



**Implementation Evaluation of Focused Antenatal care service at Selected Public health centers of Hawassa Town, Southern Ethiopia.**

**Evaluation Thesis to be submitted to: Jimma University, Institute of Health science, Public Health Faculty, Department of Health Economics, Management and policy, Health Monitoring and Evaluation post Graduate unit for Partial Fulfillment of the Degree of Master of Sciences in Health Monitoring and Evaluation.**

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**June 2017**

# **Implementation Evaluation of Focused Antenatal care service at Selected Public health centers of Hawassa Town, Southern Ethiopia.**

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## ABSTRACT

**Background:** Focused antenatal care is evidence based, client-centered, goal oriented care and provided by skilled health providers. The concepts arise from the view that every pregnant woman is at risk of complication. Globally every minute, at least one woman dies from pregnancy related to complications or child birth and Ethiopia is one of six countries that accounts 50% of maternal deaths in the world. Hawassa town administration public health center in 2014/15 antenatal care service visit dropout was 45%.

**Objective of the evaluation:** to evaluate the implementation status of focused antenatal care services in public health centers of Hawassa town.

**Method** a single case study design involving both qualitative and quantitative method of data collection was used from March 14/2017 to April 13/2017 in Hawassa town southern Ethiopia. Focus of the evaluation was process and formative approach was used. Availability, compliance and Acceptability were used as dimensions. A total sample of 422 for exit interview, 60 observations, 13 in-depth interview and 5 health centers were used. For qualitative analysis bi variate and multivariate analysis and for qualitative manual thematic analysis methods were used.

**Result** Availability of resource for focused antenatal care service was 83.1% which was judged as Good. Emergency transportation, private room for Antenatal care service, functional pipe water, Tetanus toxoid vaccination and drugs option for Tuberculosis and Sexual transmuted disease were available at all health centers and Only 1 health center have Iron tablets during study period.

Compliance of health care providers with focused antenatal care guideline was 66.19% which to be Fair. Health care providers were not provided certain component like counseling on breast feeding, family planning.

Acceptability of clients for focused antenatal care service was 72.9% which judged as Good. Receiving prescription for Iron, Information on less or loss of fetal movement, Advice on insecticide treated bed net use, HIV test counseling, Partner accompany with client and Waiting time 30 minute were a predictors for satisfaction of clients on focused antenatal care service.

**Conclusion** overall evaluation of focused antenatal care service was 73.2% which was judged to be Good which needs some improvement.

**Recommendation:** Hawassa town health department to avail Iron drug, syphilis and hemoglobin test reagent consistently for exempted antenatal care service with communicating South nation nationality regional health bureau.

Health centers need to avail guideline and Health care providers should be needed to deliver full component of Focused antenatal care service for all clients.

**Keywords** focused antenatal care, evaluation, Availability, compliance, client satisfaction and Hawassa town health centers.

## **Acknowledgment**

I would like to thank My Advisor Mrs. Berhane Megerssa (Ass.Professor, PhD fellow) and Mrs. Yisalemush Asefa for their continued support and advice in preparation and completion of this thesis.

Next I would also like to thank Jimma University, Institute of Health, Public Health Faculty, Department of Health Economics, Management and policy, Health Monitoring and Evaluation post Graduate unit for providing opportunity to prepare this thesis.

I thank Hawassa town health department for providing data needed for the preparation of this thesis.

I would like to thank the study participants for their willingness and cooperation during data collection and the staffs of the health center for their cooperation.

Lastly, but not least, I would like to thank my classmates and friends assisting me in one or the other way.

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## **Acronyms and Abbreviations**

AIDS	Acquired Immune Deficiency Syndrome
BEmONC	Basic Emergency Obstetric and Newborn Care
BF	Breast Feeding
BP	Blood Pressure
BP/ER	Birth Preparedness and Emergency Readiness
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
DALY	Disability Adjusted Life Year
EDHS	Ethiopian Demographic and Health Survey
EQ	Evaluation Question
FANC	Focused Antenatal Care
FP	Family Planning
HC	Health Center
HGB	Hemoglobin
HIV	Human Immune-Deficiency Virus
IEC/BCC	Information Education Communication/Behavioral Change Communication
MCH	Maternal and Child Health
MMR	Maternal Mortality Ratio
PMTCT	Prevention of Mother to Child Transmission
STI	Sexually Transmitted Infections
TB	Tuberculosis
TT	Tetanus Toxoid
WHO	World Health Organization

## Operational Definition

**Availability of trained human Resource:** Health centers has at least one mid wife, nurse or health office providing ANC services who reports receiving in-service training in some aspect of antenatal care during the 24 months preceding the survey..

**Availability of drugs:** Observed in service area or where routinely stored; in stock with valid expiry date and no stoke out within six months before survey is checked from the stock card.

**Availability of guideline:** Focused antenatal care guideline, or implementation manual in line with recommended focused antenatal care of WHO, observed in service area of the client on the day of inventory.

**Availability of diagnostics reagents and kits:** all needed reagent and kits for pregnant mothers observed for availability and functionality with laboratory technician, with valid expiry date.

**Compliance of provider:** services given with respective of client gestational age and visit number based on FANC guideline.

**Privacy:** a private room or screened-off space available in the ANC service area that is a sufficient distance from other clients so that a normal conversation could be held without the client being seen or heard by others.

**Communication equipment:** the facility had a functioning land-line telephone, a functioning facility-owned cellular phone or wireless telephone..

**Electricity:** Facility routinely has electricity from any power source during normal working hours; there has not been a break in power for more than 2 hours per day during the past 3 month which is reported by care provider. Or facility has a functioning generator or inverter with fuel available on the day of the survey, or else facility has back-up solar power.

**Antenatal care visit drop out:** ANC first visit minus ANC fourth and above visit.

**Acceptability:** clients satisfied in their perspective about the FANC service they received. It is important to examine how the client views the services so that the immediate outcome of the service was evaluated proximally

- For all indicators which have item listed in the bracket indicates the sum of that item represent single indicators and weight given for each list and finally judged based on observed value of list.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

Focused antenatal care is evidence based, client-centered, goal oriented care, provided by skilled health providers with emphasis on quality rather than frequency of visits, is an approach to be adopted globally. The concept arise from the view that every pregnant woman is at risk of complication thus all pregnant women should be receive the same basic care and monitoring for complications(1).

Antenatal care service started at early 20<sup>th</sup> century but formal follow up for normal pregnant mothers rare before the First World War. In 1920 few midwifery department of the hospital started urine test and abdominal examination. At that time most of pregnant mothers goes to clinic only for medical and obstetrics consultation once before delivery. Clinical obstetric screening service with a scientific justification started in 1930 based on Janet Campbell idea (2).

Many thousands of women are still dying due to complication of pregnancy and/or child birth each year .the new global strategy to ending all preventable maternal death and also In order to achieve MMR to the SDG (sustainable development goal) target of 70 per 100 000 live births by 2030 (3).

Global annual rate of reduction need to be at least 7.3%.Countries with MMR of less than 432 deaths Per 100 000 live births in 2015 and 7.5 % for Countries with MMR of greater than 432 deaths Per 100 000 live births in 2015.Attaining that rate requires a marked acceleration in progress in this area.(3).

Antenatal care service has great role on the reduction of maternal death (4). More than 70% of all maternal deaths are due to five major complications: hemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labor. Complete and quality antenatal care can prevent up to 27% of maternal deaths (5).

The major goal of focused antenatal care is to help women maintain normal pregnancies through Identification of pre-existing health conditions, early detection of complications arising during the pregnancy, Health promotion, disease prevention, Birth preparedness and complication readiness planning (6).

Good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a good time to promote healthy behaviors and parenting skills. Good ANC links the woman and her family with the formal health system, increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle (7).

Focused antenatal care became the recommended type of antenatal care following the publication of a WHO trial on antenatal care where it was discovered that more frequent visits. General consensus that all women with an uncomplicated pregnancy should have a minimum of four visits, these should as a minimum including all interventions outlined in the new WHO ANC model and starting as early as possible in the first trimester as outlined by WHO (8).

By providing all pregnant women with recommended maternal and newborn care it helps to reduce maternal death, newborn death and DALYs by 56% 72% and 71% from current numbers respectively (9).

From all pregnant mothers 2% - 8% mothers a chance to develop Pre-eclampsia/eclampsia and it causes of an estimated 9% of maternal death in Asia and Africa. Early case identification, screening and management during ANC visit one way of minimizing bad outcome related to Pre eclampsia/eclampsia (11).

## 1.2 Statement of the problem

Globally every minute at least one woman dies from pregnancy related complications or childbirth with a lifetime risk of maternal mortality 1 in 180 in 2015. And almost three million newborns die each year in the first month of life, accounting for 44% of all deaths among children less than five years (12).

In 2014 Developing country accounts 99% of maternal death of the world. And 125 million women give birth annually out of this 54 million of pregnant mothers follow ANC visit lower than WHO recommended a minimum of four visits. Forty three million deliver their babies at home and also 1/3 HIV positive mothers are not get PMTCT service (9).

Ethiopia is one of six countries that account 50 percent of maternal deaths in the world (Ethiopia, Nigeria, Congo DRC, India, Pakistan and Afghanistan (13).

Maternal mortality in Ethiopia is 412 deaths per 100,000 live births (14). About 15% of pregnant women in Ethiopia are developing life-threatening obstetric complications. Out of this 85% related to direct obstetric complications (15). Prenatal mortality was high 46/1000 pregnancy (16).

In Ethiopia ANC 1<sup>st</sup> and 4<sup>th</sup> visit was 62% and 32% respectively in 2016. And Institutional delivery was 26% moreover 17% PNC within 48 hours of delivery was reported (14). Based on the Service Provision Assessment plus Survey 2014, In Ethiopia Among 180 public health centers offering ANC service were have 62% trained staff on ANC, 38% HC were have guideline (17).

Major contributing factors for maternal deaths are Shortage of skilled Human power, weak referral system at health centre levels, inadequate availability of BEmONC and CEmONC equipment, under financing of the service and distance to functioning health centers (18).

In South Nation Nationality Region Only 11.2% of pregnant mother attend first ANC visit before four month of pregnancy and only 20% of pregnant women who attend ANC visit informed for sign of pregnancy related complication 17.3%. Early starting first ANC visit and continued through delivery helps to decrease pregnancy related complication (16).

Prenatal mortality in south nation nationality people region (SNNPR) is 39.2/1000 pregnancy. Prenatal mortality is one indicator for quality of Antenatal care service (19).

In 2014 based on service provision assessment survey in SNNPR only 43% HC have guideline and 47% HC trained staff on ANC and 72% HC have BP apparatus. And among the health centers offering ANC service the capacity to conduct laboratory test for pregnant mothers shows only 18% for Hgb test, 36% urine for protein, 25% syphilis test and 64% for HIV test (17).

Health care provider compliance counseling pregnancy related danger sign 46% of clients about vaginal bleeding, 30% of client about fever, 27% swollen hand and face (17).

In SNNPR only 38.2% of pregnant mothers follow up to 4<sup>th</sup> ANC visit 50.9% mothers were vaccinated TT2 and more and only 13.4% pregnant mothers receives all component of Antenatal care service (14).

In Hawassa town administration public health facility in 2014/15 institutional maternal mortality was 34(0.28%) and ANC dropout was 45% which is higher than the Regional dropout of 25.5% (20).

As to evaluator knowledge there was no evaluation conducted on implementation status of FANC service in public health centers of Hawassa town.

This evaluation was help to know the implementation status of FANC in public health centers of Hawassa town administration.

### **1.3 Significance of evaluation**

Focused antenatal care service is essential for the improvement of maternal and child health. The finding of this evaluation used to:

Contribute on the improvement of focused antenatal program of Hawassa town health department by identifying strength and weakness of program implementation with how to sustain good achievement and how to address weakness of ANC service. It provides evidence for program planner and implementers of SNNPR regional health bureau and town health department for program improvement. In the other way a learning media for key stakeholders on some aspects of evaluation process of focused antenatal care service and baseline data for further study.



# CHAPTER TWO

## Focused antenatal care Program description

### 2.1 Stakeholders identification and engagement

Stakeholders are defined as individuals, groups, or organizations that can affect or are affected by an evaluation process or its findings. Each stakeholder has their own role with respect to the operation of the program and use of finding.

The Evaluability assessment conducted on FANC tried to identify different stakeholders involved in improving maternal and child health status, partners and beneficiaries. Stakeholders' identification has been done carefully to assure sustainability and support of the program.

Stakeholders have contribution in the evaluation assessment and are likely to play unique roles during evaluation process. Different stakeholders are actively involved in the implementation of FANC program in Hawassa town administration health department.

Some of the stakeholders were not found during Evaluability assessment due to different reasons like, being on annual leave, participating on different meetings and trainings and for those stakeholders, email and telephone communication was found to be a convenient option of communication.

Levels of importance majorly depend on the stakeholders' role in the evaluation. Those stakeholders participate on development of evaluation question, data source and indicators selection categorized on high level of importance. And stakeholders as data source and finding users categorized as medium level of importance.

The following table shows different stakeholders with their role in program and evaluation, perspective on evaluation, way of communication and level of importance.

**Table 1:** Stakeholder analysis Matrix for Focused Antenatal Care Service evaluation at public health centers of Hawassa town, 2017.

Stakeholders	Role in the program	Interest in evaluation	Role in the evaluation	Way of communication	Level of importance (H,M,L)
<b>SNNPR health bureau maternal and child health department</b>	Decision maker Capacity building, resource allocation	Knowing Area which need Improvement in FANC service	Data source Finding users	Formal letter	M
<b>Hawassa town administration health department</b>	Decision maker, Resource allocation, planning, routine program monitoring Supportive supervision	Strength and gap identifying in FANC service	EQ development Set judgment matrix Data source Facilitating evaluation process, finding users	Formal letter Telephone	H
<b>Hawassa town health department maternal and child health unit</b>	Program co-ordination Planning, mentoring Technical support	Strength and gap identifying in FANC service	Utilization of finding EQ developing Set judgment matrix Source of data	Formal letter Telephone	H
<b>Kebele administration</b>	Community mobilization	Service Improvement	Finding users	Formal letter Face to face	M

Stakeholders	Role in the program	Interest in evaluation	Role in the evaluation	Way of communication	Level of importance (H,M,L)
<b>Health centers</b>	Implementer Coordinating HC activities, recording and reporting	Over all FANC service Improvement	Source of data Utilization of finding EQ developing	Formal letter	H
<b>FANC clients</b>	Beneficiary	Improvement in the provision of service	Data source	Interview	M
<b>Pharmaceutical Fund and Supply Agency ( PFSA)</b>	Provision of Drug and supply	Service improvement	finding users	Formal letter	M

## **2.2 program goal and objectives**

### **Program goal**

- ✓ To contribute for the reduction of maternal and child mortality in Hawassa town.

### **General objective**

- ✓ To provide quality of FANC care service for all pregnant mothers in Hawassa town health facilities. .

### **Specific objectives**

- ✓ To avail all necessary resources which needed to implement FANC care service consistently to all health centers by the end of 2017
- ✓ To provide screening, counseling, diagnosing and treating service with national guideline from 90% to 100% for all pregnant women coming to Hawassa health facilities by the end of 2016/17
- ✓ To achieve all health facility with a regular, timely and complete recording and reporting system from 90% to 95% by the end of 2016/17
- ✓ To reduce ANC visit drop out from 45% to 25% by the end of 2016/17.

## **2.3 focused antenatal care Major strategies**

Hawassa town health department implementing focused antenatal care service were used to achieve the above objectives by using the following strategies.

- ❖ Improve community participation, engagement and ownership
- ❖ Capacity building
- ❖ Strengthen routine performance monitoring system
- ❖ Data quality assurance and auditing
- ❖ Avail continuous drugs and medical supply
- ❖ Expansion of Maternal Death Surveillance and Response
- ❖ Strengthening the referral system and hospital - health center network
- ❖ Partnership with other governmental, religious and non-governmental institutions
- ❖ FANC Service integration with other program

## **2.4 Focused Antenatal Care resource and activities**

### **Program resources**

Major resources required to implement focus antenatal care services are human resource, financial, drugs and medical supply, infrastructure (Electricity, Water and Telephone...) vaccine, laboratory reagents, FANC guideline, IEC/BCC material, registration books and recording formats.

### **Program activities**

FANC service activities mainly focus on giving training for health care providers, identification of pre-existing health conditions, early detection of complications arising during the pregnancy, Health promotion and disease prevention and Birth preparedness and complication readiness planning (6).

History taking and physical examination, screening for pre-existing health condition like hypertension, HIV, TB... administering TT vaccine , Iron/folate, intermittent preventive treatment (IPT) for malaria, insecticide treated bed nets (ITNs), diagnose and treatment of sexually transmitted infections (STIs), counseling and testing for HIV and education and clinical services for the PMTCT.

Advice on nutrition, rest, family planning, breast feeding, birth preparedness and emergency readiness, early referral if needed, recording and reporting and conducting supportive supervisions are the major activities of focus antenatal care service

### **Program outputs**

The immediate result of the activities after it is being provided to the pregnant mothers.

Some of the outputs of the FANC service are

- ❖ Number of pregnant mothers who are obstetric and medical history taken and examined on pre-existing disease condition.
- ❖ Number of pregnant mothers who are laboratory investigated on blood group, Rh, Hgb, syphilis, urine test for protein and infection.
- ❖ Number of pregnant mothers who are given tetanus-toxoid immunization.
- ❖ Number of pregnant mothers who are given iron/folate.
- ❖ Number of pregnant mothers who are given de-worming.
- ❖ Number of pregnant mothers who are counseled on pregnancy related danger sign.

- ❖ Number of pregnant mothers who are counseled on nutrition, rest, family planning, postnatal care, institutional delivery, birth preparedness and emergency readiness.
- ❖ Number of pregnant mothers who are counseled and tested and received test result for HIV/AIDS.
- ❖ Number of pregnant mothers who are given ITN.

