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KNOWLEDGE ATTITUDE AND PRACTICE OF HEALTH EXTENSION WORKERS TOWARDS GROWTH MONITORING AND PROMOTION PROGRAM IN TIGRAY REGION

By

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This is to certify that the thesis is prepared by Mebratu Tarekegn, entitled: Knowledge, attitude and practice of health extension workers towards Growth Monitoring and Promotion program and submitted in partial fulfillment of the requirements for the degree of Masters of Arts social work complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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List of Abbreviations and Acronyms

ARI -acute respiratory infections

CBGMP-community based growth monitoring and promotion program

CDC- center of disease control

CSA- Central Statistical Authority

CE-Community Education

EDHS-Ethiopia Demographic Health Survey

EBF- Exclusive breastfeeding

FMOH-Federal ministry of health

FGD-focus group discussion

GMP-growth monitoring promotion

HSDP- health sector development program

HEWs-health extension workers

HEP- Health extension program

IYCN- infant and young child nutrition

IMCI -Integrated Management of Childhood Illness

IYCF- Infant and Young Child Feeding

KAP-knowledge, attitude and practice

KII- key informant interview

LQAS - Lot Quality Assurance Sampling technique

LGAs -local government areas

MI-micro nutrient initiative

MCH-maternal and child health

MDG-Millennium Development Goals

MUAC-Median Upper Arm Circumference

PASDEP -plan for accelerated and sustained development to end poverty

SFP - Supplementary feeding programs

UNICEF- United nations International Children

WHO-world health organization

Abstract

This study was designed and conducted with the aim of assessing knowledge, attitude, practice and challenges of HEWs towards the Growth Monitoring and Promotion programs in Endamohoni, Sasi tsada emba, Medebay Zana woredas of Tigray Region. Growth Monitoring is a screening tool to diagnose nutritional problems and status of children at an early stage. It has been suggested that growth monitoring has the potential for significant impact on mortality even in the absence of nutrition supplementation or education. A cross sectional survey through LOT Quality Assurance method assisted by FGD, observation methods. Accordingly, 114 survey questionnaires for HEWs, 30 FGD, 9 KII were conducted from March 1to April 18, 2014. A pre-coded, pre-tested and structured questionnaire was used for the quantitative method and FGD was conducted in the three woredas for the qualitative method. The findings of the study indicated that the HEW's overall knowledge of GM was found to be 96% and about 85 % of them recognized that GM was one of a child health program. The most widely used standard GPM equipment was found to be MUAC 46.9% and Wt scale 35%. As to the knowledge of HEW in using these materials, 54.7% of them need additional refresher trainings and 41.1% of respondents reported that they know it very well. Besides, 86.2% faced a problem in doing GMP and the most frequent challenges were getting a result for the same child in different time was different (31%), difficulty in reading the scale (27.8%) and the result is different in time (21.1%). Subsequent in-service training was received by (84.4%) of HEW and, the content of the trainings that were given for the HEW 78(29.7%) of the trainings focused on definition of GMP, its important, 75(28.5%) on how to do GMP, 70(26.6%) how to use the result after weighing a child and only 40(15.2%) how to link the child with other programs. One third (75%) have reported that they have a good motive towards GMP while the HEWs activities were by and large being limited to the measurement of weight and MUAC of children who attended the HC. Top three reasons of HEW not giving counseling during GMP were luck of training on how to counsel 18 (60%), work burden 5(16.7%) and shortage of time 5(16.7%). Although growth charts were available in 70.5% of the selected health posts the study covered, they were used only in 51%. The main reason of not using was the lack of skills. The result of the qualitative data indicated that there was a fair knowledge GM by the HEW participated in the study yet the practice level was found to be very less due to challenges as lack of attention to the details of working conditions and to human resources management (underdeveloped environment); absence of Institutional arrangements for management of health service extension program at all levels; absence of regular supervision not doing monitoring the quality of training and soliciting cooperation of other social sectors; unavailability of contraceptives, infrastructure, vaccines in sustainable manner poor equipment and supply for GM practice. The study recommended that the GMP need due attention and rapid remedial intervention by joint efforts of the government, concerned NGO's civil societies and the community itself.

CHAPTER ONE

1. Introduction

1.1 Background

With an area of 1.1million Sq.k.m and an estimated total population of 80,440,708 million in 2008, Ethiopia is the second most populous country in Sub-Saharan Africa (CSA, 2007).

A very large proportion of the population (84%) Live in the rural areas (EDHS, 2005) the country experiences a heavy burden of disease mainly attributed to communicable infectious diseases. The Ethiopian Government has formulated a series of Health sector Development programs (HSDP I, II and III 1997-2010) in line with plan for accelerated and sustained development to end poverty (PASDEP) and to achieve the health-related Millennium Development Goals (MDGs).

In response to the country's health problem, in 2003 the Ethiopian Federal Ministry of Health launched a new health care plan, the "Accelerated Expansion of Primary Health Coverage," through a comprehensive Health Extension Program (HEP), which serves as effective mechanism for shifting health care resources from predominantly urban to rural areas, where the majority of the country's population resides. Therefore, HSEP could be considered as the most important institutional framework for achieving the MDGs. Moreover, the government has focused on “providing quality promotive, preventive, and selected curative health services in an accessible and equitable manner to reach all segments of population, with special attention to mothers and children (FMOH, 2005/6-2009/10).

Therefore Nutrition is one of the focus Areas of the Health Extension Program.

Growth Monitoring is a screening tool to diagnose nutritional problems and status of children at an early stage. It has been suggested that growth monitoring has the potential for significant impact on mortality even in the absence of nutrition supplementation or education. Monitoring the growth of a child requires taking the same measurements at regular intervals, approximately at the same time of the day, and seeing how they change. Currently, the Government policies for growth monitoring focus on children less than 5 years of age.

The World Health Organization [WHO] (1986) defines growth monitoring and promotion (GMP) as a nutritional intervention that measures and charts the weight of children from 0 to 5 years of age and uses this information to counsel parents so that they take actions to improve child's growth. Disturbances in health and nutrition, regardless of their etiology, almost always affect growth, thus growth assessment has been said to be the single most useful tool for defining health and nutritional status in children at both the individual and population levels.

Growth monitoring and promotion (GMP) is a prevention activity comprised of GM linked with promotion (usually counseling) that increases awareness about child growth; improves caring practices; increases demand for other services, as needed; and serves as the core activity in an integrated child health and nutrition program, when appropriate. Growth monitoring is measuring and interpreting growth, to facilitate communication and interaction with caregiver and to generate adequate action to promote child growth through:

- Increased caregiver's awareness about child growth
- Improved caring practices
- Increased demand for other services, as needed (Griffiths M, Del Rosso J. (2007)).

1.2 Statement of the Problem

My experience related to GMP is, I used to be an instructor of nursing and health extension workers. During this period I observed that the16 PHEWs packages very much broad and very difficult to accomplish every activity mentioned in the health extension component package towards nutritional activities.

The second scientific reason is I had trying to review different papers/researches on GMP programs. But I didn't find enough research materials in Ethiopia related to growth monitoring and promotion programs.

But some research indicates that the rationale for monitoring the growth of a child—most commonly done in the developing world through monitoring weight but can include monitoring length/height is based on the following assumptions:

- Growth is a good proxy for overall child well-being and its measurement serves as a robust indicator.
- Growth is a dynamic process that is made visible by monitoring changes in anthropometric indices and reflects current, not past, events.
- Adequate nutritional (anthropometric) status is dependent on meeting standards for growth velocity (O, Iyanuoluwa, A, Esther, A, Adeleye, (2011)).

Starting from early 1980s, Growth Monitoring (GM) has been promoted as one of the key components of community nutrition programmes. Since then, in areas where growth monitoring and promotion (GMP) has been implemented as part of a package of nutrition and health programs, positive impacts on child growth outcomes have been reported (Technical Consultation UNICEF, 2008).

Since 1990, the effectiveness of GMP has been questioned mostly due to problems in implementation including low coverage and poor linkage of monitoring to promotion activities. Several recent reviews have made an effort to evaluate effectiveness of Growth Monitoring as an intervention per se, and the Lancet Nutrition Series listed stand-alone GM as a not-to-do intervention for lack of enough supporting evidence. In view of the confusion about the real place and value of GM and GMP in promoting better growth for children, a need for a consolidated effort towards better understanding of GMP within the larger conceptual framework of community nutrition interventions and of its purpose and expected outcomes is still widely felt (Mangasarian, N, (2008)).

Out of the twenty four million children born each year in Africa, four million (16.6 percent) will not survive to see their fifth birthday, even though over 50% of these deaths are largely preventable through immunization, growth monitoring and timely interventions (O, Bello & Asekun-O- Esther, September 7, 2010).

The major health problems of Ethiopia remain largely preventable communicable diseases and nutritional disorders. Despite major progresses have been made to improve the health status of the population in the last one and half decades, Ethiopia's population still face a high rate of morbidity and mortality and the health status remains relatively poor. Figures on vital health indicators from DHS 2005 show a life expectancy of 54 years (53.4 years for male and 55.4 for female), and an IMR of 77/1000. Under-five mortality rate has been reduced to 101/1000 in 2010v and more than 90% of child deaths are due to pneumonia, diarrhea, malaria, neonatal problems, malnutrition and HIV/AIDS, and often a combination of these conditions (Ministry of Health, 2010/11 – 2014/15).

When we see in Ethiopian context the success of health extension program (HEP) in achieving its set goals and objectives could be affected by a number of complex factors. The quality of health extension program (HEP) services depends on the human resource capacity; ownership, access to infrastructure, utilities and other services; availability of medical equipments, drugs, and other supplies; availability of client friendly health service infrastructure; and strength of health systems. There is a perceived risk that Health Extension Workers (HEWs) may not be equipped with the necessary skills and competence to properly implement 16 health service packages with one year of training. Quality of training has been cited as a determining factor in the performance and effect of health programs (Center for National Health Development in Ethiopia, Columbia University. 2011).

The multitasking of HEWs, as well as unbalanced allocation of time among the service packages may also lead to inefficiencies of HEP services. Moreover, the assistance from stakeholders and voluntary community health workers and continuing education they receive are important factors that may affect the quality of HEP services. Hence there is a potential concern that the delivery of poor-quality and inefficient services may in turn lead to bypassing of the services by users. The impact of such a large number of new health professionals will be a challenge to the capacities of the already understaffed and under-budgeted health system (Center for National Health Development in Ethiopia, Columbia University. 2011).

Conducting KAP and challenges of EHWs in Ethiopia helps to evaluate the quality of measures and the skill of the health extension workers in the process and will plan to enhance skill of HEWs by improving the accuracy of measurements in growth monitoring.

