

Quality of Prevention of Mother to Child Transmission of HIV Services
in Public Hospitals of Hadiya Zone, Southern Ethiopia

By:

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Abstract

Background: *Prevention of mother-to-child transmission is a term used to describe a comprehensive package of services intended to reduce the risk of mother-to-child transmission of HIV. The vertical virus transmission from mother to child accounts for more than 90% of pediatric Acquired Immunodeficiency Syndrome. Published studies on the quality of PMTCT services' provision in Ethiopia are generally limited. Even fewer studies do examine quality of the services.*

Objective: *To assess the quality of Prevention of Mother-to-Child Transmission of HIV services in public hospitals of Hadiya zone, southern Ethiopia 2017.*

Methods: *Institution based cross-sectional study design using both quantitative and qualitative data collection method was conducted in public hospitals from March 01 to April 10, 2017. A total of 423 pregnant women were consecutively interviewed until the required sample was obtained. Service provision processes were observed for 21 counseling sessions. 9 In-depth interviews were conducted with health care providers, medical director and mothers support group. Additionally, resource inventory was done. Donabedian's Structure-Process-Outcome model was used to assess the quality of PMTCT service at respective study area. The data was entered in to Epi-data and analyzed using SPSS. Bivariate and multivariable logistic regression analyses were computed to see the predictors for satisfaction of clients on PMTCT service. The qualitative data were analyzed manually using thematic analysis method and finally it was presented with quantitative result through triangulation.*

Result: *Most of the minimum required resources such as test kits, ARV drugs and other supplies were available in the hospital. However, inadequate of trained human resource was observed. Moreover, there was repeatedly missing of some important components in the counseling manual during both pre-test and post-test counseling sessions. About 89.8% clients were satisfied with PMTCT services provided at public hospitals. The client satisfaction with PMTCT services was associated with waiting time [AOR =4.648, 95% CI = (2.183, 9.897)], counseling time [AOR =3.748, 95% CI = (1.645, 8.537)] and counseling given by same counselor before and after HIV test [AOR =0.193, 95%CI: (0.090, 0.412)].*

Conclusion and Recommendation: *Although clients' satisfaction by PMTCT service is very high. 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 with national PMTCT guideline, consistent supply of necessary resources to improve quality of PMTCT services.*

Key words: *Quality, PMTCT, Hadiya, Ethiopia*

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Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
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
HPH	Homacho primary hospital
HTC	HIV Testing and Counseling
JUSH	Jimma University Specialized Hospital
IEC/BCC	Information, Education, Communication/Behavioral Change Communication
I-TECH	International Training and Education Center on HIV
IP	Infection prevention
L&D	Labor and Delivery
MNCH	Maternal Newborn Child Health
MTCT	Mother to Child Transmission
NEMMH	Nigist Ellen Mohammed memorial hospital
PLHIV	People Living With HIV
PMTCT	Prevention of Mother to Child Transmission
SPH	Shone primary hospital
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Program on HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Chapter One: Introduction

1.1. Background

Mother-to-Child transmission of human Immunodeficiency Virus is the transmission of human Immunodeficiency Virus from an infected mother to her baby. It can occur during: Pregnancy, Labour and childbirth, Breastfeeding. Mother-to-Child transmission is also referred to as “vertical transmission” or “perinatal transmission”. It is the main cause of HIV infection in children. 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 (1).

From the time when the program introduced, tremendous achievements observed globally particularly in access to service. Accordingly, an estimated 966 000 women, or about two thirds (67%, range 62–73%) of the pregnant women living with HIV in low- and middle-income countries, received at least some effective ARV drugs in 2013 (2).

Despite many women living with HIV and in need of quality PMTCT services (efficacious ART) are missing opportunities to start treatment during pregnancy. And sub-Saharan Africa remains the most heavily affected region in the global HIV epidemic due to low access to quality services. In the region, the epidemic has devastatingly impacted children and has orphaned more than 11.4 million children. Moreover, women in this region were disproportionately impacted by HIV epidemic, accounting for 58% of all people living with HIV in 2011. Similarly in the year in 2011, 92% of pregnant women living with HIV and more than 90% of children who acquired HIV in 2011 live in resided in sub-Saharan Africa (3).

Defining quality in health care is a challenge due to the multiple disciplines and professionals responsible for client care, and the diverse clients with infinite needs to be satisfied. At personal level the term quality describes something that satisfies ones expectation; all health care professions have standards for every practice used to determine quality and performance.

Quality can be assessed from the point of view of users (perceived) quality and the technical standards. Donabedian was one of the persons to reflect upon quality, to operationalize the term and offer a frame of work for its definition based on the three major attributes; structures, process and outcome. Structures refers to the attributes of the setting where health care occurs;” process” denotes what is actually done in giving and receiving care; and “outcome” indicates the effect of care on the health status of patients and population (6).

Recognizing existing challenges, in 2013, the Government of Ethiopia developed a MTCT Elimination Plan (eMTCT) 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 utilization. The goal is 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%. One of Key EMTCT strategies is improving the quality of integrated MNCH/PMTCT services at all levels (8).

In Ethiopia, The proportion of pregnant women counseled and tested for the prevention of mother to child transmission (PMTCT) of HIV out of the eligible increased from 92.6% in 2015 to 95.0% in 2016. The percentage of HIV-positive pregnant women who received efficacious Antiretroviral (ARV) therapy to prevent Maternal to Child Transmission (MTCT) of HIV was estimated at 62.1% in 2016 (9).

Fewer studies do on quality of the services recommended that offering quality counseling 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 (24).

1.2. Statement of the Problem

In 2015, globally there were an estimated 36.7 million people living with HIV and 2.1 million people became newly infected with HIV, down from 2.2 million in 2010 and 1.1 million people died from AIDS-related causes compared to 2 million in 2005, As of December 2015, 17 million people living with HIV were accessing antiretroviral therapy, up from 15.8 million in June 2015

and 7.5 million in 2010. There were 1.8 million children living with HIV, 110,000 AIDS-related deaths, and 150,000 new infections among children in 2015 but just 49% had access to the life-saving medicines. It means that half the children in need of treatment do not have access (11).

There are an estimated 69 million pregnancies in Asia Pacific region. In the year 2009, only 17% and 32% of pregnant women in the region received HIV test and ARV prophylaxis respectively. Similarly, only 32% of HIV exposed infants in the region received any ARV prophylaxis for prevention of parents to child transmission of HIV. While high levels of coverage have been achieved in Thailand and Malaysia, antenatal HIV testing and PMTCT and infant ARV prophylaxis coverage remains below 50% for many other countries in the region (10).

In developing nations particularly Sub-Saharan Africa (SSA) countries where the vast majority of HIV-infected women of childbearing age live, MTCT rates remain high. Such high rates persist mostly because of the lack of access to existing prevention interventions, including HIV voluntary counseling and testing, replacement feeding, selective caesarian section and antiretroviral drugs. MTCT of HIV remains as one of the biggest concern needs to be dealt with in taking effective preventive measures and maximizing treatment, care and support for needy HIV positive pregnant mothers in order to save the life of large numbers of innocent children in our developing country (12).

Vertical virus transmission from mother-to-child accounts for more than 90% of pediatric AIDS. Due to poor quality PMTCT services, it is estimated that over 90% of childhood HIV infections result from the transmission of the virus from mothers to their children during and soon after birth (7).

In 2013 there were an estimated 793,700 people living with HIV including 200,300 children in Ethiopia. There were approximately 45,200 AIDS related deaths in 2013 and about 898,400 AIDS orphans in the same year. HIV adult prevalence is estimated at 1.5% in 2011. However prevalence varies according to age, sex, gender and geographical location (8). There is PMTCT service variation across regions which also need to be looked into to identify existing bottlenecks and strengthen those that are lagging behind (16).

The quality of services has largely received little attention in many African countries. Importance of health care on lives of people makes quality critical regardless of where services are provided in the hospital, or community. Yet, improving quality of health services is vital to improving the abysmal level of health (5).

A study done on clients' satisfaction with prevention of mother-to-child transmission of HIV services in Tanzania recommended to assess the quality of Counselling services provided as indicated in the national PMTCT guideline (25).

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

Therefore, the purpose of this study is to assess the quality of PMTCT services in public hospitals of hadiya zone.

1.3. Significance of the Study

This study aimed to identify quality gaps in the provision of PMTCT in public hospitals, the finding will help health sector managers for strengthening the capacity and credibility of quality PMTCT services.

The result of this study is also a pointer to clinicians, public health practitioners, and policy makers not to evaluate success of PMTCT on the basis of its coverage alone but on what was offered in the PMTCT services.

It will give important information that could be used in informing intervention design and implementation of projects that seek to improve both maternal and child health in the area. Furthermore, the study will give clue for planning quality in the health facilities as far as it is the current focus and commitment of Ethiopian government.

For Researchers this work can also serve as a base line to do further research in the study area in particular and other similar settings to improve quality of PMTCT services.

Chapter Two: Literature Review

2.1. Quality of PMTCT services

Quality services improve health outcomes by providing clients with respectful and technically sound services, delivered according to standards that are known to maximize their health impact.

The Institute of Medicine, Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired outcomes and are consistent with current professional knowledge (4).

There are different approaches for measurement of quality of care like Judith Bruice Frame work that has six components for quality measurement such as; appropriate constellation of the service, choice, information, provider competence, client-provider interaction and continuity. However, this approach emphasizes more on process and gives less emphasis to structure & outcome. Therefore, this study will use the Donabedian quality frame work.

Recent trends in addressing quality of care have taken a system view of the production of quality services, acknowledging that: 1) health care delivery occurs as part of an interaction between a health care provider and the client and community; 2) provider performance is affected and motivated by a wide range of factors in the provider's immediate environment; and 3) the health system is responsible for providing inputs and processes that service providers need to deliver quality services, including infrastructure, supplies, supervision, and management(17)

2.2. Structural dimension of PMTCT service quality

The minimum requirement to initiate and sustain integrated PMTCT service delivery at health facility level includes human resource, infrastructures, logistics and supplies (like test kits, drugs, IP supplies, HMIS, job aids) and support system (7).

Study conducted in North Gondar revealed that: most of the facilities, except one health center, claimed that they had PMTCT services and none of the health centers visited had laboratory services for testing syphilis. Moreover, many health centers did not have laboratory tests for hemoglobin, urine for proteinuria, and cross match (19).

An exploratory qualitative study conducted on the factors affecting the effectiveness of PMTCT services among ANC attendees in two facilities of Arba Minch town found out that lack of appropriate follow up mechanisms, inadequate access to ARV drugs and poorly equipped human resources also contribute to low utilization of PMTCT services. In this study among 74 women diagnosed with HIV in the 3 months prior to this study, only 5 (7%) returned to the facilities to deliver their babies revealing that low PMTCT uptake during pregnancy (36).

A study conducted on quality of PMTCT services in Gebretsadiq Shawo Memorial Hospital, Kafa Zone showed that almost all of the minimum required resources were available in the hospital, but there was no separate counseling room for PMTCT services provision in the hospital. The other one was Labour and deliveries as well as the laboratory units were observed to be functional and available for PMTCT services delivery. Nevirapine in both its tablet and syrup forms was available neither in ANC nor in delivery room. All of the laboratory supplies that are required for the service provision were available. Similarly, all the basic obstetric care supplies, that is, delivery couches, delivery sets and Oxytocin were available in the hospital. Among the supplies that are required for infection prevention (20).

A study done in Tanzania showed that there is limitations in structural inputs, such as infrastructure, supplies, and staffing, constrain the potential for integration of HIV testing and counseling into routine antenatal care services. Unreliable stocks of HIV test kits, essential medicines, and infection prevention equipment also had implications for provider-patient relationships, with reported decreases in women's care seeking at health centers. In addition, low staffing levels were reported to increase workloads and lower motivation for health workers (18).

A study conducted in South Africa showed that missed opportunity of HIV testing at ANC unit due to shortage of test kits and insufficient staff assigned to HIV services. A similar study conducted to assess the barriers and facilitating factors for PMTCT service uptake particularly ARV drugs in sub-Saharan Africa identified shortage of trained human power as barrier to service uptake (40, 41).

2.3. Process dimension of quality of PMTCT service

Process of care: Process denotes what is actually done in giving and receiving care. It includes the patient's activities in seeking care and carrying it out as well as the practitioner's activities in making a diagnosis and recommending or implementing treatment (4).

A study conducted in Benin revealed that there is highly significant association between waiting time and clients overall satisfaction with PMTCT counseling service ($p = 0.000$). ANC clients who waited for longer than two hours for the PMTCT service (68.1%) were more likely to be dissatisfied with PMTCT counseling, overall compared with those who waited for 120 minutes or less for the service (38.7%) (21).

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 counselors have received PMTCT training (14).

A study conducted in Ghana indicated that most of the women disclosed they waited too long at the health facility before being attended to so they left without taking the test. Other respondents explained there were queues for HTC and that discouraged them from taking the test and kept postponing, that some participants from one of the health facilities complained the testing is done in an open with no privacy. They explained the way and manner the test is done, and the results disclosed is what is deterring them from taking the test. A pregnant woman from that facility disclosed there is the likelihood of another patient getting to know your status due to the way and manner the process is handled (22).