**Program outcome**

- ❖ Improved FANC care service quality
- ❖ FANC client satisfaction on service
- ❖ Improved data quality and information use
- ❖ Improved FANC service utilization and institutional delivery

**Program impact**

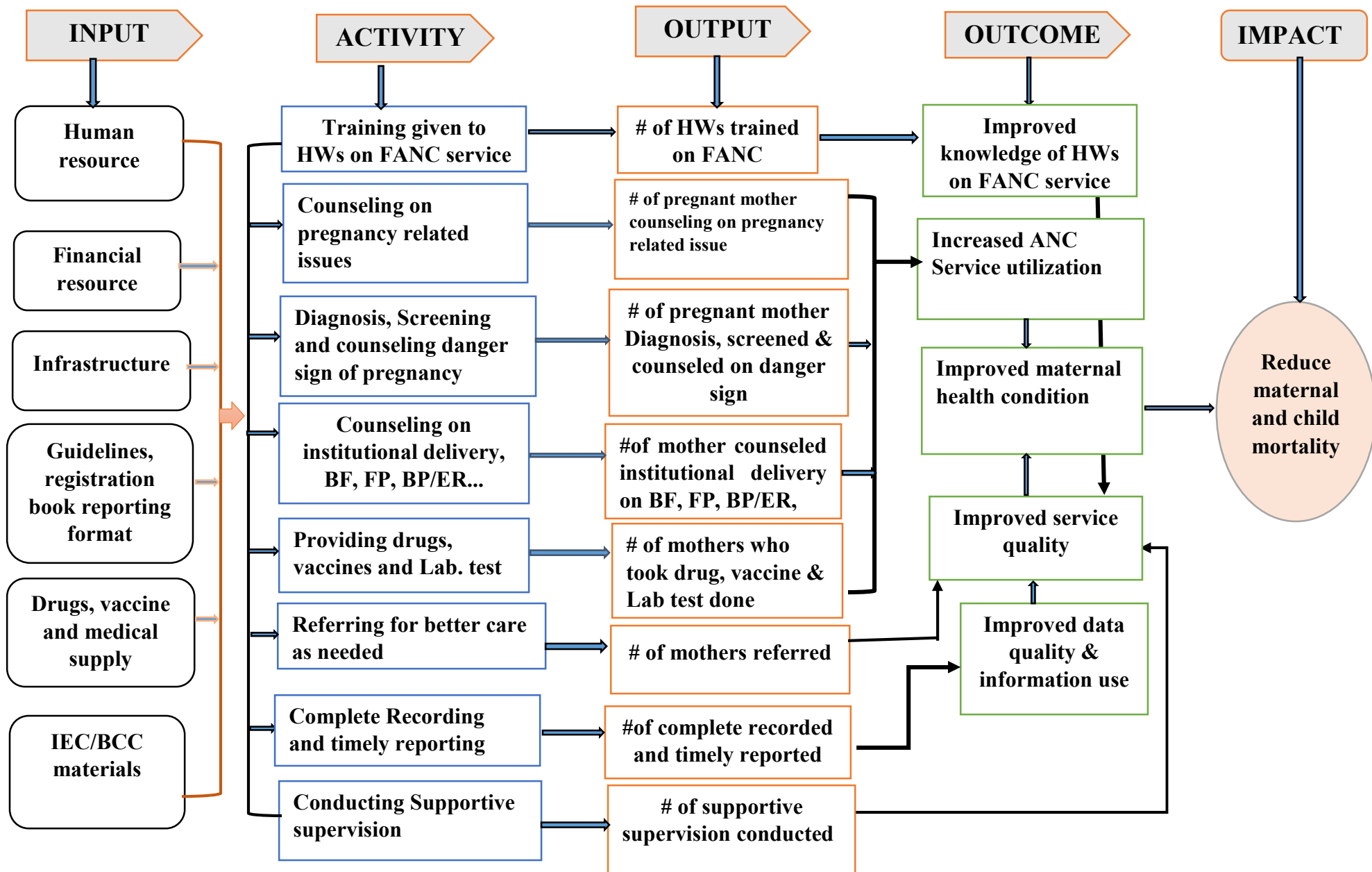
- ❖ Reduction of maternal and child mortality

**1.4 Logic model of focused antenatal care**

Logic models are flowcharts that depict program components. These models include program elements, showing the development of a program from theory to activities and outcomes. Infrastructure, inputs, processes, and outputs are included. The process of developing logic models serve as to clarify program elements and expectations for the stakeholders. By depicting the sequence and logic of inputs, processes and outputs, logic models can help ensure that the necessary data are collected to make credible statements of causality (22).

**Statement of problem** In Ethiopia maternal and infant mortality rate is high 412/100,000 live birth and 48/1000 live birth respectively and Hawassa town ANC visit drop out was 45% (14, 20).

**Goal** to contribute for the reduction of maternal and child mortality in Hawassa town.



**Figure 1** Focused antenatal care program logic model in public health centers of Hawassa town 2017

## **2.6 Stage of program development**

Traditional antenatal care service model was developed in the early 1900 at United States by social reformers and nurses (23). And similar movement also began in England by the efforts of James Ballantyne (24).

The traditional approach was replaced by focused antenatal care (FANC) a goal based antenatal care approach, which was recommended in 2001 and adopted by the World Health Organization (WHO) in 2002. FANC is the accepted policy in Ethiopia (25).

Focused antenatal care recognizes that every pregnant woman is at risk for complications, and therefore all women should receive the same basic care and monitoring for complications (26).

Traditional ANC changed to FANC due to frequently visits do not necessarily improve pregnancy outcomes, in developing countries they are often logistically and financially impossible for women to manage and a burden on the healthcare system and many women who have risk factors never develop complications, while women without risk factors reversely develop complication (6).

Ethiopia is currently adapted FANC and providing the services from health extension level to higher level of health facilities (25).

Hawassa town administration health department was started FANC service in 2008 and currently all public health facility was implement focused antenatal care service as WHO recommended.



## **CHAPTER THREE**

### **Literature review**

The provision of ANC service in health centers can be measured by availability and readiness of different parameters in the facilities supposed to provide the service like trained man power, drugs and medical supply, commodities; supervision and management support; diagnostic capacity for related disease conditions; the content of services received, and the kinds of information given to women during their visits. These services raise awareness of the danger signs during pregnancy. They also improve the health seeking behavior of the client, orient the client to birth preparedness issues, and provide basic preventive and therapeutic care (17).

#### **AVALABLITY**

A study conducted in Ghana on enhancing FANC service shows that Midwives perception on factors that affect implementation of FANC are lack of resource and incentives, workload and waiting time are some of the factors, This supported by female informant said that “I think nationwide we are short of midwives they should train a lot of professional midwives and add to the existing ones, who are giving professional care they train more midwives and can put two to each room, the workload a little relieved.” Other midwifery also said “...all midwives practicing FANC should be sent to workshops regularly to update their knowledge about the concept. They can also organize an in service training for them (27)..

Based on 2014 Ethiopia Service Provision and Assessment plus Survey finding shows that health centers with availability of basic amenities for client services indicates regular electricity (57%), piped water (40%), client latrine (78%), visual and auditory privacy (94%), communication equipment (30%) and out of 180 health centers 38% Guidelines on ANC,62% Staff trained for ANC, 87% Blood pressure apparatus , 93% Stethoscope, 94% Adult weighing scale, 75% Fetal stethoscope and 98% Examination bed or couch available in the health centers (17).

Base line evaluation of maternal and child health service in 25 selected district of Ethiopia shows out of 123 Health centers only 27% of HC have syphilis testing facility, 39.8% Hgb level testing, 45.4% of blood group testing and 51.2% of the health centers have urine analysis testing facility (28).

In SNNPR assessment conducted at 80 health centers out of this 50% of HCs with regular electricity, 43% piped water, 71% client latrine 95%, visual and auditory privacy and 44% communication equipment were available during the study period (17).

A study conducted on availability and use of maternal health supplies in primary health care of Amhara region shows that 22(97.7%) of Health Centers had HIV test kit, 8(54.8%) syphilis test reagent, 12(52.2%) anemia test kit, 18(78.3%) urine test for protein and 15(65.2%) glucose test had available in public health centers and related to drug 43.5% of HCs had Ferrous sulphate, 21.7% of HC had Folic acid, and Mgso4 not available in all a study conducted health centers (29).

Antenatal and postnatal care peer article reviewed for innovative models for improving availability, accessibility, acceptability and quality of services in low-resource settings the result shows Barriers to implementing best practices in ANC Weak infrastructure like Poor programmed, shortage of skilled providers, inadequate supply chain management, lack of transportation and weak human resource support contribute to poor quality of ANC and are determined factors for quality service in multiple settings (30).

A study conducted on availability and functional status of FANC laboratory service at Addis Ababa public health facility shows that the availability and functionality of back-up electric power supply (standby generator) among visited health facilities had variable in 8 (61.5 %) laboratory facilities had standby generators, in 4 (50 %) health facilities the generators did not functional and while in 5 (38.5 %) health facilities generator were not totally available (10).

## **COMPLIANCE**

Facility based survey was conducted from 2010 to 2012 in six Sub Saharan Africa (Ethiopia, Kenya, Madagascar, Mozambique, Rwanda, and Tanzania) on quality of maternal and newborn care received. The finding indicates on average only 38.5% of ANC client asked about at least one of two danger signs: headache or blurred vision, or swelling of hands or face. And 67.6% and 45.5% on average blood pressure measured and urine test for protein (11).

A study conducted in Dodoma Municipal of Tanzania shows a pregnant mothers received laboratory investigation during ANC visits are blood for syphilis (31.6%), HIV test (65.2%), urine test for protein (28.8%) and hemoglobin (22.4%) and also regarding to vaccine and drugs 76% of mothers were TT vaccinated and 23.2% takes ferrous sulphate tablet (31).

Tadesse and his colleagues from their study in Bahir Dar was showed that pregnant mothers attending ANC clinics were found to receive only from the recommended ANC component syphilis test, blood group and Rh factor done only for 73 (19.8%) and 133 (36.0%) of the women respectively. And also 64% of the mothers missed the opportunity of receiving iron/folic acid supplement during their ANC visit. Three hundred fifty five (96.2%) mothers were vaccinated for TT and 226 (61.2%) of the women's were checked their conjunctiva (32).

A study conducted at Bahir Dar town on quality of antenatal care service shows almost all 365 (98.9%) and 359 (97.3%) of respondents reported that the providers seem interested and there was no interruption by the provider during consultation respectively. The qualitative component of the study (by observation) also demonstrated that respectful and friendly greeting was offered for a total of 78 (81.2%) clients (32).

## **SATISFACTION**

A study conducted on quality of FANC services in eastern Uganda 291 FANC client participate on the study the result shows overall satisfaction of the client on ANC service was 74.6% satisfactory, 18.9% fairly satisfactory and 6.5%, dissatisfactory from this 46% on waiting time, 83.5% examination room privacy, 70.1% Cleanliness of facility and 73.9% Explanation given by health workers are satisfied (35).

A study conducted on quality of Antenatal care service in Bahir-Dar special zone shows that FANC client 52.3% satisfied with the service and the rest unsatisfied client with the over-all perceived quality of care received in the clinic were; absence of clean latrine and inadequate water supply, receiving incomplete information about FANC, inadequate waiting area and seats (32).

Finding on Assessment of Quality of Antenatal Care Service Provision among Pregnant Women in Ambo Town Public Health Institution shows regarding to privacy of FANC unit

84% of participant satisfied. And also 70% and 23% of participant on provider consultation time adequate and inadequate respectively. And 71.8% of client interested to come again and recommend for others to use service in this health institution. On over all ANC service 33.6%, 55.3% and 11% very satisfied, satisfied and not satisfied respectively (34).

An evaluation of the Quality of Antenatal Care service conducted at Higher 2 Health Center in Jimma indicate overall satisfaction on ANC service was 85.3% and that most of (94.6%) ANC client satisfied with over all service provided. And 94.3% of client satisfied with provider respect, 92.5%, satisfied with maintained of privacy, 86.4% of client satisfied with waiting time and 54% of client perceived that waiting area is convenient (35).

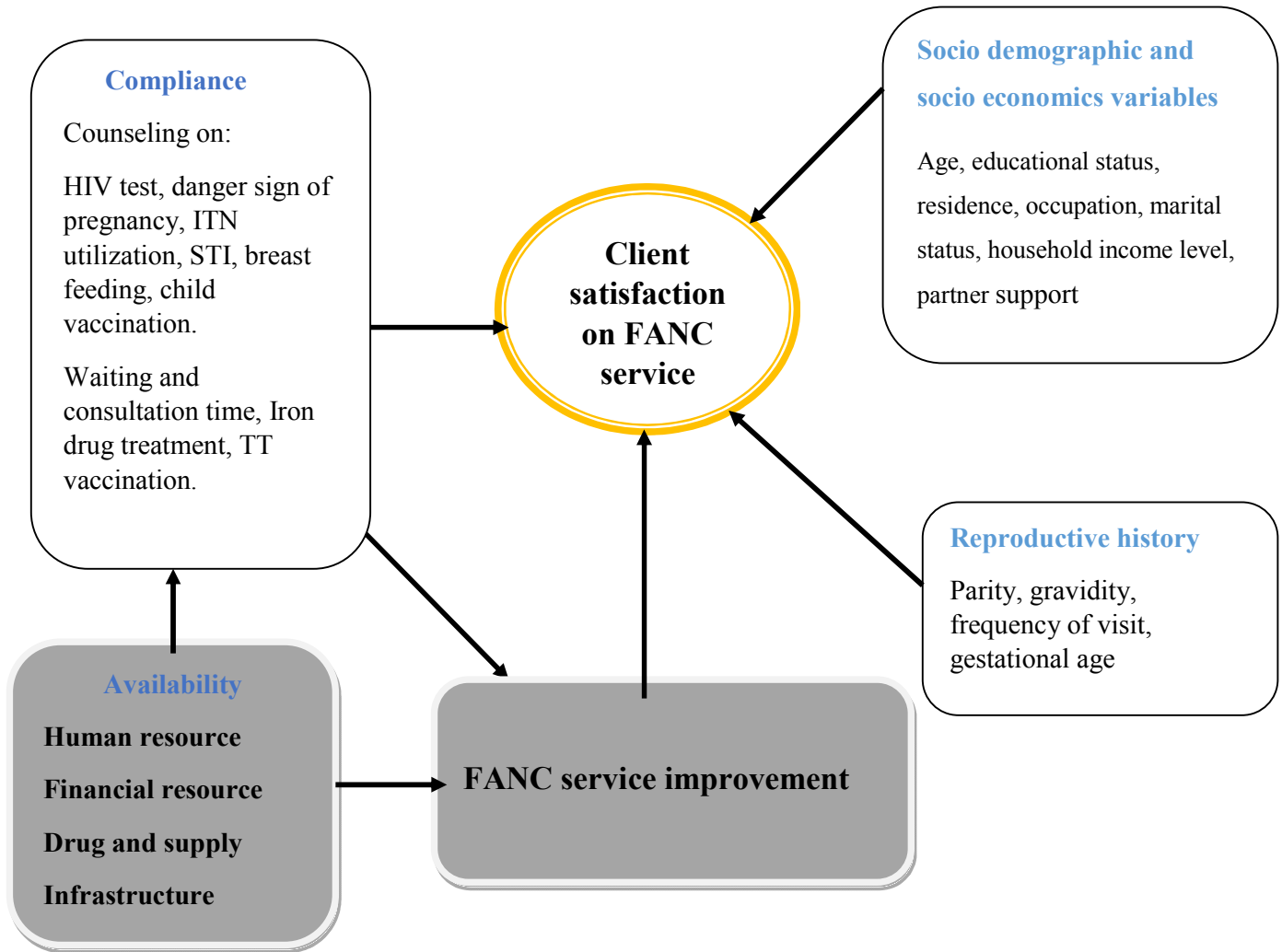
A study conducted on Mothers' Utilization of Antenatal Care and Their Satisfaction with Delivery Services in Selected Public Health Facilities of Wolaita Zone shows information about place of delivery associated for client satisfaction. COR 0.94(0.31, 2.88)(36.)

A study conducted at Chenchu Quality of Antenatal Care Service in Public Health Facilities of Chenchu District, Gamo Gofa Zone, Southern Ethiopia shows information on birth preparedness and emergency plan AOR 2.191(1.118, 4.239) , parity two and less AOR 2.185(1.192, 4.000) and residence urban AOR 2.043(1.163,3.587) as predictor of client satisfaction on antenatal care service(37).

A study conducted at Bahir Dar town on quality of antenatal care service at public health facility were shows explaining procedures, frequency of visit, consultation time, privacy and sex of service providers were predictors of client satisfaction on antenatal care service (32).

Study conducted at Ghana on assessment of clients' satisfaction with quality of antenatal care at Korle –Ghana that shows 57.1% of ANC clients satisfied with waiting time. There was no significance association with waiting time but on multivariate analysis clarity of treatment to clients (P-value 0.008). On bivariate analysis information on breast feeding (P- value 0.01) and Attitude of nurse on related to clients (0.0001) predictors of satisfaction on ANC service (38)

Conceptual framework shows that association between dependent variable of client satisfaction on antenatal care service with different independent variables which associate with client satisfaction. In this study FANC service improvement and availability of resource which have direct association with client satisfaction was not studied.



**Figure 2** conceptual frameworks to evaluate implementation status of FANC service at public health centers of Hawassa town 2017, Adapted from a framework for evaluation of quality care in maternal service (42)

# CHAPTER FOUR

## Evaluation Questions and Objectives

### 4.1 Evaluation Questions

1. Are the resources needed to provide FANC available? If not why
2. Do focused antenatal care providers comply with FANC guidelines in delivering focused antenatal care service? If not why?
3. Are the clients satisfied with focused antenatal care service provided to them?
4. What are the factors that affect the satisfaction of clients on focused antenatal care?

### 4.2 Evaluation objectives

#### General Objective

To evaluate the implementation status of focused antenatal care services at public health centers of Hawassa town, 2016/17.

#### Specific Objectives

1. To assess the availability of resources required to provide focused antenatal care services in public health centers of Hawassa town.
2. To describe and judging the compliance of focused antenatal care service providers with the focused antenatal care guidelines at Hawassa town public health centers.
3. To determine the proportion of client satisfaction among users of focused antenatal care services at public health centers of Hawassa town.
4. To identify factors associated with client satisfaction on focused antenatal care at public health centers of Hawassa town.

## **CHAPTER FIVE**

### **Evaluation Method**

#### **5.1 Evaluation area**

Hawassa town which serves as the capital city of Southern Nation Nationalities and People Regional state and Sidama zone administration is located 273 km far from Addis Ababa.

Hawassa town administration has an area of 157.2 sq. Kms. Divided in to 8 sub cities and 32 kebeles. According to 2015/16 census projection total population is 359,358. Reproductive age group from 15-49 years 96,659 from these 12,434 estimated numbers of pregnant mothers.

The human resources of Hawassa town health department are a total of 380 health care providers. Regarding to health infrastructure in the town administration there is 1 referral, 1 district and 4 private hospital, 10 public health centers, 15 health posts and 51 private clinics on 2015/16 Town health department report (20).

#### **5.2 Evaluation period**

Evaluability assessment was conducted from Dec.15/2016 to Dec.25/2016 and Evaluation was conducted from March 14/2017 to April 13/2017 in Hawassa town southern Ethiopia.

#### **5.3 Evaluation approach**

FANC program at Hawassa town public health centers is in implementation stage and an ongoing program, so a formative evaluation approach was used with the intention of improving the FANC program.

#### **5.4 Evaluation design**

Single Case study design with both qualitative and quantitative data collection method was used in a case of FANC Service in Hawassa town. For choosing a case study is to get extensive and explorative result. Moreover case studies allow us to build a sound hypothesis about the relationships between interventions and their context (40).

#### **5.5 Focus of evaluation and dimension**

##### **5.5.1 Focus of evaluation**

Focus of the evaluation was process in which it provides information about resource to be used, activities to be accomplished and expected output and also perceived clients satisfaction in FANC services of Hawassa town public health centers.

### **5.5.2 Evaluation dimension**

The dimensions of this Evaluation were Availability, compliance and Acceptability.

