling, coding, and analysis against the relevant standards	√	
	Evaluate the evaluation's involvement of and communication of findings to stakeholders against the relevant standards	√	
	Maintain a record of all meta-Evaluation steps, information, and analyses	√	
Judged	0-2 Poor, 3-4 Fair, **5-6 Good**, 7-8 Very Good, 9-10 Excellent	**6**	4

	Strength of the Evaluation's provisions for Accuracy (total score=32): 45 (93%) - 48 Excellent 33 (68%) - 44 Very Good **24 (50%) - 32 Good** 12 (25%) - 13 Fair 0 (0%) - 11 Poor		

Annex VII: Data Collection Tools (Questionnaire)

Title: A data collection tool developed for evaluation of quality of PMTCT option B+ service in government health facilities of Jimma town, 2016

Document review template: Protocol for collection of data from service registers and records

Consent form

My name is----------from Jimma University and as part of program evaluation we will review service documents in order to get information related to PMTCT option B+ program implementation. This will helps to improve the quality of the program in the future. The documents to be reviewed include registers, medical records of HIV+ mothers and service report. During review confidentiality of the information will be kept in which the reviewed information couldn't identify program clients as respondents. Review of the document will be conducted as long as the health institution is agreeable. That means the willingness of the health institution will be respected.

- ✓ Are there any questions about what I have explained above?
- ✓ May I continue to review the service documents?

Instruction: This template will be used to conduct document review in order to assess the PMTCT service received by the pregnant mother at the Ante partum and Intrapartum continuum of care since September 2015. The data will be collected from ANC/L&D registers from each government health facilities of Jimma town.

	Part I: ANC registers (ANC)
ANC1	Name of health facility 1. JUSH 2. Shenan Gibe hospital 3. Jimma health center 4. Higher two health center 5. Mendara kochi health center 6. Bochobore health center
ANC2	Client MRN (card number) 1. Yes 2. No
ANC3	Age of client in the years 1. Yes 2. No
ANC4	Date of first visit to ANC 1. Yes 2. No
ANC5	Gestational age (in weeks) 1. Yes 2.No
ANC6	Received pre-test counselling at the respective hospital/health center 1. Yes 2. No
ANC7	Tested for HIV at respective hospital/health center 1. Yes 2. No
ANC8	If yes, date of test 1. Yes 2. No

ANC9	Received post-test counselling & test result in the health facility 1. Yes 2. No
ANC10	Test result of the client 1. Positive 2. Negative 3. Unknown
ANC11	Referred for care, Rx and support (if test result is positive indicated) 1.Yes 2. No
ANC12	Partner test result? 1. Positive 2. Negative 3. Unknown
ANC13	Did the mother receive counselling on infant feeding? 1. Yes 2. No
ANC14	Did the mother receive ferrous sulphate/folic acid service? 1. Yes 2. No
ANC15	Did the mother receive TT immunization service? 1. Yes 2. No
ANC16	Did the mother identified and advised on danger signs? 1. Yes 2. No
ANC17	In general how many visits did the she made at the time of data collection? One 2. Two 3. Three
ANC18	If more than two visits, mother retested for HIV: 1. Yes 2. No
	Part II: Labor and deliver register (L&D)
	Identification and background of the client
LD1	Name of health facility 1. JUSH 2. Shenan Gibe hospital 3. Jimma health center 4. Higher two health center 5. Mendara kochi health center 6. Bochobore health center
LD2	Client MRN (card number) 1.Yes 2. No
LD3	Age of the mother in the years 1. Yes 2. No
	Information related to delivery and PMTCT services
LD4	Type of delivery 1.SVD 2. CS 3. Forceps/vacuum extraction4. Episiotomy 5. Other
LD5	Date and time of delivery 1. Yes 2.No
LD6	Birth outcomes: 1. Alive birth 2. Still birth
LD7	Is the mother previously with unknown HIV status? 1. Yes 2. No → If no skip to Q.16
LD8	If yes, did she receive on coach pre-test counselling service? 1. Yes 2. No
LD9	If yes, did she receive on coach testing service? 1. Yes 2. No
LD10	Date of HIV test (dd/mm/yy) E.C 1. Yes 2. No
LD11	If yes, did she receive on coach post-test counselling service? 1. Yes 2. No
LD12	Test result of the mother 1. Positive 2. Negative 3. Unknown
LD13	If positive test result indicated, is she initiated on lifelong ARV? 1. Yes 2. No
LD14	Type of ARV initiated (regimen)? 1. TDF+3TC+EFV (1e) 2. TDF+3TC+NVP (1f) 3. AZT+3TC+EFV (1d) 4. AZT+3TC+NVP (1c)
LD15	Did the infant receive NVP after delivery/is he/she discharged with NVP? 1. Yes 2. No