According to study done in Addis Ababa revealed that time spent on waiting and discussion with ANC/PMTCT counselor was assessed among pregnant women, and the average waiting time spent was more than half an hour. More than half of the respondents (53.8% in the health centers and 41% in the hospitals) spent between 10 to 30 minutes before seeing the counselor. The average waiting time for health centers was 37 minutes compared to 47 minutes at hospitals. The average time spent with the counselors was about 12 minutes for the entire respondents (23).

A cross sectional study conducted in Adama town showed that the mean waiting time for clients to get to the counseling service was 24.5 minutes and the range is calculated to be 359 minutes.

When the waiting time was stratified by type of health institution, the waiting time was 21.5 minutes and 41.5 minutes in governmental and in private health institutions respectively. The average duration of stay of clients with their health care provider in the clinics was 12.8 minutes (24). Almost all clients (96%) waited for services for longer than 90 minutes (< 90 minutes is regarded as the acceptable waiting time) (43).

A study done among pregnant women attending antenatal clinics in Addis Ababa, Ethiopia, revealed that, among the pregnant women visited the health facility for ANC check-up (94%) ,only 18% and 9% of them attended the facility for HIV counseling and testing (HCT) and receiving antiretroviral prophylaxis, respectively. The study showed that 90% knew that a mother with HIV can pass the virus to her child and MTCT through breast milk was commonly cited by most women (72.4%) than transmission during pregnancy (49.7%) or delivery (49.5%). About 80% of the respondents reported adequacy of privacy and confidentiality during counseling, but 16% wished to have a different counselor (23).

2.3.1. 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 counseling (HTC) (35).

A cross sectional study conducted on acceptability of HIV testing and counseling by Antenatal Clients of a Tertiary Institution in Northern Nigeria identified that routine HIV testing and counseling was more acceptable than voluntary counseling 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 (29).

A study done in Kenya showed that vertical transmission rate was lower among women with partner attendance compared to those without (Adjusted hazard ratio [aHR] = 0.56, 95% CI 0.33–0.98; $P=0.042$) (45).

A study conducted on Determinants of male involvement in maternal and child health services in sub-Saharan Africa identified that Socio-demographic factors such as level of education, income status; health services related factors such as opening hours of services, behavior of health

providers and the lack of space to accommodate male partners; and Sociologic factors such as beliefs, attitudes and communication between men and women this are the three main determinants of male participation in PMTCT services(47).

2.3.2. 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 (37).

2.3.3. 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(38).

Good practices for HIV-positive pregnant women include: (i) limited vaginal examination and (ii) 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 (35).

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 (7).

2.3.5. 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 (39).

Standing referral and feedback arrangements should be put in place that: encourage counseling, 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(7).

2.4. Factors affecting client satisfaction

A study conducted in Nigeria showed that overall 97 ANC clients (39.3%) were satisfied with PMTCT counseling services as a whole while 150 ANC clients (60.7%) were dissatisfied with services (21).

A study conducted in Tanzania showed that 28 (24.8%) were dissatisfied with the counseling they received on PMTCT of HIV. A total of 32 (28.2%) of clients accessed PMTCT services were not satisfied with the waiting time spent at the facilities. On the other hand the results showed that there is a statistical difference between type of facility and satisfaction with waiting time. Clients who accessed the service at a health center were more satisfied with the waiting time than those who accessed the service at hospital level (25).

A cross sectional 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 who liked the discussion they had with their counselor were less likely to be satisfied with the PMTCT service they received, and clients who not saw the same ANC counselor before and after HIV test were less likely to be satisfied with the PMTCT service (24).

A cross sectional study conducted to assess pregnant women's satisfaction and comprehension level of information given during HIV counseling and testing for PMTCT in public health facilities in Addis Ababa of the 422 women interviewed, With regard to duration of counseling, clients counseled for more than 15 minutes were about 11 times more likely to be satisfied with

the counseling service than those counseled for less than 5 minutes [AOR = 11.06, 95% CI: (3.331, 36.737)] (27).

A cross-sectional study done in Zimbabwe revealed that eighty nine percent (89%) of the respondents were satisfied with PMTCT services received on the assessment day. Perceived long waiting periods before receiving services was associated with client dissatisfaction (AOR=0.36, p=0.008) (50).

2.5. Conceptual Framework

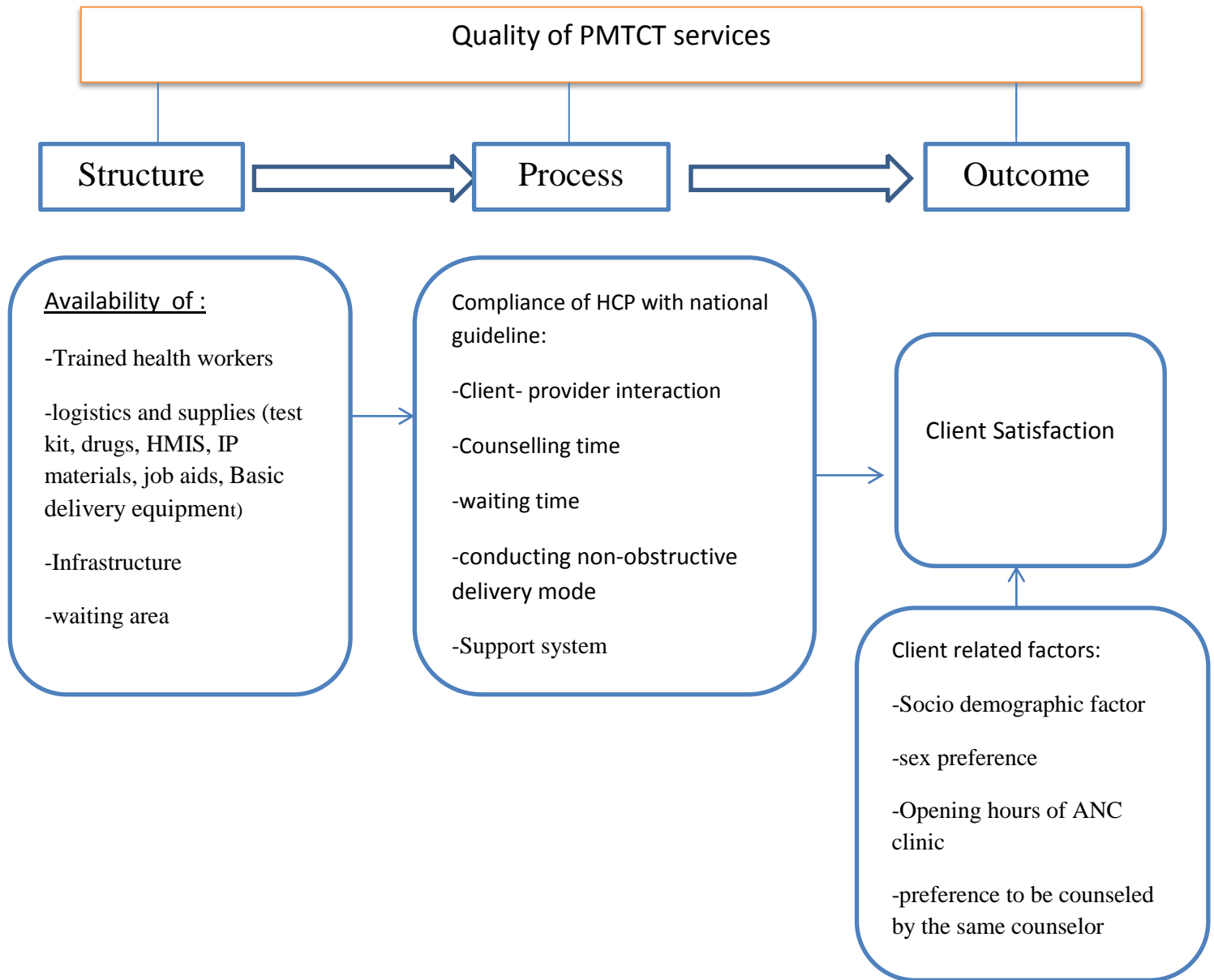


Figure 1: Conceptual frame work of quality of PMTCT services (Adapted from Donabedian's health care quality model) (4).

Chapter Three: Objective

3.1. General objective

To assess the quality of Prevention of Mother-to-Child Transmission of HIV services in public hospitals of Hadiya zone, Southern Ethiopia, 2017

3.2. Specific objectives

- To assess the availability of resource for provision of PMTCT service
- To assess compliance of health care provider with national PMTCT guideline during provider client interaction in PMTCT service
- To determine level of client satisfaction with PMTCT service
- To identify factors affecting client satisfaction with PMTCT service

Chapter Four: Methods and Materials

4.1. Study Area and Period

The study was conducted from March 01 to April 10, 2017 at public hospitals of Hadiya zone, southern Ethiopia. Hadiya zone is one of zones in SNNP regional state which is located at 194 Km south of the capital of southern regional state, Hawassa; and 230 km southwest of the capital city of Ethiopia, Addis Ababa. According to the data obtained from the zonal health department, 2016/2017 projected population of the zone was around 1,573,841. From the total population 54,455 estimated to be pregnant. There are 1 general hospital, 2 primary hospital, 61 health centers, and 305 health posts with 2 health extension workers in each Kebeles (small administrative unit). It is bordered by Gurage Zone in the North, Kembata & Alaba Zone in the South, Silte Zone in the East and Yem Special Woreda & Omo River in the west. It has two town administration and currently there are 10 woredas covers an estimated area of 3542.66 sq km and divided into 303 rural peasant associations and 26 subcity (31).

4.2. Study Design

Institution based cross-sectional study design employing both quantitative and qualitative methods was used

4.3. Source and Study population

4.3.1. Source population

All pregnant women who were attended public hospitals for antenatal care in Hadiya zone

4.3.2. Study population

All sampled pregnant women who visited ANC clinic of the selected hospitals to receive ANC services during the study period and Purposively selected key informants (Health care provider, Mother support group, Medical directors) from public hospitals of hadiya zone

4.4. Inclusion and exclusion criteria

Inclusion criteria

- All pregnant women who were attended ANC clinic and who got HCT services during data collection

Exclusion criteria

- Pregnant women who were unable to respond due to illness

- Pregnant women who visited hospitals for the second time during data collection period given that previously participated in the study

4.5. Sample size determination and sampling technique

4.5.1 Sample size determination

The sample size for client 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 no pre-existing estimate, assumed 50% of client satisfied, p=50% is 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

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

Where, n= sample size, $Z_{\alpha/2}$ = Critical value=1.96, P= clients satisfaction by PMTCT service (50%), d= precision (margin of error) =0.05, Then

$$n = \frac{(1.96)^2 0.5(0.5)}{(0.05)^2} = 384$$

Considering 10% of non-response rate the final sample size was n=423

4.5.2. Sampling technique/procedure

Sampling Procedure for Client Satisfaction:

All public hospitals in Hadiya zone providing PMTCT services were included in the study. Sample size allocation to each hospital was proportional to the number of clients, considering average number of ANC attendants at each hospital over three-months prior to the study period. The selection of pregnant women for the interview was taken consecutively until the sample size required for each facility was obtained

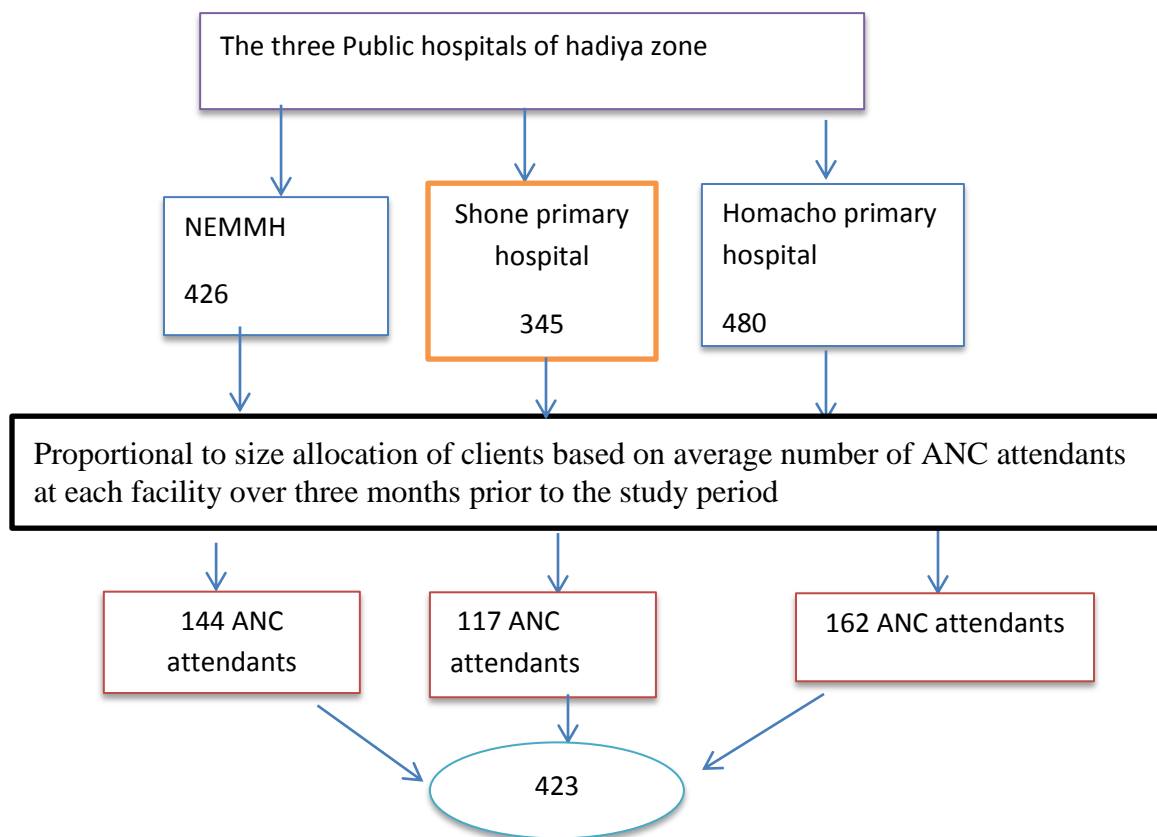


Figure 2: schematic presentation of sampling procedure for the selection of ANC service users among three public hospitals of Hadiya zone, southern Ethiopia 2017.