**Availability:** The relationship of the volume and type of existing services and resources to the clients' volume and types of needs. It refers to the adequacy of the supplies, health care providers and service delivering infrastructures with their respective clients (41).

**Compliance:** refers to whether the activities are delivered according to the standard or the FANC implementation guideline (42).

**Acceptability (Client Satisfaction):** clients satisfied in their perspective about the FANC service they received. It is important to examine how the client views the services so that the immediate outcome of the service was evaluated proximally (42).

## **5.6 Variables/Indicators**

### **5.6.1 Variables**

#### **Dependent variable**

- ❖ Client Satisfaction on FANC service.

#### **Independent variables**

- ❖ Socio demographic and socio economic variables (age, educational status, occupation, marital status, household income level)
- ❖ Reproductive history (parity, gravidity, frequency of visit, gestational age)
- ❖ Waiting time.
- ❖ Consultation time.
- ❖ Preventive therapy (Iron tablet and TT vaccination)
- ❖ Male partner support
- ❖ Information received on danger sign, HIV test, ITN use, breast feeding and family planning and vaccination.



## 5.6.2 Indicators

### Availability Indicators

Availability of resource for the implementation of focused antenatal care service was measured by 13 indicators.

- ✧ Proportion of health center with trained man power on FANC.
- ✧ Proportion of health center with current plan document for FANC.
- ✧ Proportion of health center having FANC guideline.
- ✧ Proportion of health center having equipments needed to provide FANC (functional: Bp apparatus, stethoscope, fetoscope, Adult weight scale, Examination couch).
- ✧ Proportion of health center having essential preventive and therapeutic drugs and supplies for pregnant mothers (iron/folate, Mgso<sub>4</sub>, TT vaccine, and anti-malarial drug).
- ✧ Proportion of health center having drug option needed for STI management (Erythromycin, Ciprofloxacin, Benzathine penicillin, Doxycycline, Metronidazole, and Clotrimazol).
- ✧ Proportion of health center having laboratory supply for diagnosis and screening pregnant mothers (HIV, syphilis, urine test for protein, Hgb test, urine test for infection and blood, group and Rh factor).
- ✧ Proportion of health center with basic amenities (functional pipe water, power supply, emergency transport, ANC private room, functional latrine and communication material).
- ✧ Proportion of health center with no stock out of drugs for HAART within six months (TDF, 3TC, EFV).
- ✧ Proportion of health center with no stock out of drugs for TB treatment within six month (ERHZ, RH, STM, RHZ combination drug).
- ✧ Proportion of health center which have materials required for hand washing facility inside ANC room (running water, soap and towel).
- ✧ Proportion of health center with materials needed for infection prevention is available (Sharp disposal container, general waste bin, disinfectants).
- ✧ Proportion of health center with materials needed for record keeping (registration books, reporting formats and client folder).

## **Compliance Indicators**

Compliance of the health care provider with FANC guideline was measured by the following indicators (17 indicators).

- ✧ Proportion of pregnant mothers who are greeted and called by their name.
- ✧ Proportion of pregnant mothers whose history taken (obstetric and medical history)
- ✧ Proportion of pregnant mothers whose vital sign measured (BP, pulse rate, respiratory rate, temperature and weight)
- ✧ Proportion of pregnant mothers who have got physical examination (skin, conjunctiva, edema, breast).
- ✧ Proportion of pregnant mothers whose laboratory investigation is ordered (for blood group and Rh, hemoglobin, urine test for protein, urine test for infection and RPR test).
- ✧ Proportion of pregnant mothers who got PMTCT service (offered, tested and post counseling for HIV test).
- ✧ Proportion of pregnant mothers injected tetanus toxoid vaccine.
- ✧ Proportion of pregnant mothers who got prescription for iron and folic acid.
- ✧ Proportion of pregnant mothers oriented on breast feeding, baby vaccination and use of contraception.
- ✧ Proportion of pregnant mothers oriented about danger signs (vaginal bleeding, headache, fever, vaginal gush of fluid, abdominal pain, blurred vision)
- ✧ Proportion of pregnant mothers informed about nutritional need, personal hygiene and rest.
- ✧ Proportion of pregnant mothers oriented on birth preparedness and emergency plan.
- ✧ Proportion of pregnant mothers who advice on routine and follow up visit.
- ✧ Proportion of eligible pregnant mothers referred to the next level.
- ✧ Proportion of mothers informed for place of delivery.
- ✧ Proportion of pregnant mothers who are informed her and fetus health condition.
- ✧ Proportion of mothers whose major assessment and finding were recorded on client card (client history, physical examination, laboratory investigation, counseling and treatment and prophylaxis given for client).

## **Acceptability (client satisfaction) indicators**

Client satisfaction on focused antenatal care service was measured by (11 indicators)

- ✧ Proportion of mothers satisfied on the cleanness of the examination room.
- ✧ Proportion of mothers who are satisfied on visual privacy during examination.
- ✧ Proportion of mothers who are satisfied on auditory privacy during examination.
- ✧ Proportion of mothers who are satisfied on the way of communication with health care provider.
- ✧ Proportion of mothers who are perceived satisfied on the overall FANC service provided.
- ✧ Proportion of mothers who are satisfied on appropriateness of waiting area.
- ✧ Proportion of mothers who are satisfied with the service waiting time.
- ✧ Proportion of mothers who are satisfied with consultation time.
- ✧ Proportion of mothers who are satisfied on the explanation the providers gave to them about a problem or treatment.
- ✧ Proportion of pregnant mothers who interest to continue the rest ANC visit in this health Center.
- ✧ Proportion of mothers who interest to recommend the relatives and others to attend their antenatal visit in this facility.

## **5.7 Populations and sampling**

### **5.7.1 Source of population**

All FANC clients attending FANC service at selected health centers, health care providers of antenatal care unit, health center head, MCH coordinator, town health department program coordinators and program document were source population.

### **5.7.2 Study population**

#### **For quantitative part**

FANC clients attending FANC service at selected public health centers of Hawassa town during the study period were study population.

### **For qualitative part**

Hawassa town administration health department MCH core process coordinator, selected health centers head, selected health center MCH focal person, and selected healthcare providers were study population.

#### **5.7.3 Sampling unit**

Health centers, FANC clients, program managers, health care providers and program document were sampling units.

#### **5.7.4 Study units**

Individual FANC clients, health care providers, program coordinator and health center program document were study unit and FANC client and public health centers were primary and secondary unit of analysis respectively.

#### **5.7.4 Sample size determination**

##### **For health facilities**

WHO suggest that to select health facility for the assessment mainly depends on the number of health facility that the statistical arguments for the determination of the sample size, the available funds and human resources should also be taken into consideration. For example for total number of health facility of 9 or less, 10-19, 20-39,40-59 and 60-99 the proposed sample fraction all the HF, 50%,40%,30% and 20% selected respectively (43).

Based on WHO suggestion 50% of health centers (5 health centers) were selected randomly by lottery sampling technique. From the total of 10 health centers 5 health centers were selected (Alamura, Millennium, Adare, Tilte and Gemeto health centers)

##### **For client exit interview**

By using Single population proportion with P value 50% and 5% marginal error (d) and confidence interval of 95%.size was: 384 and by adding 10% non-response rate, the final sample size was 422 clients attending public health centers of Hawassa town within study period were interviewed.

### **For in-depth interview**

A total of 13 in-depth interviews were conducted from Hawassa town administration health department, selected health centers head, and MCH focal person were involved in key informant interview.

### **For observation**

Two health care providers who are working in FANC services from each selected health centers (5 health centers) were involved. A total of 60 observation were conducted. Each health care provider was observed when they provide the service for six clients consecutively starting from the first client during observation sessions (44).

### **Document review**

Plan document, bin card of drugs were reviewed 6 month back from the study period. And 40 client folders who were directly observed client document reviewed to cross checking pregnant mothers eligible for some services like TT vaccination, HIV test, some laboratory test and complete recording at the time of observation.

### **For resource inventory**

Availability of resources based on list of indicators (staff, test kits, drugs, guidelines, medical supplies) and infrastructures like water and power supply, emergency transport... availability and functionality were checked.

### **5.7.5 Sampling procedure/technique**

**Clients exit interview** the selected five health centers were considered in the sampling process. Total sample size proportionally allocated by average monthly client flow of 3 month back to the study period for each health centers and clients come to FANC service during the study period conveniently were interviewed without any interruption. The data collection continued until end of required sample size attained.

### **In-depth interview**

Purposive sampling technique was used for in-depth interview. The reason that they are better information sources for the issues related FANC service such as availability and sustainability resources, competency of health care providers and the strength and weakness of the implementation status of the program.

## **Direct observation**

Two health care providers who are specifically assigned in FANC services from each selected health centers were randomly selected who available during data collection period.

## **Document review**

Program documents were reviewed to ensure that the program is implemented with appropriate way for this reason bin card, program document, and selected clients card during observation were put separately and at the end of the day the client register were reviewed.

## **Resource inventory**

At convenient time for head of the health centers or his representative all the data concerning to availability of resource for FANC service were conduct resource inventory, observation and interviewed according to the operational definition of the items to be observed .

### **5.7.6 Inclusion and exclusion criteria**

#### **Exclusion criteria**

- ❖ Client who are seriously ill were excluded.
- ❖ Who come again within the study period for further consultation were excluded.
- ❖ Pregnant mothers who come for other services were excluded.

## **5.8 Data collection**

### **5.8.1 Development of data collection tools**

#### **Data collection tool for exit interview**

Structured questionnaire containing specific components on background characteristics of client, reproductive history, received information at ANC, delivery plan; In general, it contains close-ended questions related to perceive satisfaction in related to FANC service component (Acceptability).

Data collection tool were prepared for pregnant mother to interview. Which is adapted from a handbook for measuring and assessing the integration of family planning and other reproductive health services including FANC which is developed by USAID and population council frontiers, 2008 (45).

The questionnaire for the client exit interview was translated into Amharic languages by English teacher who knows Amharic language and back translated to English by an independent English teacher before pre-testing to insure its consistency in meaning. And

pretest was conducted by 22 samples questionnaire of exit interview on Tula health center other than study area near to Hawassa town.

#### **Data collection tool for in-depth interview**

For In-depth interview semi structured guide was prepared for different level of key informant (for health department head, FANC focal person and health center head) which contain barriers and facilitators of the implementation of FANC service in Hawassa town public health centers in relation to availability, compliance and client satisfaction.

#### **Data collection tool for direct observation**

Observation checklist was used for provider-clients interaction and assessment of compliance to FANC guidelines. Checklist was covered interpersonal relationship, obstetric history, counseling, laboratory investigation, prophylaxis and treatment in general the checklist was containing major component which provided for pregnant mothers (8).

#### **Data collection tool for document review**

Document review checklist was prepared for client card review and program document. For clients card the checklist which contains FANC service needed to client. It helps client information properly recorded or not and also to know what service missed. And for program document were contain ANC activity plan were checked to assess compliance to national guideline. The tool is adapted from USAID and population council frontiers, 2008 (45).

#### **Data collection tool for Resource Inventory**

Resource inventory checklist, containing infrastructure (water supply, electricity, functional latrine, and communication equipment), human resource, drugs and medical supply, and laboratory supply were used to assess the availability of the required resources for the delivery of FANC service which are adapted from USAID and population council frontiers, 2008.

#### **5.8.2 Data collectors**

Five data collectors and two supervisors who had BSC in midwifery and nurse and experienced on the provision of FANC service were used. Data collectors were selected from other than the study health facility. Data collectors were trained for one day on the content of the data to be collected, ethical issues to be addressed during gathering the data, communication skill, how to use the data collection guide and tools by principal evaluator.

Supervisors were trained for one day on the content data to be covered, on how to manage data collection process and the way to monitor the quality of data by principal evaluator.

Exit interview, observation and client card review were conducted by data collectors.

In-depth interview, Resource inventory and program document review were conducted by the principal evaluator.

### **5.8.3 Data collection field work**

Pretest was conducted before the actual data collection. The process of data collection was supervised closely.

The daily performance of the data collection process was assessed with the group members and appropriate correction for the next day in case when problem occurs.

Data were checked on daily base for completeness and consistency by supervisors and principal evaluator and appropriate corrections were given at any time during data collection period. In each day the collected in-depth interview data were transcribed

### **5.8.4 Data Quality Assurance**

#### **For quantitative data**

- One day Training was given for data collectors and supervisor.
- To check reliability of the satisfaction tool by using data obtained from pre test which has internally reliable cronbach's Alpha based on items was (0.898). For other data collection tool some terminological adjustment was done on the tool.
- Periodic supervision and technical support for data collectors.
- Epi data was used for data entry to minimize data entry error.

#### **For qualitative data**

- Member checks
- Peer examination



## **5.9 Data management and analysis**

### **5.9.1 Data entry**

Quantitative data were checked for completeness every day after data collection by principal evaluator together with data collectors and supervisors. Data was coded and entered to Epi data 3.1 for further processing then export to SPSS version 20.0 for analysis.

For the qualitative data: in-depth interview responses were transcribed, coded, categorized and analyzed using thematic analysis technique.

### **5.9.2 Data cleaning**

Incomplete, inconsistent and invalid data were refined properly to get maximum quality of data before, during and after data entry. Corrections were made according to the original data.

### **5.9.3 Data analysis**

The Quantitative data which is collected from client exit interview data entered to Epi-data then export to SPSS version 20.0.

Univariate analysis was done to see the frequency, percent and mean of variables for descriptive results. Binary logistic regression was used to determine the association between dependent variable and independent variables. And those variables which showed statistical significant value ( $p < 0.25$ ) on bivariate analysis were taken in to multivariate analysis. The results of quantitative data were mainly presented by using frequency tables and figures.

Satisfaction of clients on FANC was measured by 11 items each having five point Likert scale from strongly dissatisfied value 1 to strongly satisfied value 5. To get the total score of each respondent were summed. To categorized clients in to satisfied and dissatisfied by using cut point by demarcation threshold formula.  $(\text{Total highest score} - \text{Total lowest score}) / 2 + \text{Total lowest score}$ . (46).

Clients were categorized as dissatisfied if they score below the cut point and satisfied if they score  $\geq$  to cut point satisfaction score.

The qualitative data were analyzed manually using thematic analysis with respective dimensions and results were presented in narrative form. The final interpretations of results were based on evaluation weights and statistical analysis result of the evaluation.

### **5.10 Matrix of analysis and judgment**

The final evaluation judgment was decided based on settled judgment parameters. Dimension is weighted by the stakeholders by nominal group technique method to reach an agreement for evaluation of focused antenatal care services in Hawassa town public health centers. the agreed parameters was 85-100% as V. Good, 70-84% as Good, 56 -69% as Fair and < = 55% as poor.

### **5.11 Ethical Issues**

Ethical clearance was secured from Jimma University College of public health and medical sciences ethical committee before the beginning of data collection activity.

A Written Letter of co-operation from Hawassa town health department office to the selected health facility. And before data collection client, healthcare provider and key informant after explaining the purpose of the study to them

Confidentiality and privacy of the participant was maintained throughout the process of data collection. The evaluation teams were trained on how to handle sensitive and emotional issues and on the importance of keeping confidentiality and conflict of interest were identified and dealt with openly and honestly, so that it did not compromise the evaluation processes and results.

Evaluation was designed to assist organizations, to address and effectively serve the needs of the full range of targeted participants. From all study participants a written consent was received before collecting data.

### **5.12 Evaluation dissemination plan**

The final evaluation finding presented to Jimma University for approval then organizing a one day finding presentation session for a key stakeholders (Hawassa town health department head, health centers head and FANC focal person...) hard and soft copy of the report disseminated to a key stakeholders and finally disseminate the finding for publication in national or international journal.

## CHAPTER SIX

### RESULT

#### 6.1 Availability of FANC Service Resource

. Five of the health centers namely Millennium, Adare, Alamura, Tilte and Gemeto HCs had no shortage of health care providers based on client flow but out of 36 health care providers assigned at ANC only 5 health care providers trained on FANC within the last two years.

*A 25 years female case team leader said*

*“...in our case team even if 3 Midwives and experienced nurse were available that means not enough to provide quality ANC service. For previous two year there was no training opportunity. We need refreshment and in-service training to update our capacity...”*

*A 32 years male head of health centers Added*

*“...there is a problem on providing training for health care provider. Especially FANC service related training mostly organized and prepared by NGO, regional health bureau and town health department level. In related to this condition in last 2-3 years most of health care providers of our health centers had not trained on FANC.*

All health centers had functional pipe water supply but Millennium and Gemeto health centers had no functional hand washing facility in ANC room. Regarding to electricity except Gemeto HC all health centers had main electrical power supply with contingency generator.

*A 24 years female case team leader said:*

*“...so difficult to go other unit for hand washing in between service provision it is better to maintain non functional hand washing facility in ANC room.”*

*A 32 years male head of health center Added*

*“...ANC and OPD room had no functional hand washing facility. There is no financial problem to solve maintenance related issue of the health center. I try to solve hand washing facility problem.”*

*A 24 years female MCH coordinator of health center said“ ...a big challenge related to power supply. Sometimes main power supply interrupted in between service provision a pregnant mother’s wait a long time to receive laboratory result. To deliver quality ANC service health center need alternative power supply.”*

All health centers except Gemeto HC had stock out of Iron drugs during and back two month from data collection period. And TT vaccine, ART and STI drugs had available at all health centers.

*A 36 years male town health department level manager Added*

*“...Iron tablet stock out was a problem of almost all public health facility of Hawassa town in the previous two month. This due to excess iron tablet expired at regional and health centers store. In related to solve this Iron drug wastage Iron supply was interrupted from the suppliers for some months...”*

Almost all health centers had essential laboratory reagent and supply for syphilis, blood group, urine test and HIV except Alamura HC for syphilis, Gemeto HC for Hgb and urine test and Tilte HC for Hgb test.

*A 25 years female case team leader said.*

*“...Difficult to categorize anemia in pregnant mother clinically. Hgb test kit needed for early detection and management of Anemia.”*

Adare and Gemeto health centers had no weight scale and also Gemeto HC had no blood pressure measuring apparatus and thermometer.

*A 24 years female case team leader said.*

*“...it is difficult to saying pregnant mothers wait for some minute to measure blood pressure due to one BP apparatus for all units of health center.”*

Except Millennium and Adare health center others HC had no FANC guideline in ANC room. And regarding to recording and reporting format except Gemeto health center had no client and appointment card in others health centers were available.