LD16	If no for Q.08; HIV status of the mother: 1. Positive 2. Negative 3. Unknown	
LD17	If positive; did the client previously on ART? 1. Yes 2. No →	Observe client chart
LD18	If test result positive; did the client and infant referred to ANC clinic? 1. Yes 2. No →	Observe referral paper, PMTCT register
	Part III: PMTCT log book (PR)	
PR1	Is the age of the client recorded? 1. Yes 2. No	
PR2	Is ART unique ID recorded? 1. Yes 2. No	
PR3	Is MRN of the client recorded? 1. Yes 2. No	
PR4	Is full name of the client recorded? 1. Yes 2. No	
PR5	Is Newly diagnosed and started ART? 1. Yes 2. No	
PR6	Is ART initiated recorded? 1. Yes 2. No	
PR7	Is current drug regimen documented? 1. Yes 2. No	
PR8	If yes type of regimen: 1. TDF+3TC+EFV (1e) 2. TDF+3TC+NVP (1f) 3. AZT+3TC+EFV (1d) 4. AZT+3TC+NVP (1c)	
PR9	Is LMP recorded 1. Yes 2. No	
PR10	Is EDD estimation recorded? 1. Yes 2. No	
PR11	Is Syphilis test result documented? 1. Yes 2. No	
PR12	Is Gestational age recorded in weeks? 1. Yes 2. No	
PR13	Is Selected infant feeding option documented? 1. Yes 2. No	
PR14	Is Date of delivery recorded (if indicated)? 1. Yes 2. No	
PR15	Is WHO stage documented? 1. Yes 2. No	
PR16	Is place of delivery documented (if indicated)? 1. Yes 2. No	
PR17	Is partner status well documented? 1. Yes 2. No	
PR14	Date of enrolment in PMTCT (dd/mm/yy) recorded? 1. Yes 2. No	
PR15	Is infant started NVP within 12 hours after delivery? 1. Yes 2. No	

Thank you

Name of data collector _____ Date_____ signature_____

Questionnaire: Program client satisfaction questionnaire (exit interview) English-Afan Oromo

Instruction: This is a questionnaire used to assess the program client satisfaction rate at ANC clinic. It will be answered by pregnant mothers and HIV+ mothers on adherence support visiting ANC clinic in government health facilities of Jimma town.

Consent form

I want to thank for taking time to meet with me today. My name_____ from Jimma University and I would like to talk to you about your experiences participating in the PMTCT option B+ service. We are assessing program implementation in order to capture lessons that can be used in future to improve the quality of program. The interview should take less than an hour. All responses will be kept confidential and your willingness for participation will be respected. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as respondent. You may interrupt the interview at any time.

Are there any questions about what I have just explained?

Are you willing to participate in this interview? **Client's Signature** _____

	Question/Gaaffilee
A	**Identification and background of the respondent**
SS1	Name of health facility/maqaa dhaabbata fayyaa 1. JUSH 2. Shenan Gibe hospital 3. Jimma health center 4. Higher two health center 5. Mendara Kochi health center 6. Bochobore health center
SS2	How old are you (age)?umrii kee _____
SS3	Your current marital status/haala gaa'ilaa kee 1. Married/Heerume 2. Single/Hin heerumne 3. Widowed/Irraa du'e 4. Divorced/Kan hiikte
SS4	What is your religion? Amantaan kee 1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Other specify,_____
SS5	What is your educational status? Sadarkaa barnootaa 1. Illiterate/Hin baranne 2. Illiterate but able to read and write/Hin baranne garuu barreessuu fi dubbisuu danda'a 3. Primary school/Sadarkaa 1ffaa 4. Secondary school/Sadarkaa 2ffaa 5. Tertiary/Sadarkaa barnootaa ol aanaa
SS6	What is your ethnicity? Saba kee 1. Oromo 2. Amhara 3. Tigre 4. Guraghe 5. Others specify