Sampling Procedure for an Observation:

Observation: Observations of HIV testing and counseling and adherence support sessions were conducted with the purpose of assessing the compliance of health care providers to national PMTCT guideline. Observation sample size was determined based on UNAIDS tool for HIV testing and counseling recommendation. Not more than three to five sessions need to be observed at each counseling site. when only one or two counselors exist, three to five counseling sessions could be selected at random (28). So five per health care providers were taken for HIV testing and counseling, totally 15 observation sessions for HIV testing and counseling were conducted. While three per health care providers were taken adherence supports, totally 6 observation sessions for adherence support were conducted.

Regarding adherence support counseling services, only two health care providers from two hospitals but in Homacho primary hospitals there were no clients for adherence support during data collection period.

Record Review: One month records of ANC, PMTCT and delivery registers were reviewed.

In-depth interviews: A total of 9 key informants were interviewed.

In-depth interview with managers

The purpose of conducting in-depth interview was to gain in-depth information regarding service management and barriers to service implementation and solution. All medical directors of the hospitals were involved in the study.

In-depth interviews with health care providers

The study participants for in-depth interview were selected by purposive sampling technique.

The criteria used for selection of study participants were being:

- ✓ Health care providers assigned and working in ANC/PMTCT clinic.
- ✓ Working experience at least for six months. One health care provider from each hospital was participated in in-depth interviews, with the total of 3 health care providers.

In-depth interviews with mothers support group

In this study 4 mothers support group were participated. They were selected from Nigist Ellen Mohammed memorial hospital and the purpose was to get detail information about the experience of PMTCT services.

In addition, resource inventory was done to assess the presence of the minimum required resources, including human resource, infrastructure, logistics and supplies.

The resource inventory checklist contains:- health workers, logistics and supplies, presence of waiting area, monthly summary reporting format, ANC-PMTCT enrolment register, Labour and delivery register, ANC-PMTCT appointment card, gloves, aprons, autoclave , goggles , sharp boxes, PMTCT guideline, PMTCT performance standard, client education materials like

brochures and leaflets, PMTCT cue card, and Information, Education, Communication/ Behavioral Change Communication (IEC/BCC) materials.

4.6. Variables

Dependent variable

- Client satisfaction

Independent variables

- The socio demographic variables: residence, age, religion, ethnicity, marital status, educational status, occupation
- time spent with care provider (counseling time)
- Waiting time after arrived
- Travel time(in minutes)
- Opening hour of ANC Clinic
- Sex preference
- Preference to be counseled by the same counselor before and after test

4.7. Operational definition

Quality of the services; Quality is a multidimensional concept, but in this study PMTCT service is considered to be quality service if the health care provider comply with national PMTCT guideline and availability of resource per national standard for PMTCT service provision and client satisfied with the process of care given.

Client Satisfaction: In this context it refers to self-perception of clients on the availability of services and resources, quality of service received on client provider interaction and accommodation of service delivery set-up. Client satisfaction was measured using the questionnaire with a 15-item scale. This instrument has 5-point likert scale in which 5 denotes very satisfied and 1 denotes very dissatisfied. The mean score of satisfaction for each client was calculated as the average of satisfaction items. A mean score of 3 or less were taken as an

indicator of client's perceived dissatisfaction. Score 3 (neutral) was considered as dissatisfied because clients may be afraid to state their dissatisfaction of the services they were receiving (49).

Waiting time: is the time clients had to wait before receiving their services.

Structure: Refers the conditions under which care is provided. In this context availability of resources (human resource, infrastructure, logistics and supplies, drugs) for implementation of PMTCT services.

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 services.

Compliance: adherence to some predetermined standards or guideline. In this context it refers to the compliance of health care providers to national PMTCT implementation guideline while testing and counseling; diagnosis, treatment and recording.

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

Availability: program resource for the implementation of the program according to the national guideline such as infrastructure, logistics and supplies and human resource (presence and training) are available if they were functional and present during data collection period.

Drug availability: Essential drugs are said to be available in the hospitals if the drug was available when needed in past 30 consecutive days that means during data collection period (34).

Resources: in this context it refers to trained health worker, infrastructure, logistics and supplies (test kits, drugs, IP supplies, FP supplies, HMIS, job aids).

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

4.8. Data Collection Procedures

4.8.1. Data collection instrument

Questionnaire for exit interview was adapted from literatures and validated UNAIDS tool (20, 24, 28). The list of resources was adopted from the national guideline of PMTCT. While the tool was developed by referring FHI (family health international) Baseline assessment tool for prevention of mother to child transmission of HIV (33).

An observation tool checklist, semi-structured in-depth interview guide, resource inventory tool, document review template were developed by referring the national PMTCT guideline of Ethiopia (7).

4.8.2. Data collection technique

All pregnant women attending the ANC clinic were invited to participate. All of the data collectors were started data collection on the same day from the 1st ANC attending mothers and continue until the sample size required for each hospital was obtained. Face-to-face exit interviewer administered questionnaires were employed to collect the data from ANC attending mothers. For satisfactory survey 6 diploma nurses were participated and for direct observation two trained HOs were recruited. All of the data collectors were selected from outside of study area in order to minimize interviewer bias. Furthermore 2 supervisors (BSC nurses) were selected and assigned for each hospital. They were participated only on satisfaction survey and observation. While an in-depth interview and resource inventory were conducted by investigator. Each in-depth interview was tape-recorded and transcribed on the same day of the interview sessions.

4.9. Data quality assurance

Data quality assurance was maintained by performing different measures. To ensure the quality of data one day training for data collectors and supervisors was given on procedure during data collection, overviews regarding quality of PMTCT services, on each part of the tool and ethical consideration. Supervisor/principal investigator checked the collected data on daily basis in order to maintain its accuracy and completeness. The English version of the questionnaire was translated into Hadiyisa version and Amharic version for better understanding by the data

collectors and respondents. The questionnaires were then back translated to English to check for its consistency. Data collection tools were pretested at Hosanna health center using 5% of the total sample size to identify any weakness in the structuring of the research instruments. Following the pre-test, the tools were improved in terms of their clarity, understandability and simplicity in collecting the data required for the study.

To assure the reliability of the instrument cronbach's alpha coefficient was calculated and it was 0.9.

Credibility of qualitative study was enhanced by prolonged contact between investigator and study subjects (by avoiding premature closing).

4.10. Data Processing and Analysis

Quantitative data were checked for its completeness, edited, cleaned, coded and entered into Epi data version 3.1 and exported to IBM SPSS version 21 for analysis. Descriptive statistics were computed and results were presented by tables, graphs. Bivariate analysis was used to identify factors associated with satisfaction. Variables with p-value <0.25 in bivariate analysis were considered as candidates for multiple logistic regressions. Multiple logistic regressions were performed using back ward stepwise method to identify factors independently associated with dependent variable.

Multivariable logistic regression analysis was used to adjust the effects of potential confounding variables. Strength of association was measured using odds ratio, and 95% confidence intervals. P-value < 0.05 was considered statistically significant. Multi-collinearity among the independent variables and goodness of fit of model were checked. Hosmer-Lemeshow goodness-of-fit statistic was used and the model had p-value >0.05 which prove the model is good.

The qualitative data were analyzed manually using thematic analysis method and finally it was presented with quantitative result through triangulation.

4.11. Ethical consideration

Ethical clearance letter was initially obtained from ethical review committee of Jimma University, institute of health science. Permission paper was obtained from Administration of Hadiya zone health department. Similarly after clear discussion about the actual study or explaining of purpose of the study, verbal informed consent was obtained from each study

participants while the study subjects right to refuse was respected. Identification of study participants by name was avoided to assure the confidentiality of the information obtained.

4.12. Dissemination plan

The results of this study will be presented to Jimma University, Institute of health science, and department of health economics, management and policy. Study result will be given to SNNPR Health Bureau. It will also be communicated to Hadiya zone administration, Hadiya zone health department. Finally, attempts will be made to present the results on scientific conferences and to publish on peer reviewed scientific journal.

Chapter Five: Result

5.1. Socio-Demographic Characteristics of the Respondents

A total of 423 clients responded to the questionnaire making a response rate of 100%, of which 117(34%) were from Shone Primary Hospital, 144(27.7%) were from Nigist Ellen Mohammed memorial hospital, 162(38.3%) were from Homacho Primary Hospital. The age of respondents ranges from 16 to 43 with a mean (\pm SD) age of 27.24(\pm 5.67) years. Most of (97.6%) of respondents were married and most of them were literate with only 18.7% being unable to read and write. More than half (67.6%) of the respondents were protestant followed by Orthodox Christians 20.6% and others 11.8%. Hadiya was the major ethnic group which accounted for 75.4% of the respondents, followed by Amhara 10.2% and Gurage 9.5%. Majority 75.4 %, of the respondents were urban dwellers (Table 1).

Table 1:-Socio-demographic characteristics of respondents, quality of PMTCT services in public hospitals of hadiya zone, south Ethiopia, 2017.

Variables	Characteristics	Frequency	Percent
Age	15-24	131	31
	25-34	236	55.8
	35-49	56	13.2
Marital status	Currently Married	413	97.6
	Not married	10	2.4
Level education	Unable to read and write	79	18.7
	Primary school	190	44.9
	Secondary school and above	154	36.4
Ethnicity	Hadiya	319	75.4
	Gurage	40	9.5
	Wolayita	10	2.4
	Amhara	43	10.2
	Others*	11	2.6
Religion	Protestant	286	67.6
	Orthodox	87	20.6
	Muslim	32	7.6
	Others**	14	3.3
Occupational status	Housewife	219	51.8
	Government Employee	67	15.8
	Student	43	10.2

	Merchant	79	18.7
	Others***	15	3.5
Place of residence	Urban	319	75.4
	Rural	104	24.6

a) others*: silte, kembata

b) others**: catholic, Adventist seventh day

c) others ***: daily labourer, farmers

5.2. Clients' Related factors

Most of the respondents 79.7%, knew about the presence of PMTCT service before they came to the hospitals for ANC service. The commonest sources of information were health workers which accounted for 55.3% of them, followed by health extension workers 15.4%. Majority 75.4%, of the clients got the service in less than 30minutes time with a range of 3 to 60 minutes. The duration of the Counselling sessions ranged from 5 to 35 minutes with mean duration of 17.37 minutes.

More than three fourth of respondents, 79.9% counseled by the same counselor in pretest and posttest counseling sessions and during the counseling sessions no language barrier which was reported by 87.9% of the respondents, concerning clients' reasons for coming to ANC service delivery sites, ANC follow-up was mentioned as a primary reason by 57.7% of respondents. Clients' perception about the benefit of the counseling sessions was positive where 97.6% believed that the counseling was beneficial and 93.9% said that they would recommend the service to other pregnant mothers (Table 2).

Table 2:-Waiting time, duration, information source and perceived benefit of counseling session; quality of PMTCT services in public hospitals of hadiya zone south Ethiopia, 2017.

Variables	Characteristics	Frequency	Percent
awareness about the presence of PMTCT before she came	Yes	337	79.7
	No	86	20.3
Source of information of PMTCT	Health workers	234	55.3
	Mass media	19	4.5
	Friends	5	1.2
	Health extension workers	65	15.4
	Others	13	3.1
Pretest and posttest counseling was given by the same counselor	Yes	338	79.9
	No	85	42.3
There was no language barrier	Yes	372	87.9
	No	51	12.1
The counseling session was beneficial	Yes	413	97.6
	No	10	2.4
Sex preference	Yes	113	26.7
	No	310	73.3
Waiting time to see a service provider	< 30 minutes	319	75.4
	>=30 minutes	104	24.6
Counseling time	< =15 minutes	221	52.2
	>15 minutes	202	47.8
Reason for coming to the ANC center	For antenatal care only	244	57.7
	For antenatal care and to test for HIV	179	42.3
Would recommend the service to others	Yes	397	93.9
	No	26	6.1
Are the opening hours of this clinic convenient for you?	Yes	376	88.9
	No	47	11.1
How long did it take for you to arrive at this clinic	< 30 minutes	264	62.4
	30 min-1 hour	124	29.3
	>1 hour	35	8.3

5.3. Resource availability (structural quality)

In public hospitals of Hadiya zone PMTCT services were provided in integration with other MNCH services. In those hospitals there were separate counseling rooms for ANC/PMTCT service provision. As a result counseling rooms ensure auditory and visual privacy. The laboratory as well as Labour and delivery units were observed to be available and functional for PMTCT services delivery. There were also functional running water and electricity supplies and secured pharmaceutical storage. Most of the laboratory supplies that are required for the service provision were available. The waiting areas were observed to be available.

