
# EVALUATION OF GROWTH MONITORING AND PROMOTION SERVICES IMPLEMENTATION AT HEALTH POSTS OF FARTA DISTRICT SOUTH GONDAR ZONE, AMHARA-ETHIOPIA: SINGLE CASE STUDY

AN EVALUATION REPORT TO BE SUBMITTED TO JIMMA UNIVERSITY INSTITUTE OF HEALTH, PUBLIC HEALTH FACULTY, DEPARTMENT OF HEALTH POLICY AND MANAGEMENT, HEALTH MONITORING AND EVALUATION UNIT FOR THE REQUIREMENT OF FULFILLMENT OF MASTERS OF SCIENCE IN MONITORING AND EVALUATION.

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JIMMA, ETHIOPIA

# Evaluation of Growth Monitoring and Promotion Services implementation At Health Posts of Farta District South Gondar Zone, Amhara-Ethiopia: A single CASE Study

AN Evaluation Report to be Submitted to Jimma University Institute of Health, Public Health Faculty, Department of Health Policy and Management, Health Monitoring and Evaluation Unit for the Requirement of Fulfillment of MSc in Monitoring and Evaluation

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# ABSTRACT

***Background**: Growth monitoring and promotion (GMP) is a preventive program that targets the reduction of malnutrition in children in the early period of their lives. GMP targets the caregiver and family decision for positive child growth outcomes and has great potential to contribute to improve child survival if well implemented. In Ethiopia, the practice of GMP was initiated 2008 in 39 districts as one of the key components of the community-based nutrition package. By the end of 2014, it was expanded to a total of 447 districts in six selected regions. In Ethiopia, GMP is practiced in 51% of the health facility with inadequate supervision and provision of supplies for the worker, similarly, in Farta district the implementation states of GMP service is not studied yet.*

***Objective:** The main aim of the present study was to evaluate the implementation of GMP service at health posts in Farta district south Gondar Zone, Amharic, Ethiopia 2022.*

***Methods:** A single case study design using both qualitative and quantitative method was conducted. A date was collected using semi structured questioner; caregivers attending GMP services at Health posts of Ferta District were interviewed, direct observations, six-month retrospective chart/document review and Key informant interviews with 14 health care providers were performed. Mothers were selected using consequentive sampling technique while key informants were selected purposively. Qualitative data were transcribed, translated, coded and analyzed in themes. Variables with p-value < 0.25 in bivariate logistic regression were candidate for multiple logistic regression. P-value < 0.05 and confidence interval were used to declare association. The overall process of program implementation was determined based on pre-sated criteria of judgmental cutt-off points.*

***Results:** In the present study the overall level of process of GMP program implementation was 76.5%. Resource availability was 77.6% and compliance to national GMP guideline was 81.5 %. In satisfaction dimension 61.5% of caregivers were satisfied by the GMP services they obtained. Educational status, marital status and family size were factors that affect satisfaction.*

***Conclusion**: The primary health care units in Ferta district have minimum requirement resources to provide GMP services to under- two children in the health posts and community level. Compliance of the HEWs to the national guideline was good while satisfaction of mothers towards the process of GMP services provided by HEWs was poor. Overall, the process of GMP implementation in the district needs improvement.*



***Key words:** Growth monitoring and promotion, Process evaluation, Formative evaluation and Quality health care service*

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Secondly my acknowledgment goes to south Gondar health department MCH (maternal child health and adolescence health) core process Farta Woreda health office, health centers and health post staffs for their genuine corporation throughout the evaluation process. The last but not the least, I would like to thanks those mothers/caregivers who participated in the interview and my data collectors for their fruitful contribution.

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| | |
|---|---|
| AOR: | Adjusted Odds Ratio |
| COR: | Crude Odds Ratio |
| CSA | Center Satisfaction Agency |
| EA | Evaluability Assessment |
| EBF | Exclusive Breast Feeding |
| EPI | Expanded Program of Immunization |
| FHG | Family Health Guide |
| GMP | Growth Monitoring and Promotion |
| GT | Grounded Theory |
| HEWs | Health Extension Worker |
| HME | Health Monitoring and Evaluation |
| HSTP | Health sector Transformation Plan |
| MCH | Maternal and Child Health |
| MLR | Multiple Linear Regression |
| NGO | Non-Governmental Organization |
| SS | Supportive Supervision |
| TOR | Term of Reference |
| UK | United Kingdom |
| WHO | World Health Organization |

# CHAPTER ONE

# INTRODUCTION

## 1.1. Background

The world health organization (WHO) defines growth monitoring and promotion as nutritional intervention that measures and chart the weight of children and uses this information to counsel parents so that they can take action to improve child's growth (1). It is a prevention strategy that monitors measures, interprets and analyses the possible reasons for adequate or inadequate growth of a child. It also facilitates communications and interactions, generates adequate actions, improves nutritional status of the child and reduces morbidity and mortality of children (2).

Concept of GMP was introduced in the mid-1980s and becomes widespread in since 1990s. It emphasized linking the result of monitoring with follow up promotion action in order to improve nutritional and health outcome and subsequently reducing child death. Follow up promotion of GMP including nutritional counseling and provision of supplement and early disease detection and treatment of child illness (3), Improving nutritional statues, increased utilization of health service, and ultimately reduction in mortality are the main expected benefits of GMP and it is considered as a useful intervention for better health and nutritional status of children (4).

Worldwide, child mortality has decreased significantly, from 91 deaths in 1990 to 43 deaths per 1000 live birth in 2015 (1). Implementation of evidence-based cost effective, nutrition-specific and sensitive interventions that address the immediate and underlining causes of malnutrition have resulted to this progress (2). Growth monitoring and promotion program (GMP) is one of such essential strategies. However, poor child growth and development is still one of the major problems in low- and middle-income countries (3). It is associated with increased child mortality due to severe infection and making more vulnerable to common childhood illness, which contributes to most under-five childldren death. Promotion of child growth is one of the health priorities in relation to control child mortality and poverty reduction (5).

Globally, malnutrition accounted for 45 % of death in under-five children. It exposes under-five children to a higher risk of death from common childhood illness such as diarrhea, pneumonia and malaria (WHO, 2016).

In developed countries, the prevalence of underweight in children was estimated to decline from 1.6 % to 0.9% while in developing countries it was estimated to decline from 30.2% to 19.3% between 1990 and 2015 period. In African however, the prevalence of underweight was forecasted to rise from 24% to 26% between 1990 to 2015 (6).

The Ethiopian government has been implementing GMP services at community level through health extension program in order to improving child nutrition status and it has been serving as the core activity in integrated child health and nutritional program (7–9). It is one of the health extension packages provided by health extension workers(10).

Assessment of nutritional status of child is carried out and integrated with immunization and other maternal and child health services at health posts and health centers. The nutritional status of child has great impact on their overall health and development therefore, it is necessary to assess the nutritional status of children as well as other characteristic's related to malnutrition in order to provide timely and appropriate measures (11).

The objective of this evaluation is therefore to evaluate quality of growth monitoring and promotion services provided at HPs of Farta district south Gondar zone, Amhara Ethiopia.

## 1.2. Statement of the problem

Child growth and development is one of major problem in low and middle income countries (12). Malnutrition remains the world's most serious health problem and the single biggest contributor to child mortality (13). In 2007 globally, 155 million under-five children were stunted, 52 million wasted and 52 million overweight (14). In 2015 in Africa, about 39.4% were stunted 24.9% underweight and 10.3% wasted (15).

currently, the government of Ethiopia made strong commitment fore achieving the key goal of seqota declaration that stated to end under nutrition and zero stunting by 2030 through focus strategy on GMP intervention (9).

According to 2014 central statistical agency report (CSA) in Ethiopia 40% of under-children were stunted, 25% were underweight and 6.8% were wasted. These numbers are highest in sub-Saharan Africa and very far from the ideal (16).

Although the united nation international children emergency fund (UNICEF) recommends 100% GMP coverage, a study done in the UK showed that 64% of the respondent made at least one major mistake during the adjustment and plotting of birth weight (17). In South Africa health workers did not implement GMP practically. Although studies in Ethiopia showed that GMP was practiced in only 51% of the health facilities still there were gaps in practical skills. Though growth monitoring and promotion is one of the health priorities in relation to control of child mortality and poverty reduction (16), several studies have shown that there is a gap between the purpose and practice of GMP. It is also ascertained by the existing high prevalence of malnutrition in many developing countries (18).

As UNICEF conducted review studies there has been increasing coverage of several key child health interventions over the past two decades. There has been limited progress in improving under five health out come because of major gaps between coverage and quality of sick child healthcare service and making quality particularly at primary health care level is an integrated component of scaling up intervention to improve health outcome of under five children (19).

According to Farta district report 33% of growth monitoring and promotion service was achieved which is lower than national report and WHO standard. In spite of low achievement there is no

previous study conducted in the area. Therefore, this study aimed to evaluate quality of GMP service in HPs of Farta district.

## 1.3. Significant of the evaluation

The study provided information which is used to identify gaps and strengths that might either foster or hamper the program towards the required goals. Also, this study generated information regarding resources for GMP service, client satisfaction and adherence to GMP guideline is relevant for community, program management and implementation to improve the program. Moreover, it will be used as baseline for other researchers in GMP program. The results of this study will be therefore feedbacked to woreda health extension works woreda health office and policy makers as well as regional heath office administration will also be benefitted in providing appropriate intervention and care for under five .

# CHAPTER TWO

# DESCRIPTION OF THE PROGRAM

## 2.1 Describe Program Stakeholder

In the modern operating environment of work, successful health care requires collaboration, partnerships and alliance between various actors. The various actors with clear interest in the work and operation with in a workplace are called stakeholder. The changing nature off workplace is accelerating the need for collaboration between various stakeholders (20).

Stakeholders are various individual group and organization, who have direct interest in and may be affected by the program being evaluated or the finding of the evaluation (21). It is important to identify stakeholder early in the design phase and draw upon their knowledge as evaluation is shaped. A strong stakeholder group can be useful at various point in the evaluation, shape the question addressed identifying credible source of evidence, and reviewing finding and assisting in their interpretation (22).

During evaluable assessment they were providing the general information about the program service, decided on the readiness of program for evaluation, identifies the area of the program to be evaluated and participated in evaluation question development, they were taking part in providing the necessary information throughout the evaluation process. Their role in the service and role, perspective and level of importance on the evaluation were identified and presented below.

Table 1: Evaluation of growth monitoring and promotion program stakeholders' analysis in Farta

| Stakeholder | Role in the program | Perspective/interest in evaluation | Role in the evaluation | Engagement strategies | Level of import ance (H, M &L) |
|---|---|---|---|---|---|
| South<br><br>Gondar zone health department and program manager (MCH child health pin point) | Decision maker. Resource allocator advocacy and communicati on providing training. | Use the finding and recommendation of the evaluation for planning, resource allocation and restructuring activities. | -Primary user of evaluation<br>-Defining problems, describing program activities, context, priorities and outcomes<br>-Selecting evaluation questions and methods, Serving as sources of data during the evaluation,<br>-Establish the criteria for defining success or failure of the program. | Through Letter, telephone, face to face | High |
| Woreda health office | Resource allocator advocacy and communicati on – providing training. | Use the finding and recommendation of the evaluation for planning, resource allocation and restructuring activities. | -Primary user of evaluation<br>-Defining problems, describing program activities, context, priorities and outcomes.<br>-Selecting evaluation questions and methods, serving as resources of data during the evaluation, establish the criteria for defining success or failure of the program. | Through, telephone, , face to face | High |
| All health centers and hospitals with in district | Service provision, keep patient record cards and manage drugs stock. | Use the finding and recommendation of the evaluation for future planning and resource allocation. | Provides data, reviewing indicators, serving as resource of data during the evaluation describing program activities, context, priorities and outcomes. | , face-to- face | High |
| All health posts with in district | Service provision, keep patient record cards and manage drugs stock. | Use the finding and recommendation of the evaluation for planning &activity restructuring. | Providing data, serving as source of data during the evaluation. | face-to-face | High |
| Children's caregivers | Service users, defaulter tracing | To improve utilization and participation | Provide information during data collection | Through discussion | High |

district South Gondar zone Amhara Ethiopia.

| | | | | | |
|---|---|---|---|---|---|
| Woreda administration office | Advocacy and communication | Use the finding and recommendation of the evaluation for decision making and planning . | - Serving as resources of data during the evaluation.<br>-Utilizing the results/ findings. | Through letter, face-to –face | Medium |
| Drug and supply agency (EPSA) | Providing training, funding the program. | Use the finding and recommendation of the evaluation for planning and resource allocation. | -selecting evaluation questions and methods, serving as resources of data during the evaluation.<br>-utilizing the results/findings | Through letter, telephone, fax, face-to-face | Medium |
| Local grantees (NGO's) (transform PHCU, engine & world vision) | Providing training, funding the program. | Use the finding and recommendation of the evaluation for planning, resource allocation and advocacy. | -selecting evaluation questions and methods, serving as resource of data during the evaluation.<br>-utilizing the result/findings. | Through letter, telephone, face-to-face | Medium |

## 2.2 Description of components of the program

### *2.2.1 Expected program goals; effects/ objective*

**Goals**

Improve nutritional statues by reducing the risk of death or in adequate nutrition which is manifested by growth disorder.

**General objective**

To provide quality growth monitoring and promotion (GMP) service for all clients in Farta district 2021.

**Specific objective**

- Decrease <5 years' mortality from 59 per 1000 births to 53 per 1000 birth (2021).
- Decrease infant mortality from 47 per 1000 birth to 43 per 1000 birth (2021).
- Decrease stunting prevalence in children aged less than 5 years from 38% to 34% (2021).
- Increase exclusive breast feeding in the first six month from 59% to 69% (2021).
- Increase monthly less than 2 years growth monitoring and promotion coverage from 58% to 100% in 2020.
- Increasing vitamin A supplementation coverage from 59% to 65%.