SS7	What is your occupational status? Haala hojii 1. Government employee/hojjetaa mootummaa 2. Merchant/daldaalaa 3. Farmer/qotee bulaa 4. House wife/haadha manaa 5. Daily labourer/hojjetaa guyyaa 6. Other, specify/kan biroo
SS8	Place of residence? Bakka jireenyaa 1. Urban (from Jimma town)/Magaalaa 2. Rural (out of Jimma town)/Baadiyyaa
SS9	Is this your first pregnancy? Ulfi kun isa jalqabaa dha? 1. Yes/Eeyyee 2. No/Lakkii
SS10	If no how many children did you have excluding the current pregnancy? Yeroo jalqabaaf yoo hin taane daa'imman meeqa qabda? 1. One/Tokkoo 2. Two/Lama 3. Three /Sadii 4. More than three/sadii ol
SS11	Did you know about PMTCT service before? Kanan dura ni beektaa 1. Yes 2. NO
SS12	If yes, your source of health information for PMTCT service? Tajaajila dhibee HIV/Eedsii hadhaa irraa gara daa'immatti akka hin dabarree godhan maddi odeeffannoo kee eessaa? 1. Health care provider of the same facility/ogeessa fayyaa dhaabbata kanaa 2. Radio/TV/Raadiyoo fi TV 3. Community health agents/hojjetaa fayyaa ummataa 4. Health extension workers/eksiteeshiinii fayyaa 5. Other, specify/kan biroo
	Complete Q.13-24 if the mother is HIV positive & previously on adherence support
SS13	Have you child? Ijoollee qabda 1. Yes/Eeyyee 2. No/Lakkii
SS14	If yes, did your children's know their HIV status? /daa'imman kee bu'aa qorannoo dhiigaa isaanii beeku 1. Yes/Eeyyee 2. No/Lakkii
SS15	If not why? /Lakkii yoo jette maaliif? 1. Didn't know importance of HIV test for children/Faayidaa isaa hin beekne 2. Service unavailable for children/Tajaajila hin arganne 3. Busy to receive children to clinic/Yeroo hin arganne 4. Health care provider didn't told me/Ogeessi fayyaa natti hin himne 5. Other, specify/kan biroo
SS16	Did you disclose your HIV status to your partner? Bu'aa qorannoo kee abbaa warraa keef himtee? 1. Yes/Eeyyee 2. No/Lakkii
SS17	If not why? Yoo hin himne maaliif?

	1. Fear of stigma and discrimination? Sodaa na qoodu jedheeni 2. Couldn't know importance of disclosing/ Faayidaa itti himu hin beekne 3. Fear that he may divorce me/ na hiika jedheeni sodaadhe 4. Other, specify/kan biroo
SS18	Did your partner know his HIV status? Abbaa warraa kee bu'aa qorannoo dhiigaa isaa ni beekaa? 1. Yes/Eeyyee 2. No/Lakkii
B	**Information related to enrolment in the program**
SS19	Are you currently ARV on medication/treatment? Yeroo ammaa qoricha farra HIV/Eedsiii fudhachaa jirtaa? 1. Yes/Eeyyee 2. No/Lakkii
SS20	How did you first known your HIV status? Bu'aa qorannoo dhiigaa kee akkamiin baruu dandeesse 1. While visiting clinic for pregnancy check-up/Tajaajila hordoffii ulfaa yeroon dhufu 2. During labor and delivery/Tajaajila da'umsaaf yeroon dhufu 3. Early before pregnancy/ yeroo ulfaan dura 4. Unknown //hin beeku
SS21	Where did you first known your status? Bu'aa qorannoo dhiigaa kee eessatti barte? 1. In the same health facility/ dhaabbata fayyaa kanatti 2. In another health facility/dhaabbata fayyaa Kan biroo 3. Unknown/ hin beeku
C	**Information related to clinical and drug adherence of the client**
SS22	Have you received counselling service about your follow up and medication in the last three months/ji'oota sadaan darban keessatti Tajaajila gorsaa qoricha haalan fudhachuu ilalchisee fudhattee beektaa? 1. Yes/Eeyyee 2. No/Lakkii
SS23	If yes, how often did you visit the clinic for counselling service about your follow up and medication last three months? Yoo Eeyyee, al meeqa kilinika dawwattee 1. Only one time/al tokko qofa 2. Two times/al lama 3. Three times/al sadii 4.More than three/al sadii ol
SS24	If less than two times, what are the reasons you didn't receive counselling service about your follow up and medication? Yeroo lamaa gad yoo ta'e maaliif 1. Too far to reach the clinic/kilinika ni fagaata 2. Didn't remembered the appointment date/guyyaa beelamaa nan irranfadhe 3. Not told appointment date/guyyaa beelamaa natti hin himamne 4. Was busy with other things/Hojii kan biroo qabee turee
D	**Information related to the current visit**
SS25	How did you get to the clinic? Akkamitti dhaabbata kana dhuftee