**Table 2:** Availability of resources on FANC at five health public centers of Hawassa town, 2017

Available resource	Name of health center					Total present HC	Total not present HC
	Millennium HC	Adare HC	Alamura HC	Tilte HC	Gemeto HC		
<b>Human resource</b>							
trained man power	1	1	0	1	0	3	2
<b>General infrastructure</b>							
Functional Pipe /protected water source	1	1	1	1	1	5	0
Regular Electricity	1	1	1	1	0	4	1
Functional Client latrine	1	1	1	1	1	5	0
Communication equipment (phone, Fax....)	1	1	1	1	0	4	1
Emergency transport	1	1	1	1	1	5	0
Private room	1	1	1	1	1	5	0
<b>Drugs, vaccine and medical supplies</b>							
Iron/folic acid tablet	0	0	0	0	1	1	4
Mgso4	1	1	1	1	0	4	1
Anti-malaria drug	1	1	1	1	1	5	0
TT vaccine	1	1	1	1	1	5	0
ART drugs (EFV,TDF,3TC)	1	1	1	1	1	5	0
<b>Anti TB drugs</b>							
ERHZ	1	1	1	0	1	4	1
STM	1	1	1	0	1	4	1
RHZ	1	1	1	0	1	4	1
RH	1	1	1	0	1	4	1
<b>Drugs for STI</b>							
Erythromycin	1	1	1	1	1	5	0
Ciprofloxacin	1	1	1	1	1	5	0
Benzathine penicillin	1	1	1	1	1	5	0
Doxycycline	1	1	1	1	1	5	0
Metronidazole	1	1	1	1	1	5	0
Clotrimazol	1	1	1	1	1	5	0

Laboratory reagent								
RPR kit/VDRL	1	1	0	1	1	4	1	
Blood group and Rh	1	1	1	1	1	5	0	
Hemoglobin kit	1	1	1	0	0	3	2	
Dipstick for urine test	1	1	1	1	0	4	1	
1 <sup>st</sup> response	1	1	1	1	1	5	0	
Uni gold	1	1	1	1	1	5	0	
Vikia	1	1	1	1	1	5	0	
RDT for malaria or microscope	1	1	1	1	1	5	0	
<b>Functional Equipment</b>								
Gynecological Examination couch	1	1	1	1	1	5	0	
Adults weighing scale	1	0	1	1	0	3	2	
Blood pressure gauge	1	1	1	1	0	4	1	
Stethoscopes	1	1	1	1	1	5	0	
Fethescope	1	1	1	1	1	5	0	
Thermometer	1	1	1	1	0	4	1	
Sterilizer	1	1	1	1	1	5	0	
<b>Guideline, recording and reporting material</b>								
FANC Guideline	1	1	0	0	0	2	3	
Plan document	1	1	1	1	1	5	0	
Antenatal clients' cards	1	1	1	1	0	4	1	
Antenatal clients register	1	1	1	1	1	5	0	
Antenatal clients appointment card	1	1	1	1	0	4	1	
Reporting formats	1	1	1	1	1	5	0	
<b>Hand washing and personal protective equipment</b>								
Running/clean water in the ANC room	0	1	1	1	0	3	2	
Soap	0	1	1	1	0	3	2	
Towel	0	0	1	0	0	1	4	
Safety box	1	0	1	1	1	4	1	
Waste disposal bin	1	1	0	0	0	2	3	
Disinfectant	1	1	1	1	1	5	0	
Glove	1	1	1	1	1	5	0	

**Key** present= 1

Not present= 0

Availability of the resource which needed to provide Antenatal Care Service measured by 13 indicators and under each indicator also sub categories. Weight given for each indicator based on essentiality of resource. Finally total score judged on steeled criteria.

Availability of basic amenity, drugs option for ART, STI and malaria under best performance and availability of Iron drugs and west disposal Bin poorly performed. As general which needs some improvement.

Table 3: Judgment matrix for availability dimension on FANC at public health centers of Hawassa town, 2017

Dimensions with indicators		Weight given	Observed value	Percentage achieved	Judgment parameter
Availability Indicators					
proportion of health center with trained man power on FANC		8	4.8	60	<b>85-100%=V. Good 70-84% =Good 56-69%= Fair &lt;=55%=poor</b>
proportion of health center with current budget plan for FANC		4	4	100	
proportion of health center having FANC guideline		5	3	60	
proportion of health center having major equipments needed to provide FANC service	Bp apparatus	3	2.4	80	
	stethoscope	1	1	100	
	fetuscope	1.5	1.5	100	
	Adult weight scale	2	1.2	60	
	Examination bed	2	2	100	
proportion of health center having essential drugs and supplies for pregnant mothers	Iron/folate	3	0.6	20	
	Mgso <sub>4</sub>	4	3.2	80	
	TT vaccine	2	2	100	
	Anti malarial drugs	3	3	100	
proportion of health center having drug option and supplies needed for STI management	Erythromycin	1.5	1.5	100	
	Ciprofloxacillin	1.5	1.5	100	
	Benzathine	1.5	1.5	100	

	penicillin				
	Doxycycline	1.5	1.5	100	
	Metronidazole	1	1	100	
	Clotrimazol	1	1	100	
proportion of health center having laboratory supplies for diagnosis and screening pregnant mothers	For HIV	2	2	100	
	For syphilis	2	1.6	80	
	Urine for protein	1.5	1.2	80	
	Urine for infection	1.5	1.2	80	
	Hgb test	2	1.2	60	
	Blood group and Rh	2	2	100	
proportion of health center with basic amenities	functional pipe water	3	3	100	
	Client latrine	1.5	1.5	100	
	Emergency transportation	2.5	2.5	100	
	Electricity	2	1.6	80	
	Communication material	1.5	1.2	80	
	Private ANC room	4	4	100	
proportion of health center with no stock out of drugs for HAART within the last six months	TDF	2	2	100	
	3TC	2	2	100	
	EFV	2	2	100	
proportion of health center with no stock out of drugs for TB within the last six months	ERHZ	2	1.6	80	
	STM	1	0.8	80	
	RHZ	1	0.8	80	
	RH	2	1.6	80	
proportion of health center with a materials required for hand washing	Running water	1.5	0.9	60	
	Soap	1	0.6	60	



	Towel	0.5	0.1	20	
proportion of health center with a materials needed for infection prevention is available	Personal protective equipment	2.5	2.5	100	
	disinfectants	1.5	1.5	100	
	Sharp disposable container	2	1.6	80	
	waste disposal bin	2	0.8	40	
proportion of health center with materials for Record keeping and reporting format	Registration books	1.5	1.5	100	
	Client cards	2	1.6	80	
	Reporting formats	1.5	1.5	100	
<b>Availability</b>		<b>100</b>	<b>83.1%</b>		<b>Good</b>

## 6.2 Health care provider's compliance with the national FANC Guideline

A total of 60 observations were conducted at five health centers of Hawassa town. The first two observations from each provider excluded in the analysis to minimize hawthorn effect. A total of 40 observation included in the analysis .During observation time health care providers were assessed to compliance the national FANC guideline.

About 80% of clients were greeted and called by their name before starting examination and for 97.5% of observed participant previous and current medical and obstetric histories were taken.

About 95% and 75% of observed clients were measured for their blood pressure and weight respectively. Only 5% for temperature and 2.5% for pulse rate were measured.

Regarding to physical examination 95%, 35%, 12.5% and 7.5% of observed clients were examined for Conjunctiva, Edema, Skin and breast respectively.

All observed clients were counseled, tested and received test result of HIV. And also about 87.5% clients for blood group and Rh, 87.5% for urine for infection, 85% for syphilis and 22.5% for Hgb laboratory investigation were ordered.

About 90% of pregnant mothers were vaccinated for Tetanus Toxioid and 40% of mothers were got prescription for Iron tablets.

Only 10%, 7.5% and 2.5% of observed clients were counseled for breast feeding, child vaccination and family planning respectively. And more than three fourth of clients advised about danger sign for vaginal bleeding, severe headache, abdominal pain, gush of vaginal fluid and less or lose of fetal movement.

All of observed clients were informed on routine and follow up visit. Three fourth of the clients were informed her and fetus health condition. Only 47.5% and 45% of clients were oriented about birth preparedness and emergency plan, all assessment and finding of the clients recorded on client's card respectively.

**Table 4:** Compliance of health care providers to FANC guideline at public health centers of Hawassa town, 2017

Activities		Frequency	%
clients greeted and called by their name		32	80
Clients previous and current history taken		39	97.5
Clients who were vital sign and weight measured	Blood pressure	38	95
	Pulse	1	2.5
	Respiratory rate	0	
	Temperature	2	5
	Weight	30	75
clients who were physical examination done	Conjunctiva	38	95
	Edema	13	35
	Skin	5	12.5
	Breast	3	7.5
Clients who were laboratory investigation is ordered	Blood group and Rh	35	87.5
	Hgb	9	22.5
	Urine for protein	26	65
	Urine for infection	35	87.5

	Syphilis test RPR/VDRL	34	85
pregnant mothers who were offered, tested and received HIV test result	Test offered	40	100
	Tested	40	100
	Received test result	40	100
Clients injected Tetanus toxoid vaccine		36	90
Clients who were got prescription for iron and folic acid		16	40
Clients who were advised about	breast feeding	4	10
	Child vaccination	3	7.5
	use of contraception	1	2.5
Clients oriented about danger signs	Vaginal bleeding	38	95
	Severe head ache	33	82.5
	Severe abdominal pain	35	87.5
	blurred vision	30	75
	Vaginal gush of fluid	34	85
	Fever	23	57.5
	Baby moving less or loss of fetal movement	32	80
Clients who were informed about	Nutritional need	34	85
	Personal hygiene	16	40
	Rest	18	45
Clients who were informed her and fetus health condition		30	75
Clients who were oriented on birth preparedness and emergency plan		19	47.5
Clients who were advised on routine and follow up visit		40	100
Eligible mothers who were referred to the next level		2	100
Clients who were informed for place of delivery		23	57.5
whose all assessment and finding of clients were recorded on client card		18	45

Judgment matrix for compliance based on how many percent of providers achieved from the total observation and weight given for each listed activities. Finally judged based settled criteria. From the total observation HIV test counseling and testing, advice on follow up visit, referring eligible mothers to next level and history taking well implemented. Respiratory and pulse rate measurement, counseling on breast feeding and child vaccination least implemented. As general this needs major improvement.

**Table 5:** Analysis and judgment matrix for compliance dimension on FANC service at public health centers of Hawassa town, 2017

Dimensions and indicators		Weight given	Observed value	Percentage achieved	Judgment parameter
<b>Compliance (100%)</b>					
proportion of pregnant mothers greeted and treated by their name		3	2.4	80%	<b>85-100% =V.            Good            70 – 84% =            Good            56-69%= Fair            &lt; = 55%= poor</b>
proportion of pregnant mothers whose history taken previous and current (obstetric and medical history)	Obstetric history	3.5	3.412	97.5%	
	Medical history	2	1.95	97.5%	
proportion of pregnant mothers whose vital sign measured	Blood pressure	3	2.85	95%	
	pulse rate	1.5	0.037	2.5%	
	respiratory rate	2	0		
	temperature	1.5	0.075	5%	
	weight	1.5	1.125	75%	
Proportion of client whose physical examination done	Conjunctiva	1	0.95	95%	
	Edema	2	0.7	35%	
	Skin	1	0.125	12.5%	
	Breast	1	0.075	7.5%	
proportion of pregnant mothers whose laboratory investigation is ordered	Blood group and Rh	2.5	2.187	87.5%	
	Hgb	2	0.45	22.5%	
	Urine for protein	2	1.3	65%	
	Urine for infection	2	1.75	87.5%	
	RPR	2.5	2.125	85%	
proportion of pregnant mothers who offered, tested and received test result with post counseling for	Test offered	3	3	100%	
	Tested	2	2	100%	

HIV/AIDS	Received test result	2	2	100%
proportion of pregnant mothers vaccinated for tetanus toxoid who are eligible at the time of visit		2	1.8	90%
proportion of pregnant mothers who got prescription for iron and folic acid		3	1.2	40%
proportion of pregnant mothers oriented on	breast feeding	2	0.2	10%
	Child vaccination	2	0.15	7.5%
	use of contraception	2	0.05	2.5%
proportion of pregnant mothers oriented about pregnancy related danger signs	Vaginal bleeding	2	1.9	95%
	Severe head ache	2.5	2.062	82.5%
	Severe abdominal pain	1.5	1.312	87.5%
	blurred vision	2	1.5	75%
	Vaginal gush of fluid	2	1.7	85%
	Fever	2	1.15	57.5%
	Baby moving less or loss of fetal movement	2	1.6	80%
proportion of pregnant mothers informed about nutritional need, personal hygiene and rest	Nutritional need	2.5	2.125	85%
	Personal hygiene	2	0.8	40%
	Rest	1.5	0.675	45%
proportion of pregnant mothers who are informed her and fetus health condition		4	3	75%
proportion of pregnant mothers oriented on birth preparedness and emergency plan		3	1.425	47.5%
proportion of pregnant mothers who advice on routine and follow up visit		3	3	100%
proportion of eligible pregnant mothers referred to the next level		6	6	100%
Proportion of mothers informed for place of delivery		5	2.875	57.5%
Proportion of mothers whose all assessment and finding were recorded on client card		7	3.15	45%
<b>Compliance</b>		<b>100</b>	<b>66.185%</b>	<b>Fair</b>

### 6.3 Acceptability dimension (satisfaction)

A total of 414 pregnant women were participated from five public health centers of Hawassa Administrative town. From those About 176(42.5%) were from Millennium HC, 80(19.3%) were from Alamura HC, 86(20.8%) were from Adare HC, 44(10.6%) were from Tilte HC and 28(6.8%) were from Gemeto HC.

#### 6.3.1 Socio demographic characteristics of the study participants

Majority of the respondent age group was 372(89.9%) from 20- 34 years. And most of them were married and protestant with 402(97.1%) and 201(48.6%) respectively. Regarding to educational status of women primary school were 164(39.6%) and secondary school were 143(34.5%). And 208(50.2%) of the participant were house wife.

**Table 6:** socio-demographics characteristics of pregnant women participated on evaluation of FANC at public health centers of Hawassa town, 2017

Variables	Category	Frequency	Percentage
Age of the care giver	15-19 year	40	9.7
	20-34 year	372	89.9
	35 year and above	2	.5
Residence	Urban	353	85.3
	Rural	61	14.7
Marital status	Married	402	97.1
	Unmarried	10	2.4
	Divorced	2	.5
Educational status	no formal education	51	12.3
	Primary education	164	39.6
	Secondary education	143	34.5
	Tertiary education	56	13.5
Religion	Protestant	201	48.6
	Orthodox	99	23.9
	Muslim	88	21.3
	Catholic	25	6.0
	Others	1	.2

Occupation	government employee	54	13.0
	Merchant	73	17.6
	day laborer	44	10.6
	house wife'	208	50.2
	Others(student, farmer)	35	8.5
Monthly household income	<1000 ETB	24	5.8
	1001-2000ETB	125	30.2
	2001-3000ETB	83	20.0
	>3000ETB	182	44.0
Main communication language	Amharic	258	62.3
	Sidamegna	112	27.1
	Wolitegna	28	6.8
	Others	16	3.9

### 6.3.2 Reproductive Health History

Out of the total respondent 195(47.1%) were primi gravida and 219(52.9%) were multi gravida. And most of the participant 149(36%) were at the second visit. From the total respondent 174(42%) were attend the first visit before 16 Wks of their gestational age.

**Table 7:** reproductive history of pregnant women participated on evaluation of FANC at public health centers of Hawassa town, 2017

Variable	Category	Frequency	Percentage
Number of pregnancy	1	195	47.1
	2-4	206	49.8
	5-6	11	2.7
	>6	2	.5
Number of children	1	148	35.7
	2-4	66	15.9
	5-6	4	1.0
	no children	1	.2
gestational age at this visit	<16 Wks	33	8.0
	16-24 Wks	113	27.3

	25-32 Wks	156	37.7
	>32 Wks	112	27.1
number of ANC visit	First	90	21.7
	second	149	36.0
	Third	97	23.4
	fourth and above	78	18.8
gestational age at first visit	<16 Wks	174	42.0
	16-24 Wks	214	51.7
	25-32 Wks	21	5.1
	>32 Wks	3	.7
	unknown	2	.5

### 6.3.3 Pregnancy related information and preventive service received by clients

About 357(86.2%), 314(75.8%), 313(75.6%) of the respondents were informed about danger sign of vaginal bleeding, severe headaches, and less or loss of fetus movement respectively from health care providers.

Only 119(28.7%, and 118(28.5%) of clients were advised about breast feeding and family planning during their visit respectively. and 95.6% of respondents were TT vaccinated and 69.6% were taken Iron tablets.

**Table 8:** pregnancy related information and preventive services received by pregnant women participated on evaluation of FANC at public health centers of Hawassa town, 2017.

Provided information	Yes	
	Frequency	%
Information on Severe headaches	314	75.8
Information on Vaginal bleeding	357	86.2
Information on Sudden gush of water in the vagina	353	85.3
Information on fever	253	61.1
Information on Severe abdominal pain	292	70.5
Information on Fast or difficult breathing	212	51.2
Information on fetal moving less or not moving at all	313	75.6
Information on Swelling in the face, hands, legs	314	75.8
Information on birth preparedness and emergency plan	234	56.5



Information on importance of iron tablet	218	52.7
Received of iron tablet	288	69.6
injected for tetanus toxoid vaccine	397	95.9
Information on breastfeeding	119	28.7
Information on family planning	118	28.5
HIV test offer	320	77.3
tested for HIV	390	94.2
Information about syphilis	231	55.8
advise about use of treated bed nets	176	42.5

#### 6.3.4 Client satisfaction on different aspect of focused antenatal care service.

To get the total score of each respondent were summed. To categorized clients in to satisfied and dissatisfied on FANC service by using cut point by demarcation threshold formula (46).  
 $(\text{Total highest score} - \text{Total lowest score})/2 + \text{Total lowest score}$ .