### *2.2.2 Major strategies*

According to national guideline, the resources needed for giving GMP service are:

- Improving community participation; engaging health development army (HDA); conducting community conversation session and conducting social mobilization.
- Utilizing quality standards; regularly monitoring and supervision by using national standards tools.
- Improving human resource development and leadership skills; provide long term and short-term training, availing reference material and guideline and improving resource supply system.

- ❖ Strong monitoring and evaluation system; regular review meeting, technical supportive supervision and utilize the finding for service quality improvement.

*2.2.3 Program input/ resource and activities*

The required resource for the implementation of GMP service

Program input/resource and activity

**Infrastructure; -** health post, outreach service provision area and referral system.

**Medical equipment; -** GMPtools (weight scale, weighing bags) supply system of children's health card (IEC/BCC material (family health guide) and vitamin A).

**Document and recording; -** record keeping materials (register monthly reporting formats).

**Training material: -** recording and reporting tools; GMP implementation guideline and protocol and HMIS manual.

**Human resource and capability building: -** number of trained HEWS on GMP, number of recruited HDAs leaders in HP catchment area; training and supportive supervisor client perspective; demand of service.

**Finance of budget: -** budget allocation for program implementation.

**Activity of the program**

The activities that implementing in GMP includes

- ❖ Conducting regular growth monitoring through triple 'A' (Assessment, Analysis and Action) approach in monthly schedule.
- ❖ Conducting regular community conversation session
- ❖ Regular use of checklist for vitamin A supplementation
- ❖ Referring a child who has lost weight for three consecutive months
- ❖ Monthly growth recording and reporting to indicate the month activity
- ❖ Providing training
- ❖ Provision of supply to health facility including IEC/BCC material

- Conduct integrated supportive supervision
- Cascading social mobilization

### *2.2.4 Intended results of the program (outputs, outcome and impact) of the program*

**Output of the program**

The expected outputs from implementation of GMP in the study area includes

- Number of observed sessions informed about next turn visit
- Counseling sessions conducting with through health post
- Number of GMP sessions conducted on monthly basis
- Regular community conversation sessions were conducted with HIDs leaders
- Regular vitamin A supplementation
- The child growth chart was used to recording the growth status of child
- Monthly reports were sent on reporting periods
- Number of training health workers
- Social mobilization session conduct
- Child weight measuring and counseled
- Logistics supplied sessions
- Timely and complete report sent
- Health facility received supportive supervision

**The outcome of the program includes**

- Increased care givers awareness on GMP
- Increase utilization of service
- Improve childcare practice
- Increase child EBF < 6-month practices
- Increase child taking vitamin A practices
- Increase health seeking behavior of GMP
- Improve adherence to GMP visit
- Enhanced skill and practice of health worker
- Improve quality of service

- Improve quality of data

**Impact of the program**

- Reduction of mortality and morbidity of under-five nutrition
- Reduction of prevalence and incidence of malnutrition

### *2.2.5 Program logic model for summarizing the program theory*

**Logical model of GMP program in Farta district, south Gondar zone, Amhara, Ethiopia**

**Problem statement:** In Ethiopia showed that GMP was practiced only 51% of the health facility; still there were gaps in practical skill of health worker provided service; adequate supervision and supplies are provided for the health worker; similarly, in Farta district low uptake of GMP service and issues frequently noticed among program.

**Goal:** improve nutritional statues by reducing the risk of death or in adequate nutrition which is manifested by growth disorder.

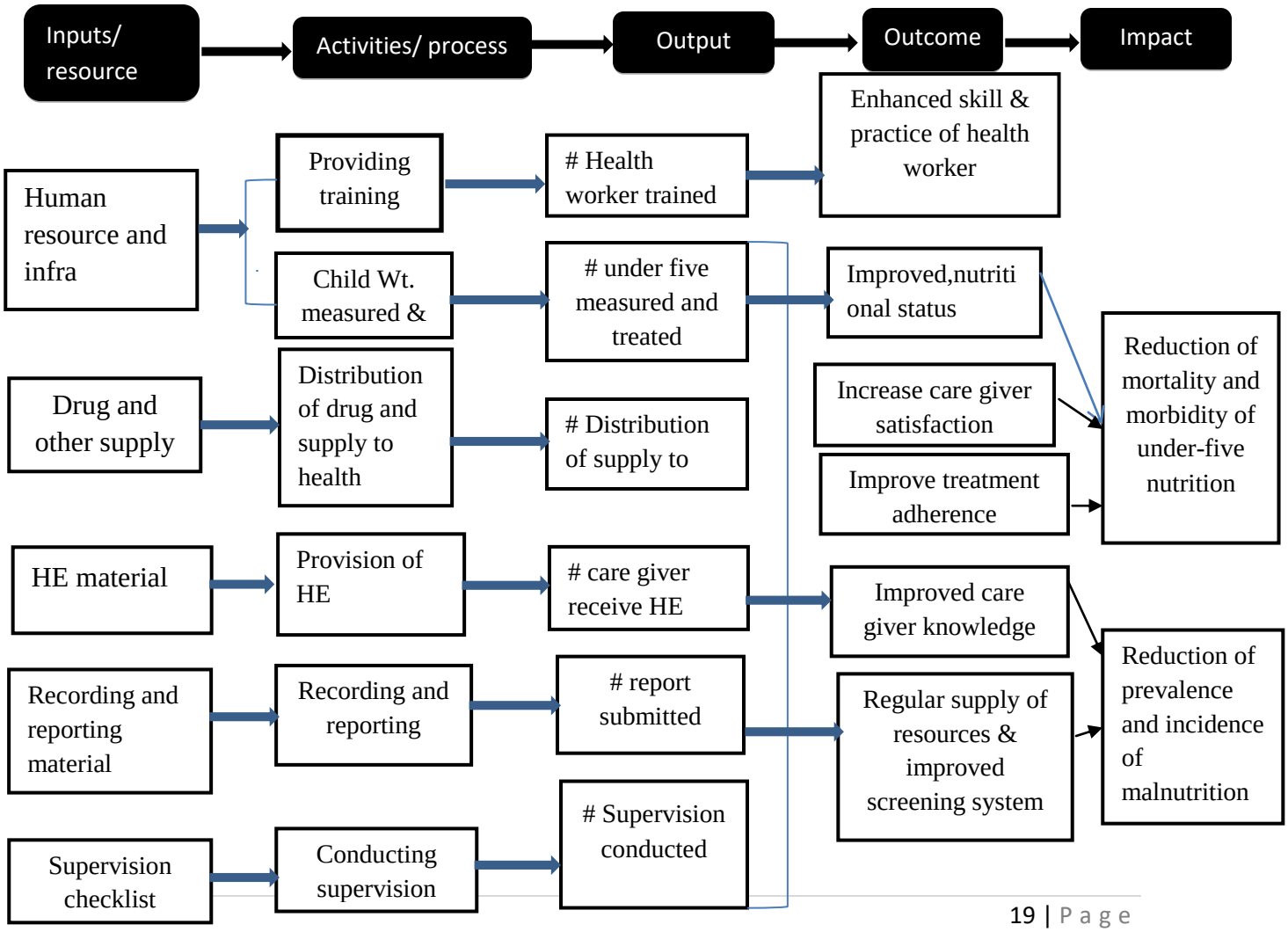


Figure 1**:** Growth monitoring and promotion program logic model of Farta district south Gondar zone Amhara, Ethiopia, 2022.

*2.2.5 Stage of program development*

Since the 1990 the use of GMP has become wide- spread, it is one of the most clearly visible child health activity. It aims to improve nutritional status, reducing the risk of death or in adequate nutritional, help to educated caregivers and lead to early referral for conditions manifested by growth disorder and has the potential to contributor towards achieving the sustainable development goal (1).

In Ethiopia GMP was initiated in 2008 in 39 districts as one of the key components in the community-based nutrition package. By the end of 2014 it was expended to a total of 447 district in six selected regions, by considering to address the highest stunting and underweight prevalence rates in Ethiopia trough support of UNICEF and development partners (14).

From the availability assessment conducting in the Farta district and discussion with main stakeholder, almost all basic function of GMP program are ongoing and the program can be considering mature to be evaluated for its process.

# CHAPTER THREE

# LITERATURE REVIEW

## 3.1 Resource availability Dimension

The GMP guideline suggested growth promotion program has the best chance to succeed if the following elements are present such as the presence of adequate number of growth promoters, when they are trained in GMP and equipped with a set of tools, guidelines for decision making are clear, set of counseling cards and frequency of supervision visits in placed (23).

As the health system of Ethiopia FMOH guided in order to reduce material and child mortality through improving the implementation of health extension program on community level intervention each HP should staffed by two female Health Extension Workers (HEW) this is the range of program for power of regular contact inputs to behavior change and potential impact on child nutrition (24).

According to the expert's consultation made on the GMP implementation strategies, the practical sessions of GMP should be supervised monthly to couch good counseling skills, to correct mistakes that they made in their registers and to motivate the growth promoters to do their work well (2). The common problems or constraints encountered in child growth monitoring program were poor condition of weighing scales: lack of maintenance standardization and timely replacement and lack of adequate training of personnel (reported by in 6 countries) (25).

According to USAID' study done on existing nutrition-related materials, in Ethiopia April 2011 the gaps observed at various levels such as HEWs do not receive sufficient training on the proper use of different support aids by counseling cards, post training supervision is not continuously available, lack of a nutrition information system, protocols and guidelines are not available in health facilities at various levels (26).

As one qualitative study finding of Ethiopia reflects the implementation of community based nutrition programs (CBN) have been hold back by lack of training from HEWs, work load for HEWs, lack of close supervision, shortage of some materials and supplies and lack of incentives (27).

## 3.2 Compliance with guideline dimension

The GMP process includes three stages: i) Measuring and interpreting growth adequacy, ii) analysis of the reasons for adequate or in adequate growth, and iii) counseling; which corresponds to the triple- 'A' approach (Assessment, analysis and Action). This process must include the active engagement of the caregiver in problem-solving about the child's growth.

These conditions can best be met in the community setting, and have the best opportunity for producing results on a public health level if they reach all children 0-24 months in a defined catchment area. GMP sessions should be linked to other health services in community and be designed to have an effective system in place to refer children to health services when needed. The GMP process may also be possible in a clinic setting (28).

As UNICEF conducted review of GMP implementation evaluation on different country, the primary reasons for unsuccessful GMP in the most country programs were due to lack of deal with GMP promotion to analyze and to take actions on the GMP session. Also the review findings conclude demand for growth monitoring can only be created by a process of dialogue (29).

Based on the experts' consultation made to guide the way for ward of GMP implementation they set the following recommendations: when GMP information is not used to inform the education and promotion element of an intervention is not GMP, the primary focus for monthly measurement is children under 2 as they are critical age; GMP requires the regular monthly contact and follow-up of the growth in the under-two children linked with appropriate counseling (30).

Weight measurement should be maintained, because it is the most sensitive indicator of growth faltering, measurement of MUAC should not be part of GMP but could be used as a screening tool to identify acutely malnourished (30)

Moreover, the GMP guideline recommends for the GMP success; counseling should be tailored by (triple -A) approach, during GMP session growth chart should be used, every child seen every month should be giving return visit. During every GMP session a child should always check Vitamin A supplementation(30).

As finding of study done in Ghana showed growth promoters were following the counseling procedures that is recommended by UNICEF. And weight recording on the growth chart were properly carried out for 97% children's (31). A community-based GMP evaluation study in Uganda showed that, all the triple approach was conducted for 75% of counseling sessions. In addition, from all assessed districts, averagely 72% of them were used counseling card as a tool. Also, all caregivers were informed of the next date of visit (32). GMP implementation guideline suggests that the success or failure of GMP depends on how the information and the chart are used. Growth promoters should use a child health card (family health guide) as a key tool to track the growth of the child at monthly weighing to visual aids and communicate about child growth trends with caregivers. It should be recorded and given for each child immediately after birth. Then health workers expected to explain the importance of the children's clinic card (30).

GMP guideline suggested that, every child who has not gained weight for 3 consecutive months is expected to be referred to medical care or nutrition center. A study done in South Indian villages revealed that all children who did not gain weight for 3 consecutive months were referred to nutrition center (30).

Regular GMP sessions should held on a fixed schedule set by mutual agreement. The schedule should be convenient to most members of the community. This helps families to involve in the regular session

As the revised national Ethiopia HMIS (2017) proposed the monthly GMP service records and activities need to be respond with in schedule of a given reporting period and 90% is a minimum level of acceptable timeliness. The wide variety of knowledge and skills acquired by nutrition workers together with other factors can be strong determinants of program success (33).

According to Ethiopia national nutrition program baseline survey report for success of mothers to nutrition information from Health Extension Workers (HEWs), twenty four percent of care takers have never contacted HEWs in the past six months before the survey (33).

### 3.3 Caregivers' satisfaction dimension

In recent years, donors have advising developing countries to ensure that limited resources not only have an optimal impact on the population's health at affordable cost but also that health

services are client oriented. For instance, the world health report emphasizes responsiveness as the way the system responds to non- health aspects, and whether it was meeting or not meeting patient expectations (34).

Satisfaction with health care was found to have a significant association with waiting time, the availability of drugs, the payment statues of the respondent and the address of the patient (35).

Quality involves the consistent delivery of a product or service according to expected standards (36). Patient satisfaction survey is the commonly used method to assess the non-technical aspect of quality of care.