	1. On foot/miilaan 2. By transport/konkolaataan
SS26	How long does it take you to get to the health facility nearest to where you live? Ammam fudhata hanga kilinika kanatti? _____**(in minute)**
SS27	Is this the first time when you visit the clinic? Kilinika kana kan dawwattee isa jalqabaafi? 1. Yes/Eeyyee 2. No/Lakkii
SS28	If not, how many visits did you made in the current pregnancy excluding the current visit? Isa kanan ala si'a meeqa dawwattee 1. One/tokko 2. Two/lama 3.Three and more/sadii fi isaa ol 4. Unknown/hin beeku
SS29	What is the reason you visited the clinic today? Sababni kilinika daawwachuu kee maali? 1. HIV counselling and testing/Tajaajila qorannoo dhiigaa argachuuf 2. To refill the ARV drug/qoricha HIV/Eedsii fudhachuu 3. Adherence support/gargaarsa haala qoricha seeran fudhachuu argachuuf 4. 2&3 5. Pregnancy follow up/hordoffii ulfaa 6. 2, 3 &5
SS30	How long did you wait on average between the time you arrived at the facility and the time you were able to see a provider for the consultation (current visit)? Ogeessa fayyaa argachuun dura hangam turte? **_____ (in minute)**
SS31	How much time did you spend with your health care provider? Ogeessa fayyaa wajjin hangam turte _____ **(in minute)**
SS32	In today visit, did the HCW briefly explain you about the effect of MTCT on your infant? 1. Yes/Eeyyee 2. No/Lakkii
SS33	Did the HCW briefly explain you the possible interventions available for MTCT in this particular health facility? Ogeessa fayyaa dhaabbata Tajaajila dhibee HIV/Eedsii hadhaa Irraa gara daa'immatti akka hin dabarree godhan sirriin siif ibsameeraa? 1. Yes/Eeyyee 2. No/Lakkii
SS34	Did the HCW briefly explain you the benefit of undertaking HIV testing and counselling services? /Faayidaa qorannoo geggessuu ilaalchisee 1.Yes/Eeyyee 2.No/Lakkii
SS35	Did the HCW briefly explain you the benefit of undertaking HIV testing and counselling with your partner? /Faayidaa waliin qorannoo geggessuu ilaalchisee 1. Yes/Eeyyee 2. No/Lakkii
SS36	Did the HCW clearly explain you when and where to get PMTCT services during pregnancy, delivery and postnatal period? Ogeessa fayyaa dhaabbata Tajaajila dhibee HIV/Eedsii hadhaa Irraa gara daa'immatti akka hin dabarree godhan yoomii fi eessatti akka kennamu sirriin siif ibsameeraa? 1. Yes/Eeyyee 2. No/Lakkii
SS37	Did the HCW provide information related to where to give birth? Ogeessi fayyaa tajaajila

	dahumsaa eessatti akka argatu ifaan sitti himeeraa? 1. Yes/Eeyyee 2. No/Lakkii
SS38	Did the HCW give you any reading material to take home? Ogeessi fayyaa manatti waan dubbistuu siif laateeraa? 1. Yes/Eeyyee 2. No/Lakkii
SS39	If yes, what is the subject of the material? Yoo kenname waa'ee maalii? 1. ANC/hordoffii ulfaa 2. FP/qusannoo maatii 3. PNC/tajaajila dahumsaan booda 4. STI/dhibee saal-qunnamtiin dardarbuu 5. HIV/AIDS/PMTCT 6. Child nutrition/nyaata daa'immanii 7. Other, specify/kan biroo
SS40	Did the HCW clearly explain you when to come for the next visit? Ogeessi fayyaa guyyaa beelamaa si beeksisee jiraa? 1. Yes/Eeyyee 2. No/Lakkii
E	**Reason to choose the health institution**
SS41	What is the major reason you choose to come to this health facility? Dhaabbata fayyaa kana sababa maaliin filate? 1. Nearest to me/ dhiyoo dha. 2. provide good service 3. Better facility/dhaabbata fooyya'aa dha 4. Good name/maqaa gaarii qaba 5. Relative/friend recommended/namootatu natti hime 6. Other, specify/kan biroo

F. client satisfaction related questions (exit interview)

Note for interviewer: The following questions will be used to assess the satisfaction of the client on services listed below The satisfaction questionnaire comprised of 15 items and each item will be measured with likert scale responses. Therefore, **Circle** on the answer of client.

Note for client: Based on your experiences as a client at this health facility, please tell us your satisfaction rate on the following services.

S.no	Items/Gaaffilee	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
1	How do you rate your satisfaction with HIV testing and counselling service available always when needed? Tajaajila qorannoo dhiigaa yeroo barbaaddeetti argachuuf akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
2	How do you rate your satisfaction with infant feeding counselling	**5**	**4**	**3**	**2**	**1**

	service available when needed? Gorsa haala nyaata daa'immaa yeroo barbaaddeetti argachuuf akkamiin gammadde					
3	How do you rate your satisfaction with laboratory services available always when needed? Tajaajilli labooraatorii yeroo barbaaddeetti argachuuf akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
4	How do you rate your satisfaction with HCPs prescribe appropriate therapy/ ogeessi fayyaa tajaajila bu'aa qabeessa ta'e siif kennutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
5	How do you rate your satisfaction with Health care provider is always provide appropriate information/ odeeffannoo yeroo hunda siif kennutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
6	How do you rate your satisfaction with waiting time? Yeroo ogeessa fayyaa itti eegdu akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
7	How do you rate your satisfaction with comfort of the waiting room? Mijaawuu iddoo ogeessa fayyaa itti eegdu akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
8	How do you rate your satisfaction with comfort of the counselling room? Mijaawuu kutaa gorsatti akkamiin gammade	**5**	**4**	**3**	**2**	**1**
9	How do you rate your satisfaction with privacy of the counselling room? Dhunfaa ta'uu kutaa gorsatti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
10	How do you rate your satisfaction with respectfulness of the counsellor? Kabajaa ogeessi fayyaa qabuutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**