So based on this statement of the problems the following research questions developed:

1.3 Research Questions

1. Do the HEWs know how to use the measuring, Counseling, documentation and guide line of GMP materials?
2. How is the training going on with the HEWs towards GMP program?
3. Do the HEWs have an attitude of towards GMP program?
4. How do the HEWs practice the GMP program?
5. Do HEWs have skill of calibration of growth monitoring measurement tools?
6. What are the challenges of HEW while they are doing GMP?

1.4. Objectives of the Study

1.4.1 General Objective of the Study

To assess knowledge, attitude, practice and challenges of HEWs towards the Growth Monitoring and Promotion programs

1.4.2 Specific Objectives

The specific objectives of the assessment are;

- To evaluate the knowledge of HEWs on how to use the measuring, Counselling, documentation and guide line of GMP materials
- To assess the HEWs training towards GMP programs
- To assess the attitude of HEWs towards GMP program
- To know the practice of HEWs towards GMP program
- To level the skill of HEWs in calibration of growth monitoring measurement tools
- To find out if there are challenges of HEWs while they are doing GMP

1.5 Significance of the Study

This study would have the following significances:

- It motivates the concerned bodies to give due attention to the problems and play an active role in reducing such challenges.
- It gives insight to governmental and non-government organizations on the importance of Growth Monitoring and Promotion program (GMP) on Nutrition Intervention.
- As to the knowledge of the researcher, there has not been enough research undertaken on the deep KAP and challenges of HEWs in Ethiopian context and particularly in the Tigray Region. Thus, this study might bridge the gap and could possibly serve as a stepping stone for further research.
- Suggest viable intervention strategies to curb the problems.

1.6 Limitation of the Study

Some part of the HEWs of GMP program is still at its initial stage of implementation and has not fully settled down. Therefore the observations made by the researcher may not be representative the whole region.

CHAPTER TWO

2. Literature

History and Development of Growth Monitoring Programmes

Growth Monitoring, particularly of infants and young children, is widely regarded as an essential element of primary health care and in a recent survey 154 of 178 Ministries of Health (88%) reported that they monitor child growth. The potential of Growth Monitoring lies in its use as a diagnostic tool for identifying a child with a nutritional or health problem, thus enabling action to be taken before the child's nutritional status is seriously jeopardized (Ashworth, A ,2008)..

Most Growth Monitoring programmes use weight charts to provide a graphic representation of a child's weight-for-age. An undernourished or sick child will have a slower rate of weight gain than a well-nourished, healthy child. Monitoring growth by plotting a child's weight at regular intervals and comparing the pattern of growth to reference curves of healthy children permits early detection of Growth faltering. It provides an early warning signal and a trigger for early action (Ashworth, A, 2008).

Growth Monitoring has a long history. Regular weighing of infants was advocated by Guillot in the 1850s for assessing the adequacy of lactation in neonates, and in the 1870s Cnopf in Nuremberg was the first to weigh infants systematically beyond the perinatal period, while Russow in St Petersburg was the pioneer of growth standards and of the idea that growth reflects an infant's well-being (Tanner 1991).

In 1899 in St Helens, England, regular child weighing and practical advice were provided by volunteers of the Infant Welfare Movement and by the mid-1920s there was a nationwide network of welfare centres that were organized around child weighing. The first growth

reference was introduced in England in 1906. In 1961 the use of growth charts was recommended by a joint committee of the Food and Agriculture Organization and World Health Organization (WHO) (WHO 1962).

The name ‘Road-to-Health chart’ originated in Malawi, but much of the pioneering work and advocacy for monitoring growth in developing countries was by Dr David Morley and colleagues at Ilesha, Nigeria. Over the years many different types of growth chart have been designed: many additionally serve as child health records showing illness episodes, immunization status etc. and provide advice, for example on child feeding, oral rehydration, and care-seeking. The direction of the child's line is emphasized, that is, whether rising in parallel to the reference curve (good), or flat (early warning) or falling (danger sign). In the 1970s growth monitoring was implemented in several developing countries in Africa, Asia, Latin America and the Near East both by governments and agencies, notably the Catholic Relief Services and the United States Agency for International Development (USID). Many systems emerged and WHO coordinated efforts to develop a standard weight chart and published guidelines for its use in health services (WHO 1978).

The main aims of growth monitoring, as originally conceived, are to:

- Provide a diagnostic tool for health and nutrition surveillance of individual children and to instigate effective action in response to growth faltering.
- Teach mothers, families and health workers how diet and illness can affect child growth and thereby stimulate individual initiative and improved practices.
- Provide regular contact with primary health-care services, and so facilitate their utilization(Ashworth, A,2008)

Ethiopia is one of the 189 countries that signed the Millennium Declaration. The UN Millennium Development Goals (MDG #4 and #5) calls for Ethiopia to reduce child and maternal mortality by a two-third and three-fourth respectively by the year 2015.

Pursuant of these goals, the Ethiopian Ministry of Health has undertaken a number of important public health initiatives aimed at improving the health outcomes of women and children (FMOH, 2010a). One of these initiatives is the launching of the Health Services Extension Program (HEP) in 2003; an innovative way of scaling up the delivery of essential health interventions targeting the household and community level. The primary purpose of HEP is to improve access and utilization of health care particularly by children and mothers at a national level. It is designed based on the philosophy that "If the right knowledge and skill is transferred to households they can take responsibility for producing and maintaining their own health" (Health Extension and Education Center & FMOH, 2007, p. 2). The HEP is also regarded as a principal means of implementing the Health Sector Development Program (HSDP) by bringing key maternal, neonatal and child health interventions to the community (Amare & Selamawit A, 2013)

Definition of GMP

Growth Monitoring (GM) is the process of following the growth rate of a child in comparison to a standard by periodic anthropometric measurements in order to assess growth adequacy and identify faltering at early stages. Assessing growth allows capturing growth faltering before the child reaches the status of under-nutrition. In addition to prevention of under-nutrition, the role of GMP in capturing over-nutrition especially in light of growing problem of obesity needs to be further explored. Growth monitoring and promotion (GMP) is a prevention activity that uses growth monitoring (GM), i.e. measuring and interpreting growth, to facilitate communication and interaction with caregiver and to generate adequate action to promote child growth through:

• Increased caregiver's awareness about child growth

• Improved caring practices

• Increased demand for other services, as needed Growth monitoring (Technical Consultation UNICEF, 2007)

Use of GMP

Growth Monitoring, particularly of infants and young children, is widely regarded as an essential element of primary health care and in a recent survey 154 of 178 Ministries of Health (88%) reported that they monitor child growth. The potential of growth monitoring lies in its use as a diagnostic tool for identifying a child with a nutritional or health problem, thus enabling action to be taken before the child's nutritional status is seriously jeopardized. Most growth monitoring programmes use weight charts to provide a graphic representation of a child's weight-for-age. An undernourished or sick child will have a slower rate of weight gain than a well nourished, healthy child. Monitoring growth by plotting a child's weight at regular intervals and comparing the pattern of growth to reference curves of healthy children permits early detection of growth faltering. It provides an early warning signal and a trigger for early action. Growth monitoring has a long history. Regular weighing of infants was advocated by Guillot in the 1850s for assessing the adequacy of lactation in neonates, and in the 1870s Cnopf in Nuremberg was the first to weigh infants systematically beyond the prenatal period, while Russow in St Petersburg was the pioneer of growth standards and of the idea that growth reflects an infant's well-being (Tanner 1991).

In 1899 in St Helens, England, regular child weighing and practical advice were provided by volunteers of the Infant Welfare Movement (Williams 1986) and by the mid-1920s there was a

nationwide network of welfare centers that were organized around child weighing. The first growth reference was introduced in England in 1906 (Tanner 1991). Dr Cicely Williams reported that as early as 1910 mothers in Jamaica were weighing their babies (Ashworth A, et al, 2008)

The World Health Organization [WHO] (1986) defines growth monitoring and promotion (GMP) as a nutritional intervention that measures and charts the weight of children from 0 to 5 years of age and uses this information to counsel parents so that they take actions to improve child's growth. Disturbances in health and nutrition, regardless of their etiology, almost always affect growth, thus growth assessment has been said to be the single most useful tool for defining health and nutritional status in children at both the individual and population levels.

Growth monitoring and promotion (GMP) has therefore been advocated worldwide as one of the key elements of child survival and primary health care strategies. The emphasis in most places has been on the measuring that is the 'monitoring' rather than the 'promotion' of growth. The term GMP rather than just growth monitoring was therefore used to emphasize that it assesses the growth and development of a child in order to detect the earliest changes and bring about appropriate responses to ensure that growth continues uninterrupted. The growth or Road-to-health chart, designed by David Morley (Morley & Woodland, 1979) and modified by WHO, serves as a graphical representation of the child's physical growth and also for the longitudinal follow-up of the child. This helps in combating malnutrition through timely and early detection of faltering growth, because growth faltering can be detected long before any easily-observable sign or symptom of malnutrition becomes evident. This then helps to reduce infant and child mortality, because malnutrition is, in part, responsible for high rates of mortality of children aged less than five years, as observed in developing countries, and thus boosts the achievement of the millennium development goals (Bello- O & Esther –o, September 7, 2010)

Growth promotion is the targeting of counseling and other assistance to children and their families based on their monthly weight gain (or decline). Growth promotion includes growth monitoring of children (weighing and charting of weights), but goes beyond that to identify growth problems (in partnership with mother or caregiver), formulate actions in response to problems, and follow-up the effects of agreed-upon interventions. Although the families of growth faltering children may face severe economic constraints, they often are able to make small, but profoundly important changes in the way they feed their child. Even if the behavior changes do not achieve the internationally accepted feeding guidelines, they can maintain or improve the growth and nutrition status of a youngster. For example, feeding an extra tortilla twice a day, adding 2-3 spoonfuls of rice to each meal, or instituting exclusive breastfeeding can keep a child from faltering and thus on an adequate growth trajectory (Nutrition Toolkit Tool #4, 2011).

In health and nutrition programs at the central or community level, information on growth is compiled and analyzed for problem-solving and planning, to integrate and target services and resources, to motivate/enhance household-level actions, and to provide follow-up/feedback on the effects of actions taken. Growth information has been effective in rallying the community for action and as a trigger for increased attention to supervision of health and nutrition workers. A common error in growth promotion programs is an over-emphasis on the task of weighing and compiling, reporting, and sending data without using them locally. Programs need to focus attention on trends in growth (not on nutritional status) and on the use of this information to target counseling and referral plans for children (Nutrition Toolkit Tool #4, 2011).

The central tenets of effective growth promotion programs

Programs work most effectively when they are community- or neighborhood-based (not reliant on a health facility) and aim for universal coverage of children under two or three years. Growth monitoring should begin at birth, continue monthly for the first 18-24 months of life, and involve child caregivers in the monitoring process. Adequate growth (weight gain) rather than nutrition status is the best indicator for action. Growth promotion is well suited for programs with a preventive approach because it catches growth faltering early on before significant malnutrition has occurred, making it possible to correct the problem with home-based actions. Programs that work well record a child's growth on a growth chart making his/her growth status visible to the caregiver; analyze the causes of inadequate growth and formulate clear and feasible options for action based on the analysis; engage the family in negotiation on actions for improved nutrition practices using precise recommendations tailored to the individual child and her environment; follow-up with the family at the next weighing to assist with continuing problems and to provide encouragement and praise (Ashworth A, et al, 2008).