## 3.4 Conceptual framework

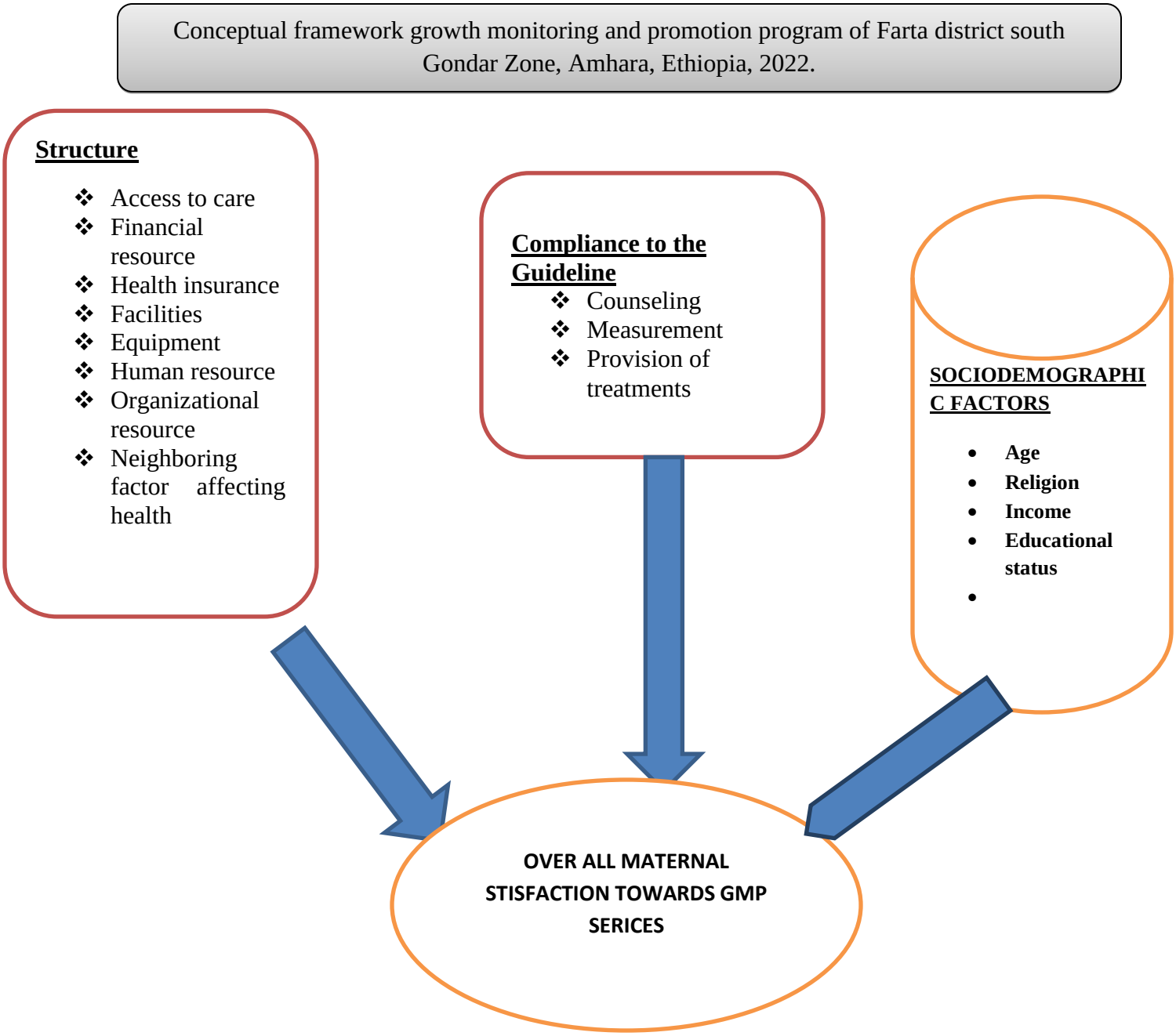



**Figure 2: Conceptual frame work developed after reviewing different literatures (1)**

# CHAPTER FOUR

# EVALUATION QUESTIONS AND OBJECTIVES

## 4.1 Evaluation questions

1. Are the resources needed to provide GMP service available? If not why?
2. Is the service being implemented according to GMP implementation guidelines? If yes how? If not, why?
3. What is the satisfaction status of caregivers with GMP service?
4. What are the associated factors with client's satisfaction?

## 4.2. Evaluation objectives

### *4.2.1 General Evaluation Objectives*

To assess the implmentation of GMP service in Farta district South Gondar Zone Amhara Ethiopia in 2022

### *4.2.2 Specific Evaluation Objectives*

1. To asess availability of resource that is needed to provide GMP service in Farta district South Gondar Zone Amhara Ethiopia in 2022
2. To assess service being implemented according to GMP implementation guidelines in Farta district South Gondar Zone Amhara Ethiopia in 2022
3. To determine satisfaction status of caregiver to GMP service in Farta district South Gondar Zone Amhara Ethiopia in 2022.
4. To determine associated factors of caregivers' satisfaction in Farta district South Gondar Zone Amhara Ethiopia in 2022

# CHAPTER FIVE

# 5. EVALUATION METHODS

## 5.1. Study Area

The evaluation was conducted at HPs in Farta district, which is located in South Gondar zone of the Amhara regional state (ARS), Northern Ethiopia. Farta district lies between $11^0$ 32' to $12^0$ 03' latitude and $37^0$ 31' to 43' longitude. It is one of the 105 districts in the Amhara National Regional state of Ethiopia, bordering Debre Tabor, the capital of south Gondar zone. The 1994 national census reported a total population for this district of 228,772 in 47,812 household of whom118,696 were men and 110, 076 were women, 3,552 or 1.55% of its population were urban dwellers. The largest ethnic group reported in Farta was Amhara (99.5%), Amharic was spoken as a first language by (99.96%) and 99.57% of the population was Ethiopian orthodox Christianity followers by their religion (37).

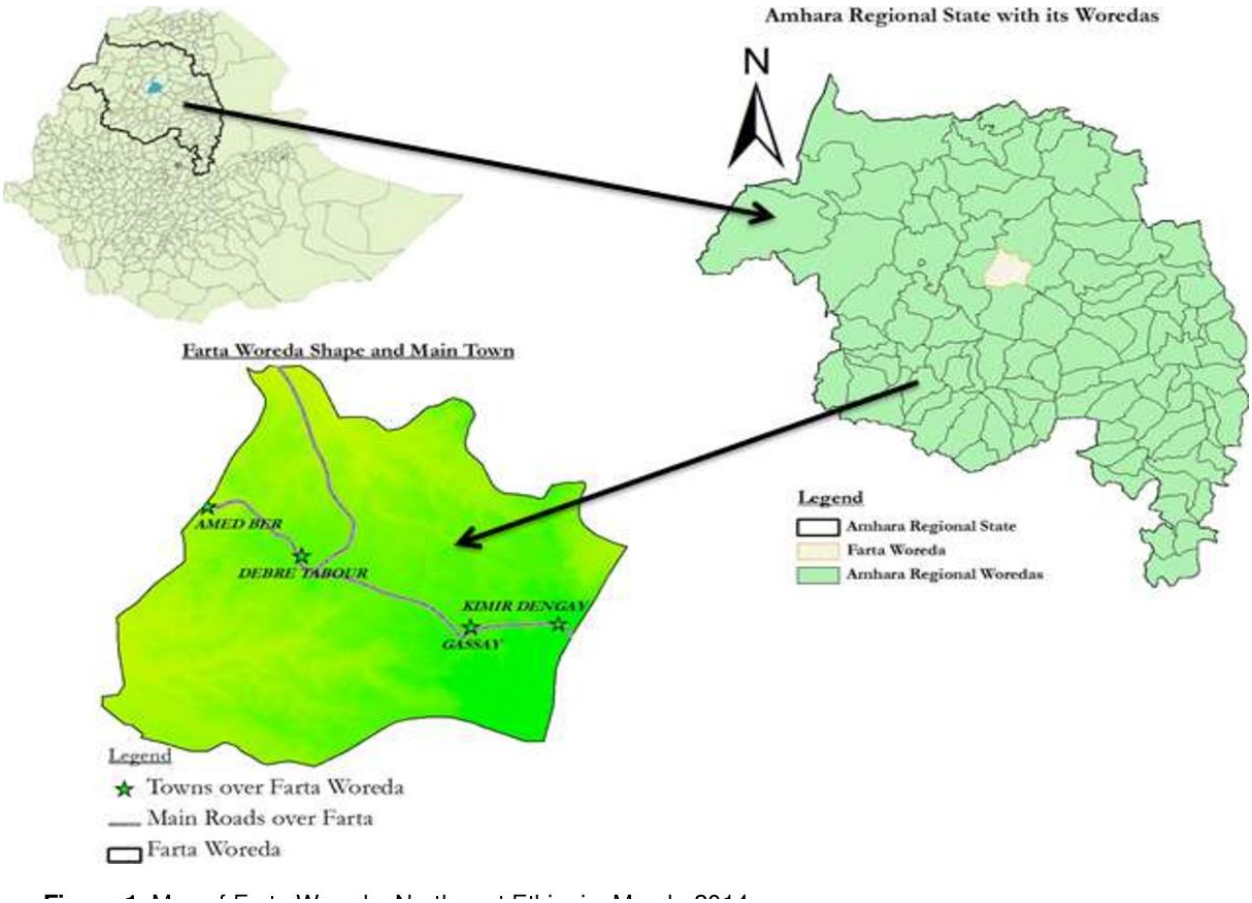



Figure 3: Map of Farta district, Amhara Ethiopia 2021**(38)**

## 5.2. Evaluation period

Evaluability assessment was conducted from October 9/2021 to January 2022. This evaluation was conducted from February to august , 2022

## 5.3. Evaluation Approach

The approach of the current evaluation was the process of the program with formative approach, which is appropriate in the implementation stage when an established program seeks to describe what it has done and to what extent. Such information can be used to better describe program processes, to improve how the program operates, and to fine-tune the overall program strategy. (39,40).Process evaluation is an evaluation that assesses and describes program inputs, activities and outputs in order to improve services industry (e.g. identify obstacles and adjust activities)

(41). More of this evaluation focused on quality with dimension of resource, adherence to guideline, service provider's satisfaction and caregiver satisfaction.

## 5.4 Evaluation Design

The evaluation used an single case study design and involved a onetime collection of quantitative and qualitative data form caregiver of children less than two years and health extension workers providing GMP service at health post respectively in Farta district

## 5.5. Focus of Evaluation and Dimensions

### *5.5.1 Evaluation Focus*

The focus the evaluation was process of growth monitoring and promotion service, in which it provides an in-depth understanding about input (resource) of the program, compliance/ adherence to GMP guideline and caregivers' satisfaction towards GMP service.

Dimension is a concept that can be given specific definitions and for which operational measurement can be done (42). Quality of service is multidimensional concept and can be assessed in different ways. In this evaluation GMP service quality was measured by using Donabedian's structure-process-outcome framework (43).

**Availability Dimension (structure):** the resources that must be supplied for the activities to be carried out e.g. the physical structure, people, equipment and materials (44). In this evaluation this dimension measured the availability of human resource, infrastructure, medical equipment's, guidelines, recording and reporting formats.

**Compliance Dimension (Process):** this refers does the program have been delivered to clients or program users according to standards or national guideline. It measures how program have been going to achieve toward the objective of the program (45).

**Satisfaction dimension (outcome):** caregivers' satisfaction is the perception of care received compared with the care expected and patients there by evaluate the health-care services as well as the providers from their own subjective point of view (46). In this evaluation this dimension measures the overall satisfaction of caregiver's towards GMP services received.

## 5.6 Indicators/ Variables

### *5.6.1 Availability indicators*

1. Percentage of HPs of at least one HEW trained in GMP services
2. Percentage of HPs with functional weighing scale in last 6 month.
3. Percentage HP with functional weighting bag in last 6 month.
4. Percentage of HPs having GMP implementation guideline.
5. Percentage of HPs no stock out with child health card/FHG supply in the last 6 months.
6. Percentage Percentage of HPs having GMP registration book.
7. Percentage of HPs with existence of continued supply and refill necessary an supplies in last 6 month

### *5.6.2 Compliance indicators*

1. Percentage of HEWs who weighted the child to determine how well the child is growing or not.
2. Percentage of HEW who asked the possible reason for adequate or in adequate growing of that child.
3. Percentage of HEW who informed for follow-up or next return visit.
4. Percentage of HEWs who provided counseling based on individual child growth monitoring information.
5. Percentage of children checked vitamin-A supplementation status.
6. Percentage of observed sessions at which child's growth chart utilized to record weight of child.
7. Percentage of HPs in which at least three community conversations conducted on the nutritional statues of children in the previous 6 months.
8. Percentage of HPs in which GMP session conducted through regular fixed schedule that set by mutual agreement of the community members in the community members in the previous six months.
9. Percentage of HPs in which monthly report sent with in required reporting periods in the previous six months.

*5.6.3 Caregivers' satisfaction dimension indicators*

1. Percentage of caregivers' who are satisfied with HEWs' respect to family.
2. Percentage of caregivers' who are satisfied with the waiting time they spend at health post.
3. Percentage of caregivers' who are satisfied with HEWs counseling techniques.
4. Percentage of caregivers' who are satisfied with the convenient of service time.
5. Percentage of caregivers' who are satisfied with commitment of HEWs to create demands for GMP.
6. Percentage of caregivers' who are satisfied with the distance possible to go the service area.
7. Percentage of caregivers' who satisfied with the convenient of room to be weighed your child.
8. Percentage of caregivers' who are satisfied with the competence of the HEWs
9. Percentage of caregivers' who are satisfied with the distance possible to go the service.

*5.6.3 Dependent variables*

Clients' satisfaction towards growth monitoring and promotion service

*5.6.4 Independent variables*

Socio demographic characteristics of the caregivers (Age, Education level, material status, occupation, waiting time to get services, family size and household income)

## 5.7 Populations

*5.7.1 Target/Reference Population*

All caregivers with 0-23 month's child, all health extension worker and all HPs in Ferta district were our reference population

*5.7.2 Source Population*

All HPs, all health extension worker in selected health post and all mothers (caregivers) with 0-23 month's child in the catchment of the selected health posts were our source population.