Laboratory equipment's like dry blood sample (DBS) kits, acid fast bacilli (AFB) smear, and hemoglobin test, syphilis test, and HCG for pregnancy test were available and functional.

Among components of PMTCT services provided for pregnant mothers and laboring mothers; ARV drug initiation is the major one. Concerning to drugs availability in all public hospitals Cotrimoxazole syrup and tablets, FeSo₄ tablets, Vitamin A , STI drugs, Nevarapine in both its tablet and syrup forms and first line drugs for option B+ services at least Tenofovir-lamivudine-Efavirenz (TDF+3TC+EFV) were available. Cumulatively there is no period in which these drugs were stock out from the respective hospitals since 2016 as reported by health care providers and medical directors.

Similarly, all the basic obstetric care supplies, such as, delivery couches, delivery sets and Oxytocin were available in the hospital. Except goggles, all infection prevention materials including gloves, aprons and autoclave were available. Availability of drugs was indicated by participant responses. Participants of the key informant interview also agree with the findings of the quantitative data.

Participant from member of mother support group responded that:

"...from my experience this hospital is ready to save life of child from HIV because there is no problem of ARV drugs and OI drugs since 2016."

A female nurse assigned to ANC clinic of one of the hospital said that

“...if the hospital have test kit and other supplies according to national guideline, the outcome of the service will become very good and contribute to get HIV free generation.”

Recording and reporting is one of the activities while implementing the program. All recording and reporting formats related to PMTCT services were available in all public hospitals including; monthly summary reporting format, counseling registration book, ANC-PMTCT enrolment register, Labour and delivery register, Lab referral slips and ANC-PMTCT appointment card. However, in shone primary hospital the following job aids and Information, Education, Communication/Behavioral Change Communication (IEC/BCC) materials, PMTCT performance standard, client education materials like brochures and leaflets, PMTCT cue card were not available. Moreover, none of the hospitals have PMTCT guideline.

Regarding human resource in public hospitals there are a total of 71 General practitioner, 17 health officer, 231 nurses (all types), 52 midwife, 7 laboratory technologist, 37 laboratory technicians, 14 pharmacist, 27 pharmacy technician and 3 PMTCT data clerk. Pertaining to training and preparation of health care providers a total of 1 General practitioner, 1 health officer, 8 nurses of all types, 8 midwives were trained on PMTCT option B+ (Table 3).

Table 3:-Total human resources working on PMTCT services and their training status in public hospitals of hadiya zone, south Ethiopia 2017.

Human resource	Total available			Total trained on the PMTCT service (plus option B+)		
	SPH	NEMMH	HPH	SPH	NEMMH	HPH
General practitioners	10	54	7	0	1	0
Health officer	8	4	5	1	0	0
Nurses (all types)*	40	163	28	1	4	3
Midwife	14	27	11	1	4	3
Laboratory technologist	3	3	1	0	0	0
Laboratory technician	8	24	5	0	0	0
Pharmacist	3	10	1	0	0	0
Pharmacy technologist	9	12	6	0	0	0

PMTCT data clerk	1	2	0	0	0	0
Mother support group	0	4	0	0	0	0
Total	96	303	64	3	8	6

Note: * all types indicate diploma nurse and BSC nurse

On daily basis at ANC/PMTCT clinic 6 nurses/midwives; 2 for each public hospitals were assigned to provide PMTCT services in integration with MNCH services and additionally one general practitioner for NEMM hospital. In addition in NEMM hospital there are 4 mother support group members, assigned to provide psychosocial support to HIV positive women in order to access medical care for themselves and their families.

According to the in-depth interview result, there is inadequate trained human resource resulting in interruption of services and deterioration of service quality particularly in shone primary hospitals. Most of key informants indicated that shortage of trained human resources due to staff turnover.

One of female midwife from ANC room of one of the hospital told that

“...there is shortage of trained health care provider in which in case when those health care providers were unavailable, the service will be interrupted.”

Medical director from one of the hospital emphasized that:

“...one of the challenges of the program is shortage of trained health care providers due to staff turnover by different reason like educational.”

5.4. Compliance of health care providers to national guideline (process quality)

5.4.1. Direct observation of HCT and adherence support sessions

In HCT sessions a total of 6 health care providers were participated. From whom 4 of them were trained both on basic and option B+ update training. One BSc nurses, three diploma mid- wife and two diploma clinical nurses were participated in the observation. All of them have been in the ANC/PMTCT unit since 2016.

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 53.3% of them didn't introduce themselves to client. It was observed that the counselor discussed the need and benefits of HIV testing in 9(60%) of the 15 sessions and ensured understanding of the client by asking pertinent questions in 7(46.7%) of the 15 Sessions; and explained the HIV testing procedure in 6(40%) sessions. This is finding is supported with qualitative data

Key informant assigned to ANC clinic of one the hospitals said that

“...Since there is high flow of client sometimes we miss pretest session and we mainly focus on testing procedures and post-test counseling.”

As part of post- test Counselling reinforce prevention messages (A, B, C) addressed in 12(80%) sessions, and remind the client that her result does not indicate partner's HIV status and encourage to test if not 15(100%) 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 of some important components in the Counselling manual during both pre-test and post-test Counselling sessions (Table 4).

Table 4:-Direct observation of HCT sessions in public hospitals of hadiya zone, south Ethiopia 2017

Observation items	Yes		No	
	No	%	No	%
invite client into the room and offer chair to sit	15	100%	0	0
greet patient with respect	15	100%	0	0
introduce self to client	7	46.7%	8	53.3%
call client by name	12	80%	3	20%
discuss the need and benefits of HIV testing	9	60%	6	40%
ensure understanding of the client by asking pertinent questions	7	46.7%	8	53.3%
explain the HIV testing procedure	6	40%	9	60%
explain the possible HIV test result	8	53.3%	7	46.7%
inform the client when the result will be ready and how and where to receive	7	46.7%	8	53.3%
Complete below for negative test result only				

test result ready before post-test counseling session begins	15	100%	0	0
close the door or draws the curtains of the room to ensure privacy	9	60%	6	40%
invite client into the room	10	66.7%	5	33.3%
offers client a seat	11	73.3%	4	26.7%
thank the client for waiting	9	60%	6	40%
inform client that the test result is available	10	66.7%	5	33.3%
provide result clearly and simply	9	60%	6	40%
review meaning of the result, including window period	15	100%	0	0
reinforce the need to consider the test result in reference to most recent risk exposure	7	46.7%	8	53.3%
use language that client can understand	15	100%	0	0.
maintain eye contact	10	66.7%	5	33.3%
answer client's questions	8	53.3%	7	46.7%
reinforce prevention messages (A, B, C) so that patient can stay negative	12	80%	3	20%
remind the client that her result does not indicate partner's HIV status	15	100%	0	0

Two 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 counseling sessions revealed that in all of the sessions the health care providers show respect for clients and call client by name. Counselors reviewed possible drug interaction in 2(33.3%) sessions. They discussed current health status with client including overall health and current problems; the latest laboratory result including CD4 in 4(66.7%) sessions (Table 5). This finding is supported by qualitative data.

Key informant from member of mother support group said that:

“...During adherence support sessions greeting the client with respect initiates client to correctly adhere to treatment and has positive impact on quality of the services, so respecting the clients are necessary.”

Table 5:-Direct observation result of adherence support session in government hospitals of hadiya zone, south Ethiopia 2017

Observations items	Yes		No	
	No	%	No	%
Invite client into the room and offer chair to sit	6	100%	0	0.0%
Greet client with respect	6	100%	0	0
Introduce self to client	4	66.7%	2	33.3%
Call client by name	6	100%	0	0
Discuss current health status with client including overall health and current problems; the latest laboratory result including CD4	4	66.7%	2	33.3%
Review with client possible barriers to adherence; stigma, living situation	3	50%	3	50%
Refill the client with standard ART regimen with clear explanation	4	66.7%	2	33.3%
Review possible drug interaction	2	33.3%	4	66.7%
Schedule next, discuss what should prompt and earlier visit	6	100%	0	0.
Review understanding of the client including: asking client to describe her ARV regimen	6	100%	0	0

5.4.2. Record review

One month records of PMTCT, ANC and delivery registers were reviewed. The review showed that a total of 412 had at least first ANC visit at public hospitals. Out of these mothers, 370(89.8) were offered pre-test information and 366(88.8) got HIV test. All of the mothers who were tested were also post-test counseled, regardless of their serostatus according to national guideline.

Partner testing and counseling is the other services provided to partners of pregnant mothers as part of PMTCT service. From the total of 412 pregnant mothers who visited ANC clinic of

public hospitals, only 56(13.6%) partners got tested for HIV as part of PMTCT. Pertaining to partner test result, of those who have received testing services, all of them tested negative. This finding is supported by the qualitative data result. Most of participants from key informant about partner testing indicated that they are unwilling.

Majority of key informant said:

“...Partner testing and counseling services are provided intermittently due to unavailability of the test kits and the other reason for low utilization of partner test and counseling service is unwillingness of the partners.”

Key informant, assigned to PMTCT service in one of the hospital said:

“...even though we tried to educate partner about the burden of HIV in different way, still now most of them are unwilling to be tested.”

Concerning documented PMTCT registers a total of 75 mothers were received PMTCT services at the hospitals within one month. While 74(98.6%), were currently on HAART. Out of the 74 women who were initiated ART drugs, 68(91.9%) were on TDF+3TC+EFV (1e) and 6(8.1%) of them on AZT+3TC+NVP (1C). And their partner status was documented for 60(90%). Concerning syphilis test result out of 75 women received PMTCT services, only 46(61%) of them recorded as non-reactive, but others were not documented.

Regarding delivery registers a total of 378 mothers were received labor and delivery services at the public hospitals of hadiya zone within one month. Among whom 114(30.2%) of them were from Shone primary hospital, 157(41.5%) were from Nigist Ellen Mohammed memorial and 107(28.3%) from Homacho primary hospital.

From those pregnant mothers who received delivery services in the respective hospitals, 366(96.8%) of them were with unknown HIV status and 12(3.2%) with known HIV status of HIV/AIDS. Among mothers who visited the labor and delivery unit with unknown status 351(92.9%) have received on-coach HTC services, 2(0.6%) tested positive and 2(100%) initiated on ARV according to national guideline. while 3 mothers are previously on ARV while visiting

laboring and delivery unit. Overall 15(4%) clients have missed opportunity for HTC services (Figure 3). This is also supported by qualitative data.

Key informant, from member of mother support group said that

“...As one of the service given to laboring mothers, all mothers receive HCT services at Labour, given that test kits are available because one of our activities is following HCT services among pregnant women who comes the health institution for delivery.”

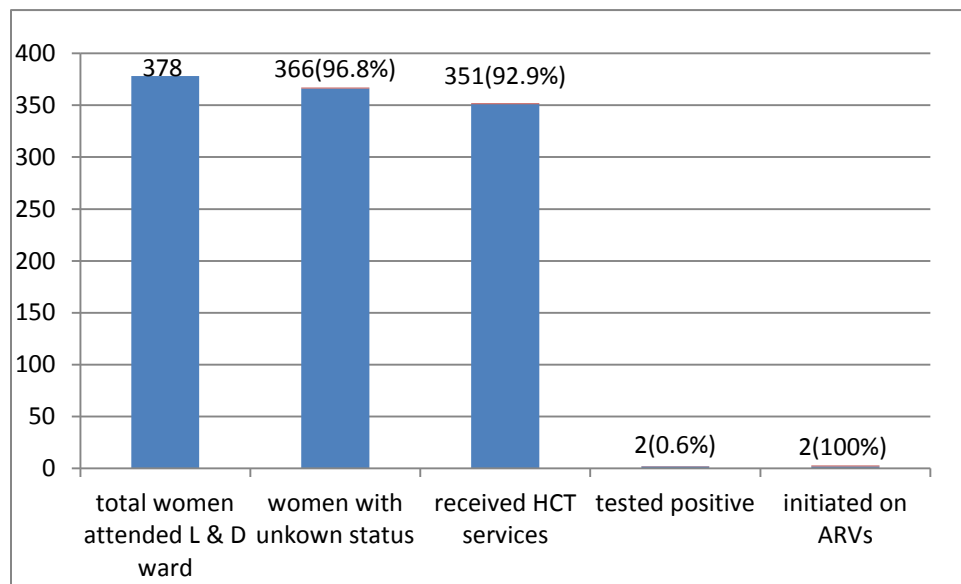


Figure 3:- HCT status among mothers attending Labour and delivery ward of public hospitals of hadiya zone.