Importance of counseling

It is important to underscore that GMP without proper tailored counseling in not recommended. Counseling aides should include generic algorithms addressing assessment, analysis and action, with specific advice for different situations, linked to individual counseling tools to address each specific situation. The algorithms and counseling cards will need to be tailored to country contexts and based on formative research results. Counseling aides should include clear principles of effective counseling and negotiation. Importance of developing counseling skills should be emphasized. Training should include role play and practical sessions and should be followed up by regular coaching; mentoring and support to ensure good counseling skills are

developed and applied. There needs to be a tool to record the negotiated decisions, actual implementation by the caretaker and subsequent follow up. Supportive supervision of counselors is crucial. For sustainability, it is suggested to have individuals tasked by the national structures to perform this function (Technical Consultation UNICEF, 2008)

Current Knowledge of Growth Monitoring

Growth, a positive change in the size of a growing individual, is a dynamic measure of health, the best available indicator of nutrition status, and the only real measure of nutrition adequacy. Deviations from the expected, or predictable, course of growing are not visible at the earliest stage, and such invisibility is a major barrier to preventing and curing health problems. Growth monitoring has gained popularity in the last two to three decades and has been practiced in over 80 countries, with perhaps the earliest report from clinic-based activities in Nigeria (Lotfi, M, accessed 2014).

The most widely promoted method of growth monitoring is weighing and charting growth, since weight gain is believed to be the most sensitive indicator of growth and is universally applicable. This method is favored by UNICEF. Among other techniques, measuring arm circumference is claimed to be the easiest and cheapest alternative to weighing and has been recommended for use at the home and village levels whenever regular and frequent weighing is not possible (Lotfi, M, accessed 2014)

Effectiveness

Available data do not give enough indication of the effectiveness of growth monitoring, and studies to demonstrate the usefulness and benefits of such programmes in a community are needed for advocacy purposes. Recent reviews have concluded that many growth-promotion

activities are poorly conducted and have discouraging results In spite of widespread enthusiasm and support, the general feeling is that growth-monitoring programmes have yielded few benefits, and they are often described as failures However, the reports have shown how a greater focus on growth-promotion strategies and their implications for programme operations can turn these programmes into successes. Many nutrition and health programme planners in the developing nations consider that growth monitoring is not living up to its potential for contributing to child survival and development (Lotfi, M, accessed 2014)

Growth Monitoring and Promotion

Growth Monitoring has been defined as '1he regular measurement, recording and interpretation of a child's growth change In order to counsel, act and follow up results. It has been targeted by child survival Initiatives such as those undertaken by UNICEF and the U.S. Agency for International Development as an important tool for reducing infant mortality. Growth Promotion activities such as the focusing on health education, counseling, referral and other actions to follow up results are essential. Thus many professionals in the field have suggested that this type of activity be termed "growth monitoring and promotion, to emphasize that action based on the results of assessment is an essential component of the intervention (Brownlee, A, July 1990).

The advantages of growth monitoring and promotion, if properly implemented, are many:

- It allows for the early identification of children at high risk of malnutrition.
- It enhances the transfer of nutritional information by providing the educator with data concerning children's growth patterns that can be used in tailoring advice.
- It assists in focusing scarce resources such as supple- mentary food commodity, Recipients who most need them.

- It provides a good opportunity for immunization and other preventive and promotive services, as well as for simple treatment and referral to other health services.
- When combined with nutrition surveillance, it assists in evaluating the impact of other health and development activities and in identifying groups in need of special health attention (Brownlee, A, July 1990)

Attitudes toward weighing

Project planners should determine whether there .s any resistance to weighing of young children In the local culture or to other procedures central to the growth monitoring process. In certain parts of India and Bangladesh, for example, the concept of the evil eye causes some mothers to be extremely reluctant to have their healthy children weighed. Weighing is at times seen as degrading, if the child were a piece of meat. If concerns such as these are not addressed, attendance at weighing sessions may be poor, and project impact substantially weakened (Christian P, 2008).

Health worker Inadequacies and possible training strategies

Training

In growth monitoring for both health professionals and front line workers should be strengthened, as many knowledge and attitude problems are common both at the professional and auxiliary levels. High level professionals, educated to playa curative role, often have little understanding of the detrimental effects on survival of the interaction between malnutrition, growth failure and infection. They often fail to either use with monitoring as a tool in their own work or act on measurement results collected by those under them. Lower level workers thus are often unenthusiastic about monitoring tasks and may lack the needed technical skills as well.

Competency-based training programs focusing on practical knowledge and skills for both monitoring and promotion are essential (Christian P, 2008).

Attitudes toward weighing children and other' growth monitoring

Procedures Project personnel should determine whether mothers understand the significance of gaining weight for their children's health and to what extent procedures such as weighing may be viewed unfavourably In the local culture. In certain parts of India and Bangladesh there appears to be some cultural resistance to weighing among families that believe in the "evil eye" and feel weighing a well child may be detrimental to its health. In some countries weighing a child "like a piece of meat" is thought to be degrading. It is important to determine to what extent attitudes or beliefs such as these exist so strategies for addressing them can be explored (Christian P, 2008)

Requirements to make GMP Successful

Adequate worker knowledge and skills

- Time, communication skills and motivation of workers
- Discussion between mothers and workers regarding feasible solutions and actions
- Mothers understand messages and TRANSLATE information into action (Christian P, 2008)

Health Extension Workers

The Health Extension Program has shown very encouraging results and will remain the main vehicle for community action including community based nutrition programs for the coming years. The government has now put in all sedentary rural areas a Health Extension Program to reach every family in every Kebele for various preventive and health promotion services, including nutrition. All the Health Extension Workers (HEW) have been recruited and the

government is working towards creating universal access in urban and pastoral areas. There has been significant progress in the training of the HEW's since 2003. All 30,000 HEWs were trained and deployed by March 2009, with two HEW's for each rural Kebele. However, the quality and effectiveness of the training needs to be reviewed (Save the children UK, May 2009).

The curriculum of the training institutions is being reviewed and Training Needs Assessment on front line workers is being carried out. It is necessary to ensure the HEWs and Voluntary Community Health Workers receive quality training on Community Based Nutrition before the initiation of the Community Based Nutrition Program (Save the children UK, May 2009).

There has been tremendous progress in the construction of health posts (HPs) for the delivery of HEP at community level. The total number of HPs has increased from the baseline of 6,191 in 2004/05 to 14,416 in 2009/10, more than doubling in a space of only four years. Even so, this number only reached 89% of communities, versus the planned target of 100% under HSDP III. Equipping HPs with medical kits remain a major challenge during HSDP III; only 83.1% or 13,510 HPs out the planned target of 16,253 HPs were fully equipped (FMOH, 2010/11 – 2014/15).

As part of the implementation, 2,566 HEP supervisors were trained and deployed, thus achieving 80.2% coverage against the plan of 3,200. The FMoH prepared technical guidelines for HEP supportive supervision together with other technical reference books for rural HEP and manuals for school health program; these have been as part of the BPR. In addition, the implementation manual for pastoralist and semi-pastoralist areas was finalized and distributed to respective regions (FMOH, 2010/11 – 2014/15).

Other major activities in support of HEP included establishing HEP departments at regional levels and respective structures at zonal and Woreda levels to strengthen the management

support to HEP. In order to expand urban HEP in seven regions of the country, 15 HEP packages along with a manual were developed and distributed for implementation. Training and deployment of urban HEWs is already in progress in Tigray, Amhara, Oromiya; SNNP, Harari, Dire Dawa; and Addis Ababa. Accordingly, these regions have trained and deployed a total of 2,319 Urban Health Extension workers achieving 42% of the targeted number (FMOH, 2010/11 – 2014/15)

Program Challenges while implementation of Ethiopia's Health Extension Program:

- Lack of attention to the details of working conditions and to human resources management (underdeveloped environment)
- Absence of institutional arrangements for management of health service extension program at all levels.
- Absence of regular supervision not doing monitoring the quality of training and soliciting cooperation of other social sectors
- In availability of contraceptives, infrastructure, vaccines in sustainable manner
- In some area, health posts are not fully well equipped with needed equipment and supplies (SEBHATU, A, 2008)

The need for community education (CE) for HEW because of the weak preserves training, the dynamic circumstances at community levels (including growing demand for curative care) and changes in the prevention/control technologies and methods has been well-established. In a related perspective, a concurrent study has shown that all HEW expect to be upgraded in a few years time. Thus it might not come as a surprise that the few HEW who expressed their opinion on CE on subjects not covered in the curriculum focused on curative care. This might be in response to the fact that HEWs are hard pressed by communities to provide curative care.

It is also notable that the request for immediate CE in subjects purportedly covered in the curriculum focus on mainly curative-related tasks. On the other hand, the more prevention oriented tasks such as FP services and most of the environmental health activities are ranked very low in the pecking order for CE (Y- Ebiyo & Y -Kitaw, et al, 2007).

While variation and the perceived low quality of some of the buildings might not matter in the short run, availability of the minimum standard of equipment and furniture is critical both for motivation of the HEW and acceptance/perception of the communities. Repeated shortage/lack of equipment and supplies, as observed in this study and confirmed in HSDP II evaluation, could lead to under-use of HEW with ensuing problems. Measures taken in procurement at the regional level are commendable but all, the WHOs in particular, should ensure that the items effectively reach the HP (Center for national development in Ethiopia, May 2006)

Health Planning

Health planning is conducted in government organizations, medical and research organizations, and educational institutions and in prevention, early intervention, treatment, and follow-up. Planning should involve determining and ensuring the number of necessary health care personnel presently and in the future and how to both finance and control costs. It includes where to locate facilities, how to provide the most effective means of service delivery, and how to provide services in a cost effective manner (Barker, 2003; NASW, 1987)

Regarding Reference and Reading Materials to HEWs:

The reference materials prepared by the Ministry of Health (MOH) are now available in almost all the HPs visited. These materials are in English and Amharic and some in local languages. Materials prepared by Carter Centre, in more advanced English, have reached TVETI but not

HPs. There are practically no other reading materials at the HP level. They do not get any newspaper, newsletter or journal. Filing facilities being almost nonexistent, most documents are scattered haphazardly and had to be retrieved for inspection by the study teams with some difficulty (Center for national development in Ethiopia, May 2006)

Individual health worker performance, while an important element, is somewhat difficult to discuss as a stand-alone issue, as it depends on all aspects of management, as discussed below: selection, training, supervision and support. Two studies that explicitly explore the performance of CHWs illustrate this. Evaluations of CHW performance in 1998, 1999, and 2001 in Siaya, Kenya found that "key reasons for the deficiencies

(In performance) appear to be guideline complexity and inadequate clinical supervision".