*5.7.3 Study Population*

All sampled HPs, caregivers with 0-23 month's child, and sampled HEWs who are working in at selected HPs were our study population.

*5.7.4 Study Unit*

Caregivers/ Mothers who gave information about their children 0-23 month's age, individual HEW and HPs were the study units.

Unit of Analysis

The primary unit of analysis for this study were caregivers, and HEW. Whereas, the final unit of analysis (secondary unit of analysis) were implementation status of GMP service in Farta district.

## 5.4. Sample Size Determination and Sampling Technique

### *5.4.1. Sample Size Determination*

**Clients' satisfaction:**

Sample size was determined using the formula for single population percentage by considering the following assumptions:

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

Where,

- ✓ Assumptions: With the assumptions of 95% Confidence level,
- ✓ n= required sample size,
- ✓ $Z\alpha/2$= critical value for normal distribution at 95% confidence level which equals to 1.96 (Z value at alpha=0.05),
- ✓ P= 50% (client's satisfaction since there is no previous study),
- ✓ Ann= margin error (5%)

$$n = \frac{(1.96)^2 0.5(1-0.5)}{0.05^2} = 384$$

Since the total population is less than 2784 which is less than 10,000, we used finite population correction and

$n = \frac{n}{\frac{1/1-n}{N}}$=331.0

Finally, by considering 10% non-response ratethe final minimum sample size was 362 mothers with under two years children.

**Direct observation**: Determination of sample size for observation session was used from earlier GMP program review experience study in Uganda that developed for the purpose of evaluating GMP programs (47). WHO also recommends three to five sessions need to be observed at each counseling site for evaluation of counseling skills (48). In line with this in this study one HEW was observed for three observation sessions from each selected health post.

**Resource inventory:** According to WHO recommendation 30% of the total population is representative to draw sample from district (49). Accordingly, there are 37 HPs in Farta district and we selected 14 health posts. According to the designed guideline of GMP evaluation and WHO recommendation for the assessment of the existing data and supervisory visits report the information of the past three months data can be used (49). In line with this to assess supply of recording materials and regularity of supportive supervision the last three months data was used.

*5.4.2. Sampling Technique*

Simple random sampling technique lottery method was used to select health posts. Accordingly, 14 HPs were selected by using lottery method from 37 HPs. I.e. and list of 14 health posts is presented in figure 2. Therefore, observation and resource inventory were done at 14 HPs. Finally, caregivers were selected by using consecutive sampling technique until adequate number of respondents were achieved from selected HPs.

**Direct observation:** The observation was conducted while the HEWs deliver the services. Before conducting observation, informed consent was taken from HEWs and caregivers. The first and the last three observations were dropped while observing from each HEW in order to minimize observer bias. All observations were conducted in HPs.

**Key informant interview:** One of the HEWs was selected by using simple random sampling technique from two HEWS in each selected health post.

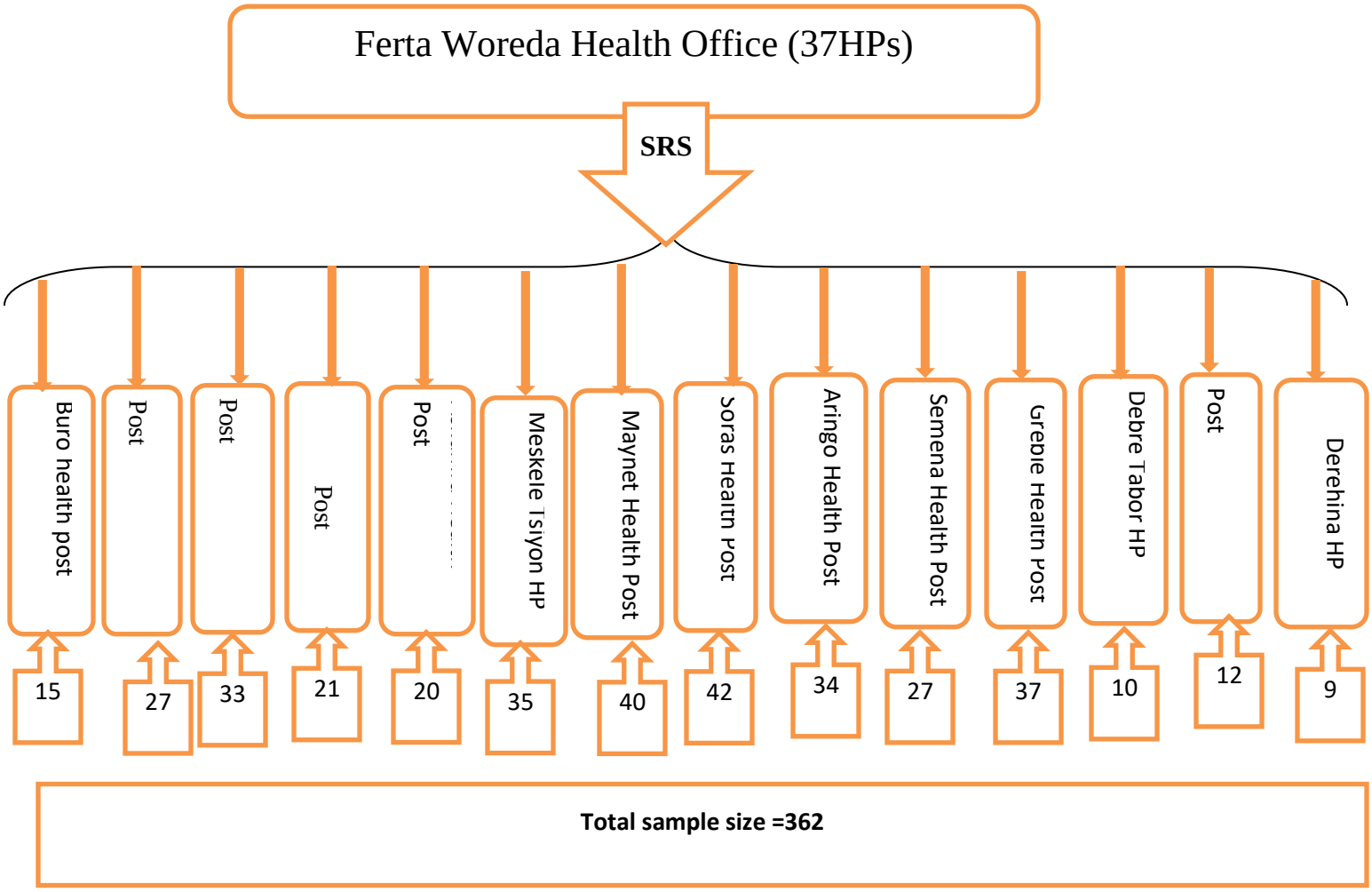



Figure 4: A diagram indicating sampling procedure at Ferta district South Gonder Zone, Ethiopia, 2022

## 5.8 Inclusion and exclusion criteria

- All selected health posts in Farta district during the study period
- Caregivers with children 0-23 months who have registered and were attending GMP session in the selected HPs.
- Health extension workers assigned and working in the selected HPs at least for the last three month were included

## 5.9. Data Collection Tools

A structured and semi-structured questionnaire is adapted from GMP implementation guidelines and referring different literatures. GMP resource inventory tool; resource inventory check list was adopted from GMP guideline. The tool contains required number of human resources, GMP equipment and recording materials and regular supportive supervision in placed.

An observation checklist and document review checklist were adopted from GMP guideline thesis designed for the counseling session of GMP. The checklist covered sections on assessing recording data and growth promotion activities carried out by health extension workers for individual caregiver-child pairs UNICEF experts (28).

**Key informant in-depth interview guide:** an interview guide was adapted from the previous qualitative study done on the same topic. Then on a filed the questionnaires were modified in a way to gather important information on the following subject areas (50).

**Caregiver interview questionnaire:** structured questionnaire was adapted and modified from previous study literature on the same topic, and referred guideline of GMP that was designed for evaluation of GMP service. Caregivers interview questionnaires was used to determine their child utilization on the weighing and to identify the possible determinant factors (51).

**Data collectors**

Total of three data BSc holders and one supervisor who took basic training on GMP were recruited for data collection.

**Interviewee with care givers**: it was conducted while they exit from service. Separate place was set for interview to protect the privacy of the client.

**Chart review** chart review was conducted by both observations of charts and interview with responsible bodies.

**KII**: key informants were interviewed after conducting resource inventory, observation and chart reviewed. Field notes for each question and responses were taken in Amharic language.

## 5.10. Operational definitions

Care givers; - reference mother /family who were a main care provided for less than two-year child who is enrolled in GMP (1).

Compliance: - when the HEWs GMP performance activity completed according to set standards of GMP guide line (1).

GMP session; - session at health post in which GMP session conducted thought regular fixed schedule that set by mutual agreement of the community members and post at health post (1).

Supervision received from health center; - health post in which regular supervision received which is supported by checklist and feedback provided in written form (1).

Community conversation session; - community conversation conducted and registered in mints and over 75% of participant will be attended (1).

**Satisfaction of caregivers**: That respondent who answers four and five in the Likert scale of specific satisfaction question about the service provided are satisfied and it is immediate outcome and dependent variable of the evaluation that show the process of GMP from clients' perspective. And satisfaction level categorized in to two using demarcation threshold formula in order to identify the determinant of satisfaction.

**Level of importance in stakeholder identification and analysis:**

▪ Low– the stakeholder can do little to adversely affect the outcome of the evaluation.

▪ Medium – the evaluation could achieve its objectives against this stakeholder's opposition, but it would not be easy

▪ High – the person or group significantly changed the evaluation outcome

## 5.11 Data management and analysis

### *5.11.1 Data cleaning*

At filed level some unclear and incomplete questionnaires and errors which occurred during data collection was discussed among supervisors and data collectors to solve immediately on daily basis. After entry to check coding error and missing values, the data was cleaned by visualizing, calculating frequencies and during the time determine consistence and cleaned for data analysis. The completeness of data was checked and errors were solved on the time.

### *5.11.2 Data entry*

For quantitative data, after checking the data was coded and entered into Epi data version 4.6 and was exported to SPSS version 25 for analysis. The interviewee was conducted in Amharic and it was translated in to English. Qualitative information collected through in-depth interviews and observation checklists were transcribed and translated to English before it was analyzed manually and thematically. The data-analysis process was followed by a sequence of interrelated steps, such as reading, coding, displaying, reducing and interpreting. At first, the transcripts were carefully read, and data were coded. The data-display and reduction process were conducted at a desk after all data was collected.

### *5.11.3 Data analysis*

The quantitative data was exported into SPSS version 25 software for analysis. Missing value and outlier were checked. Recording, categorizing, computing, counting and other statistical analysis was done. Descriptive statistics (including means, standard deviations, frequencies and percentages) was calculated for demographic variables other variables and presented in texts, tables and charts. Bivariable and multivariable logistic regressions were performed to determine the association between dependent and independent variables. Firstly, each independent variable was entered into bivariable analysis one by one. Then, variables with p-value of less than 0.25 on bivariable analysis was entered to multiple logistic regression altogether to control confounders. Finally, variables with p-value of $\leq 0.05$ on multivariable regression was considered as statically significant. Odds ratio with a 95% confidence interval was used to show the degree of association between dependent and independent variables. Matrix of analysis and judgment

**Judgment criteria:** the criteria were agreed up with the interest of stakeholders. The cut of point was set by considering one study and the situations in program operation. The cutoff point for level of GMP quality decided to be ≥85% = very good, 75%-84.9%= Good, 60%-74.9%= Fair, <60%= Poor. The overall level of quality of GMP was judged based on this criterion.

**Weighting of dimensions and indicators:** weight was given for each dimension in terms of their relative importance in the evaluation. So, 25% for availability of resource, 55% for compliance and 20% for client (care givers) satisfaction' satisfaction by stakeholder agreement were used. The national HSTQ standards score were used as a reference to determine the weight of availability and compliance dimension indicators (52,53).

### 5.12 data quality control

Two days training was given for data collector on how to conduct the interviews. The questionnaire was translated from English to Amharic to ensure uniformity among data collector, and also to facilitate easy collection of data from respondents. Caregivers were interviewed at a location outside the health post compounds' premises in the absence of service providers to avoid a situation of them providing only favorable responses for fear of victimization by the service providers

### 5.13Ethical consideration

Ethical clearance was obtained from institutional review board of Jimma university and written permission was obtained from zonal and woreda administration. And also written consent was obtained from the mothers/care givers after informing all the purpose, benefits, and risks of the study. These consent procedures were approved by Jimma University review board ethical committee.

### 5.14Evaluation dissemination plan

The whole process of this evaluation, starting from planning till conclusion and relevant recommendation are given to stakeholders. Preliminary analysis result obtained from the analysis in this study will also presented for the heads and program managers and GMP experts at the regional at the regional health bureau submitting the paper to Jimma University

# CHAPTER SIX: RESULTS

## 6.1 Description of Study Participants

A total of 361 mothers responded interviewer administered questionnaire in the present study making response rate of 99.7%. Fourteen health extension workers from fourteen health posts were observed with observation checklist according to the National GMP guideline. Fourteen key informants from district health office, health center and HPs level responded the key informant's interview (Male=9, Female=5), and resource inventory was conducted in 14 HPs. Moreover, program documents of last six months (from October 1/2021 till end of March 30 2022) were reviewed. A total of 27 indicators were employed to collect quantitative information under three dimensions as presented below.

## 6.2 Resource Availability

In Ferta district, there are a total of 68 health extension workers working in 37 HPs. Trained HEW for health posts are assigned to almost all of the HPs to provide the service in integration with HEP at health post and home to home base according to human resource inventory and key informant interview result. In addition, one health care provider from the catchment health centers was assigned as supervisor for each health post to supervise the HEWs.