While out of total deliveries majority (62.2%) of them were SVD and 18.8%, 4.5% and 14.6% were C/S, forceps/vacuum extraction and episiotomy respectively. The majority of deliveries were conducted with non-obstructive procedures. From a total of 5 HIV positive mothers delivered in hospitals of hadiya zone 4 (80%) of deliveries were SVD, 1 (20%) by C/S. Overall 100.0% of deliveries was conducted according to national guideline concerning HIV positive women came for laboring.

5.5. Client satisfaction with PMTCT services

About 89.8% of the clients were satisfied with PMTCT services. When we came specific to each satisfaction items, most of the respondents (82.7%), believed that the waiting room was comfortable where they were either very satisfied or satisfied with it. Almost, similar number of clients was satisfied by the counseling room's comfort and privacy during counseling. Regarding the waiting time to see the PMTCT counselor, 18% of clients were very satisfied and 62.6% were just satisfied. More than 81.5% of the clients were either satisfied or very satisfied with the adequacy of the duration of the counseling session (Table 6).

Table 6:-Client satisfaction with the comfort and privacy of counseling room, and adequacy of counseling session; quality of PMTCT services in public hospitals of hadiya zone, south Ethiopia 2017.

Item: how do you rate your satisfaction with:	Very dissatisfied		Dissatisfied		Neutral		Satisfied		Very satisfied	
	No	%	No	%	No	%	No	%	No	%
Provider's greeting was good and friendly?	1	0.2	55	13	24	5.7	243	57.4	100	23.6
Comfort of the waiting room	2	0.5	39	9.2	32	7.6	259	61.2	91	21.5
Waiting time	5	1.2	52	12.3	26	6.1	265	62.6	76	18
Comfort of the counseling room	4	0.9	44	10.4	28	6.6	258	61	84	19.9
Adequacy of duration of the counseling session	4	0.9	44	10.4	30	7.1	254	60	91	21.5
Privacy of the counseling room	4	0.9	44	10.4	28	6.6	255	60.3	92	21.7
The cleanliness and sanitation of procedure	7	1.7	53	12.5	27	6.4	251	59.3	85	20.1

Regarding the counselors characteristics, most clients believed that the counselor was respectful 79.4% and trustworthy 79.6%. Moreover, most of them were satisfied by the counselors' explanation during counseling and his/her overall competency. When clients were asked to rate

their satisfaction by the overall PMTCT services provision, about 87.7% of them were either satisfied or very satisfied (Table 7).

Table 7:- Client satisfaction by counselor’s characteristics and availability of services, quality of PMTCT services in public hospitals of hadiya zone south Ethiopia, 2017.

Item: how do you rate your satisfaction with:	Very dissatisfied		Dissatisfied		neutral		Satisfied		Very satisfied	
	No	%	No	%	No	%	No	%	No	%
Respectfulness of the counselor	2	0.5	55	13	30	7.1	237	56	99	23.4
Trustworthiness of the counselor	5	1.2	57	13.5	24	5.7	237	56	100	23.6
Clarity of the counselor’s explanation	3	0.7	45	10.6	33	7.8	246	57	101	23.9
The counselor’s competency	4	0.9	55	13	21	5	239	56.5	104	24.6
laboratory service available when always needed	5	1.2	56	13.2	22	5.2	245	57.9	95	22.5
availability of information to MTCT and PMTCT	5	1.2	52	12.3	16	3.8	249	58.9	101	23.9
Clear explanation about Appointment date	3	0.7	51	12.1	21	5	245	57.9	95	22.5
The overall services	5	1.2	37	8.7	10	2.4	271	64.1	100	23.6

5.6: Factors associated with client satisfaction

5.6.1. Bivariate analysis of variables with overall satisfaction of pregnant women in public hospitals of hadiya zone, south Ethiopia 2017

The association of dependent and independent variables were computed. In bivariate analysis all variables with p-value less than 0.25 were considered as candidate variables for multivariable logistic regressions.

Bivariate analysis revealed that socio-demographic variables (such as Age, religion, occupational status, educational status, place of residence), travel time, waiting time, counseling time, counseling given by the same counselor in pretest information and posttest counseling, Reason for coming to the ANC center, counselor speak the same language as you, were candidate for

multivariable logistic regression. The above mentioned were again entered in to multivariable logistic regression model to control for confounding (Table 8).

Table 8:- Bivariate analysis of variables with overall satisfaction of pregnant women in public hospitals of hadiya zone south Ethiopia 2017.

Variable		Satisfied	Dissatisfied	p-value	COR	95% C.I for COR
Name	Category	No (%)	No (%)			
Age	15-24	120(91.6%)	11(8.4%)	0.126*	2.089	(0.813,5.365)
	25-34	213(90.3%)	23(8.7%)	0.178	1.773	(0.771,4.078)
	35-45	47(83.9%)	9(16.1%)	1		
Marital status	Married	371(89.8%)	42(10.2%)	0.986	0.981	(0.121,7.939)
	Not married	9(90%)	1(10%)	1		
Level of education	Unable to read and write	70(88.6%)	9(11.4%)	1		
	Primary school	165(86.8%)	25(13.2%)	0.692	0.849	(0.377,1.911)
	Secondary school	145(94.2%)	9(5.8%)	0.140*	2.071	(0.788,5.448)
Religion	Protestant	266(93%)	20(7%)	0.004*	3.325	(1.452,7.615)
	Orthodox	74(85.1%)	13(14.9%)	0.447	1.423	(0.573,3.534)
	Others	40(80%)	10(20%)	1		
Occupational status	Housewife	204(93.2%)	15(6.8%)	0.644	1.283	(0.446,3.689)
	Gov. employee	64(95.5%)	3(4.5%)	0.353	2.013	(0.460,8.814)
	Merchant	59(74.7%)	20(25.3%)	0.017*	0.278	(0.098,0.794)
	Others	53(92.4%)	5(8.6%)	1		
Place of residence	Urban	283(88.7%)	36(11.3%)	0.187*	0.567	(0.244,1.316)
	Rural	97(93.3%)	7(6.7%)	1		
Time of arrival	<30 minutes	247(93.6%)	17(6.4%)	0.002*	4.305	(1.699,10.906)
	30 minutes to 1 hour	106(85.5%)	18(14.5%)	0.243	1.745	(0.686,4.44)
	>1hour	27(77.1%)	8(22.9%)	1		
Waiting time	<30 minutes	299(93.7%)	20(6.3%)	0.00*	4.245	(2.221,8.112)
	>=30 minutes	81(77.9%)	23(22.1%)	1		

Counseling time	<=15 minutes	188(85.1%)	33(14.9%)	1	3.370	(1.615,7.032)
	>15 minutes	192(95%)	10(5%)	0.001*		
Sex preference	Yes	103(91.2%)	10(8.8%)	0.589	1.227	(0.584,2.579)
	No	277(89.4%)	33(10.6%)	1		
counselor speak the same language as you	Yes	337(90.6%)	35(9.4%)	0.169*	0.558	(0.243,1.282)
	No	43(84.3%) ⁸	(15.7%)			
counseling given by the same counselor before and after test	Yes	317(93.8%)	21(6.2%)	1	0.190	(0.098,0.366)
	No	63(71.4%)	22(28.6%)	0.00*		
Reason for coming to the ANC center	For antenatal care only	214(87.7%)	30(12.3%)	0.094*	0.559	(0.283,1.104)
	For antenatal care and HIV test	166(92.7%)	13(7.3%)	1		
the counseling and testing service is beneficial	Yes	371(89.8%)	42(10.2%)	0.986	0.981	(0.121,7.939)
	No	9(90%)	1(10%)	1		
opening hours of this clinic convenient	Yes	338(89.9%)	38(10.1%)	0.909	1.059	(0.395,2.838)
	No	42(89.4%)	5(10.6%)	1		

N.B: * where variables with P-value less than 0.25 were candidate for multivariable logistic regression analysis

5.6.2. Multivariable logistic regression analysis result of client satisfaction survey on PMTCT services in public hospitals of hadiya zone, south Ethiopia.

The variables with p-value less than 0.05 in multivariable logistic regression analysis were taken as significant predictors of satisfaction. Therefore predictors of the clients' satisfaction level on PMTCT services provision were travel time from their home to hospitals, waiting time to see counselor, counseling time and counseling given by same counselor before and after HIV test.

Multivariable logistic regression analysis showed mothers who waited less than 30 minutes to see counselor were about 4.648 times more likely to be satisfied as compared to who waited from ≥ 30 minutes [AOR =4.648,95% CI = (2.183,9.897), p-value = 0.000].

With regard to duration of counseling, clients counseled for more than 15 minutes were about 3.748 times more likely to be satisfied with the counseling service than those counseled for less than or equal to 15 minutes[AOR =3.748,95% CI = (1.645,8.537), p-value = 0.002].

According to this study mothers who were not counseled by the same ANC counselor before and after HIV test were 80.7% less likely satisfied as compared to mothers whose counseling given by same counselor before and after HIV test [AOR =0.193,95%CI: (0.090,0.412), p-value= 0.000] (Table 9).

Table 9:- Multivariable logistic regression analysis of variables predicting satisfaction of PMTCT clients in public hospitals of hadiya zone, south Ethiopia 2017.

Variable		Satisfied	Dissatisfied	p-value	AOR	95% CI of AOR
Name	Category	No (%)	No (%)			
counseling given by the same counselor in pretest information and posttest counseling	Yes	317(93.8)	21(6.2)	1 0.000	0.193	(0.090,0.412)
	No	63(71.4)	22(28.6)			
Waiting time	<30 minutes	299(93.7)	20(6.3)	0.000 1	4.648	(2.183,9.897)
	≥ 30 minutes	81(77.9)	23(22.1)			
Counseling time(pre and posttest)	≤ 15 minutes	188(85.1)	33(14.9)	1 0.002	3.748	(1.645,8.537)
	< 15 minutes	192(95)	10(5)			

Note: Hosmer and Lemeshow Test = 0.885 therefore the model adequately fits the data

Chapter Six: Discussion

This study examined the quality of PMTCT services in public hospitals of hadiya zone.

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 PMTCT services includes: human resource, infrastructure, logistics and supplies (test kits, ARV drugs, IP supplies, FP supplies, HMIS job aids) and support system (7).

The finding of this study revealed that most of minimum required resources like infrastructure, test kits, ARV drugs, OI drugs, and HMIS job aids were available. According to national PMTCT guideline a minimum of 6 health care providers trained in comprehensive PMTCT service delivery were required at each health facility. However the finding of this study showed that there were only 3 trained health care providers in one of primary hospitals, this is lower than the recommendation of national guideline (7). The reason for this inadequate number of trained health care providers was turnover, as reported by medical director in qualitative data.

The study conducted on quality of HCT services in health facilities of Addis Ababa and in Arba Minch town health facilities reported lack of trained human power as barrier to services quality and inadequate access to ARV drugs and poorly equipped human resources also contribute to low utilization of PMTCT services (27, 36).

This study showed 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 hospitals. Infection prevention materials such as gloves, aprons and autoclave were available, but eye goggles were absent. However, the national PMTCT implementation guideline recommends that the universal protective materials for infection prevention are among the minimum required resources (7).

All recording and reporting formats related to PMTCT option B+ services were available in the hospitals including; monthly summary reporting format, Counselling registration book, ANC-PMTCT enrolment register, Labour and delivery register, Lab referral slips and ANC-PMTCT appointment card.

This study identified that in one of primary hospitals, the following job aids and Information, Education, Communication/Behavioral Change Communication (IEC/BCC) materials such as, PMTCT performance standard, PMTCT cue card, client education materials like brochures and leaflets were not available and none of the hospitals have PMTCT guideline as opposed to the recommendation of the national guideline. This is consistent with study done in kafa zone (20). It is obvious that in the absence of the guideline, implementation of the stated objectives and principles for the betterment of quality would be difficult.

Concerning providers compliance to national guideline in this study (89.8%) women were offered and (88.8%) of them got HIV test. All of them were also post-test counseled, regardless of their serostatus. These findings almost similar to study conducted in Kafa Zone 85.5% of them got HIV test from those offered and all tested were also post-test counseled, regardless of their serostatus (20).

According to the national PMTCT guideline of Ethiopia the minimum PMTCT program package includes: Routine offering of HIV Counselling and testing, Safe and quality obstetrical services, Provision of HIV care/ART for mothers, if indicated, ARV prophylaxis for mother and infant, Infant feeding Counselling, FP Counselling, Functional referral linkage and as part of HCT services partner testing and counseling services do also given in integration with MNCH services. This is because effectiveness of the program assured if both the mother and partner involved in the program. This is evident from the study conducted to assess male partner involvement in PMTCT and infant acquisition of HIV and mortality in which transmission rate is lower among women with partner attendance compared with those without (7,45).

However the findings of this study showed that the majority of partners didn't received HCT services and were with unknown status. The possible reason for low achievement of partner testing and counseling was lack of willingness of partners to receive services, as evidenced from qualitative data. Medical directors and health care providers of the hospitals reported that due to lack of test kits; partner testing and counseling was provided intermittently. Program resources were the base for the process of care. In case when required program resources are not in place, there is the possibility of missing opportunity by clients and deterioration of quality of offered services. A study conducted in South Africa showed that missed opportunity of HIV testing at ANC unit due to shortage of test kits, and insufficient staff assigned to HIV services (40).