An assessment of health worker performance in the management of children with acute respiratory infections (ARI) in two local government areas (LGAs) in Nigeria found that: many of the health workers had not attended a continuing education programme in the previous two years and supervision which could have provided on-the-spot training was irregular. Improvements in ARI case management will require attention to policy, logistics, and training (Including in-service education) and supervision

(Lehmann, U, and Sanders, D, 2007)

The Following are major challenges encountered during the implementation of the GMP program.

- Lack of attention to the details of working conditions and to human resources management (underdeveloped environment)

- Absence of Institutional arrangements for management of health service extension program at all levels.
- Absence of regular supervision not doing monitoring the quality of training and soliciting cooperation of other social sectors
- In availability of contraceptives, infrastructure, vaccines in sustainable manner
- In some area, health posts are not fully well equipped with needed equipment and supplies
- No research conducted on program area(SEBHATU, A, 2008)

CHWs growth monitoring skills

All the community health workers were able to read observed weights accurately and record correctly on the card the weights that were observed. Some challenges were observed which included the date of entry, which was only clearly indicated in 50% of the cards in centers. None of the cards observed had 100% attendance while the weights in most of the cards (89.5%) were never joined to make the mothers picture the growth pattern of their babies. The CHWs did not communicate to the mothers about the growth or the weight of the child. Although the date of next visit was clearly indicated mothers had no communication about the growth of their children with the CHWs. This was also confirmed in a focus group discussion when mothers said that they had dropped from the CBGMP because even when their children were weighed they were never told anything about it (M, RUTH, 2013).

Low coverage and limited counseling were reported in large-scale, growth monitoring programmes in India and also in programmes supported by UNICEF in China, Ecuador, Indonesia, Malawi, Thailand, the DRC and Zambia. In Burkina Faso, Niger and Mozambique, fewer than 30% of mothers received counseling. In Costa Rica, a lack of essential supplies and

an unsupportive health system were said to demotivate professional nurses and community health workers, leading to unsatisfactory growth-monitoring practices (Tshibwila, K, 2011).

The limited time available for interaction with caregivers continues to constrain effective action in many countries: Children were misdiagnosed and interaction with mothers was rare. In Zambia, the average contact time was 30 seconds, in the DRC mothers received 2 minutes consultation time, no advice at all, and lacked nutritional knowledge and communication skills. Inadequate training of professional nurses, especially in equipping and enabling them to provide effective counseling, the poor quality of implementation, poorly addressing the specific needs of each mother and child, the lack of necessary knowledge, skills and insight to analyze the situation and to deduce appropriate action were all important factors. In a survey of training courses in Lusaka, weighing, plotting and interpreting the growth curve were adequately taught, but none taught counseling or follow-up action (Tshibwila, K, 2011).

CHAPTER THREE

3. Methodology (Research Design)

3.1 Study Area

The Region of Tigray

The Tigray region, placed in the North part of the country bordering Eritrea in the north, Sudan in the West, and the region Afar and Amara of Ethiopia in the west and in the South respectively (T, Abraham, 2011).

Tigray Region has a surface of 53,623 km² and the altitude changes between 3,900 meters in the highest mountains of the eastern zone to almost 500m below the sea level in the area of the west. Consequently, the temperature in the region presents big oscillations according to the area. Also, the rainfall also changes from 300mm to 1,000mm, and there are frequent and severe droughts (T, Abraham, 2011).

The total population of Tigray is around 6.2 million {49.2% male and 50.85 female} which is about 8% of the total population of Ethiopia and 85% the people live in the rural areas of the region. In terms of religion, 70% of the population is Orthodox Christians. Most of the remaining 30% are Muslims and Catholics, Protestants and Adventists are also present (T, Abraham, 2011).

Regarding ethnic composition, 94.98% are Tigrawai, 2.6% Agew/Amhara, 0.7% Erob and 0.05% Kunama. Tigrigna is the working language of the region.

Urban population distributions in cities include Mekelle (185,000), Adigrat (71314), Axum (51727), Alamata (49883), Endaselase (48335), Adwa (46645), Maichew (37581), Korem (32072), Wukro (31245) and Humera (27807) (T, Abraham, 2011).

3.2 History and Politics

This part of Ethiopia has a very rich and long history. The grandson of Noah, Cush, established an empire based in Axum that lasted for one millennium (around 300BC to around 700 AD). Axum (central Tigray) is the home of an over 4 thousand year old Axumite kingdom which was once very powerful and had tremendous influence around present day red sea countries. This kingdom has left rich architectural and archaeological heritage of rock-hewn churches and monuments. It was a highly literate society which developed an alphabet. Modern Tigrigna, the language now spoken in Tigray has evolved from the language Geez (T, Abraham, 2011).

Christianity was introduced to Tigray region in the fourth century. Its old monasteries became centers for learning, translating, including the Bible in the fifth century. Islamic religion was also by the end of the sixth century. The Axumite heritage is still important in Tigray today. The obelisks from this era are still standing in Axum today. They symbolize national pride and consciousness for all Ethiopians. Tigraians together with other Ethiopians had an important role in defending and defining today's Ethiopia from colonial powers.

Johannes the fourth, a Tigraian king, defended the area from Egyptian, Italian and Sudanese invaders. Together with other Ethiopians Tigraians had soundly defeated the Italian regime in the battle of Adwa in 1896. This was the first in Africa for a modern colonial power to be defeated by a poorly armed, but determined mostly peasant army (T, Abraham, 2011).

3.3. Major Economic Activities

About 83% of the people are farmers. Teff, wheat, corn, sorghum, barely niger seed, flax seed and sesame are the main crops grown in the region. Pulses, beans, lentils, onions, vegetables and fruits and potatoes are also other agricultural products. Terrace farming is also used on the steep

slopes. 1.5 million hectares of land in the region is cultivable, of which one million hectares is being cultivated (T, Abraham, 2011).

3.4 Health

Health coverage in Tigray was one of the lowest in Ethiopia. Only 12% of the society was getting some health benefits. Since 1991 after the number of health posts or small clinics increase from 100 to 600, small hospitals from 10 to 40, central hospitals from 4 to 13 and one referral hospitals were built and are giving service to the public. The health coverage in this state from 1991 to 2006 grew from 12% to 70% and still is growing (T, Abraham, 2011) (Figure 1).

Figure 1: Distributions of public sector health facilities in Tigray region, 2007

The study target covered the three purposively selected Woredas of Tigray region, which are the project area of Micro Nutrient Initiative (MI)/Concern Tigray

- Endamohoni: 21 kebele south Tigray

- Sasi tsada emba: 26 kebele central Tigray and
- Eastern: Medebay Zana 20 kebeles

The selection was based on LQAS/purposive sampling methods to represent the whole regions and the second stage sampling was done from the kebele. This study also enabled me to track the trend of change relative to the prior assessment undertaken and more specifically GMP.

3.5 Study Design

For the purpose of this study the LQAS (Lot Quality Assurance Sampling technique) was administered. The assessment is to know the knowledge, attitude, practice and challenges of HEWs towards using the Growth Monitoring and Promotion program and the implementation processes. The HEWs performance enables me the information on the HEWs capacities and implementation process. Thus, the assessment of the HEWs implementation process was taken at different levels of the health system serving the communities where sample households were selecting for health outcome determination (Wikipedia, the free encyclopedia).

3.6 Sample Size Determination

Purposive selection health posts located in the sample villages, HEWs working in these health posts, respective referral health centers, respective HEW supervisors and district health management responsible for the supervision and management of HEP was sampling for this assessment.

In principle of the sample size selection method which is LQAS the sample size determination was restricted at a minimum of 19 and above. The result with the minimum 19 sample is statistically significant and acceptable. In the case of this study it is suggested to sample at least

19 HEWs from 19 health post from one supervision area which is the district (Wikipedia, the free encyclopedia).

The researcher used sampling is a simple, low cost random sampling methodology those are: three Woredas of Tigray region such as:

- Endamohoni: 21 kebele south tigray
- Sasi tsada emba: 26 kebele central tigray and
- Eastern: medebay zana 20kebeles

Accommodating the above constraints, the number of samples included in the sample, were determined by the LQAS sample size formula. The number of samples to be sampled, n, is dependent on six parameters:

(1) The number of samples collected in each samples, m;

(2) The total number of samples in a catchment area, N;

(3) The total population in the catchment area (usually based on a national census

(4) The average of the square of the populations in each SAs, M2;

(5) An estimate of the intra class correlation, and

(6) The maximum desired length for the confidence interval, `max, which in this case, has a value of 0.2.

Three of the parameters, namely, the number of samples, the total population size, and the average of the square of the populations in each sample, are obtained directly from the census of the population. The size of the sample collected in each sample is determined by the minimum sample required to apply LQAS decision rules with acceptable error. It is typically set to either 19 or 20 for two reasons: (1) previously developed and field tested training materials can be used

immediately (Valadez, Weiss et al. 2003) to carry out an LQAS analysis of each SA, and (2) these sample sizes have been used successfully in many applications globally. Thus, an estimate of the interclass correlation, ˆ, is the only unknown quantity and we discuss methods of obtaining this estimate in the following section.

Table 1: Distribution of samples by Woreda and kebele

Sampling	Woreda	Kebels	Sample from each kebele	Total sample size
KAP question	3	2	19	114
Observation	3	1	19	114
Focus group discussion (FGD)	3	1	10	30
In-depth interview with Key informant interview	3	1	3	9
			Total	267

For the qualitative component of the sampling frame random selection of participants with the help of woreda health office and HEWs was employed. An average one FGD was conducted with 6-12 mothers with children under the age of two.

3.7 Methods of Data Collection

This section (methodology part) provides an overall strategy of the study and provides a plan for collecting and analyzing data. Issues that was addressed in this section include: the broad study

strategy and how it responds to the specific objective of the assignment, sources of data (from whom and what), and how data will be collected and analyzed.

The study was guided by the following qualitative and quantitative methodological approaches: (1) KAP of HEWs (2) Observational methods of HEWs (3) Focus Group Discussions (FGDs) with mothers whose children under age 2, (4) In-depth interviews with Key informants.

3.7.1 Observational Methods

Observing and recording in the field: - The center of attention for this field research was observing and recording on the checklist (see at Appendix) what occurs and how the HEWs measure and use the materials and well noted down of the rapport is expected.

3.7.2 Key Informant Interviews (KIIs)

Key informant interviews (KIIs) were conducted with the objective of soliciting ideas from different level HEWs trainers, partners, supervisors and the woreda health offices. The reason in-depth interview is selected is that it provides an opportunity to the investigators to question thoroughly certain areas of inquiry and it permits greater of responses, which is not possible through any other means.