11	How do you rate your satisfaction with adequacy of duration of the counselling session? Yeroo ogeessa fayyaa gorsa itti kennutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
12	How do you rate your satisfaction with trustworthiness of the counsellor? Amanamummaa ogeessi fayyaa qabuutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
13	How do you rate your satisfaction with clarity of the counsellor's explanation? Ifummaa gorsa ogeessan kennamutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
14	How do you rate your satisfaction with the counsellor's competency? Ga'umsa ogeessa fayyaa gorsa kennutti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**
15	How do you rate your satisfaction with the overall services? Walumaagalatti tajaajila argattetti akkamiin gammadde	**5**	**4**	**3**	**2**	**1**

Thank you/Galatomaa

Name of data collector	Date of data collection	Signature
Checked by/ supervisor name	Checked date	Signature

Key informant interviews with health care providers

Instruction: This guide will be used to assess the PMTCT option B+ service delivery and organization of implementation of the program at the ante partum and Intrapartum continuum of care and will be answered by health care provider working in the MNCH unit since January 2015. In general the following core areas will be addressed:

- **T**raining and preparation
- PMTCT service delivered and organization of service at the ANC clinic /Labor and delivery ward
- Support, system
- Stakeholders involvement and advocacy in PMTCT program

❖ Challenges and solutions

Introduction:

Consent form

I want to thank you for taking time to meet with me today. My name is_____ from Jimma University and I would like to talk to you about your experiences participating in the PMTCT option B+ service specifically, as one components of our overall program evaluation we are assessing program implementation in order to capture lessons that can be used in future to improve the program. The interview should take 30-45 minutes. All responses will be kept confidential This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent Remember you don't' have to talk about anything you don't want to and you may end the interview at any time.

- Are there any questions about what I have just explained?
- Are you willing to participate in this interview?

_____

Interviewee witness Date

- Identification and Background characteristics of the respondent:

Name of health institution:_____

Date of interview: _____ Sex of the respondent:_____

Age of the respondent: _____

What is your profession? _____

What is your current position? _____

Where do you currently work? _____

For how long you have been in this clinic (Months/Years)?_____

_____

- **Training and preparation (for health care provider assigned at ANC clinic/L&D ward)**

1. Could you please describe me the type of training received and the number of health care providers trained on PMTCT program in this clinic? Probe for:

✓ How many HCPs received the training (Male/Female. Per profession)

✓ When the training received (month and year)?

✓ Content of the training (HCT, ARV prophylaxis to prevent MTCT, safer obstetrical practice, infant feeding options family planning counseling infection prevention, PMTCT option B+ update),

✓ Who provided the training?

- **PMTCT service delivered and organization of service at the ANC clinic /Labor and delivery ward**

2. Could you please briefly describe me what and how PMTCT services provided in this clinic? Probe for

✓ PMTCT services provided at ANC clinic (for HIV negative & HIV+ mothers)

❖ HTC(Pre-test counseling type: Individual, couple, group ,post-test counseling for: HIV+ and negative mothers, use of tool/guidelines, mechanism of protection of confidentiality

❖ Provision of ARVs (When given? Criteria used? Type of ARV given)

- ❖ Adherence support (How frequently given? What issues addressed? How you assure that the client is adhering to the program
- ❖ Referral service (intra facility (Why? How? Inter-facility (Why? How?)
- ✓ PMTCT services provided at labor & delivery ward (for women with unknown status and for those women with known status)
- ❖ HTC for laboring mothers how given? Following procedure protocol? Mechanism of protection of confidentiality of client?
- ❖ Provision of or continuation of ARVs (When given? Criteria used? Type of ARVs given)
- ❖ Safe and quality obstetrical services for HIV+ mothers (How given: Use of partograph, average duration of labor, type of delivery conducted)
- ❖ NVP for infants (when given within 12 hours, within 3 days within 4 weeks Dose given :- for infants <2500mg:>2500mg)
- ❖ Referral services (Intra –facility (why? How?) Inter facility (Why? How?)
- ✓ PMTCT service organization at ANC clinic (ANC /L&D hours of operation number of days per week, service delivery among new and repeat assignment of health care provider on daily basis, total examination rooms available average time spent by **PMTCT** client)

3. Are the program resources in place to deliver quality PMTCT services at this clinic? If yes may I see:

Observe for: ARV drugs, test kits, OI's drugs, Guidelines, protocols/standard operating procedures, delivery kit, supplies for ANC, registers (ANC, **PMTCT**, L&D), partographs, referral formats, appointment calendar, reporting formats delivery coach. Are they properly placed?

4. Had the PMTCT service been interrupted due to unavailability of supplies and human power since January 2015?if yes ask:

- ✓ Why?
- ✓ For how many times?
- ✓ On average how many women missed the opportunity due to the interruption of services?