However according to the key informant interview result there is low trained health workers and turnover of trained HEW resulting in interruption of program implementation. Due to high rate of turnover of HEWs mothers and newborn doesn't receive the services at the health post and home to home base.

"The barriers in our catchment area are; recruitment of fresh HEWs having no experience. Senior HEWs who are trained and having good working experiences were changed to other place due to upgrading to other profession and other problems. And HEWs are not satisfied by their Job due to lack of chances for professional development through continued education. [38 years old male].

Regarding the availability of drugs, vitamin A, deworming such as albendazole and mebendazole were available in the health post. In addition, RUTF was also available in the health posts.

At the time of observation, 100% vitamin A, 71.4deworming medications and 14.214 RUTF were available whereas during the past six months of the study period in 85.71% and 92.85% of health posts it A and deworming medications were available while RUTF was available only in 14.2% of Health posts..

**Table 2: Availability drugs and supplies for GMP services provision in Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.**

| Drugs and Supplies | Available at the time of Observation | | Available in the last six month | |
|---|---|---|---|---|
| | Number of HPs | percentage | Number of HPs | percentage |
| Vitamin A | 14 | 100 | 12 | 85.71 |
| Deworming medications (Albendazole, Mebendazole) | 14 | 71.4 | 13 | 92.85 |
| RUTF | 14 | 14.214 | 2 | 14.2 |

“Shortage of drugs had been a barrier for quality service provision for so long. In particular, RUTF is not available in sufficient amount. In the previous year’s different NGOs have been supporting us by providing medical supplies but currently we are not receiving enough supplies which is challenging the health care service’’. [36 years old Male]

**Summary of resource availability indicators for GMP services provision**

As shown in table 4 below, GMP service provision with respect to percentage of HPs with at least one trained HEW was measured to be 100 percent which is judged as “very good” on the judgment parameter. Similarly, percentage of HPs with functional weighing scale on GMP service provision was 85.7 and was rated as very good. Percentage of HPs with all HEWs on GMP was found to be 71.4 % and was rated as “fair”. Percentage of HPs with weighing bags in the month of the study period and percentage of HPs having GMP implementation guideline on GMP were 71.4% and 78.5% respectively with a judgment parameter of “fair” and “good” respectively. The overall process of GMP in resource availability dimension was found to be 77.6 % which is judged as “good” on the judgment parameter.

Table 3: Summary of resource Availability for GMP services provision in Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| s. no | Indicators | Expected # | Observed # | Weight (W) | Score (S) | Achievement in % (W/S*100) | **Judgment parameter** |
|---|---|---|---|---|---|---|---|
| 1 | Percentage of HPs with at least one trained HEW on GMP | 14 | 14 | 2.8 | 2.8 | 100 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 2 | Percentage of HPs with all HEWs with GMP training | 14 | 10 | 2.3 | 1.6 | 71.4 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 3 | Percentage of HPs with functional weighing scale in the month of study period. | 14 | 12 | 4 | 3.4 | 85.7 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 4 | Percentage of HPs with weighing bags in the month of study period | 14 | 10 | 2.8 | 2 | 71.4 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 5 | Percentage of HPs having GMP implementation guideline. | 14 | 11 | 2.3 | 1.8 | 78.5 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 6 | Percentage of HPs no stock out with child health card/ FHG supply in the last 6 months. | 14 | 6 | 3.1 | 1.3 | 42.9 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 7 | Percentage of HPs having GMP registration book. | 14 | 14 | 2.3 | 2.3 | 100 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 8 | Percentage of HPs having GMP service reporting format in the last 6 months. | 14 | 14 | 2.6 | 2.6 | 100 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 9 | Percentage of HPs in which regular supervision received from HC at least six times in the last six months. | 14 | 9 | 2.8 | 1.8 | 64.3 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| Overall process of GMP in resource availability dimension | | | | 25 | 19.4 | 77.6 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |

## 6.3 Compliance to National GMP Guideline

Compliance to national guideline of GMP was evaluated by using both direct observation of the HEW and document review. Accordingly, all (100%) of the HEWs measured weight of child to

determine how well the child is growing or not whereas 32 (82.1%) of them asked the possible person for adequate or in adequate growing of that child. Regarding client counseling, 30 (76.9%) HEWs provided counseling based on individual child growth monitoring information. The percentage of care givers who were informed for follow-up or next return visit and the percentage of children checked for vitamin-A supplementation status were 87.2% and 71.8% respectively (Table 4).

Table 4: Direct Observation and document review of HEWs GMP services provision in Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| s. no | Indicators | Performed by HEWs (yes) (n=42) | Percent |
|---|---|---|---|
| 1 | Percentage of HEWs who measured weight of child to determine how well the child is growing or not? | 42 | 100 |
| 2 | Percentage of HEWs who ask the possible person for adequate or in adequate growing of that child? | 34 | 80.9 |
| 3 | Percentage of HEWs who provide counseling based on individual child growth monitoring information? | 33 | 78.6 |
| 4 | Percentage of care givers who informed for follow-up or next return visit | 37 | 88.1 |
| 5 | Percentage of children checked vitamin-A supplementation status. | 31 | 73.8 |
| 6 | Percentage of observed sessions at which utilized child's growth chart to record weight of a child. | 34 | 81 |
| 7 | Percentage of HPs in which GMP session conducted through regular fixed schedule that set by mutual agreement of the community members in the community members in the previous six months. | 10 | 71.4 |
| 8 | Percentage of HPs in which monthly report sent with in required reporting periods in the previous six months. | 14 | 100 |
| 9 | Percentage of HPs in which at least three community conversations conducted on the nutritional statues of children in the previous six months. | 10 | 71.4 |

**Summary of Performance to Indicators of Compliance to National Guideline**

In this study, nine indicators were used to judge the level of compliance to National Guideline. One indicator was if the HEW measured weight of child to determine how well the child is growing or not which was measured to be 100 % and judged as "very good". Another indicator was the HEW asked the possible person for adequate or in adequate growing of that child and measured as 80.9% with a judgment parameter of "good". Provision of counseling based on

individual child growth monitoring information was found to be 78.6% and was rated as “good” (table 5).

Table 5: Summary of Performance to Indicators of Compliance to National Guideline in Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| s. no | Indicators | Expected # | Observed # | Weight (W) | Score (S) | Achievement in % (W/S*100) | Judgment parameter |
|---|---|---|---|---|---|---|---|
| 1 | Percentage of HEW who measured weight of child to determine how well the child is growing or not? | 42 | 42 | 10.5 | 10.5 | 100 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 2 | Percentage of HEW who ask the possible person for adequate or in adequate growing of that child? | 42 | 34 | 8.5 | 6.9 | 80.9 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 3 | Percentage of HEW who provide counseling based on individual child growth monitoring information? | 42 | 33 | 5.7 | 4.5 | 78.6 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 4 | Percentage of care givers who informed for follow-up or next return visit | 42 | 29 | 5.3 | 3.7 | 69.04 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 5 | Percentage of children checked vitamin-A supplementation status. | 42 | 25 | 3.5 | 2.1 | 59.5 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 6 | Percentage of observed sessions at which utilized child’s growth chart to record weight of a child. | 42 | 30 | 6 | 4.3 | 71.4 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 7 | Percentage of HPs in which GMP session conducted through regular fixed schedule that set by mutual agreement of the community members in the community members in the previous six months. | 14 | 10 | 5.5 | 3.9 | 71.4 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 8 | Percentage of HPs in which monthly report sent with in required reporting periods in the previous six months. | 14 | 14 | 6 | 6 | 100 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| 9 | Percentage of HPs in which at least three community conversations conducted on the nutritional statues of children in the previous six months. | 42 | 30 | 4 | 2.9 | 71.4 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| overall compliance of HEWs | | | | 55 | 44.8 | 81.5 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |

## 6.4 Satisfaction of mothers with GMP services

### *6.4.1 Sociodemographic Characteristics of Respondents*

The mean age of the respondents was 29.9 with SD of ±5.55 years. Majority (69.5%) of the respondents was orthodox religion followers and 64.8% were married. 84 (23.3%) respondents were unable to read and write whereas more than half (189, 52.4%) of the respondents had a second rank wealth index. Concerning their occupation, most (218, 60.4%) were housewives (Table 6).

Table 6: Sociodemographic and economic characteristics of mothers attending GMP services at Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| **Variables** | **Category** | **Frequency** | **Percent** |
|---|---|---|---|
| Age of mothers or care givers | < 24 years | 60 | 16.6 |
| | 25-35 years | 253 | 70.1 |
| | >35 years | 48 | 13.3 |
| Educational status | unable to read and write | 84 | 23.3 |
| | can read write | 71 | 19.7 |
| | Primary | 80 | 22.2 |
| | secondary | 65 | 18.0 |
| | College and above | 61 | 16.9 |
| Religion | Orthodox | 251 | 69.5 |
| | Muslim | 35 | 9.7 |
| | Protestant | 59 | 16.3 |
| | Others* | 16 | 4.4 |
| Wealth index | Lowest | 57 | 15.8 |
| | Second | 189 | 52.4 |
| | Middle | 51 | 14.1 |
| | fourth | 40 | 11.1 |
| | Highest | 24 | 6.6 |
| Occupation | house wife | 218 | 60.4 |
| | Government | 52 | 14.4 |
| | Merchant | 58 | 16.1 |
| | Farmer | 13 | 3.6 |
| | Others** | 20 | 5.5 |
| Marital status | Married | 234 | 64.8 |
| | Single | 45 | 12.5 |
| | Divorced | 46 | 12.7 |
| | Widowed | 36 | 10.0 |
| Family size | < 3 | 39 | 10.8 |
| | 3-4 | 147 | 40.7 |
| | 5-6 | 123 | 34.1 |
| | seven and above | 52 | 14.4 |

** Others in occupation refer to student and daily laborer and

*Others in religion refer to Adventist and Catholic.

*6.4.2 Mothers Satisfaction with GMP services*

In the present study, different indicators have been used to determine mother's satisfaction level with GMP services. 199(55.1%) of the respondents were satisfied with HEW respect to family or care not to offend whereas 129 (35.7%) were satisfied with the waiting time they spend at the center. 104 (28.8%) of the respondents were satisfied with HEWs counseling techniques and 140 (38.8%) were satisfied with the convenient of service time or day. Nearly one fourth (90, 24.9%) of the respondents were dissatisfied with commitments of HEWs to create demands for GMP service and about one fifth (72, 19.9%) of them were satisfied with the distance possible to go the service area (Table 8).

Table 7: Mothers satisfaction with GMP services in Government Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| Indicators | Very Dissatisfied N(%) | Dissatisfied N (%) | Neutral N (%) | Satisfied N(%) | Very Satisfied **N (%)** | **Mean (SD)** |
|---|---|---|---|---|---|---|
| How do you satisfy with HEWs show respect to family or care not to offend | 0 | 62(17.2) | 44(12.2) | 199(55.1) | 56(15.5) | 3.69(0.93) |
| How do you satisfy with the waiting time you spend at center | 41(11.4) | 75(20.8) | 86(23.8) | 129(35.7) | 30(8.3) | 3.09(1.1) |
| How do you satisfy with HEWs counseling techniques | 62(17.2) | 66(18.3) | 79(21.9) | 104(28.8) | 50(13.9) | 3.04(1.31) |
| How do you satisfy with the convenient of service time or day with your other | 38(10.5) | 66(18.3) | 84(23.3) | 140(38.8) | 33(9.1) | 3.18(1.15) |
| How do you satisfy with commitments of HEWs to create demands for GMP service | 53(14.7) | 90(24.9) | 75(20.8) | 100(27.7) | 43(11.9) | 2.97(1.26) |
| How do you satisfy with the distance possible to go the service area | 47(13) | 72(19.9) | 87(24.1) | 113(31.3) | 42(11.6) | 3.09(1.22) |
| How do you satisfy with the convenient of room to be weighed your child | 52(14.4) | 70(19.4) | 95(26.3) | 96(26.6) | 48(13.3) | 3.05(1.25) |
| how do you satisfy about the competency of the service provider | 4(1.1) | 12(3.3) | 118(32.7) | 225(62.3) | 2(0.6) | 3.58(0.62) |
| how do you satisfy with the availability of drugs in the health post | 0 | 52(14.4) | 88(24.4) | 75(20.8) | 146(40.4) | 3.87(1.1) |

Regarding the overall maternal satisfaction towards GMP service, 222 (61.5%) mothers were satisfied as shown on figure 5 below

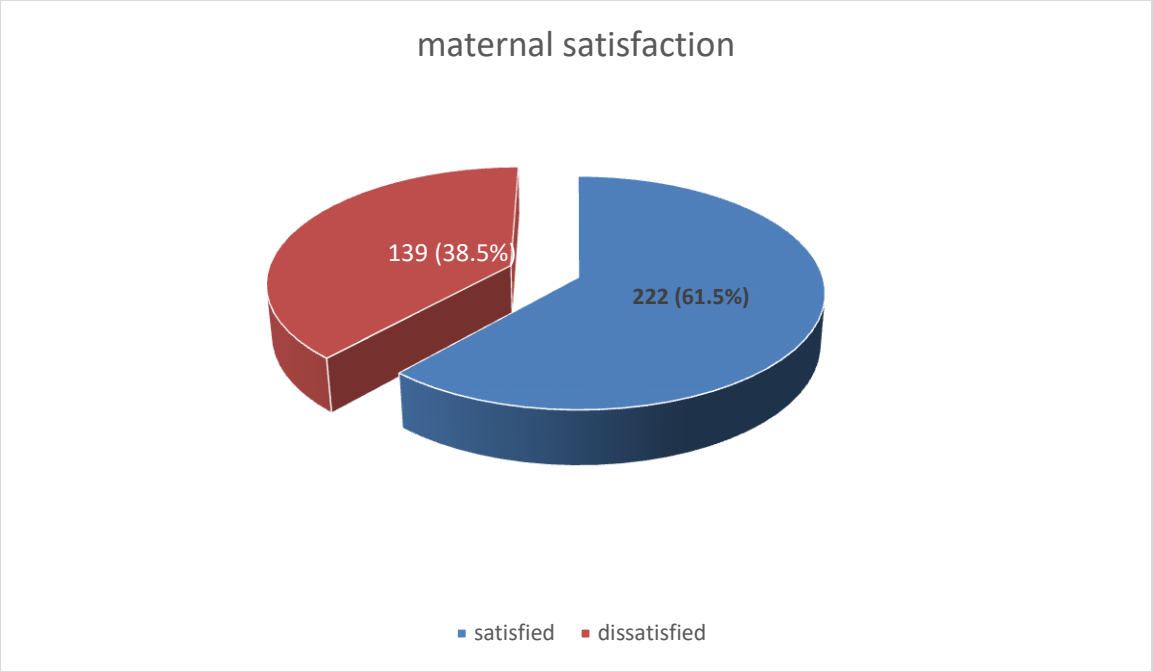



Figure**5**: Overall satisfaction of mothers towards GMP services at Health posts of Ferta District North Gonder Zone, Ethiopia.