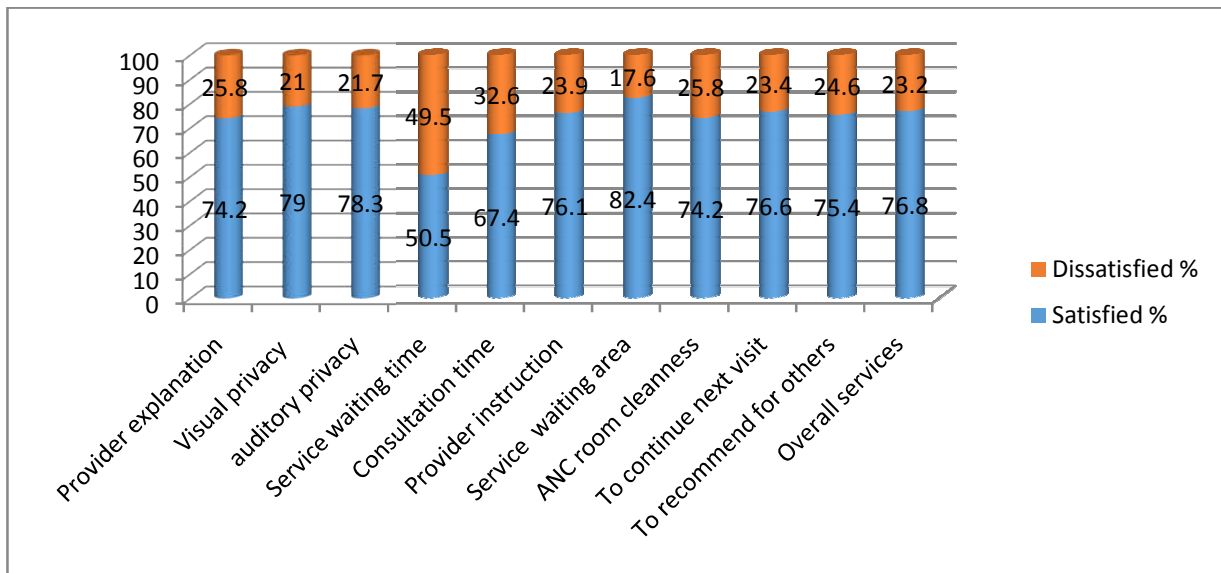
Based on demarcation threshold formula  $\{(55-19)/2\} + 19 = 37$  the cut point was 37

**Table 9:** satisfaction of ANC service clients in different aspect of service for pregnant women participated on evaluation of FANC at public health centers of Hawassa town, 2017

Satisfaction indicators	Level and frequency of satisfaction				
	Strongly dissatisfied	dissatisfied	Neutral	satisfied	Strongly satisfied
satisfied on the explanation the providers gave to them about a problem or treatment	4	30	73	203	104
satisfied on the cleanness of the health institution/	4	25	78	176	131
Satisfied on visual privacy during examination.	2	8	77	188	139
Satisfied on auditory privacy during examination.	2	8	80	184	140
Satisfied with the service waiting time.	11	40	154	132	77

Satisfied with consultation time.	4	20	111	192	87
Satisfied on the way of communication with health provider.	2	9	88	195	120
Satisfied on appropriateness of waiting area.	1	14	58	202	139
Interest to continue the rest ANC visit in this health center.	4	18	75	214	103
Interest to recommend the relatives and others to attend their antenatal visit in this facility	4	23	75	209	103
Satisfied on the overall FANC service provided.	5	20	71	210	108

From the total exit interview participant 49.5% of clients were dissatisfied with service waiting time and 23.9% of client dissatisfied with consultation time.



**Figure 3** shows client satisfaction on different factors of FANC services at public health centers of Hawassa town, 2017

Client satisfaction measured by 11 variables from those more satisfied with appropriateness of waiting area and more dissatisfied by service waiting time as general which needs some improvement.

**Table 10:** Analysis and judgment matrix for Acceptability dimension of the evaluation of focused antenatal care at public health centers of Hawassa town 2017

Dimensions and indicators		Weight given	Observed value	Percentage achieved	Judgment parameter
Acceptability (satisfaction) (100%)					
Proportion of pregnant mothers satisfied on the cleanness of the health institution		9	6.68	74.2	<b>85-100% = V. Good</b> <b>70-84% = Good</b> <b>56-69% = Fair</b> <b>&lt;= 55%= poor</b>
Proportion of pregnant mothers who are satisfied on visual and auditory privacy during examination	Visual privacy	7	5.53	79	
	Auditory privacy	6	4.7	78.3	
Proportion of pregnant mothers who are satisfied on the way of communication with health provider		10	7.61	76.1	
Proportion of pregnant mothers who are perceive satisfied on the overall FANC service provided		11	8.45	76.8	
Proportion of pregnant mothers who are satisfied on appropriateness of waiting area		9	7.42	82.4	
Proportion of pregnant mothers who are satisfied with the service waiting time		12	6.06	50.5	
Proportion of mothers who are satisfied with consultation time.		8	5.4	67.4	
Proportion of mothers who are satisfied on the explanation the providers gave to them about a problem or treatment.		13	9.65	74.2	
Proportion of mothers who interest to continue the rest ANC visit in this health center		8	6.13	76.6	
Proportion of mothers who interest to recommend the relatives and others to attend their antenatal visit in this facility.		7	5.28	75.4	
<b>Acceptability</b>		<b>100</b>	<b>72.91</b>	<b>Good</b>	

### 6.3.5: Judgment matrix for overall FANC service

FANC service was measured by looking at three dimensions Availability, compliance and Acceptability (satisfaction) a total of 100%. Availability 30%, compliance 40% and satisfaction 30% were weight given and the evaluation result shows that 24.93%, 26.47% and 21.87% for availability, compliance and satisfaction respectively. The overall evaluation score was 73.27% this judged as good based on agreed judgment parameter.

**Table 11:** overall judgment matrix of FANC service at public health centers of Hawassa town, 2017.

Dimensions	Agreed score	Observed % Value	Weighted value	Judgment parameter
Availability	30%	24.93	83.1	<b>85-100%= V. Good</b> <b>70 – 84% = Good</b> <b>56 -69%)= Fair</b> <b>&lt; = 55%= poor</b>
Compliance	40%	26.47	66.185	
Acceptability	30%	21.87	72.91	
<b>Total score</b>	<b>100%</b>	<b>73.27%</b>		

### 6.3.5 Factors associated with overall client satisfaction on FANC service

Bivariate analysis was done for socio demographic variable, reproductive health history, information on danger sign, preventive therapy, waiting, and consultation time and laboratory request. Considered as crude association all variable with P-value less than <0.25 were become candidate for multivariate analysis.

**Table 12:** Bivariate analysis of variables with satisfaction of pregnant women participated on evaluation of FANC service at public health centers of Hawassa town, 2017

S.No	Independent variable		Frequency n= 414		P.value	COR	95% CI	
			Satisfied	Dissatisfied			lower	Upper
1	Gestational age	<16Wks	17	16	.0001*	.190	.081	.447
		16-24Wks	88	25	.183*	.630	.319	1.245
		25-32Wks	128	28	.550	.818	.423	1.580
		>32Wks	95	17		1		
2	Age of client	15-19year	29	11	.506	2.636	.151	45.914
		20-34 year	298	74	.327	4.027	.249	65.138
		35 year and above	1	1		1		
3	Residence	Rural	50	11	.568	1.226	.608	2.471

		Urban	278	75		1		
4	Educational background	No formal education	42	9	.186	1.867	.741	4.704
		Primary school	137	27	.051	2.030	.996	4.135
		Secondary school	109	34	.484	1.282	.639	2.572
		Tertiary school	40	16		1		
5	Number of ANC visit	First visit	125	19	.0001*	3.809	1.867	7.772
		Second visit	84	26	.0738*	1.870	.943	3.710
		Third visit	81	19	.015*	2.468	1.196	5.095
		Fourth and above visit	38	22		1		
6	Information on vaginal bleeding	Yes	305	52	.0001*	8.671	4.733	15.884
		No	23	34		1		
7	Received Iron tablet prescription	Yes	247	36	.0001*	4.235	2.578	6.958
		No	81	50		1		
8	TT vaccinated	Yes	317	80	.140	2.161	.776	6.021
		No	11	6		1		
9	Information on STI	Yes	200	31	.0001*	2.772	1.693	4.538
		No	128	55		1		
10	HIV test counseling	yes	248	36	.0001*	8.965	5.259	15.280
		No	44	50		1		
11	Waiting time	<=30 min	112	14	.002*	2.667	1.440	4.939
		>30min	216	72		1		
12	ANC information material received	Yes	55	5	.024*	2.983	1.152	7.722
		No	277	81		1		
13	Partner accompany with client	Yes	143	12	.0001*	4.767	2.494	9.111
		No	185	74		1		
14	Advice on institutional delivery	Yes	178	22	.0001*	3.452	2.030	5.870
		No	150	64		1		
15	Information on less or loss of fetal movement	Yes	276	37	.0001*	7.029	4.181	11.819
		No	52	49		1		
16	Advice on ITN use	Yes	165	11	.0001*	6.902	3.536	13.472
		No	163	75		1		

Variable candidate for multivariate analysis at P-value <0.25(\*) and 1 shows reference group.

Mothers gestational age, number of ANC visit, Iron tablet prescription, information on vaginal bleeding, less or loss of fetal movement, ITN utilization, received ANC teaching information material (leaflets), and partner accompany at ANC visit, waiting time, advice on institutional delivery, counseling on HIV and STI, were candidate for multivariate analysis.

**Table 13:** Multivariate analysis of variables predicting which satisfaction of FANC clients participated on evaluation of FANC at public health centers of Hawassa town, 2017.

S.No	Independent variable		Frequency n= 414		P.value	AOR	95% CI					
			Satisfied	Dissatisfied			lower	Upper				
1	Received Iron tablet prescription	Yes	247	36	<.0001*	3.219	1.757	5.899				
		No	81	50					1			
2	Information on less or loss of fetal movement	Yes	276	37	<.0001*	3.457	1.822	6.559				
		No	52	49					1			
3	Advice on ITN use	Yes	165	11	.005*	3.016	1.393	6.530				
		No	163	75					1			
4	HIV test counseling	yes	248	36	<.0001*	4.285	2.189	8.388				
		No	44	50					1			
5	Partner accompany with client	Yes	143	12	<.0001*	4.961	2.285	10.767				
		No	185	74					1			
6	Waiting time	<30 min	31	279	.013*	2.589	1.221	5.488				
		>=30min	55	49					1			
7	Advice on institutional delivery	Yes	178	22	.579	.805	.375	1.730				
		No	150	64					1			
8	ANC information material received	Yes	55	5	.506	1.466	.474	4.532				
		No	277	81					1			
9	Information on STI	Yes	200	31	.942	1.027	.506	2.084				
		No	128	55					1			
10	Information on vaginal bleeding	Yes	305	52	.167	1.813	.779	4.219				
		No	23	34					1			
11	Gestational age	<16Wks	17	16	.757	1.272	.278	5.821				
		16-24Wks	88	25					.069	2.575	.928	7.148
		25-32Wks	128	28					.387	1.503	.596	3.789
		>32Wks	95	17					1			
12	Number of ANC visit	First visit	125	19	.182	2.073	.711	6.044				

Second visit	84	26	.889	.929	.329	2.624
Third visit	81	19	.449	1.508	.521	4.369
Fourth and above	38	22			1	

Variable at P-value <0.05 (\*) In multivariate analysis shows predictor for client satisfaction on FANC service and 1 shows reference group.

#### 6.3.4.2 Multivariate analysis of variables associated with FANC services

On multivariate analysis, six variables were found to be associated with the client satisfaction on antenatal care services. Iron tablet prescription, information on less or loss of fetal movement as pregnancy danger sign, advice about ITN utilization, HIV counseling, waiting time and partner accompany were predictors for client satisfaction on FANC service.

Mothers who were received Iron tablet prescription 3 times more likely to be satisfied on FANC services as compared to those who were not received Iron prescription during their ANC visit. **AOR 3.219, 95% CI (1.757, 5.899) , P<0.001**

Mother who were informed about less or loss of fetal movement as danger sign of pregnancy were 3 times more likely to be satisfied on FANC service than those not informed. **AOR 3.457, 95%CI (1.822, 6.559), P <0.001**

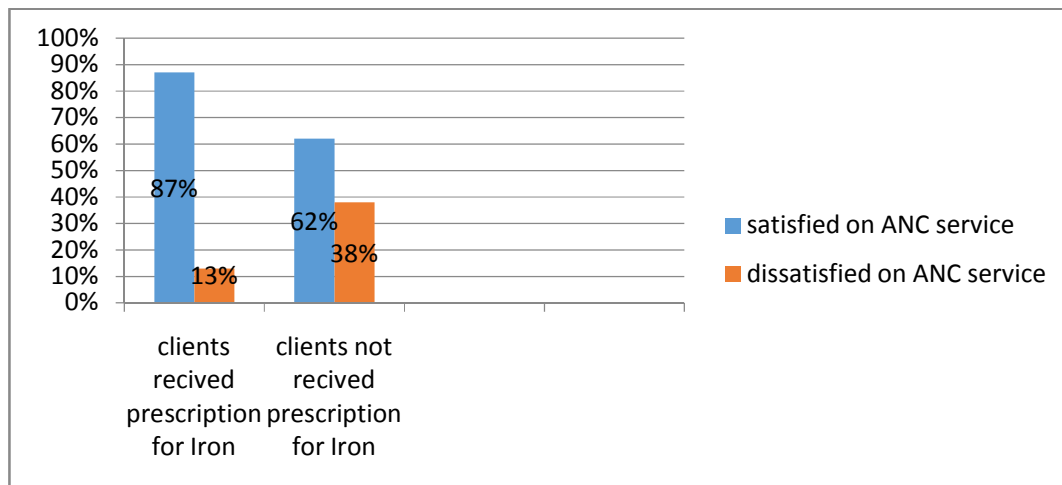
Those care takers who didn't receive information on ITN utilization 3 times less satisfied than those who were received information on ITN utilization. **AOR 3.016, 95%CI (1.393, 6.530), P 0.005**

Mother who were informed about HIV before testing were 4.3 times more likely to be satisfied on FANC service than those who were not informed about HIV before testing. **AOR 4.285, 95%CI (2.189, 8.388), P <0.001**

Client who were partner accompany to ANC visit were 5 times more likely to be satisfied than those client partner who were not accompany to ANC visit. **AOR 4.961, 95% CI (2.285, 10.767), P <0.001**

Client who were waited for <30 minute to see the health care providers were 8 times more likely to be satisfied on FANC service as compared to those who waited more than 30 minute to see health care providers. **AOR 2.589, 95% CI (1.221, 5.488), P 0.013**

**Figure 4:** shows Iron tablet prescription and client's satisfaction on FANC at public health centers of Hawassa town, 2017





## CHAPTER SEVEN

### DISCUSSION

The evaluation employed indicator driven approach to evaluate the implementation status of focused antenatal care service. Three dimensions were employed to judge the performance of focused antenatal care service.

#### **7.1 Availability of FANC service resources**

The availability dimension score 83.1 which judged as good.

Four health centers did not have Iron tablet drugs during the study period and also stock out back for two months duration. Iron drugs are one of the essential drugs during pregnancy for prophylaxis and treatment of Anemia. The absence of this drug may affect maternal and fetal health condition and also contribute on client dissatisfaction on service. Similar finding on the study conducted on availability and use of maternal supplies at Amhara region shows 78.3% of health centers had no Iron tablets (26).

Out of 36 health care providers working on antenatal service only 5(14%) of health care providers trained on FANC in last two years. This may leads to poor compliance of health care providers. This finding was different from the study conducted by Ethiopian service provision assessment survey finding which is 62% health care providers trained on FANC (17). The difference might be Ethiopian service provision assessment survey conducted country level study.

Three out of five of the health centers were had no FANC guideline. This may be contributing for poor service compliance of care providers with the national guideline and on the provision of quality care. This finding was in line with service provision assessment plus survey in Ethiopia shows 62% of health centers had no FANC guideline (17). And also deferent from a study conducted in Bahir Dar town on quality of ANC service finding was shows all health centers had no FANC guideline (32).

One health center had no backup electrical power supply. Main power supply interruption affect provision of service mainly laboratory and EPI service. This supported by qualitative finding of A 24 years female MCH coordinator said

“...a big challenge related to power supply. Sometimes main power supply interrupted a pregnant mother’s wait a long time to receive laboratory result. To deliver quality ANC service health center should need alternative power supply.”

Similarly a study conducted on availability and functional status of FANC laboratory service at Addis Ababa public health facility 5(38.5%) health centers had no backup electrical power supply. it also supported by qualitative finding of in-depth interview of Addis Ababa shows

*29 year female laboratory technologist participant of in-depth interview said, “Sometimes due to electric power disruption we discarded the collected specimen from clients and when power maintain ask mothers to repeats specimen for some specific test like urine and stool ... unreliable electric power supply were affecting over all our services and clients’ loss trusts on the quality of laboratory services.” (47).*

## **7.2 compliance of health care providers with the focused antenatal care guideline**

The compliance score 66.185 which judged as fair.

From 40 observations about 80% of the clients were greeted and called by their name at the beginning of service provision. This is a good opportunity to increase client provider interaction and a way of giving respect for clients. This finding was in line with the study conducted on quality of antenatal care at Bahir Dar town which is 81.2 % of observed ANC clients were friendly greeting offered (32).

Similar with the study conducted on Quality of Antenatal Care Service in Public Health Facilities of Chench District, Gamo Gofa Zone, Southern Ethiopia 85.7% of pregnant mothers were treated respectfully (greeted) at the beginning and end of the examination (44).

Blood pressure and weight have measured for 95% and 75% of pregnant mothers respectively and only 5% clients for temperature, 2.5% of pulse rate and reparatory rate totally were not measured. Routine measuring of vital sign of pregnant mothers is essential for monitoring maternal and fetal health condition. Nearly similar finding weight of client measurement of the study conducted in Jimma higher 2 health center shows 83.1% for wt. measurement (35).

Advices were given for 85% and 2.5% of clients on nutrition and family planning respectively. The finding of this study was different from a study conducted on quality of antenatal care in Bahir Dar town of 59.9% for nutrition and 40.9% for family planning.

This finding was different from the finding of Chench District, Gamo Gofa Zone shows that advice were given 31.4% of clients about nutrition and 28.9% about family planning (44).

The deference might be due to different practice in between study area and regarding to family planning in this study by considering family planning counseling more providing at delivery and post natal service.

From 97% of pregnant mother's previous and current history were taken. This finding almost similar with the study was conducted in Jimma higher 2 health center shows 94.5% of obstetric and 94.2% of clients of medical history (35).

More than three fourth of the observed clients were counseled for vaginal bleeding, severe headache, less or loss of fetal movement, blurred vision and fever as danger sign of pregnancy. Counseling on danger sign for pregnant mothers during their ANC visit helps early identification and prevention of pregnancy related complication (28).

This finding was deferent from a study was conducted in Jimma higher 2 health center of 34.3% of clients were counseled on major pregnancy related danger sign (35). This difference might be due to the observation was conducted at one health center of Jimma town

About 87.5% of clients were investigated for blood group and Rh, 85% of clients for syphilis test and 22.5% of eligible clients for hemoglobin test request were given. Pregnant mothers a risk of blood loss during delivery time due to this reason all pregnant mothers must test for blood group and late pregnancy and clinical susceptible mothers also for hemoglobin. Low hemoglobin test request related to absence of test kit at some health centers. This finding was supported by resource inventory were absence of Hemoglobin test kit in Tilte and Gemeto health centres.

From 40 observations about 90% of eligible pregnant mothers were TT vaccinated and only 40% of mothers were receive Iron prescription. This could be explained by the absence of Iron tablet at most of health centers. This supported by qualitative finding of resource inventory shows that Four health centers had no Iron drugs.

This finding was in line with ANC evaluation study conducted in Jimma higher 2 health center shows 34.3% of clients were received Iron prescription (35). And also similar with a study conducted in Dodoma Municipal of Tanzania shows 76% of mothers TT vaccinated and 23.2% takes ferrous sulphate tablet (31).

Different from EDHS 2011 findings which are 17% of pregnant mothers took Iron tablet during their last pregnancy (14). The difference between the findings might be EDHS country level study and the study time variation.

Only 45% of clients finding (assessment, laboratory result, and treatment given...) were recorded on client card. This incomplete recorded of client information might lead to poor management and wrong decision on client ANC service.

### **7.3 Satisfaction of study participant on FANC services**

The acceptability dimension score 72.91 which judged as good.