- o Support system

5. Did you ever receive supportive supervision related to PMTCT service? (Probe: when did last supervision received? Who provided the support? What support received? How many health workers received support? How often the support provided? Did they give feedback? What was the purpose of supervision observer any feedback received)

- o **Stakeholders involvement and Advocacy in PMTCT program**

6. Do you advertise or promote the PMTCT program in any way to the community? If yes, describe some of the activities.

7. What do you think the recursion of the community to pregnant HIV positive woman?

8. To support the PMTCT program are there any community support groups or organizations for pregnant HIV positive woman? If yes, mention them.

- o Solutions for the observed challenges

9. What action did you take to alleviate the problem of interruption of services?

10. Do you have any suggestions that you think are solutions, in how the quality of PMTCT services could be improved and better utilized at your health facility? If yes, describe them

- o Changes observed

11. What are some of the changes you observed in your medical practice or procedure after introduction of PMTCT option B+ program at this health facility (at ANC, labor/delivery)?

Thank you!!

Data collector name	Date of data collection	Signature
Checked by/supervision name	Checked date	Signature

Key informant interviews with health care managers

Instruction: This guide will be used to assess program management, barriers to program implementation and measures taken to alleviate the problems in the ant partum and intra partum continuum of care it will be answered by the head of the hospital/health center.

Identification and background characteristics of the respondent

Name of the health institution:_____

Date of interview:_____Sex of respondent: _____

Age of respondent: _____

What is your profession? _____

How long you have been in this position (months/Years)?_____

Information related to program management

1. Is there support system (ISS) in this health facility for health care workers? If yes could you please describe how frequently conducted? Who conduct it? If not why?
2. Is there conscribe how frequently conducted? Who conduct it? If not why? Describe how it conducted? If not why?
3. Is there a system to promote and advertise PMTCT services to community? If yes, could you please describe how it will be conducted? How is the community involved in the program particulate quality improvement?
4. Is there performance monitoring system in these health workers in this health facility? If yes, how often?
5. Is there regular performance review meeting with health workers in this health faculty? If yes how often?
6. From your experience what are barriers to quality PMTCT service implementations in this health facility? Probe for:

- ✓ Shortage of resources, why?
- ✓ Staff turnover, why? For how long?
- ✓ Lack of regular supportive supervision?

7. What are the measures taken by your hospital/health center to improve quality of the program?

- ✓ Staff training?
- ✓ Supportive supervision?
- ✓ Review meeting?

Finally, if you have any suggestions concerning quality of PMTCT services:

Thank you

Key informant interviews with program manager

Instruction: This guide will be used to assess program management, barriers to program implementation and measures taken to alleviate the problems in the ant partum and intra partum continuum of care it will be answered by the program manager of town health office.

Support system

Date of interview:_____Sex of respondent: _____

Age of respondent: _____

What is your profession? _____

How long you have been in this position (months/Years)?_____

Information related to program management

1. Is there support system (ISS) schedule for health facilities? If yes could you please describe how frequently conducted? Who conduct it? If not why?
2. Is there a system to promote and advertise PMTCT services to community? If yes, could you please describe how it will be conducted? How is the community involved in the program particulate quality improvement?
3. Is there performance monitoring system for these health facilities? If yes, how often?
4. Is there regular performance review meeting with heads these health facilities? If yes how often?
5. From your experience what are barriers to quality PMTCT service implementations in this health facility? Probe for: Shortage of resources, why? Staff turnover, why?
6. What are the measures taken by town health office to improve quality of the program?

- ✓ Staff training?
- ✓ Supportive supervision?
- ✓ Review meeting?

Finally, if you have any suggestions concerning quality of PMTCT services:

Thank you

Checklist for PMTCT resource inventory

Instruction: This checklist will be used to conduct an inventory of availability of infrastructure and program resources in each health facilities for the implementation of the program. And it will be answered by interviewing the heads of the health facilities, the ANC clinic, L&D ward, and the laboratory and pharmacy departments. Observe the department as needed.

Background information:

Name of health facility: _____Catchment area population: _____ expected pregnancies_____ Expected deliveries: _____

Date PMTCT option B+ started: _____

Human resource for health

1. Total health professional available in the health facility

S.no	Health worker	Total available in HF (active at time)	Total trained on PMTCT (plus option B+)
1	Internists		
2	Paediatricians		
3	Gynaecologists		
4	Surgeons		
5	GP		
6	Health officer		
7	Nurses (all types)		
8	Laboratory technologist		
9	Laboratory technician		
10	Pharmacist		
11	Pharmacy technician		
12	PMTCT data clerk		

2. Complete the following table by interviewing the clinical officer/medical officer of the health facility and ANC/L&D clinic staff daily for the week of data collection

S.no	Health worker	Total number of trained and responsible staff assigned to PMTCT related services				
		Day1	Day2	Day3	Day4	Day5
1	Internists					
2	Paediatricians					
3	GP					
4	Health officer					
5	Clinical nurse					
6	Mid wife nurse					
7	Adherence supporter					

3. Infrastructure and equipment

Complete the following table by asking the head of MCH department or by observing ANC, L&D, laboratory and pharmacy.