## 6.5 Associated Factors with Maternal Satisfaction

Bivariable and multivariable analysis were performed by using binary logistic regressions to identify the associated factors with maternal satisfaction. As a result, seven variables were entered in to binary logistic regression for bivariate analysis and five of which were candidates for multiple logistic regression (p-value <0.25). Details of the binary analysis output are presented in the following table (table 9).

Table 8: Bivariate analysis output to determine associated factors for Mothers satisfaction with GMP services in Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| Variables | Category | Satisfaction status | | COR | 95% C.I for COR | | P- value |
|---|---|---|---|---|---|---|---|
| | | Satisfied | Dissatisfied | | Lower | Upper | |
| Religion | Orthodox | 156(43.2) | 95(26.3) | | | | 1 |
| | Muslim | 19(5.3) | 16(4.4) | .783 | .282 | 2.172 | .638 |
| | Protestant | 38(10.5) | 21(5.8) | 1.083 | .329 | 3.562 | .896 |
| | Others | 9(2.5) | 7(1.9) | .711 | .231 | 2.183 | .551 |
| Marital status | Married | 170(47.1) | 64(17.7) | | | | 1 |
| | Single | 19(5.2) | 26(7.2) | 3.635 | 1.883 | 7.016 | <0.001* |
| | Divorced | 18(5) | 28(7.8) | 4.132 | 2.139 | 7.980 | <0.001* |
| | Widowed | 15(4.2) | 21(5.4) | 3.719 | 1.806 | 7.657 | <0.001* |
| Educational status | unable to read and write | 65(18) | 19(5.3) | | | | 1 |
| | Able to read and write | 53(14.7) | 18(5) | 1.162 | .555 | 2.435 | .691 |
| | Primary (1-8) | 53(14.7) | 27(7.5) | 1.743 | .874 | 3.474 | .115* |
| | secondary | 34(9.4) | 31(8.6) | 3.119 | 1.540 | 6.318 | .002* |
| | College and above | 17(4.7) | 44(12.2) | 8.854 | 4.149 | 18.895 | <.001* |
| Wealth Index | lowest | 19(5.3) | 38(10.5) | 7.600 | 2.458 | 23.494 | <.001* |
| | Second | 118(32.7) | 71(19.7) | 2.286 | .818 | 6.393 | .115 |
| | middle | 31(8.6) | 20(5.5) | 2.452 | .789 | 7.621 | .121 |
| | fourth | 35(9.7) | 5(1.4) | .543 | .139 | 2.114 | .378 |
| | highest | 19(5.3) | 5(1.4) | | | | |
| Occupation | Housewife | 140(38.8) | 78(21.6) | 1.035 | .396 | 2.701 | .944 |
| | Government employ | 27(7.5) | 25(6.9) | 1.720 | .591 | 5.002 | .320 |
| | Merchant | 37(10.2) | 21(5.8) | 1.054 | .364 | 3.053 | .923 |
| | Farmer | 5(1.4) | 8(2.2) | 2.971 | .699 | 12.625 | .140 |
| | Others | 13(3.6) | 7(1.9) | | | | 1 |
| Age of mothers | <24 years | 33(9.1) | 27(7.5) | 1.052 | .490 | 2.259 | .897 |
| | 24_34 | 162(44.9) | 91(25.2) | .722 | .386 | 1.350 | .308 |
| | 35 and above | 27(7.5) | 21(5.8) | | | | 1 |
| Family size | < 3 members | 36(10) | 3(0.8) | | | | 1 |
| | 3-4 | 116(32.1) | 31(8.6) | 3.207 | .926 | 11.111 | .066 |
| | 5-6 | 63(17.5) | 60(16.6) | 11.429 | 3.341 | 39.089 | .000 |
| | 7 and above | 7(1.9) | 45(12.5) | 77.143 | 18.614 | 319.704 | .000 |

COR refers to Crude Odds Ratio, C.I: confidence interval and * statistically significant at p-value of < 0.25(candidate variable for MLR).

Multiple logistic regression analysis was performed by entering all the six candidate variables using enter method to control the confounding effect. Finally, three variables (i.e. marital status, educational status and family size) showed statistically significant association with the dependent variable.

By putting other variables constant, the likely hood of mothers to be dissatisfied with the services delivered is 3.2 times among single (95% C.I.; 1.243-8.131, p-value= 0.016), 4.6 times among divorced (95% C.I.;1.894-11.2, p-value=0.001) and 3.2 times (95% C.I.; 1.205-8.757, p-value= 0.02) among widowed mothers/caregivers than who are married.

Mothers whose educational status college and above are 8.3 times more likely to be dissatisfied than those who are unable to read and write (95% C.I; 3.043-22.642, p-value <0.001). Moreover, mothers having seven and more family size are 8 times more likely to be dissatisfied than those who have less than three persons in the household (95% C.I; 5.012-55.057, p-value <0.001) (Table 10).

Table 9: Bivariate analysis output to determine associated factors for Mothers satisfaction with GMP services in Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| **Variables** | **Category** | **Satisfaction status** | | **AOR** | **95% C.I for AOR** | | **P- value** |
|---|---|---|---|---|---|---|---|
| | | Satisfied | Dissatisfied | | Lower | Upper | |
| **Marital status** | Married | 170(47.1) | 64(17.7) | | | | 1 |
| | Single | 19(5.2) | 26(7.2) | 3.179 | 1.243 | 8.131 | 0.016* |
| | Divorced | 18(5) | 28(7.8) | 4.606 | 1.894 | 11.20 | 0.001* |
| | Widowed | 15(4.2) | 21(5.4) | 3.248 | 1.205 | 8.757 | 0.020* |
| **Educational status** | unable to read and write | 65(18) | 19(5.3) | | | | 1 |
| | Able to read and write | 53(14.7) | 18(5) | 1.001 | .371 | 2.704 | 0.998 |
| | Primary (1-8) | 53(14.7) | 27(7.5) | 1.205 | .475 | 3.060 | 0.694 |
| | Secondary | 34(9.4) | 31(8.6) | 1.589 | .591 | 4.274 | 0.359 |
| | College and above | 17(4.7) | 44(12.2) | 8.300 | 3.043 | 22.642 | <0.001* |
| **Wealth Index** | lowest | 19(5.3) | 38(10.5) | 2.153 | .423 | 10.969 | 0.356 |
| | Second | 118(32.7) | 71(19.7) | .733 | .161 | 3.331 | 0.688 |
| | middle | 31(8.6) | 20(5.5) | .627 | .121 | 3.260 | 0.579 |
| | fourth | 35(9.7) | 5(1.4) | .211 | .034 | 1.308 | 0.095 |
| | highest | 19(5.3) | 5(1.4) | | | | 1 |
| **Occupation** | Housewife | 140(38.8) | 78(21.6) | 2.319 | .564 | 9.534 | .244 |
| | Government employ | 27(7.5) | 25(6.9) | 1.618 | .333 | 7.864 | .551 |
| | Merchant | 37(10.2) | 21(5.8) | 1.300 | .282 | 6.000 | .736 |
| | Farmer | 5(1.4) | 8(2.2) | 3.814 | .407 | 35.728 | .241 |
| | Others | 13(3.6) | 7(1.9) | | | | 1 |
| **Family size** | < 3 members | 36(10) | 3(0.8) | | | | 1 |
| | 3-4 | 116(32.1) | 31(8.6) | 1.99 | .382 | 10.330 | .415 |
| | 5-6 | 63(17.5) | 60(16.6) | 8.75 | 1.705 | 44.846 | .009* |
| | 7 and above | 7(1.9) | 45(12.5) | 9.55 | 5.012 | 55.570 | <.001* |

*AOR refers to Adjusted Odds Ratio, C.I: confidence interval 1: reference group and * statistically significant at p-value of < 0.05(candidate variable for MLR).*

In summary the overall process of GMP in Ferta District was 76.5% which needs rated under "needs improvement" by the judgment parameter (table 12).

Table 10: Summary of GMP process in Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| s. no | Dimensions | Weight (W) | Score (S) | Achievement in % (S/W*100) | Judgment parameter |
|---|---|---|---|---|---|
| **1** | Availability dimension | 25 | 19.4 | 77.6 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| **2** | Compliance dimension | 55 | 44.8 | 81.5 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| **3** | Client satisfaction dimension | 20 | 12.3 | 61.5 | 85-100= V-Good<br>75-84.99=Good<br>60-74.99= Fair<br><60= Poor |
| **Over all process of GMP services** | | 100 | 76.5 | 76.5 | 85-100= implemented well<br>70-84.99=needs improvement<br><70= needs urgent improvement |

# CHAPTER SEVEN

# DISCUSSION

Growth monitoring and promotion is a prevention activity comprised of growth monitoring (GM) linked with promotion that serves as the core activity in an integrated child health and nutrition program (54). In this study, a single case study design was employed to evaluate the quality of GMP service in Farta district, South Gondar Zone.

## 7.1 Resource availability

In the present study, a total of 14 HEWs from 14 health posts and 361 caregivers/mothers were participated. Drugs and supplies such as vitamin A, deworming and RUTF were available in the health posts though there is shortage in some case. Through resource inventory it was observed that all of the HPs have at least one GMP trained health extension worker but the percentage of HPS with all HEWs trained was 71.4%.Our finding is in support of, the GMP guideline which suggests growth promotion program has the best chance to succeed if the following elements are

present such as the adequate number of growth promoters present, when they are trained in GMP and equipped with a set of tools, guidelines for decision making are clear, the set of counseling cards and frequency of supervision visits in placed (23).

### 7.2 Compliance with national guideline

Compliance to national guideline of GMP was evaluated by using both direct observation of the HEW and document review. Accordingly, all (100%) of the HEWs measured weight of child to determine how well the child is growing or not whereas 32 (82.1%) of them asked the possible person for adequate or in adequate growing of that child. Therefore, weight measurement should be maintained, because it is the most sensitive indicator of growth faltering, measurement of MUAC should not be part of GMP but could be used as a screening tool to identify acutely malnourished (30)

Regarding client counseling, 30 (76.9%) HEWs provided counseling based on individual child growth monitoring information. The percentage of care givers who were informed for follow-up or next return visit and the percentage of children checked for vitamin-A supplementation status were 87.2% and 71.8% respectively. This is in accordance with GMP guideline which recommends for the GMP success; counseling should be tailored by (triple -A) approach, during GMP session growth chart should be used, every child seen every month should be giving return visit. During every GMP session a child should always check Vitamin A supplementation (30).

### 7.3 Caregivers/mothers satisfaction

The present study revealed that 61.5% of the mothers were satisfiedtowards the GMP services. In agreement with our finding, the study done in Nairobi reported 61% satisfaction rate of mothers towards GMP service (55). On the other hand, the finding of the present study is lower than the finding from the study done in India which reported that the percentage of mothers who were satisfied was 75% (56). Difference in skill of health workers,

In this study factors affecting mothers' satisfaction with GMP service was also studied and educational status, marital status and family size were identified predictors of maternal dissatisfaction. Mothers whose educational status college and above are 8.3 times more likely to be dissatisfied than those who are unable to read and write. A previous study conducted on client satisfaction with social security hospitals in Iran reported that the highest number of satisfaction

was observed in the illiterate group and less satisfaction in the Master's and PhD degree groups (57). The patients with higher level of education are less satisfied, since they have higher education, higher incomes and social status. Thus, their expectations are higher and they are less likely to be highly satisfied.

According to this study, the likely hood of mothers to be dissatisfied with the services delivered is 3.2 times among single, 4.6 times among divorced and 3.2 times among widowed mothers as compared to those who were married. A previous study by Botha and Booysen revealed that married individuals had the highest mean level of life satisfaction overall compared to other marital status group (58). This could be explained by the fact that married individuals are more likely to have a better income and wellbeing.

## 7.4Limitations of Evaluation

During the data collection time use of observation on clients to provider interaction which is difficult to know the true trained of HEWs (hawthorn effect); in order to minimize this, we drop the first and last three observations for observer bias minimization. Sampling unit selection in case of observation and calculated sample might not enough to get saturated information's are the list of limitations in this evaluation.

# CHAPTER EIGHT

# CONCLUSIONS AND RECOMENDATION

## 8.1 Conclusions

The primary health care units in Ferta district have minimum requirement resources to provide GMP services to under two children in the health posts and community level. There are trained HEWs at minimum requirement and supervisors to supervise the program.