The basic criteria adopted to select these samples were based on their awareness of the GMP program. Interviews were semi-structured. Initial interview questions were going to prepared based on standard regulations and the Ethiopian Constitution and other relevant documents and observations of the group, but an individual interview varies as themes emerged through the respondent's input.

3.7.3 Focus Group Discussions (FGDs)

In order to explore the perception of the beneficiary mothers (mothers with children under two) on the growth monitoring programs services provided by the HEWs. The focus group discussion method is also considered compatible to the nature of the study and is substantial to the qualitative method mentioned above. Therefore, the Focus Group Discussion is used to explore more open and a closer perspective of the subjects, which may be impossible to obtain in the other method. Further, focus group discussions give an opportunity to the team to develop issues in a more focused fashion. The team member tasks and responsibilities were clearly spelt out to ensure that accurate, informative submissions are collected.

3.7.4 Data Collection Administration

Assessment tools and instruments data collection was through personal interviews using structured questionnaires and in some cases through observation

All the questionnaires were translated into Tigrigna languages.

3.8 Assessment Instruments

3.8.1 Designing of Survey Instruments (Questionnaires)

Hence, the KAP assessment was utilize standard and structured questionnaire which are designed considering the objectives of the assessment, the required output and which was allow this end, The questions are designed to capture all information requirement of the study and are based on the indicators solicited in the project. Especially, greater efforts was made to ensure that the questions are sufficient enough to capture the intended indicators and in line with the assessment model. Moreover, careful consideration of issues such as limiting the interview to a reasonable length; ensuring the questions are clear, unambiguous, and within the feasible knowledge of the

respondent. For this purpose, professionals in the team who are involved in this survey were participating in drafting; pre-testing and finalizing the instruments. The designed questioners were based at the health post level:

1, HEW knowledge and perception module,

2, HEW competence module

3, Health post performance module used to collect information from the HEWs and health posts to assess the KAP and challenges of HEWs to towards GMP programs.

3.8.2 Pre-test of Survey Instruments (Questionnaires)

Under taking a pre-test of the survey instruments (Questionnaires), FGDs and key informant interviews helped for the purpose of identifying and correcting errors and shortcomings before the implementation of the actual survey. It also helped to evaluate the general receptivity and feasibility of the questionnaire, consistency of the questions and appropriateness of the wording used and to identify specific problems of communication between the interviewer and the respondent.

The researcher was closely involved in the pre-test to observe all stages of the work while it is being done in the field. Questionnaires were finalized after reviewing results and incorporating comments on the pre-test.

3.9 Data collectors

The researcher and the data collectors together were involved in the assessment of knowledge, attitude, practice and challenges of HEWs towards using the Growth Monitoring and Promotion programs. It helped to achieve high quality data and homogeneity in the administration of the questionnaires. Each HEW was interviewed independently for the HEWs' attitude, practice and

HEWs' competence modules, thus two questionnaires could be completed per health post where appropriate.

3.9.1 Consent and Confidentiality of the data

The purpose of the study and general procedures were explained to the HEWs and selected respondents which would be asked if interested in participating. They were informed of the objectives of the study, the length of the interview, risks associated with the study, any discomfort and inconvenience associated with it, as described on the consent forms and oral consent was obtain from study subjects. Consent and confidentiality of study data recruitment of study subjects was in person by approaching health posts and the selected respondents.

The information were gather through interview would be kept confidential and was not shared with any persons or agencies not affiliated with this study. The answers of the respondents were combined with the answers of other respondents in such a way that it is not possible to associate particular responses with particular health post and selected respondents. All health posts and respondents will be assigned a code, and this code is stored separately from the responses to the survey. Individual responses are thereafter referred to by codes alone.

3.10 Data Quality Assurance Plan (during and After Fieldwork)

The researcher was pay due attention to maintain the quality of data to be collected from the field. Data quality assurance was taken care of starting from data collection phase up to the end of data analysis through different mechanisms and strategies, so that two main sources of errors (sampling and non-sampling errors) expected from the assessment that interfere with the ability to collect valid data was avoided. One source (the non-sampling error) comes from people collecting the data (mainly the interviewer), and from respondents (target beneficiaries) and

institutions from whom the data was collected. It is commonly said that people do not tell the truth about some issues/ behaviors being studied, and that they exaggerate or withhold information. Experience has shown that there are techniques that can be used to increase the likelihood of honest sharing of information. Hence, efforts were made interviewers well trained to discuss sensitive questions with respondents and make them feel at ease. The interview and supervisor guidelines to be prepared a head of the study were provided a necessary tool for ensuring quality of fieldwork.

The researcher team were employed the following strategies to minimize both sampling and non-sampling errors. That is by ensuring that:

- Questionnaires were well-designed and sufficiently pre-tasted
- In order to maintain the quality of the data, the researcher was administer the qualitative questions
- Questionnaire administration was consistently (uniformly) applying;
- A confidential atmosphere for data collection was provided (arranged)

3.11 Data Management and Processing

Once the required data are collected from the field, data management and processing activities were take place. Accordingly, the raw data needs to be converted into a form suitable for analysis and interpretation. Data processing is, therefore, the link between data collection and data analysis. This can be achieved through sequences of activities, which include editing, coding, entry, and tabulation. The objectives are to check the completeness, internal consistency and appropriateness of the answers to each of the questions.

During Data Entry: the data could be entered in a simple excel form and clean it and analyze it. And for the qualitative analysis hand tabulation and analysis was administered.

3.12 Editing and Coding

The filled-in questionnaires were unnoticed errors and may require review and editing of inconsistent results and checking for appropriate codes. Therefore, all the questionnaires collect from the field was manually edited to ensure that the questionnaires have the required quality. An editing and coding manual was prepared for this purpose and the researcher was managed on the key elements of the editing/coding work relevant to the particular nature of the study. Open-ended questions, such as other - specify were thoroughly reviewed and recorded in a separate notebook for further recoding and reference during analysis and write up of the report.

3.13 Data Entry

A data management plan, which included definition of standard format for identification of records and variables, list of variables for checking internal consistency, expected value ranges for all variables, etc. were prepared before the data entry process.

Following the completion of the entry, the raw data was tabulated manually and analyzed from the source. The qualitative data analysis was done manually by using the definitions as per the objective of the study. After completing data checking, the data supervisor started data cleaning and verification, organizing, and tabulating the data that may take the form of a simple tabulation or a cross-tabulation.

3.14 Ethical Considerations

Studies on the knowledge, attitude, practice and challenges of HEWs towards using the Growth Monitoring and Promotion programs has to be confidential and ethically sensitive as the nature

of the study demands, the following ethical considerations were strictly taken care of throughout the research process.

Informed Consent and Right to Decide to Participate

Each participant is free to decide whether he/she wanted to participate in the evaluation or not, and not filling out the interview schedule or being absent is the easiest way to decline participation. The participants also have the right to decide to terminate their participation at any stage of completing the interview schedule or not to answer specific question.

All the individuals assisting with the data collection process were unfamiliar to the beneficiary participants and they guaranteed the confidentiality of the information shared, which may or may not have involved personal experiences. The respondents of the interview schedule were not identifiable. This anonymous process is selected to guarantee the participant's right to privacy.

3.15 Analyses and Report Writing

This stage is entirely deskwork and consists of, compiling, refining, data analysis, debriefing and most importantly writing the final draft report. Debriefing is believed to help fine-tune the preparation of Draft Report before it is late and this saves time that would be wasted in reworking the Final Report.

After the data have been collected, it was analyzed to calculate chosen indicators, to assess the current and to allow measurement of changes in indicators over time, and to explore relationships between variables. Accordingly, attempts will be made to employ recommended methods of statistical analysis of data from repeated surveys (related surveys). To this effect, statistical analysis computer package (SPSS) will be employed to analyze the quantitative data

collected. Moreover, interpretation of statistical analyses made; common sources of bias in the data were outlined followed by writing of reports as described in the work plan of the research.

On the other hand, the main method for analysis of qualitative data (collected through in-depth interviews and focus group discussions and field observations) was using Colaizzi's procedural steps (1978) cited in (Merriam, 1988). All interviews were transcribed verbatim and then be read several times individually to gain a feeling for the data and discussion among the data collectors were made to clarify information and cultural implications. Significant statements, ideas and phrases then be highlighted on the transcript and notes was made. An initial list of key themes is created and codes were given to them. A word processing program used to cut and paste the significant statements, ideas and phrases in to themes. The key theme was summarized, staying as closely to the participant’s words as possible.

CHAPTER FOUR

4.1 Data Analysis

Data analysis was done using SPSS software to the KAP structured questioner

4.2 Results

This report presents the findings of a Knowledge, attitude and practice (KAP) and challenges of HEWs towards GMPs in three woredas of Tigray region; - Endamokoni, Tsaese saedaemba and Medebay Zana from March 1, 2014-April 18 ,2014.

The report is also supported by Observation, Focus group discussion and key informant interview methods. The HEW was also asked to undertake Growth Monitoring of children present on the day of the survey. Secondary data on growth monitoring consisting of growth chart and registers available at the health post was also scrutinized to assess the status of GM activities undertaken by HEW. All data from the different sources were organized and presented to show its full picture.

4.3 KAP and challenges of HEWs on GMP results and discussion

4.3.1 Knowledge about GMP

Almost all HEWs 94 (96%) heard of GMP Program and about 85 % of them recognized that GMP was one of a child health program.

Figure 2: Knowledge of HEWs about GMP Programs

4.3.2 Knowledge about GMP Equipments

Regarding the GMP equipments that the HEW currently using, 86 (39.1%) are using Weight scale, 40(18.2%) height board and 89(40.5 %) of the HEW usually used MUAC tape. Above half, 64 (55.7%) of the equipment were provided to the health post before two years time. Most of the equipment, 82(87.2%) were in working condition as the time of this survey.

HEWs Knowledge of GMP equipments how to use by %	
Weight scale	39.1%
Height board	18.2%
MUAC	40.5%

Table 2: Knowledge of HEWs about GMP Equipments

As to the HEW'S self report knowledge in using these materials, 39(41.1%) of the respondents reported that they know it very well, which means they do have proper knowledge and practical skill in using the tool, of 52(54.7%) of them need additional refresher training, and only the remaining 4(4.2%) said I don't know how to use it.

Concerning the preparation the HEW does before starting the weighing, the most frequently mentioned were I will check its functionality before putting the baby in it 82 (36.6%), I will check the level whether it is at 0 82(36.6%), and I will check the level place to put and read the scale zero was responded by 52(23.2%), least mentioned was I don't check it normally, 6(2%).

About the preparation the HEW does before starting the height board like that of weighing, the most frequently mentioned were I will check its functionality before putting the baby in it 41 (32.8%), I will check the level 36(28.8%), and I will check the level place to put was responded by 33(26.4%) least mentioned was I don't check it normally, 8(6.4%).