S.no	Item	Availability		Remark
		Yes	No	
1	Counselling room with doors and windows to ensure auditory and visual privacy in the ANC clinic and L&D ward			
2	Functional ANC and L&D unit in the specified health facility			
3	Functional laboratory facility in the specified health facility			
4	Running water and electricity supply in the specified health facility			
5	Secure pharmaceutical storage in the specified health facility			
6	Waiting area/room for clients in the specified health facility			

4. Laboratory facilities and services

Complete the following table by asking the head laboratory department in the health facility.

S.no	Service/equipment	Available on date of evaluation		Functional this week		Reason if no functional this week while available	Number of occasions with sock out during last 6 months	Cumulative period of sock out during the past one year
		Yes	No	Yes	No			
1	HIV rapid test kit							
2	CD4 count machine							
3	Supplies required for CD4 sample transport							
4	DBS kits							
5	AFB smear							
6	Viral load							
7	CBC							
8	Hgb/Hct (if no CBC)							
9	x-ray							
10	Renal functional test							

11	Liver functional test							
12	Pregnancy test							
13	RPR/VDRL							
14	Blood film							
15	Stool examination							
16	Urine analysis							
17	Microscope							

5. Uninterrupted supply of drugs

Review sock card and interview pharmacy staff to complete the following table

ARV drugs

S.no	Drug	Available on date of evaluation		Number of occasions with sock out during last 6 months	Cumulative period of sock out during the past one year	Last month with sock out of drug (dd/mm/yy)
		Yes	No			
1	Abacavir (ABC) suspension					
2	Abacavir (ABC) tabs					
3	Lopinavir/ritonavir tabs					
4	Efavirenzi (EFV) syrup					
5	Efavirenzi (EFV) caps					
6	Efavirenzi (EFV) tab					
7	Lamivudine (3TC) tab					
8	Lamivudine (3TC) susp.					
9	Lamivudine (3TC)/tenofovir tabs					
10	Lamivudine (3TC)/zidovudine tabs					
11	Lopinavir/ritonavir syrup					
12	Nevirapine (NVP) tabs					
13	Nevirapine (NVP) susp.					
14	Tenofovir (TDF) tab					
15	TDF+3TC+EFV					

16	TDF+3TC+NVP					
17	AZT+3TC+EFV					
18	AZT+3TC+NVP					

ii. OI drugs and other supplies

S.no	Drug	Currently available for free on date of evaluation		Currently available for fee on date of evaluation		Cumulative period of drug sock out at ART pharmacy during the last six months	Last month with sock out of drug (dd/mm/yy)
		Yes	No	Yes	No		
1	Cotrimoxazole tabs						
2	Cotrimoxazole syrup						
3	Prednisolone						
4	Any anti-fungal drug/tab/cream						
5	Acyclovir						
6	Iron sulphate						
	IP supplies						
7	Glove/surgical/disposable/utility						
8	Goggles, plastic apron						
9	Syringes with needle						
10	Anti-septic						
11	Autoclave						
	Medical equipment to carry out the procedure						
12	BP apparatus						
13	Weight						
14	Height						
15	Fundal height measurement						

16	MUAC measurement						
17	Fetoscope						
18	Lancet						
19	HIV test kit						
20	Delivery set						
21	Delivery coach						
	FP supplies						
22	Combined oestrogen progesterone oral contraceptive pills						
23	Progesterone only contraceptive pills						
24	Combined oestrogen progesterone injectable						
25	Progesterone only injectable contraceptive						
26	IUCD						
27	Implants						
28	Emergency contraceptive pills						
29	Oxytocin						

6. Service recording/reporting tool and job aids

Complete the following table by interviewing the HMIS focal person of the health facility

S.no	Items	Available on date of evaluation		Number of occasions with absence of HMIS tools and job aids during the last 1 year	Reason for absence	Remark
		Yes	No			
	HMIS					
1	ANC registers					
2	PMTCT registers/logbook					
3	L&D registers					

4	Tally sheet					
5	Quarterly/monthly reporting formats					
6	Internal referral formats					
7	External referral formats					
8	Appointment calendar					
9	Partograph					
	Job aids					
10	PMTCT guideline 2007/11					
11	Option B+ reference manual					
12	Posters/leaflets					
13	PMTCT cue card (reminder)					
14	Counselling and testing protocol ANC/L&D					
15	Guideline for paediatrics 2007					

Thank you

Name of data collector	Date of data collection	Signature
Checked by/supervisor name	Checked date	Signature

Direct observation checklist (guide)

An observation checklist will be used to assess the compliance of health worker in PMTCT service delivery at ANC clinic while providing testing and counselling services; providing adherence support for HIV positive mothers.