Based on the findings of our evaluation compliance of the HEWs to the national guideline is good. The compliance of HEWs to during the provision of GMP services the observed low compliances were providing information for follow-up or next return visit, identifying/vitamin A status of a child, conducting community sessions, utilization of growth monitoring chart for classifying children's growth stats and needs improvement.

More over according to the finding of our evaluation satisfaction of mothers towards the process of GMP services provided by HEWs is poor. The percentage of clients satisfied to the availability of drugs at health post is good. Percentage of clients' satisfaction with competency of HEWs, the cleanness and waiting area of the health post is fair. Educational status, marital status and family size were factors that affect satisfaction.

## 8.2 Recommendations.

**Public Health facilities of the Ferta district**

- Primary health units should provide or share the available GMP guideline for HPs for improving GMP services implementation.
- HEWs should conduct community sessions to improve awareness of the community to improve GMP Utilization and caregiver's satisfaction.
- HEWs should strictly follow the GMP guideline throughout their carrier.
- HEWs should encourage women in childbearing age to use family planning

**Ferta District Health Office**

- Additional HEW should receive in-services training on GMP program in order to improve their performance on implementation of the GMP Guideline.
- Turnover of HEWs should be reduced by giving an opportunity for upgrading their profession
- Continuous supportive supervision should be provided to the HPs that focus on program improvement and can be conducted in integration.

**South Gonder Zone Health Office**

- The Zone should provide supplies like RUTF to the Public health facilities of the district.
- Continuous supportive supervision should be provided to public health facilities of the district in order to enhance performance.

# CHAPTER NINE

# META-EVALUATION

Meta evaluation is “evaluation of the evaluation itself”. It is done by the use of four standards with 26 sub-standards with a total of 64 specific criteria. The four standards are utility, feasibility, propriety and accuracy.

**Utility:** The utility of evaluation findings was ensured by participating program stakeholders throughout the evaluation process. The stakeholders were participated in the evaluation mainly as source of data and facilitator of the evaluation during data collection period. This standard was measured using specific criteria checklist and the result was 75 percent.

**Feasibility**: The evaluation was feasible as per to cost it has incurred. Its feasibility was ensured through identifying the feasible data collection methods and sources of data during EA. This standard was measured using specific criteria checklist and the result was 89.5 percent.

**Propriety**: throughout the evaluation process the consent of the participation was respected and consent was taken both orally and in written form. Moreover, based on the specific criteria measured the propriety of this evaluation was 70.6 percent.

**Accuracy**: The data collection process was undertaken through intensive supervision and daily checked collected data. Mixed method data collection was employed and finally based on the specific criteria measured the accuracy of this evaluation was 89.5 percent.

Finally, the overall this evaluation was 79.7% which is very good by judgement parameter (table 13).

Table 11: Summary of meta-evaluation standards result using specific criteria checklist for process evaluationof GMP program in Health Posts of Ferta District, South Gonder Zone, Ethiopia, 2022.

| Standards | Sub-standard | Total number of specific criteria | Number of specific criteria met | Percent |
|---|---|---|---|---|
| Utility | Stakeholder identification | 3 | 3 | |
| | evaluator credibility | 3 | 2 | |
| | Values identification | 3 | 2 | |
| | Report clarity | 3 | 3 | |
| | Information scope and selection | 2 | 3 | |
| | Report timeliness and dissemination | 3 | 0 | |
| | Evaluation impact | 3 | 2 | |
| Sub-total | | 20 | 15 | 75 |
| Accuracy | Reliable information | 4 | 3 | |
| | valid information | 3 | 3 | |
| | systematic information | 2 | 2 | |
| | Analysis of quantitative information | 2 | 2 | |
| | Analysis of qualitative information | 2 | 1 | |
| | Impartial reporting | 2 | 2 | |
| | Meta-evaluation | 2 | 2 | |
| | Justified conclusion | 2 | 2 | |
| Sub-total | | 19 | 17 | 89.5 |
| Feasibility | Practical procedures | 3 | 2 | |
| | Political viability | 3 | 3 | |
| | Cost effectiveness | 2 | 2 | |
| Sub-total | | 8 | 7 | 87.5 |
| | Services orientation | 3 | 2 | |
| Propriety | Formal agreement | 2 | 2 | |

| | | | | |
|---|---|---|---|---|
| | Rights of human subject | 2 | 2 | |
| | Human interaction | 2 | 2 | |
| | Complete and fair assessment | 3 | 2 | |
| | Disclosure of findings | 1 | 0 | |
| | Conflict of interest | 1 | 0 | |
| | Fiscal responsibility | 2 | 2 | |
| Sub-total | | 17 | 12 | 70.6 |
| Total Judgment parameter | | 64 | 51 | 79.7 = very good. |

# REFERENCES


1. Steinwand MC, Stone RW. The International Monetary Fund: A review of the recent evidence. Rev Int Organ. 2008;3(2):123–49.

2. Feleke FW, Adole AA, Bezabih AM. Utilization of growth monitoring and promotion services and associated factors among under two years of age children in Southern Ethiopia. PloS One. 2017;12(5):e0177502.

3. Pearson R. Thematic evaluation of UNICEF support to growth monitoring. Unicef New York; 1995.

4. Ethiopia situation analysis forTN.pdf [Internet]. [cited 2022 Feb 15]. Available from: https://ethiopia.savethechildren.net/sites/ethiopia.savethechildren.net/files/library/Ethiopia%20situation%20analysis%20forTN.pdf

5. Children: improving survival and well-being [Internet]. [cited 2022 May 17]. Available from: https://www.who.int/news-room/fact-sheets/detail/children-reducing-mortality

6. Dagne S, Aliyu J, Menber Y, Wassihun Y, Petrucka P, Fentahun N. Determinants of growth monitoring and promotion service utilization among children 0–23 months of age in northern Ethiopia: unmatched case-control study. BMC Nutr. 2021 Nov 8;7(1):67.

7. van Dommelen P, Van Buuren S. Evidence-based referral criteria in growth monitoring. Utrecht University Utrecht; 2008.

8. Tekle M, Tariku B, Alagaw A, Zerihun E, Bekele HW. Exploring reasons for low attendance of mothers to growth monitoring and promotion program at Loka Abaya District, southern Ethiopia: exploratory qualitative study. J Nutr Metab. 2019;2019.

9. Bilal SM, Moser A, Blanco R, Spigt M, Dinant GJ. Practices and challenges of growth monitoring and promotion in Ethiopia: a qualitative study. J Health Popul Nutr. 2014;32(3):441.

10. Admasu KB. Designing a resilient National health system in Ethiopia: the role of leadership. Health Syst Reform. 2016;2(3):182–6.

11. Banerjee S, SubirBiswas, Roy S, Pal M, Hossain MdG, Bharati P. Nutritional and immunization status of under-five children of India and Bangladesh. BMC Nutr. 2021 Dec 2;7(1):77.

12. McCoy DC, Peet ED, Ezzati M, Danaei G, Black MM, Sudfeld CR, et al. Early childhood developmental status in low-and middle-income countries: national, regional, and global prevalence estimates using predictive modeling. PLoS Med. 2016;13(6):e1002034.

13. Wright CM, Sachs M, Short J, Sharp L, Cameron K, Moy RJ. Designing new UK-WHO growth charts: implications for health staff use and understanding of charts and growth monitoring. Matern Child Nutr. 2012;8(3):371–9.

14. Levels and trends in child malnutrition: UNICEF/WHO/The World Bank Group joint child malnutrition estimates: key findings of the 2020 edition [Internet]. [cited 2022 Feb 15]. Available from: https://www.who.int/publications-detail-redirect/9789240003576

15. Smith S, Reji E. Doctors' attitudes to and knowledge and usage of growth charts. South Afr Fam Pract. 2015;57(3):1–4.

16. Liu Q, Long Q, Garner P. Growth monitoring and promotion (GMP) for children in low and middle income countries. Cochrane Database Syst Rev. 2017;2017(1).

17. Evans R, Pinnock K. Promoting resilience and protective factors in the Children's Fund: supporting children's and young people's pathways towards social inclusion? J Child Poverty. 2007;13(1):21–36.

18. Lu C, Black MM, Richter LM. Risk of poor development in young children in low-income and middle-income countries: an estimation and analysis at the global, regional, and country level. Lancet Glob Health. 2016;4(12):e916–22.

19. Ashworth A, Shrimpton R, Jamil K. Growth monitoring and promotion: review of evidence of impact. Matern Child Nutr. 2008;4:86–117.

20. Auvinen AM. Understanding the stakeholders as a success factor for effective occupational health care. Occup Health (Lond). 2017;25–43.

21. Fitzpatrick JL. Program evaluationalternative approaches and practical guidelines. 2011.

22. Frechtling J. The 2002 User-Friendly Handbook for Project Evaluation. 2002;

23. Charlton KE, Kawana BM, Hendricks MK. An assessment of the effectiveness of growth monitoring and promotion practices in the Lusaka district of Zambia. Nutr Burbank Los Angel Cty Calif. 2009 Oct;25(10):1035–46.

24. UNICEF. The Baby Friendly Hospital Initiative (BFHI). Retrieved April. 2002;1:2012.

25. Abul Fadl A, Bagchi K, Cheikh Ismail L. Practices in child growth monitoring in the countries of the Eastern Mediterranean Region. EMHJ-East Mediterr Health J 16 2 194-201 2010. 2010;

26. IYCN-Ethiopia-Nutrition-Landscape-Analysis.pdf [Internet]. [cited 2022 Feb 15]. Available from: http://www.iycn.org/files/IYCN-Ethiopia-Nutrition-Landscape-Analysis.pdf

27. Tessema M, Hafebo AS, Hailu T, Kuche D, Kebede A, Assefa T. Implementation of Micronutrient Supplementations in Community-Based Nutrition Program in Ethiopia after Integrated Refresher Training (IRT). 2015;

28. Mangasaryan N, Arabi M, Schultink W. Revisiting the Concept of Growth Monitoring and its Possible Role in Community-Based Nutrition Programs. Food Nutr Bull. 2011 Mar 1;32(1):42–53.

29. Cervinskas J, Gerein NM, George S. Growth Promotion for Child Development: proceedings of a colloquium held in Nyeri, Kenya, 12-13 May 1992. IDRC, Ottawa, ON, CA; 1993.

30. UNICEF, UNICEF. Experts' consultation on growth monitoring and promotion strategies: Program guidance for a way forward. Recomm Tech Consult. 2008;1–8.

31. Agbozo F. Qualitative assessment of counselling on infant and young child feeding provided by community health workers to caregivers at child welfare clinics in Ghana. Int J Commun Health. 2016;9:97.

32. Woldegiorgis MA, Bhowmik J, Mekonnen W. Trends in reproductive health indicators in Ethiopia: 2000–2014. Int J Healthc. 2017;3(1):10–5430.

33. ETH 2016 National Nutrition Programme II.pdf [Internet]. [cited 2022 Feb 16]. Available from: https://extranet.who.int/nutrition/gina/sites/default/filesstore/ETH%202016%20National%20Nutrition%20Programme%20II.pdf

34. Organization WH. The world health report 2000: health systems: improving performance. World Health Organization; 2000.

35. Abdosh B. The quality of hospital services in eastern Ethiopia: Patient's perspective. Ethiop J Health Dev [Internet]. 2006 [cited 2022 Feb 15];20(3). Available from: https://ejhd.org/index.php/ejhd/article/view/613

36. Campbell SM, Roland MO, Buetow SA. Defining quality of care. Soc Sci Med 1982. 2000 Dec;51(11):1611–25.

37. Beadgie WY, Zemedu L. Analysis of Maize Marketing; The Case of Farta Woreda, South Gondar Zone, Ethiopia. Int J Agric Econ. 2019 Jul 11;4(4):169.

38. Satellite map of Farta, Ethiopia. Latitude: 12.0000 Longitude: 38.0000 [Internet]. [cited 2022 May 16]. Available from: https://latitude.to/satellite-map/et/ethiopia/209094/farta

39. Frechtling Westat J. The 2002 user friendly handbook for project evaluation. [Internet]. Arlington, VA: National Science Foundation; 2002 [cited 2022 Feb 15]. Available from: https://www.drugsandalcohol.ie/17870/

40. Campbell A, McNamara O, Gilroy P. Practitioner Research and Professional Development in Education. SAGE; 2004. 244 p.

41. Bess G, King M, LeMaster PL. Process evaluation: how it works. Am Indian Alsk Native Ment Health Res J Natl Cent. 2004;11(2):109–20.

42. Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. Med Care. 1981 Feb;19(2):127–40.

43. Ovretveit J. An introduction to quality assurance in health care. J Epidemiol Community Health. 2004 Jul;58(7):627.

44. Marsh DR, Hazel E, Nefdt R. Integrated Community Case Management (iCCM) at Scale in Ethiopia: Evidence and Experience. Ethiop Med J. 2014;52.

45. Milstein B, Wetterhall S, Group CEW. A framework featuring steps and standards for program evaluation. Health Promot Pract. 2000;1(3):221–8.

46. Mensa M, Taye A, Katene S, Abera F, Ochare O. Determinants of patient satisfaction towards inpatient nursing services and its associated factors in, Gamo Gofa zone, SNNPR, Ethiopia, April 2017. MOJ Clin Med Case Rep. 2017;7(3):00205.

47. Alderman H. Improving nutrition through community growth promotion: longitudinal study of the nutrition and early child development program in Uganda. World Dev. 2007;35(8):1376–89.

48. Ackerman SJ, Hilsenroth MJ. A review of therapist characteristics and techniques positively impacting the therapeutic alliance. Clin Psychol Rev. 2003;23(1):1–33.

49. World Health Organization - 2022 - Tool to assess the impact of human resources for h.pdf [Internet]. [cited 2022 Apr 21]. Available from: http://apps.who.int/iris/bitstream/handle/10665/275474/9789241550369-eng.pdf

50. Roberfroid D, Lefèvre P, Hoerée T, Kolsteren P. Perceptions of growth monitoring and promotion among an international panel of district medical officers. J Health Popul Nutr. 2005 Sep;23(3):207–14.