Further uptake of testing and counseling can be also related to socio-demographic factors(such as level of education and income),health service related factors(like opening hours of services, behavior of health care managers)and sociologic factors such as beliefs, attitudes and communication between male and women; as shown different studies (47).

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 Labour. Good practices for HIV-positive pregnant women include: limited vaginal examination and avoidance of episiotomy, forceps, vacuum extractor and artificial rupture of membranes unless absolutely indicated (7).

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. This was similar to study conducted in Kafa Zone on the quality of PMTCT service showed that the counselor had received the women in welcoming manner (20).

The national guideline recommends that in pre-test session to discuss the need and benefits of testing and to explain the HIV testing procedure. However, in this study the finding of observation showed that the counselor discussed the need and benefits of HIV testing in only 9(60%) of the 15 sessions and explained the HIV testing procedure in 6(40%) sessions. This is incongruence with national guideline (7). The reason was health care provider mainly focus on testing procedures and post-test counseling as reported by health care provider.

Counselors ensured understanding of the client by asking pertinent questions in seven of the 15 sessions. As part of post- test counseling reinforcing prevention messages (A, B, C) addressed in 12(80%) sessions, remind the client that her result does not indicate partner's HIV status and encourage to test if not 15(100%) sessions and the importance of retesting following window period was discussed in all sessions. This study showed that, counselors had repeatedly been missing some important components in the counseling manual during both pre-test and post-test counseling sessions (7).

The finding of this study showed that 81.7% of clients accessing PMTCT service were satisfied with privacy of counseling rooms. This finding was almost similar with a study done in public health facilities of Addis Ababa, the proportion of clients satisfied with privacy of examination

rooms is 82.5% from 422 service clients who attended the facilities (25) and higher than in Tanzania, 3/4th of clients were satisfied with privacy of examinations rooms respectively (27).

Regarding the waiting time to see the PMTCT counselor in this study, 80.6% of clients were satisfied. This was lower than from study conducted in Kafa Zone (92.6%) (20). Difference might be due to relatively long waiting time to see a counselor with average waiting time 24.04 minutes in public hospitals of hadiya zone.

According to this study it was found out that overall satisfaction with PMTCT service in the study population was about 89.8% of them were satisfied. This is almost similar with findings of a study conducted in Kafa Zone 90% of clients were satisfied and dessie city administration (86.7%) of clients were satisfied (20, 44) and higher than satisfaction report from Nigeria 39.3% ,Adama town 74.4%, Tanzania 75.2% (21,24, 27). This discrepancy may due to difference in study setting, time of the study, subjective nature of the subject matter; because measure of satisfaction needs standardized scales and tools for accurate measurement but most of the literatures measure satisfaction with simple yes/no response category.

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. In this study almost all of the clients receiving the result were negative for HIV. 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 counselors during the counseling sessions. It may also have been influenced by the clients' reluctance to speak negatively about their health care providers.

This study finding showed that those mothers who were not counseled by the same ANC counselor before and after HIV test were 80.7% less likely satisfied as compared to mothers who were counseled by same counselor before and after HIV test. In this study, there was a preference to be counseled by the same counselor in pre and posttest counseling during the ANC visit. This is similar with study done in Adama (24). These findings might be related to clients' concerns regarding issues of confidentiality. In regards to HIV testing and counseling for

PMTCT, it is recommended that the person offering pre-test information provides the posttest counseling.

The finding of this study revealed that clients counseled for more than 15 minutes were about 3.748 times more likely to be satisfied with the counseling service than those counseled for less than or equal to 15 minutes. This is consistent with study done in Addis Ababa (27).

The finding this study showed that mothers who waited less than 30 minutes to see counselor were 4.648 times more likely to be satisfied as compared to who waited from ≥ 30 minutes. This is consistent with study done Zimbabwe (50). This may have encouraged the clients to utilize the service and eventually improve the service outcome. In other countries, 90 minutes is regarded as the acceptable waiting time to get the service the clients want (43). Almost all of the clients stayed in the hospitals less than 90 minutes. This is much better than the finding obtained from a study done in Kenya, in which only 3.9% waited for less than 90 minutes (43).

In this study the level of satisfaction was not affected by either age or sex of the counselor. This may indicate that satisfaction might be more affected by other factors than the socio demographic characteristics of counselors.

Limitation of the Study

Since respondents were interviewed in the hospital setting, they may give responses favoring the care provider resulting in social desirability bias. Interview was conducted in a separate room by non-staff members to minimize the bias.

Also assessment of health care providers through observation while they do testing and counseling services creates a type of reactivity in which individuals modify or improve an aspect of their behavior in response to their awareness of being observed.

Chapter 7: Conclusions and Recommendations

7.1. CONCLUSIONS

The level of satisfaction with the PMTCT service provision was very high compared to other studies. Predictors of the clients' satisfaction level on PMTCT services provision were counseling given by same counselor before and after HIV test, travel time from their home to hospitals, waiting time to see counselor, counseling time, liking the discussion about HIV.

Most of the minimum required resources to conduct the service were available in the hospitals. However, IP like eye goggles and the following job aids and Information, Education, Communication/Behavioral Change Communication (IEC/BCC) materials such as, PMTCT performance standard, PMTCT cue card, client education materials like brochures and leaflets were not available and there was inadequate trained human resource as opposed to recommendation by the national PMTCT guideline. None of the hospitals have PMTCT guideline.

Moreover, more than half of partners didn't get tested for HIV as part of PMTCT services and became missed opportunities. And they had repeatedly been missing some important components in the Counselling manual during both pre-test and post-test counseling sessions.

7.2: Recommendations

Based on the findings of this study the following recommendations were made:

For ministry of Health and SNNPR regional health bureau:

- Program resources like HIV test kits, guidelines and PMTCT performance standard, client education materials like brochures and leaflets and PMTCT cue card should be consistently supplied to the public hospitals of hadiya zone.

For Hadiya zone health department and Public hospital of hadiya zone:

- Additional trained human resource should be hired particularly, for shone primary hospitals and give refreshment training on PMTCT option B+ program. This will help to solve the problem of inadequate trained human resource and incongruence of health care providers to national guideline.

- In general, all public hospitals of hadiya zone should design appropriate quality improvement interventions to ensure that both the facility and the providers optimally adhered to the national PMTCT implementation guideline.

For health care providers of hadiya zone public hospitals:

- Health care providers should follow national guideline counseling manual during both pre-test and post-test counseling sessions.
- Health care provider should improve provider-client communication and devising ways of increasing clients' satisfaction with PMTCT services particularly in respecting the clients and developing Trustworthiness.

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ANNEXES

English version questionnaire

JIMMA UNIVERSITY

INSTITUTE OF HEALTH

DEPARTMENT OF HEALTH ECONOMICS, MANAGEMENT AND POLICY

Questionnaire to assess quality of prevention of mother to child transmission of HIV service in public hospitals of Hadiya zone, southern Ethiopia, 2017.

Questionnaire No.: Date: Time of start.....

Name of interviewer and signature:ANC card number.....

Good morning/Good afternoon dear! My name is _____. I came from Jimma University. I am a member of research team on assessment of quality of prevention of mother to child transmission of HIV service, which is being carried out at public hospitals of Hadiya zone. It is believed that quality of prevention of mother to child transmission of HIV service increases clients' satisfaction, which contributes to improve the health of child. The purpose of this study is to assess Quality of prevention of mother to child transmission of HIV service in the public hospitals of hadiya zone. To do this, your information is very important so that I would like to ask you a few questions about your visit to hospitals to find out your experience today. I would be very grateful if you could spend a few minutes to answer questions related to the service.

This is not an evaluation of this facility or of the staff who provides this information. I will not put your name or registration number in the format. All the information you give will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any questions you don't want. But your honest participation will contribute to generate information that can be used to improve the quality of prevention of mother to child transmission of HIV services.

PART 1. Client Exit Interview Questionnaire

part 1.1 Socio-demographic characteristics of respondents.

101. Age in years _____

102. Religion 1. Protestant 2. Orthodox 3. Muslim 4. Catholic 5. Other (specify)

103. Ethnicity 1. Hadiya 2. Gurage 3. Wolayita 4. Amhara 5. Other specify ____

104. Marital status 1. Married 2. Never married 3. Divorced 4. Widowed 5. Unmarried couples

105. Educational status 1. Illiterate 2. read and write 3. Grade 1-8 4. Grade 9-12
5. diploma and above

106. Occupation 1. House wife 2. Farmer 3. Civil servant 4. Student 5. Merchant 6. Others
(specify) _____

107. Place of residence 1. Urban 2. Rural

PART 1.2 CLEINT RELATED FACTORS

108. Did you know about PMTCT service before? 1. Yes 2. No

109. If yes, source of information about the PMTCT service 1. Health workers 2. Mass media
3. Friends 4. health extension workers 5. Other (specify ____

110. Reason for coming to the ANC center

1. For antenatal care only
2. For antenatal care and to test for HIV

111. Was the counseling given by the same counselor in pretest information and posttest
counseling? 1. Yes 2. No

112. Did the counselor speak the same language as you? 1. Yes 2. No

113. Do you have sex preference among ANC providers? 1. yes 2. No (if no skip to question
no. 118)

114. Which sex do you prefer? 1. Female 2. Male

115. What was the sex of your ANC provider today? 1. Female 2. Male

116. Do you think the counseling and testing service is beneficial? 1. Yes 2. No

117. Are the opening hours of this clinic convenient for you? 1. Yes 2. No

118. How long did it take for you to arrive at this clinic? 1. <30 min 2. 30 min to 1 hour 3.
1 hour to 2 hour 4. > 2hour

119. Would you recommend service to others? 1. Yes 2. No

Record: waiting time to see health care provider
Counseling time with health care provider

Part 1.3 SATISFACTION ITEM

S.N	Questions	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
301	How do you rate your satisfaction with Provider's greeting politeness and friendly?	1	2	3	4	5
302	How do you rate your satisfaction with the waiting room comfort?	1	2	3	4	5
303	How do you rate your satisfaction with the waiting time (within a short period of time)?	1	2	3	4	5
304	How do you rate your satisfaction with the counseling room comfort?	1	2	3	4	5
305	How do you rate your satisfaction with the privacy of the counseling room?	1	2	3	4	5
306	How do rate your satisfaction with the adequacy of time for counseling?	1	2	3	4	5
307	How do you rate your satisfaction with the counselors respect for you?	1	2	3	4	5
308	How do you rate your satisfaction with the service providers confidentiality and trustworthiness?	1	2	3	4	1
309	How do you rate your satisfaction with the counselors' explanation about	1	2	3	4	5

	test?					
310	How do you rate your satisfaction with the counselors' competence?	1	2	3	4	5
311	How do you rate your satisfaction with the cleanliness and sanitation of procedure?	1	2	3	4	5
312	How do you rate your satisfaction with laboratory service available when always needed?	1	2	3	4	5
313	How do you rate your satisfaction with availability of clear explanation of appointment date?	1	2	3	4	5
314	How do you rate your satisfaction with availability of information to MTCT and PMTCT?	1	2	3	4	5
315	How do you rate your satisfaction with your overall service you received?	1	2	3	4	5

PART 2: Process Attributes

Part 2.1 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 counseling 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 here by to observe the clinical sessions at this unit, which is part of the study 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 data collector and client

Thank you for visiting our health institution for receiving services. I am 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 counseling (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)

	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 counseling 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 messages (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 counseling 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?			
6	Does the HCP discuss current health status with client including overall health and current problems; the latest laboratory result including CD4?			
6	Does the HCP review with client possible barriers to adherence; stigma, living situation, travel to clinic for refill of medication, side effect, depression etc.?			
7	Does the HCP refill the client with standard ART regimen with clear explanation including name, dosing food requirement, side effect, drug storage?			
8	Does the HCP review possible drug interaction?			
9	Does the HCP schedule next appointment?			
10	Does the HCP review understanding of the client including: asking client to describe her ARV regimen, what to do if experiences side effects, when is next appointment, how to take medications, how to take medications?			

PART 2.1: document review

Data Collection Tools (Questionnaire)

Title: A data collection tool developed for quality of PMTCT service in public hospitals of hadiya zone, 2017

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

My name is-----from Jimma University and we will review service documents in order to get information related to PMTCT service implementation. This will helps to improve the quality of the services in the future. The documents to be reviewed include registers, medical records of HIV+ mothers. During review confidentiality of the information will be kept in which the reviewed information couldn't identify 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. The data will be collected from ANC/L&D registers from each government hospitals of hadiya zone.