Almost all respondents 93(98.9%) were using MUAC tape during GMP and from the total of 94 respondents 77(37.9%) reported that the decision to use different materials of GPM is as per the standard, 49(24.1%) were as per their supervisors advice, and 67 (33%) were based on their knowledge.

In this study, the most widely used standard GMP equipment were MUAC 76 (46.9%) and Wt scale 57(35%).

Concerning the knowledge of respondents about difference between GMP and Screening, only 15 (8.2%) of the respondents replied they are the same, while 62 (34.1%) held the view that GMP includes weight check and counseling and 55 (30.2%) GMP is focusing on monthly weighing of children and screening involves Ht check and MUAC. (Table 1)

Knowledge on Counseling and GMP

Most of the health post 86(96.6%) GPM program has included counseling as reported by the HEW and as to what involved in the counseling sessions, 86(16.8%) said counseling based on the child weight, 84(16.4%) on child feeding, 87 (17%) on proper care of the child, 83(16.2%)

on regular GMP follow up, 77(15.1%) on importance of child care and following up of GMP programs, and 81(15.9%) on hygiene and sanitation.

Top three reasons of HEW not giving counseling during GMP were lack of training on how to counsel 18 (60%), work burden 5(16.7%) and shortage of time 5(16.7%).

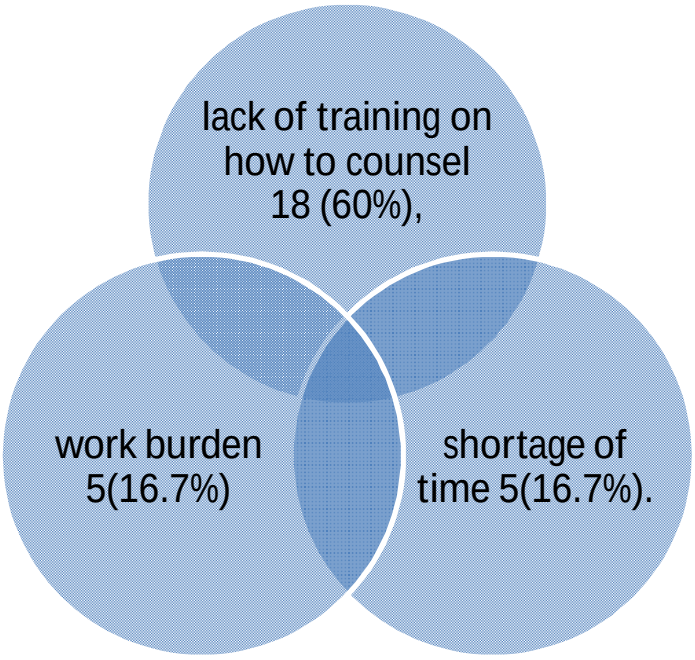

Figure 3: Top Three Reasons of HEW not giving Counseling During GMP

Training in GMP

Subsequent in-training was received by 81(84.4%) of HEW and among those who took the in-training, the content of the trainings that were given for the HEW 78(29.7%) of the trainings focused on definition of GMP, its important, 75(28.5%) on how to do GMP, 70(26.6%) how to use the result after weighing a child and only 40(15.2%) how to link the child with other programs. And hence, during the training courses of the HEWs, special emphasis should be given on, Nutrition Health Education (NHE) and follow up action.

Knowledge of Documentation in GMP

Standard registration book 78(52.3%), exercise book and design the template by themselves 38(25.5%) were the top two methods of recording in GMP.

Knowledge of GMP Guideline

89(95.7%) of the HEW knew some guideline document which states about GMP.

Supportive Supervision on GMP

HEW didn't get any supportive supervision from woreda, health center or another agency on IYCN program especially on GMP as reported by 23(25.6%) of HEWs. Regular supervision is critical for program quality. It ensures that the supervisor understands the challenges faced by the workers and supports them continuously. Supportive supervision implies not only adding a training aspect to the visit, but also engaging directly in problem-solving with the worker, conducting home visits, attending meetings, and visiting community leaders.

4.3.3 Attitude of HEW towards GMP Program

In assessing their opinion and motivation to use GMP programs, most of them 71(75%) have reported that they have a good motivation to do GMP

When the respondents were asked about to rate their interest to improve the accuracy of measurements in growth monitoring promotion chart measurement process 64 (72.7%) of the HEW replied that they are very interested to upgrade their skill while 23(26.1%) said interested. *(See Figure 2)*

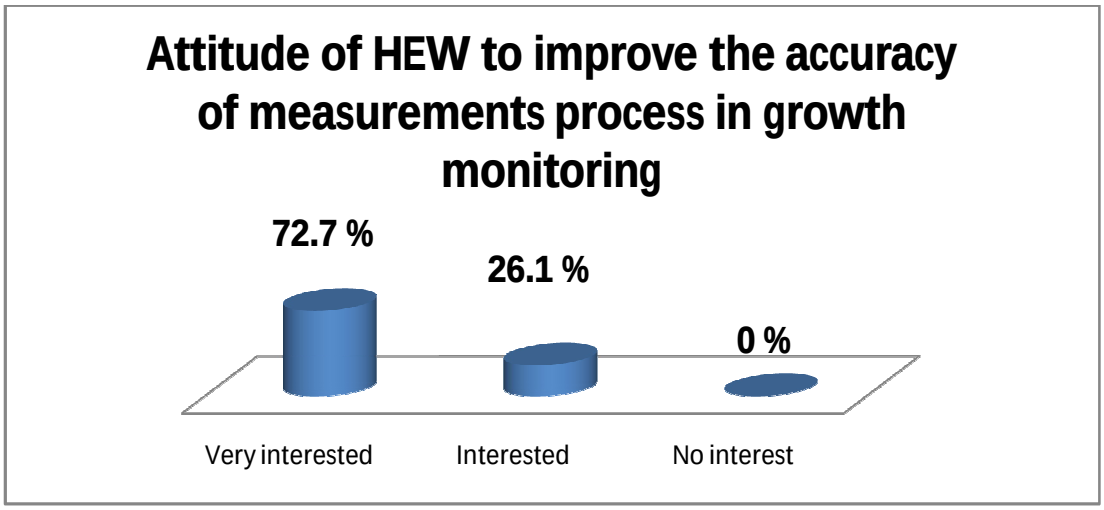

Figure 4: Attitude of HEW to Improve the Accuracy of GM Measurement Process

Respondents were asked their attitude whether supportive supervision is important for GMP Program, almost all the HEW 87 (98.9%) perceived that it is important.

4.3.4 Practice of HEW on GMP

A total of 28 GMP measurement practice were observed. 13(46.4%) of the GMP measure were performed very good based on the WHO standard and 15(53.6%) of the GMP measure were completed in good way that is MUAC, weight and height measurement done properly. And also they did record for documentation task.

Practice of HEWs on GMP	
Performed very good based on the WHO standard	46.4%
Performed good based on the WHO standard	53.6%

Table 3: The Skill of the HEW Regarding Assessment of GM is depicted

Mother Involvement for GMP

The most frequently reported ways of mobilizing the mothers by HEW for growth monitoring program were health/women development armies 87(27.8%),immunization days/child health days 90(28.8%) and churches and other gatherings to announce 74(23.6%).

The overall GM activities are to achieve behavioral change in mothers with respect to child feeding, appropriate response to illness and an understanding of the various factors which influence the growth and development of the child and the adoption of methods in the community to promote optimal health. The advice that was given by HEW to mothers regarding the GMP result was not satisfactory. This indicated that the HEW themselves could not comprehend the GMP adequately. Or nutrition health education and other follow up action on GM were given low priority.

In some settings, HEW may also become overburdened by additional tasks and focus most of their attention on delivery of services rather than effective counseling and problem-solving with mothers. And hence, the training and supportive supervision of the HEW should focus on nutrition health education and other follow up action on GMP. The present study supports the findings of the earlier reports (l3, 14).

Large programs in Tanzania (Iringa) [9], India (Tamil Nadu Integrated Nutrition Project) [10], Madagascar, and Senegal [11] showed that children whose growth is monitored and whose mothers receive nutrition and health education and have access to basic child health services have a better nutritional status and/or survival than children who do not.

And also a complete schedule of activities carried out under the package of growth monitoring include (6): (i) Weighing; (ii) Maintaining growth charts; (iii) Health promotion advice to

mothers; (iv) Follow up by health worker; (v) Mothers meetings; (vi) Health care activities such as immunization, oral rehydration therapy (ORT), birth spacing, etc.; and (vii) Home visits by health worker

As it has been observed practically, weight-for-age, height-for age, MUAC were carried out adequately by the HEW. Weight-for-age tends to be used universally in GMP programs, whereas other indicators are less often utilized [De Onis, M, Wijnhoven T.M., Onyango, A.W. (2004)].

Challenges of HEW in doing GMP

Majority, 87 (96.7%), of study participant believed that it is important to conduct GMP every month. Most of the respondents 60(68.2%) faced a problem in doing GMP and the most frequent challenges were the result for the same child in different times were different 28(31%), difficulty in reading the scale 25(27.8%) and the result is different in time 19(21.1%). Thus *(See Figure 1)*

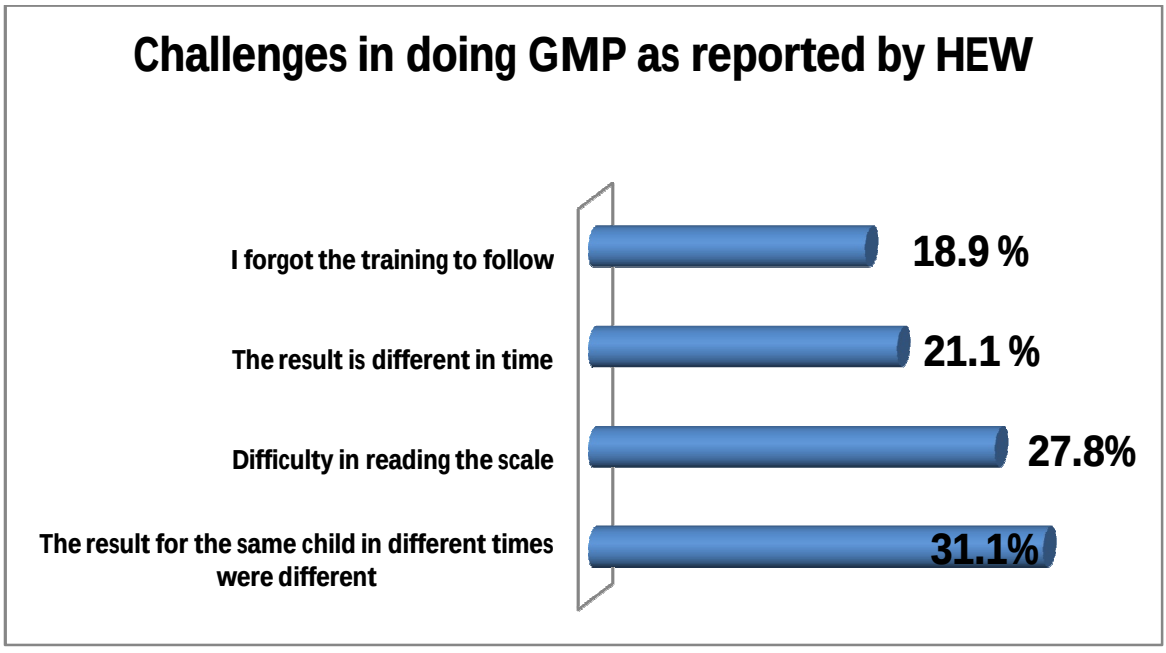

Figure 5: Challenges in doing GMP by HEW

i. Qualitative Findings (FGD, Key Informant Responses and Discussions)

HEWs Knowledge about GMP

The researcher identified that there are some gaps of on job trainings to up to date the HEWs regarding the GMP programs like measuring the height, weight and compare reading the GMP chart. Before the supervisors did go to health post they used to visiting home to home and discussed with the steering committees to exploit the information. It is noted that since the HEWs are over engaged by other health service programs, the GMP program was not handled separately rather integrates with the immunization programs. Therefore this may compromise the quality of the program and also incapacity of the HEW's to utilize all their skill and knowledge.