Overall satisfaction of clients on FANC service of this study was 79.2% this finding was similar with the study conducted in Jimma higher 2 HC of overall satisfaction on ANC service of 85.3% were satisfied (35). And also similar with a study on Quality of Antenatal care services in eastern Uganda shows overall satisfaction of ANC service was 76.4% of clients (33).

This finding was different from the study of Bahir Dar town on quality of antenatal care service shows overall satisfaction was 52.3% of clients (32).

The difference might be due to subjective nature of the respondents because measures of satisfaction depend on subjective response of the clients. Some times with similar situation different level of satisfaction on service users and also were used different variables to measure client satisfaction on FANC service and the study time variation might attributed to this difference. And also It may be due to Better service provided at Hawassa town public health centers.

Multivariate analysis of this study shows that a clients who received Iron drug prescription 3.369 times more likely to be satisfied on FANC service than those who were not received Iron drug prescription. WHO recommend routine iron supplementation to all pregnant mothers (37). Most of pregnant mothers susceptible to pregnancy related Anemia. And also it enhances client satisfaction on the service.

Finding shows Mother who were informed about HIV before testing were 3 times more likely to be satisfied on FANC service than those who were not informed about HIV before testing. Before conducting any procedure on client explaining what you want to do it increase client acceptability of the provided service,

This finding was similar with a study conducted in Bahir Dar town on quality of antenatal care service at public health facility shows explaining procedures before service provision as predictor of client satisfaction on FANC service and others predictors different from this study like frequency of visit, consultation time, privacy and sex of service providers (32).

This difference might be due to on the selection of independent variable some deferent like sex of service provider in this study all service providers were female for this reason sex out of variable selection.

The result indicates that majority of the respondent 310(74.9%) were service waiting time less than 30minute. And out of this 279(90%) of mothers were satisfied with the overall FANC service. This finding was similar with a study was conducted in Jimma higher 2 health center of 86.4% of mothers satisfied with the mean service waiting time of 28minute (35).

### **Limitations of the evaluation**

Subjective judgments on perceived satisfaction of the clients on FANC service the response of clients might affected by different personal and social condition. This may affect the overall satisfaction result.

Health care Providers may be show their best behavioral responses during the observation of client provider interaction (Hawthorne effect).

## **CHAPTER EIGHT**

### **Conclusion and recommendation**

#### **8.1 Conclusion**

Availability of resource for focused antenatal care service at public health centers of Hawassa town was 83.1% which was judged to be Good with some essential resource absence at health centers. All except Gemeto HC had Iron drugs stock out for more than two month. Alamura and Gemeto HC had no trained health care providers on FANC.

All health centers had available of emergency transport, functional pipe water and private examination room. They had no FANC guideline in Alamura, Tilte and Gemeto health centers. Regarding to laboratory reagent had no syphilis test reagent at Alamura HC and no hemoglobin test kit at Tilte and Gemeto HC. Weight scale was absence at Adare and Gemeto health centers. All these absences of resource affect implementation status of FANC.

Compliance of health care providers with FANC guideline was 66.19% which was judge to be fair. Health care providers giving respect for client were good and also best on previous and current history taking of clients. But On physical examination like pulse rate, reparatory rate, temperature , leg for edema and skin, breast examination poorly compliance of health care providers . And near to total were missed clients counseling on breast feeding, family planning and child vaccination and advising major danger signs of pregnancy were performed properly.

Overall satisfaction of client on focused antenatal care service was 72.9% which was judge to be as good. Mothers who were Received Iron tablet prescription, Information on less or loss of fetal movement as danger sign, Advice on ITN use, HIV test counseling, Waiting time <30 minute and Partner accompany with client were predictor of client satisfaction on FANC service.

Overall FANC service of Hawassa town public health centers was judge to be Good (73.27%).

## **8.2 Recommendation**

### **To Hawassa town health department**

- To avail Iron drug, syphilis and hemoglobin test reagent consistently for excepted Antenatal care service with communicating SNNPR regional health bureau
- Provide FANC training for those who had not trained in last two years.
- Strengthen supply management system to prevent stock out and wastage of resource.

### **To health centers**

- Alamura, Tilte and Gemeto health centers should have to avail FANC guideline with communicating town health department and waste disposal bin in ANC room.
- Millennium and Gemeto health centers need to maintenance of hand washing facility (sink) at ANC room.
- Gemeto health center need to have backup electrical power supply (generator, solar...) adult weight scale and blood pressure measuring apparatus.

### **To Health care providers**

- Should be need to deliver full component of FANC service for all clients especially counseling on breast feeding, family planning, child vaccination, personal hygiene, rest, and birth preparedness and emergency plan.
- Health care providers need to prescribe for clients who must need prophylaxis and therapeutic drugs even if stock out at health centers.
- Should be need to Documenting all finding (assessments, laboratory finding, prophylaxis and therapeutic drugs given and counseling given) on client card.
- To minimize service waiting time.

## **CHAPTER NINE**

### **META EVALUATION**

Meta-evaluation can be used to assess the quality of a single study or a set of studies in different ways. Literature identifies two types of meta-evaluations. First, formative meta-evaluations assist evaluators to plan, conduct, improve, interpret, and report their evaluation studies. Second, summative meta-evaluations – conducted following an evaluation – help audiences see an evaluation’s strengths and weaknesses, and judge its value.

This paper is focus on formative Meta evaluation on evaluation of Implementation evaluation of FANC in Hawassa town public health centers by considering program Evaluation standard, guiding principles of evaluators and Fundamental ethical principles.

The evaluation was conducted after performing all the procedure to synthesis the final report of this evaluation. By using standardized checklist adopted from American Joint committee of Evaluation (49) With 4 standards:

Meta evaluation was conducted by principal evaluator. The overall quality of evaluation shows very good. Which score 94 out of 120.

#### **9.1: Utility standards**

To enhance use of the finding this evaluation was fully participatory from the starting to the end the stakeholders are identified at the beginning so that the rest of the stakeholders were identified by them. The judgment criterion for the evaluation of FANC service for this evaluation was set by stakeholders and the indicators are also commented by them.

The evaluation process was conducted with a standard way by consulting advisors and different stakeholders. The evaluation questions were the needs of stakeholders and the finding at the end disseminated timely according to the interest of the stakeholders. This all were assure the evaluation finding by the target beneficiary.

#### **9.2: Feasibility standards**

To ensure the practicality of FANC evaluation and keep the stakeholders involve, all the points upon which planning agreements were made into activity and as much as possible measures to reduce wastage of resource was sought through a clear communication with those early identified stakeholder.



### **9.3: Propriety standards**

All data collection tools were designed by considering the ethical and legal issues for the rights and welfare of the study participant were considered. Ethical clearance planned to be taken.

There was no procedure that affects privacy, dignity, confidentiality, and rights of participants. The data collection was complete and optimal in assessing the ANC. Stakeholders agreed and consensus reached to do this process evaluation before starting the evaluation and Conflict of interest was dealt with openly and honestly.

### **9.4: Accuracy standards**

The evaluation process was focus from design to the end of evaluation to assure quality of data. The program is described in clear and understandable manner and the context in which the program is being implemented was addressed. The sources of information were cited and the reliability and validity of the information produced were clearly described in method part. In order to address the evaluation questions in the evaluation, respective quantitative and qualitative analysis method is chosen and also data were triangulated to improve accuracy.

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## ANNEXES

### 1. Exit interview Questionnaire developed to assess implementation status of focused antenatal care services at public health centers of Hawassa town, southern Ethiopia, 2017

#### Instructions for the interviewers:

First of all greeting the mother as they leave the area where antenatal care services are provided, and ask them whether they are willing to be asked some questions about the services they received today. If they accept, make sure that you are in a place that comfortable and privacy for the mothers. Ask them for their informed consent to be interviewed (read the form below). Please, interview only women who give their informed consent. For each item in the interview, circle the code of the appropriate response.

#### Informed Consent Form for the Client interview

My name is \_\_\_\_\_ and I am a data collector for the evaluation conducted on the implementation status of focused antenatal care service in Hawassa town health public health centers, the study is conducted to see what services and information, clients are given during their antenatal care visits. This information helps us to propose ways in which to improve the services offered. As part of this study, we are interviewing women who had an antenatal care visit today. In these interviews, we ask them about the services and information they obtained, their satisfaction with the services received, and other health related issues. The interview was private, and none of the providers that saw you today was present. However, your participation in this study is voluntary, and you can refuse totally or interrupt at any time. If you choose not to participate in our study, you not be affected in any way but your participation has great contribution for the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you want.

Shall I proceed with the questions?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes signature \_\_\_\_\_

Date of interview \_\_\_\_\_

Time at which interview started \_\_\_\_\_

Is the questionnaire for the client: A. completed

B. Refused

**A. Exit interview Questionnaire**

1. Background Information of the Client and Facility Identification

Client's identification number\_\_\_\_\_

S.No	Questions	Responses	Skip
101	Age of client	1. < 20 years 2. 20-34 years 3. >=35	
102	Residence	1. Urban 2. Rural	
103	Marital status of the client	1. Married 2. Unmarried 3. Divorced 4. Widowed 5. Other	
104	Educational background of the client	1. No formal education 2. Read and write 3. Primary 4. Secondary 5. Tertiary	
105	Occupation	1. Government employee 2. Merchant 3. Day laborer 4. House wife 5. Other	
106	Monthly Income of the household	1. <1000 birr 2. 1000-2000 3. 2001- 3000birr 4. >3000birr	
107	Religion	1. Orthodox 2. Protestants 3. Muslim 4. Catholic 5. Other	
108	Main Communication language	1. Amharic 2. Sidamegna 3. Wolitigna 4. other	
<b>2. Reproductive Health History</b>			
201	How many times did you become pregnant including this pregnancy?	1. 1 times 2. 2-4 times 3. 5-6 times 4. > 6times	If first time Q 203
202	How many living children of your own do you have?	1. 1 times 2. 2-4 times 3. 5-6 times 4. > 6times	
203	For how long have you been pregnant in this pregnancy? Number of weeks	1. <16Wks 2. 16-24Wks 3. 25-32Wks 4. >32Wks	

204	In the future, do you want to become pregnant again?	1. Yes    2. No    3. Undecided	
205	How long would you like to wait before becoming pregnant again?	1. 1yrs    2. 2years 3. 3years    4. >4years	
206	During this pregnancy, how many times have you come to this or other clinics for antenatal services?	1. First    2. Second 3. Third    4. Fourth	
207	Approximately how long had you been pregnant when you received your first antenatal checkup?	1. <16Wks    2. 16-24Wks 3. 25-32Wks    4. >32Wks	

**3. General Information during ANC Visit from Health Care Providers to the Client on danger sign of pregnancy (First Ask the Client Generally on Which Information Is Given Then Aid)**

301	Vaginal bleeding	1. Yes    2. No	
302	Sudden gush of water in the vagina	1. Yes    2. No	
303	Severe headaches with blurred vision	1. Yes    2. No	
304	Fever	1. Yes    2. No	
305	Severe abdominal pain	1. Yes    2. No	
306	Fast or difficult breathing	1. Yes    2. No	
307	Baby moving less or not moving at all	1. Yes    2. No	
308	Swelling in the face, hands, legs	1. Yes    2. No	

**Pregnancy related and ANC services information**

309	During this ANC visit discussed how to prepare for birth preparedness and an emergency plan in pregnancy?	1. Yes    2. No	
310	During this ANC visit, did a health provider give you any information about the special precaution and care during pregnancy?	1. Yes    2. No	
311	During this ANC visit, did any health provider talk to you about the importance of taking iron or folic acid?	1. Yes    2. No	
312	Are you taking iron/folic acid tablets?	1. Yes    2. No	

313	Today, have you been injected for tetanus toxoid vaccine?	1. Yes 2. No	
314	During this ANC visit, did a health provider talk to you about breastfeeding?	1. Yes 2. No	
315	During this ANC visit, did a health provider talk to you about family planning?	1. Yes 2. No	
316	During this visit, did a health provider discuss what health facility you should go to give birth?	1. Yes 2. No	
317	Where do you plan to give birth?	1. Public hospital 2. Private hospital 3. Private clinic 4. Public health centers 5. At home 6. Other 7. Not decided	
318	During this visit, did a health provider talk to you about PMTCT of HIV/AIDS?	1. Yes 2. No	
319	Have you been tested for HIV/AIDS?	1. Yes 2. No	
320	Does the health care provider talk any information about STI?	1. Yes 2. No	
321	Does the health care provider screen you for syphilis?	1. Yes 2. No	If NO Q 323
322	Does the health care provider talk about syphilis test result?	1. Yes 2. No	
323	During this visit, did a provider advise you to use treated bed nets/mosquito nets to prevent malaria?	1. Yes 2. No	
324	Did you receive any pregnancy related information materials during this ANC visit?	1. Yes 2. No	
325	How long did you wait between the time you arrived at this facility and the time	1. <30 min 2. >=30 min	



	you were able to see a provider for the consultation?		
326	How do you rate time you waited was too long, reasonable, or short?	1. Too long 2. Reasonable	3. Short 4. Don't know
327	How long did it take to consult health care provider at ANC room?	1. <30min	2. >=30min
328	Did the baby's father or your current partner accompany you to this ANC visit?	1. Yes	2. No
329	By what means of transport did you get to the health center today?	1. Taxi 2. Bus 3. Private car	4. Walk 5. Other
330	Approximately how long did it take you to get to the health center today?	1. <30min	2. 30-1hrs 3. >1hrs
<b>4. Client satisfaction on the services</b>			
401	Are you satisfied with the amount of explanation, examination and treatment from provider given to you?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree
402	Are you interested with the cleanliness of the antenatal care room?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree
403	Are you satisfied on the visual privacy during examination (that other clients could not see you?)	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree
404	Are you satisfied on the auditory privacy during discussion (that other clients could not hear you?)	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree
405	Are you satisfied on the waiting time for antenatal care services before consultation?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree
406	Are you satisfied with the duration of time for consultation?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree

407	Are you interested with the interaction of health care provider to discuss problems or concerns about your pregnancy?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree	
408	You want to continue the rest ANC visits in this health facility	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree	
409	You recommend your relatives & others to attend their antenatal visit in this facility	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree	
410	Are you satisfied on the overall services provided to you?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree	
411	Are you satisfied on the convenience of waiting area?	1. Strongly Agree 2. Agree 3. Neutral	4. Disagree 5. Strongly Disagree	

Health center name \_\_\_\_\_

Time at which data collection is finished \_\_\_\_\_

Name and Signature of Data collector \_\_\_\_\_

Name and signature of supervisor \_\_\_\_\_

Received date \_\_\_\_\_

Thank you for your participation!!!



**B. Observation checklist prepared to measure the compliance of health care provider for evaluating of focused antenatal care at public health centers of Hawassa town administration, 2017**

Health facility Name \_\_\_\_\_ Client identification number \_\_\_\_\_

ANC service provider code \_\_\_\_\_ client card number \_\_\_\_\_

ANC visit number \_\_\_\_\_

For all observation list not performed activity if the reasons other than provider side please write the reason on remark part				
<b>Provider client interaction and clinical observation</b>		<b>performed</b>	<b>not performed</b>	<b>Remark</b>
1	Greets and calls client by her name			
2	Take the previous and current obstetric and medical history of the client			
3	Take vital sign and weight of the client	Blood pressure		
		pulse rate		
		respiratory rate		
		Temperature		
		Weight		
4	Do physical examination of skin, conjunctivae, legs for edema, and varicose veins; thyroid, mouth, breast and lungs.			
5	Order or done laboratory investigation needed for Pregnant mother	Blood group and Rh		

		Hemoglobin			
		Blood sugar			
		Urine analysis			
		RPR			
		Gram stain			
6	offer, test and give test result with post counseling for HIV/AIDS for client and link HIV positive mother to PMTCT	HIV Test offered			
		Perform HIV Test			
		Give test result			
		Link HIV positive mother to PMTCT service			
7	Inject Tetanus toxoid vaccine				
8	Counsel and prescribe for iron/folic acid				
9	Orients the mother on breast feeding, baby vaccination and use of contraception				
10	Counsels on danger sign of pregnancy	vaginal bleeding			
		Severe headache			
		Severe abdominal pain			
		blurred vision			
		Vaginal gush of fluid			
		Fever			

		Baby moving less or loss of fetal movement			
11	Informs pregnant mothers about	nutritional need			
		personal hygiene			
		Rest			
12	Information gives her and fetal health condition				
13	Orients on birth preparedness and emergency plan				
14	advice on routine and follow up visit for the client				
15	Refers eligible pregnant mothers to appropriate health facility				
16	Counsel on place of delivery				
17	Records all assessment and finding of the mother				
18	Thanks for her times				
	<b>Laboratory Investigations Request Observation</b>				
19	HGB/HCT				
20	Syphilis test				
21	Blood group and Rh factor				
22	Urine analysis				
23	Random blood sugar				
24	Blood film				

Name and signature of observer \_\_\_\_\_

**1. Availability assessment tool to measure FANC service at public health centers of Hawassa town 2017.**

**Consent form for care provider observation**

My name is \_\_\_\_\_ I am a principal evaluator for this evaluation of ANC service in Hawassa town public health centers and I am here to conduct resource inventory at this health center. This is part of the overall program evaluation and it was help to improve the ANC Service delivered at this health centers the inventory conducted all resource needed to implement ANC service. And all findings of the inventory kept confidential. And shared only the finding between evaluation team. Further we ensure that any information we include in our report does not identify you as the respondent Remember, everything undertaken with your agreement and your willingness respected.

Are you willing to participate?