	Part I: ANC registers (ANC)
ANC1	Name of health facility -----
ANC 2	Client MRN (card number)-----
ANC3	Age of client in the years -----
ANC 4	Date of first visit to ANC -----
ANC 5	Received pre-test information at the respective hospital 1. Yes 2. No
ANC 6	Tested for HIV at respective hospital 1. Yes 2. No
ANC 7	Received post-test counseling & test result in the health facility 1. Yes 2. No
ANC8	Test result of the client 1. Positive 2. Negative 3. Unknown

ANC9	Partner test result? 1. Positive 2. Negative 3. Unknown
ANC10	Did the mother receive counseling on infant feeding? 1. Yes 2. No
ANC11	In general how many visits did the she made at the time of data collection? 1. One 2. Two 3. Three
ANC12	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
LD 2	Client MRN (card number)
LD 3	Age of the mother in the years
	Information related to delivery and PMTCT services
LD 4	Type of delivery 1.SVD 2. CS 3. Forceps/vacuum extraction4. Episiotomy 5. Other
LD 5	Date and time of delivery
LD 6	Birth outcomes: 1. Alive birth 2. Still birth
LD 7	Is the mother previously with unknown HIV status? 1. Yes 2. No If no skip to Q.15
LD 8	If yes, did she receive on coach pre-test information service? 1. Yes 2. No
LD 9	If yes, did she receive on coach testing service? 1. Yes 2. No
LD 10	Date of HIV test (dd/mm/yy) E.C
LD 11	Did she receive on coach post-test counseling service? 1. Yes 2. No
LD 12	Test result of the mother 1. Positive 2. Negative 3. Unknown
LD 12	If positive test result indicated, is she initiated on lifelong ARV? 1. Yes 2. No
LD 13	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)

LD 14	Did the infant receive NVP after delivery/is he/she discharged with NVP? 1. Yes 2. No		
LD 15	If not for Q. 07; HIV status of the mother 1.positive 2. negative 3.unknown		
LD 16	If positive; did the client previously on ART? 1. Yes 2. No	→	Observe client chart
LD 17	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)			
PM 1	Is the age of the client recorded? 1. Yes 2. No		
PM 2	Is ART unique ID recorded? 1. Yes 2. No		
PM 3	Is MRN of the client recorded? 1. Yes 2. No		
PM 4	Is full name of the client recorded? 1. Yes 2. No		
PM 5	Is Newly diagnosed and started ART? 1. Yes 2. No		
PM 6	Is ART initiated recorded? 1. Yes 2. No		
PM 7	Is current drug regimen documented? 1. Yes 2. No		
PM 8	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)		
PM 9	Is LMP recorded 1. Yes 2. No		
PM 10	Is EDD estimation recorded? 1. Yes 2. No		
PM 11	Is Syphilis test result documented? 1. Yes 2. No		
PM 12	Is Gestational age recorded in weeks? 1. Yes 2. No		
PM 13	Is Selected infant feeding option documented? 1. Yes 2. No		
PM 14	Is Date of delivery recorded (if indicated)? 1. Yes 2. No		
PM 15	Is WHO stage documented? 1. Yes 2. No		

PM 16	Is place of delivery documented (if indicated)? 1. Yes 2. No
PM 17	Is partner status well documented? 1. Yes 2. No
PM 18	Date of enrolment in PMTCT (dd/mm/yy) recorded? 1. Yes 2. No
PM 19	Is infant started NVP within 12 hours after delivery? 1. Yes 2. No

PART 3: Structure Attributes

3.1 RESOURCES INVENTORY CHECKLIST

Assessment of structural aspect of hospitals of the zone about PMTCT services availability of physical infrastructure

Instruction: This checklist will be used to conduct an inventory of availability of infrastructure and resources in each health facilities for the implementation of the services. And it will be answered by interviewing the heads of the hospital, 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: _____

2.5. Staff Profile of the health institution

S.N	Health worker	Total available in HF (active at time)	Total trained on PMTCT (plus option B+)
	Internists		
	Pediatricians		
	Gynecologists		
	Surgeons		

	GP		
	Health officer		
	Midwife		
	Nurse(all types)		
	Sanitarian		
	Laboratory technologist		
	Lab .technician		
	Pharmacist		
	Pharmacy technician		
	PMTCT data clerk		

3. Infrastructure and equipment

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

	Item	Availability		Remark
		yes	No	
1	Counseling 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 hospital			
3	Functional laboratory facility in the specified hospital			
4	Running water and electricity supply in the specified hospital			
5	Secure pharmaceutical storage in the specified hospital			
6	Waiting area/room for clients in the specified			

	hospital			
--	----------	--	--	--

4. Laboratory facilities and services

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

S.no	Service/equipment	Available on the date of data collection		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	Urine analysis							

14	RPR/VDRL					
15	Stool examination					
16	Microscope					
17	Blood film					

5. Uninterrupted supply of drugs

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

I .ARV drugs

s.no	Drug	Available at date of data collection		Number of occasions with stock out of drug during last 6 months	Cumulative period of drug stock out during the past one year	Last month stock out of drug (mm/yyyy)
1	Abacavir (ABC) suspension					
2	Abacavir (ABC) tabs					
3	Atazanavir –rotanavir tabs					
4	Efavirenz(EFV) solution					
5	Efavirenz (EFZ) caps					
6	Lamivudine (3TC) tab					
7	Lamivudine (3TC) Susp					
8	Lamivudine(3TC)/Tenofovir tabs					
9	Lamivudine(3TC)/zidovudine tabs					
10	Lopinavir/ritonavir susp					
11	Nevarapine (NVP) tabs					
12	Nevarapine (NVP) susp					
13	Efavirenz(EFV)caps					
14	AZT+3TC+NVP					
15	AZT+3TC+EFV					
16	TDF+3TC+EFV					
17	TDF+3TC+NVP					
18	Tenofovir(TDF) tab					

ii. OI drugs and other supplies

s.no	Drug	Currently available for free on the date of data collection		Cumulative period of drug stock out at ART pharmacy during the last 6 months	Last month with stock out drug (mm/yyyy)
		Yes	No		
1	Cotrimoxazole tab				
2	Cotrimoxazole syrup				
3	prednisolone				
4	Any anti-fungal drug/tab/cream				
5	Acyclovir				
6	Iron sulphate				
7	Glove/surgical/disposable/utility				
8	Goggles, plastic apron				
9	Syringes with needle				
10	Anti-septic				
11	Autoclave				
12	BP apparatus				
13	Weight				
14	Height				
15	Fundal height measurement				
16	Fetoscope				
17	HIV test kit				
18	Lancet				
19	Delivery coach				

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 the date of data collection		Number of occasions with absence of HMIS tools and job aids during the last 1 year	Reason for absence	remark
		Yes	No			
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					
10	PMTCT guideline 2007/11					
11	Option B+ reference manual					
12	Posters/leaflets					
13	PMTCT cue card (reminder)					
14	Counseling and testing protocol					

	ANC/L&D					
15	IEC Materials					

Thank you

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

PART 4: In-depth interview guide

I. An in-depth interview guide with health care providers

Instruction: this will be used to assess the PMTCT services delivery in MNCH unit since 2016. In general the following core areas will be addressed:

- Training and preparation
- PMTCT service delivered at the ANC clinic, labor and delivery ward
- Support system
- Stakeholders involvement and advocacy in PMTCT services
- 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 service specifically, we are assessing quality of services in order to capture lessons that can be used in future to improve the services. 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 service 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 service 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 information 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 services)
- 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)
 - 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 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 2016? If yes ask:

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

❖ 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?)

❖ Stakeholders involvement and Advocacy in PMTCT services

6. Do you advertise or promote the PMTCT services 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 services, are there any community support groups or organizations for pregnant HIV positive woman? If yes, mention them.

❖ 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

❖ Changes observed

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

Thank you!!

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

In-depth interviews with health care managers

Instruction: This guide will be used to assess health care managers, barriers to service 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

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 service 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 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 particularly in quality improvement?
3. Is there performance monitoring system in this health facility? If yes, how often?
4. Is there regular performance review meeting with health workers in this health facility? 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? For how long?
 - Lack of regular supportive supervision?
6. What are the measures taken by your hospital to improve quality of the program?
 - Staff training?
 - Supportive supervision?
 - Review meeting?

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

In-depth interview guide for mothers support group

Instruction: This interview guide will be answered by mother support group members who are working in public hospitals of hadiya zone.

Consent form

- Are you willing to participate in this interview?



Interviewee witness date

Name of health institution-----

Date of interview-----

➤ **General information related to PMTCT services**

1. could you please briefly describe me the services given to HIV + mothers received from this health institution pertaining to PMTCT(either during your pregnancy and labor & delivery)?probe for:

HCT, ARV drugs, adherence support, safe and quality obstetrical services, counseling on infant feeding, counseling on family planning, referral services

2. From your experience what are the factors that affect pregnant women’s and laboring mothers PMTCT service utilization at this institution? Probe:

Health institution related factors

Inaccessibility of services, waiting area inappropriateness, poor client provider interaction (lack of respect, victimization etc....), lack of confidentiality of service provider, lack of privacy of service delivery area, poor quality of services

Community related factors:

- ✓ Lack of partner support, stigma and discrimination

- **Perceived quality of services and suggestions**

3. What do appreciate most while you observe PMTCT service in this health institution?
Record all answers:

Examination services given, privacy and comfort during physical examination and counseling services, provision of free drugs for treatment and for OIs

4. Overall how do you rate the overall quality of PMTCT services provided for HIV + mothers? Probe:

- ✚ Very good
- ✚ Fair
- ✚ Poor

5. If rated as fair and poor ask why?

- ✓ Long waiting time, shortage of consultation time, inadequate assistance from health care provider to understand the recommendation? lack of respect from HCP, lack of privacy

6. Finally if you have any suggestion on PMTCT services provided at this institution:

- If there is any service that could not be given due to its unavailability
- What should be improved pertaining to PMTCT services at this health institution to provide quality services to clients?

Closing:

These are all the questions I have. thank you very much for answering our questions. do you have any questions, comments you would like to say about what we talked about? Is there anything else would you like to tell us? -----

Hadiyisa version questionnaire

JIMMII YUUNIVERSTEE

FAYA’OMMII INISITITUUTAA

Faya’ommii ikonomikissa mannagementane’e poliise’i losanii baxxanchaa

woronnii ittopen’ene hadiyii zonanee yokki adiilii hospitaluwaanee hiv ammassee ciillanee higgobe’isaa uwakammi awadii mucuromi sorobimina gudakoo xamichchaa,2009.

Xamichchi Xigoo: Ballaa:Ashererukiii Amanee.....

Xamanchi Sumaa Firima’aa: ANC Kard xigoo.....

Xummi gatta/faya hosa'ini! Sumii..... ani waarumokii jimmi yuuniveriste'isete. Anii AIDISI amanisee cillanee higgobe'issa uwwakami awadika mucuromma soroboki wixix woronee yomanee. Kuu sorobimi issamokoki hadiyii zonanee yokkii hoosippitaluwanee. HIV ammasee cillanee higgobe'isaa uwwakam awaddi mucurommi ammoo'ika liranca eeddookoo yaakkaa ammanakamoo. kukki ooddimmii cilichii faya'ommina awadokoo.ka sorobimi hororii woshii hadiyii zonanee yokkii hoosippitaluwanee. HIV ammasee cillanee higgobe'isaa uwwakam awaddi mucurommi yoo'isaa la'iminattee. Kakka baximina atii uuwitoti sawitii araqa awadohani ihu bikina hosipitalii awadinnee ammaxxisamakoo hoffiqaxii xammichuwaa keese xammeenee hasoomoo.hofiqaxii daqiquwaa awadi bikina dabacha uwwimminee ininee higitan araqa galaxxommoo.

Muleki attii la'immi hassisokok kukii faya'omii mi'inii tee'iimii baxanii xamantamii duha'ayooo.kii summi tee'immi anana xiggii aa'ommoyoo. Attii uwutooti hunidemii sawitii daphanomanee.kii sagara uwwimmi kii ittinnetee ayyimmii gidiseenaa xanoyoo. woshii ihukkaremi kii sa wittee uwimmi aqaqa awadohanee.mashika'imi HIV amasse cilanee higgobe'isa uwakami awado mucusimina harrammokoo

LUXXI BAXANCHA:

Amoo'ii awadoo sixxa lasonnee firukuyii xamakami xamichaa

101. umuuri mee'oo hinchinee ____

102. Ammantii 1. Amananoo 2. Orthodokissa 3. Islammaa 4. Kaatoolikkaa 5. muleeki yoolis (kuree)

103. Giichii 1 Hadiyyaa 2.Guragge'e 3.woolayyittaa 4. Amahharaa 5. mullekki ____

104. Mine issimm 1. Aagissammoo 2. Aagisummoyyo 3.Annanninamm 4. leehaakkooo 5.Beshuwaaa

105. Losa'an duhai 1.Hore'em losuummoyyo 2. lu'xxi gabala 3. laa'mi gabala 4.diplommaa ehanninsi hanannettee

106. baxii 1. mi'nn ammatee 2. Abulanichottee 3. adi'ili baxanchottee 4. lossanchottee 5.dadaranchotte 6.muleekii ____

107. Beeyii hanoo 1.katamma 2. gattaraa

LA'AM BAXANCHA: AMMOO'INNEE AMAXXAMAKOO XAAMMICCHUWA

108. HIV/AIDS lamfoorii cilluwwanee higgobee'isaa isaakkammi awadoo kani ilegenii laqoo?
1.ooyyaaa 2.aahaa'ee

109. Ileegeenii xamichinnaa ooyyaa yitilasii hanii maceesitoo? 1. fayya'omii minii
2. rado'ii 3. Beeshuwiii 4.fayoo'omii akisteension baxanisee 5. mulikenii ___

110. kaa faayaa'oomii minee waatitii mashikaa'ii marichoo?