During the observation on the field, the researchers noticed that most of the techniques of GMP program were practicing by the HEWs in appropriate way. But (a cited on M, RUTH, 2013) suggested that all the community health workers were able to read observed weights accurately and record correctly on the card the weights that were observed. Some challenges were observed which included the date of entry, which was only clearly indicated in 50% of the cards in centers. None of the cards observed had 100% attendance while the weights in most of the cards (89.5%) were never joined to make the mothers picture the growth pattern of their babies. The CHWs did not communicate to the mothers about the growth or the weight of the child. Although the date of next visit was clearly indicated mothers had no communication about the growth of their children with the CHWs. This was also confirmed in a focus group discussion when mothers said that they had dropped from the CBGMP because even when their children were weighed they were never told anything about it

In Endamokoni woreda key informant respondents told us that there are mother's monthly meeting programs which is used to get counseling and advice from the HEWs about how to feed their child that can be documented as a best practice.

Regarding the GMP program there is shortage of Pad or recorder of the GMP programs which may affect the HEW's to do the documentation work properly and improved their skill in this regard as it is heard in the FGD session.

Counseling

In Medebaye Zana Woreda a 34 year mother answered that "*the HEWs advice us about the use of breast feeding, about the normal weight related to age and nutritional status of the child*."

During the FGD, A 42 years Mother of three children answered regarding the GMP that "*they have got different services from the HEWs. Such as weight measurement, MUAC, counseling, environmental hygiene and referral systems*" She stress also how much the importance of counseling brought great change in day to day life of her children that " *the HEWs always counsel us about the use of breast feeding, nutritional management etc*" . To emphasize here idea that (UNICEF- technical Consultation, 2008) the importance of counseling

It is important to underscore that GMP without proper tailored counseling in not recommended. Counseling aides should include generic algorithms addressing assessment, analysis and action, with specific advice for different situations, linked to individual counseling tools to address each specific situation. The algorithms and counseling cards will need to be tailored to country contexts and based on formative research results. Counseling aides should include clear principles of effective counseling and negotiation. Importance of developing counseling skills should be emphasized. Training should include role play and practical sessions and should be

followed up by regular coaching; mentoring and support to ensure good counseling skills are developed and applied. There needs to be a tool to record the negotiated decisions, actual implementation by the caretaker and subsequent follow up. Supportive supervision of counselors is crucial. For sustainability, it is suggested to have individuals tasked by the national structures to perform this function.

Training

During FGD the key informant interview one of the supervisors of the HEWs in Medebay Zana said that *"the HEWs need in service training since they are over engaged by different packages"*

Thus on the other hand papers of (Brownlee- A, July 1990) Health worker Inadequacies and possible training strategies recommend that the importance of training that

In growth monitoring for both health professionals and front line workers should be strengthened, as many knowledge and attitude problems are common both at the professional and auxiliary levels. High level professionals, educated to playa curative role, often have little understanding of the detrimental effects on survival of the interaction between malnutrition, growth failure and infection. They often fail to either use with monitoring as a tool in their own work or act on measurement results collected by those under them. Lower level workers thus are often unenthusiastic about monitoring tasks and may lack the needed technical skills as well. Competency-based training programs focusing on practical knowledge and skills for both monitoring and promotion are essential

In Sasei Tsaedaemba the MCH unit leader said that "*If HEWs are not getting training, the quality and the result of health service will affect including GMP program*".

In the paper of (Ebiyo-Y& Kitaw1-Y,2007)it emphasize that the importance of training most are not based on performance need analysis showing gaps in knowledge and skills but mostly on dictates of presumed requirements of vertical or quasi-vertical programs. They are often conducted without adequate planning, organization and resources, human resources expertise in particular. In some countries, these "hotel workshops" have been blamed of taking personnel from their job and reducing the already scant supply of full-time equivalent workers. Although universal access to information for health professionals is a prerequisite for meeting the Millennium Development Goals and achieving Health For All, the majority of health workers in Ethiopia lack access to reliable, relevant and usable information.

The accelerated training and deployment of HEW could only aggravate the situation unless systematic and adequate measures are taken to meet the challenges of some 30,000 HEW in some of the most remote areas of the country. Because of great distances and poor transport and communication facilities the sense of isolation of these cadres is bound to be great. For the same reasons, contact with and support from professionals with better training and skill is bound to be rare. The first intake of HEW did not have any reference material during their training and were deployed without any. The general tendency with CE is to delay and handle it in an ad hoc manner. The need for a well planned and timely CE is patent and the assessment of the training of the first intake of HEW identified CE as a critical area that needs to be addressed. Moreover, knowledge and experiences on access of HEW to information are very limited and there are virtually no previous studies on the subject.

Challenges of HEWs about GMP

In Sasei Tsaedaemba Woreda one key informant/supervisor answered that*" The challenges of the HEWs are weight and height measurement of the child due to refusal of mothers to allow them to do so because of the society norms*".

Thus (A -ASEBHATU, 2008) Program Challenges while implementation of Ethiopia's Health Extension Program:

The Following are major challenges encountered during the implementation of the program

- Lack of attention to the details of working conditions and to human resources management (underdeveloped environment)
- Absence of Institutional arrangements for management of health service extension program at all levels.
- Absence of regular supervision not doing monitoring the quality of training and soliciting cooperation of other social sectors
- In availability of contraceptives, infrastructure, vaccines in sustainable manner
- In some area, health posts are not fully well equipped with needed equipment and supplies
- No enough research conducted on program area

CHAPTER FIVE

5. Implication to Social Work

Social work is a professional and academic discipline that seeks to improve the quality of life and subjective well-being of individuals, groups, and communities through research, policy, community organizing, direct practice, crisis intervention, and teaching for the benefit of those affected by social disadvantages such as poverty, mental and physical illness or disability, and social injustice, including violations of their civil liberties and human rights (From Wikipedia, the free encyclopedia, May 2013).

Whereas the World Health Organization [WHO] (1986) defines growth monitoring and promotion (GMP) as a nutritional intervention that measures and charts the weight of children from 0 to 5 years of age and uses this information to counsel parents so that they take actions to improve child's growth.

Therefore this research presents direct practice, crisis intervention, and teaching for the benefit of those affected by social disadvantages about GMP programs. Moreover It informs the capacities of HEWs on using and calibrating of growth monitoring measuring equipment towards the GMP programs based on the above basic social work ideas. The results show a number of issues that are important in understanding the capacity of HEWs and their limitation.

5.1 Conclusion

From this finding using Growth Monitoring and promotion programs, preferably weight, height and MUAC, to assess, or even follow the growth of children can be useful. In this research most health posts, HEWs knowledge, attitude, practice and challenges towards GMP program were good. However, major drawbacks are in the communication aspect, many HEWs were not aware about the follow up action required to be taken on finding of GM apart from providing some advice for mothers. In many instances detection of early growth faltering is not given its due importance. From the study findings, the programme under review has some strengths and weaknesses. Therefore the researcher recommends all the necessary activities to be done by the responsible bodies.

5.2 Recommendation

Information produced by KAP and challenges of HEWs towards GMP programs like this one can help guide intervention programs by giving program planners a clearer picture of current capacity of the HEWs. At the same time, the data may be used to give an indication of how well the combined effects of a package of interventions are working in the project areas, by providing information to help guide program planning.

- Refresher in-service training on GMP should be given by skilled professionals, with adequate duration and with optimal preparation to improve the service in the study area.
- During the training courses of the HEW, special emphasis should be given on Nutrition and Health Education (NHE), counselling and other follow up action on GM including the mother participation in GMP.
- Detailed guidelines for the implementation of program at the field level.

- Introduce close supportive supervision, monitoring and evaluation of GMP as one of the health services activities.
- Introduce and provide appropriate teaching and learning materials on GM measuring equipment with local language and dissemination of information on how to link child with other program is essential and need to be properly piloted before large scale use.
- Periodic as well as expanded assessment of health care workers KAP on GMP and effective referral system is recommended.
- Effective referral system: A number of cases of growth faltering will require support from health professionals. Hence, no community-based GM will have positive results unless there is a strong system of support from and referral to the health facility where the professional health staff can provide further care.
- Consistent to the quantitative finding, the FGD and in-depth interview data showed that over engagement by other health service programs, refusal of some mothers to allow HEWs to weigh their children, gaps of on job trainings and shortage of Pad or recorder of the GMP programs were some of the problems that hinder the HEWs not fully utilized their capacity in the GMP program measurement process.

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Annex 1

Interview and FGD Protocols

Introduction and Briefing sheet

We appreciate if a one page guide to the facilitator is attached with each questionnaire so that facilitators will always be reminded of the procedures they are expected to follow before conducting the actual data collection.

Good morning- afternoon- evening (as appropriate) my name is --------I'm from Addis Ababa University on the assessment of the knowledge, attitude and practice of HEWs towards the Growth Monitoring and Promotion programs**.**

I are currently doing assessment on the knowledge, attitude and practice of towards using the Growth Monitoring and Promotion programs and my interview/FGD on your knowledge and experience on these issues is really important as you have a direct exposure to the GMP program with HEWs. The interview/FGD may not take more than an hour.

I would first like to thank you for sparing your precious time to attend this discussion. Please feel free to contribute/participate. I have some questions that will (help us to keep focused) or guide us in the discussion. If I discuss anything you have not heard before or don't understand, please feel free to ask for clarification.