Consent form between health care provider and data collector

I want to thank you for taking time to meet with me today. My name is _____ from Jimma University and I am hereby to observe the clinical sessions at this unit, which is part of evaluation and will help to improve the quality of PMTCT services delivered at this health facility. The observation will be conducted while the health care provider delivering services and finding will be kept confidential. Further we will ensure that any information we include in our report does not identify you as a part of observation.

Remember, everything will be undertaken with your agreement and your willingness will be respected. Are any questions about what I have just explained? Are you willing to participate in this observation?

_____ _____ _____

Candidate (HCP) Observer Date

Consent form between health care provider and program client

Thank you for visiting our health institution for receiving services. He is hereby to observe the clinical and provide additional support which will help to provide you better services. During overall process your information will be kept confidential and no one identify you as a part of observation. Remember, everything will be undertaken based on your will.

- Are any questions about what I have just explained?
- Are you willing to participate in this observation?

_____ _____ _____

Candidate (client) Observer Date

Identification and respondents background:

Name of health institution _____ Date of observation_____

MRN of the client _____

Service intended to be observed:

- HIV testing and counselling (HTC)
- Adherence support

Profession of health care provider: _____

Health care provider is trained on PMTCT (basic plus update training on option B+)

- Yes ☐
- No ☐

Service provision time:

- Start time (local time 00:00:00) _____
- End time (local time 00:00:00) _____

Note for observer: You are expected to complete the table if you observed the session only (tick below after you do so).

S.no	Item	Yes	No	Remark
	Client provider interaction			
	HCT services			
1	Does the HCP invite client into the room and offer chair to			

	sit?			
2	Does the HCP greet patient with respect?			
3	Does the HCP introduce self to client?			
4	Does the HCP call client by name?			
5	Does the HCP discuss the need and benefits of HIV testing?			
6	Does the HCP ensure understanding of the client by asking pertinent questions?			
7	Does the HCP explain the HIV testing procedure?			
8	Does the HCP explain the possible HIV test result?			
9	Does the HCP inform the client when the result will be ready and how and where to receive the result?			
10	Does the HCP explain procedures to safe guard confidentiality and the need for shared confidentiality?			
	Complete below for negative test result only			
1	Has a test result ready before post-test counselling session begins?			
2	Does the HCP close the door or draws the curtains of the room to ensure privacy?			
3	Does the HCP invite client into the room?			
4	Does the HCP offers client a seat?			
5	Does the HCP thank the client for waiting?			
6	Does the HCP inform client that the test result is available?			
7	Does the HCP provide result clearly and simply?			
8	Does the HCP review meaning of the result, including window period?			
9	Does the HCP reinforce the need to consider the test result in reference to most recent risk exposure?			
10	Does the HCP use language that client can understand?			
11	Does the HCP maintain eye contact?			
12	Does the HCP answer client's questions?			
13	Does the HCP reinforce prevention massages (A, B, C) so that patient can stay negative?			

14	Does the HCP remind the client that her result does not indicate partner's HIV status and encourage to test if not?			
	Complete below for positive test result only			
1	Has a test result ready before post-test counselling session begins?			
2	Does the HCP close the door or draws the curtains of the room to ensure privacy?			
3	Does the HCP invite client into the room?			
4	Does the HCP offers client a seat?			
5	Does the HCP thank the client for waiting?			
6	Does the HCP inform client that the test result is available?			
7	Does the HCP inform patient that the test result is positive?			
8	Does the HCP explain the meaning of the result?			
9	Does the HCP answer client's questions?			
10	Does the HCP describe antenatal care resources for HIV infected women?			
11	Does the HCP address disclosure issues?			
12	Does the HCP initiated ARV drugs?			
13	Does the HCP clearly explain the next appointment date and available services at the health facility?			
14	Does HCP record all information related to service?			
	Adherence support sessions			
1	Does the HCP invite client into the room and offer chair to sit?			
2	Does the HCP greet client with respect?			
3	Does the HCP introduce self to client?			
4	Does the HCP call client by name?			
5	Does the HCP review adherence of client to drugs and adherence to clinical care; determine adherence score?			
6	Does the HCP discuss current health status with client including overall health and current problems; the latest laboratory result including CD4?			
7	Does the HCP review with client possible barriers to adherence; stigma, living situation, travel to clinic for refill of			

	medication, side effect, depression etc.?			
8	Does the HCP review possible drug interaction?			
9	Does the HCP refill the client with standard ART regimen with clear explanation including name, dosing food requirement, side effect, drug storage?			
10	Does the HCP documents all examination results and treatments plan including: prescribed drugs with their dose, adherences score etc.?			
11	Does the HCP schedule next appointment, discuss what should prompt and earlier visit?			
12	Does the HCP review understanding of the client including: asking client to describe her ARV regimen, how to get refill, what to do if experiences side effects, when is next appointment, how to take medications, how to remind time?			

Closing: thanks the health care provider as well as the client.

Observer name	Observation date	signature
Checked by/supervisor name	Checked date	signature