1. laamfoorii ihumbikina xaalee

2. HIV maramarameenatee

3.1&2

111. HIV/AIDS sogitanii ayeenetee uwamukoki matemii soganchinetenii?

1. Ooyyaa 2.ahaa'ee

112. HIV/AIDS soganchii kiii sagarani wocoolaanii? 1. Ooyyaa 2. ahaa'ee

113. lamfoorii ammoo moo'okii baxanichi albachaa dollitonii? 1.ooyyaaa 2.ahaa'ee (ahaa'e
yitilas xamichi xiggii 118 hiigee)

114. hinkii albachaa doo'litoo? 1. Landichotee 2. gonichoo

115. keesee moo'ukii baxanchik albachi marichoo? 1.landichotee 2. gonichoo

116. HIV/AIDS sogitanii xiga moo'anchii awadokko yitaa sawitonii?

1. ooyyaa 2. ahaa'ee

117.Faayaa'omii mini foquqi amanii kina makahinee? 1. Ooyyaa 2. Ahaa'ee

118. kii miiniisee kaa faayaa'ommii mine aafimina hinkanii ammaanee masookoo? 1. < 30 daqiqa 2. 30
daiqiqisee 1 saatii afeebbee 3. 1 saatisee 2 saatii afeebbee 88. Laa'oomoyoo

119. mulikennina kaa awadoo awaaxxossina sogonii? 1. ooyyaa 2.ahaa'ee

Awaddoo sixitena Hinkani amanee egetaatee -----

Sogitanoo uuwwoo baxanchii hinkana dassattee-----

SAXXI BAXANCHA: LIRANCHA KEENAKAMI XAMICHUWA

xigo	Xammichchuwa	Hore'emmii liramumoyoo	liramumoyoo	Mahameyoo	Liramamoo	Araqa liramamoo
301	Faayaa'omii lachchi manchii xumma yuukossii hinccukossi hinkana liransatee	1	2	3	4	5
302	uushexaxi beyii makomi hinkana liransuko	1	2	3	4	5
303	awadoo siideenaa eegetiti amannii hinkana liransuko	1	2	3	4	5
304	Sogitanii baaxxanchchi makommi hinkana liransuko	1	2	3	4	5
305	sogitanii baxxanchi daphitti hinkana liransuko	1	2	3	4	5
306	sogitanii amanii hinkana liransuko	1	2	3	4	5
307	Faayaa'ommi lachii manchii kesee lonisukossii hinkana liransa	1	2	3	4	5
308	Faayaa'ommi lachii manchii kii woca dapha'imii atti ixxonne yoo'ii amannatii hinkana liransatee	1	2	3	4	1
309	Faayaa'ommii lachii manchii xigaa moo'imi bikina caakissa kurukossii hinkana liransatee	1	2	3	4	5

310	Faayaa'ommi lachii manchii laachchii hinkina liransatee	1	2	3	4	5
311	Baxxakkami baxxi mucuroomii hinkana liransatee	1	2	3	4	5
312	laaboorratorree awaddii hinkana liransatee	1	2	3	4	5
313	dabalaka warrimmi bikina caakkissa kurrukoossi hinkana liransatee	1	2	3	4	5
314	HIV/AIDS lamfoorii amaansee ciillichone higoo'isa higobee'isa eegelimmi bikina sawitee higissiminee hinkana lirantatte	1	2	3	4	5
315	muloo'ii awaddinnee hinkana lirantatee	1	2	3	4	5

Amharic version questionnaire

ቃለ መጠይቅ

ጅም ዩኒቨርሲቲ

የጤና ኢንስትትዩት

የጤና ኢኮኖምክስ ማኔጅሜንት እና ፖሊሲ ት/ት ክፍል

በደቡብ ኢትዮጵያ በሀድያ ዞን ባሉ የመንግስት ሆስፒታሎች ላይ HIV/AIDS ከእናት ወደ ልጅ እንዳይተላለፍ የሚሰጥ አገልግሎት ጥራት ለማጥናት የተዘጋጀ መጠይቅ

ደህና አደሩ/ደህና ዋሉ ስሜ ይባላል። እኔ የመጠራት ከጅም ዩኒቨርሲቲ ነው። HIV/AIDS ከእናት ወደ ልጅ እንዳይተላለፍ የምሰጥ አገልግሎት ጥራት የሚያጠና ቡድን አባል ነኝ፤ ይህም ጥናት የሚከሄደው በሀድያ ዞን ባሉ የመንግስት ሆስፒታሎች ነው። HIV/AIDS ከእናት ወደ ልጅ እንዳይተላለፍ የምሰጥ አገልግሎት ጥራት፤ የእናቶች እረከታ ይጨምረል ተብሎ ይታመናል። ይህ ደግሞ የህጻናት ጠንነት ይጠብቃል። የጥናቱ ዋና ዓላማ HIV/AIDS ከእናት ወደ ልጅ እንዳይተላለፍ የሚሰጥ አገልግሎት ጥራት ለማወቅ ነው። ይህን ለመስራት የአንቺ መረጃ እጅግ በጣም አስፈላጊ ስለሆነ ከሆስፒታሉ አገልግሎት ጋር ተደይዞ ጥቂት ጥያቄዎችን ልጠይቅ ፈልጋለሁ። ስለዚህ ከኔ ጋር ጥቂት ደቂቃዎች ጥያቄዎችን በመመለስ ቢታሰብ እጅግ በጣም ደስ ይለኛል። የጥናቱ ዓላማ የጤና ባለሙያውም ሆነ ሆስፒታሉን ለመገምገም እንዳልሆነ እንዲትገነዘብ እፈልጋለሁ። የአንቺን ስምም ሆነ ማንነት የሚገልፅ ማንኛውም ነገር በመጠይቁ ላይ አይሰፍርም። እያንዳንዱ ከአንቺ የምናገኘውን መረጃ በሚሰጠር ይያዛል። ተሳትፎሽ በፈቃደኝነት ስለሆነ መመለስ የማትፈልገውን ጥያቄ ማለፍ ትችያለሽ። ነገር ግን የአንቺ ተሳትፎን ያለው መረጃ HIV/AIDS ከእናት ወደ ልጅ እንዳይተላለፍ የሚሰጥ አገልግሎት ጥራት ለማሳደግ ጉልህ ሚና ይኖረዋል።

የመጠይቁ ተራ ቁጥር/ልዩ መለያ. ቀን: ቃለ መጠይቁ የተጀመረበት ሰዓት

የጠያቂ ስም እና ፊርማ -----

የደንበኛዎ የቅድመ ወሊድ ክትትል ካርድ ቁጥር

ክፍል 1: ተገልጋዩ አገልግሎት ከጨረሱ በኋላ የሚጠየቁ ጥያቄዎች

ክፍል 1.2. ማህበረዊ ነክ መረጃዎች

- 101. ዕድሜ _____
- 102. ሐይማኖት: 1. ፕሮቴስታንት 2. ኦርቶዶክስ 3. ሙስሊም 4. ካቶሊክ 5. ሌላ(ይገለፅ)
- 103. ብሔር: 1.ሀድያ 2.ጉራጌ 3.ወለይታ 4. አማራ 5. ሌላ(ይገለፅ)
- 104. የጋብቻ ሁኔታ : 1.ያገባች 2. ያላገባች 3.የተፋታች 4. የሞተባት 5. ጎደኛዎች
- 105. የትምህርት ደረጃ: 1.ማንበብና መፃፍ የማትችል 2.ማንበብና መፃፍ የሚችል 3.የመጀመሪያ ደረጃ(1-8) 4.ሁለተኛ ደረጃ(9-12) 5.ዲፕሎማና ከዚያ በላይ
- 106. የስራ ሁኔታ: 1.የቤት አመቤት 2.ገበሬ 3.የመንግስት ተቀጣሪ 4. ተማሪ 5.ነጋዴ 6. ሌላ ካለ (ይገለፅ).
- 107. የመኖሪያ አድራሻ 1. ከተማ 2. ገጠር

ክፍል 1.2: ከደንበኛዉ ጋር የተያያዙ ጥያቄዎች

- 108. ከአሁን በፊት HIV ከእናት ወደ ልጅ እንደይተላለፍ ስለሚሰጥ አገልግሎት ተውቅያለሽ? 1. አዎ 2. አይደለም
- 109. አዎ ካልሽ ከየት ሰማሽ? 1. ከጤና ባለሙያ 2. ከማረጃ አውታሮች 3. ከጎደኞቼ 4. ከጤና ኤክስፐርት 5. ሌላ(ይገለፅ) -----
-
- 110. ቅድመ ወሊድ ክትትል ክፍል የመጣሽበት ምክንያት

1. ለቅድመ ወሊድ ክትትል ብቻ
2. ለቅድመ ወሊድ ክትትል እና ለHIV ምርመራ

111. ከምርመራ በፊትና በኋላ የምክር አገልግሎት የሚሰጥ በተመሳሳይ ባለሙያ ነውን? 1. አዎ 2. አይደለም
112. የምክር አገልግሎት ሰጪ ከአንድ ጋር ተመሳሳይ ቋንቋ ይናገራል? 1. አዎ 2. አይደለም
113. የጤና ባለሙያው ስታ ምርጫ ትፈልግዋለሽ? 1. አዎ 2. አይደለም (መልስዎ አይደለም ከሆነ ወደ ጥያቄ 118 ይለፉ)
114. የትኛውን ስታ ትመርጧል? 1. ሴት ባለሙያ 2. ወንድ ባለሙያ
115. ዛሬ አገልግሎቱን ያገኙት በየትኛው ስታ ነበር? 1. ሴት 2. ወንድ
116. የምክርና የምርመራ አገልግሎት ጠቃሚ ነው ብለሽ ተስብዋለሽ? 1. አዎ 2. አይደለም
117. ከሊኒኩ የሚከፈትበት ሰዓት ለአንድ ምቹ ነው? 1. አዎ 2. አይደለም 88. አላውቅም
118. ከቤትዎ ወደ እዚህ ጤና ተቋም ለመድረስ ምን ያህል ጊዜ ይወስድብዎታል? 1. < 30 ደቅቃ 2. 30 ደቅቃ እስከ 1 ሳዓት
3. ከ 1 ሰዓት እስከ 2 ሰዓት 88. አላውቅም
119. ለሌላ ሰው ይህን አገልግሎት ትመክራለሽ? 1. አዎ 2. አልመክርም

Record: waiting time to see health care provider (በለሙያን ለመየት የቆዩበት ሰዓት)
Counseling time with health care provider (ከበለሙያ ጋር በምክር አገልግሎት የቆዩበት ሰዓት)

ክፍል 1.3. የተገልጋዩን የእርካታ መጠን የሚለኩ ጥያቄዎች

.ከዚህ በታች የተዘረዘሩ አረፍተነገሮች የተገልጋዩን የእርካታ መጠን የሚለኩ ጥያቄዎች ሲሆኑ እባክዎ በተገልጋዩ ስምምነት ደረጃ ምላሻቸውን ምልክት ያድርጉ

ተ.ቁ	ጥያቄዎች	በጣም አልረካሁም	አልረካሁም	ምንም	ረካኝ/ረካሁ	በጣም ረካኝ/ረካሁ
301	በባለሙያ ስላምታ አሰጣጥ እና አቀራረብ ምን ያህል ረካተኛል ?	1	2	3	4	5
302	በማረፊያ ቦታ ምቹነት ምን ያህል ረካተኛል?	1	2	3	4	5
303	የጤና ባለሙያ እስከ ሚያይሽ ባለፈ ሰዓት ምን ያህል ረካተኛል?	1	2	3	4	5
304	በምክር አገልግሎት ክፍል ምቹነት ምን ያህል ረካተኛል?	1	2	3	4	5
305	በምክር አገልግሎት ክፍል ገመና አጠባበቅ ምን ያህል ረካተኛል?	1	2	3	4	5

306	በምክር አገልግሎት ሰዓት/ቆይታ ምን ያህል ረከተሻል?	1	2	3	4	5
307	በጤና ባለሙያ አክብሮት ምን ያህል ረከተሻል?	1	2	3	4	5
308	በሚስጢር አጠባበቅ ምን ያህል ረከተሻል?	1	2	3	4	5
309	የጤና ባለሙያ ስለ ምርመራ በሰጠው ማብረሪያ ምን ያህል ረከተሻል?	1	2	3	4	5
310	በጤና ባለሙያ ክህሎት ምን ያህል ረከተሻል?	1	2	3	4	5
311	በምርመራ አሰጣጥ ንጽህና ምን ያህል ረከተሻል?	1	2	3	4	5
312	በሰብራቶሪ አገልግሎት ምን ያህል ረከተሻል ?	1	2	3	4	5
313	በቀጠሮ ቀን ማብረሪያ ላይ ምን ያህል ረከተሻል?	1	2	3	4	5
314	HIV/AIDS ከእናት ወደ ልጅ እደምተላለፍ ና እንደይተላለፍ መከላከያ መንገድ ላይ በተሰጠ መረጃ ምን ያህል ረከተሻል?	1	2	3	4	5
315	በአጠቃላይ አገልግሎቱ ላይ ምን ያህል ረከተሻል ?	1	2	3	4	5

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name: _____

Signature: _____

Name of the institution: _____

Date of submission: _____

This thesis has been submitted for examination with my approval as University advisor

Name and Signature of the first advisor

Name and Signature of the second advisor