Please remember that you know more about the health extension service more than we do and we are here to learn from you. Please do not tell us what you think we might want to hear. Tell us what you REALLY think. I should tell you that the information you are going to provide us will be kept confidential and at no time we will record individual names.

Your decision to participate or not is highly respected. Now can we start the discussion? Yes _____ no _____ Interviewer's Name sign
Agreement to participate secured Yes _____ No _____ Signature of Interviewer _____ Date _____

Focus group discussion for beneficiaries/mothers/care givers

1. What service do you get from this health post?
2. Do you believe that HEWs provide adequate service?
3. What measurement do the HEWs use when you go to health post?
4. How do you see the services of HEWs in your area?
5. Do the HEWs advise you very well? For example, what kind of advises were given in the health post?
6. What do you suggest/recommend to improve the HEWs service?
7. How frequent do you feed your child?
8. How do you know the health status of your child?
9. How do you know whether your child is at the right growth track or not?

Annex 2

Discussion questions for health extension workers

Generally I appreciate if questionnaires are put in such an order to enable to assess the knowledge, attitude and practice of towards using the Growth Monitoring and Promotion programs.

S.No	Questions	Responses	Code	Skip to
	Section I **Knowledge**			
1	Do you know about GMP?	Yes No	1 2	If no skip to Q no….
2	If yes; What do you know about GMP?	It is a child health program It is monthly child growth monitoring program It includes weight of children and providing counseling Others specify……	1 2 3 4	
3	Have you got any training about GMP in addition to pre service training at the school)?	Yes No	1 2	If no skip to Q no……
4	If yes what was the content of the training?	Definition of GMP, its important How to do GMP How to use the result after weighing a child How to link the child with other programs Others specify……	 1 2 3 4	

5	Who gave you the training and when was the training given?	Government, date…….	1	
		NGO,	2	
		Others specify……..	3	
6	What are the GMP equipments you are using currently?	Weight scale	1	
		Height board	2	
		MUAC tape	3	
		I don't have any	4	
7	When do the materials provided to the Health post?	Recently in months	1	
		One year before	2	
		More than two years	3	
		I don't remember	4	
		I don't know	5	
8	How is the functionality of the materials?	It functions well every time	1	
		Sometimes it stops working	2	
		It doesn't work in most cases	3	
		It is out of use	4	
		Others specify	5	
9	How do you rate your knowledge in using of the materials?	I know it very well	1	
		I know but I need additional refresher training	2	
		I don't know how to use it	3	
		Others specify……	4	
10	What do you do before start using the weighing scale?	I will check its functionality before putting the baby on it	1	More than one answer is possible
		I will check the level whether it is at 0	2	
		I will check the level place to put and read the scale zero	3	
		I don't check it normally	4	
		I just put the child and read the scale	5	

		Others specify	6	
11	What do you do before using the height board	I will check its functionality before putting the baby on it	1	
		I will check the level	2	
		I will check the level place to put	3	
		I am not check it	4	
		I just put the child and read the scale	5	
		Others specify	6	
12	How do you differentiate the position to measure the height of the child?	By seeing his height	1	
		By asking his age	2	
		By discussing with mother	3	
		I don't have any differentiations, I will try and use the workable position	4	
		Others specify_____	5	
13	Are you using MUAC tape during GMP?	Yes	1	
		No	2	
14	Who is the decision person to use the different materials (Wt scale, Ht board, MUAC tape) for GMP?	It is as per the standard	1	
		It is as per our supervisors advice	2	
		It is based on my knowledge	3	
		Nobody told me but I am using the available	4	
		Others specify _____	5	
15	What is the standard equipment's used for GMP?	Wt scale	1	
		Ht board	2	
		MUAC tape	3	
		Others specify _____	4	

16	What is the difference between GMP and Screening?	It is the same, don't have any difference GMP is the routine program and Screening is periodic GMP is focusing on monthly weighing of children and screening involves Ht check and MUAC GMP includes weight check and counseling Others specify_____	1 2 3 4 5	
17	How do you see the importance of doing GMP every month?			
18	What do you do when a mother brings her child to the HP?			
20	Were you given any advice on the job to improve GMP?			
21	Who gave you the advice? And what did you get?			
22	Were you encountered any problem in doing GMP?	Yes No	1 2	If no skip to Q_____

23	What were the challenges?	Difficulty in reading the scale The result is different in time The result for the same child in different times were questionable I forgot the training to follow The scale was not functional at all times and difficult for me to read Others_____	1 2 3 4 5 6	
24	Does your GMP program include counseling?	Yes No	1 2	
25	What were the counseling sessions involves during GMP?	Counseling based on the child weight on the same day On child feeding On proper care of the child On regular GMP follow up On importance of child care and following up of GMP programs On hygiene and sanitation I only do the GM and provide no counseling I don't remember	1 2 3 4 5 6 7 8	If the HEWs answers 7 ask the following question if not skip to Q_____
26	Why don't you give /the reason not giving counseling during GMP?	I was not trained on how to counsel I have a lot of work to do Time is not enough I forget I found it is not important Sometime I am doing it Others specify_____	1 2 3 4 5 6	

27	What do you record GMP?	I am using standard registration book I am using exercise book and design the template by myself I am using tally sheet I record it on a plain paper I don't record it I don't remember	1 2 3 4 5 6	
28	What do you do to mobilize the mothers for growth monitoring program?	I use health/women development armies I use immunization days/child health days I use churches and other gatherings to announce I am doing it when they come for another service It is not my responsibility rather it is WDA responsibility I am not doing I don't remember	1 2 3 4 5 6 7	
29	Do you know any guideline document which states about GMP?	Yes No	1 2	
30	If yes what does the title of that guideline	_____ _____		
31	If no do you think having a guideline is important and why?	_____ _____		

32	If not what is your reference to check your GMP program?	_____ ____		
33	Have you got any supportive supervision from woreda, health center or another agency on IYCN program especially on GMP?	Yes No	1 2	
34	If yes, what did you get from the visit?	I have got refresher on the job training on the improvement of the GMP program I have got support to improve documentation I have got support to improve counseling I have got support to link the GMP with other program including malnutrition management I don't get any support or training I don't get it relevant I don't remember	1 7 2 3 4 5 6	
35	If the HEW answers 6, what was the reason?	The staff are not friendly to teach us They are not capable to provide support They are not spending sufficient time with us They only tell us orally and doesn't show us how to improve the GMP Other specify_____	1 2 3 4 5	

37	What do you know about the standards of the GMP materials?			
38	Have you ever check the GMP materials out of your actual GMP session?	yes	1	
		no	2	
39	What do you normally do?			
	Section II attitude			
40	How is your motivation to use GMP program in the health post?	I am very motivated moderately I have no motivation	1 2 3	
41	What do you think is the right procedure of using the weighing scale?	_____ _____ _____ _____		Record all explained by the HEWs
42	How do you rate your interest/attitude to improve the accuracy of measurements in growth monitoring	very good good I have no interest	1 2 3	
43	Do you think that supportive supervision is important for GMP Program?	yes if yes please explain_____ no if no please specify_____	1 2	

	Section III **Practice**			
44	Would you show me how to measure the GMP against the WHO standard?	performed very good based on the standard good not good bad	1 2 3 4	
45	How do you check the functionality of your equipment? And what is your reference to check?	WHO standard Ethiopian MOH standard if others please specify_____	1 2 3	
46	How do you use resources (materials, GMP chart)?	based on FMOH others please specify_____ I don't know	1 2 3	
47	How do you carryout immunization, nutrition education and promotion, promote IYCN (breastfeeding and complementary feeding?)			

48	Would you show me how to measure weight-for-age Length- or height-for age?	Describe observation_____		
49	Please tell me how do you advise mothers regarding the GMP result?			
50	Would you show me how to measure the MUAC?			

Annex 3

Questions for supervisors, MCH units,

1. How/what do you explain GMP programs conducted at the health posts level?
2. What is your role in the GMP program at the Health Posts? And what is the relationship between the health centre/woreda health office and the health post?
3. What is your schedule to provide support to the HEWs on IYCN programming especially GMP? Supportive supervision, On the job training, Refresher trainings, Review meetings with them and kebele representatives
4. Is there a system/mechanism which can facilitate to support HEWs? And is there any link with Health Posts? What are those? Have you ever used that system before? Can you tell us best practices from that?
5. How were supportive supervision conducted before and how was the feedback mechanism to the HEWs?
6. Have you ever identify a problem or a challenge on the GMP program at Health Post level during supervision? If yes what was that? And what did you do and how did you communicate the woreda health office, kebele administration and other concerned office?

- Capacity gap,
- Quality problem
- Poor service
- Poor mobilization
- Poor counselling and linkage of the program to the CMAM Availability and
- quality of GMP equipment
- Reporting

7. When you observe HEWs while performing their duties, how did you guide, direct, counsel and encourage them?
8. How do you check activity recording, reporting and documentation system looks like? What are the commonest problems with regards to GMP recording system?
9. While you supervise/work with/ the HEWs how do you evaluate the capacities of HEWs in calibration of growth monitoring measurement tools?
10. While you checked the supplies and commodities management, how do you check stock record, registry and stock lists, and identify the gap, take note on the day-to-day activities? How did you see the capacity of the HEWs?
11. While you supervise the HEWs, at the end of the mission do you present its findings to the HEWs, which includes the strong and weak side of the programme, the problems encountered issues that need improvement in the future?
12. How is the field visit feedback mechanism? After supervision is completed, how did you communicate woreda health office, kebele council and health post for follow up and take action if needed?

Annex 4

Observation checklists

Sir.no	**Description**	methods	yes	no	Remark
I	Availability of GMP equipment	Observation			
2	Check functionalities 1, fully functional 2, partially functional, 3, not functional	Interview and Observation			
3	Availability of Malnutrition Manual(emphasize for GMP counseling)	Observation			
4	Availability of Lactation Manual	Observation			
5	Test and retest of GMP charts	Review/observation			
6	Availability of GMP measuring standard materials	observation			
7	Availability of Guidelines, Pamphlets and Resource Books on GMP program	Observation			
8	Consistency of GMP measurements	Review/observation			
9	Nutrition IEC materials	Observation			
10	Under 5 Growth Monitoring done properly according to the WHO standard	Review record			
11	Severe malnutrition cases seen during the last 6 months	Review			

12	GMP charts against WHO standard	Observation &review			
13	Reliability of GMP promotion charts against WHO standard	Observation & review			
14	Validity and reliability of other needed/supportive materials toward GMP	Observation and review			
15	Validity and reliability of child weight measuring scale against the standard	Observation & review			
16	Validity and reliability of child measurement toward MUAC	Observation			
17	Similarities and difference between MUAC	observation			
18	Similarities and difference between weight scale	observation			
19	Test and retest of GMP measuring materials	Observation			
20	Assess how frequent using the measuring materials	Review and observation			

Note:-Detail notes of review and observation will be taken