B. Yes

B. No.

If Yes signature \_\_\_\_\_

Name of health center \_\_\_\_\_

Head of the health centers \_\_\_\_\_

Coordinator of ANCunit \_\_\_\_\_

**A. Staff profile of the health center**

<b>Category</b>		<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Remark</b>
Medical staff	Health officers				
	Nurses				
	Mid wife				
	Environmental health				
	HEWs				
	Lab.technologist				
	Lab.technician				
	Pharmacy and Druggist				
Others					
Administrative Staff	HIT (health informatics technologist)				
	Cleaner				
	Guard				
	Others				



No	Questions	Available		
		Yes	No	Remark
	<b>Interviewer:</b> observe and interview the conditions of infrastructure in the facility and mark if it has the following			
1	Functional Pipe /protected water source			
2	Regular Electricity			
3	Functional Client latrine			
4	Communication equipment (phone, Fax....)			
5	Emergency transport			
6	Clean facilities (e.g., the floors are swept, there is no dust in the desks)			
7	Enough chairs or benches in waiting areas			
	<b>ANC counseling and examination rooms, equipment, and job aids</b>			
	<b>Interviewer:</b> Ask to see ANC examination room. For the following items, check whether the item is in the room where the examination is conducted or in an adjacent room			
8	Describe the setting for the examination room	Private room		
		Common room (share with other unit )		
9	<b>Hand washing facility</b>			
	Clean water supply			
	Soap			
	Towels			
10	<b>Materials and equipment required to provide ANC services in working order</b>			
	Gynecological Examination couch			
	Adults weighing scale			
	Blood pressure gauge			
	stethoscopes			
	Fethescope			
	Thermometer			
11	<b>Sterilizer/ disinfectant material</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	Autoclave			
	Heat sterilizer			

	Using bleach			
	Boiling			
	Using disposable only			
	Others			
12	<b>Guide line, record keeping and reporting Materials</b>			
	FANC Guide line			
	Antenatal clients' cards			
	Antenatal clients register			
	Antenatal clients appointment card			
	Reporting formats			
13	<b>Infection prevention and patient safety material</b>			
	Safety box ( for sharp instrument disposal )			
	Waste disposal bin (black, yellow, red )			
	Disinfectant			
	Glove			
14	<b>Information, education, and communication (IEC) materials</b>			
	<b>Visual aids for teaching about</b>			
	Different FP methods			
	STIs			
	PMTCT of HIV			
	Model for demonstrating condom use			
	Postpartum care/newborn care/breastfeeding			
	Danger signs of complications in pregnancy			
	<b>Information leaflets/booklets for clients to take home on</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
15	On ANC			
	On FP			
	On HIV/AIDS			
	On PMCT of HIV			
	On STIs			
16	<b>Drugs, contraceptives, and reagents</b>			

	<b>Interviewer:</b> Ask to see where following drugs/contraceptives/reagents are kept and mark, for each of them, if it is available on the day of your visit. And ask respective persons for any stock out history in the previous 6 month			
	<b>ANC drug and vaccine</b>			
	Folic acid			
	Ferrous sulphate tabs			
	Anti-malaria drugs			
	Tetanus toxoid vaccine			
	TAT (tetanus anti- toxin)			
17	<b>Contraceptives</b> Explain deferent FP method option	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	Combined oral contraceptives			
	Progestin-only pills			
	Emergency contraceptive pills (pre-packed)			
	Emergency contraceptive pills (not pre-packed)			
	Progestin-only injectable			
	Spermicidal			
	Implanon implants			
	Copper-bearing intrauterine devices			
	IUCD kits			
	Levonorgestrel intrauterine devices			
	Male condoms			
	Female condoms			
18	<b>Drugs and supplies for sexually transmitted infections</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	Erythromycin			
	Ciprofloxacin			
	Benzathine penicillin			
	Doxycycline			
	Metronidazole			
	Clotrimazol			
19	<b>ART drugs</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	TDF			

	3TC			
	EFV			
	Neverapine			
	Lopinavir/Retinovir			
20	<b>Anti TB drugs all combination for pregnant women</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	ERHZ			
	RH			
	STM			
	RHZ			
21	<b>Laboratory reagent</b>	<b>Yes</b>	<b>No</b>	<b>Remark</b>
	RPR kit			
	Blood group and Rh			
	Hemoglobin kit			
	Dipstick			
	Gram stain			
	1 <sup>st</sup> response			
	Uni gold			
	Vikia			
	RDT for malaria			

### Document Review checklist of client folder

No	Questions	Coding categories		Remark
	Is the following information recorded or attach in the clinical history of ANC clients card?	Information is clearly recorded?		
		<b>Yes</b>	<b>No</b>	
1	Client's name			
2	Age of the mother			
3	LMP(last menstrual period)			
4	EDD(expected date of delivery)			
5	Gravida (number of pregnancy)			
6	Para(number of delivery)			

7	Previous obstetrics history			
8	Current pregnancy			
9	General medical history			
10	Vital sign (BP,RR, pulse rate, Temperature )			
11	Laboratory investigation ( Hgb, RPR, Blood group &Rh,...) request and result			
12	Treatment given			
13	Prophylaxis given			
14	HIV/AIDS test and result of the client			
15	Date of future ANC visit			
16	Information related to referral if appropriate			
17	Name and signature of care provider			

**Document review checklist for health center**

No	Questions	Coding categories		Remark
		Recorded document is available?		
		Yes	No	
1	Is there plan documented of facility			
2	Are there up dated plan documents for activity and finance for FANC			
3	Was there any stoke out of drugs for FANC if yes mention it?			
4	Are all the drugs for FANC for their stoke balance monitored			
5	Is there at least three supportive supervision done in budget year from Town health department			
6	Is there list of trained staff on FANC			

**Consent form for key informant**

My name is \_\_\_\_\_ I am a principal investigator for evaluation of focused antenatal care service at public health center of Hawassa town this study conducted to see what look likes the implementation status of ANC service and the finding of evaluation helps for program improvement. Your information highly support our evaluation process and mainly for program improvement. All findings of the interview kept confidential. The finding shared only with evaluation team. Further we was ensure that any information we include in our report does not identify you as the respondent. If you choose not to participate in our study you was not penalized in any way but your participation has great contribution for the study if you accept to participate and you change your opinion later. You can also ask me to interrupt the interview whenever you went.

Do you agree?     A. Yes                             B. No

If yes signature \_\_\_\_\_

The interview   A. completed                     B. refused

**Interview Guide For In-depth interview**

**Interview guide for town health department level managers**

- 1. How do you explain the managerial role of this health center regarding to FANC? (probe, what is your contribution for FANC service improvement )

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- 2. Does the health institution have specific plan document for focused antenatal care? If not, why? (Probe, focus area of plan, supported by budget, participant during planning process)

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- 3. How do you explain the allocation of budget for FANC? (Probe, based on what criteria)

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- 4. Do you think you have adequate trained Human power to implement FANC in all health facility? If not why? (Probe, at what ratio)

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5. Do you have integrated supportive supervision team? If yes what is the main activities If No why?(Probe, they have annual plan, work flow, strength and weakness)

---

---

6. What are your plans to improve the capacity of health care providers? (Probe, training, education and incentives)

---

---

7. How do you manageresources needed to implement FANC service in all health centers? (Probe, how you avail, prevent stoke out and manage resource wastage)

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---

8. What is the area that needs improvement to deliver quality FANC care service in all health centers? (Probe, regarding availability essential resources, health care provider updated knowledge and motivation and Acceptability of the services for the client interest?)

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Thank you for your time!

**Interview guide for health center heads**

1. Does the health centers have specific plan document for focused antenatal care service? If not, why (probe, if yes describe the content of the plan)

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2. Do you think you have adequate resource to implement FANC service? If No why? (Probe, regarding to human, financial and material)

---

---

3. Is there clear job description for all staff in health centers? If not, why?(probe, brief discus FANC staff job description)

---

---

4. Explain how do you allocate budget for FANC at this health centers? If not why?

---

---

5. Have you ever faced shortage or lack of materials in last six month? If yes why? (Probe, if the stock out occurs how you solve?)

---

---

6. How do you motivate the staff members (probe, training, education, incentive )

---

---

7. Has any trained professionals turn over within the last two years? If yes, what do you think the reason

---

---

8. What is the area that needs improvement to deliver quality FANC care service in this HC?(Probe, regarding availability essential resources, health care provider updated knowledge and motivation and of the services for the client interest?)

---

---

**Thank you for your time!**



**Interview guide for MCH/FANC coordinator**

1. Does the unit have specific plan document for focused antenatal care? If not, why?  
(probe, what are your contribution to achieve this plan)

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2. Does the health care provider trained on FANC in the last two year? If not why?  
(Probe, type of training, how many staff trained proportional staff with service taker)

---

---

3. Has FANC unit essential instruments and materials needed to provide the services and how do you verify? If not why?

---

---

4. How do you manage data quality and in what way use information for service improvement.

---

---

5. What do you work to retain FANC client in your health centers? (probe, to satisfy beneficiary).

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6. How do you monitor routine FANC service (probe, like activity, staff performance....)

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**Thank you for your time!**



**1. የተጠያቂዎች የጤና ድርጅቶች መሰሪያዎች**

የጤና ድርጅቱ ስም -----

የተገልጋይ ሰው ድምር -----

ተ.ራ. ቁ	ጥያቄ	መልስ	ዝርዝር
101	የተገልጋይ ሰው ድምር	1. 20 እመት በታች 2. 20-34 እመት 3. 35 እመት እና ከዚያ በላይ	
102	የተገልጋይ ሰው አይነት	1. ገጠር 2. ከተማ	
103	የተገልጋይ ሰው የጋብቻ ሁኔታ	1. ደገባች 4. ቧላ የሞተባት 2. ደላገባች 5. ሴላ 3. የተፈታች	
104	የትምህርት ደረጃ	1. መደበኛ ትምህርት የሴላት 4. ሁለተኛ ደረጃ 2. ማንበብና መጻፍ የምትችል 5. ሦስተኛ ደረጃ 3. የመጀመሪያ ደረጃ ት/ት	
105	የሥራ ሁኔታ	1. የመንግስት ሰራተኛ 4. የቤት እመቤት 2. ነጋዴ 5. ሴላ 3. የቀን ሰራተኛ	
106	ወርሃዊ ጠቅላላ የቤተሰብ ገቢ	1. ከ1000 ብር በታች 2. ከ1000-2000 ብር 3. 2001-3000 ብር 4. ከ3000 ብር በላይ	
107	ኃይማኖት	1. ትርቶዶክስ 4. ካቶሊክ 2. ፕሮቴስታንት 5. ሴላ 3. መስሪያ	
108	ዋና የመግባቢያ ቋንቋ	1. አማርኛ 2. ሲዳሚኛ 3. ወላይትኛ 4. ሴላ	
<b>2. የሥነ-ምግባር ጥናት</b>			
201	ይህን አርግጠኛ ጥናት ለምን ስራ ስራ?	1. አንድ 2. ሁለት- አራት 3. አምስት-ስድስት 4. ስድስት እና በላይ	የመጀመሪያዎ ከሆነ ጥያቄ 20

			3
202	አሁን በህይወት ስንት ገቢ ቆይተዋል?	1. አንድ 2. ሁለት- አራት 3. አምስት-ስድስት 4. ስድስት እና በላይ	
203	አሁን እንደ ግዛና ስንት ሳምንት ነው?	-----	
204	ከአሁን በኋላ በድጋሚ ማርገዝ ትፈልገዋለህ?	1. አዎ 2. አልፈውም 3. አልወሰንኩም	
205	ድጋሚ ከማርገዝ ስንት ሳምንት ያህል ወርመቅደት ትፈልገዋለህ?	-----	
206	በአሁን እንደ ግዛና ስንት ጊዜ በጤና ተቋም እንደ ገቢ ክትትል አድርገዋል?	1. አንድ 2. ሁለት 3. ሶስት 4. አራት እና በላይ	
207	በግምት ለመጀመሪያ ጊዜ የእርግዛና ክትትል ስትመጧል የስንት ሳምንት እንደ ግዛና ነበር?	1. ከ16 ሳምንት በታች 2. 16-24 ሳምንት 3. 25-32 ሳምንት 4. 32 ሳምንት በላይ	
<p><b>3. እባክዎ ከጥያቄዎ ምርጫ 301-308 ይህን ጥያቄዎች በመጀመሪያ ስለሚገኙት ክፍሎች ከጤና ባለሙያዎች ለመረጃ እንዲገኙ ከጠየቁ በኋላ ሳስታውሱ የሚቀጥለው ይስታውሳቸው።</b></p>			
301	በብልት ደም ስለመፍሰስ ተነግረዋል?	1. አዎ 2. አልተነገረኝም	
302	ድንገተኛ የሆነ የብልት ፈሳሽ በብዛት መፍሰስን በተመለከተ ተነግረዋል?	1. አዎን 2. አልተነገረኝም	
303	ከባድ የሆነ ራስ ምታትና የአይን ብክለት በተመለከተ ተነግረዋል?	1. አዎን 2. አልተነገረኝም	
304	ስለትኩሳት ተነግረዋል?	1. አዎን 2. አልተነገረኝም	
305	ከባድ ስለሆነ የሆይ ህመም ተነግረዋል?	1. አዎን 2. አልተነገረኝም	
306	ፈጣን የሆነ እና ስለሌሎች ፍሬዎች ግርግር ተነግረዋል?	1. አዎን 2. አልተነገረኝም	
307	ስለ ጭንቅና ጭንቅ ስሜት መቀነስ ወይም በ	1. አዎን 2. አልተነገረኝም	

	ጭራሽ እንቅስቃሴ መጥፋት ተነግሮ ሻል?		
308	ስለ ፊት እግር እና እጅ እብጠት ተነግሮ ሻል?	1. አዎን      2. አልተነገረኝም	
309	በእርግዝና ክትትል ወቅት ስለ ወሲ ደቅ ደመዘግጅት እና ድንገተኛ ሲከሰት ስለ ሚቻልነት ገርዘግጅት ተነግሮ ሻል?	1. አዎን      2. አልተነገረኝም	
310	በዚህ የእርግዝና ክትትል ጊዜ የጤና ባለሙያው ትኩረት ስለሚሰጥዎት እርግዝና እንክብካቤዎች ተነግሮ ሻል?	1. አዎ      2. አልተነገረኝም	
311	የጤና ባለሙያ ስለደምጣኝ ስለሚደረግ ትጥቅ ምን ግሮ ሻል?	1. አዎ      2. አልተነገረኝም	
312	የደምጣኝ ስለሚደረግ ትጥቅ ምን ግሮ ሻል?	1. አዎን      2. አልተሰጠኝም	
313	ዛሬ የመንጋጋቅ ፍቅር ክትባት ተከትቦ ሻል?	1. አዎን 2. አልተከተብኩም	
314	በእርግዝና ክትትል ወቅት የጤና ባለሙያ ስለሰጡት ማጥባት በተመለከተ ተነግሮ ሻል?	1. አዎን      2. አልተነገረኝም	
315	በዚህ እርግዝና ክትትል ወቅት የጤና ባለሙያ ለተሰጠው ጣኔ ተነግሮ ሻል?	1. አዎ      2. አልተነገረኝም	
316	የጤና ባለሙያ የትጤና ድርጅት መውሰድ እንዳለብኝ ተወዳጅ ሆኖ ማድረግ ሻል?	1. አዎን      2. አልተወደደኝም	
317	የትሰመው ሰድ አቅደ ሻል?	1. በመንግስት ሆስፒታል      5. ቤት 2. በግል ሆስፒታል      6. ሌላ 3. በግል ክሊኒክ      7. አልመሰንኩም 4. በመንግስት ጤና ጣቢያ	
318	በዚህ የእርግዝና ክትትል ወቅት ከእናት ወደ ልጅ እና ከሌሎች እንዳይተላለፍ ስለሚደረግበት መንገድ ከጤና ባለሙያ ገለጻል ማለት ሻል?	1. አዎን 2. አልተደረገኝም	

319	የኤችቲዲቪዩሮመራተደርገልገል?	1. አዎን	2. አልተደረገልገልም	
320	የጤናባሰሙ ያስሰጠላቸው ደብዳቤዎች ተደርገዋል?	1. አዎን	2. አልተደረገልገልም	
321	የጤናባሰሙ ያዩት ጥንቃቄዎች ተደርገዋል?	1. አዎን	2. አልተደረገልገልም	መስሎስተደረገልገልም ከሆነ ፕፑዌ 323
322	የቁጥጥር ሮመራተደርገልገልዎታል ተነግሮአል?	1. አዎን	2. አልተደረገልገልም	
323	በዚህ የእርግጠኛነት ስልጠና ወቅት የጤና ባሰሙ ያበካሉ ስለተነካሉ ለራስዎ ጋንታ በር አጠቃቀም እና ወባን ለመከላከል እንደሚያገለግልዎት ተሰጥቶአል?	1. አዎን	2. አልተሰጠልኝም	
324	እዚህ ጤና ጣቢያ ከደረሰው በኋላ በጤና ባሰሙ ያው ስሙ ታይቶ ምን ያህል ጊዜ ይቆያል?	1. ከ30 ደቂቃ በታች	2. ከ30 ደቂቃ በላይ	
325	የቆይታ ጊዜ /ጊዜ/ እንዴት ትገምቻለህ?	1. በጣም ረጅም ሰዓት	3. አጭር ሰዓት ነው	
		2. ተመጣጣኝ ነው	4. አሳውቅም	
326	በቅድመ መሲድ አክትት ስልጠናው ጊዜ የጤና ባሰሙ ያው/ዎች ሮመራተደርገዎት ነው ለእርግጠኛነት እስኪጨርስ ምን ያህል ደቂቃ ቆይቶ ለደረገዎት?	1. ከ30 ደቂቃ በታች	2. ከ30 ደቂቃ በላይ	
327	በባለቤት ስልጠናው ላይ አክትት ስልጠናው ቅጥር ተሰጥቶአል?	1. አዎን	2. አይመጣም	
328	ዛሬ ወደ ጤና ጣቢያ ለምን ያመጣሁት ነው?	1. ታክሲ	4. በእግር	
		2. አውቶብስ	5. በሌላ	
		3. የግል መኪና		
329	በግምት ወደ ጤና ጣቢያ ስመድረስ ምን ያህል ደቂቃ/ሰዓት ፈጅቶአል?	1 ከ 30 ደቂቃ በታች	2. 30-1 ሰዓት	
		3 ከ 1 ሰዓት በላይ		
<b>4. በእርግጠኛነት ላይ የተገልገሉት የእርግጠኛነት</b>				
401	ስለ እግር ወይም ስለ ማንኛውም ሌላ ስህተት	1. በጣም ተስማምቶኛል	4. አልተስማማኝም	

	ምናከጤናባሰሙደየተሰጠኝንማብራሪ በተመሰከተ እርካታ ሽንገን ደብዳቤ ትመደብደሰሽ?	2. ተስማምቶኛል5. በጣም አልተስማማኝም 3. ምንም አይደለም	
402	ከጤና ባለሙያ ጋራ በነበረውን የወይዘት የሰዓት ቅደታን በሚመሰከት ደሰሽን እርካታ ሽንገን ትመደብደሰሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል 5. በጣም አልተስማማኝም 3. ምንም አይደለም	
403	የቅድመወሲድ ክፍልን ለህግ በተመሰከተ ደስተኛነሽ?	1. በጣም ተስማምቶኛል 4. አልተስማማኝም 2. ተስማምቶኛል 5. በጣም አልተስማማኝም 3. ምንም አይደለም	
404	በምርመራ ጊዜ በነበረው ከሰዎች አይታዩ የመከላከል ህጋዊ መመሪያዎች ደስተኛ ነበርሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል5. በጣም አልተስማማኝም 3. ምንም አይደለም	
405	ከባሰሙደ ጋር በነበረው ወይዘት ጊዜ ላብሽን ሌላ ሰው ላይ ሰማሰማ ስረዳት የነበረው ህጋዊ ደስተኛነሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል5. በጣም አልተስማማኝም 3. ምንም አይደለም	
406	የጤና ባሰሙደ/ዋክማን ገንዘብ ፊት የጠበቅሽው ወረዳ ደስተኛነሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል 5. በጣም አልተስማማኝም 3. ምንም አይደለም	
407	የጤና ባሰሙደ በአጠቃላይ በነበረው አቀራረብ /አገልግሎት/ አክብሮት ደስተኛነሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል5. በጣም አልተስማማኝም 3. ምንም አይደለም	
408	ቀጣዩን የእርግዝና ክትትል በዚህ ጤና ጣቢያ ተቀጥሮ ደስተኛነሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል5. በጣም አልተስማማኝም 3. ምንም አይደለም	
409	ሰሌዳዎችን ደኛነሽ ወይም ዘመዶችን በዚህ ጤና ጣቢያ የእርግዝና ክትትል እንዲደርጉ ትመክረዎቸዋለሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛ 5. በጣም አልተስማማኝም 3. ምንም አይደለም	
410	በአጠቃላይ ባገኘሽው የእርግዝና ክትትል ደስተኛነሽ?	1. በጣም ተስማምቶኛል4. አልተስማማኝም 2. ተስማምቶኛል 5. በጣም አልተስማማኝም	

		3. ምንም እድልም	
411	ስለወረዳ መጠበቅያ ቦታን በተመለከተ እርካታሽን እንዴት መደብደብ?	1. በጣም ተስማምቶኛል 4. አልተስማማኝም 2. ተስማምቶኛል 5. በጣም አልተስማማኝም 3. ምንም እድልም	

ቃስመጠየቁየተጠናቀቀበትሰዓት \_\_\_\_\_

የመረጃሰብሳቢውስምናፊርማ \_\_\_\_\_

የሱፐርቫይዘርስምናፊርማ \_\_\_\_\_

ቀን \_\_\_\_\_



## Measuring tools and Information matrix of indicators

### Information matrix on health care providers compliance for evaluation of focused antenatal care at Hawassa town public health centers, 2017.