51. Daniel B, Tesfaye N, Mekonin E, Kassa A, Mensur K, Zerihun E, et al. Knowledge and Attitude on Growth Monitoring and its Associated Factors among Mothers/Guardians of Children Less than Two Years in Areka Town, Southern Ethiopia, 2017. J Nutr Disord Ther [Internet]. 2017 [cited 2022 Feb 15];07(03). Available from: https://www.omicsonline.org/open-access/knowledge-and-attitude-on-growth-monitoring-and-its-associated-factorsamong-mothersguardians-of-children-less-than-two-years-in-ar-2161-0509-1000216.php?aid=91834

52. Argaw MD, Desta BF, Bele TA, Ayne AD. Improved performance of district health systems through implementing health center clinical and administrative standards in the Amhara region of Ethiopia. BMC Health Serv Res. 2019;19(1):1–13.

53. Mulugeta H, Wagnew F, Dessie G, Biresaw H, Habtewold TD. Patient satisfaction with nursing care in Ethiopia: a systematic review and meta-analysis. BMC Nurs. 2019 Jul 8;18(1):27.

54. Feleke F, Adole A, Bezabih A. Utilization of growth monitoring and promotion services and associated factors among under two years of age children in Southern Ethiopia. PLOS ONE. 2017 May 16;12:e0177502.

55. Ettyang GA. Evaluation of a nutritional surveillance, growth monitoring and promotion programme : an overview of the coverage and quality of the services provided in Vihiga division of Kakamega district [Internet] [Thesis]. University of Nairobi, Department of Food Technology and Nutrition, Nairobi, KE; 1988 [cited 2022 Jul 26]. Available from: https://idl-bnc-idrc.dspacedirect.org/handle/10625/43286

56. Jawahar P, Raddi SA. Assess the knowledge, utilization, level of satisfaction of utilization and barriers of non-utilization regarding Integrated Child Development Services (ICDS) among women of Ernakulam District, Kerala, India. Clin Epidemiol Glob Health. 2021 Oct 1;12:100815.

57. Jafari Kelarijani SE, Jamshidi R, Heidarian AR, Khorshidi M. Evaluation of factors influencing patient satisfaction in social security hospitals in Mazandaran province, North of Iran. Casp J Intern Med. 2014;5(4):232–4.

58. Botha F, Booysen F. The relationship between marital status and life satisfaction among South African adults. Acta Acad. 2013 Jan 1;45:150–78.

# ANNEXES

## Annex -I. Data Collection Tools (English version)

**Introduction remark**

My name is_____ I came from Jimma University. I came here to conduct evaluation on growth monitoring and promotion service implementation. The purpose of this evaluation study is to find the ways of improving GMP service. I am interested to know your experiences?

### I. Resource inventory check-list

**Instruction:** this checklist was used to inventor resource includes (human resource, GMP supplies in all selected HPs.)

Name of health post _____total population _____number of HEWs_____ number of children enrolled in GMP_____

1. Does in this HP two trained HEWs available 1. Yes 2. No
2. Does in this HP functional weighing scale present 1. Yes 2. No
3. Does in this HP functional weighing bag present 1. Yes 2. No
4. Does in this HP GMP implementation guideline present 1. Yes 2. No
5. Does in this HP having vitamin A 1. Yes 2. No
6. Does in this HP no stock out of the FHG in the last 3 months 1. Yes 2. No
7. Does in this HP GMP registration book present 1. Yes 2. No
8. HP having reporting format in the last three months 1. Yes 2. No
9. Does in this HP the GMP session visited through monthly basis from HC in the last three months 1. Yes 2. No

### II. Direct observation check-list

**Growth promotion counseling observation guide**

Introductory remark to the counselor/growth promoter: my name is _____ I am here on behalf of the program to learn about growth monitoring in order to identify areas for program

improvement. Please feel free and do not get be worried about my presence since I am not here to judge you. The overall process of your information will be kept confidential and no one will identify you as part of the observation or respondent. It is ok if I sat in the session where you are involved in counseling of the mothers? When the counselor/ growth promoter agrees, I will proceed to the observations.

**Consent from between health care provider and care givers**

Thank you for visiting our health post for receiving services. Today I will provide you service in collaboration with my colleagues. He is hereby to observe the process and provide additional support which will help me to provide you better services.

**Identification and respondent's background:**

Name of the health post_____

10. Does the HEW deliver the counseling messages in line with the triple-A approach
11. Assessed: does HEW measured weight of child to determine how well the child is growing or not?
12. Analysis: does HEW ask the possible person for adequate or in adequate growing of that child?
13. Action: Does the HEWs provide counseling based on individual child growth monitoring information?
14. Does HEW inform to the mother when to return for next GMP session?
15. Does the HEW ask the mother whether child supplied vitamin A (if the age is supportive)?
16. Does the HEW use the growth chart to record weight of child during the growth monitoring sessions?
17. Does the children identified with SAM/ who has lost weight for 3 consecutive visits referred to medical/ nutrition center in the previous three months.
18. Does HPs in which GMP session conducted through regular fixed schedule that set by mutual agreement of the community members in the previous three months.

19. Does of HPs in which monthly report sent with in required reporting periods in the previous three months.
20. Does of HPs in which at least three community conversations conducted on the nutritional statues of children in the previous three months.

## III. Care givers questionnaire

**The questions will be answered by care givers of under- two-year children who live in study area.**

**Consent form to the mother/ care givers**

I want to thank you for taking the time to meet with me today my name is_____ working with _____district health team. I am here on behalf of the GMP service to learn about growth monitoring in order to identify areas for program improvement. Then would like to talk to you about your experiences participating on regular GMP session . The interview questions should take less than 30 minutes. Please feel free and do not get worried since. All responses will be kept confidential. Are there any questions about what I have just explained? Are you willing to participate in this interview? If the mother agrees go ahead and interview.

**Demographic characteristics of caregivers**

INSTRUCTIONS: ask the respondents the question and draw a line across the box for the response in the appropriate box/ space.

21. Age of child in months_____
22. What is the age of the mother/ care giver in year's_____
23. What is your marital status?
    1. Never married 2. Married & living together 3. Separated/ divorced 4. Widowed
24. What is your educational level?

1. Can't read and write 2. Can read and write 3. Primary level 4. Secondary and above

25. What is your occupation?
    1. Housewife 2. Government/ NGO employee 3. Daily worker 4. Merchant 5. Others
26. Households family size _____

**Material/ care giver satisfaction on GMP service**

Rate your level of satisfaction according to the given below score.

27. How do you satisfy with HEWs show respect to family or care not to offend
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
28. How do you satisfy with the waiting time you spend at center
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
29. How do you satisfy with HEWs counseling techniques
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
30. How do you satisfy with the convenient of service time or day with your other essential duties
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
31. How do you satisfy with commitments of HEWs to create demands for GMP service
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
32. How do you satisfy with the distance possible to go the service area
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
33. How do you satisfy with the convenient of room to be weighed your child
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied
34. How do you rate over all GMP service satisfaction
    1. Very dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Very satisfied

**IV. HEWs interview questionnaire**

**Consent from to the HEW**

I want to thank you taking the time to meet with me today my name is _____ working with _____ district health team. I am here on behalf of the GMP service to learn about monitoring in order to identify areas for program improvement. Then would like to talk to you about your experiences participating on regular GMP session. The interview questions should take less than 30 minutes. Please feel free and do not get worried since. All responses will be kept confidential. Are there any questions about what I have just explained? Are you willing to participate in this interview? If the mother agrees go ahead and interview.

**Demographic characteristics of care givers**

INSTRUCTIONS: ask the respondents the question and draw a line across the box for the response in the appropriate box/ space.

35. What is the age of service provider' in age_____
36. What is your marital status?
    1. Never married 2.Married and living together 3. Separated/ divorced 4. Widowed
37. How many year of working experience? _____
38. What is your level of education? _____
39. In which distance health post located from health center? _____
40. Are you trained on GMP _____if yes, when? _____

## V. Supervisors interview questionnaire

**Structured interview guide for supervisors**

**Consent form**

I want to thank you for taking time to meet with me today. My name is _____from Jimma University and I would like to talk to you about your experiences participating in the GMP, as one components of our overall program implementation evaluation in order to capture lessons that can be used in future to improve the program. The interview may take less than 15-minute, all responses will be kept confidential. This means that your interview response will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Are there any questions about what I have just explained?

41. In your experience do you consider that the GMP service was well done? On what criteria do you base your evaluation?
42. Do you fell the HEWs have adequate training? If no, why?
43. Does the GMP report bring monthly to the office? If no, why?
44. Do you supervise how the GMP service being implemented? If no, why? If yes, specify at times _____

45. Does the percentage of children who attend weighing session increased or decreased compare to the same month last year? If so, what are the reasons?
46. Do the HEWs referred severe malnourished children who has WFA less than 3 child growth standards to you monthly? If yes, what case usually do they refer?
47. What do you suggested that should be done for the program improvement?

## Annex- II. Dummy tables

**Availability indicators**

**Table 12: Availability indicators**

| SN | Indicators | Expected | Observation | Weight | Score | Judgment |
|---|---|---|---|---|---|---|
| 1 | Percentage of HPs with at least two trained HEW on GMP | | | | | |
| 2 | Percentage of HPs with functional weighing scale in the month of study period. | | | | | |
| 3 | Percentage of HPs with weighing bags in the month of study period | | | | | |
| 4 | Percentage of HPs having GMP implementation guideline. | | | | | |
| 5 | Percentage of HPs no stock out | | | | | |

with child health card/ FHG supply in the last 3 months.

6 Percentage of HPs having GMP registration book.

7 Percentage of HPs having GMP service reporting format in the last 3 months.

8. Percentage of HPs in which regular supervision received from HC at least three times in the last 3 months.

**Compliance indicators**

**Table 13: Compliance indicators**

| SN. | Indicators | Expected | Observation | Weight | Score | Judgment |
|---|---|---|---|---|---|---|
| 1 | Conducting regular growth monitoring through triple A (Assessment, Analysis, Action ) approach | | | | | |
| 2 | Percentage of care givers who informed for follow-up or next return visit | | | | | |

3 Percentage of children checked vitamin-A supplementation status.

4 Percentage of observed sessions at which utilized child's growth chart to record weight of a child.

5 Percentage of children identified with SAM/ who has lost weight for 3 consecutive visits referred to medical/ nutrition center in the previous three months.

6 Percentage of HPs in which GMP session conducted through regular fixed schedule that set by mutual agreement of the community members in the community members in the previous three months.

7 Percentage of HPs in which monthly report sent with in required reporting periods in the previous three months.

8 Percentage of HPs in which at least three community conversations conducted on the nutritional statues of children in the previous three

months.

**Service providers' satisfaction dimension indicators**

Table 14: Service providers' satisfaction dimension indicators

| SN. | Indicators | Expected | Observation | Weight | Score | Judgment |
|---|---|---|---|---|---|---|
| 1 | Percentage of service providers' satisfaction mean scale with salary and benefits. | | | | | |
| 2 | Percentage of service providers' satisfaction mean scale with training provider. | | | | | |
| 3 | Percentage of service providers' satisfaction mean scale with program achievement. | | | | | |
| 4 | Percentage of service providers' satisfaction mean scale with management handling. | | | | | |
| 5 | Percentage of service providers' satisfaction mean scale with professional development. | | | | | |
| 6 | Percentage of service providers' satisfaction mean scale with support and relationship with key | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | stakeholders. | | | | | |
| 7 | Percentage of service providers' satisfaction mean scale with housing condition. | | | | | |
| 8 | Percentage of service providers' satisfaction mean scale with availability resource for GMP service. | | | | | |
| 9 | Percentage of service providers' satisfaction mean scale overall satisfaction. | | | | | |

**Care givers' satisfaction dimension indicators**

Table 15: Care givers' satisfaction dimension indicators

| SN. | Indicators | Expected | Observation | Weight | Score | Judgment |
|---|---|---|---|---|---|---|
| 1 | Percentage of care givers' satisfaction mean scale with HEWs show respect to family or care not to offend. | | | | | |
| 2 | Percentage of care givers' satisfaction mean scale with the waiting time you spend at center. | | | | | |
| 3 | Percentage of care givers' satisfaction mean scale with HEWs counseling techniques. | | | | | |

4 Percentage of care givers' satisfaction mean scale with the convenient of service time or day with your other essential duties.

5 Percentage of care givers' satisfaction mean scale with commitments of HEWs to create demands for GMP service.

6 Percentage of care givers' satisfaction mean scale with the distance possible to go the service area.

7 Percentage of care givers' satisfaction mean scale with the convenient of room to be weighed your child.

8 Percentage of care givers' mean scale over all GMP service satisfaction.

**Declaration**

I hereby confirm that the evaluation thesis entitled EVALUATION OF QUALITY OF GROWTH MONITORING AND PROMOTION SERVICES AT HEALTH POSTS OF FARTA DISTRICT SOUTH GONDAR ZONE, AMHARA-ETHIOPIA: A FACILITY BASED CROSSSECTIONAL STUDY is my original work. All source materials used for the proposal have been duly acknowledged &all people and institution that gave support for this have been duly acknowledge & have been well cited accordingly.

Name of evaluator: BereketGedefawu

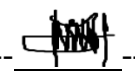
Signature

Date of submission:

Place: Jimma Ethiopia

This evaluation thesis has been submitted with my approval as Jimma University Advisor.

Advisors:

1. Name: MR. YIBELTAL SIRANEH (ASSISTANT PROFESSOR)
2. Signature: ----------  ---------- Date ----------**15/10/2022**----------
3. Name : MR. FEYISSA TOLESSA (MSC-HME)
4.

Signature: ---------- Date ----------