Evaluation question	Dimension	Indicators	Source of information	Methods	Tools
Are the resources needed to provide FANC available? If not why?	Availability	proportion of health center with trained manpower on FANC	Training log book	Resource inventory	Resource inventory checklist
		proportion of health center with current budget plan for FANC	Budget document	Resource inventory	Resource inventory checklist
		proportion of health center having FANC guideline	ANC care provider	Resource inventory	Resource inventory checklist
		proportion of health center having full equipments needed to provide FANC (functional: Bp apparatus, stethoscope, fetoscope, Adult weight scale, Examination couch for gynecological exam)	ANC unit	Resource inventory	Resource inventory checklist
		proportion of health center having essential drug drugs and supplies for pregnant mothers (preventive therapy, iron/folate, Mgso <sub>4</sub> , TT vaccine, and antimalarial drug, ITN)	Dispensary & drug store	Resource inventory	Resource inventory checklist
		proportion of health center having all drug option and supplies for STI management	Dispensary & drug store	Resource inventory	Resource inventory checklist
		proportion of health center having laboratory reagent and supplies for diagnosis and screening pregnant mothers (Hiv, syphilis,	Lab. Unit & lab technician	Resource inventory	Resource inventory checklist

		urine test Hgb )			
		proportion of health center with functional pipe water	Health center	Resource inventory	Resource inventory checklist
		proportion of health center with no stock out of drugs for HAART and TB within six months	Bin card	Resource inventory	Resource inventory checklist
		proportion of health center with privacy room for FANC clients	ANC unit	Resource inventory	Resource inventory checklist
		proportion of health center with full of materials required for hand washing	Health center	Resource inventory	Resource inventory checklist
		proportion of health center with full materials for infection prevention is available.( Sharp disposable container, general waste bin, syringes, disinfectants, disposal pit or incinerator)	ANC unit, Health center	Resource inventory	Resource inventory checklist
		proportion of health center with materials for record keeping, registration books, reporting formats and client cards	ANC unit	Resource inventory	Resource inventory checklist

**Information matrix on availability resource for evaluation of focused antenatal care at Hawassa town public health centers, 2017**

<b>Evaluation question</b>	<b>Dimension</b>	<b>Indicators</b>	<b>Source of information</b>	<b>Methods</b>	<b>Tools</b>
Do focused antenatal care providers comply with FANC	Compliance	proportion of pregnant mothers greeted and treated by their name	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers whose	Care provider	Observation	Semi

guidelines in delivering focused antenatal care service? If not why?	history taken (obstetric and medical history)		on	structured observation checklist
	proportion of pregnant mothers whose vital sign measured (BP, pulse rate, respiratory rate, temperature and weight)	Care provider	Observation	Semi structured observation checklist
	proportion of pregnant mothers who have got general examination ( from head to toe)	Care provider	Observation	Semi structured observation checklist
	proportion of pregnant mothers whose laboratory investigation is ordered for blood group and Rh, hemoglobin, blood sugar, urine analysis, gram stain and RPR	Care provider & lab. request	Observation	Semi structured observation checklist
	proportion of pregnant mothers who offered for HIV/AIDS	Care provider	Observation	Semi structured observation checklist
	proportion of pregnant mothers who are tested for HIV/AIDS	Care provider	Observation	Semi structured observation checklist
	proportion of pregnant mothers who received HIV/AIDS test result with post counseling	Care provider	Observation	Semi structured observation checklist
	proportion of pregnant mothers injected tetanus toxoid vaccine	Care provider & client	Observation	Semi structured observation checklist
	proportion of pregnant mothers who got prescription for iron and folic acid	Care provider	Observation	Semi structured

					observation checklist
		proportion of pregnant mothers oriented on breast feeding, baby vaccination and use of contraception	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers oriented about danger signs (vaginal bleeding and discharge, headache, fever, vaginal gush of fluid, abdominal pain, blurred vision)	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers oriented on use of post natal care visit	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers informed about nutritional need, personal hygiene and rest	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers examined fetal condition (position, presentation, heartbeat)	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers who are informed her and fetus health condition	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers oriented on birth preparedness and emergency plan	Care provider	Observation	Semi structured observation checklist
		proportion of pregnant mothers who advice on routine and follow up visit	Care provider	Observation	Semi structured observation

					checklist
		proportion of eligible pregnant mothers referred to the next level	Client folders	Observation	Semi structured observation checklist
		Proportion of mothers informed for place of delivery	Care provider	Observation	Semi structured observation checklist
		Proportion of mothers whose all assessment and finding were recorded on client card	Client folders	Observation	Semi structured observation checklist
		Proportion of mothers who are thanked for her times	Care provider	Observation	Semi structured observation checklist

**Information matrix on Acceptability dimension for evaluation of focused antenatal care at Hawassa town public health centers 2017**

<b>Evaluation question</b>	<b>Dimension</b>	<b>Indicators</b>	<b>Source of information</b>	<b>Methods</b>	<b>Tools</b>
Are the clients utilizing focused antenatal care in public health centers of Hawassa	Acceptability	Proportion of mothers satisfied on the cleanness of the health institution	client	Exit interview	Semi structured questionnaires
		Proportion of mothers who are satisfied on visual privacy during examination	Client	Exit interview	Semi structured questionnaires
		Proportion of mothers who are satisfied on auditory privacy during examination	Client	Exit interview	Semi structured questionnaires
		Proportion of mothers who are satisfied on the way of communication with	Client	Exit interview	Semi structured questionnaires

town satisfied with focused antenatal care provided to them? If not why?	health care provider			
	Proportion of mothers who are satisfied on the quality of examination and treatment provided	Client	Exit interview	Semi structured questionnaires
	Proportion of mothers who are satisfied on appropriateness of waiting area	Client	Exit interview	Semi structured questionnaires
	Proportion of clients who perceive that their information confidential	Client	Exit interview	Semi structured questionnaires
	Proportion of mothers who are satisfied with the service waiting time	Client	Exit interview	Semi structured questionnaires
	Proportion of pregnant mothers who satisfied with the FANC service cost	Client	Exit interview	Semi structured questionnaires
	Proportion of pregnant mothers who interest to continue the rest ANC visit in this health center	Client	Exit interview	Semi structured questionnaires
	Proportion of mothers who interest to recommend the relatives and others to attend their antenatal visit in this facility	Client	Exit interview	Semi structured questionnaires

**Relevance matrix of indicators used for evaluation of FANC service in Hawassa town public health centers 2017.**

S.no	Indicators	Dimension		
		Availability	Compliance	Acceptability
1	Proportion of health center with trained human power on FANC.	RRR	RRR	RR
2	Proportion of health center with current budget plan for FANC.	RRR	RR	R

3	Proportion of health center having FANC guideline.	RRR	RRR	R
4	Proportion of health center having equipments needed to provide FANC	RRR	RR	RR
5	Proportion of health center having essential preventive and therapeutic drugs and supplies for pregnant mothers	RRR	R	RRR
6	Proportion of health center having drug option needed for STI management.	RRR	RR	R
7	Proportion of health center having laboratory supply for diagnosis and screening pregnant mothers.	RRR	RR	RR
8	Proportion of health center having utility Facility.	RRR	RR	R
9	Proportion of health center with no stock out of drugs for HAART within six months	RRR	RR	RR
10	Proportion of health center with no stock out of drugs for TB treatment within six month	RRR	RR	RR
11	Proportion of health center with privacy room for FANC clients.	RRR	R	RRR
12	Proportion of health center which have materials required for hand washing.	RRR	R	R
13	Proportion of health center with a materials needed for infection prevention is available.	RRR	R	R
14	Proportion of health center with materials needed for record keeping.	RRR	RR	R
15	Proportion of pregnant mothers greeted and treated by their name.	R	RRR	RR
16	proportion of pregnant mothers whose history taken	R	RRR	RR

17	Proportion of pregnant mothers whose vital sign measured.	R	RRR	RR
18	Proportion of pregnant mothers who have got physical examination.	R	RRR	RR
19	Proportion of pregnant mothers whose laboratory investigation is ordered.	R	RRR	RR
20	Proportion of pregnant mothers who got PMTCT service	R	RRR	R
21	Proportion of pregnant mothers injected tetanus toxoid vaccine.	R	RRR	RR
22	Proportion of pregnant mothers who got prescription for iron and folic acid.	R	RRR	RR
23	Proportion of pregnant mothers oriented on breast feeding, baby vaccination and use of contraception.	R	RRR	RR
24	Proportion of pregnant mothers oriented about danger signs.	R	RRR	RR
25	Proportion of pregnant mothers informed about nutritional need, personal hygiene and rest.	R	RRR	R
26	Proportion of pregnant mothers oriented on birth preparedness and emergency plan.	R	RRR	R
27	Proportion of pregnant mothers who advice on routine and follow up visit.	R	RRR	R
28	Proportion of eligible pregnant mothers referred to the next level.	R	RRR	R
29	Proportion of mothers informed for place of delivery.	R	RRR	R



30	Proportion of pregnant mothers who are informed her and fetus health condition.	R	RRR	RR
31	Proportion of mothers whose major assessment and finding were recorded on client card.	R	RRR	R
32	Proportion of mothers satisfied on the cleanness of the examination room.	R	R	RRR
33	Proportion of mothers who are satisfied on visual privacy during examination.	R	R	RRR
34	Proportion of mothers who are satisfied on auditory privacy during examination.	R	R	RRR
35	Proportion of mothers who are satisfied on the way of communication with health care provider.	R	RR	RRR
36	Proportion of mothers who are perceived satisfied on the overall FANC service provided.	R	RR	RRR
37	Proportion of mothers who are satisfied on appropriateness of waiting area.	R	R	RRR
38	Proportion of clients who perceive that their information confidential.	R	R	RRR
39	Proportion of mothers who are satisfied with the service waiting time.	R	R	RRR
40	Proportion of pregnant mothers who interest to continue the rest ANC visit in this health center,	R	RR	RRR
41	Proportion of mothers who interest to recommend the relatives to attend their antenatal visit in this facility.	R	RR	RRR

KEY

RRR = very relevant RR = relevant R = poorly relevant

<b>Dimension</b>	<b>Indicators</b>	<b>Numerators</b>	<b>Denominators</b>
<b>Availability</b>	Proportion of health center with trained human power on FANC.	Number of HCs have trained human power on FANC	Total number of HCs observed for having
	Proportion of health center with current budget plan for FANC.	Number of HCs have current budget plan for FANC.	Total number of HCs observed for having
	Proportion of health center having FANC guideline.	Number of HCs have FANC guideline	Total number of HCs observed for having guideline
	Proportion of health center having equipments needed to provide FANC (functional: Bp apparatus, stethoscope, fetoscope, Adult weight scale, Examination couch for gynecological exam).	Number of HCs have having equipments needed to provide FANC	Total number of HCs observed
	Proportion of health center having essential preventive and therapeutic drugs and supplies for pregnant mothers (iron/folate, Mgso <sub>4</sub> , TT vaccine, and anti malarial drug, ITN).	Number of HCs which have essential preventive and therapeutic drugs and supplies for pregnant mothers	Total number of HCs observed
	Proportion of health center having drug option needed for STI management (Erythromycin, Ciprofloxacin, Benzathine penicillin, Doxycycline, Metronidazole, and Clotrimazol).	Number of HCs which have drug option needed for STI management	Total number of HCs observed
	Proportion of health center having laboratory supply for diagnosis and screening pregnant mothers (HIV, syphilis, urine test for protein, Hgb test, urine test for infection and blood, group and Rh factor).	Number of HCs has laboratory supply for diagnosis and screening pregnant mothers.	Total number of HCs observed
	Proportion of health center with utility (functional pipe water, electricity and communication material).	Number of HCs which have utility	Total number of HCs observed
	Proportion of health center with no stock out of drugs for HAART within six months (TDF, 3TC, EFV, Nevirapin, Lopinavir/Retinavir tablet and syrup and).	Number of HCs with no stock out of drugs for HAART within six months.	Total number of HCs observed

	Proportion of health center with no stock out of drugs for TB treatment within six month (ERHZ, RH, STM, RHZ combination drug).	Number of HCs with no stock out of drugs for TB treatment within six month	Total number of HCs observed
	Proportion of health center with privacy room for FANC clients.	Number of HCs with privacy room for FANC clients.	Total number of HCs observed
	Proportion of health center with privacy room for FANC clients.(Running water, soap and towel).	Number of HCs have	Total number of HCs observed
	Proportion of health center with a materials needed for infection prevention is available (Sharp disposal container, general waste bin, syringes, disinfectants, disposal pit or incinerator).	Number of HCs with privacy room for FANC clients.	Total number of HCs observed
	Proportion of health center with materials needed for record keeping (registration books, reporting formats and client folder).	Number of HCs with materials needed for record keeping.	Total number of HCs observed

### Numerators and Denominators for indicators in each dimension

<b>Dimension</b>	<b>Indicators</b>	<b>Numerators</b>	<b>Denominators</b>
<b>Compliance</b>	proportion of pregnant mothers greeted and treated by their name	Number of pregnant mothers greeted and treated by their name	Total number of clients observed during observation session
	proportion of pregnant mothers whose history taken (obstetric and medical history)	Number of pregnant mothers whose history taken.	Total number of clients observed during observation session
	proportion of pregnant mothers whose vital sign measured (BP, pulse rate, respiratory rate, temperature and weight)	Number of pregnant mothers whose vital sign measured.	Total number of clients observed during observation session
	Proportion of pregnant mothers who have got physical examination (from head to toe).	Number of pregnant mothers who have got physical examination	Total number of clients observed during observation session

Proportion of pregnant mothers whose laboratory investigation is ordered (for blood group and Rh, hemoglobin, blood sugar, urine test for protein, urine test for infection and RP).	Number of pregnant mothers whose laboratory investigation is ordered.	Total number of clients eligible for lab. During this observation session.
Proportion of pregnant mothers who got PMTCT service (offered, tested and post counseling for HIV/AIDS test).	Number of pregnant mother who got PMTCT service.	Total number of clients eligible during observation session.
Proportion of pregnant mothers injected tetanus toxoid vaccine.	Number of pregnant mother injected tetanus toxoid vaccine.	Total number of clients eligible during observation session.
Proportion of pregnant mothers who got prescription for iron and folic acid.	Number of pregnant mother who got prescription for iron and folic acid.	Total number of clients eligible during observation session.
Proportion of pregnant mothers oriented on breast feeding, baby vaccination and use of contraception.	Number of pregnant mother who oriented on breast feeding, baby vaccination and use of contraception.	Total number of clients observed during observation session.
proportion of pregnant mothers oriented about danger signs (vaginal bleeding and discharge, headache, fever, vaginal gush of fluid, abdominal pain, blurred vision)	Number of pregnant mother oriented about danger signs.	Total number of clients observed during observation session.
Proportion of pregnant mothers informed about nutritional need, personal hygiene and rest.	Number of pregnant mother informed about nutritional need, personal hygiene and rest	Total number of clients observed during observation session.
Proportion of pregnant mothers oriented on birth preparedness and emergency plan.	Number of pregnant mother oriented on birth preparedness and emergency plan.	Total number of clients observed during observation session.
Proportion of pregnant mothers who advice on routine and follow up visit.	Number of pregnant mothers who advice on routine and follow up visit.	Total number of clients observed during observation session.
Proportion of pregnant mothers referred to the next level.	Number of pregnant mothers referred to the next level	Total number of clients eligible during

			observation session.
	Proportion of mothers informed for place of delivery.	Number of pregnant mother informed for place of delivery.	Total number of clients observed during observation session.
	Proportion of pregnant mothers who are informed her and fetus health condition.	Number of pregnant mother who informed her and fetus health condition.	Total number of clients observed during observation session.
	Proportion of mothers whose major assessment and finding were recorded on client card (client history, physical examination, laboratory investigation, counseling and treatment and prophylaxis given for client).	Number of client card whose major assessment and finding were recorded on client card.	Total number of clients observed during observation session.

<b>Dimension</b>	<b>Indicators</b>	<b>Numerators</b>	<b>Denominators</b>
<b>Acceptability</b>	Proportion of mothers satisfied on the cleanness of the examination room.	Number of pregnant mother satisfied on the cleanness of the examination room.	Total number of pregnant mothers interviewed.
	Proportion of mothers who are satisfied on visual privacy during examination.	Number of pregnant mother satisfied on visual privacy during examination.	Total number of pregnant mothers interviewed.
	Proportion of mothers who are satisfied on auditory privacy during examination.	Number of pregnant mother satisfied on auditory privacy during examination.	Total number of pregnant mothers interviewed
	Proportion of mothers who are satisfied on the way of communication with health care provider.	Number of pregnant mother satisfied on the way of communication with health care provider.	Total number of pregnant mothers interviewed
	Proportion of mothers who are satisfied on the overall FANC service provided.	Number of mothers who are satisfied on the overall FANC service provided.	Total number of pregnant mothers interviewed
	Proportion of mothers who are satisfied on	Number of mothers who are satisfied on	Total number of pregnant

	appropriateness of waiting area.	appropriateness of waiting area.	mothers interviewed
	Proportion of clients who perceive that their information confidential.	Number of pregnant mothers who perceive that their information was confidential.	Total number of pregnant mothers interviewed
	Proportion of mothers who are satisfied with the service waiting time.	Number of mother who are satisfied with the service waiting time.	Total number of pregnant mothers interviewed
	Proportion of pregnant mothers who interest to continue the rest ANC visit in this health Center.	Number of mothers who are interested to continue the rest ANC visit in this health Center	Total number of pregnant mothers interviewed
	Proportion of mothers who interest to recommend the relatives and others to attend their antenatal visit in this facility.	Number of mother who interested to recommend the relatives and others to attend their antenatal visit in this facility.	Total number of pregnant mothers interviewed.